Evaluation of the
National Youth Anti-Drug Media Campaign:
Fifth Semi-Annual Report of Findings

A report based on the National Survey of Parents and Youth

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National Youth Anti-Drug Media Campaign:
Fifth Semi-Annual Report of Findings

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Highlights of the Report

The National Youth Anti-Drug Media Campaign was funded by the Congress to reduce and prevent drug use among young people by addressing youth directly as well as indirectly, and by encouraging their parents and other adults to take actions known to affect youth drug use. The major intervention components include television, radio, and other advertising, complemented by public relations efforts including community outreach and institutional partnerships. This evaluation report covers the current phase (Phase III) of the project, from September 1999 through June 2002.

■ Recall of Campaign Messages:

Most parents and youth recalled exposure to Campaign anti-drug messages. About 70 percent of both groups report exposure to one or more messages through all media channels every week. The average (median) youth recalls seeing one television ad per week. In 2000 and the first half of 2001, less than 25 percent of parents recalled seeing a TV ad every week; this increased to 40 percent in the second half of 2001 and to 50 percent in the first half of 2002. Both parents and youth reported substantial recognition of the Campaign's "anti-drug" brand phrases. The Campaign added Drugs and Terror ads in the first half of 2002, which made up around 20 percent of the ads targeted to both parents and youth during this period. The evaluation by parents and youth of the Drugs and Terror ads was somewhat less positive than the evaluation of other ads broadcast in Wave 5.

■ Effects on Parents:

There continues to be evidence consistent with a favorable Campaign effect on parents. Overall, there are favorable changes in three out of five parent belief and behavior outcome measures including talking about drugs with, and monitoring of, children. Moreover, parents who report more exposure to Campaign messages scored better on four out of five outcomes after applying statistical controls to adjust for the possible influence of other explanatory factors. In addition, parents who had more exposure the first time they were measured, were more likely to talk with their children and do fun activities with their children subsequently. However, there was little evidence for Campaign effects on parents' monitoring behavior. That has been the focus of the parent Campaign for much of Phase III and the one parent behavior most associated with youth nonuse of marijuana. In addition, there is no evidence for favorable indirect effects on youth behavior as the result of parent exposure to the Campaign.

■ Effects on Youth:

There is little evidence of direct favorable Campaign effects on youth. There is no statistically significant decline in marijuana use to date, and some evidence for an increase in use from 2000 to 2001. Nor are there improvements in beliefs and attitudes about marijuana use between 2000 and the first half of 2002. Contrarily, there are some unfavorable trends in youth anti-marijuana beliefs. Also there is no tendency for those reporting more exposure to Campaign messages to hold more desirable beliefs.

\# There continues to be evidence for an unfavorable delayed effect of Campaign exposure from the period September 1999 through June 2001 on subsequent intentions to use marijuana and on other beliefs, and these are found for the entire youth sample. While intentions are strong predictors of subsequent initiation of marijuana use, the evidence for an unfavorable effect on actual initiation was not statistically significant overall or for any subgroup. Thus the behavioral evidence found for some subgroups among youth interviewed in the first half of 2001 was not confirmed once the entire youth sample was considered.

Executive Summary

The number one goal of *The National Drug Control Strategy* is to "Educate and enable America's youth to reject illegal drugs as well as alcohol and tobacco." One of the objectives in support of that goal includes, "Pursue a vigorous advertising and public communications program dealing with the dangers of drug… use by youth." Under the Treasury-Postal Appropriations Act of 1998, Congress approved funding (P.L. 105-61) for "a national media campaign to reduce and prevent drug use among young Americans." Pursuant to this act, the Office of National Drug Control Policy (ONDCP) launched the National Youth Anti-Drug Media Campaign (the Media Campaign).

The Media Campaign has progressed through three phases of increasing complexity and intensity. Phases I and II are not discussed in this report. ONDCP has available other reports that evaluate those phases. This report focuses on Phase III, which began in September 1999 and is planned to run at least through spring 2003. An evaluation of Phase III is being conducted under contract to the National Institute on Drug Abuse (NIDA) by Westat and its subcontractor, the Annenberg School for Communication at the University of Pennsylvania. Funding of the evaluation is provided by ONDCP from the appropriation for the Media Campaign itself. This is the fifth semiannual report of the Westat and Annenberg evaluation of Phase III of the Media Campaign.

The primary tool for the evaluation is the National Survey of Parents and Youth (NSPY). This survey is collecting initial and followup data from nationally representative samples of youth between 9 and 18 years of age and parents of these youth. This Fifth Semiannual Report presents analyses from the first five waves of NSPY, covering the period from September 1999 through June 2002.

This executive summary focuses on evidence for Campaign effects on youth and parent outcomes. It includes three types of evidence: temporal trends or changes in behavior and attitudes and beliefs, focusing on changes between 2000 and the first half of 2002; cross-sectional association of exposure to Campaign advertising with attitudes and beliefs and, in some cases, behavior; and evidence about delayed-effects from the cohort of youth and parents interviewed initially during 2000 and the first half of 2000, and reinterviewed during the last half of 2001 and the first half of 2002. The repeated interviews of the same respondents permits examination of the ability of earlier exposure to predict later outcomes, a stronger procedure for making claims about potential Campaign effects. Each of these youth and parents will be interviewed for a third time during the final two waves of data collection, that is, between July 2002 and June 2003. The final evaluation report is scheduled for spring 2004. At that time, the sample youth and their parents will have been studied for 2 to 3 years.

This report by Westat and Annenberg provides six types of information about the campaign and its effects:

- A brief update and description of the Media Campaign's activities to date.

- A review of the logic and approach of the evaluation.

- Statistics on the level of exposure to messages achieved by the Media Campaign during Phase III.

- Estimates of change in the drug use behaviors of youth between 2000 and the first half of 2002.

- Estimates of Campaign effects on youth from three different approaches: (1) estimates of association between exposure to the Campaign and simultaneously measured outcomes,

including attitudes, beliefs, and intentions, with statistical controls for confounders; (2) estimates of change between 2000 and the first half of 2002 in these outcomes; as well as (3) estimates of any association of early exposure and later outcomes for the youth interviewed twice. The report also includes analyses of change and of associations for various subgroups of the population.

■ Estimates of Campaign effects on parents. These include association between exposure to the Campaign and parents' talk about drugs with their children; parents' monitoring of their children's behavior; and parents engaging in fun activities with their children, as well as their beliefs and attitudes about talk and about monitoring, and estimates of association between parent exposure and youth's beliefs and drug use behavior. It also includes estimates of trends between 2000 and the first half 2002 in the parent outcomes. Both change and association data are reported for various subgroups of the population. In addition, the delayed-effects associations of early parent exposure to Campaign advertising with later parent and youth outcomes are presented.

Background on the Media Campaign

The Media Campaign has three goals:

■ Educate and enable America's youth to reject illegal drugs;

■ Prevent youth from initiating use of drugs, especially marijuana and inhalants; and

■ Convince occasional users of these and other drugs to stop using drugs.

The Media Campaign originally targeted paid advertising to youth aged 9 to 18 (with a current focus on youth aged 11 to 17), parents of youth in these age ranges, and other influential adults. Phase III advertising is being disseminated through a full range of media or "channels" following a *Communications Strategy* developed by and later revised by ONDCP. Phase III also includes components other than advertising. There are outreach programs to the media, entertainment, and sports industries, as well as partnerships with civic, professional, and community groups. These other components, which are being coordinated by a public relations firm, include encouraging entertainment programs with anti-drug themes, coverage of the anti-drug campaign in the news media, community activities, corporate co-sponsorship, and special interactive media programming on the Internet.

ONDCP performs overall management of the Media Campaign in collaboration with the following groups:

■ The Partnership for a Drug-Free America (PDFA), which provides the creative advertising for the Media Campaign through its existing relationship with leading American advertising companies;

■ A Behavioral Change Expert Panel (BCEP) of outside scientists who help to inform the content of the advertisements to reflect the latest research on behavior modification, prevention, and target audiences;

■ Ogilvy, a national advertising agency, which has responsibility for media buying (as well as for carrying out some supportive research and assuring a coherent advertising strategy);

- Fleishman-Hillard, a public relations firm, which coordinates the nonadvertising components of the Media Campaign; and

- The Ad Council, a coordinator of national public interest advertising campaigns, which supervises distribution of donated advertising time to other public service agencies under the "pro bono match" program (see below).

For Phase III, advertising space is purchased on television, radio, newspapers, magazines, billboards, transit ads, bus shelters, movie theaters, video rentals, Internet sites, Channel One broadcasts in schools, and other venues as appropriate. The television buys include spot (local), network, and cable television. One of the requirements in the Media Campaign appropriations language is that each paid advertising slot must be accompanied by a donation of equal value for public service messages from the media, known as the pro bono match. The pro bono match involves one-to-one matching time for public service advertisements or in-kind programming. The pro bono spots may include other themes including anti-alcohol, anti-tobacco, and mentoring, but such themes are not part of the paid advertising.

Methodology

The report presents results from five waves of the National Survey of Parents and Youth (NSPY), an in-home survey designed to represent youth living in homes in the United States and their parents. Each of the first three waves of NSPY enrolled nationally representative samples of youth aged 9 to 18 and their parents. The respondents at these waves represent the approximately 40 million youth and 43 million of their parents who are the target audience for the Media Campaign. Wave 1 included 3,299 youth aged 9 to 18 years old and 2,289 of their parents, who were interviewed between November 1999 and May 2000; Wave 2 included 2,362 youth and 1,632 of their parents interviewed between July and December 2000. Wave 3 included 2,458 youth and 1,680 of their parents interviewed between January and June 2001.

Sampling of eligible youth in Waves 1, 2, and 3 was designed to produce approximately equal-sized samples within three age subgroups (9 to 11, 12 to 13, 14 to 18). One or two youth were randomly selected from each eligible sample household. One parent was randomly chosen from each eligible household. A second parent was selected in the rare event when two youths who were not siblings were sampled.

Wave 4 conducted followup interviews with the youth who were sampled in Wave 1 and were still eligible, and with their parents. Similarly, Wave 5 included interviews with eligible youth first sampled in both Wave 2 and Wave 3 and their parents. Later waves will follow up samples from Waves 1, 2, and 3 for a third time. While the focus of the Campaign is on youth older than age 10, the inclusion of 9- and 10-year-old children at Waves 1, 2, and 3 provides a sample of those who will age into the primary target audience at the times of the followup interviews. Wave 4 comprised followup interviews with 2,477 youth and 1,752 parents of those sampled at Wave 1; Wave 5 included 4,040 youth and 2,882 parents, and the interviews were conducted between January and June 2002.

NSPY achieved a response rate of 65 percent for youth and 63 percent for parents across Waves 1 through 3 of data collection (the recruitment waves), with little response rate variation by wave. In Waves 4 and 5, respectively, NSPY successfully reinterviewed 82 percent of youth first interviewed in Wave 1, and 89 percent of youth first interviewed in Waves 2 and 3 who were still eligible for the

survey (primarily still under age 19). Similarly, 80 percent of Wave 1 parents and 88 percent of Wave 2 and 3 parents were successfully reinterviewed, respectively. The cumulative response rates for Waves 4 and 5 were necessarily lower than the rates for the prior three waves due to the followup nature of the latter waves. In preparing the respondent data for analysis, adjustments were made at all five waves to compensate for nonresponse and to make certain survey estimates conform to known population values. Confidence intervals for survey estimates and significance tests are computed in a manner that takes account of the complex sample design.

NSPY questionnaires were administered in respondents' homes using touch-screen laptop computers. Because of the sensitive nature of the data to be collected during the interviews, a Certificate of Confidentiality was obtained for the survey from the Department of Health and Human Services, and confidentiality was promised to the respondents. All sensitive question and answer categories appeared on the laptop screen and were presented orally to the respondent over headphones by a recorded voice that could be heard only by the respondent. The responses were chosen by touching the laptop screen.

The NSPY questionnaire for youth included extensive measurement of their exposure to Media Campaign messages and other anti-drug messages. It also included questions about their beliefs, attitudes, intentions, and behaviors with regard to drugs and a wide variety of other factors either known to be related to drug use or likely to make youth more or less susceptible to Media Campaign messages.

The NSPY questionnaire for parents also included measures about exposure to Media Campaign messages and other anti-drug messages. In addition, it included questions about parents' beliefs, attitudes, intentions, and behaviors with regard to their interactions with their children. These included talking with their children about drugs, parental monitoring of children's lives, and involvement in activities with their children. The responses of a parent and his or her child are directly linked for some analysis, for example those that look at the effects of parent exposure to the Campaign on youth attitudes and beliefs about marijuana.

Ad exposure was measured in NSPY for both youth and parents by asking about recall of specific current or very recent TV and radio advertisements. The TV and radio advertisements were played for respondents on laptop computers in order to aid their recall. Youth were shown or listened only to youth-targeted ads, and parents were shown or listened only to parent-targeted ads. In addition, both youth and parents were asked some general questions about their recall of ads seen or heard on TV and radio, and in other media such as newspapers, magazines, movie theaters, billboards, and the Internet.

Media Purchases and Evidence about Exposure

Media Purchases

Across its multiple media outlets, the Media Campaign reports that it purchased enough advertising time over the 34-month period covered by this report (September 1999 through June 2002) to achieve an expected exposure to 2.6 youth-targeted ads per week for the average youth and to 2.1 parent-targeted ads per week for the average parent. These estimates include Campaign advertisements intended for either all youth or all parents; they do not include exposure by youth or parents to advertisements intended for other audiences, often called "spill," or separate advertising targeted to specific race- or ethnicity-defined audiences.

■ Figures ES-1 and ES-2 present the weekly totals for expected youth-targeted and parent-targeted exposures, respectively, where 100 means that the average person in the audience would be exposed once per week. Both the actual weekly media purchases and a smoothed line averaging over 3-week periods are presented. Both graphs show that purchases varied a good deal, both between and within the periods corresponding to the NSPY waves of data collection.

Figure ES-1. Weekly youth-targeted general market GRPs (September 1999 through June 2002)
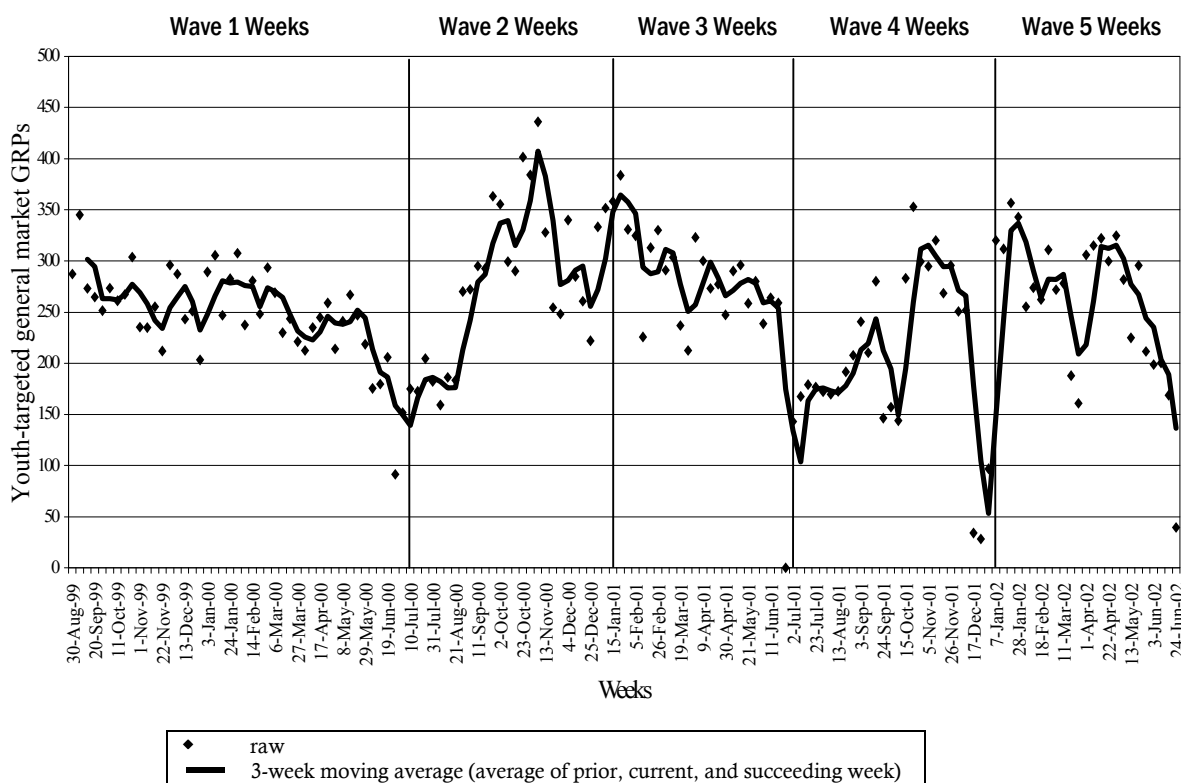
Figure ES-2. Weekly parent-targeted general market GRPs (September 1999 through June 2002)
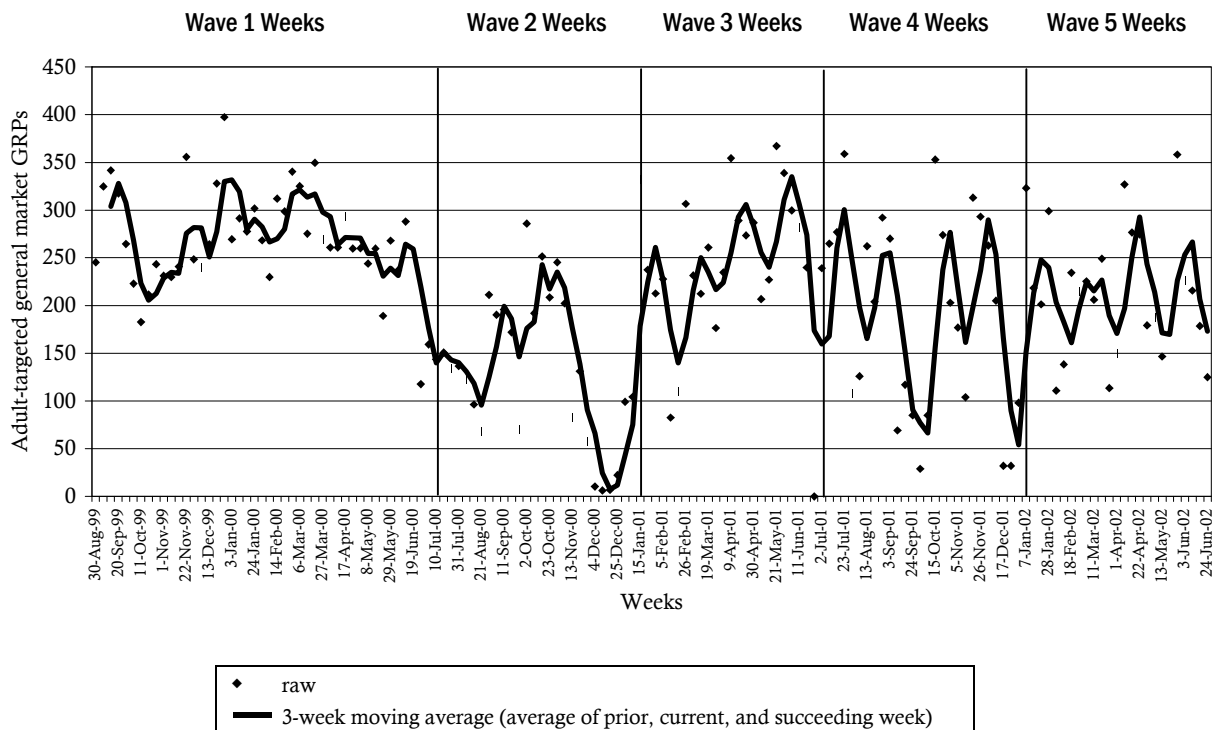
- Table ES-1 summarizes the variations across broad 6-month periods. The table shows that expected weekly exposures of 2.7, 2.5, and 2.8 for youth across the first three waves are followed by a sharp decline in purchases during the second half of 2001, with the average falling below an expectation of 2.1 exposures per week, and then rebounding to 2.6 for the first half of 2002. Purchases of ad time for parents were at their highest during Wave 1 (2.8) and have bounced around 2.0 since that time.

Table ES-1. Distribution of youth and adult average weekly purchased exposures across waves

	Wave 1 2000	Wave 2 2000	Wave 3 2001	Wave 4 2001	Wave 5 2002
Youth	2.65	2.47	2.80	2.09	2.55
Adults	2.82	1.44	2.30	1.94	2.10

- About 36 percent of youth advertising time was purchased on network or "spot" television and about another 21 percent was purchased on network and "spot" radio. Thus, a little less than 60 percent of total exposures were on media with the potential to reach a wide portion of youth. The rest of the advertising time was purchased on channels that reach narrower audiences, including in-school television (21%), magazines (12%), and other media: basketball backboards, Internet, nontraditional, and arcades (all less that 5% apiece).

- For parents, averaged across the five waves, almost 60 percent of the primary media buys were in potentially wider-reach media, that is, network radio (29% of all expected exposures) and network television (30%). Forty percent of the primary media buys were in narrower-reach media, that is, outdoor media (27%), magazines (10%), newspapers (3%), the Internet (1%), and movie ads (0.3%).

- For both youth and parents, Campaign advertising buys were mostly directed to a small number of platforms or themes. The focus on each platform varied across time, as presented in Tables

ES-2 and ES-3, which present the percentage of all television and radio ad buys in each wave dedicated to each platform. For youth, an early focus on Negative Consequences of drug use had disappeared by Wave 3, but was revitalized in Waves 4 and 5. A focus on Normative Education/ Positive Alternatives was strong across all five waves while Resistance Skills were emphasized in Waves 1 and 3 but not in Waves 2, 4, or 5. About 20 percent of the ad time in Wave 5 was dedicated to a new series of Drugs and Terror ads, which were classified under the negative consequences platform. For parents, the Parenting Skills/Personal Efficacy/Monitoring platform was maintained through all five waves and was especially strong in Waves 2, 4, and 5. On the other hand, "Your Child at Risk" received substantial weight only at Wave 1, and "Perceptions of Harm" was included only in Waves 1 and 3. Some of the "Your Child at Risk" platform advertising in Waves 3 and 4 focused on the risks of inhalants. As was the case for youth, Wave 5 marked the introduction of the Drugs and Terror ads, which received a little more than 20 percent of the advertising time purchased in that wave. No general market inhalant or Ecstasy advertising was purchased during Wave 5.

Table ES-2. Advertising time purchased for specific youth platforms across waves (TV and radio)

Platform	Wave 1 2000 (%)	Wave 2 2000 (%)	Wave 3 2001 (%)	Wave 4 2001 (%)	Wave 5 2002 (%)
Negative Consequences	30.9	16.4	0.0	60.2	63.2
(Drugs and Terror)	(0.0)	(0.0)	(0.0)	(0.0)	(19.0)
(other negative consequences)	(30.9)	(16.4)	(0.0)	(60.2)	(44.2)
Normative Education/Positive Alternatives	50.2	70.3	46.0	35.6	36.7
Resistance Skills	41.3	3.0	51.5	3.0	0.0
Other	2.8	10.3	3.3	1.2	0.5

NOTE: For youth, some ads fell into more than one platform (e.g., negative consequences and resistance skills). However, the denominator is the actual total, which permits the percentages by category to total more than 100 percent.

Table ES-3. Advertising time purchased for specific parent platforms across waves (TV and radio)

Platform	Wave 1 2000 (%)	Wave 2 2000 (%)	Wave 3 2001 (%)	Wave 4 2001 (%)	Wave 5 2002 (%)
Parenting Skills/Personal Efficacy/Monitoring	54.2	98.8	48.6	91.2	77.1
Your Child at Risk	31.0	1.0	0.0	0.0	0.0
Perceptions of Harm	13.6	<0.1	51.4	7.8	0.0
Other	1.2	<0.1	0.0	1.0	<0.1
Drugs and Terror ads[1]	0.0	0.0	0.0	0.0	22.9

[1] These ads constitute unique messages, not a new platform, as the messages fall under more than one platform.

Recall of Exposure

NSPY used two measures of exposure; the first is based on general recall of anti-drug ads through all media, and the second is based on specific recall of currently broadcast ads on television and radio. All of the following results relate only to youth aged 12 to 18 and their parents (i.e., children younger than 12 in NSPY and their parents are excluded).

■ General exposure recall to all anti-drug advertising was fairly stable for parents and for youth across the five waves. This stability occurred despite the variation in purchases of targeted advertising by the Campaign. The general exposure measures, which may include exposure to advertising targeted to the other audience and advertising placed by other institutions, did not appear to relate closely to changes in Campaign-targeted buys across the five waves. Across all

waves, about 69 percent of all parents and 76 percent of all youth recalled weekly exposure to any anti-drug ads (Table ES-4). These estimates suggest that the median monthly exposures are about 9 ads for parents and 13 ads for youth, and the corresponding median weekly exposures are about 2.25 and 3.25 ads.

Table ES-4. Exposure to Campaign advertising by wave

Population	Exposure measure: Percent seeing/hearing ads 1 or more times per week	Wave 1 2000 (%)	Wave 2 2000 (%)	Wave 3 2001 (%)	Wave 4 2001 (%)	Wave 5 2002 (%)
Parents	General Exposure: Across all media	72	70	70	65	68
	Specific Exposure: TV ads	26	23	20	39	52*
	Specific Exposure: Radio ads	10	11	17	15	3*
Youth 12 to 18	General Exposure: Across all media	76	79	77	72	76
	Specific Exposure: TV ads	35	39	48	53	47**
	Specific Exposure: Radio ads	NA	4	12***	3	1

*Significant change between each previous Wave versus Wave 5, p<0.05.

** Significant change between Wave 1 & Wave 2 versus Waves 3, 4, 5, p<.05.

***Wave 3 is significantly higher than Waves 2, 4, or 5 at p<0.05.

NA: Radio use not measured for youth during Wave 1.

- Estimates of specific recall of Campaign ads among parents and youth provide an alternative view of exposure to the estimates generated from the general recall measures. Parents reported a median of 4 exposures and youth reported a median of 7.5 exposures to the TV ads "in recent months." This roughly translates into medians of 0.5 and 0.9 exposures per week for parents and youth, respectively. Radio recall was lower than TV recall: On average, over the 2.5-year period, about 11 percent of parents recalled general exposure to radio ads in the past week, and over the final five waves of measurement about 5 percent of youth recalled such exposure. About 58 percent of parents and 65 percent of youth recalled none of the specific radio ads played for them.

- Specific recall of televised Campaign ads increased significantly between 2000 and the first half of 2002 for youth, as shown in Table ES-4; the recall increased from 35 percent weekly recall to 47 percent weekly recall for the overall sample of 12- to 18-year-olds. There was a sharp increase between Waves 2 and 3 in the recall of the radio ads by youth, but that increase disappears in Waves 4 and 5. In all cases, radio recall remained much lower than television ad recall.

- As was the case with youth, specific recall of television advertising by parents increased in Wave 4 and even more in Wave 5. Twice as many parents were reporting weekly recall of television ads in Wave 5 than in Wave 1. Parent recall of specific radio ads, while still lower than TV ad recall, showed a significant increase between 2000 and 2001, from about 10 percent recalling weekly exposure to about 16 percent. However, it returned to the low 2000 levels in the first half of 2002.

"Brand" Recall

One of the innovations of Phase III has been the inclusion of a Campaign "brand"—for example, "the anti-drug." A brand is used in many advertising campaigns to provide a recognizable element to coordinate advertising as well as nonadvertising components of the campaign. Insofar as the brand is recognized and positively regarded, its familiar presence may create some initial positive response to any new ad or increase the perception that each ad is part of a larger program. Such effects may, in turn, influence acceptance of the Campaign's message.

The NSPY started measuring brand phrase recall in Wave 3. The data provide evidence for brand phrase recall, particularly among youth, with stronger evidence in Wave 4 than in Wave 3:

■   Over Waves 3, 4, and 5 combined, approximately 72 percent of 12- to 18-year-olds recalled the Campaign brand phrase targeted at youth with a sharp increase between Wave 3 (60%) and Wave 5 (83%). Parent brand recall also increased from Wave 3 (46%) to Wave 4 (63%) and this increase held through Wave 5 (62%). Because some of the claimed recall could have been due to false recollection, true recall cannot be precisely estimated.

■   There is good evidence that the more individuals were exposed to Campaign advertising, the more likely they were to recall the brand phrase, which supports the idea that the phrase was learned as the result of Campaign exposure. Figure ES-3 shows the relationships between recalled exposure of TV ads for youth with the level of brand recognition. The more that respondents recalled specific ads, the greater their likelihood of recognizing the brand. This relationship became less powerful across time; it appears that even those with low exposure had accumulated ample opportunity to learn about the brand by Wave 5, during the first half of 2002.

Figure ES-3. Recall of brand phrase by specific ad recall (%)
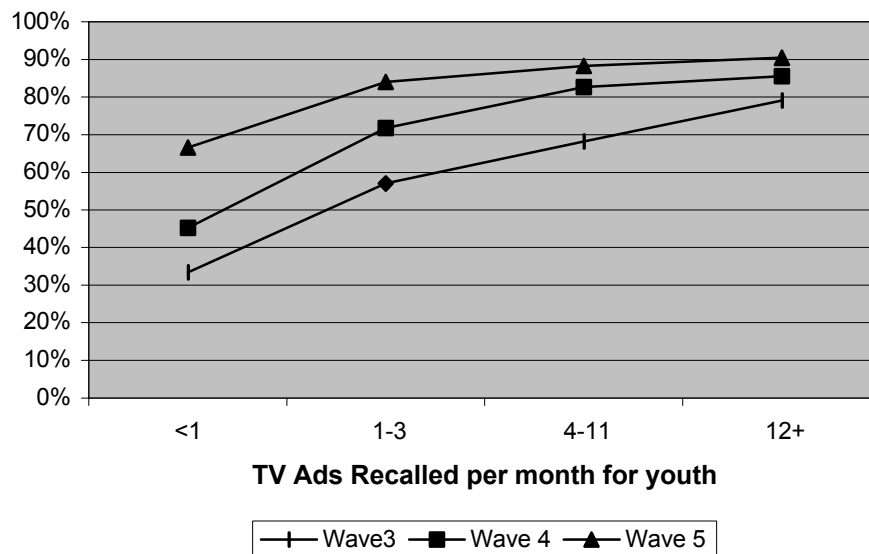
Exposures to Other Drug Messages

Both youth and parents receive messages about drugs from other public sources besides Media Campaign paid advertising. Those other sources of messages are themselves the target of Campaign efforts, and they also create a context for receiving the Campaign's purchased anti-drug media messages. Exposure to messages through these other sources is high but, with a few exceptions, there was not much change between waves (Table ES-5).

Table ES-5. Exposure to drug-related communication by wave

Measure	Population	Waves 1& 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)
Percent in-school drug education in the past year	Youth	66	65	64*
Percent extracurricular drug education in the past year	Youth	7	6	7
Percent recalling weekly exposure to stories in at least one medium with drugs and youth content	Youth	52	49	47*
Percent recalling weekly exposure to stories in at least one medium with drugs and youth content	Parents	64	63	63
Percent hearing a lot about anti-drug programs in community in the past year	Parents	34	30	31*
Percent attending drug prevention programs in the past year	Parents	30	30	29
Percent attending parent effectiveness programs in the past year	Parents	29	29	30

* Significant change between 2000 versus Wave 5 (2002), $p < 0.05$.

One other potential source for providing drug-related messages is the variety of programs that exist for youth and parents. The Campaign's focus in working with youth-serving organizations and parent groups is to encourage them to integrate drug use prevention messages and strategies into their existing educational programs and extracurricular activities, rather than to increase their participation in anti-drug programs *per se*. With regard to youth and parent involvement in such programs:

■ About two-thirds of youth reported having attended anti-drug education in school during the past year, a rate that declined slightly across the five waves. Out-of-school drug education was much rarer but was not significantly different in 2002 than it was in 2000.

■ A little less than one-third of parents reported attending anti-drug and parental effectiveness programs. This did not change across waves.

Other sources for messages about drugs are public drug-related discussions and mass media stories. The NSPY findings relating to this source are as follows:

■ There was a small but statistically significant decline in recall of community-level drug-related discussion of anti-drug programs between 2000 and 2002.

■ Weekly exposure to mass media stories about drugs and youth was reported by 63 percent of parents. There was little change in this across waves.

■ However, youth reporting such media exposure decreased significantly between 2000 and 2002 from about 52 percent to 47 percent.

Drugs are not only a public topic; they are also a common topic for private conversation between parents and children, and among youth and their friends (Table ES-6):

■ A slightly increasing proportion of parents reported conversations about drugs with their children across years; in 2000 around 80 percent and in 2002 around 84 percent of parents claimed to have had two or more conversations with their children about drugs in the previous 6 months. There

were no important differences in reported conversation with children according to the age of the child.

■ In contrast, youth reported a different pattern of conversation. The percentage of youth reporting such conversations with their parents was lower—about 54 percent reported two or more such conversations in the past 6 months in 2000. The percentage declined by 2002 to 49 percent.

Table ES-6. Drug-related conversations by wave

Percent with two or more conversations in past 6 months	Population	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)
Youth with friends	Youth 12 to 13	44	39	44
	Youth 14 to 15	60	65	62
	Youth 16 to 18	70	71	70
	All youth	59	60	60
Youth with parents	Youth 12 to 13	58	52	**49***
	Youth 14 to 15	55	52	51
	Youth 16 to 18	50	46	48
	All youth	54	50	**49***
Parents with children	Parents of 12 to 13	79	81	**82***
	Parents of 14 to 15	81	84	85
	Parents of 16 to 18	79	83	83
	All parents	80	83	**84***

* Between 2000 and 2002 change significant at $p < 0.05$.

■ Most youth say they have conversations about drugs with parents and/or friends, and many of them have such conversations frequently. The partners for such conversations shift sharply as youth mature. As they mature, youth are less likely to talk with their parents and more likely to talk with friends.

■ In the course of conversation about drug use, 12- to 18-year-old youth discuss negative things about drugs, but many older youth also speak positively about drugs. Only 8 percent of 12- to 13-year-olds had conversations with the theme "marijuana use isn't so bad" as compared with 44 percent who had conversations about "bad things that happen if you use drugs." In contrast, pro-marijuana conversations are reported by 33 percent of 16- to 18-year-olds, as compared with 54 percent who had conversations about bad things that can happen if you use drugs. There was a significant decline in the proportion of all youth who said they talked about specific things they could do to stay away from drugs, from 29 percent to 26 percent.

Estimates of Youth Drug Use

Following the goals of the Media Campaign given earlier, NSPY was designed to assess the influence of the Media Campaign on initial use (i.e., using at least once in a lifetime) and the shift from initial to regular use (i.e., using at least 10 or more times in a year) of marijuana and inhalants. The primary purpose of including questions about drug use in NSPY, however, was not to provide estimates of youth drug use, but rather it was to allow understanding of the influence of the major cognitive variables (such as attitudes, beliefs, social norms, self-efficacy, and intentions) on reported usage. Furthermore, NSPY was designed to measure linkages in a theoretical model for Media Campaign action; that is, linkages between ad exposure and attitudes, between attitudes and intentions, and between intentions and actions (drug use). Measures of drug use are needed for an evaluation of this model.

Because it has a larger sample and a long trend line, another survey sponsored by the Federal Government—the Monitoring the Future (MTF) study—provides better measurements of drug use behaviors and long-term changes in them. The 2001 MTF data, reflecting data collected through the spring of 2001, showed a fairly stable pattern of marijuana use since the start of Phase III, and indeed back through 1998 before the start of the national Campaign. This information was presented in the Wave 4 semi-annual report.

The National Household Survey of Drug Abuse (NHSDA) also provides important information about drug use and, as a household survey rather than a school survey like MTF, has much in common with the NSPY. While there is a long time trend for the NHSDA data collection, there is no assured comparability for trends before 1999 and trends after 1999 when the method of data collection changed. The NHSDA data for the 2001 period has only recently been published. In contrast to the MTF data, NHSDA shows some evidence of an increase in marijuana use between 2000 and 2001. Table ES-7 presents patterns of marijuana use for 1999, 2000, and 2001. No significant changes in all the three measures of marijuana use are reported between 1999 and 2000. However, between 2000 and 2001, significant increases in lifetime, past year, and past month marijuana use were found for 12- to 17-year-olds. For lifetime and past year marijuana use, similar increases were found for the older youth (aged 16 to 17 and 14 to 15) but not for the younger ones (aged 12 to 13).

Table ES-7. NHSDA lifetime, annual, and past-month marijuana use in 1999, 2000, and 2001

	Marijuana use		
	Past year (%)		
Age	1999	2000	2001
12-13	3.2	2.7	3.1
14-15	13.5	13.3	14.8*
16-17	25.5	24.5	27.6*
12-17	14.2	13.4	15.2*

* Difference with regard to previous year is significant at p < .05

The NSPY provides information about marijuana use from 2000 through the first half of 2002. Strikingly, the 2001 NSPY and NHSDA estimates are very similar in magnitude. However the NSPY results do not suggest any pattern of change between 2000 and either 2001 or the first half of 2002. This matches the MTF results as to stability of trend between 2000 and 2001. It must be recognized that NSPY estimates are based on smaller samples than either NHSDA or MTF, so the estimates are subject to wider confidence intervals (Table ES-8). Given that the confidence intervals around these NSPY estimates are large (plus or minus 1.6% for the 12- to 18-year-olds estimate of 15.8% in 2000, for example), it may be that the failure to find increases in use in the NSPY results compared to the NHSDA results reflects instability of estimates rather than substantively different findings between NSPY and NHSDA. However, all of these sources do agree that there has been no decline in marijuana use thus far during the Campaign.

Table ES-8. Annual use of marijuana by age: NSPY reports

Age group	Wave 1 & 2 11/99 to 12/00 (%)	Wave 3 & 4 1/01 to 12/01 (%)	Wave 5 1/02 to 6/02 (%)
12 to 13	3.3	2.6	3.2
14 to 15	11.3	13.8	13.2
16 to 18	29.1	26.8	26.3
12 to 18	15.8	15.5	15.5

Note: No statistically significant changes across waves.

Campaign Effects

The remainder of this Executive Summary presents evidence obtained to date regarding Campaign effects. The discussion first summarizes the logic adopted for claiming effects. It then presents the findings regarding Campaign effects on youth followed by the findings for Campaign effects on parents.

The Logic of Claiming Campaign Effects

The analysis of Campaign effects in the report involves three components: (1) examining trends over time, (2) examining how exposure to the Campaign that individuals report is associated with their outcomes measured at the same time, and (3) examining how individuals' reported exposure at one wave predicts their outcomes at a later wave, among youth and parents who were measured at two points in time, i.e., Round 1 (Waves 1, 2 and 3) and in Round 2 (Waves 4 and 5).

If the Campaign has been successful, it would be desirable to see favorable trends in the outcomes over time. However, change in outcomes over time (or a lack of change despite positive Campaign effects) may be due to influences besides the Campaign. Thus, if effects are to be definitively attributed to the Campaign, other supporting evidence is also needed.

Another form of evidence is an association between exposure and outcome, measured at the same time. However, evidence of the presence or absence of a simple association is inadequate for inferring that exposure has, or has not, had an effect on an outcome. The main threat to such an inference is that a positive association may be due to the influence of other variables (confounders) on both exposure and outcomes. This threat to inference can be substantially lessened by applying statistical controls for the confounders, as described below. However, even when controls have been applied for all known, measured confounders, there remains the possibility that unmeasured and perhaps unknown confounders are the cause of the adjusted association. Furthermore, even if controls were fully applied for all the confounders, there remains an alternative explanation for the adjusted association, namely that it is outcome that is the cause and (recall of) exposure that is the effect. Thus, an association between exposure and outcome, controlled for all known confounders, cannot alone definitively determine that the campaign has had an effect on an outcome.

The ambiguity of causal direction that exists with a cross-sectional association can be overcome when longitudinal data are available. If, after controlling for all confounders, *exposure* measured at time 1 is associated with *outcome* measured at time 2, then the causal direction is from *exposure* to *outcome* since an effect cannot precede its cause. With such longitudinal data, it is now possible to establish time

order between variables—that is, to examine whether a prior state of exposure affects a later outcome measure.

There is another constraint on the analysis of associations that needs to be considered. The analysis addresses only the direct effects of exposure. Associations between exposure and outcomes are expected only if individuals personally exposed to Campaign messages learn and accept those messages in the short term. This form of analysis does not reflect any indirect effects that might occur through other routes. Therefore, this report also includes analyses that assess one important route for indirect effects, that is, those mediated through parents.

For youth, analyses of Campaign effects are limited to 12- to 18-year-olds who report never having tried marijuana (referred to as "nonusers" in this report) and concerns their attitudes, beliefs, and intentions ("cognitions") about possible initiation of marijuana use in the subsequent year, and in the case of the longitudinal analyses, their actual initiation of use between Rounds 1 and 2. There were not enough occasional users (i.e., those using marijuana one to nine times in the past year) among the youth to examine Campaign effects on their cognitions. The parent analysis includes all parents of 12- to 18-year-olds and focuses on the target parenting behaviors (and their supporting cognitions) including talk, monitoring, and engaging in fun projects or activities with their children in or out of the home. In addition, the analyses examine the association between parent exposure, and youth cognitions and behavior.

All analyses of associations between exposure to Campaign messages and outcomes use a method called "propensity scoring" to control for the possible influence of a very wide range of possible confounding variables. The analyses began with tests for any preexisting differences among the exposure groups on a large number of variables. The parent analyses were corrected, among other factors, for observed differences on race, ethnicity, gender, age of parent, income, marital status, strength of religious feelings, age of children, neighborhood characteristics, media consumption habits, language, and parental substance use (alcohol, tobacco, marijuana, and other illegal drugs). The analyses of youth associations were controlled for parent characteristics and further controlled for any preexisting difference among exposure groups on school attendance, grade level, academic performance, participation in extra-curricular activities, plans for the future, family functioning, personal antisocial behavior, association with antisocial peers, use of marijuana by close friends, personal tobacco and/or alcohol use of a long-standing nature, and sensation-seeking tendencies. For the cross-sectional analyses, the propensity scores were based on measures of these characteristics taken concurrently with the measures of exposure and outcome. For the longitudinal analyses, these characteristics were measured at Round 1, concurrently with the exposure measure at that round, but prior to the Round 2 outcome measures.

The fourth semiannual report (Hornik et al., 2002) found evidence consistent with a Campaign effect on parents, including evidence of positive change in parent outcomes over the first three waves of measurement, and evidence for cross-sectional associations between exposure and most of those outcomes. The patterns were particularly strong for fathers. In contrast, there was little evidence consistent with a positive Campaign effect on youth. There was little evidence for changes in youth beliefs, attitudes, intentions, or behaviors, or for associations between Campaign exposure and outcomes. The longitudinal analyses in that report could not establish delayed-effects of parent exposure on parent outcomes or on youth marijuana use. However the longitudinal analyses suggested a delayed unfavorable effect of youth exposure on some youth outcomes for important subgroups. That report was based on data from about 40 percent of the sample available for the

current report, and so those possibly unfavorable results were presented as interim. The current report extends these analyses by including the full sample (those who were first interviewed in Waves 2 and 3 as well as those interviewed in Wave 1) and by examining the cross-sectional and delayed-effects of parent exposure on youth beliefs and attitudes as well as on youth marijuana use.

Campaign Effects on Youth

The analysis focuses on five outcomes for youth: initiation of marijuana use, intentions to avoid initiating marijuana use, and three cognitive indices—attitudes and beliefs about marijuana use, perceptions of social norms about marijuana use, and self-efficacy to avoid marijuana use if it is available. The intentions outcome focuses on the proportion of youth who said "definitely not" when asked about the likelihood of their using marijuana in the next year. This measure has proved to be highly predictive of subsequent use. Among nonusing 12- to 18-year-olds at Round 1 who said they would "definitely not" use marijuana in the next year, 10 percent reported at Round 2 having ever used marijuana (i.e., 18 months on average after their Round 1 interview). In contrast, among nonusers who said "probably not," "probably yes," or "definitely yes" to the intentions question, about 42 percent reported having initiated use.

The attitude and belief index includes questions about eight specific consequences of marijuana use for the respondent, as well as general attitudes toward marijuana use; the perception of the social norms index includes questions about what parents and friends would expect the respondent to do about marijuana use, and the self-efficacy index assesses the respondent's confidence that he or she could refuse marijuana in a variety of circumstances. Each of the three indices is substantially related to intentions to use marijuana. The intentions measure is presented as the percentage of youth who said "definitely" not. The other three indexes are calibrated so all 12- to 18-year-old nonusers at Wave 1 had a mean score of 100 and a standard deviation of 100. All three of these indexes are highly predictive of intentions to use marijuana.

Table ES-9 presents a summary of the trend and cross-sectional association data for all nonusing youth. The trends are significant for two of the outcomes (social norms and self-efficacy) for the entire youth population but in opposite directions, favorable to the Campaign for self-efficacy and unfavorable to the Campaign for social norms. In addition, there was an unfavorable effect for intentions for 14- to 18-year-olds, and an unfavorable effect on the attitude/belief index for youth who were at lower risk for marijuana use. However, trends alone, whether favorable or unfavorable to the Campaign, do not establish Campaign effect. Other forces may be affecting marijuana use and beliefs and attitudes in addition to the Campaign and influencing their upward or downward movement, regardless of Campaign effects.

The next step of the analysis was to look at the cross-sectional associations between individual exposure to the Campaign and the several outcomes. This analysis focused entirely on nonusers of marijuana at the time of the interview. The current results largely confirm a pattern that was observed in the earlier reports. Scores on all of the cognitive outcomes did not vary systematically with levels of either the general or the specific exposure scale. No significant cross-sectional associations were observed. None of the central analyses of effects supported a favorable Campaign effect and none supported an unfavorable effect on intentions, attitudes and beliefs, perceived social norms, or self-efficacy with regard to marijuana use, once the effects of potential confounders were removed.

**Table ES-9. Trend and cross-sectional association evidence about
youth Campaign effects on youth aged 12 to 18**

	Year		Associated with exposure?	
Outcome measure	2000	2002	Specific exp.	General exp.
Percent definitely not intending to try marijuana	88%	86%	No	No
Mean score on Belief/Attitude Index	109	108	No	No
Mean score on Social Norms Index	107	**100***	No	No
Mean score on Self-Efficacy Index	102	**117***	No	No

*Significant change between 2000 and 2002, p < .05.

These cross-sectional analyses were repeated for important subgroups defined by age, gender, race/ethnicity, and a composite measure of risk of marijuana use, which included sensation seeking (a personality characteristic defined by an interest in engaging in novel, intense, and risky experiences, including illegal drug use). These subgroups were not further subdivided by age. No cross-sectional association was significant out of 64 examined.

The final form of analysis examined evidence for effects of Round 1 exposure on Round 2 outcomes. These analyses are restricted to the youth who were interviewed at Wave 1, 2, or 3 and again at Wave 4 or 5, and who were nonusers at first interview and aged 12 to 18 at second interview. The interval between the two interviews was 18 months on average. The analyses ask whether level of exposure to advertising at Round 1—both general and specific exposure—predicts subsequent important outcomes.

While the trend data showed both favorable and unfavorable changes since the start of the Campaign, and the cross-sectional analysis showed no evidence of effects at all, the longitudinal analysis exhibits a mix of no effect and unfavorable effect results. Where there are any effects, those who were more exposed to the Campaign at Round 1 tended to move more markedly in a "pro-drug" direction as they aged than those who were less exposed. These are consistent with the results from the previous report (Hornik, et al 2002).

Table ES-10 presents the results of the delayed-effects analysis. The exposure columns represent the level of exposure reported by these youth at Round 1 to Campaign television advertising. The rows represent average scores on the five outcomes of interest at Round 2 for the same youth. The estimates in the cells are adjusted, through the propensity scoring methodology for a wide variety of potential confounders, as well as being survey weighted to represent the U.S. population. The statistical significance tests take the complex sample design into account. The overall relationship of exposure and each outcome is summarized by the gamma statistic, which varies from –1 to +1, with 0 indicating no relationship.

Table ES-10 shows 10 results. For the eight cognitive outcome effects, all of the gammas are negative, with four of the eight results statistically significant for the full sample. These outcomes involve intentions, social norms, and self-efficacy. The associations between both general and specific exposure at Round 1 with Round 2 intentions to not use marijuana are unfavorable and significant. Youth who were higher on exposure at Round 1 were more likely to intend to use marijuana at Round 2 than those with lower exposure at Round 1. A similar but weaker relationship was found for social norms. Youth with higher general and specific exposure at Round 1 had more "pro-drug" social norms at Round 2 than those with lower exposure at Round 1, with general exposure achieving

statistical significance. There is also a significant unfavorable relationship between specific exposure and self-efficacy. That is, youth with higher exposure at Round 1 had lower self-efficacy at Round 2 than those with lower exposure at Round 1. Only the attitude/belief index shows no association at all with either measure of prior exposure.

Table ES-10. Exposure per month at Round 1 and outcomes at Round 2 among 12- to 18-year-olds who were nonusers of marijuana at Round 1

Round 2 Outcome		Round 1 Exposure				Gamma (95%CI)
		<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures	
Percent not intending to use marijuana	General exposure	84.0%		78.4%	77.4%	**-.14* (-.25 to -.03)**
	Specific exposure	82.3%	78.2%	76.5%		**-.12* (-.21 to -.02)**
Anti-marijuana Attitudes/Beliefs Index (Mean score)	General exposure	99.6		87.4	90.5	-.03 (-.08 to .01)
	Specific exposure	92.3	93.4	86.0		-.03 (-.08 to .02)
Anti-marijuana Social Norms Index (Mean score)	General exposure	99.2		79.5	83.0	**-.07* (-.12 to -.02)**
	Specific exposure	90.2	85.9	77.8		-.05 (-.11 to .00)
Self-Efficacy Index (Mean score)	General exposure	105.8		105.8	106.7	-.01 (-.07 to .05)
	Specific exposure	120.0	102.2	104.3		**-.08* (-.15 to -.02)**
Percent Initiation of Use	General exposure	12.0%	11.8%	13.2%		.04 (-10 to .18)
	Specific exposure	12.8%	13.2%	12.8%		-.00 (-.11 to .11))

*Significant change between 2000 and 2002, p < .05.

In contrast to the evidence from the cognitive outcome variables, the overall results do not show any effect of exposure on the initiation of use. About 13 percent of all of these nonusing youth initiated marijuana use between the measurement waves. However, the level of exposure youth reported at Round 1 does not predict their initiation, once the propensity scoring adjustments are incorporated.

These results were also examined for subgroups defined by age (12 to 13 and 14 to 18), gender, race-ethnicity, risk of marijuana use, and wave of first interview. The wave at first interview was introduced to capture possible differential effects as the Campaign varied its strategy over time. There were a total of 120 subgroup effects examined (5 outcomes by two forms of exposure by 12 subgroups.) There were 17 statistically significant subgroup effects; all of those were unfavorable to the Campaign.

However, Round 1 exposure did not predict initiation of marijuana use for any of the subgroups. This is an important result for two reasons. The other measures, particularly intentions, are highly related to use, and are predictive of initiation of use. The intention measure does show a strong association with prior exposure, making the failure to find one for initiation itself somewhat surprising. In addition, in the previous report there was statistically significant evidence for an effect for specific exposure on some subgroups (females, 12- to 13-year-olds, lower risk youth) but they are not replicated here once confounder controls and the complex sample design are taken into account.

These new delayed-effects results both confirm and contrast with the results from the previous report. The unfavorable results on three of the four cognitive outcomes are now found for the entire sample of youth and with either one or both measures of exposure, whereas they tended to be statistically significant only for the specific exposure measure and for some age subgroups in the Wave 4 report. They can no longer be considered interim results. On the other hand, the statistically significant results for subgroups on initiation of marijuana use found for some youth subgroups among those first interviewed at Wave 1 are not repeated when youth first interviewed at all three waves are examined.

There is no evidence yet consistent with a desirable effect of the Campaign on youth. The trends in marijuana behavior and, with one exception, in the beliefs that underpin behavior, are either flat or in an unfavorable direction. There is no evidence that those youth who have been more exposed to the Campaign espouse desired beliefs more than others. The results from the delayed-effects analyses are consistent with an unfavorable effect. The previous report was based on only about 40 percent of the current sample, and at that time it was promised that the current report would provide a more definitive determination. By and large the current report sustains the unfavorable results from the previous one. The major exception is the lack of statistically significant evidence now for an unfavorable prediction of marijuana initiation for any subgroup once the full confounder set is controlled.

Campaign Effects on Parents

There are five outcome indices that are the focus of analysis for the parent data in the report: (1) parent reports of talking with their children about drugs; (2) an index of attitude and belief items concerning talk (talk cognitions); (3) parent reports of monitoring their children; (4) an index concerning monitoring (monitoring cognitions); and (5) parent reports of engaging in fun activities with their children in and outside of the home. In addition, the parent analyses look for evidence that parent exposure was associated with youth outcomes, including all of those considered in the youth effects analysis.

As with the youth results, the analyses searched for three supportive findings as the basis for a claim for a Campaign effect: a favorable trend on a target outcome, a favorable cross-sectional association between exposure to the Campaign and the outcome, and evidence for a delayed effect association between exposure at Round 1 and outcomes at Round 2 for the parents interviewed on both occasions (where the associations are controlled for confounders).

Table ES-11 summarizes the results for all of the outcomes on each of these criteria. Each row in this table indicates whether there was a full sample trend, whether there was a full sample cross-sectional association with the general or specific exposure measures, and whether there was a full sample delayed-effects association with the two exposure measures. The association criterion is whether or not the gamma estimate was significant at the $p < .05$ level. The youth outcome part of the table addresses whether there was a trend in the youth outcome (duplicating the effects shown above in Table ES-9) and an association of the parent exposure with the youth outcome.

**Table ES-11. Summary of parent effects on parent and youth outcomes
among all parents of 12- to 18-year-olds**

	Trend	Cross-sectional effects association		Delayed-effects Association	
		General	Specific	General	Specific
Parent Outcomes					
Talking behavior	Favorable	Favorable	Favorable	Favorable	No
Talking cognitions	No	Favorable	Favorable	No	No
Monitoring behavior	Favorable	No	No	No	No
Monitoring cognitions	Favorable	Favorable	No	No	No
Doing fun activities	No	Favorable	Favorable	Favorable	No
Youth MJ Outcomes					
Past year use	No	No	No	No	No
Intentions to use	No	No	No	No	No
Attitudes & beliefs	No	No	No	No	No
Social norms	Unfavorable	No	No	No	No
Self efficacy	Favorable	No	No	No	No

An overview of this table suggests that a claim of Campaign effect on parents has some support, most notably for talking behavior. A claim that the Campaign effect on parents led to a youth effect has no support.

Each of the outcomes is reviewed in turn. The most favorable results are for the talking behavior measure. More parents claim to have talked with their kids as the Campaign progressed. Both of the exposure measures are associated with parent claims of talk measured at the same time. The general exposure measure is also predictive of delayed-effects on the talk measure, reducing a concern that the cross-sectional association reflects a reverse causal effect. Only the delayed-effects analysis with the specific exposure failed to support an inference of Campaign effect. These results provide substantial support for the existence of Campaign effect on talking behavior. Even so, there are two concerns about this claim. Youth report a very different picture about parent–child talk about drug topics than do parents. As noted above, youth reports of talking are much lower than parent reports and, more notably, youth report that drug talk with parents is declining over the course of the Campaign. This creates concern about the confidence to be placed in the upward trend reported by parents. Also, there is little evidence that the talk variable, as measured here, is related to youth drug use. Parent reports of talk do not predict any lowered likelihood of youth initiating marijuana use. Thus any claim of a Campaign effect on parents is tempered by a concern that it is an effect on an outcome with an uncertain relation to youth behavior.

Talking cognitions offers similar but lesser support of a Campaign effect. Its trend is no longer significant overall, although it is still positive for the parents of older youth who are the majority of the sample. As in previous reports, both the general and specific exposure measures have a significant cross-sectional association with talking cognitions. However, there are no delayed-effects associations overall for either exposure measure or for any subgroup. In addition, there is no evidence that talking cognitions are associated with youth marijuana intentions or behavior. Even if the Campaign is affecting talking cognitions, and such cognitions produce change in talk behavior, there is no strong basis for expecting an effect of such behavior on youth.

Monitoring behavior provides the least evidence for a Campaign effect. There is a significant upward trend, but there is no overall significant cross-sectional association between either exposure measure and monitoring behavior. While there is such an association of specific exposure and monitoring behavior for fathers, no other subgroup shows such an association, and there is no significant cross-sectional association among fathers for the general exposure measure. Nor is there any delayed-effects association with either exposure measure overall or for any subgroup, including fathers. The evidence for a Campaign effect on this outcome has to be seen as weak. This is unfortunate since, in contrast to the talking outcomes, monitoring behavior is an important predictor of the initiation of marijuana use.

The monitoring cognitions scale shows a positive trend over time, as well as a specific exposure cross-sectional association for fathers parallel to that for monitoring behavior. In addition, the scale shows a cross-sectional association for general exposure for the full sample. However, there is no evidence for a delayed-effects association overall nor for any subgroup with either of the exposure measures. There is good reason to think that affecting parental monitoring cognitions would affect youth behavior. The monitoring cognition scale has a substantial association with monitoring behavior, and like monitoring behavior, is associated with youth marijuana use and intentions. Thus, the evidence for a Campaign effect on monitoring cognitions, while stronger than for monitoring behavior itself, remains positive but not definitive. Without the evidence for a delayed effect, so that the causal order issue can be sorted out, it remains unclear whether parent ad exposure affects their beliefs about the value of monitoring, or their commitment to engaging with their children influences their monitoring beliefs and their attention and recall of the advertising.

The final direct parent outcome, doing fun things with their children, also presents mixed evidence. There are significant favorable cross-sectional associations with both exposure measures as well as a significant delayed-effects association with general exposure. There is no significant positive trend, however, and for two groups (14- to 15-year-olds and higher sensation-seekers) the trend is downward. However there are two interpretations of the lack of a trend that might still be consistent with a claim of effect for the Campaign. Trend data can reflect many influences in addition to the Campaign. There might have been external forces that were producing downward pressure on this behavior and the Campaign served to maintain the current level. Or, the lack of a positive trend might be attributable to the fact that this theme was only explicitly part of the Campaign during the first wave. Then the level of "doing fun activities" was already reflecting the Campaign's influence during 2000. In sum, there is suggestive evidence of a Campaign effect on this behavior among parents, but it does not satisfy all three of the criteria set out a priori for making a strong claim of effect. It is worth noting that, like the monitoring measures, parent claims of doing fun activity are associated with lower intentions for using marijuana and reduced initiation of marijuana use among youth.

Table ES-11 then shows mixed evidence for the effects of parent exposure on parent behavior, but at least some of the evidence supports such a Campaign effect. Regarding favorable effects of parent

exposure on youth outcomes, however, there is no supportive evidence. There are no reported effects of parent exposure on any youth outcomes when all youth are considered. Subgroup effects are rare and, when they appear, they are consistently in an unfavorable direction. In particular, there was no favorable evidence of a delayed-effect for any subgroup; that is, there is no evidence that parent exposure was associated with lower marijuana consumption among youth.

How is this pattern of findings to be explained? How is it that the evidence consistent with Campaign effects on parents has not produced evidence for indirect effects on youth? Three possible explanations are worth consideration: first, it is possible that the claims of effects on parents are incorrect and thus there could not be any effect on youth; second, it is possible that the particular parent outcome most likely affected by the Campaign, talking behavior, is not an important influence on youth behavior; or third, it is possible that the indirect effects are too small to be detected. Each explanation may account for the current conclusion that there is evidence consistent with an effect of the Campaign on some parent outcomes, but no evidence for indirect effects of parent exposure to the Campaign on youth outcomes.

In sum, there is little evidence supporting a favorable effect of the Campaign on youth, either directly or through their parents' exposure to the Campaign. While there is some evidence consistent with a favorable effect on some parent outcomes, it does not translate into evidence of an effect on their children. There is evidence consistent with an unfavorable direct effect of the Campaign on youth cognitions about marijuana, but no statistically interpretable effect on youth initiation of marijuana.

Reference

Hornik, R. et al, (2001). *Evaluation of the National Youth Anti-Drug Media Campaign: Third Semiannual Report of Findings*, Report prepared for the National Institute on Drug Abuse (Contract No. N01DA-8-5063), Washington DC: Westat.

1. Introduction

This is the fifth in a series of semiannual reports based on the National Survey of Parents and Youth (NSPY), a continuing survey designed to evaluate the National Youth Anti-Drug Media Campaign. The National Youth Anti-Drug Media Campaign (the Media Campaign) is part of an effort by the Office of National Drug Control Policy (ONDCP) to educate and enable America's youth to reject illegal drugs by means of an advertising and social marketing program about the dangers of drugs. Other important Media Campaign goals are to convince youth who are occasional users of drugs to stop using them, to enhance adult perceptions of harm associated with the use of marijuana and inhalants, and to emphasize to parents and influential adults that their actions can make a critical difference in preventing youth drug use.

This fifth report is both descriptive and evaluative in content. Chapter 2 describes the evaluation design and analytic logic. Chapter 3 provides descriptions of message exposure achieved by the Campaign from September 1999 through June 2002. Chapter 4 presents evidence about changes in behavior among youth. Chapters 5 and 6 present evidence about effects of the Campaign. Chapter 5 focuses on targeted youth attitudes and beliefs about drug use. Chapter 6 focuses on parent behavior, and parental attitudes and beliefs about engagement with their children to prevent drug use, as well as on the effects of parent exposure on youth outcomes. Both Chapters 5 and 6 feature evidence about changes in the outcome indicators since the beginning of Phase III in late 1999, as well as evidence that exposure to the Campaign is related to these outcomes. As in the previous report, both Chapters 5 and 6 in this report include the presentation of evidence about the association of early Campaign exposure with subsequent changes on the target outcome indicators.

This introductory chapter reviews the nature of the Media Campaign, its paid advertising component, other components of the Campaign, the administrative structure of the evaluation, and the structure of this report.

1.1 Nature of the Media Campaign in Phase III

This report summarizes material from previous reports (Hornik et al., 2000; Hornik et al., April 2001, Hornik et al., October 2001, Hornik et al., May 2002) and updates that information with descriptions of activities undertaken between January and June 2002, the period covered by this report. It is worth noting that the period covered by this report is in the aftermath of the September 11 terrorist attacks. These events might have affected some of the outcomes included in this evaluation, namely conversation about drugs between youth and parents, with discussion of the tragedy crowding out discussion of other topics. Furthermore, the Media Campaign itself responded to this event with the broadcast of a new series of ads focused on Drugs and Terror, relating terrorist activities to drug money. This new theme will be discussed in later sections of this chapter.

The Media Campaign is now in Phase III. Phase I involved pilot testing the intervention in 12 metropolitan areas, using then existing Partnership for a Drug-Free America (PDFA) advertisements. During Phase I of the Media Campaign, ads were placed on television and radio, in newspapers, and on billboards. In Phase II, these advertisements appeared nationwide, in addition to the test areas.

Some new advertisements were added to the Media Campaign. The advertisements appeared not only on television, radio, billboards, and in newspapers and magazines, but also on cable television, Channel One (educational television within schools), in movie theaters, on the Internet, on schoolbook covers, and on basketball backboards. Table 1-A shows the Media Campaign phases.

Table 1-A. Media Campaign phases

Phase I January 1998 - June 1998	Phase II July 1998 - July 1999	Phase III September 1999 - Continuing
■ Pilot test in 12 metropolitan areas, with 12 sites selected for comparison ■ Previously produced ads ■ Paid and donated advertising (pro bono ad matching required)	■ National level intervention ■ Previously produced and new ads ■ Paid and donated advertising on a full range of media (pro bono ad matching required)	■ National level intervention ■ New ads ■ Paid and donated advertising on a full range of media (pro bono ad matching required) ■ Partnerships with media, entertainment, and sports industries, and civic, professional, and community groups ■ News media outreach through public relations activity

Phase III marks the full implementation of the Media Campaign. As in the past, an extensive range of media is used to disseminate Media Campaign messages to a national audience of youth and parents. In addition, Phase III features a significant interactive media component, involving content-based web sites and Internet advertising. Most of the ads used in Phase III are new, although some existing ads that were considered effective in the past also have been used. New ads are developed and disseminated according to the National Youth Anti-Drug Media Campaign Communication Strategy Statement, which was developed over the course of a year with the help of hundreds of individuals and organizations with expertise in teen marketing, advertising and communication, behavior change, and drug prevention, as well as to the National Youth Anti-Drug Media Campaign Communication Strategy Statement Supplement, which documents changes to the original statement as of August 2001 and reflects refinements of the Campaign.

The development of the ads follows a complex process involving four major organizations. The primary supervisor for the production of most of the ads has been PDFA, which has historically led anti-drug advertising efforts. However, since ONDCP uses Federal funds to finance some production costs as well as purchase media time, it has instituted a multifaceted review process for defining broad behavior change strategies and for developing and approving specific ads. Behavior change expertise comes from a continuing panel of experts who are responsible for designing behavioral briefs that provide a framework for creative development, specifying objectives and message strategies for each priority audience. The panel reviews strategies and advertising executions at bimonthly meetings to ensure behavioral relevance. ONDCP performs overall management of the Media Campaign. Under that overall leadership, responsibility for media buying; some supportive research, assuring a coherent advertising strategy; and the day-to-day management of the advertising component of the Media Campaign lie with Ogilvy, a national advertising agency.

Ogilvy has organized the participation (as subcontractors) of five agencies that specialize in communicating with minority audiences. Special attention has focused on sufficiently exposing Media Campaign messages to African Americans, Asian Americans, Pacific Islanders, Hispanic Americans, American Indians, Alaska Natives, and Aleuts. More than $38 million in paid and negotiated pro bono advertising messages and outreach programs aimed at youth aged 11 to 17, parents, and other youth influencers are directed toward ethnic audiences each year. African Americans and Hispanics receive the dominant share of multicultural advertising exposure—more than 75 percent of the ethnic paid and pro bono investments (National Youth Anti-Drug Media Campaign Fact Sheet, "Multicultural Outreach," July 2001). Ogilvy also has supervised a substantial research effort to provide ongoing support to the Media Campaign decisionmaking. Ogilvy has reported that these include regular focus groups with target audiences for both strategic development and concept evaluation purposes, monthly mall-based tracking surveys, and quantitative copy testing conducted across the country with both parents and youth. Working with the specialized agencies, Ogilvy formulates, designs, and manages the implementation of multicultural initiatives. Ogilvy and its subcontractors prepare recommendations on advertising content and buying strategies. ONDCP then reviews and provides final approval for all major Campaign decisions and for all advertising content.

Phase III of the Media Campaign is "an integrated social marketing and public health communications Campaign." Thus, it attempts to reach the target audience indirectly and directly through advertising. Two critical components of the Media Campaign in Phase III involve (1) partnerships with civic, professional, and community groups and (2) outreach to the media, entertainment, and sports industries. Through the partner organizations, the Media Campaign strives to strengthen local anti-drug efforts. Through outreach, the Media Campaign encourages the news media to run articles that convey Campaign messages. In the early part of Phase III, the pro bono match was used to encourage the entertainment industry to portray drug use in ways that are based on accurate information, including the depiction of the consequences of drug use. Although the explicit tie to the pro bono match has been eliminated to avoid any appearance of government control over content, the Media Campaign provides producers, script writers, directors, and journalists access to the latest drug information, and high-level experts through a regular series of briefings. The overarching goal is to encourage popular culture to dispel myths about drug use and accurately portray consequences of drug use.

It is expected that any youth may receive anti-drug messages from each of the following sources:

- Exposure to Media Campaign messages;

- Interaction with friends and other peers;

- Interaction with parents and other influential adults; and

- Involvement with organizations.

Youth exposure to Media Campaign messages may occur as a result of direct paid advertising or as a result of content fostered through outreach to the news media and entertainment industries. Further opportunities for exposure to anti-drug messages may be enhanced through personal involvement with organizations that have become partners as a result of Phase III Media Campaign outreach activities. Exposure to anti-drug messages through interactions with friends, peers, parents, or other adults may occur as a direct result of either or both of these Media Campaign efforts. Although it is

difficult to measure, exposure may also occur indirectly, as a result of a social environment in which prevention of drug abuse is a salient issue; the Media Campaign may contribute to this environment.

The following two sections outline many of the activities of the Media Campaign in Phase III. These accomplishments will provide a sense of the magnitude of Media Campaign efforts to prevent or reduce drug use through various channels.

1.2 Paid and Donated Advertising

Table 1-B provides a summary of a historical media spending overview since July 1998 as reported to the evaluators by Ogilvy Mindshare.

Table 1-B. Historical media spending overview
July 1998-July 2003 (in millions)

Time period	July 1998 to June 1999	July 1999 to June 2000	July 2000 to June 2001	July 2001 to June 2002	June 2002 to July 2003
Net dollars (000)	Phase II (000)	Phase III Year One (000)	Phase III Year Two (000)	Phase III Year Three (000)	Phase III Year Four (000)
Original paid budget	$149,500	$144,000	$130,000	$135,300	$130,000
Final paid budget	$157,501	$142,962	$143,235	$140,514	TBD
Special Match[1]	$0	$0	$0	$21,594	$21,384
Print, Channel One, OOH Match[2]	$32,460	$37,622	$32,188	$33,158	$32,868
Grand total value	$189,961	$180,584	$175,423	$195,266	TBD

[1] Special Match: The term refers to pro bono match value fulfilled by TV and Radio networks by airing the same paid ad in fulfillment of the pro bono match.

[2] Print, Channel One, and Out of Home Match: This roll up of the match refers to ads for which 100 percent of the pro bono match is reflected in additional ad space for the same ads.

Congress mandated that media organizations accepting Media Campaign advertising must match Media Campaign purchases with in-kind advertising time or space, or with other public service of equal value. The match component of the Campaign, coordinated by The Advertising Council, includes public service advertising that promotes support to parents, youth, and organizations that foster positive development for children and youth, and thereby contributes to some of the overall goals of the Campaign.

Chapter 3 presents the Phase III media-buying strategies for youth and parents in detail, including how much paid advertising was directed through each channel. The Campaign has delivered specific anti-drug messages nationally through television networks ABC, CBS, NBC, FOX, UPN, and the WB; through cable networks; and through national radio networks. On-line advertising was placed on approximately 40 web sites and on America Online. Additionally, the Media Campaign has paid for advertising banners to appear on commercial web sites. Media Campaign messages are also disseminated in newspapers and magazines, on home videos, and in movie theaters. Parents are further addressed through billboards, bus shelter placards, and other outdoor advertising.

The Media Campaign originally targeted youth aged 9 to 18, with a focus on 11- to 13-year-olds, also known as "tweens"; parents of youth in these age ranges; and other influential adults. The paid advertising plan, more specifically, targets 9- to 17-year-olds. As of August 2001, the Campaign shifted their creative focus to 11- to 14-year-olds to allow the campaign to more effectively reach

youth at the time they are most at risk for drug trial (National Youth Anti-Drug Media Campaign Communication Strategy Statement Supplement, August 2001). More recently, as of May 2002, the ONDCP announced that the campaign will again shift its focus, this time to 14- to 16-year-olds. More focused advertising will be created to attack marijuana use, the most frequently abused drug in this age group (Executive Office of the President, ONCDP official announcement, May 23, 2002). Despite this narrowing of the creative target, the media buy is still expected to reach the full 9- to 17-year-old youth audience. The paid advertising component of the Media Campaign was expected to reach 90 percent of America's youth at least four times per week during the course of the Media Campaign (ONDCP Fact Sheet, "Summary of Campaign Accomplishments," March 2000), although this includes both advertising directed toward youth as well as advertising targeted to parents, which may also be seen by youth.

The Media Campaign also designs advertising for sensation-seeking youth who have been shown in research as more at risk for drug use (Palmgreen et al., 2001). Sensation seeking is a biologically based trait "based on the idea that persons differ reliably in their preferences for, or aversions to, stimuli or experiences with high-arousal potential" (Zuckerman, 1988, p. 174). Individuals who are high in their need for sensation desire complex and stimulating experiences, and are willing to take risks to obtain them. Several studies show that the variation in sensation seeking predicts behavioral differences, especially illicit drug use. Some results reinforcing this claim are presented in Chapter 4 of this report.

For both parent and youth audiences, the Media Campaign chose to focus on a limited set of message themes. As Phase III has matured, the Campaign developed a strategic plan to gain maximum awareness for each message platform. Much of the advertising during any one time period (called a "flight") focuses on one theme or behavioral message platform. The plan includes four flights per year, each running 10 to 12 weeks. In each flight, two to three ads are run, but all of them address one of the themes or message platforms. Chapter 3 presents the details of this plan. For parents, the themes previously included the following:

- **Your Child at Risk.** This platform sends the message to parents, "Every child is at risk for drug use, even yours."

- **Parenting Skills and Personal Efficacy.** This theme tells parents that they can learn simple skills to help their child avoid drugs, including communication and family management. There has been a particular emphasis on parental monitoring. Parents should know where their children are, whom they are with, and when they will be back.

- **Perceptions of Harm.** This platform stresses that parents need to be aware of the harmful effects of inhalants and marijuana on their child's life and future.

As mentioned earlier, Wave 5 included a new message theme, Drugs and Terror, meant to stimulate discussion between parents and youth, and among youth about the relationships between terrorist activities and drug money. The Drugs and Terror ads are intended to raise awareness about the possible connection between drug money and terrorist activities and to engage youth and influential adults in drug prevention (National Youth Anti-Drug Media Campaign, Campaign Flash, February, 2002).

In Wave 5, the Campaign strategy was that parent messages would be focused on one main platform for mass communication: Parenting Skills/Efficacy. Seventy-seven percent of the ads placed from

January to June 2002 were of the Parenting Skills/Efficacy theme, and 22.9 percent on the Drugs and Terror theme, first introduced during the 2002 Super Bowl broadcast.

For youth, the strategic message platforms have also evolved since the beginning of the campaign. Some of themes were merged together with the goal of increasing impact (National Youth Anti-Drug Media Campaign Communication Strategy Statement Supplement, August 2001). The current themes are:

- **Resistance Skills and Self-efficacy.** Ads in this platform attempt to enhance personal and social skills that promote positive lifestyle choices. Specifically, they try to help build confidence that youth can resist drug use. The Campaign reports that this theme has been dropped as of May 2002, at the end of the Wave 5 period.

- **Normative Education/Positive Messages.** The normative education theme ads evolved in the late summer of 2001 from instilling the belief that most young people do not use drugs to conveying the message that "cool people don't use drugs." The positive alternatives strategy reinforces positive uses of time as behavioral alternatives to drug use. For both of these platforms, celebrities and peer-to-peer messages are used in the advertisements.

- **Negative Consequences.** This platform attempts to enhance youth perceptions that drug use is likely to lead to a variety of negatively valued consequences, including loss of parental approval, reduced performance in school and as an athlete, and specific drug effects.

  For youth, the new theme, Drugs and Terror falls under the "Negative Consequences" platform. Targeted at older teens (15 to 18) and young adults (18 to 24), and broadcast after 9:00 p.m. The Drugs and Terror ads follow a similar theme of unintended negative consequences: buying drugs may contribute to funding terrorist activities. In contrast with the traditional approach of communicating personal consequences of drug use, these ads are meant to appeal to the current mood of patriotism, thus providing the youth audience with a reason not to use drugs that is "bigger than themselves."

Based on ad time purchased from January to June 2002, as presented in Chapter 3, 63.2 percent of youth ads were focused on the Negative Consequences platform under which the Drugs and Terror ads fall. About 19 percent of all of the youth ad time in this period went to the specific Drugs and Terror ads. Most of the rest of the ads conveyed the Normative Education/Positive Alternatives platform with little to no attention to Resistance Skills. There were distinct strategies for each of the multicultural target audiences, such as Spanish-language ads being developed for Hispanics who consume Spanish media programming.

Two Drugs and Terror ads debuted during Wave 5 at the Super Bowl 2002 telecast and were subsequently broadcast for youth audiences on cable and network television. Print versions for parents have also appeared in nearly 200 newspapers around the country, and in national magazines (ONDCP, Media Campaign Flash, February 2002). The Drugs and Terror initiative combines a wide range of communication activities in addition to broadcast and print advertising: in-school programming, online information, and community and news media outreach. The online component of the initiative includes banner and keyword advertising on the Media Campaign's web sites for parents (www.theantidrug.com), for educators (www.teachersguide.com) and for entertainment writers (www.drugstory.org). The nonadvertising aspects of the initiative will be explored in the subsequent section of this chapter.

In addition to the introduction of the Drugs and Terror ads, there have been other changes to the campaign's advertising in Wave 5. Whereas in previous waves the Campaign aired ads focusing on the risk of inhalants and Ecstasy use, in Wave 5, the Campaign purchased no anti-inhalant or anti-Ecstasy ad time.

Starting with Phase III, the Media Campaign has been incorporating branding to unify its advertising. This began with the parent Campaign, which focused on the idea of "The Anti-Drug" (e.g., Love: The Anti-Drug; Communication: The Anti-Drug). In the fall of 2000, the branding initiative was extended to the youth Campaign. The Campaign launched "My Anti-Drug," a multimedia initiative aimed at youth aged 11 to 17 years. Youth were asked to answer the question, "What's Your Anti-Drug?" with the goal of engaging them in defining their anti-drug. Youth were encouraged to submit ideas to ONDCP by postcard or by the Web.[1] These ideas, which were incorporated into advertising for 2001 and 2002, suggest activities that might serve as "anti-drugs" and allowed audience members to fill in their own (e.g., Soccer: My Anti-Drug). As reported by ONDCP, the "My Anti-Drug" Campaign's overall goal is "to present positive messages and cause youth to think about the things in their own lives that stand between themselves and drugs."

Among the other celebrities who appeared in anti-drug advertising during Phase III were singers Jimmy Lin, Mary J. Blige, Lauryn Hill, the Dixie Chicks, and the late Scatman John; athletes including tennis stars Venus and Serena Williams; professional skateboarder Andy MacDonald; track star Michael Johnson; Olympic figure skater Tara Lipinski; members of the U.S. Women's World Cup Soccer Team; and National Football League players Tiki Barber, Eddie George, and Derrick Brookes.

Celebrities, however, were only one part of the advertising effort. There were more than 1,495 distinct paid ads played or scheduled to be played between September 1999 through June 2002, including radio and television, general market, African American-, American Indian and Alaskan Native-, Asian-American and Pacific Islander-, and Hispanic-specific ads, and ads for parents as well as youth. A series of ads focusing on American Indian audiences was developed as part of ONDCP's $5 million effort to reach American Indian audiences since the beginning of the campaign. The Campaign has now developed new ads for this audience, which are appearing in targeted media outlets across the country, in 61 newspapers, 66 radio stations, and television outlets in 15 markets that reach American Indian audiences. Developed by Albuquerque-based G&G Advertising, an American Indian firm, the ads focus on the positive influence of elders in the American Indian community, the role of parents, and the importance of Indian pride in keeping youth drug-free (ONDCP, Media Campaign Flash, May 2002). A complete set of ad descriptions appears in Appendix D of this report. Most of the ads can be viewed or played by visitors to ONDCP's web site: http://www.whitehousedrugpolicy.gov.

Finally, as an example of a larger effort to enlist corporate America, the Campaign has teamed up with Safeway, the country's third largest grocery store chain, to launch an anti-drug campaign targeted at parents. The campaign will extend through fall 2002. Parenting messages have been displayed in several places throughout Safeway stores and on Safeway grocery bags. Additionally, some Safeway stores are also broadcasting public service announcements on in-store radio networks (ONDCP, Media Campaign Flash, May 2002).

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[1] To facilitate on-line submissions, the on-line media unit allowed kids to submit their anti-drug as a vote and upload a creative expression articulating their anti-drug in the form of a story or picture file.

1.3   Public Communications Activities

Although advertising is the cornerstone of the Media Campaign, nonadvertising activities are also considered important to Media Campaign success. With an annual budget for nonadvertising of approximately $9.6 million, public relations contractor Fleishman-Hillard develops and coordinates such nonadvertising activities related to the Media Campaign. The Media Campaign is a comprehensive social marketing campaign that seeks to reach the audience directly and indirectly, through both traditional and nontraditional channels. It is designed to strengthen existing anti-drug efforts in communities, to generate talk among youth and parents about drug use, to give youth and parents the tools they need to pursue drug-free strategies such as resistance skills and parenting strategies, and to increase the salience of drugs as an issue generally. In short, nonadvertising Media Campaign activities are designed to foster or enhance an environment in which drug use is noticed, recognized as a problem, and discussed. In such an environment, advertising can be expected to have a greater and more lasting impact.

Youth

Internet outreach efforts have grown in the first half of 2002, according to the Campaign. Building on changes suggested by youth usability studies, the Campaign's youth web site, www.freevibe.com, was completely redesigned and then relaunched in the spring 2002. The site's expanded home page now allows for more visible promotion of site content, as well as special features including "Summit High," a new animated series about a group of freshman high school students navigating peer pressure to use drugs. Fleishman-Hillard reports that www.freevibe.com has attracted nearly 3 million visitors this fiscal year.

Strategic partnerships with high visibility portals, including Yahoo, Lycos, and About.com, allowed for content placement on many popular teen and tween sites. Celebrity endorsement of youth brand messaging was also featured on AOL's Kids Only site. Most recently, www.lycos.com, the world's fourth most visited web site, added a permanent youth anti-drug feature in the first half of 2002, and the Campaign partnered with www.mecca.com, a provider of popular Instant Message technology increasingly used by youth online to include anti-drug content on their site. Through a joint web site partnership with The National Campaign to Prevent Teen Pregnancy, content from freevibe.com was also featured on the web site www.teenpregnancy.org.

Popular institutions also supported the Media Campaign. Fleishman-Hillard reported that media outreach efforts resulted in placement of youth and drug-related topics in major national print media and large-market daily newspapers, television coverage in the largest media markets, articles in smaller and mid-size market community papers, and features in multicultural publications and broadcast media. Some of those are described below. During the first half of 2002, youth outreach efforts continued to focus on extending the "What's Your Anti-Drug" brand. Fleishman-Hillard reports that thus far over 200,000 youth have submitted their anti-drugs, or what stands between them and drugs. In April 2002, Fleishman-Hillard placed "Skateboarding: My Anti-Drug" and "Softball: My Anti-Drug" posters on ABC's "The George Lopez Show" and MTV's "Undressed." Additionally, in early 2002, a new partnership was created between the Media Campaign and the U.S. Air Force to reach more than 3 million youth NASCAR fans. A "Racing: My Anti-Drug" car is running in 15 nationally televised NASCAR races in 2002. Coverage of the racing events was secured in Fox Sports/Totally NASCAR, RPM 2Night (ESPN), Junior Motorsports, the Dallas Morning News, the Fort-Worth Daily Press, Brandweek, ESPN The Magazine, Racing Milestones, and on

www.nascar.com. NASCAR driver Stuart Kirby and the Air Force created an anti-drug PSA for the campaign's pro bono match campaign. Additionally, the web site of another NASCAR driver, Jimmy Spencer, (www.jimmyspencer.com) now includes banner ads promoting the Media Campaign's web site for parents (www.theantidrug.com), and the youth's web site (www.freevibe.com).The National Football League has also been promoting drug prevention messages and "The Anti-Drug" brand to youth and parents at initiatives such as the NFL experience at the Super Bowl in early 2002. Additionally, drug prevention information and the new anti-drug ads are available on their web site (www.nfl.com).

In addition to the "What's Your Anti-Drug?" message, the Media Campaign also used nonadvertising efforts to promote the normative education message. In the fall of 2001, a partnership with newspapers, educators, and community coalitions helped the Campaign gain access to many U.S. markets to deliver its youth messages. "Majority Rules: Most Kids Don't Use Drugs" is a Campaign-generated template for local anti-drug newspaper supplements and is meant to correct misperceptions that most youth use drugs. The Campaign created and distributed the materials in collaboration with the Newspaper in Education (NIE) program of the Newspaper Association of America Foundation, Community Anti-Drug Coalitions of America (CADCA), the National Association of Student Assistance Professionals, and the National Middle School Association. Fleishman-Hillard reports that the first phase of the "Majority Rules" initiative involved more than 200 publications reaching more than 5 million readers. In the first half of 2002, more than 200 newspapers in 43 states selected to publish articles and artwork depicting positive alternatives to drug use generated by youth themselves.

Previous semiannual reports have noted that the Media Campaign had formed partnerships with several national and local organizations already involved with drug prevention: Community Anti-Drug Coalitions of America (CADCA), National Association of State Alcohol and Drug Abuse Directors, Prevention through Service Alliance, National Drug Prevention League, Youth Service America, ASPIRA, United Indian Tribal Youth Corporation, National Middle School Association, Drug Abuse Resistance Education (D.A.R.E.), National Association of Student Assistance Professionals, and the YMCA. In the fall of 2001, the Campaign, together with the YMCA, developed a substance abuse prevention tool: "Positively Drug Free: A Prevention Awareness Handbook". In early 2002, the handbook was finalized, and its distribution began to the more than 2,400 after-school YMCA programs. The YMCA will use the guide as a permanent tool in their leadership training, meant to help program leaders motivate and empower youth to stay drug free.

The Media Campaign also partnered with community and multicultural organizations (e.g., the Boys and Girls Clubs of America, the Girl Scouts of America, PowerUP, and 100 Black Men). Partnerships with these types of organizations are intended to increase the amount of drug-related information in communities, including information about the negative consequences of drug use and how to resist drugs.

In addition, the Campaign targets special audiences in its outreach efforts. Based on research indicating that children of substance abusers are at high risk of becoming substance abusers themselves, the Campaign developed the message, "You're not alone: find someone you trust and talk about it." Other messages targeted at children of substance abusers, such as "I Was Afraid to Take a Friend Home," "It's Not Your Fault!," and "Think Again" were promoted in posters, brochures, web sites, and also on the occasion of events such as the National Children of Alcoholics Week, in February 2002. These activities were carried out in partnership with the National Association for Children of Alcoholics; the Child Welfare League of America; the National Institute on Alcohol

Abuse and Alcoholism; the Center for Substance Abuse Treatment; the National Association of Student Assistant Professionals; and national associations representing school nurses and counselors. Through public relations outreach to HBO, information for children of substance abusers was cross-promoted on www.theantidrug.com and the HBO web site. HBO also aired a program on Ecstasy in April 2002 on the consequences of substance abuse by parents.

The Campaign also recognizes the school as a key avenue in its nonadvertising efforts through a partnership with "Cable in the Classroom." The cable TV industry's educational arm is highlighting and distributing substance abuse-focused programming and curriculum support materials to teachers and students in 80,000 schools nationwide. Additionally, in an effort to reach kids during their school hours, the Campaign advertises on searchopolis.com, an N2H2 education portal, and channelone.com (National Youth Anti-Drug Media Campaign Fact Sheets, Partnerships for Action and Interactive Program, July 2001).

Parents and Other Adults

In addition to youth outreach, Fleishman-Hillard aimed activities at engaging parents as well. The Campaign's parent web site, www.theantidrug.com, is a central part of this strategy and is promoted through partnership with popular web sites and Internet search engines as well as through advertising in various parent and youth audiences via general, ethnic, and niche market advertising. For example, partnership with Lycos was secured in May 2002, and the homepage of lycoszone.com now features the new "Parents: The Anti-Drug" microsite.

During the 6-month period from January to June 2002, the parent web site was expanded, in conjunction with the Drugs and Terror ads, to include information on the links between drugs and terrorism. According to Fleishman-Hillard, the monthly page views increased by an average of 153 percent in the first 3 months of the Drugs and Terror initiative, with the Drugs and Terror index page being the second most viewed page in April 2002. Fleishman-Hillard also reports that online subscription to free email parenting tips, which were also made available in Spanish in 2002, increased in the time period from October 2001 to June 2002.

The Media Campaign also expanded its existing web site for parents, in conjunction with the Campaign's @Work program, to include a new feature designed for employers and human resource professionals, www.theantidrug.com/atwork. The Campaign's @Work program, begun in August 2001, was designed to take advantage of the workplace as an avenue for reaching parents and other adult influencers with youth drug prevention information. The program provides campaign resources and materials to employers for distribution to their employees. The @Work web site offers employee newsletter articles, email parenting tips, and posters and brochures on drug prevention formatted for easy adaptation and customization by employers. Fleishman-Hillard reports that through June 2002, more than 4,000,000 employees have received drug prevention information through this program. The @Work program was officially launched on February 19, 2002, with ONDCP Director John Walters ringing the closing bell at the New York Stock Exchange. This event resulted in 5.3 million media impressions, according to Fleishman-Hillard.

In addition, as part of the @Work program, employers can call 1-800-788-2800 to obtain and distribute free materials such as "Keeping Your Kids Drug-Free: A How-To Guide for Parents and Caregivers," a parenting brochure developed with the American Academy of Pediatrics (AAP) and the National PTA. This brochure was originally distributed by AAP in the summer of 2001 to its

55,000 members, and the PTA sent sample copies to their 3,000 leaders nationwide encouraging them to order additional copies. Other partners in this program include the National Families in Action, the National Family Partnership, the National Fatherhood Initiative, Parenting Coalition International, and the National Asian Pacific American Families Against Substance Abuse. The brochure continues to be available to employers as well as parents through the websites www.mediacampaign.org and www.theantidrug.com.

In partnership with the Centers for Disease Control and Prevention (CDC), and with *Good Housekeeping* magazine, a roundtable gathering parents and experts was conducted in January 2002 about the role of parenting in drug prevention. Fleishman-Hillard reports that the event resulted in nearly 1 million media impressions and provided content for the Campaign advertorial: "How Do You Raise a Drug-Free Child?" that appeared in *Good Housekeeping*'s May 2002 issue.

The Media Campaign also joined the National Inhalants Prevention Coalition, the National Guard Bureau, and the CDC to promote resources and tools to help parents, caregivers, and educators identify the dangers and prevent inhalant use. At the National Inhalants and Poison Awareness Week in March 2002, feature articles for local newspapers, prevention posters, classroom resources, and public service announcements in both English and Spanish were made available and distributed. A free satellite broadcast titled "Inhalants: Sniffing Out the Truth" gathered a panel of experts who discussed the effects of inhalant use on the individual, the family, and the community. In conjunction with this awareness week, an interactive feature discussing inhalant use and its prevention was placed on the parent website, www.theantidrug.com, and parenting tips on inhalants were distributed to more than 13,000 subscribers.

During the first half of 2002, the Campaign continued its outreach to community newspapers and ethnic media markets. The Campaign coordinated with Asian media to implement "Talk Radio" outreach, and monthly parenting tips in Asian publications. Parenting brochures on marijuana and inhalants use were developed in Korean and Vietnamese and were made available on the Asian language web site (www.druganswer.com). Media outreach activities were also carried out during the Asian/Pacific American Heritage Month in May 2002. Anti-drug and drug prevention messages were also disseminated to parents and youth in African American, Hispanic, American Indian, and Alaska Native communities.

In addition to parents and employers, the Campaign addressed other influential adult audiences. In the fall of 2001, Fleishman-Hillard worked to improve the content and awareness of the website www.teachersguide.org, a Web-based resource providing teachers with classroom activities, teaching tips, and other education resources to incorporate drug prevention into the classroom. Redesigned in 2002, the web site contains additional resources for educators. The Campaign developed new classroom activities that directly tie to education standards in partnership with the National Education Association's Health Information Network. In early 2002, a teacher lesson was distributed to 210,000 high school educators who are in the Channel One network. In addition to the classroom activities, new promotional graphics were developed for the drug prevention resources on the teacher's web site and for the New York Times' "Media Literacy and Drug Prevention" guide available on www.teachersguide.org and partner sites. According to Fleishman-Hillard, visits to the site increased sharply in the first half of 2002. The teacher's site continues to be promoted on a variety of web sites such as Cable in the Classroom and in The New York Times' Newspaper in Education Program.

Grandparents were also an audience for the Campaign's program to reach out to caregivers and other adult influencers. The Campaign began a partnership with AARP's Grandparent's Information

Center (GIC), to educate grandparents about substance abuse among youth and provide resources and tools to help keep youth drug free. The new web site (www.theantidrug.com/grandparents) features advice and tips for grandparents, pertinent news articles, guest columns, and a link to AARP's GIC.

Community Outreach

The Campaign has collaborated with a variety of community groups such as the National Education Association (NEA), faith-based groups, Boy Scouts of America, and Girl Scouts of America. The Campaign worked with the NEA to develop tools and resources to communicate prevention messages to students, educators, and school employees and their families. The NEA used print, satellite, and Internet communication channels to deliver Campaign messages to its members.

Working with faith-based institutions, the Campaign developed materials to help youth leaders incorporate substance-abuse messages and up-to-date information on drug prevention into existing programs. A substance abuse prevention guide, titled "Pathways to Prevention," was developed for faith communities. The Campaign provided the Congress of National Black Churches with parenting and Campaign materials to distribute at their substance abuse prevention conference. Also, 8,200 parenting brochures were forwarded to United Church of Christ.

In addition to community groups, the Campaign continues to involve the entertainment industry as an influencer on both youth and parents. In the first half of 2002, the Campaign collaborated with a variety of media industries to reach entertainment, TV, and magazine writers. Five roundtables were held for entertainment writers, producers, and feature journalists to encourage accurate portrayal of drug consequences. Topics covered include drugs and terror, Ecstasy, drug treatment, parenting, and heroin. Representatives from all the major networks, as well as major production companies and media outlets, participated in one or more of these events. One example was the Ecstasy Roundtable convened at the MTV Networks in February 2002. This roundtable brought together reporters, magazine writers and editors, television producers, medical experts, narcotics officers, and former Ecstasy users. A wide range of topics was discussed, including physical and mental effects of Ecstasy use, the links between this drug and rave culture, availability of Ecstasy, as well as young people's misperceptions of Ecstasy as a "safe" drug.

In a series of satellite broadcast programs, sponsored by the ONDCP, panels of experts from the National Guard Counterdrug Office, Substance Abuse and Mental Health Services Administration (SAMHSA), National Institute on Drug Abuse (NIDA), and CADCA talked about topics such as "Marijuana: Weeding Out the Hype" and discussed the impact that media portrayals of marijuana use may have on youth attitudes toward drugs.

Through such roundtables and discussions, the Campaign identified the need for an online, user-friendly and accurate source of data for entertainment writers and feature journalists. Launched in December 2001, www.drugstory.org, the Campaign's web site for television and screenwriters, is a research and knowledge source to obtain facts on drugs and their effects, expert contact information, as well as access to first-person accounts and feature stories. The site promotes accurate, informative depictions of substance abuse-related issues in the media. The Campaign collaborated with the NIDA, the Drug Enforcement Agency, the Writers Guild Foundation, medical consultants, treatment and legal experts, and journalists to develop this resource. According to Fleishman-Hillard, as of May 2002, visitors have accessed more than 260,000 pages of drug-related information on this site.

The Corporate Partnership Initiative, launched in 2001, was designed to enhance the Media Campaign by engaging the financial and communications resources of America's businesses. In the first half of 2002, according to Fleishman-Hillard, more than 30 companies have committed to carrying out drug prevention messages through their own corporate advertising and in the work place. They estimated that $8 million in marketing and communications value has been generated from this initiative.

1.4   Administrative Structure for the Evaluation

ONDCP has implemented the Campaign in three phases, each with an evaluation component. Because of the short time periods for the evaluations of Phases I and II, those evaluations focused primarily on change in awareness of anti-drug ads that are part of the Media Campaign. ONDCP reported changes in awareness of anti-drug messages presented through the media. Changes in perceptions and attitudes about drug use were expected to occur within 1 to 2 years of full implementation of the Media Campaign and changes in behavior within 2 to 3 years.

The Phase III evaluation is being accomplished through a national household-based survey of youth and parents from the same household, including youth aged 9- to 18-years-old and their parents. The evaluation includes the full range of youth, starting at ages 9 to 10, and their parents, so that initial interviews can be conducted with children before drug use is likely to begin and before they enter the "tween" ages, which was the primary target group for the campaign. They are then to be followed up to evaluate the impact of the campaign as they enter the "tween" and teen years.

The evaluation includes a longitudinal component in which youth and parents in the same household are to be interviewed three times over the evaluation period. These repeated interviews will allow measurement of aspects of adolescent development and will thereby allow a much better assessment of the causal processes associated with youth drug use than is possible with cross-sectional studies, such as Monitoring the Future and the National Household Survey on Drug Abuse. It will also assess awareness of the paid anti-drug ads that are central to the full implementation of the Media Campaign.

Westat and the Annenberg School for Communication are conducting the evaluation under contract to the National Institute on Drug Abuse (NIDA). The funding for the evaluation is provided by ONDCP from the appropriation for the Media Campaign. NIDA prepared a tentative research design based on a meeting with experts in the field, and then contracted with Westat and its subcontractors to fully develop the design and carry out the study. Westat has general responsibility for all aspects of the project and, in particular, for supervising all aspects of sample design, data collection, and data preparation. The Annenberg School for Communication at the University of Pennsylvania, the subcontractor, has lead responsibility for study design and data analysis. A second subcontractor for the first 2 years of the project, the National Development and Research Institute, provided expertise in the development of the drug usage questions and assisted in the preparation of the first special report on historical trends in drug use.

1.5   Structure of the Report

The report is organized in six chapters and five appendices, along with an extensive set of detail tables. Questionnaires for Wave 5 can be found on the NIDA web site at http://www.nida.nih.gov/DESPR/Westat/index.html and on the ONDCP web site at http://www.whitehousedrugpolicy.gov.

This chapter and the next provide background for the Media Campaign and the Evaluation.

Chapter 3 gives estimates on general and specific exposure of youth and their parents to the Campaign. Chapter 4 discusses youth use of marijuana and inhalants. Chapter 5 covers norms, attitudes, beliefs, and intentions of youth toward the use of marijuana and inhalants. Chapter 5 also assesses the cross-sectional and the longitudinal association between youth exposure to the Campaign and drug beliefs, norms, attitudes, and intentions. Chapter 6 covers the effects of the Media Campaign on parental talking with their children about drugs, on parental monitoring practices, and on the frequency of their engaging with their children in fun activities. This chapter also assesses the cross-sectional and longitudinal association between campaign exposure and parental behaviors, and between parent campaign exposure and youth outcomes. The main body of the report provides what the evaluators viewed as the essential results of the survey.

The remainder of the report provides a large number of detail tables supporting and supplementing each of the text chapters. In some cases, these tables present results from some additional variables not presented in the text, and often provide detailed breakdowns of responses by age, gender, ethnicity, and sensation-seeking and "a risk of drug use" score for youth. For parents, there are breakdowns by child age, gender, and other child characteristics, as well as parent education, gender, and ethnicity. The five appendices provide detailed information about sample design, weighting, and variance estimation (Appendix A), data collection procedures (Appendix B), methods used to control for the effects of confounding variables (Appendix C), the ads in the Media Campaign (Appendix D), and the preparation of the exposure indices and the outcome indices (Appendix E).

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2. Summary of Evaluation Plan

The Media Campaign seeks to educate and enable America's youth to reject illegal drugs; prevent youth from initiating use of drugs, especially marijuana and inhalants; and convince occasional users of these and other drugs to stop using drugs. It is the task of the Media Campaign Evaluation to determine how successful the Media Campaign is in achieving these goals and to provide ongoing feedback useful to support decisionmaking for the Media Campaign. This chapter focuses on the evaluation study's approach to assessing the Campaign's progress and success. Accordingly, it summarizes the models for Media Campaign actions and effects in Section 2.1. The next section presents the study's sample design and data collection methodology followed, in Section 2.3, by a description of the study samples of parents and youth. The chapter concludes with a brief overview of three analysis issues.

2.1 Models for Media Campaign Action

This section includes a presentation of the focus of the evaluation and an extended presentation of the presumed models for how the Campaign is expected to affect its target audiences. The models underpin the construction of the design and the measuring instruments for the evaluation.

2.1.1 Focus and Scope of the Evaluation

Although there are literally hundreds of questions that the evaluation can and will answer, four overarching questions form the central focus of the evaluation: (1) Is the Media Campaign getting its messages to the target populations? (2) Are the desired outcomes going in the right direction? (3) Is the Media Campaign influencing changes in the outcomes? (4) What is learned from the overall evaluation that can support ongoing decisionmaking for the Media Campaign?

The range of additional questions that will be answered is indicated by the following five major objectives for the evaluation:

■ To measure changes in drug-related knowledge, attitudes, beliefs, and behavior in youth and their parents;

■ To assess the relationship between changes in drug-related knowledge, attitudes, beliefs, and behavior and self-reported measures of media exposure, including the salience of messages;

■ To assess the association between parents' drug-related knowledge, attitudes, beliefs, and behavior and those of their children;

■ To assess changes in the association between parents' drug-related knowledge, attitudes, beliefs, and behavior and those of their children that may be related to the Media Campaign; and

■ To compare groups of people with high exposure to other groups with low exposure.

The circumstances of the Media Campaign present a serious challenge to evaluation. Because the Media Campaign goal is to reach out to youth all across America to help them avoid illicit drug exposure, it was not possible to use experimentation to evaluate the Media Campaign. Experimentation would require conducting the Media Campaign in some media markets but not in others. Instead, the Media Campaign is evaluated by studying natural variation in exposure to the Media Campaign and how this variation appears to correlate with outcomes predicted by the theoretical model for the Media Campaign. This means comparing groups of people with high exposure to other groups with low exposure. The evaluation has been designed to make it very sensitive to variation in Campaign exposure. The primary tool for the evaluation is a new household survey, the National Survey of Parents and Youth (NSPY).

Groups have been found with different levels of exposure to the Media Campaign. It is possible that there are pre-existing differences between the groups that might explain both the variation in exposure and variation in outcomes. In anticipation of this finding of variable exposure, NSPY includes many questions on personal and family history, which have been used to adjust or correct, through the use of statistical controls, the association of exposure with outcomes.

2.1.2   Model of Media Campaign Influence

In developing the overarching Media Campaign model, two foundations are relied on: basic theory about communication and health behavior change, and evidence about what influences drug use. The overarching model of Media Campaign influence can be largely presented in the form of four interrelated figures, each of which describes a component of the overall model in detail. Three of these figures focus on influences on youth drug use. The other outlines influences on parents' actions with regard to their children's drug use. However, these figures cannot portray some complex ideas about how the Media Campaign may produce its effects. For this reason, five routes by which the Media Campaign may have influenced behavior are described in text rather than graphically. These five routes of influence reflect current thinking in public health communication theory and have driven the process of data collection and analysis. The figures are presented first, followed by text descriptions of the five potential routes of Campaign influence.

2.1.3   Overview of the Figures

Figure 2-A presents the overall model of effects. It includes the model for Media Campaign influence in broad outline and names the categories of external variables likely to influence the process. All of the Media Campaign activities (advertising, work with partnership organizations, encouragement of parent and peer conversations about drug use) are intended to increase youth exposure to anti-drug messages. The process through which these activities will produce exposures is laid out in Figure 2-B. Those exposures are meant to produce changes in young people's thinking about drugs, their perceptions about what others expect them to do, and their skills to resist drugs. These influence paths are laid out in some detail in Figure 2-C. A youth's changed thinking about drugs is meant to reduce his or her intention to try drugs, or to graduate from trial to occasional or regular use of drugs.

Figure 2-A. Overall model of Media Campaign influence

Factors that directly affect drug use
(e.g., price, accessibility, arrest risk)

NYAMC activity
(including direct
media, community
organizing, parent
and peer sources)

Exposure to anti-drug
messages from a
variety of sources

Beliefs,
social expectations,
skills, and
self-efficacy

Intentions
to use drugs

Use of drugs

Exogenous factors:
Demographics, prior behavior, family and peer factors, personal factors.
May have direct effects or influence susceptibility to Media Campaign effects.

Figure 2-B. Model of influences on exposure to anti-drug messages
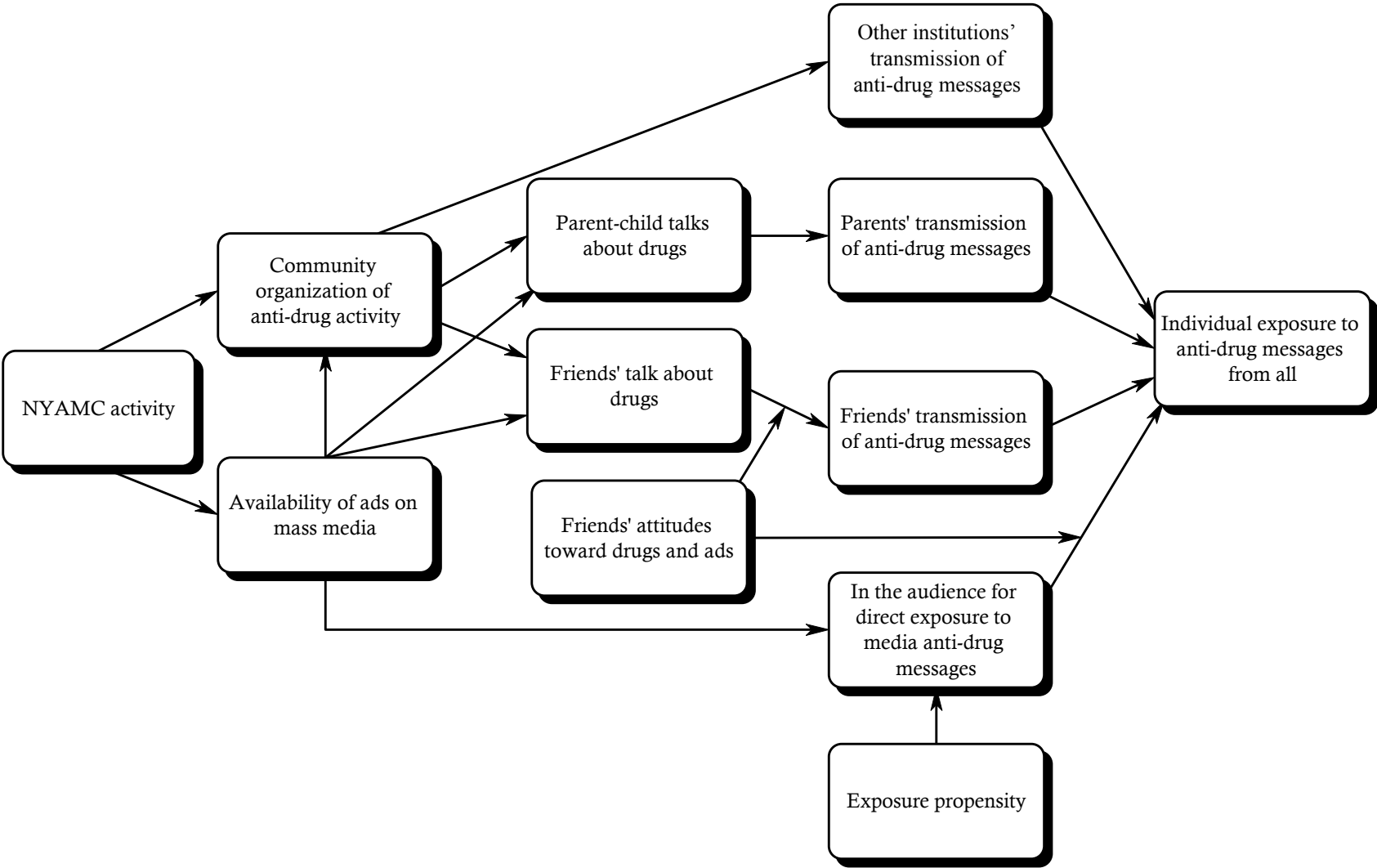
Figure 2-C. Model of influences of exposure to drug outcomes

Knowledge and beliefs about positive and negative consequences of drug use

Overall attitude toward drug use

Factors that directly affect the ability to use drugs given intention: price, accessibility, arrest risk

Individual exposure to anti-drug messages from all sources

Perceptions of specific others' expectations for respondent's drug use

Overall perceptions of others' expectations for respondent's drug use

Intentions for future drug use

Drug use

Self-efficacy to avoid drug use

Exogenous factors that may influence all variables in this model and may also influence susceptibility to effects of Media Campaign exposure on all belief outcomes. (Relationships not pictured for clarity.)

| Demographics: gender, age, ethnicity | Family and peer factors: parental monitoring, family functioning, friends' attitudes and behaviors, involvement with youth engaged in risk behaviors | Personal factors: sensation seeking (Section 2.3.5), academic success, ambitions, religious involvement, drug experience |

Audience Exposure

Figure 2-B portrays the complex and multiple routes through which the Media Campaign will work. The audience may receive anti-drug messages from each of the following four sources.

- **Exposure to media messages.** The audience may be directly exposed to Media Campaign advertisements that appear on television, on the radio, in print, on the Internet, and elsewhere. Direct exposure to unplanned anti-drug media messages is also a possibility, if, for example, the news media increase their coverage of the issue as the result of Media Campaign activity. The likelihood of direct exposure to anti-drug messages depends on two factors: first, media consumption patterns, and second, the number and nature of advertisements that are placed on that medium in a given time period.

- **Interaction with friends and other peers.** Anti-drug messages may be relayed during conversations with friends. These conversations may have been stimulated by the presence of the Media Campaign, whether by advertisements or by activities undertaken by other organizations.

However, although the Media Campaign might increase the number of drug-related messages heard by respondents through a process of social diffusion, the nature of these messages may not always reflect the intentions of the Media Campaign. The Media Campaign may inadvertently stimulate discussion that rejects anti-drug messages or even reinforces pro-drug messages. The attitudes of friends may have an important influence on the valence of message retransmission. For this reason, friends' attitudes are incorporated into the model in Figure 2-B.

- **Interaction with parents.** Anti-drug messages may come from parent-child conversations. One of the Media Campaign's early emphases has been to encourage parents' involvement in their children's lives and, in particular, to encourage conversations about drugs and drug use. If the mass media advertisements are successful, there should be more parent-child talk about drugs and thus a greater transmission of anti-drug messages.

- **Interaction with organizations.** Partnership organizations, including general youth organizations (sports teams, scouts, and religious groups) and anti-drug-focused institutions, are expected to increase their active transmission of anti-drug messages. These organizations may reach enrolled youth directly or through parents or peers as intermediaries.

Influence of Exposure on Behavior

Figure 2-C focuses on how exposure to anti-drug messages might influence behavior. The model relies fundamentally on the Theory of Reasoned Action, developed by Martin Fishbein and Icek Ajzen (1975), and is supplemented by the arguments of Albert Bandura (1986) concerning the importance of self-efficacy. The model assumes that intention to undertake an action is the primary determinant of behavior, although external forces (e.g., the price of drugs, their availability, and the risk of arrest) may constrain the transition from intention to action. The model assumes that intentions are largely a function of three influences: attitudes toward specific drug behaviors, perceptions of how important others expect one to act, and the belief that one has the skills to take an action (called self-efficacy). Attitude is a function of an individual's beliefs about the expected positive or negative consequences of performing specific behaviors. Perceived social expectations are a function of an individual's beliefs about what each of a number of important others (parents, friends) expect of them. The model assumes that exposure to anti-drug messages will influence beliefs, and thereby influence attitudes and perceived social expectations. Finally, the model assumes that exposure to messages will directly influence self-efficacy, the individuals' belief in their ability to avoid drug use.

Although Figure 2-C specifies drug use as its outcome, use of that general term should be understood as shorthand. The four distinct behaviors on which the Media Campaign originally planned to focus were: (1) trial use of marijuana, (2) trial use of inhalants, (3) transition from trial to occasional or regular use of marijuana, and (4) transition from trial to occasional or regular use of inhalants. In 2001, the Campaign focused almost exclusively on marijuana behaviors, however. Each of these behaviors may be influenced by different factors. For example, fear of parental disapproval may be a particularly important determinant of the trial use of marijuana, whereas a more important determinant of regular marijuana use may be concern about becoming dependent on the drug. For this reason, each behavior and its determinants are measured distinctly.

External Factors

All elements of the Media Campaign's intended process of influence must operate in the context of a series of external factors. These factors are noted in Figure 2-A and presented in greater detail in Figure 2-C. In estimating the size of Media Campaign effects, such potential confounding influences have been controlled statistically. In addition, in some cases analyses test whether individuals who vary on these external factors are more or less susceptible to Campaign influence.

External factors that will be considered in the evaluation are parental monitoring, family functioning, friends' attitudes and behaviors, academic success, ambition, religious involvement, and prior drug involvement. Because it is argued that sensation seeking (Section 2.3.4) is an important determinant, not only of drug use but also of responsiveness to advertising messages of a particular style, sensation seeking will also be measured. Finally, the analyses make use of a risk of marijuana use scale for defining risk subgroups (Section 2.3.5). Risk incorporates sensation seeking, but is more comprehensive, including information about other relevant characteristics such as the child's prior alcohol and tobacco use. It is expected that the effects of the Campaign may differ among higher- and lower-risk youth. The Campaign expected that the higher risk youth would be more likely to show Campaign effects.

Parent Component of the Media Campaign

The Media Campaign seeks to address three distinct parent behaviors, each of which is modeled separately in Figure 2-D. The original parent objectives related to three parent behaviors: (1) parent-child talk about drugs, (2) parental monitoring of youth behavior, and (3) support for community anti-drug activity. In addition, during the early period of Phase III, the Campaign encouraged parents to increase their engagement with their children's lives by encouraging the parents to do more fun activities with their children. Given their relative importance in the Media Campaign, the models for the first two behaviors are presented in greater detail. In all models, a box simply labeled "NYAMC activity" represents the Media Campaign, much as it is described in Figure 2-B.

Model A in Figure 2-D describes a limited set of determinants for parental monitoring behavior. NSPY includes measures of past and intended monitoring behavior. Only two of the determinants of intention are measured: attitudes toward monitoring and self-efficacy to engage in monitoring. In turn, and consistent with basic health behavior theory, attitudes are seen as related to beliefs about the consequences of such monitoring. Those consequences are divided into two parts: drug-related consequences (whether the parent thinks that the degree of monitoring will affect a child's drug use) and other consequences (including expected effects on the relationship between parent and child). A decision to increase monitoring may be seen by a parent as having both positive and negative consequences. Media Campaign activities are presumed to affect both beliefs in the positive consequences of monitoring and the self-efficacy of parents to engage in monitoring behavior.

Figure 2-D. Model A – Effects of parental monitoring
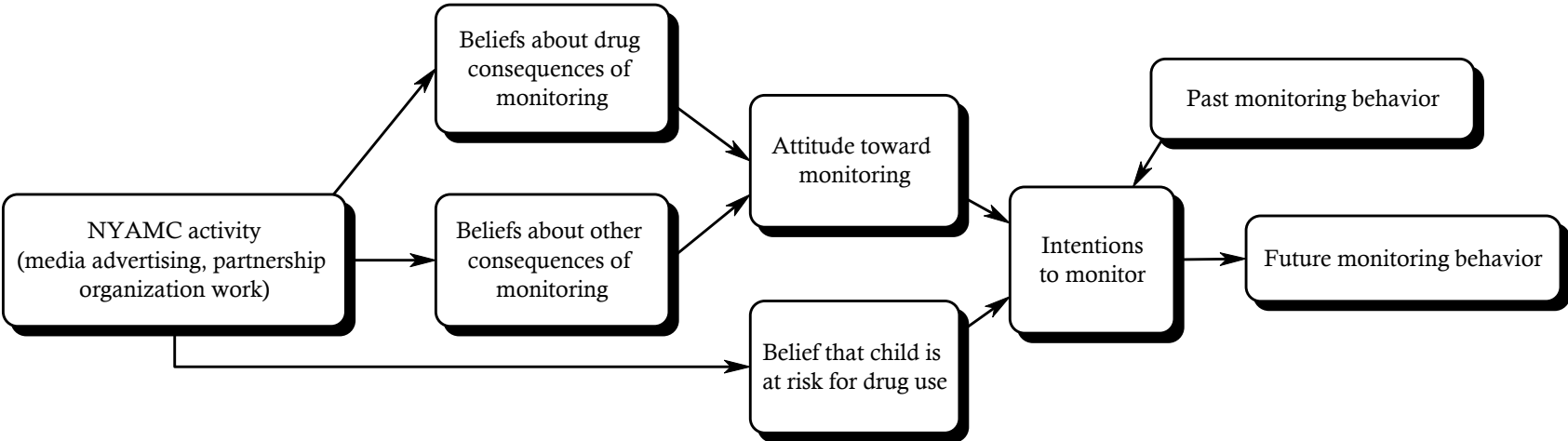
Model B in Figure 2-D describes a more complete process for the influence of the Media Campaign on parent-child talk about drugs. Talk has been separated into two types of conversations: those dealing with drug use in general and those involving talk about specific strategies and skills for avoiding drug use. Although both are targets of the Media Campaign, one may occur independently of the other. Intentions for future talk are seen as the product of attitudes toward talking, self-efficacy to engage in talking, and general social expectations about whether one ought to talk with one's child about drugs. Attitudes are presumed to reflect three types of beliefs: belief that drug use has negative consequences for the reference child, belief that the reference child is at risk for drug use, and belief that parent-child talk is likely to discourage drug use by the reference child. General social expectations are hypothesized to be a function of the specific social expectations of others that the parent talk with the child. Media Campaign activity is presumed to affect all of the beliefs, self-efficacy, and specific social expectations for conversation about drugs.

Model C in Figure 2-D focuses on parents' actions to support community anti-drug activities. Although this outcome behavior is included among Media Campaign outcomes, it has taken a secondary priority to other objectives. Interview time considerations have meant that none of the process variables that may lead from Media Campaign activity to this behavior will be specifically measured. Similarly, there are no measures of the process variables that might lead to increased levels of parents engaging in fun activities with their children. Only the behavior itself is assessed.

Routes of Influence

In this section, five overlapping routes through which the Media Campaign may have influenced behavior are presented. These routes include several factors that are difficult to portray in figures. First, it is possible that there will be time lags between Media Campaign activities and their effects. Second, it is possible that effects are realized through social interactions and institutions instead of (or in addition to) being realized through personal exposure to media messages. Third, it is possible that messages directed toward a specific belief or behavior will generalize to other beliefs or behaviors. The five routes are summarized below.

1. **Immediate learning.** As a direct result of Media Campaign advertisements, youth immediately learn things about particular drugs that lead them to make different decisions about using those drugs. For example, they learn that trying marijuana has bad consequences so they are less likely to try marijuana. This new knowledge could have immediate consequences, which should be apparent in associations between exposure, beliefs, and behavior. In this way, young people may learn negative and positive consequences of their using a particular drug; social expectations about drug use; and skills and self-efficacy to avoid drug use if they wish.

2. **Delayed learning.** As a direct result of Media Campaign advertisements, youth learn things that lead them to make different decisions about drug use at a later time. The advertisements might have a delayed impact; their influence will show up immediately in associations between exposure and affected beliefs, but current exposure will predict only subsequent behavior. This might be particularly true for 9- to 11-year-olds (and possibly for 12- to 13-year-olds), where current learning would be expected to influence future behavior, when opportunities to engage in drug use increase.

Figure 2-D. Model B – Effects on parent-child talk
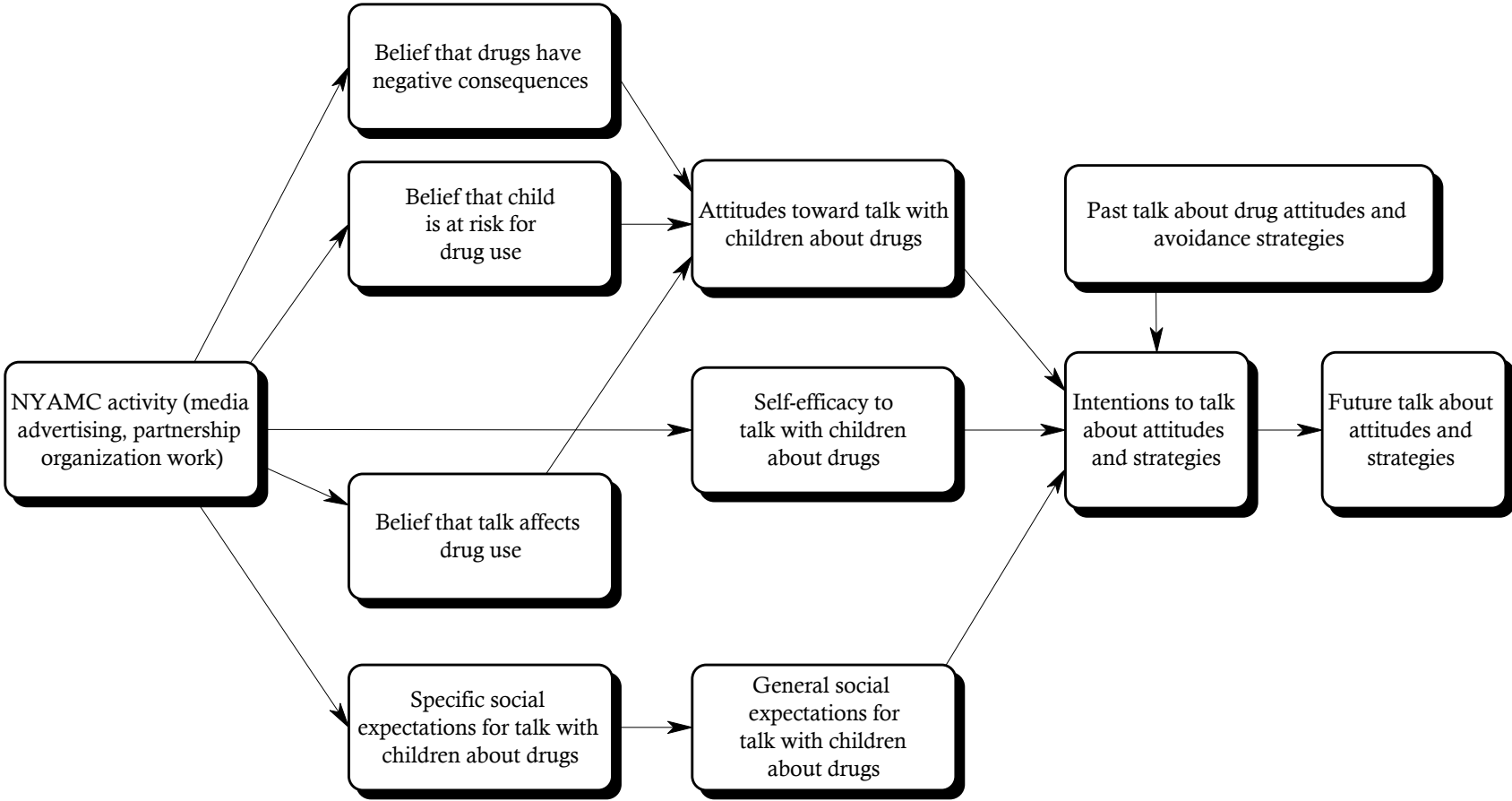
Figure 2-D. Model C – Effects on parental support for community anti-drug activity
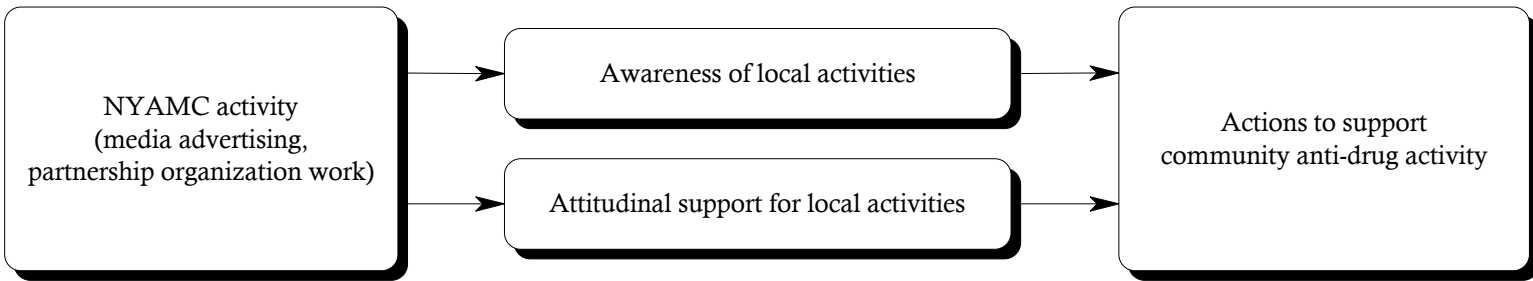
3. **Generalized learning.** Media Campaign advertisements provide direct exposure to specific messages about particular forms of drug use, but youth learn things that lead them to make decisions about drug use in general. Thus, if they learn that cocaine has a particular negative consequence or that medical authorities are opposed to cocaine use, they may generalize those cognitions to a broad negative view of other types of drug use. From the perspective of the evaluation, this generalized learning would mean that exposure effects are not message specific and will not necessarily operate through an intervening path of acceptance of the specific consequences emphasized. This seems particularly likely among younger children, who may read the meta-message of the barrage of advertisements as saying that drug use is bad but without learning an elaborate set of specific rationales for that attitude.

4. **Social diffusion.** The advertisements stimulate discussion among peers and between youth and parents, and that discussion affects cognitions about drug use. The discussions may provide new information about consequences or social expectations, as well as new skills or self-efficacy. That information may be derived directly from the advertisements or merely stimulated by the presence of the advertisements regardless of their particular messages. Discussions may take place between individuals who have seen the advertisements and those who have not; thus, the effects would not be limited to those who have been personally exposed to or learned things from the advertisements. Discussions may produce or reinforce anti-drug ideas, or they may produce pro-drug ideas (called reactance).

5. **Institutional diffusion.** The presence of advertisements (and the other elements of the Media Campaign) produces a broad response among other public institutions, affecting the nature of what they do with regard to drug use. In turn, institutional actions affect youth cognitions and social expectations about drug use and their own drug use behavior. Thus, Media Campaign activities may stimulate concern about drug use among school boards and lead them to allocate more time to drug education. Religious, athletic, and other private youth organizations may increase their anti-drug activities. News organizations may cover drug issues more actively, and the nature of their messages may change. Popular culture institutions (movie theaters, music, and entertainment television) may change the level of attention to and the content of drug-related messages. Institutional diffusion can be a slow process, and there might be a relatively long lag between Media Campaign activities and institutional response and an even longer lag until the effects on youth beliefs or behavior become apparent.

2.2 Sample Design and Data Collection Methodology

The data in this report are based on the initial data collection (Waves 1, 2, and 3) of NSPY as well as longitudinal data collection (Waves 4 and 5) of data from eligible sample members in the initial waves. Waves 1, 2, and 3 are referred to collectively as the initial recruitment phase (Round 1) while Waves 4 and 5 are referred to as the followup phase (Round 2). The data collection period for the waves were November 1999 through May 2000 for Wave 1; July 2000 through December 2000 for Wave 2; January 2001 through June 2001 for Wave 3; July 2001 through December 2001 for Wave 4; and January 2002 through June 2002 for Wave 5. The number of youth aged 9 to 18 with completed interviews, parent interviews, and youth–parent dyads are given for each wave in Table 2-A. (See Detail Tables 2-1, 2-2, and 2-3.)

Table 2-A. Completed interviews by wave

Age group	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Youth aged 9-18	3,299	2,362	2,458	2,477	4,040
Parents	2,284	1,632	1,680	1,752	2,882
Youth–Parent Dyads	3,108	2,210	2,305	2,354	3,876

2.2.1 Sampling

The youth and their parents were found by door-to-door screening of a scientifically selected sample of about 34,700 dwelling units for Wave 1, a sample of 23,000 dwelling units for Wave 2, and a sample of 23,300 dwelling units for Wave 3. These dwelling units were spread across about 1,300 neighborhoods in Wave 1 and approximately 800 neighborhoods in both Wave 2 and Wave 3. There were 90 primary sampling units (PSUs) in the three initial waves. In all subsequent followup waves, respondents recruited in Waves 1 through 3 are being followed up if they live within or just outside of the boundaries of the 90 PSUs. The sample was selected in such a manner as to provide an efficient and nearly unbiased cross-section of America's youth and their parents. All types of residential housing were included in the sample. Youth living in institutions, group homes, and dormitories were excluded.

The sampling was arranged to get adequate numbers of youth in each of three targeted age ranges: 9 to 11, 12 to 13, and 14 to 18. These age ranges were judged to be important analytically for evaluating the impact of the Media Campaign. Within households with multiple eligible youth, up to two youth were selected.

Parents were defined to include natural parents, adoptive parents, and foster parents who lived in the same household as the sample youth. Stepparents were also usually treated the same as parents unless they had lived with the child for less than 6 months. When there were no parents present, an adult caregiver was usually identified and interviewed in the same manner as actual parents. No absentee parents were selected. During the initial data collection, when more than one parent or caregiver was present, one of the eligible parents was randomly selected. No preference was given to selecting mothers over fathers. Parents of both genders were selected at equal rates. This was done in order to measure the impact of the Media Campaign separately on mothers and fathers. When there were two sample youth who were not siblings living in the same household, a parent was selected for each. In the followup survey, if the originally selected parent was no longer eligible, a new parent considered most knowledgeable about the youth was selected as a replacement.

The response rates were very consistent across the initial three data collection waves. The response rate in Waves 1 through 3 for screening dwelling units to determine whether any eligible youth were present was 95 to 96 percent. Among dwelling units that were eligible for the survey, 74 to 75 percent in Waves 1 though 3 allowed the interviewer to enumerate the occupants and to select youth and parents for extended interviews. After selection of youth and parents, the interviewer sought signed consent from a parent to interview the sample youth. After that, the interviewer also sought signed assent from the sample youth. The interviewer then attempted to get extended interviews with the selected youth and parents. Among selected youth, the response rate was approximately 91 percent in Waves 1 through 3. This means that 91 percent of the selected youth received parental consent, signed to their own assent, and completed an extended interview. Among sample parents, approximately 88 percent completed the interview in Waves 1 through 3.

For Wave 4, participants were located and eligibility was determined for approximately 87 percent of the parents and youth who completed an interview in Wave 1. Among those youth who were still eligible in the followup phase, the interview response rate was about 82 percent. Among those parents who were still eligible in the followup phase, the interview response rate was about 80 percent.

For Wave 5, participants were located and eligibility was determined for approximately 88 percent of the parents and 94 percent of the youth who completed an interview in Waves 2 or 3. Among those youth who were still eligible in the followup phase, the interview response rate was about 89 percent. Among those parents who were still eligible in the followup phase, the interview response rate was 88 percent.

The overall reduction in the number of completed interviews between Round 1 (Waves 1, 2, and 3) and Round 2 (Waves 4 and 5) was roughly 20 percent (see Detail Table 2-1). However, the corresponding drop off for the 12- to 18-year-old age group was negligible as 10- to 11-year-olds in the baseline samples moved in to replace youth who aged out of their respective waves in Round 2. Thus, for cross-sectional comparisons of the 12 to 18 age groups (where age is determined as of the time of the respective interview), there will be relatively little loss in power. For longitudinal comparisons, which require completed interviews for eligible youth at both Rounds 1 and 2, the overall reduction in sample size was about 16 percent (not including youth who were expected to age out prior to the first followup). This reduced sample size for longitudinal analysis corresponds roughly to an increase of about 9 percent in detectable differences. In other words, a difference that would be detectable with 80 percent power if there were no sample losses would now have to be larger by a factor of 1.09 to be detectable.

2.2.2   Extended Interview Methods and Content

Prior to beginning the interview, respondents were assured that their data would be held as confidential. To strengthen such assurances, a Certificate of Confidentiality was obtained for the study. Under the certificate, the Federal Government pledged that the Evaluation team cannot be compelled by any person or court of law to release a respondent's name or to link a respondent's name with any answers he/she gives. Interviewers showed a copy of the certificate to respondents prior to the interview upon request.

The extended interviews were administered with the aid of laptop computers that the interviewers carried into the homes. Each interview had sections where the interviewer read the questions out loud and entered the responses into the computer and sections where the respondents donned a set of headphones, listened to prerecorded questions, and entered their own responses into the computer. The self-administered sections were arranged to promote a feeling of confidentiality for the respondent. In particular, it was designed to allow people to respond honestly to sensitive questions without allowing other members of the household to learn their answers. As part of the parental consent, parents were informed that only the child would see his or her responses. Interviewers were trained to discourage parents from looking at the screens while the youth completed the interview.

The computer played back a prerecorded reading of the questions rather than just having the respondent read the screen in order to facilitate the involvement of slow readers and cognitively-impaired youth. Youth and parents who did not wish to hear the questions read aloud could remove the headphones and complete the interview by simply reading and answering the questions on the screen. A touch-sensitive screen was used so that no typing skills were required. To help the

respondent understand multiple choice questions, the computer highlighted the response alternatives while it recited them. The interview could take place in either English or Spanish. This approach was highly successful; in Wave 1, just 0.4 percent of sample youth and parents were willing but unable to complete the questionnaire for reasons of physical or mental disability or because they could speak neither English nor Spanish, the two languages in which interviews could take place. In Wave 2, 0.7 percent of the parents and 0.4 percent of the youth were willing but unable to complete the questionnaire for the reasons above. In Wave 3, just 0.6 percent of the parents and 0.3 percent of the youth were unable to complete the questionnaire for these reasons; in Wave 4, the percentage was 0.6 for parents and 0.0 for youth; and in Wave 5, the percentage was 0.0 for both parents and youth.

The youth questionnaire included sections on basic demographics; school and religion; media consumption; extra-curricular activities; personal usage of cigarettes, alcohol, marijuana, and inhalants; expectations for future use of marijuana; feelings of self-efficacy to resist future offers of marijuana use; knowledge of friends' and classmates' use of marijuana; receipt of marijuana offers; family functioning; anti-social behavior of self and friends; approval/disapproval and perceived risk of marijuana and inhalants; perceived ease of parental discussion on drugs and perceived parental reactions to personal drug use; past discussions about drugs with parents, friends, and others; awareness of drug-related media stories and advertising; recollection and assessment of specific Media Campaign-sponsored anti-drug advertisements on TV and radio; Internet usage; and participation in drug education classes and programs. In Wave 3, questions were added to the teen questionnaire concerning Ecstasy trial and use, recollection of the "branding" statement in specific advertisements, and doing fun things with parents. In Wave 4, additional Ecstasy questions were added to the teen interview concerning the intentions to use, perceived expectations of use by peers and attitudes of use, including approval/disapproval of use and perceived harm of use. In Wave 5, a question about Campaign banner ads on the Internet was added to the teen instrument and the two "ringer" brand phrases were replaced in the teen branding question.

The parent interview included sections on media consumption; communication with child; monitoring of child; family functioning; knowledge about child's use of cigarettes, alcohol, marijuana, and inhalants; personal participation in community drug prevention activities; awareness of drug-related media stories and advertising; recollection and assessment of specific Media Campaign-sponsored anti-drug advertisements on TV and radio; personal usage of cigarettes, alcohol, marijuana, and inhalants; basic demographics; and education, income, and religion. When parents were being asked about their children, each such question was targeted to a specific sampled child and repeated for every sampled child in the household. Other questions that were not about their children were, of course, only asked once. In Wave 3, questions were added to the parent questionnaire about recollection of the branding statement in specific advertisements, and the parent's perception of the efficacy of talking to children about drugs. In Wave 4, there were no changes to the parent instrument. In Wave 5, the branding question was rephrased to ask about the correct parent brand and one of two ringer brands, mirroring the format of the teen branding question. Other additions to the parent instrument included a question about Campaign banner ads on the Internet, a question that asked about the presence and number of youth in the household in the age categories of interest; a question on parental perceptions of harm from trial of marijuana, inhalants, and Ecstasy; and a question on the likelihood of youth use of inhalants and Ecstasy.

The laptop computer played the TV and radio advertisements for both youth and parents to help them recall their prior viewing more accurately. In order to limit the response burden for respondents, usually a maximum of four TV ads were played for each youth and parent. However, there was

special advertising aimed at African Americans and at bilingual English/Spanish speakers. In order to measure their recall of the special advertising as well as the general advertising, as many as six TV ads were shown to respondents in these groups. For radio ads, up to two ads were played for most parents and most teens, and none for children aged 9 to 11. As with TV ads, for African American respondents and bilingual English/Spanish speakers, another two radio ads were sometimes played in order to measure exposure to special and general advertising.

In Wave 1, a total of 37 TV ads and 26 radio ads were aired during the wave and shown to respondents. The TV ads included 21 (16 in English and 5 in Spanish) aimed at parents and 16 (11 in English and 5 in Spanish) aimed at youth. The radio ads included 11 (8 in English and 3 in Spanish) aimed at parents and 21 (15 in English and 6 in Spanish) aimed at youth. There were additional radio ads that were audio versions of TV ads during Wave 1. These were not played for survey respondents for the reasons given in Chapter 3 of this report.

In Wave 2, a total of 31 TV ads and 19 radio ads were aired during this wave and shown to respondents. The TV ads included 16 (13 in English and 3 in Spanish) aimed at parents and 34 (32 in English and 2 in Spanish) aimed at youth. The radio ads included 9 (8 in English and 1 in Spanish) aimed at parents and 20 (15 in English and 5 in Spanish) aimed at youth. Wave 2 was not hampered by the issue of audio versions of TV ads, for only one of the Campaign Spanish radio ads was an audio duplicate of a television ad.

In Wave 3, a total of 22 TV ads and 27 radio ads were aired during this wave and shown to respondents. The TV ads included 10 (7 in English and 3 in Spanish) aimed at parents and 12 (9 in English and 3 in Spanish) aimed at youth. The radio ads included 16 (12 in English and 4 in Spanish) aimed at parents and 11 (8 in English and 3 in Spanish) aimed at youth. In Wave 3, six parent radio ads were played that were audio duplicates of a television ad. No youth radio ad was a duplicate of a television ad.

In Wave 4, a total of 16 TV ads and 19 radio ads were aired during the wave and shown to respondents. The TV ads included seven (three in English and four in Spanish) aimed at parents and nine (six in English and three in Spanish) aimed at youth. The radio ads included 9 (4 in English and 5 in Spanish) aimed at parents and 10 (8 in English and 2 in Spanish) aimed at youth. In Wave 4, seven parent radio ads and one youth radio ad were played that were audio duplicates of television ads.

In Wave 5, a total of 25 TV ads and 21 radio ads were aired during the wave and shown to respondents. Four TV ads were targeted at both parents and youth and were shown to both groups. The TV ads included 14 (11 in English and 3 in Spanish) aimed at parents and 15 (13 in English and 2 in Spanish) aimed at youth. The radio ads included 8 (5 in English and 3 in Spanish) aimed at parents and 13 (10 in English and 3 in Spanish) aimed at youth. In Wave 5, two parent radio ads and six youth radio ads were played that were audio duplicates of television ads.

Appendix D contains a short description of each ad by wave. A random sample of the ads that were scheduled to air in the two calendar months preceding the month of interview were selected for each

respondent.[1] As it turned out, air dates sometimes changed between the time that the sampling software was initiated and the date of interview. For analysis purposes, exposure to ads was counted only when the ad aired during the 60 days immediately preceding the date of interview. The interview also contained a ringer TV ad—an ad that had not actually been shown, or a "spill" TV ad—an ad that had been shown but was targeted at the other (parent or youth) audience. Youth were shown parent TV ads to assess their spill effects and vice versa. This was done to allow study of the accuracy of ad recall. Some analyses of the ringer ad results were presented in Appendix C of the Second Semi-annual report, which presented strong evidence for the validity of the NSPY approach to measuring ad recall.

2.2.3 Weighting

Weights were developed for analysis to reflect differential probabilities of selection, differential response rates, and differential coverage. In Waves 2 and 3, youth in the age range of 12 to 13 and youth in the age range of 9 to 11 had the same probability of selection whereas youth in the age range 14 to 18 had a smaller probability of selection. In Wave 1, youth in the 12 to 13 age range had the largest probability of selection since they were oversampled. Youth in the 9 to 11 age range had somewhat smaller probabilities of selection, and youth in the 14 to 18 age range had the smallest probability of selection. Youth in the 14 to 18 and 9 to 11 age ranges with siblings in the 12 to 13 age range had higher probabilities of selection than those with no such siblings. (This was done to get more benefit out of each parent interview.) Youth with siblings in the same age range had smaller probabilities of selection since just one youth was selected per age range. Parents with spouses had smaller probabilities than single parents since generally only one parent was selected per household. For Waves 4 and 5, no new youth were selected. However, a new parent could be selected if the original sampled parent was no longer eligible for interview.

Response rates were found to vary geographically. Data from the 1990 Decennial Census were used to sort the sample into groups with different response rates. Within a group, the weights were adjusted upward by the inverse of the response rate. This has the effect of increasing the weights for difficult-to-reach households.

In this report, coverage is defined to be the NSPY sample-based estimate of the number of persons in the target population prior to poststratification to the corresponding estimate based on Census/CPS data. Coverage also varied geographically and by age. Table 2-B shows coverage rates by age for the initial recruitment waves. Overall, coverage was slightly less than 70 percent for all three waves with somewhat higher coverage rates for the 12 to 13 age group, and lower coverage rates for the 14 to 18 age group. It would appear, based on census estimates, that screener respondents with children in the desired age range chose not to reveal the presence of their children. Perhaps this was an easy way to refuse participation in the survey without being impolite. To compensate for this as best as possible, the weights were adjusted so that estimates of sample youth were consistent with those from U.S. Census Bureau estimates by gender, age group, race and ethnicity, and region. The U.S. Census Bureau estimates were a synthesis of data from the Current Population Survey (CPS) and the

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[1] The time period of 2 months was selected as a reasonable balancing point between minimization of bias (due to memory decay) and including a long enough period so that a variety of ads and a reasonable number of exposure opportunities could be included. Bias due to memory decay would be minimized by having a very short reference period such as the preceding day. However, such a reference period would likely produce a very unstable estimate of the exposure an individual respondent received typically. Results presented previously have established the 2-month reference period is working well (Hornik et al., 2001).

Table 2-B. Coverage rates by age

Age group	Wave 1 Coverage rate (%)	Wave 2 Coverage rate (%)	Wave 3 Coverage rate (%)
9 to 11	70	69	64
12 to 13	74	71	68
14 to 18	67	67	62

Decennial Census. The January 2000 CPS data were used to adjust Wave 1 and October 2000 data was used to adjust Wave 2. However, for Wave 3, the average of March 2001 and April 2001 CPS data was used for adjustment. In Wave 4, a regression line was used to "smooth" 12 months of CPS estimates and the regression-based point estimate for October 2001 was used to adjust the Wave 4 weights. For Wave 5, the regression estimates were updated to estimate the population at the midpoint of March and April of 2002. However, since the 2002 CPS data was available only for January at the time the estimate was made, the point estimate is an extrapolation of 3 months past actual available data.

The ordinary CPS totals could not be used in the adjustment because the CPS counts youth in dormitories as residing at their parents' homes, but this is not done in NSPY. In the synthesis, CPS estimates were adjusted to remove estimated counts of youth living in dormitories. These were created by a special tabulation of the 1990 Decennial Census PUMS (Public Use Microdata Samples) that counted youth in dormitories in April 1990. It should also be noted that the CPS is itself adjusted for undercoverage and also for undercoverage in the Decennial Census; in October 1994, the CPS coverage rate for youth aged 15 was 89.5 percent (Montaquila, et al., 1996).

2.2.4 Confidence Intervals and Data Suppression

Confidence intervals have been provided for every statistic in the Detail Tables. These intervals indicate the margin for error due to the fact that a sample was used to derive the survey-based estimates rather than a census. If the same general sampling procedures were repeated independently a large number of times and a statistic of interest and its confidence interval were recalculated on each of those independent samples, the "true" value of the statistic would be contained within 95 percent of the calculated confidence intervals.

The confidence intervals reflect the effects of sampling and of the adjustments that were made to the weights. They do not generally reflect measurement variance in the questionnaires. The intervals are calculated using variance estimates derived by replication techniques. In brief, subsamples of the full sample were identified and put through the same estimation techniques. The adjusted variation among the subsamples provides an estimate of the variance of the total sample. Details on how confidence intervals were calculated from variance estimates may be found in Appendix A.

Some estimates in the Detail Tables are suppressed. This was done when the reliability of a statistic was poor. Reliability was measured in terms of the sample size and the width of the confidence interval. Estimated proportions near 0 percent and 100 percent are more likely to be suppressed than other estimates, since it is difficult to estimate rare characteristics well. The exact criteria for this suppression are given in Appendix A.

2.2.5 Exposure Index and Imputation of Ad Recall

Because there were more ads being aired than could be reasonably shown to every survey respondent, a sample of ads was drawn as discussed above. Also as noted above, this was not a simple random sample of ads. Additional ads were selected and shown to African American respondents and bilingual respondents. In order to create a measure of ad recall that was consistent across race and language groups, the decision was made to impute recall for all ads that could have been shown to the respondent but were not. The imputation was based on drawing respondents from similar pools and transferring values in what is known colloquially as a hot-deck imputation. The donor pools were defined in terms of general recall of anti-drug advertisements (measured prior to showing any specific ads), cable subscription (yes/no), and the length of time the ad had been on the air prior to the interview. If the ad had not been aired at all within the 60 days preceding the interview, it was not included in the calculations. The imputation procedures are fully presented in Appendix E, Section E.3.3.

2.2.6 Future Waves of Data Collection

The NSPY is a two-phase design. During the first phase, the recruitment phase, eligible youth and parents are enrolled in the study and interviews are conducted. The recruitment phase (Waves 1 through 3) consisted of three national cross-sectional surveys lasting about 6 months each. During the second phase—the followup phase, Waves 4 through 7—parents and youth who participated in the recruitment phase are followed and, if determined eligible, are interviewed two additional times during the followup period. Wave 1 participants were reinterviewed for the first time in Wave 4 and will be reinterviewed again in Wave 6. Wave 2 and Wave 3 participants were reinterviewed during Wave 5 and will be reinterviewed again in Wave 7. Followup intervals can range from 6 to 24 months, depending on the participant's situation. In total, participants can be interviewed up to three times over the study period. Combining the initial data collection and followup phases, there will be seven 6-month waves from which national semiannual estimates are prepared. This report contains data from Waves 1 through 5.

2.3 Sample Description

This section presents the youth and parent sample sizes for Waves 1 through 4 and defines the characteristics (i.e., race/ethnicity, sensation seeking, risk score, past marijuana usage, and dyads) of the samples.

2.3.1 Youth

Detail Table 2-1 shows the sample size in Waves 1 through 5 for youth by age and other characteristics. The total Wave 1 sample size of 3,299 youth is nearly evenly split among the three targeted age groups. The Wave 2 sample size of 2,362 is larger in both the 14 to 18 age group and the 9 to 11 age group. The sample size is deliberately slightly larger for the youth aged 14 to 18 because larger design effects were anticipated for this age domain. The Wave 3 sample size of 2,458 is larger in the 9 to 11 age group but about even for the other two age groups. For Wave 4, which is the first followup of Wave 1 respondents, the total number of youth is 2,477 but the age groups are distributed differently from the other waves because of the aging of the Wave 1 sample. In Waves 1 through 3,

the 14- to 18-year-olds had been slightly over 50 percent of the sample whereas in Wave 4, 1,391 of the 2,477 youth were in the 14 to 18 age range, which represents 56 percent of the Wave 4 sample. Many of the tables also show estimates for youth aged 14 to 15 and for youth aged 16 to 18. These are much less reliable than the other age breaks since the sample sizes are only 551 and 609 for Wave 1, 394 and 387 for Wave 2, 376 and 380 for Wave 3, 806 and 585 for Wave 4, and 1,009 and 854 for Wave 5. Thus, when the sample is broken down by an additional demographic such as gender, separate detail for the finer age breaks is never shown.

The estimated number of eligible 12- to 18-year-old youth in the nation was 27.7 million during Wave 4 and 27.9 million during Wave 5. As mentioned above, this excludes youth in institutions, group homes, and dormitories, as well as other types of group housing. The confidence interval around this estimate is narrow because of the adjustments used to force the estimate to agree with census information. Table 2-1 also shows breakdowns of the sample and the population by gender, race/ethnicity, region, urbanicity, and sensation seeking. Further, for youth aged 12 to 13 and 14 to 18, there are breakdowns by past marijuana usage. Some of these breakdowns require some elaboration.

2.3.2 Race/Ethnicity

The categories used in all tables are White, African American, and Hispanic. These are short labels for more complex concepts. White means White but not Hispanic. African American also excludes Hispanics. Race and ethnicity were asked as two separate questions. For older youth, aged 12 to 18, self-reported race and ethnicity were typically used. For children aged 9 to 11, race and ethnicity reported by the screener respondent were typically used. In both cases, respondents were first allowed to choose multiple races from the standard list of five races:

- White

- African American

- Asian

- Native Hawaiian or other Pacific Islander

- American Indian or Alaska Native.

For those who chose more than one category, there was a followup question to pick just one. For those who could not pick just one, interviewer observation was used. Separate detail is not shown in any of the tables for the last three categories because of the low reliability associated with small sample sizes. The total number of interviewed youth who are Asian, Native Hawaiian, other Pacific Islander, American Indian, or Alaska Native was just 115 for Wave 1, with about 38 per age range. For Wave 2 the total was 93 youth and for Wave 3 the total was again 115. Within age ranges there were about 30 for each age range for Wave 2 and from 30 to 44 in the age ranges for Wave 3. In Wave 4, the total dropped to 89 out of the 115 present in Wave 1 because 26 of these aged out of the sample. In Wave 5, the total of 208 from Wave 2 and Wave 3 dropped to 133. However, there are some respondents in every age group, and their responses are used in the overall estimates.

2.3.3 Sensation Seeking

Sensation seeking is a biologically based trait "based on the idea that persons differ reliably in their preferences for or aversions to stimuli or experiences with high-arousal potential" (Zuckerman, 1988, p. 174). Individuals who are high in the need for sensation desire complex and stimulating experiences and are willing to take risks to obtain them. This drive for novel, complex, and intense sensations and experiences is satisfied by a willingness to take more social risks (e.g., impulsive behaviors, sexual promiscuity), physical risks (e.g., skydiving, bungee jumping, driving fast), legal risks (e.g., getting arrested and put in jail), and financial risks (e.g., paying fines, impulsive purchases) (Zuckerman, 1979, 1994).

Several studies show that the variation in sensation seeking predicts behavioral differences, especially illicit drug use. High sensation seekers are more likely to begin experimenting and using drugs earlier than low sensation seekers, as well as use higher levels of a variety of different drugs (Donohew, 1988, 1990). High sensation seekers in junior high are four times as likely as low sensation seekers to use marijuana; in senior high, high sensation seekers were three times more likely to use marijuana than low sensation seekers (Donohew, 1988).

Sensation seeking among middle and high school students is generally measured using a 20-item scale developed specifically for adolescents (Stephenson, 1999; Zuckerman, 1979, 1994). More recent evidence suggests that an 8-item scale from the original 20 items has levels of reliability and validity sufficient to replace the 20-item scale (Hoyle, Stephenson, Palmgreen, Lorch, and Donohew, 2000). In a personal communication, Dr. Philip Palmgreen reports a comparison between the eight-item scale and a reduced four-item scale on a sample of 6,529 seventh through twelfth graders surveyed by the Partnership for a Drug Free America in 1999. The eight-item scale had an internal reliability of 0.85, while the four-item scale was reduced only slightly to 0.81. The two correlated at 0.94. Although the evidence of these two studies is unpublished, it suggests that the four-item sensation-seeking scale is both a valid and reliable predictor of drug use and intention in middle and high school years. In the current national sample of 9- to 18-year-olds, the internal reliability estimate for the four item scale is .78.

This reduced series of four questions on sensation seeking were asked in the youth interviews. Respondents were asked to rank their agreement on a scale of 1 to 5 with the following statements:

a.   I would like to explore strange places.

b.   I like to do frightening things.

c.   I like new and exciting experiences, even if I have to break the rules.

d.   I prefer friends who are exciting and unpredictable.

Those with an average response greater than 2.5 were classified as being high sensation seekers. This was the overall median score on the four items. Given a fixed cutoff that does not vary by age or sex, one would expect the prevalence of high sensation seekers to be greater among males than females and to increase with age. This is also the pattern observed. It was decided to use a single threshold to facilitate comparisons across groups and time.

2.3.4 Risk Score

A scale of risk of marijuana use was developed with the Wave 4 report. The risk score was an empirically-derived scale that predicts the risk of using marijuana derived from a number of youth and parent risk factors. It classifies youth into two risk categories—higher and lower risk. The rationale for creating the risk-based subgroups is similar to the subgroups developed using the sensation-seeking score. The risk score scale incorporates the sensation-seeking measure along with a number of other youth and parent risk factors. It can be argued that exposure to the Campaign may affect the higher risk groups differently from the lower risk groups. The role of the risk categories in moderating the relationship between exposure and outcomes is examined in this report.

A large number of measures were considered candidates for inclusion in the risk score. However, only those variables that were empirically predictive of marijuana use were actually included in the score and weighted according to their observed association, controlling for other variables. The measures that were included in the final risk score include:

- **Youth covariates**

  - Age (12-18)

  - Sensation seeking (high versus low)

  - Started smoking 12+ months ago

  - Started drinking 12+ months ago

  - Urbanicity 1 (urban versus rural)

  - Urbanicity 2 (suburban versus rural)

- **Parent covariates**

  - Marijuana use in past 5 years

  - Cigarette use in past month

  - Had no drink in past month

  - Attendance at religious services

  - Rating of importance of religion

  - Shares parenting with other adult in household

Further details of the methodology used to develop the risk score are discussed in Chapter 4.

2.3.5 Past Marijuana Use

Youth were divided into four categories of marijuana usage, only two of which are shown in most tables. The nonusers include youth who have never tried marijuana. The occasional users are youth who have used marijuana 1 to 9 times in the past 12 months. Youth who have used more frequently

in the past year are classified as regular users and youth who have tried marijuana but not smoked it in the last 12 months are called former users. There were too few former users and regular users for these categories to be used as separate subgroups for analysis in tables.

2.3.6 Parents

Detail Table 2-2 shows sample sizes for parents, weighted population estimates, and confidence intervals on the population estimates. Using NSPY definitions and procedures, there were about 33.3 million parents of youth aged 12 to 18 in the United States during Wave 4 and about 33.5 million parents during Wave 5. As mentioned above, the NSPY definition of parent excludes noncustodial parents but does include stepparents, foster parents, and even nonparental caregivers if no parent lived with sample youth. The NSPY definition also excludes parents whose children live in group facilities and dormitories.

In addition to the breakdown of race/ethnicity used in the youth tables, there are breakdowns by parental gender, parental education, and age of children. In the NSPY definition, about 38 percent of "interviewed parents" were male for Wave 1, about 44 percent of "interviewed parents" were male for Wave 2, and about 40 percent of "interviewed parents" were male for Wave 3. For Wave 4, which is a followup of Wave 1, 37 percent of the interviewed parents were male. For Wave 5, which is a followup of Wave 2 and Wave 3, 35 percent of the interviewed parents were male. The sample sizes by age of children add to more than the total sample size since a parent with multiple children will be counted in each applicable row.

2.3.7 Dyads

Detail Table 2-3 shows sample sizes for dyads, weighted population estimates, and confidence intervals on the population estimates. A dyad is defined to be the combination of a youth and a parent for that youth. The sample size is smaller for dyads than for all youth because for dyad analysis, it was required that both the youth and his or her parent respond to NSPY. For dyad statistics, the rows are defined in terms of the characteristics of the youth. For youth with two parents, the confidence intervals reflect the assumption that both parents would have given the identical response about the youth. The only parent variables that are used in dyad tabulations are those that are specifically about the sample youth.

2.4 Potential Analysis Modes

In order to gauge the impact of the National Youth Anti-Drug Media Campaign on (1) awareness, (2) attitudes, and (3) behavior, the evaluation team has to answer three types of questions:

- Is the Media Campaign reaching its target audiences?

- Is there desirable change in the outcomes addressed by the Media Campaign, in drug use behavior, and in the beliefs and attitudes that underpin that use?

- How much of the observed changes in outcomes can we attribute to the Media Campaign?

Section 2.4.1 explains some of the approaches we will use to answer each of those questions.

2.4.1   Measuring Exposure to the Media Campaign

The Media Campaign has and will continue to publish information about how much media time it has purchased. More specifically, for each audience of youth or parents, information is available on the proportion that would have been in the audience for each ad and all ads. These data are summarized as gross ratings points (GRPs), which are the customary unit for measuring exposure to ads within the advertising industry. A fuller explanation for GRP is presented on page 3-1 of Chapter 3. The evaluation team's task with regard to exposure is to measure the extent to which placement of the ads and other Media Campaign communication efforts broke through into the minds of the audience—that is, are audiences aware of the Media Campaign and is awareness increasing over time? Can target audiences recall the ONDCP-sponsored ads and other messages that were shown? Audience awareness is being assessed in two ways:

■   A set of general questions is asked about advertising recall for each medium: radio and television, print, movie theaters, outdoor advertising, and Internet. Each respondent is asked whether and how often he or she recalls seeing anti-drug messages from each source.[2] These measures may be reasonably interpreted as providing a general sense of level of exposure, rather than a precise measure of recent exposure. They ask respondents to summarize a lot of viewing or listening or reading experience and express it in a single number. They are based on a question used consistently in the Monitoring the Future study.

■   To improve the precision of the exposure measurement, a second major approach to exposure measurement, the recall of specific Campaign ads, is used. Thus far, radio and television advertising represent the largest part of the advertising effort. Focus is on those channels for this next type of measure. Through the use of Westat's Audio Computer-Assisted Self-Interview (ACASI) format, each respondent is shown Media Campaign television and radio ads at full length on a laptop computer brought to the respondent's home by a member of Westat's field interviewing workforce. (See Section 2.2 for a description of the NSPY.) The ads shown are all ads that have been broadcast nationally in the previous 2 months, according to the Media Campaign. For each respondent, a subsample of the Media Campaign's recent and ongoing ads (four television and two radio) is shown. Parent-targeted ads are played for parents and youth-targeted ads for youth. Ad samples for African American and bilingual (English/Spanish) respondents are also selected to permit separate evaluations of ads targeted toward these special populations. Each respondent is asked to tell whether they have ever seen the ad, how often they had seen the ad recently, and their assessment of the ad.[3]

It is possible that respondents might report that they have seen an ad even though they had not, because they forgot or because they want to be agreeable. If so, and all claims were taken at face value, exposure might be overestimated. Therefore, each respondent is asked whether he or she has seen a television ad that has, in fact, never been broadcast. This provides a benchmark to assess true exposure.

In addition, the evaluation team recognizes that while the Media Campaign is spending much of its budget buying media time, it also seeks to enhance the extent to which anti-drug communication is on the air, more generally. The Media Campaign is working with national and local organizations; it is working with corporate partners; it is making efforts to disseminate information through mass media outreach and other public relations efforts. To try and capture the extent to which target audiences are

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[2] See, for example, question D10 in the teen questionnaire. All the NSPY questionnaires can be found on the NIDA web site.

[3] See, for example, question D17 of the teen questionnaire.

aware of these efforts, a series of measures that can detect change in these more general aspects of the public communication environment were developed. Questions asked include the frequency of exposure to drug-related stories in a variety of media channels; the extent to which respondents have heard public discussion of several drug issues; and the amount of talk within families and among friends about drug issues. For all of these measures the evaluation team will examine whether the intensity of Media Campaign efforts are translating into changes in the perceived public communication environment about drugs. The evaluation design will likely not permit separate attribution of effects on parent and youth outcomes to the operation of these components of the Campaign. However, it will be possible to examine whether these efforts are associated with increases in the "buzz" about drug-related issues.

2.4.2 Measuring Changes in Attitudes and Behaviors

The second evaluation question addressed is whether observed outcomes are moving in the right direction. Models were developed based on existing theories of health behavior change and of communication effects. These suggest how the Media Campaign might work, if it were successful. They have determined what measures were incorporated into the survey questionnaires. The outcomes being measured capture quite a range of objectives for this Campaign:

■ **Behavior:** Trial and regular use of marijuana and of inhalants, primarily, with some additional measurement of alcohol and tobacco use; behaviors of parents—particularly parent-child discussions about drug use and parent monitoring of and engagement with their children's lives; and past behavior and intentions to engage in these behaviors in the near future.

■ **Attitudes and beliefs:** Beliefs and attitudes that research has shown to be closely related to these behaviors. For example, with regard to youth drug use, beliefs about the health consequences, the mental functioning consequences, and the performance consequences of drug use are measured.

■ **Social pressures:** Perceived social pressures to engage in these behaviors, for example, to use or not use drugs—what peers are doing, what confidence respondents have in their ability to resist drug use, what parents and friends would say about drug use.

In the first semiannual report (Hornik, et al., 2000), the evaluation team provided estimates of the simultaneous association of cognitions and behavior, while controlling statistically for the effects of confounding variables. In the second semiannual report, the team presented estimates of change in cognitions and behaviors between the first and second halves of 2000 and provided estimates of the association of Campaign exposure with these outcomes. In the third semiannual report, the change analysis was extended through the three initial waves of data collection, focusing on the difference between data collected largely during the first half of 2000 and data collected during the first half of 2001. Analysis of association between exposure and outcomes was done for youth and parents interviewed in all three waves. The fourth semi-annual report was the first permitting examination of longitudinal effects using the Wave 1 sample followed up at 18 months. The current report includes followup data on all parents and youth interviewed in Waves 1, 2, and 3, and reports in more detail on delayed-effects of Campaign exposure on cognitive and behavioral outcomes.

2.4.3 Attributing Observed Changes in Attitudes and Behavior to the Media Campaign

This is the most difficult task confronting the evaluation—making a clear case for or against the influence of exposure to the Media Campaign on observed attitudes, intentions, and behaviors, both overall and for particular subpopulations of interest. The approach is outlined below.

In this report, as in the third and fourth semiannual report, the combined data from all waves are used to measure the association of exposure with outcomes. For example, are youth who report heavy exposure to Campaign messages more likely to have desirable beliefs about the negative physical consequences of marijuana than do youth who report less exposure? A sophisticated statistical technique called "propensity scoring" is used to reduce the risk that observed differences are the result of the influence of confounding variables rather than the result of the effects of exposure on outcomes. Findings from these analyses are given in Chapter 5 for youth and Chapter 6 for parents.

The present report includes several new features intended to increase the capacity of the analysis to detect campaign effects:

- For the first time, data were examined to determine whether the evidence for effects differs according to the year of measurement, whether youth exposed to the campaign in 2000 showed a different pattern of associations of exposure and outcome than those interviewed in 2001 or in the first half of 2002. Also examined was the dependence of effects on the child's risk of taking up marijuana and on other characteristics of the youth or his/her parents including age, gender, race/ethnicity, and level of sensation seeking. Evidence for diversity in effects is presented along with the overall results in Chapters 5 and 6, for youth and parents respectively.

- The cross-sectional causal analyses are supplemented with longitudinal causal analyses. The same national sample of youth and their parents is being followed for 2 or 3 years. This permits the examination of whether a young person who reported high versus low exposure when first interviewed progressed at a different rate on drug-related beliefs and practices in subsequent waves. Compared to the relatively more simple cross-sectional analysis, this longitudinal analysis capability improves the ability to reject threats to causal claims related to omitted confounding variables. In addition, it will permit response to concerns about ambiguity of causal direction (i.e., that the cross-sectional association between exposure and beliefs is the result of beliefs affecting recall of exposure rather than exposure affecting beliefs). Among nonusers at Waves 1, 2, and 3 (about 80% of the population), Campaign effects on marijuana use as well as on cognitions will be examined.

- In the initial three Semi-Annual Reports (Hornik 2000; Hornik, May 2001; Hornik, October 2001), examination of exposure effects was confined to direct pathways (i.e., youth exposure on youth outcomes and parent exposure on parent outcomes). As illustrated in Figure 2D, alternate pathways are also feasible. In the Fourth Semi-Annual Report of Findings (Hornik, 2002) one of these alternative pathways was examined, specifically, the effects of parent exposure on youth behavior. As with direct effects, both cross-sectional and longitudinal relationships were analyzed. In this Fifth Semi-Annual Report, the examination is further extended to include the association of parent exposure with youth beliefs and attitudes, as well as with youth behavior and the other youth belief and attitude outcomes.

- The essential approach to longitudinal analysis is called delayed-effects analysis. In delayed-effects analysis, exposure as measured at the first round of measurement (Wave 1 or 2 or 3) is

used to predict the individual's score on the relevant outcome variable at the second round (Wave 4 or 5). To make sure that any observed delayed-effects associations are not due to the influence of other variables, potential confounding variables are statistically controlled through the use of the propensity score procedure. These controlled confounders include the scores on the outcome variables for each respondent at Round 1. Because the Round 2 measurement of outcomes is later than the Round 1 measures of exposure, it is possible to claim that any causal relationship between these two measures reflects the influence of exposure on the outcome and not vice-versa. This was not a claim that could be made from the cross-sectional analyses when both exposure and outcome were measured simultaneously. This delayed-effects association will capture both the delayed-effects of exposure at Round 1 on outcome if that effect did not emerge until after Round 1, as well as the effects of exposure at Round 1 that flow through exposure at Round 2 to outcome at Round 2.

■ As a supplement to these delayed-effects analyses, the report also shows the relationship between exposure at Round 2 and the change in the outcomes between Round 1 and Round 2. These are logically similar, but any inference from analysis is strengthened by replication across two approaches.

■ The delayed-effects analyses were conducted for direct effects on parents, direct effects on youth, and indirect effects on youth through parent exposure. As with the cross-sectional analyses, two measures of exposure were examined: general and recall-aided specific.

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3. Exposure to Anti-Drug Messages

This chapter focuses on exposure to both Media Campaign efforts and exposure to non-Campaign anti-drug efforts during the period from September 1999 to June 2002. First, the chapter discusses advertising placement activities of the Media Campaign. Next, it presents statistics regarding the level of ad recall among youth and parents, with some focus on people's recognition of specific television and radio ads from the Campaign. The third section provides assessments of the TV advertisements recognized by youth and parents, as they offer one way of gauging the population's judgment of prominent Media Campaign content. The fourth section discusses youth and parent exposure to other drug information, including encounters with drug information on the Internet, drug education classes, discussions about drugs, discussions about anti-drug ads, and perception of media and community attention to drug use. The last section presents a summary and conclusions. The major innovation in Wave 5 was the introduction of ads that linked terrorism and individual drug use (called Drugs and Terror ads). Throughout the chapter there is some focus on these ads, and there is a special discussion (Section 3.2.4) that provides evidence about their recalled exposure and their evaluation by youth and adult audiences, in comparison to other ads.

What are Gross Rating Points (GRPs)?

GRPs are the customary unit for measuring exposure to ads within the advertising industry. If 1 percent of the target population sees an ad one time, the ad earns one GRP. It is also quite typical to report GRPs on a weekly basis. So, 100 GRPs is equivalent to one weekly exposure to one ad for each person in the target population. In more common language, an ad that earns 100 GRPs in a week is projected to have been seen by the average person 1.0 times, and an ad that earned 250 GRPs would have been seen by the average person 2.5 times in that week. Exposure to multiple ads, or to ads available through multiple media, is calculated by summing the GRPs for each of the individual ads for each medium. GRP estimates are averages across the relevant population.

If 100 GRPs have been purchased for a week, that means that the average number of times that a random person saw or heard programs, billboards, newspapers, or magazines carrying the ad was 1.0. This does not mean that everyone saw the ad exactly once. It is quite possible that some saw it many times while others saw it rarely, but the average number of times for a random person is 1.0.

GRPs are estimated for each ad based on the projected audience for a particular medium and program. For example, based on television ratings data from Nielsen Media Research, the audience for a particular television program at a particular hour can be estimated. If an ad plays during that program, it is assigned the program's GRPs. For example, if 10 percent of the 12- to 17-year-old audience is estimated to be in the audience for program A from 8 to 9 p.m., then an ad played on that program earns 10 GRPs. Parallel projections of audience size are made for all media based on data from a variety of media monitoring companies, and GRP estimates are calculated accordingly. Clearly GRP estimates are accurate only to the degree that the estimates of audience size are accurate. Also, at best, GRPs capture availability of an audience. They do not guarantee that an audience member was actually paying attention to the ad.

3.1 Media Buying Reports

Based on Media Campaign reports of purchased time and space, it is estimated that the average youth was expected to be exposed to 2.5 youth-targeted ads per week and that the average parent was to be exposed to 2.2 parent-targeted ads per week, during the period from September 1999 through June 2002. (These estimates include Media Campaign advertisements intended for either general market youth or general market adults; they do not include exposure by youth or parents to advertisements intended for other audiences, often called "spill." They also do not include supplementary targeting efforts intended for special audiences; e.g., Spanish-speaking Hispanics, which are described later.)

Estimates of expected Campaign exposure for this report are derived from reports of media time purchased by Ogilvy on behalf of the Media Campaign for the 34-month period from September 1999 through June 2002. These estimates show that Ogilvy obtained a total of approximately 37,357 gross rating points (GRPs) for advertisements intended for general market youth and approximately 31,923 GRPs for advertisements intended for general market parents.[1] These totals translate into an average of 252 targeted GRPs for general market youth per week and 216 targeted GRPs for general market parents per week. In turn, such estimates are equivalent to 2.5 targeted ad exposures for general market youth and 2.2 targeted ad exposures per week for general market parents.

The youth campaign has described its goal as expecting to reach 90 percent of the youth audience four times per week, equivalent to 3.6 exposures per week for the entire population of youth. It is customary in reports for the advertising industry to report the proportion reached and the number of times the average person was reached as separate numbers. For example, rather than reporting that sufficient GRPs were purchased so the average youth would have 2.5 exposures per week, the standard format would have reported that there were enough GRPs purchased to reach 90 percent of the youths 2.78 (=2.5/9) times. This report does not follow this standard for three reasons. It is simpler to report the average for the entire population rather than constantly reporting both a reach and a frequency number; also the proportion of youth actually reporting some exposure is greater than 95 percent; finally, and of most importance, the expected population average based on 100 percent of youths is substantively appropriate. The congressionally-mandated audience for the Campaign is all youths, and all of the survey-based evidence, including drug use measures, is based on the entire population. It would be confusing and misleading to present the GRP data for 90 percent of the population, and all other measures for 100 percent of the population.

Table 3-A provides more detail about these estimates. The distribution of GRPs across various media reveals the predominance of particular media as sources of GRPs for each of the two audiences. Television and radio account for over 80 percent of GRPs for youth and 57 percent of GRPs for parents.

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[1] Ogilvy has provided the Evaluation team with detailed information about the media purchases made, organized by medium, by week, and for many media by the name of ad. The GRP data presented in this report are derived from that information, supplied as of July 2002. It should be recognized that these are not definitive buying information. Some of the information is based on postbroadcast confirmed buys, some of it on prebroadcast scheduled buys, and some on estimated buys. Also, there are survey errors of unreported magnitudes in the audience surveys, which serve as the basis for estimates of audience size, which in turn underpin GRP estimates.

Table 3-A. Targeted gross rating points (average per week and per medium)

	Youth GRPs	Percent of Youth	Parent GRPs	Percent of Parents
All media for 148 weeks (9/99 – 06/02)	37,357		31,923	
Television per week	134	53	63	29
Radio per week	68	27	60	28
Print per week	26	10	33	15
Outdoor per week	--	--	56	26
Other per week	24	10	4	2
All media per week	252	100	216	100

NOTE: The "other" category for youth includes advertising on basketball backboards, in movie theaters, on the Internet, and other activities such as postings of flyers; the "other" category for parents includes movie theaters and Internet.

- **The GRPs for both youth and parents increased during Wave 5 (January through June 2002), from the previous 6-month period, although more for youth than for parents.** The number of GRPs to which youth and parents were exposed has varied over the 34 months of Phase III of the Campaign. As depicted in Figure 3-A and Table 3-B, youth GRP exposure has shown upward and downward trends during the five waves of measurement (from September 1999 through June 2002). For Waves 1 through 3, youth GRPs were relatively high (265, 247, and 280 GRPs per week for Waves 1,2, and 3 respectively) and then decreased 20 percent from the average of the previous levels during Wave 4, to an average of 209 GRPs per week from July through December 2001. A return to higher youth GRP levels was seen during Wave 5, when GRPs increased to an average of 255 per week (2.6 exposures per week).

  Parent GRPs increased slightly during Wave 5 (Figure 3-B and Table 3-B), continuing the fluctuating pattern of the GRPs over the five waves. Parent GRPs per week had originally been high in Wave 1 (282), then sharply down in Wave 2 (144), up again in Wave 3 (230), back down in Wave 4 (194), and finally were up in Wave 5 (210). For both youth and parents, the Campaign has reported that these variations are consistent with planned media weight levels.

  In addition to the broad up and down patterns across waves, there is a good deal of variation across weeks within waves, particularly for parents. This variation in GRP exposure is due partly to ad flighting. Flighting involves running advertising only for specific periods of time, such as four 10- to 12-week periods, rather than running it continuously. GRPs are grouped into flights and run within behavioral messaging platforms to achieve Campaign communication goals. GRPs vary within flights depending on the goals for a particular platform, the total GRPs purchased for the time period, and the media mix used for each platform. Section 3.1.1 provides some additional information about the parent pattern, which makes this rise and fall appear to be less extreme.

- **The Campaign also reported additional Campaign-related exposure beyond the main general market efforts intended for youth and adults.** In addition to the estimated general market exposure reported above, youth and parents also might have been exposed to advertising intended for people other than themselves.

Figure 3-A. Weekly youth-targeted general market GRPs (September 1999 through June 2002)
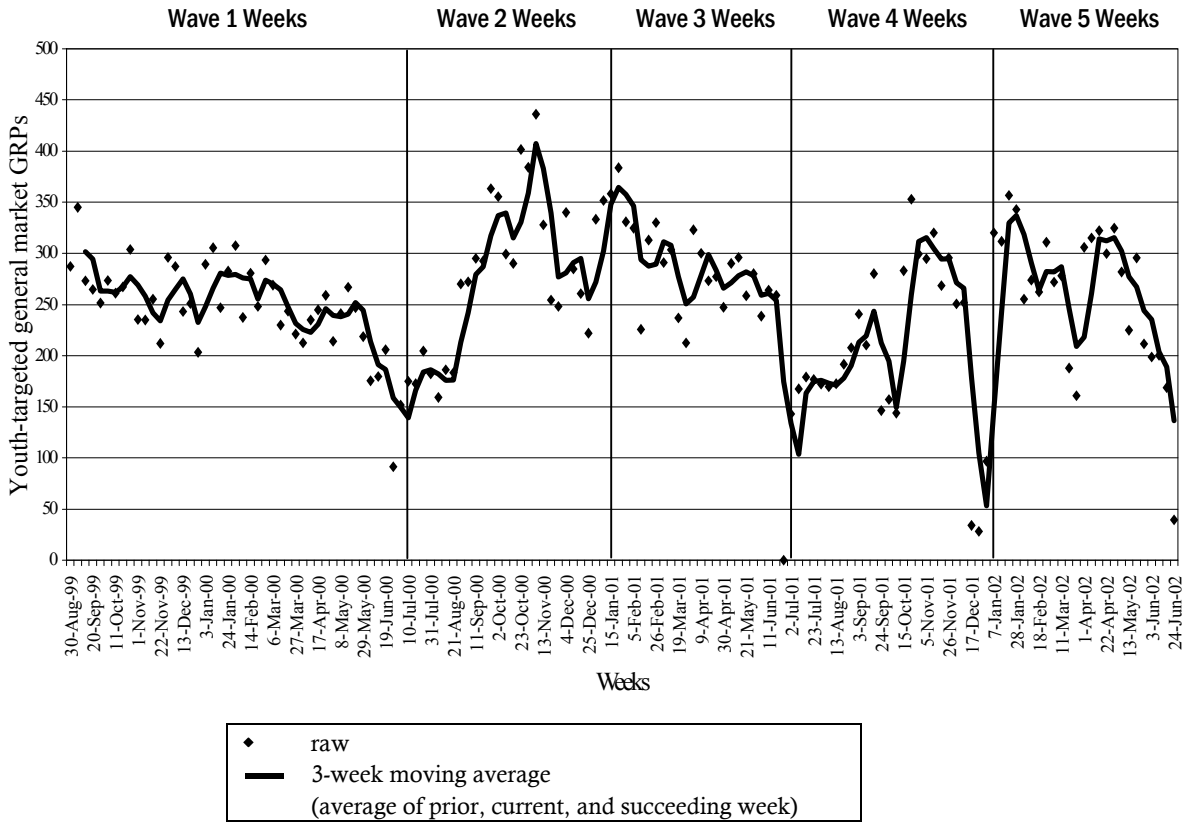
Figure 3-B. Weekly parent-targeted general market GRPs (September 1999 through June 2002)
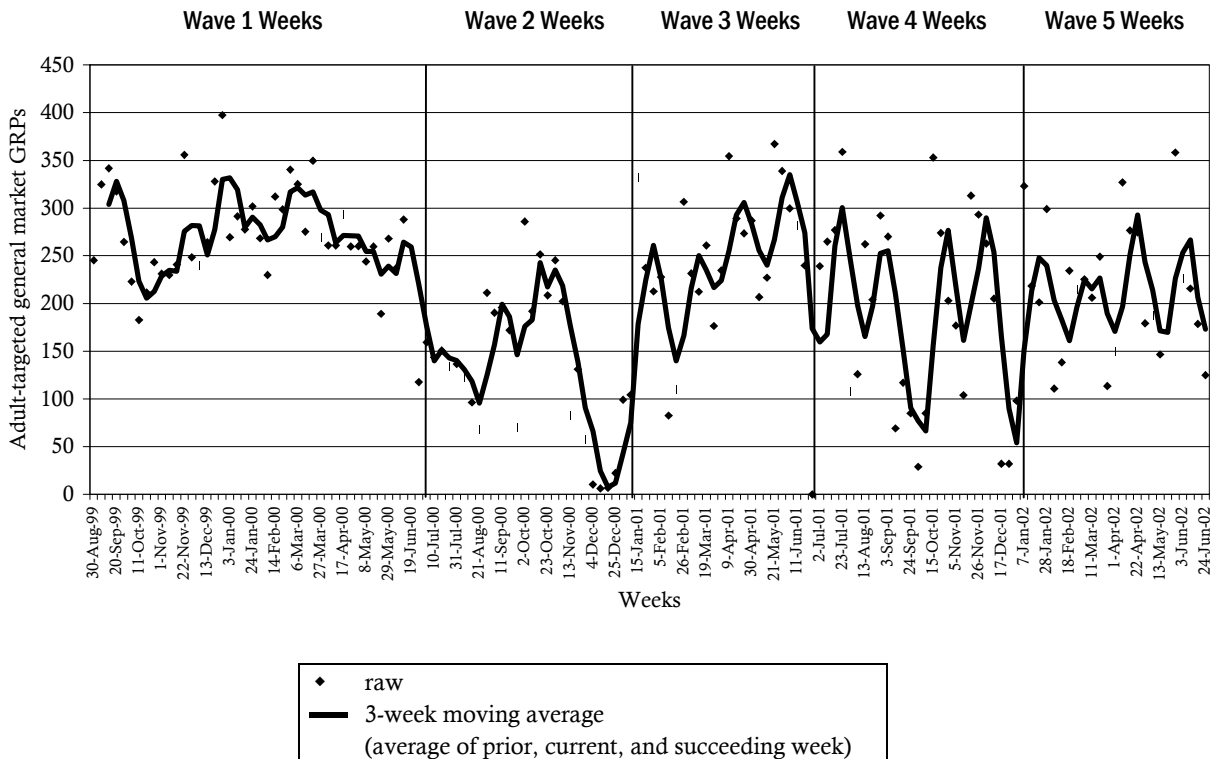
Table 3-B. Distribution of youth and parent average weekly GRPs across waves

	Wave 1 2000	Wave 2 2000	Wave 3 2001	Wave 4 2001	Wave 5 2002
Youth	265	247	280	209	255
Parents	282	144	230	194	210

Insofar as youth saw or heard an anti-drug advertisement intended for parents or vice versa, one could argue that the advertisement garnered exposure not only among its target audience but also that there was "spill" exposure generated among a secondary audience. Estimates of the potential amount of such spill are substantial. For the period of January 2002 to June 2002 (which overlaps with the period covered by this report), for example, youth GRP estimates would increase by approximately 34 percent,[2] if spill exposure to parent advertisements were added to the youth total for Wave 5. This is worth noting from the standpoint of general awareness of the Media Campaign's efforts. However, the Campaign has distinguished between youth and parent audiences and has developed explicit and distinct objectives and advertising efforts for each group. In doing so, they have assumed that the exposure to *particular* targeted messages, rather than to *any* anti-drug messages in general, is crucial. Therefore, much of this report focuses on expected and reported exposure to communication efforts specifically intended for, or targeted toward, each group. Wave 5 and the use of Drugs and Terror ads introduces a new circumstance to this analysis standard. The Media Campaign considers the Drugs and Terror ads as directed to both youth and parent audiences with the belief that the ads will be effective for both groups. Thus they are counted in GRP calculations for both groups. Some venues in which they have played are expected to reach more youth and some venues are expected to capture more parents, but if the other group is in the audience, their exposure is counted as well.

3.1.1 Distribution of Exposure

Reported GRP numbers are average estimates of exposure across the entire population for the specified group. It is possible that the same level of GRP performance can be achieved by producing many exposures for relatively few people or a few exposures for many people. For example, a media buying plan that bought four exposures per week for half of a population would achieve the same GRP level (200=4 x 0.50 x 100) as a media-buying plan that purchased two exposures per week for all of the population (200=2 x 1.00 x 100). This is why media buying strategies customarily are expressed in terms of both reach and frequency, or more broadly, in terms of the distribution of exposure, rather than just the average exposure.

NSPY provides direct estimates of the reach and frequency of ad viewing and hearing.[3] Before presenting those estimates, it is useful to look at the general viewership levels of each of the media in which advertising was bought. By doing so, GRPs can be classified as having been bought either on media with wide reach or on media with relatively less wide reach. One pattern that stands out across

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[2] According to a July 2002 Ogilvy estimate, youth GRPs for July 2001 through December 2001 were approximately 10,020 with spill exposure accounting for 3,394 GRPs.

[3] The Media Campaign provided data in a variety of formats. Most of the information used in this report exploits the information about weekly purchases of media time for specific ads and/or on specific media. In addition, the Campaign has supplied estimates for overall reach and frequency for an advertising platform across all media cumulatively for the weeks the platform was on the air. These estimates depend on complex assumptions about the probability of an individual who is exposed to a message on one medium being exposed to the message on a second medium. They are not presented in this report. The survey-based estimates reported in the remainder of this chapter present parallel information and describe the distribution of recalled exposure. Evidence for the validity of these measures was provided in previous reports (Appendix C, Second Semiannual Report).

both groups is the predominance of television and radio GRPs, particularly for youth. This section, except where noted, reports average data for the entire Phase III.

- **Television and radio GRPs composed the vast majority (over 80%) of total youth-targeted GRPs.**

    - While advertisements intended for youth were placed in a variety of media, most GRPs for youth-targeted ads were generated through television and radio media. Twenty-six percent of youth GRPs resulted from combined network and cable television placement, nearly 21 percent resulted from in-school television (largely through the Channel One program), and another 10 percent came from "spot" TV in about 100 metropolitan areas around the country. Approximately 21 percent of youth GRPs came from network and spot radio. (See Figure 3-C.)

    - About 60 percent of targeted youth GRPs were obtained in media with the potential for wide reach (network, cable and spot TV and network and spot radio), and about 40 percent in media with less wide reach. For instance, network radio (15% of the GRPs) and network and cable television[4] combined (26% of GRPs) have the potential to reach most of the population. With all TV and radio buys, nonetheless, the specific reach and frequency will depend strongly on the particular buys in terms of programs and times. Media with less wide reach among youth include in-school television (21% of youth GRPs mostly on Channel One), basketball backboards (4%), arcades (2%), and so-called nontraditional media, such as movie theaters and flyer postings (2%). In addition, the Campaign reports roughly 2 percent of youth-targeted GRPs arose from Internet efforts. Another media outlet used by the Media Campaign to a limited extent, magazines (12% of youth GRPs), also has considerably lower reach than television or radio.

**Figure 3-C. Targeted youth media placements by medium
(September 1999 through June 2002)**

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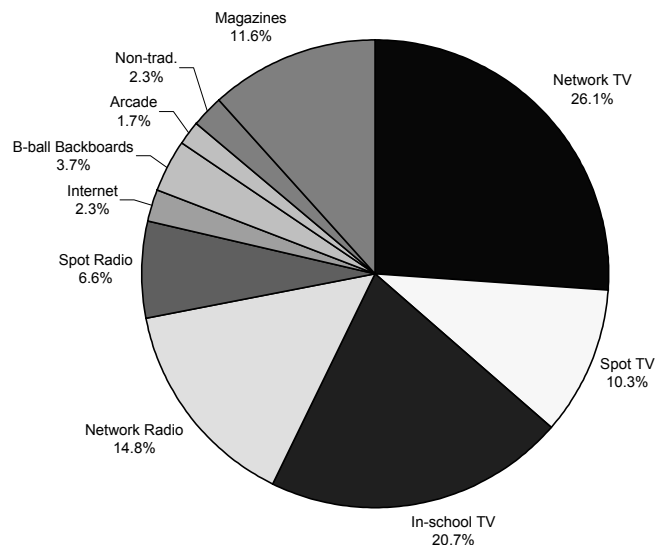
[4] The combination of network and cable television is referred to as network TV in presented graphs.

- **Television and radio represented the great majority of GRPs for youth and parents, though this was less the case for GRPs purchased for parents.**

  - While the Media Campaign purchased 134 targeted GRPs per week for youth on television, for example, it purchased only 63 such GRPs per week for adults on television. As can be seen in Figure 3-D, many of the general market adult GRPs came from media other than television or radio, or even print. In fact, over a quarter of all of the GRPs came from outdoor media (billboards, bus shelter placards, etc.). The Campaign purchased outdoor advertising intended for general market adults in 10 major media markets,[5] which collectively contain roughly a third of the U.S. population.

**Figure 3-D. Targeted adult media placements by medium
(September 1999 through June 2002)**
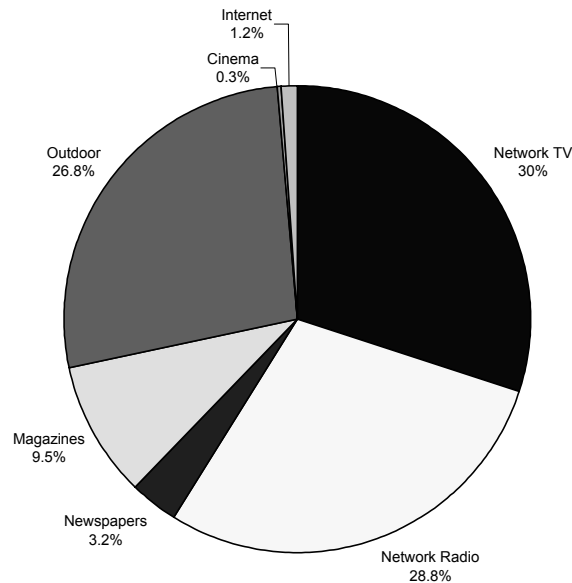
  - For adults, the overall balance across waves between wide-reach media and other media is somewhat similar to that of youth (Table 3-C). Almost 60 percent of the GRPs came from wide-reaching network TV (30% of GRPs) and network radio (29% of GRPs); with the remaining GRPs coming from media with less reach, including newspapers (3% of GRPs), magazines (10% of GRPs), outdoor media (27% of GRPs), cinema (0.3% of GRPs), and Internet (1.2% of GRPs).

- **The proportion of wide-reach and narrow-reach media used by the Campaign was stable for youth across waves. In contrast, for adults, that ratio varied sharply.** Table 3-C presents the proportion of GRPs purchased across waves according to whether they were purchased on wide- or narrow-reach media. For youth, wide-reach media make up around 60 percent of the purchased GRPs across all five waves. The cross-wave pattern for parents is quite different. Around 50 percent of all adult GRPs were on wider reach media for Waves 1, 3, and 5. But for Waves 2 and 4, although overall GRPs were down, a larger proportion (63% and 85% of GRPs respectively) were secured on wider reach media. Thus, even though the total adult GRPs declined in Waves 2 and 4, the GRPs on the wider reach media were actually higher during Waves 2 and 4. Thus, the proportion of the population likely to have been reached at some level would have been more stable than what was suggested by the overall GRP figures.

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[5] According to Ogilvy, those markets included New York, Chicago, Los Angeles, Philadelphia, San Francisco, Dallas/Ft. Worth, Atlanta, Boston, Detroit, and Washington, DC.

Table 3-C. GRPs per week purchased for youth and adults across waves, by reach of the media

Youth	Reach	Expected weekly exposures (% of all exposures)					
		Wave 1 2000	Wave 2 2000	Wave 3 2001	Wave 4 2001	Wave 5 (Jan-June 2002)	All Waves
	Wider reach media (Network, Cable, and Spot TV; Network and Spot Radio)	1.54 (59%)	1.59 (63%)	1.70 (61%)	1.30 (60%)	1.49 (57%)	1.51 (60%)
	Narrower reach media (Magazines, Movie Theaters, Internet, In-school TV, etc.)	1.05 (41%)	0.95 (37%)	1.1 (39%)	0.79 (40%)	1.12 (44%)	1.00 (40%)
	Total per week	2.59	2.54	2.80	2.09	2.61	2.51
Adults	Wider reach media (Network and Cable TV, Network Radio)	1.33 (48%)	.95 (63%)	1.06 (46%)	1.66 (85%)	1.14 (54%)	1.23 (58%)
	Narrower reach media (Newspapers, Magazines, Outdoor Media, Internet, Movie Theaters)	1.42 (52%)	0.57 (37%)	1.24 (54%)	0.28 (15%)	0.96 (46%)	0.89 (42%)
	Total per week	2.75	1.52	2.30	1.94	2.10	2.12

3.1.2   Distribution of General Market Ad Platforms

The Media Campaign strategy for both youth and adults has been to focus on a limited number of themes, or broad messages, called message platforms. Furthermore, the Campaign planned to focus much of the advertising during any particular period on one specific platform so that the message of that period received maximum exposure.

Tables 3-D and 3-E outline the major platforms for both general market audiences. Each ad that was broadcast was associated with a particular platform (or platforms) on the basis of the concepts it addressed. Tables 3-D and 3-E also list the names of television and radio Campaign ads airing during the period from September 1999 through June 2002, according to their respective platforms. Descriptions of the ads are provided in Appendix D. (It is worth noting that ads could represent more than one platform and a small number did so.)

For youth, for example, almost 50 percent of the general market television exposures (GRPs) emphasized Normative Education/Positive Alternatives, which involve the idea that most youth do not use drugs and/or that others expect the youth not to use drugs. This emphasis at least partially reflects the introduction (in late 2000 and early 2001) of a series of "What's Your Anti-Drug?" spots, as part of the launch of the branding effort, that stressed the number and variety of youth who do not use drugs (along with their favorite alternative behaviors). From the standpoint of the Campaign, all of these ads fit into the Normative Education/Positive Alternatives platform. Discussion of Resistance Skills (e.g., how to refuse drug offers) received approximately 22 percent of the GRPs, while Negative Consequences received approximately 34 percent of the GRPs each. The pattern is similar for radio platforms. Until Wave 5, the Negative Consequences ads focused on physical or mental health or schooling outcomes of drug use. Beginning in Wave 5, the Negative Consequences platform includes the Campaign's new Drugs and Terror ads. These Drugs and Terror ads, part of a change in Campaign strategy as described in Chapter 1, were initiated during the Super Bowl of 2002, about 2 weeks into Wave 5. Their relative importance is much clearer in Table 3-F, which presents the changes in platform emphases over time.

Table 3-D. Distribution of youth message platforms on general market TV and radio

Advertising platform	Percentage of television GRPs[1]	Ads in this platform during NSPY Waves 1, 2, 3, 4, and 5[2]	Percentage of radio GRPs[1]	Ads in this platform during NSPY Waves 1, 2, 3, 4, and 5[2]
Negative Consequences	34.2		24.9	
(Drugs and Terror ads)	4.8	AK-47, I Helped, Sophie, Timmy	0.0	
(Other Negative Consequences ads)	29.4	Two Brothers[3], Hockey, Mother/Daughter, No Skill, Vision Warrior, Brain, Hello[3], Water	24.9	Two Brothers, Make You Think, Stressed, Brother Jeff, If Pot Were a Person, Money, The First Time, The Rant, Hello, Train
Normative Education/ Positive Alternatives	48.7	Mary J. Blige[3], Drugs Kill Dreams (Williams Sisters)[3], Andy MacDonald, Scatman[3], Dixie Chicks, DJ, Family, Football, Friends, Icon, Love, Most Teens, Swimming, Tara Lipinski, U.S. Women's Soccer Team, Dance, Music, Famous, Drawing, Music-Mix Tapes, Being Myself/My Future, Tiki Barber[3], Derrick Brooks, Allan Houston, Apolo[3], Boxing, Chad[3], Rosey[3]	43.9	Mary J. Blige, Drugs Kill Dreams, Scatman, What's Yours, What's Yours- Urban, Margot, Alberto, Basketball, Cross-Country, Limericks, What's Yours, What's Yours-Urban, Rosey, Chad, Apolo, Tiki Barber
Resistance Skills	21.9	Drugs Kill Dreams[3], How to Say No, No Thanks, Michael Johnson, It's OK to Pass, What I Need	21.7	Drugs Kill Dreams, Excuses, Orientation, What to Say- Boy, What to Say- Girl, Moment of Truth
Other	2.8	Ads not associated with the major platforms include Lauryn Hill, Layla, I'm Free, Miss America, and others	9.5	Ads not associated with major platforms

[1] Some ads were counted in more than one platform, so percentages sum to more than 100 percent.

[2] This table describes general market platform distribution. The Campaign also produced some advertisements exclusively for special audiences, such as Spanish-language ads for Hispanics. TV ads exclusively intended for Hispanics included Fast Food, Second Trip, You Know How to Say It, Natural High, My World, Music, and Test. Such radio ads included Laugh, Weekend, Boy Meets Girl, Typical Story, She Did It, Good Advice, What Happened, and The First Time.

[3] On both television and radio.

Table 3-E. Distribution of parent message platforms on general market TV and radio

Advertising platform	Proportion of television GRPs	Ads that were in this platform during NSPY Waves 1, 2, 3, 4 and 5 [1]	Proportion of radio GRPs	Ads that were in this platform during NSPY Waves 1, 2, 3, 4 and 5[1]
Parenting Skills/Personal Efficacy/ Monitoring	71.9	Clinic, Phone, Office, E-mail, TV, Instructions ads (Stay Involved and Praise and Reward), Smoke, Keep Trying, My Hero[2], My Hero-African American, Thanks[2] O'Connor, Anyway You Can, Kitchen, Ananda, Gene, Kid, Party, Loss	74.3	Tree Fort, Cooking Dinner, Basketball, Keep Trying, Desperate, My Hero, Thanks, I Know My Kid, Gene, Party, Kid
Your Child at Risk	8.6	Pipe[2], Roach, Weed, Drugs, Clip[2], Pot, Bag[2]	9.9	Pipe, Clip, Grass, Bag, Alert-Dad, Alert-Mom
Perceptions of Harm	12.2	Symptoms, Under Your Nose, Funeral, Deal, Clinic, Needle/Spray Can[2]	15.1	Happy Birthday Steven, Kathy Abel, Symptoms Sooner/Later-David, Sooner/Later-Megan
Other	<1	Ads not associated with the major platforms: Car, Derrick Brooks	<1	Ads unidentified in GRP reports.
Drugs and Terror Ads[3]	7.1	AK47, I Helped, Sophie, Timmy	0.0	

[1] This table describes general market platform distribution. The Campaign also produced some advertisements exclusively for special audiences, such as Spanish-language ads for Hispanics. TV ads exclusively included for Hispanics included Mirrors, Heroes: Alert, Shadow Brochure, Shadow Monitoring, Heroes: Dancing, Heroes: Swimming, Game Show, and Natural High. Such radio ads included Sharing (Pepperoni), Shadow, and Game Show.

[2] On both television and radio.

3 These ads constitute unique messages, not a new platform as the messages fall under more than one platform.

For parents, the major emphases have been on Parenting Skills, including monitoring, and on boosting Personal Efficacy to intervene (74%), with secondary emphases on the idea that Your Child Is at Risk of drug use (9%) and on the Perceptions of Harm resulting from drug use (12%). In addition, the new Drugs and Terror messages, received 7 percent of the total parent GRPs since the start of Phase III of the Campaign, but, as will be noted below, about one-fifth of the GRPs in Wave 5. As with youth, a similar pattern was seen regarding radio platforms.

■ The Campaign emphasis on different platforms varied sharply across waves for both youth and parents. Tables 3-F and 3-G present the proportion of television and radio GRPs that were dedicated to each of the major platforms across the five waves for youth and parents, respectively. For youth, the Wave 1 division across three platforms gave way to a focus on Normative Education/Positive Alternatives for Wave 2. In Wave 3, there was a division of ads between Normative Education/Positive Alternatives and Resistance Skills, and Negative Consequences messages had largely disappeared. However, in Waves 4 and 5, Negative Consequences were the focus of the majority of the ads. Normative Education/Positive Alternatives were also highlighted during these waves, but there was little attention to Resistance Skills (Table 3-F).

For parents, there was also substantial variation in platform emphasis across waves (Table 3-G). Ads stressing the Perceptions of Harm platform were seen only in Waves 1 and 3. The Your Child at Risk ad platform took a substantial portion of the GRPs only in Wave 1. The Parenting Skills/Personal Efficacy/Monitoring platform has been strongly present across all five waves, and accounted for almost all of the GRPs during Waves 2 and 4. During Wave 5, Parenting Skills/Personal

Efficacy/Monitoring ads continued to receive a majority of the GRPs, but less so due to the introduction of the Drugs and Terror ads, which received approximately a fifth of the total GRPs.

Table 3-F. GRPs per week purchased for specific youth platforms across waves (TV and radio)

Platform	Wave 1 2000	Wave 2 2000	Wave 3 2001	Wave 4 2001	Wave 5 (Jan-June 2002)
Negative Consequences	30.9%	16.4%	0.0%	60.2%	63.2%
(Drugs and Terror)	0.0%	0.0%	0.0%	0.0%	19.0%
(Other Negative Consequences)	30.9%	16.4%	0.0%	60.2%	44.2%
Normative Education/Positive Alternatives	50.2%	70.3%	46.0%	35.6%	36.7%
Resistance Skills	41.3%	3.0%	51.5%	3.0%	0.0%
Other	2.8%	10.3%	3.3%	1.2%	0.5%

NOTE: For youth, some ads fell into more than one platform (e.g., negative consequences and resistance skills). However, the denominator is the actual total, which permits the percentages by category to total more than 100 percent. This differs from previous reports where the denominator for these analyses was the total GRPs purchased, inflated by including GRPs that fell into more than one platform multiple times (e.g., if an ad were in both negative consequences and resistance skills it would go into the total twice). The present method is more appropriate. Because adult ads never overlapped in category, the adult table is unaffected.

Table 3-G. GRPs per week purchased for specific parent platforms across waves (TV and radio)

Platform	Wave 1 2000	Wave 2 2000	Wave 3 2001	Wave 4 2001	Wave 5 (Jan-June 2002)
Parenting Skills/Personal Efficacy/Monitoring	54.2%	98.8%	48.6%	91.2%	77.1%
Your Child at Risk	31.0%	1.0%	0.0%	0.0%	0.0%
Perceptions of Harm	13.6%	<0.1%	51.4%	7.8%	0.0%
Other	1.2%	<0.1%	0.0%	1.0%	<0.1%
Drugs and Terror Ads[1]	0.0%	0.0%	0.0%	0.0%	22.9%

[1] These ads constitute unique messages, not a new platform as the messages fall under more than one platform.

3.1.3 GRPs Purchased for Minority Audiences

The Media Campaign also reported additional efforts to reach specific populations with advertisements developed and intended specifically for those groups, such as Spanish-language ads for Hispanics attending to Spanish media programming. Table 3-H describes each of these efforts. There are two ways these advertising efforts can affect exposure. They can add to the overall exposure for the general population and they can add to the specific exposure among the target populations. These are considered separately. These extra GRPs do not add a great deal to the overall level of GRP exposure. Table 3-H illustrates the relatively small contribution to overall general market GRPs that these efforts would contribute if they were combined. The first row reflects the average weekly GRPs reported exclusively for each group. One hundred GRPs for Hispanics, for example, could reflect a one-time reach of all U.S. Hispanics. Those totals then can be viewed in terms of their potential contribution to the general population's Campaign experience.

Table 3-H. Estimated additional Wave 5 GRPs generated exclusively to reach specific groups

	African American youth	African American adults	Hispanic youth	Hispanic adults	Residents of Puerto Rico (youth)	Residents of Puerto Rico (adults)
Weekly within-group GRPs for targeted efforts	82.8	27.2	17.0	95.7	154.6	28.6
Percentage of U.S. population for age group	16%[1]	13%[1]	15%[1]	14%[1]	1%[2]	1%[2]
Additional general population GRPs per week for Wave 5	12.7	3.4	2.5	12.9	1.5	0.29
Percentage additional weekly general population Wave 5 GRPs	5%	2%	1%	6%	<1%	<1%

[1] From NSPY. Percentages reflect percent of total U.S. 9- to 18-year-old youth or of total U.S. parents.

[2] From U.S. Census (*www.census.gov*, accessed February 9, 2001). Same percentage used for youth and adults.

The numbers presented in Table 3-H reflect the approximate number of additional age group-specific GRPs that the general population could have been exposed to as a result of the special targeting efforts during Wave 5. For African American youth, for example, roughly 83 GRPs were obtained for targeted efforts among that population in an average week. Given that African American youth constitute approximately 16 percent of the U.S. population of 9- to 18-year-olds, these targeted efforts would contribute an additional estimated 13 GRPs (i.e., 83 x 0.16) to the average U.S. youth's communication experience. This addition reflects only a 5 percentage point increase over and above the general market GRPs obtained for U.S. youth, which, while noteworthy, does not alter the larger picture of GRP distribution substantially.

Data to assess the add-on effect of these extra GRPs for the specific target population are not available to the evaluators. If the respective audiences had received a full dose of the general market advertising and then received this focused advertising as an add-on, this would be a major addition. However, this is an unlikely result for primary Spanish language speakers. The Spanish language advertising is designed, presumably, to make up for the fact that English language advertising is inaccessible to primary Spanish language speakers. It might be that the GRPs for the Hispanic audience represent a large portion of the Campaign GRPs for primary Spanish speakers, including many Puerto Rican residents, rather than being an add-on. (The evaluation does not address effects of the Campaign in Puerto Rico.)

For African American audiences and Hispanic bilinguals, the issue is less clear. However, these two groups and general market audiences have different media use patterns. Presumably, the general market media buys reflect media use across the entire population. Then it might be expected that African American and Hispanic bilingual audiences would be either less or more exposed, on average, to the general market materials than would the general market audience. Thus, the buys reflected in Table 3-H, even for the African American audience, are in unknown portions an add-on to and a make-up for reduced access under the general market media buy. However, as will be shown below, there is consistent evidence that Hispanic and African American audiences do report higher total exposure to most Campaign media. This may reflect either an advantage with regard to general market exposures or add-on effects of targeted exposures.

3.1.4   Inhalant and Ecstasy GRPs

In previous waves, the Media Campaign made some efforts to reach parents and youth with ads that focus on the risks of inhalants and Ecstasy. In Wave 5, as described in Chapter 1, no anti-inhalant or anti-Ecstasy GRPs were purchased for youth or parents. A complete discussion of GRP purchases for youth and parent anti-inhalant and anti-Ecstasy ads can be found in the Fourth Semi-Annual Report in Chapter 3.

3.2   Recall of Exposure from NSPY Questionnaires

To assess exposure to the Campaign, NSPY included two complementary measurement approaches. First, all respondents were asked for an estimate of how often they had seen or heard anti-drug advertisements in each of the major media in which the Media Campaign purchased time (including television and radio, newspapers and magazines, outdoor venues, or movies). These questions were modeled after a measure used in the Monitoring the Future (MTF) study so as to maximize comparability across surveys. These measures are intended to provide a general impression of the intensity of recent exposure and will be particularly helpful in comparisons over time and across media.[6] They are likely to capture both exposure to advertising from a variety of sources directed to the particular group of respondents (youth or parents) and also the aforementioned "spill" exposure to advertising directed toward the other audience, as well as some pro bono advertising.[7]

In addition, to improve the precision of the measurement of exposure, questions also were included regarding the recognition of specific ads. Television and radio advertising represented a large part of the advertising effort, particularly for youth, and was the focus for this measure. It is described in detail below.

3.2.1   General Measures of Exposure

The great majority of youth and parents recalled some exposure to anti-drug advertising, which can include paid, pro bono, and spill (Table 3-I).[8] The four general recall questions were transformed into

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[6] See questions D10-D13 of the Teen and Child questionnaires and questions F1-F4 of the Parent questionnaire—all on the NIDA web page.

[7] During Waves 1-3 there was a single question that asked about the combination of radio and television exposure, following the MTF model exactly. In Wave 4, in order to separate these two media, half of the sample was given either two questions that addressed each medium separately, or the single question that had been used in the previous waves. Since assignment to the two- or one-question sequence was done randomly, it was possible to calibrate the responses to maintain the previous scale. This permits over time comparisons. In Wave 5, all respondents were given separate radio and television questions, which were then combined into a single radio and television estimate for the over time comparisons, based on the Wave 4 calibration calculations.

[8] In all tables throughout this section of Chapter 3, only youth aged 12 to 18 at any wave are included. In previous reports, youth aged 9 to 11 were also included in overall charts. Therefore the Waves 1, 2, and 3 estimates are not identical to those in previous reports.

**Table 3-I. Overall recalled exposure to anti-drug ads across all media
(November 1999 through June 2002)**

Percentage of Parents

Exposures per month	Wave 1 2000	Wave 2 2000	Wave 3 2001	Wave 4 2001	Wave 5 (Jan-June 2002)	Average All Waves
Less than 1	7.4	6.6	7.4	7.8	8.3	7.5
1 to less than 4	20.8	23.4	22.9	26.8	23.7	23.5
4 or more	71.8	70.0	69.7	65.4	68.0	69.0
Median exposures	10.0	9.5	9.0	8.0	8.3	9.0

Percentage of Youth

Exposures per month	Wave 1 2000	Wave 2 2000	Wave 3 2001	Wave 4 2001	Wave 5 (Jan-June 2002)	Average All Waves
Less than 1	6.9	5.7	5.9	8.6	7.3	6.9
1 to less than 4	17.0	15.1	17.5	19.3	17.1	17.2
4 or more	76.1	79.2	76.6	72.1	75.6	75.9
Median exposures	12.0	16.0	12.5	11.3	16.1	12.5

quantitative measures of exposure and summed to provide rough estimates of total recalled exposure.[9] Using these measures, over 90 percent of youth and parents recalled seeing or hearing some form of anti-drug advertising at least once per month, while the median recall for parents was 9 exposures and for youth was 12.5 exposures per month. Moreover, this degree of reported general high exposure was maintained across Waves 1, 2, 3, 4, and 5. Recall of exposure to particular media showed some changes comparing respondents interviewed in 2000 (Waves 1 and 2) with respondents interviewed during the first half of 2002 (Wave 5). Reports of exposure among youth were up for radio and television and for movies, down for print media, and unchanged for outdoor media. For parents, radio and television ad recall was up, but the other media showed no statistically significant changes

- **Slightly fewer parents (about 70%) than youth reported weekly exposure from the combination of the sources (Table 3-I).** The Media Campaign purchased roughly 2.2 targeted general market exposures per week for parents, somewhat less than the level achieved for youth. As with the youth estimate, this number can be roughly compared with the estimates of potential exposure generated from the GRP data. For parents, the median recall of 9.0 ads per month translated into around 2.1 exposures per week, which was also the targeted GRP level.

- **More than 75 percent of youth reported weekly exposure from the combination of sources (Table 3-I).** Thus, the purchase of approximately 2.5 targeted general market exposures per week among youth, according to the GRP data above, produced recall of at least one ad per week among 76 percent of the youth population but less than that among 24 percent of the population. The median number of recalled ad exposures by youth was 12.5 per month, across all sources. (The median number of ads recalled is the number of exposures such that half the audience saw

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[9] Each general recall question had the answer categories shown below. Each category was recoded as indicated. The recoded answers were then summed to get the rough estimate of total recalled exposure.

Answer Category	Recoded times per month
Not at all	0.0
Less than one time a month	0.5
1 to 3 times a month	2.0
1 to 3 times a week	8.0
Daily or almost daily	30.0
More than 1 time a day	45.0

the ads as many or more times and half the audience saw them as many or fewer times.) These numbers can be compared, though only roughly and with caution, with the estimates of potential exposure generated from the aforementioned GRP data. The median recall of 12.5 ads per month for youth translated into around 2.9 exposures per week; GRP estimates would suggest a similar 2.5 for targeted GRPs alone.

■ **Recalled exposure varied across different media.** Table 3-J displays reports of weekly exposure to each of the various media employed by the Campaign. While more than half of youth and parents recalled seeing radio or television ads weekly, only about one-quarter recalled such frequent exposure to print or outdoor advertising, and fewer than one-tenth recalled weekly exposure to movie or video messages.

  ▪ Estimates of general recall were largely consistent with the focus of GRP purchases, with 80 percent of youth-targeted GRPs and 57 percent of parent-targeted GRPs estimated for radio and television.

  ▪ Youth and parents reported similar relative general exposure within various media, even though not all media carried equal amounts of content officially targeted to both groups. The Media Campaign mostly purchased outdoor advertising to reach parents, for example, and yet comparable percentages of youth and parents reported at least weekly exposure to billboard ads or other public postings. Interestingly, a slightly larger percentage of youth reported at least weekly exposure to billboards. Presumably this reflects youth recall of exposure to parent-directed ads, called spill.

Table 3-J. Recall of general anti-drug advertising by medium across all waves for parents and youth (November 1999 through June 2002)

| | Percent who recall seeing or hearing ads at least weekly | | | |
Group	TV and radio ads	Newspaper and magazine ads	Movie theaters and video rental ads	Billboard and other public postings
Parents	50.5	20.5	3.4	23.4
Youth 12 to 13	55. 8	25.1	8.7	27.6
Youth 14 to 15	61.6	28.0	7.5	28.4
Youth 16 to 18	57.4	24.0	6.8	25.7
Youth 12 to 18	58.3	25.6	7.6	27.1

Changes in General Exposure in Wave 5

■ **The data suggests some changes in youth and parent overall recall of Campaign ads from earlier waves to Wave 5, but not closely coordinated with the changes in average weekly GRP variation across waves.** Figures 3-E and 3-F present the median exposures converted to an "exposures per week" scale and the GRPs per week for youth and parents respectively. The two measures did not track very closely. Why might recall of general exposures have not tracked GRPs more precisely? The general exposure measure may include recall of advertising for the other audience and advertising perceived as anti-drug, but not sponsored by the Campaign. Also, while respondents were asked to recall ads seen or heard in recent months, they may have included longer periods, stretching back to previous waves, in their recall estimates. The general exposure measure may not be very sensitive to the magnitude of changes in GRP purchases that occurred across the five waves.

Figure 3-E. Youth general exposure and GRPs by wave
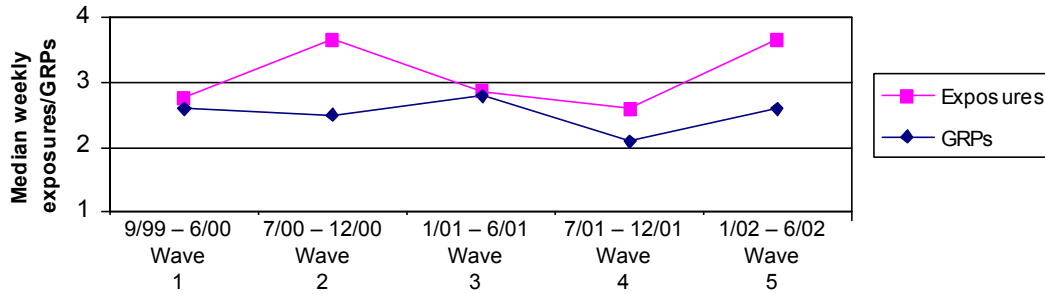
Figure 3-F. Parent general exposure and GRPs by wave
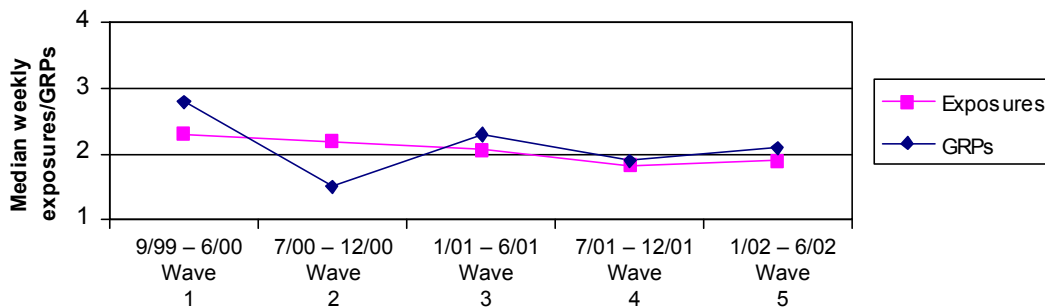
■ **There were several statistically significant changes from 2000 and 2001 to Wave 5 overall, and in recall of exposure of specific media (Detail Tables 3-28 through 3-31).**

- Overall, among youth, there was a significant favorable change for recall of general TV and radio advertising from 2000 to the first part of 2002. Among 12- to 18-year-olds, there was an 8 percentage point increase in reporting having seen or heard TV or radio ads at least weekly. A significant increase was seen in all subgroups. Much of the increase appears to have occurred between Wave 4 and Wave 5. During Wave 4, 56 percent reported weekly recall; in Wave 5, this increased to 65 percent. In previous waves, Hispanic, White, and African American youth reported relatively equivalent recall of anti-drug television and radio advertising. However from Wave 1 to Wave 5, African American youth reported a 17 percentage point increase in recall of anti-drug television and radio ads, while Hispanic youth reported an 11 percentage point increase, and White youth a 6 percentage point increase (Detail Table 3-28).

- All youth aged 12 to 18 showed a significant decrease in recall (- 4%) of print advertising between 2000 and the first half of 2002 (Detail Table 3-29). Recall of print advertising seen at least once a week reached a high of 31 percent in Wave 2, declined to 22 percent by Wave 4, and rose slighty to 24 percent in Wave 5.

- Among youth 12 to 18, recall of having seen anti-drug ads in movie theaters or videos at least weekly decreased slightly from 2000 to 2001, but then increased significantly in Wave 5. Overall, from 2000 to Wave 5, there was a significant increase in recall of ads in theaters or video rentals of 2 percent. Larger increases were seen among older youth from 2001 to Wave 5 (Detail Table 3-30). These increases are surprising, given that the Campaign reported no purchases of movie theater advertising since June 2000. There may have been some pro bono ads incorporated into videos, or it may be that respondents are confusing cinema/video with other sources.

- Among parents, overall recall of having seen or heard TV or radio ads at least weekly signficantly increased. In 2000, 50 percent reported such recall; in 2001, 49 percent; and in Wave 5, 55 percent. From 2000 to the first half of 2002, significant changes were seen among all subgroups except White and African Americans parents, parents with some college education, and parents with children aged 14 to 18 (Detail Table 3-33).

- Among parents, there were no overall significant changes and only two significant subgroup changes in parents' reports of having seen newspaper or magazine ads, movie theater or video rental ads, or billboards at least weekly. Parents of 12- to 13-year-olds reported a 2 percent significant decrease in having seen movie theater or video rental ads at least weekly from 2001 to the first half of 2002, and White parents reported a 3 percent decrease in having seen newspaper or magazine ads at least weekly from 2000 to Wave 5 (Detail Tables 3-34 and 3-35).

The general recall measures, as noted, provide an overall sense of parent and youth exposure across each of the major Media Campaign media and they correspond, on average, to the aforementioned GRP data. They are useful for comparisons among media and will continue to be useful in future reports for comparisons over time. They also provide confirmation that there is some spill exposure, in that ads targeted to a particular audience also are likely seen by another group. This is clearest for youth reports of exposure to outdoor media, where recalled exposure is comparable to parents' recall, even though few youth-specific outdoor media buys were made.

However, these questions are quite general and depend on respondents' ability to recall and summarize exposure without very much assistance or prompting information. For discussion of estimates with arguably more precision, the chapter now turns to evidence about the specific recall of television and radio ads.

3.2.2   Television and Radio Specific Advertising Recall

Respondents were shown a sample of specific Campaign television ads and played a sample of Campaign radio ads at full length on their laptop computers. Each respondent was presented ads that were broadcast nationally in the 2 calendar months prior to the interview and asked whether they had ever seen or heard the ad, how often they had seen or heard the ad in recent months, and how they evaluated the ad. The validity of recall data was a concern in that respondents who did not want to admit to forgetfulness or simply wanted to be agreeable might claim to have seen an ad even if they had not. To assess this tendency, each respondent was asked whether he or she had seen one of three ads (otherwise known as "ringer ads") that had never been broadcast.

Previous Campaign evaluation reports (Hornik et al., 2000; Hornik et al., 2001) provided strong evidence for the validity of the measures. Actually, broadcast ads were much more often recalled than ringers. Also, the specific television ad recall measures tracked the GRP data closely, ad by ad, for youth and, to a lesser extent, for parents.

Television Recall

Across the first five waves, approximately 57 percent of the total youth-targeted GRPs were obtained through television (including network, cable, spot, in-school, and in arcades). Each week, the Media Campaign purchased about 134 general market youth-targeted television GRPs, on average, indicating that the average youth respondent should have been exposed to 1.3 television ads per week.

For parents, general market television efforts were less substantial, enough to produce an average of 63 GRPs per week, or about 0.6 weekly TV exposures for the average adult. How do those numbers compare with evidence about youth and parental recall of the specific ads that they were shown?

The following analyses rely on strict segmentation of ads by the parent–youth dimension and by language. In other words, youth-targeted ads are not considered in analyses for parents and vice versa. This means that youth–parent "spill" is not reflected in these specific ad recognition results. Spill is the phenomenon of ads targeted to one group being watched by members of another group. Similarly, a person who speaks only English or only Spanish was never shown an ad in the opposite language. Bilingual English–Spanish speakers were shown both sets of ads, and special efforts were taken to be sure that African American respondents had targeted ads played for them.

Each respondent was shown a sample of the ads that had been broadcast during the previous two months and asked about how many times he or she had seen each ad in "recent months." Imputation was used to fill in reasonable projections for any remaining ads that were not sampled and shown to each respondent. The results were then recoded and summed across ads.[10]

About 87 percent of youth and about 73 percent of parents recalled seeing at least one of the ads that had been playing in the previous 60 days. The median number of recalled viewings of youth-targeted TV ads by youth was 7.5 times over recent months or about 0.9 times per week. The mean was considerably higher at 9.8 times or about 1.1 exposures per week. Such a difference between the mean and the median is consistent with a pattern of uneven distribution of exposure where some youth saw the ads many times, while others saw the ads much less frequently or not at all. The median number of viewings of parent-targeted TV ads in recent months by parents was 4 times or about 0.5 per week. As with youth, the mean was considerably higher at about 7.3 times or about 0.8 of an exposure a week, indicating an uneven distribution where some parents recalled seeing the ads many times, while others recalled seeing them much less frequently or never saw the ads.

Changes from 2000 to 2002 and Diversity in Patterns of Change

There were different patterns of change over time among youth and parents. Among youth, both overall and for all age subgroups, recall increased through Wave 4 and then decreased significantly in Wave 5. This is not entirely consistent with the inter-wave results reported earlier for television and radio general exposure, where there was an increase over both Waves 4 and 5. Despite this, from 2000 to Wave 5, there was still a significant increase of 9 percent in the number of youth recalling having seen TV ads at least once a week, parallel to the increases reported for the general exposure version of this measure. Parent recall was declining across the first three waves, but then showed a sharp increase in Wave 4, and another sharp increase in Wave 5 (See Table 3-K).

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[10] **Recoding of NSPY ad recall data**

Question: Here is another TV ad. Have you ever seen or heard this ad?	[If yes,] In recent months, how many times have you seen or heard this ad?	Recoded Response
No		0.0
Don't know		0.5
Yes	Not at all	0.0
Yes	Once	1.0
Yes	2 to 4 times	3.0
Yes	5 to 10 times	7.5
Yes	More than 10 times	12.5

Table 3-K. Percent recalling having seen specific TV ads at least once per week across waves among parents and youth (November 1999 through June 2002)

Group	Wave 1 2000	Wave 2 2000	Wave 3 2001	Wave 4 2001	Wave 5 (Jan-June 2002)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
Parents	25.5	22.6	19.8	39.2	51.6	**27.5*** **(24.4 to 30.7)**	**21.9*** **(18.5 to 25.4)**
Youth 12 to 13	39.5	42.9	50.6	59.7	49.9	**8.6*** **(3.9 to 13.2)**	**-5.2*** **(-9.7 to –0.7)**
Youth 14 to 15	39.4	37.9	48.0	59.7	47.9	**9.3*** **(3.5 to 15.1)**	**-5.7** **(-11.8 to 0.5)**
Youth 16 to 18	29.3	35.6	46.9	47.8	42.9	**10.5*** **(4.7 to 16.2)**	**-4.5** **(-10.1 to 1.1)**
Youth 12 to 18	35.4	38.5	48.3	53.0	46.5	**9.5*** **(5.4 to 13.5)**	**-5.2*** **(-9.2 to -1.1)**

* Between year change significant at p<0.05.

For parents, the pattern of variation in recall levels was relatively consistent with the variation over time in ad time purchased through Wave 4, but then in Wave 5, parent recall drastically increased, although GRP purchases were down from Wave 4. The reason behind this increase is unclear. There may have been carryover recall from the heavy dose of television GRPs throughout Wave 4. There may also have been a reinforcement of recall because radio and television broadcast very similar ads. The ads may have been more memorable. There may also have been more efficient ad purchases during Wave 5, so that the particular slots and media produced higher effective recall than suggested by the GRP purchase per se (Figure 3-G).

Figure 3-G. Parent TV GRPs and specific ad recall
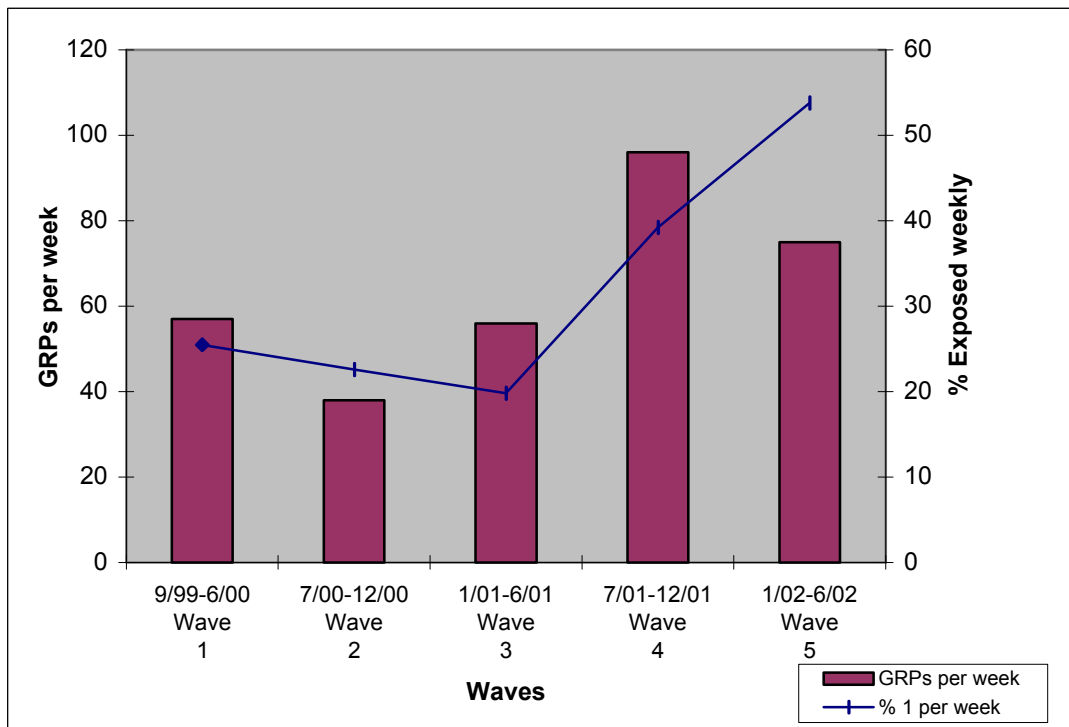
For youth, these changes were somewhat less consistent than for parents. Figure 3-H shows that the up-and-down pattern in youth GRP purchases through Wave 4 does not match the straight upward pattern of youth TV ad recall through this period.

Figure 3-H. Youth TV GRPs and specific ad recall
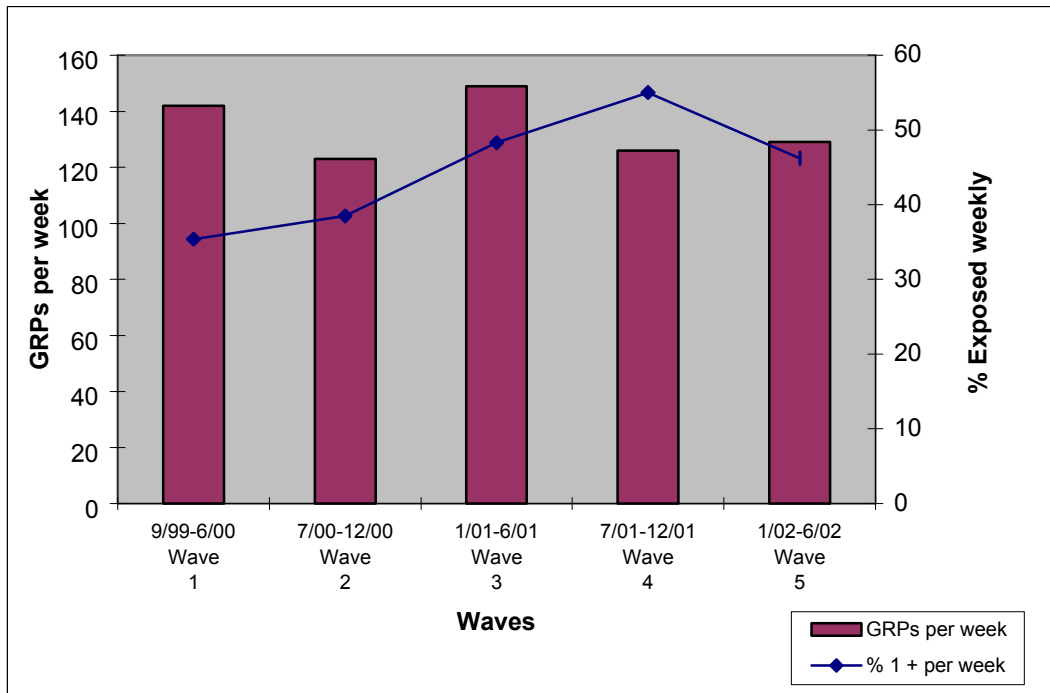
The inconsistency in recall and GRP purchases for youth could be partially explained by the fact that for later time periods, some of the youth ads that were used in later waves also aired in earlier waves. So, it is possible that although youth were asked how frequently they had seen the ad in recent months, their answers may have reflected longer-term recall. A final explanation may relate to the presence of Drugs and Terror ads in Wave 5. These ads were counted as youth GRPs, but the Campaign has reported that buys for them may have focused on programs that reach older youth rather than the full range of 12- to 18-year-olds, thus inflating GRPs relative to the actual youth exposure likely.

Additionally, a possible reason for the inconsistency in recall and GRP purchases could be the fact that respondents were questioned about their recall of ads on the air in recent months (60 days), so interviews in Waves 2 through 5 actually covered the period from the final 2 months of the previous wave and the first 5 months of the current Wave. Finally, as will be discussed below, the Campaign TV ads were also sometimes used in soundtrack versions on radio. This was particularly true for the parent ads. Thus for instance, the high level of recall of Wave 4 TV ads may reflect confusion about the media on which an ad was heard or seen.

Overall recall of anti-inhalant ads was low, reflecting the relatively small amount of media time purchased for them. During Waves 1 and 3, the Campaign broadcast anti-inhalant ads for parents. Parents were asked about recall if an anti-inhalant ad had been on the air in recent months (60 days) prior to their interview. During Wave 1, about 7 percent of parents recalled seeing such ads and about 33 percent of parents recalled seeing one of these ads during Wave 3. Only 1 percent and 3.5 percent of all parents in those waves claimed to have seen the inhalant ads once a week or more (Detail Table

3-11). The GRPs for inhalant-focused ads in Wave 3 were purchased at more than three times the rate as those purchased in Wave 1, so this discrepancy is not surprising. No general market anti-inhalant ads targeted at parents were run during Waves 2, 4, or 5.

Radio Recall

The Media Campaign complemented its purchases of television time with purchases of radio time. For youth, that included an average of 68 weekly targeted GRPs and approximately 60 weekly targeted GRPs for parents. As previously noted, a sample of radio ads was played for each parent and youth between 12 and 18 years of age. Campaign radio ads were not played for children aged 9 to 11. Respondents were asked whether they had ever heard each radio ad, and how often, following the question format of the television ads.

Wave 1 radio estimates for youth are not used in this report because many of the radio ads broadcast during that period were essentially soundtracks from the television ads, and any Wave 1 radio ad that was an audio duplicate of a television ad was not played for Wave 1 respondents. There was a concern that respondents would not be able to recall whether they had heard or seen an ad on radio or television, if they had been exposed to it through both media. That confusion would potentially make radio exposure estimates inaccurate. Their responses to the questions about television ads, which were asked about first, likely would have reflected their total exposure through both TV and radio, rather than uniquely indicating radio exposure. Wave 1 radio estimates for parents are used in this report because the parent radio ads during that period were distinctly different from the parent television ads.

Beginning in Wave 2, however, all radio ads were played for both youth and parent respondents, regardless of whether they were audio duplicates of TV ads. Such media source issues did not compromise Wave 2 or Wave 3 data however, as no network radio ads for youth were audio duplicates of a television ad. But in Wave 4, "Two Brothers" appeared both as a network TV youth ad and a network radio youth ad, accounting for 46 percent of the television GRPs and for 36 percent of the radio GRPs. In Wave 5, all youth radio ads except one, "Train", were also TV ads. "Train" received only 2 percent of radio GRPs, meaning that the remaining 98 percent of radio GRPs came from ads that were on both radio and TV. The parent data has a similar problem. In Wave 3, two adult ads, "Needle/Spray Can" and "My Hero" received a considerable number of parent GRPs on both network TV (38%) and network radio (63%). In Wave 4, "My Hero" and "Thanks" both received a considerable number of parent GRPs on both network TV (51%) and network radio (79%). In Wave 5, two ads, "Party" and "Kid" received both network radio (18%) and network TV (28%) GRPs. Parent radio recall estimates for Waves 3, 4, and 5, and youth radio recall estimates for Wave 4, and especially Wave 5, may be biased upward compared to previous wave estimates, given the heavy overlap in ads on both media.

Overall, Campaign radio ads were recognized by 35 percent of 12- to-18- year olds during Waves 2 through 5. This left 65 percent who reported no recognition of the Campaign radio ads presented. The mean number of targeted radio ad encounters among this age group in recent months was 1.52, whereas the median was 0.0 over Waves 2 through 5 (Table 3-L). This pattern suggests that the majority of youth heard no ads or only one radio ad from the Campaign during these waves. Instead, a minority of youth heard some ads repeatedly.

- **Youth recall of radio ads varies across waves.** As shown in Table 3-L, in Wave 2 less than 35 percent of youth claimed to have heard any Campaign radio ads in recent months. However, in Wave 3 this number increased to 57 percent, a 22-percentage point increase. But by Wave 4, this

trend had reversed. Approximately 31 percent of Wave 4 youth claimed to have heard any Campaign ads in recent months. And in Wave 5, recall decreased even more with only 14 percent of youth claiming to have heard any Campaign ads in recent months. This pattern also can be seen in all subgroups (Detail Tables 3-16 and 3-17). These patterns somewhat coincide with changes in per week radio GRP purchases: in Wave 2, 69 GRPs; in Wave 3, 78 GRPs; in Wave 4, 54 GRPs; and in Wave 5, 66 GRPs.

Table 3-L. Change in youth recall of radio ads heard per month across waves

Number of ads heard in recent months	Wave 2[1] 2000 (%)	Wave 3 2001 (%)	Wave 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	Average for Waves 2-5 (%)
0 times	65.2	42.8	69.5	86.2	64.8
0.01 to 0.99	10.9	17.2	10.5	5.3	11.3
1-3.99	20.3	27.8	16.9	7.1	19.0
4 –11.99	3.4	10.9	2.7	1.4	4.5
12 or more	0.2	1.3	0.4	0.0	0.4
Mean	1.35	3.05	1.16	0.51	1.52
Median	0	1	0	0	0

[1] No Wave 1 radio estimates for youth were generated because many of the radio ads were soundtracks from the TV ads and were not played for respondents.

Overall, Campaign radio ads were recognized by 42 percent of parents during Waves 1 through 5. This left 58 percent who reported no recognition of the Campaign radio ads presented. The mean number of targeted radio ad encounters among parents in recent months was 2.87 (Table 3-M).

Table 3-M. Change in parent recall of radio ads heard per month across waves

Number of ads heard in recent months	Wave 1 2000 (%)	Wave 2 2000 (%)	Wave 3 2001 (%)	Wave 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	Average for Waves 1-5 (%)
0 times	51.5	53.8	41.77	48.9	92.0	58.2
0.01 to 0.99	9.2	5.7	11.8	4.4	0.7	6.2
1 to 3.99	29.3	29.6	29.5	31.8	4.4	24.6
4 to 11.99	8.2	10.5	15.2	12.7	2.2	9.6
12 or more times	1.7	0.4	1.9	2.1	0.8	1.4
Mean	3.05	2.95	3.93	3.77	0.79	2.87
95% Confidence Interval for Means	(2.70 to 3.41)	(2.66 to 3.24)	(3.47 to 4.40)	(3.41 to 4.13)	(0.49 to 1.08)	(2.68 to 3.05)

Parent recall of Campaign radio ads decreased significantly in Wave 5. Table 3-M shows that while approximately 47 percent of parents recalled hearing radio ads in 2000, this increased to 55 percent in 2001, but decreased to 8 percent in Wave 5. A similar pattern is suggested by Table 3-N, which shows the percent of parents who recalled having heard a radio ad at least once a week.

Table 3-N. Change in parent recall of having heard radio ads at least once per week

Having heard radio ads at least weekly	Wave 1 2000 (%)	Wave 2 2000 (%)	Wave 3 2001 (%)	Wave 4 2001 (%)	Wave 5 2002 (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
Overall	10.0	11.0	17.1	14.9	3.0	-7.6* (-9.6 to -5.5)	-13.0* (-15.1 to –10.9)

* Between year change significant at $p<0.05$.

Only Wave 3 parents reported much exposure to inhalant radio ads. During Wave 1, only 9 percent of parents recalled radio inhalant ads. During this period, enough inhalant radio GRPs were purchased for the average parent to be exposed to approximately a tenth of an inhalant ad a week. In Wave 3, about 40 percent of parents recalled hearing inhalant radio ads. During this period, enough radio GRPs were purchased for the average parent to be exposed to approximately a fifth of an inhalant ad a week. No general market inhalant radio ads for parents were aired during Waves 2, 4, or 5 (Detail Table 3-26).

3.2.3 Recall of the "Brand"

One of the major innovations of Phase III of the Campaign was the inclusion of a "brand" for the Campaign. A brand is used in many advertising campaigns to provide a recognizable element (a name, a slogan, a unique visual presentation, a unifying concept, or all four) to coordinate components of a Campaign including print, radio, and television advertisements, as well as non-advertising activities. Insofar as the brand is recognized and positively regarded, the familiar presence of the brand may create some initial positive response to any new ad. It also may increase the perception that each ad is part of a larger program and that may influence acceptance of the Campaign's messages.

It is clear that the Campaign's brand has diffused into the populations of both parents and youth with Wave 5 showing evidence for that even more strongly than previous waves. The Campaign introduced the parent brand first, which involved a series of phrases that included a set-up word, such as "Communication," and ended with a colon and the phrase: "the Anti-Drug," for example, "Communication: The Anti-Drug." The youth brand, introduced at the end of 2000, used a similar approach. In the first series of ads, youth were asked to name what their anti-drug was—meaning what it is that keeps them from using drugs. In a typical ad, a series of blanks would precede the phrase: |_| |_| |_| |_| |_|: My Anti-Drug. In some ads, the blanks would have a possible response filled in, e.g.: "*Music*: My Anti-Drug" as if it were written in by the respondent.

To evaluate the extent to which youth and parents recognize the brand, Waves 3, 4, and 5 of NSPY included a section focusing on brand recall. This section was presented to respondents before presenting the Campaign ads for recall since the ads often included the brand.

Youth were asked:

> "We want to ask you about some brief phrases that might or might not have appeared in the media around here, as part of ads against drug use. In recent months, have you seen or heard … the following phrases?

They were then shown "|_| |_| |_| |_| |_|: My Anti-Drug." They were also shown one of two phrases that were not the Campaign brand, discussed below.

■ Recall of the brand is increasing. In Wave 3, about 60 percent of the 12- to 18-year-old respondents who were asked this question reported recall of the Campaign brand, in Wave 4, recall increased to 74 percent, and in Wave 5, recall of the brand increased to 83 percent.

Parents, in Waves 3 and 4, were asked:

> In recent months, have you seen or heard any ads containing phrases such as "Communication: the Anti-Drug" or "Parents: the Anti-Drug"?

In Wave 5, parents were asked:

> In recent months, have you seen or heard either of the following phrases:

Parents were then shown the phrase "Parents: The Anti-Drug" and one of two phrases that were not the parent campaign brand.

- Approximately 46 percent of the parents responded positively to the Campaign brand in Wave 3. In Wave 4, Campaign brand recall among parents increased to 63 percent. In Wave 5, approximately 62 percent of parents responded positively to the newly worded campaign brand question.

These increases in reported brand recall are possibly the result of the brand having been on the air for a longer period of time, thus more youth and parents were exposed to it. These were substantial recognition rates, but there is a concern. It is possible that some of the youth and parents may have said "yes" because they wanted to appear knowledgeable, or because the phrase sounded familiar enough that they thought they might have heard it, even if they had not. Therefore, it is important to try to measure the recall as if the brand had not been used by the Campaign.

It was not possible with the NSPY to obtain an estimate of recall before the brand was introduced, which would have been the strongest way to estimate a baseline level. Therefore, two other approaches were used in the evaluation instead.

In one approach, the brand recall rates were compared across levels of the specific ad exposure measure used above. If the brand recall claims were reliable, they should be substantially related to the specific Campaign ad recall claims since the ads often included the brand. Those with more exposure to such ads would have had many more opportunities to see or hear the brand. (Evidence for the validity of the specific recall measures was strong,[11] so if the brand recall was associated with it, there would be reason to accept the brand recall as credible as well.)

For youth in Waves 3 to 5, only 50 percent of the lowest exposure group said they recognized the brand, while 81 percent of the highest exposure group—those who had seen television ads more than 12 times per month—did so. For parents, in Waves 3 and 4, where recall of both television and radio ads are included in the exposure measure, 34 percent of the lowest exposure group and 74 percent of the highest exposure group recalled the brand phrase. In Wave 5, with the newly worded question, 40 percent of the lowest exposure group and 71 percent of the highest exposure group recalled the brand phrase. These are large and statistically significant differences. The more people were exposed to the Campaign, the more they recalled the brand, just as would be expected.

The second approach was to ask about recall of phrases that sounded like they might have been used but had not been. The two false brands that were played to youth respondents in Waves 3 and 4 were "I'm drug free and I'm doing just fine" and "Drugs —I don't need them." In Wave 3 the recall rates for the false brands was about equal to the recall rates for the true brands (all at around 60%). This was a surprising result, but there was evidence of brand learning on the basis of the association of ad recall and true brand recognition as described above. In Wave 4, the evidence for brand learning was much stronger. During Wave 4, for youth the average recall of the true brand was 74 percent, while the recall of the false brands had fallen to about 51 percent. Although the false recall remained surprisingly high, it was much lower than the true recall rates. Prompted by the idea that the high

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[11]Hornik et al. (2001). Appendix C, pages C-1-C-5.

recall rates of the false brands were in part a result of the false brands sounding like reasonable brands and were easily thought of as legitimate, a "new" false brand was introduced in Wave 5 "Drugs: one word–dead." It was designed to sound less conventional. Evidence was found in support of this idea. While 55 percent of youth respondents in Wave 5 reported having seen or heard the false brand phrase "I'm drug free and I'm doing just fine," only 35 percent reported having seen or heard the new false brand phrase "Drugs, one word–dead." More significantly, recall of the true phrase was much higher, 83 percent. For parents, in Wave 5 where comparative phrases were used for the first time, there was a similar advantage to the true brand over the two false brands.

As additional support for the claim of true brand learning, there is no evidence of an association for youth between the measures of television ad recall and recall of the false brand. About the same proportions of youth claim to recall the false brands, regardless of their levels of television ad recall. For parents, comparative evidence was only available for the Wave 5 respondents. In contrast to the youth evidence, there was some association between specific exposure and false brand recall, however at a lower level than for the true brand recall. Also the true brand was much more recognized than the false brand, among parents.

There is an important caveat here. Because we cannot directly assess what the false brand recall would have been without the Campaign, we cannot precisely estimate true brand recall rates. We assume that the 35-50 percent levels for the false brands are at a higher level of false recall than would have been shown had we been able to use the true brands before their launch, because they have a less conventional appearance. Also, the lowest exposure groups do *not* represent the level that would be expected without the Campaign because they include parents and youth who might have been exposed to the brand through other media—not only through the television ads captured by the specific recall measure. On the other hand, true brand recall rates may not have been as high as the observed average youth recall of 73 percent, and average parent recall of 55 percent in Waves 3 and 4 and 62 percent in Wave 5, since some of the claimed recall could have been due to false recall. However, both these rates were significantly higher than their counterpart rates for those with minimal TV and radio exposure, suggesting that substantial brand learning occurred.

Thus, while the magnitude cannot be precisely estimated, there is good evidence for brand learning, particularly among youth.

3.2.4 Television Ad Evaluation

All respondents were asked to evaluate a subset of the television ads that they reported having seen in recent months. The goal was to assess how individuals interpret and evaluate ads from the Media Campaign when they see or hear them. In addition, these data will be used in future reports to see whether the evaluative response to the ads affects respondents' susceptibility to Media Campaign effects. There is controversy as to whether differences in ad evaluations are closely related to effects of those ads. Researchers will be able to examine whether individuals who were less convinced by or more skeptical of the ads were less likely to avoid initiation or continuation of drug use.

The three positively-phrased evaluative questions (whether the ad was attention getting, convincing, or said something important to the respondent) were summed to create a mean positive evaluation score for each ad and summed again for each respondent across ads. Additionally, a single skeptical item (whether the ad exaggerated the problem) was analyzed separately. Both positive and negative responses were placed on a scale from –2 to +2, with 0 representing a neutral response and higher

scores indicating a more positive response to the ad (i.e., in the case of the exaggeration item, less belief that the ad exaggerated). Youth assessments were less favorable than were parent assessments, overall. The mean assessment for youth had not changed between 2000 and 2001. However, from 2001 to the first half of 2002, youth evaluations of the ads generally became more positive. In contrast, parents' evaluations of the ads had become more positive from 2000 to 2001, but they declined from 2001 to the first half of 2002.

■ **Overall, youth tend to favorably rate the television Campaign ads that they were shown across all waves (Table 3-O and Detail Tables 3-12 and 3-13).**

Table 3-O. Television ad evaluation scores among parents and youth (November 1999 through June 2002)

Group	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
Mean Evaluation Score					
Parents	1.07	1.27	1.20	**0.13*** **(0.07 to 0.19)**	**-0.07*** **(-0.12 to -0.02)**
Youth 12 to 13	1.00	1.00	0.97	-0.03 (-0.10 to 0.05)	-0.02 (-0.10 to 0.05)
Youth 14 to 15	0.79	0.73	0.83	0.04 (-0.04 to 0.12)	**0.10*** **(0.03 to 0.18)**
Youth 16 to 18	0.54	0.59	0.65	**0.10*** **(0.01 to 0.19)**	0.06 (-0.02 to 0.13)
Youth 12 to 18	0.76	0.75	0.80	0.04 (-0.01 to 0.09)	**0.05*** **(0.00 to 0.09)**
Disagree that the ad exaggerated the problem					
Parents	0.99	1.22	1.14	**0.15*** **(0.06 to 0.24)**	**-0.08*** **(-0.15 to -0.01)**
Youth 12 to 13	0.84	0.76	0.90	0.06 (-0.04 to 0.17)	**0.14*** **(0.04 to 0.23)**
Youth 14 to 15	0.74	0.73	0.80	0.06 (-0.04 to 0.16)	0.07 (-0.02 to 0.16)
Youth 16 to 18	0.65	0.69	0.71	0.06 (-0.04 to 0.17)	0.02 (-0.08 to 0.13)
Youth 12 to 18	0.73	0.72	0.79	0.06 (0.00 to 0.12)	**0.07*** **(0.01 to 0.13)**

Note: Evaluation scale runs from –2 to +2 being most positive. Exaggeration scale, similarly, is coded so disagreement that an ad exaggerated gets a higher score on the -2 to +2 scale, so a higher score is positive toward the ad.

*Between year change significant at p<0.05.

- On a five-point scale ranging from –2 to +2, mean responses from the three age groups of youth interviewed (12- to 13-year-olds, 14- to 15-year-olds, and 16- to 18-year-olds) ranged from 0.54 to 1.0. The responses to the "exaggerated the problem" evaluative question told a similar story, with a tendency for youth respondents to somewhat disagree with the notion that an ad "exaggerated the problem." The responses ranged from 0.65 to 0.84 (Detail Tables 3-12 and 3-13).

- There are several subgroup differences in evaluations of the ads worth noting. Older youth, White youth, and males tended to be more skeptical in their ad evaluations. High sensation-seekers, high-risk youth, and occasional marijuana users were also more skeptical (Detail Table 3-12).

- Similar subgroup differences were seen regarding the belief that the TV ads "exaggerated the problem." Older youth, males, high sensation-seekers, high-risk youth, and occasional marijuana users were more likely to agree that the ads "exaggerated the problem" (Detail Table 3-13).

- **Among youth aged 12 to 18, favorability increased somewhat from 2001 to the first half of 2002.** Overall ad evaluations increased from 0.75 to 0.80 from 2001 to Wave 5. Disagreement with the "ad exaggerates" statement also increased from 0.72 to 0.79 (Detail Table 3-12).

- **While youths' evaluations of the ads became slightly more positive in Wave 5, parents' evaluations became more negative.**

  - In previous waves, parents' evaluations were becoming increasingly positive, but this trend reversed between 2001 and Wave 5. Overall, there was a 0.07 point decrease in parents' evaluations of the ads (Table 3-O and Detail Table 3-14).

  - However, the mean evaluation score over the 3 years from parents was 1.18, suggesting that parents, even more than youth, tended to rate the ads more favorably than negatively.

  - Overall, parents did tend to disagree that an ad exaggerated the problem; a similar pattern was seen on this measure as for mean ad evaluation. From 2000 to 2001, parents were less likely to agree that TV ads exaggerated the drug problem, but from 2001 to the first half of 2002 parents became more likely to agree that TV ads exaggerated the drug problem. There was an overall significant decrease of 0.08 (Detail Table 3-15).

  - Most demographic subgroups of parents offered largely similar average assessments of the Campaign TV ads, although some differences did appear. Mothers rated the ads more favorably than did fathers. African American and Hispanic parents were somewhat more favorable in their response to the TV ads than were White parents (Detail Table 3-14).

During Wave 5, a new series of ads was introduced that explicitly linked youth use of drugs to (unknowing) support of terrorism. They were targeted both to parents and to youth. As previously noted, the time purchased for them was about 20 percent of all the GRPs purchased on television for each audience group. In this section, these ads are considered as a set, and compared to the other ads broadcast on television during Wave 5.[12] The question is whether they were evaluated differently from other ads.

For youth, there were four ads that were designated as Drugs and Terror ads: Timmy, Sophie, I Helped, and AK-47. Four other ads received a substantial amount of broadcast time in Wave 5: Rosey, Apolo, Hello, Water, Chad, and Tiki Barber. (All of these ads are described in Appendix D.)

In Table 3-P, each line presents the evidence for one ad. The number of people who said they had previously seen the ad and provided an evaluation is presented in the second column,[13] the mean

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[12]The estimated sampling errors are based on the raw data, not corrected for the complex sample or for nonresponse errors. Since these specific ads were not available for viewing in the instrument until March 1, the respondents who answered questions about these ads are not representative of the population. The raw numbers can give an indication of trend of the data but the unweighted results may not be representative of the population.

[13]There were 3,074 youth 12 to 18 years old who were interviewed in Wave 5. The numbers who provided evaluation of a specific ad are well below that because (a) only ads that were played in the 2 months prior to the interview were eligible for inclusion, (b) each youth was shown a maximum of four ads, (c) evaluations were requested for only two of the four ads shown to each youth, and (c) only youth who indicated that they had ever seen the ad were asked the evaluation questions. If a non-Drugs and Terror ad was used in a previous wave and evaluated, the responses were used to estimate the overall evaluation.

evaluation score on the three item evaluation scale is in the third column and the score on the exaggeration item in the final column. (Both measures can vary from -2 to +2, with +2 being maximum positive evaluation.) Overall the Drugs and Terror ads are not distinguishable from the others ads on the mean evaluation scale. However, there is some tendency for them to be seen more often as exaggerating the problem. All four of the Drugs and Terror ads have exaggeration scores below all but one of the non-drugs and terror ads. One Drugs and Terror ad (Sophie) seems to be particularly poorly evaluated. However, because so few respondents provided evaluation of that ad, its scores must be considered unreliable.

Table 3-P. Youth recall and evaluations of Drugs and Terror versus other ads

Ad	Number of respondents	Mean Ad evaluation score (95% CI)	Number of respondents	Disagreement that ads exaggerate the problem (95% CI)
Drugs and Terror Ads				
Timmy	78	0.81 (0.60 to 1.02)	77	0.66 (0.39 to 0.94)
Sophie	38	0.68 (0.32 to 1.03)	37	0.19 (-0.20 to 0.58)
I Helped	696	0.85 (0.77 to 0.98)	704	0.60 (0.49 to 0.72)
AK-47	799	0.91 (0.81 to 1.00)	801	0.73 (0.61 to 0.86)
Overall Mean		0.87		0.66
Other ads				
Rosey	181	0.63 (0.49 to 0.78)	175	0.67 (0.51 to 0.84)
Apolo	106	0.92 (0.76 to 1.09)	102	0.83 (0.63 to 1.03)
Hello	237	0.87 (0.77 to 0.98)	235	0.85 (0.71 to 0.99)
Water	254	0.95 (0.86 to 1.05)	251	0.81 (0.68 to 0.94)
Chad	124	0.78 (0.63 to 0.94)	121	0.85 (0.74 to 0.96)
Tiki Barber	1,235	0.81 (0.76 to 0.86)	1,220	0.89 (0.84 to 0.95)
Overall Mean		0.82		0.85

Ads were assigned according to the month when youth were interviewed, and the month of interview was not randomly assigned. It is also known that youth evaluations of ads are in part a function of their own characteristics. In particular, youth with drug-using experience tend to be less positive about the ads than inexperienced youth. Is it possible that the poor ratings on the exaggeration scale for the Drugs and Terror ads reflected some bad luck with regard to who was being interviewed when those ads were in the eligible pool? In fact, this is not the explanation. First, the mean evaluation score was not lower for these ads, just the mean exaggeration estimate, while the effects of prior use on both were similar overall. Also, when the analysis was redone, but comparing among youth who were prior or not prior users of marijuana, this difference in comparing drugs and terror versus other ads remained.

The parallel analysis for parents is presented in Table 3-Q.

As with youth, the four designated Drugs and Terror ads for parents were Timmy, Sophie, I Helped, and AK-47. The other ads that received a substantial number of GRPs during Wave 5, and thus had a reasonable number of parents eligible to provide evaluations, were Ananda, My Hero, Gene, Loss, Party, and Kid.

Table 3-Q. Parent recall and evaluations of Drugs and Terror ads versus other ads

Ad	Number of eligible respondents	Mean Ad evaluation score (95% CI)	Number of respondents	Disagreement that ads exaggerate the problem (95% CI)
Drugs and Terror Ads				
Timmy	56	1.31 (1.12 to 1.50)	56	1.02 (0.71 to 1.32)
Sophie	41	1.07 (0.85 to 1.30)	41	0.95 (0.62 to 1.29)
I Helped	398	1.15 (1.07 to 1.22)	398	1.03 (0.92 to 1.14)
AK-47	267	1.12 (1.03 to 1.21)	266	0.99 (0.86 to 1.12)
Overall Mean		1.15		1.01
Other ads				
Ananda	911	1.22 (1.17 to 1.26)	909	1.22 (1.16 to 1.28)
My Hero	508	1.36 (1.32 to 1.41)	509	1.28 (1.22 to 1.35)
Gene	970	1.27 (1.23 to 1.31)	970	1.22 (1.16 to 1.28)
Loss	966	1.24 (1.13 to 1.35)	966	1.17 (1.01 to 1.32)
Party	177	1.21 (1.01 to 1.42)	177	1.21 (0.94 to 1.47)
Kid	39	1.07 (0.76 to 1.38)	38	0.89 (0.51 to 1.28)
Overall Mean		1.26		1.21

The parallel analysis of ad evaluations for parents, overall, shows a similar pattern to that for youth but now present for both the mean evaluation scores and the exaggerations scores. Among parents, the Drugs and Terror ads were less favorably evaluated and parents reported that these ads had a greater tendency to exaggerate the drug problem. This is particularly clear if the comparison focuses on ads seen by a substantial number of respondents (more than 100). The two frequently seen Drugs and Terror ads (AK 47 and I Helped) were evaluated at a lower level, and seen as more exaggerated than any of the non-Drugs and Terror ads evaluated by more than 100 parents. The confidence intervals for each of the ads in each set sometimes do not overlap. When they do not, it always favors the non-Drugs and Terror ads. The Drugs and Terror ads are still evaluated positively, but a little less so than the other ads.

3.2.5   Internet Use and Encounters with Drug Information On Line

Youth Internet Use

Results from the first five waves suggest that the vast majority of youth now have at least minimal contact with the Internet, as can be seen in Table 3-R (and Detail Table 3-37). Approximately 89 percent of youth report using the Internet in the past 6 months. Internet use among 12- to 18-year-olds significantly increased from 2000 to 2001, about 4 percentage points, and slightly more from 2001 to Wave 5, 0.5 percentage points. However visits to pro-drug and anti-drug sites did not significantly change across waves.

Race and sensation seeking were associated with Internet use. White youth reported higher rates of Internet use than either African American or Hispanic youth. Compared with their low sensation-seeking peers, a slightly higher percentage of high sensation-seeking youth reported having had at least minimal contact with the Internet in the past 6 months (Detail Table 3-37).

**Table 3-R. Youth Internet use and encounters with drug information on line in past 6 months
(November 1999 through June 2002)**

	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
Percent using the Internet at least a few times	84.9	88.4	88.9	4.0* (1.7 to 6.2)	0.5 (-1.5 to 2.6)
Percent visiting anti-drug Internet site among all youth	9.5	10.0	9.3	-0.3 (-2.0 to 1.4)	-0.8 (-2.2 to 0.7)
Percent visiting pro-drug Internet site among all youth	5.0	5.5	4.9	-0.1 (-1.4 to 1.2)	-0.6 (-1.9 to 0.7)

* Between year change significant at p<0.05.

Despite wide diffusion of access to the Internet, most youth currently do not encounter information related to drugs on-line. Approximately 10 percent of youth across the five waves reported visiting a web site with anti-drug information in the previous 6 months. A smaller percentage of youth, 5.2 percent, reported visiting a pro-drug Internet site (Detail Tables 3-41 and 3-42).

- High sensation-seeking youth and high-risk youth are more likely to visit pro-drug Internet sites. Approximately 7 percent of high sensation-seeking youth reportedly visited pro-drug sites in the past 6 months, whereas only roughly 2 percent of their low sensation-seeking counterparts did so. Likewise, high sensation-seeking and high-risk youth reported visiting anti-drug sites more than other youth; the difference was significant in 2001 and Wave 5 (Detail Tables 3-38 and 3-39).

- **The rate of Internet use for accessing drug-related information has not changed over time.** There were no statistically significant overall or subgroup changes in the percentage of youth visiting anti-drug or pro-drug Internet sites from Wave 1 to Wave 5 (Detail Tables 3-38 and 3-39).

Parent Internet Use

Parents remain less engaged with the Internet than are youth: only 74 percent of parents report any use in the previous 6 months compared with approximately 89 percent of youth. However, from 2000 and 2001 and again from 2001 to the first half of 2002, there were significant increases in the number of parents reporting Internet use. The number of parents reporting visiting anti-drug and parenting skill Internet sites has also increased since 2000.

- Among parents, wide disparities in Internet use by education and race-ethnicity persist. Across all waves, over 90 percent of parents who are college graduates reported use of the Internet in the past 6 months, whereas only 34 percent of those parents with less than a high school diploma claimed such recent use. In addition, African American and Hispanic parents reported a substantially lower likelihood of some contact with the Internet than did White parents (Detail Table 3-40).

- **Parental Internet use increased from 2000 and 2001 to Wave 5 (Table 3-S).** There was an overall statistically significant increase in Internet use among parents of 9.3 percentage points, from 2000 to Wave 5 (Detail Table 3-40).

Table 3-S. Parent Internet use and encounters with drug information on line
(November 1999 through June 2002)

	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
Percent using the Internet at least a few times	64.3	69.8	73.6	9.3* (4.9 to 13.7)	3.8* (0.4 to 7.2)
Percent visiting anti-drug Internet sites	6.7	8.6	8.9	2.2* (0.5 to 3.8)	0.2 (-1.5 to 2.0)
Percent visiting parenting skill Internet sites	7.7	9.4	10.4	2.7* (1.0 to 4.4)	1.1 (-0.7 to 2.8)

* Between year change significant at $p < 0.05$.

Patterns among parents are similar to patterns among youth in terms of accessing information about drugs on-line. About 9 percent of Wave 5 parents reported visiting an Internet site with anti-drug information in the past 6 months and 10 percent reported visiting an Internet site that included information about parenting skills during the previous 6 months (Detail Tables 3-41 and 3-42).

- Parental education is a telling variable in regard to visiting anti-drug sites and parenting skill Internet sites. A higher percentage of parents with at least some college education visited anti-drug Internet sites than did parents with less education, and more of them visited parenting skill Internet sites (Detail Table 3-41). This is in proportion to their overall heavier use of the Internet.

- **Visits to anti-drug sites and parenting skill sites increased significantly among parents from 2000 to the first half of 2002.** There was a 2.2 percentage point increase in reports of visiting anti-drug sites and a 2.7 percentage point increase in reports of visiting parenting skill sites from 2000 to the first half of 20022 (Detail Tables 3-41 and 3-42) (Table 3-Q). These increases from 2000 to Wave 5 are essentially consistent with the overall increase in Internet use.

The material in this chapter has thus far focused on exposure to Campaign-generated messages, through mass media or through the Internet. The next section shifts the focus from exposure to messages directly attributable to the Campaign to anti-drug messages that come from other institutions. One of the Campaign's methods of influence is to persuade other community institutions to increase their anti-drug efforts. A separate analysis of the environmental context effects of the Campaign on organizations at the national level and on state prevention coordinators is available (Berkowitz et al., 2002). Evidence that youth and parents are exposed to anti-drug messages from these organizations, and particularly that exposure to those messages is increasing over time, may be seen as evidence supportive of indirect Campaign exposure. It will not be possible to definitively attribute any observed changes to the Campaign, since many forces may influence the actions of these organizations. Still, this analysis provides some information about whether there is broad community change and thus whether indirect effects might have occurred.

3.3   Anti-Drug Related Education

The Media Campaign is not the only source of drug information reaching the population. This section describes the nature of, and change in, other sources of drug education and information for youth and parents. Young people were asked whether they received drug education in school and outside of school, how frequently they engaged in drug-related conversation with parents and friends, and about the content of those conversations. Youth were also asked whether and how frequently they were

exposed to anti-drug stories through a variety of media. Parents were asked about exposure to drug prevention efforts in their communities, including proposed drug laws and enforcement of existing laws, speeches by public officials, and existence of anti-drug programs. They were also asked about how often they recalled seeing drug-related stories in the media and about their involvement in anti-drug or parental effectiveness programs.

3.3.1   Youth In-school and Out-of-School Anti-Drug Education

Most youth reported receiving anti-drug education in school during the past year and in previous years. Across the five waves, approximately 76 percent of 12- to 18-year-olds responded that they had ever attended a drug education class or program in school and 64 percent reported attending such an event within the past year. Out-of-school drug education class or program attendance was much lower; 11 percent reported attending in past years and only 7 percent reported attending in the previous 12 months (Table 3-T and Detail Tables 3-43 through 3-46).

- **Ethnicity, age, and a youth's risk propensity have some association with anti-drug class and program exposure.** African American youth reported greater exposure than other youth to both in-school and out-of school drug education. Both younger age groups, 12- to 13-year-olds and 14- to 15-year olds, reported significantly more attendance at both lifetime and past year in-school drug education classes or programs than did 16- to 18-year-olds. (Detail Tables 3-43 through 3-46).

Table 3-T. In-school and out-of-school drug education across waves (12-to 18-year olds)

	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
In-school drug education in previous years	79.3	75.4	73.1	-6.3* (-8.5 to –4.0)	-2.3* (-4.5 to –0.1)
Past year in-school drug education	66.2	65.0	63.7	-2.5* (-5.6 to –0.6)	-1.3 (-4.1 to 1.4)
Out-of-school drug education in previous years	11.7	10.3	11.3	-0.4 (-2.2 to 1.4)	1.0 (-1.0 to 2.9)
Past year out-of-school drug education	7.3	5.8	6.9	-0.4 (-.2.1 to 1.3)	1.1 (-0.5 to 2.8)

* Between year change significant at p<0.05.

3.3.2   Changes in Youth Anti-Drug Education

There is evidence that in-school anti-drug education is decreasing. There was a significant decrease in the percentage of youth that reported ever attending drug education classes or programs in school from 2000 to Wave 5. The percent of youth that reported attending an in- school drug class in the past 12 months decreased significantly from 2000 to Wave 5. Out- of- school drug education, both past year and lifetime, decreased from 2000 to 2001, but increased slightly from 2001 to the first half of 2002; however, not returning to previous levels (Detail Tables 3-43 through 3-46).

- **Overall, from 2000 to the first half of 2002, there was a statistically significant downward trend in youth reporting having attended an in-school drug education class in the past year, and in reporting ever having attended an in -school anti-drug education class.** From 2000 to the

first half of 2002, there was a total decrease of 2.5 percentage points in past year attendance (Table 3-T).

Most subgroups showed significant declines in ever having attended in school drug education classes from 2000 to 2002, with Hispanic youth showing a particularly sharp decline. Their overall decline of 13.4 percentage points (from 79.7% in 2000 to 66.3% in 2002) was significantly more than the 6 percentage point decline for White youth during the same period. African American youth reported the highest level of attendance, and did not decline (Detail Table 3-43).

■ **There were no statistically significant changes in youth reporting attending a drug education class or program out-of-school in the past 12 months from 2000 to Wave 5.** There were also no significant changes in youth reporting attending such classes out of school in previous years from either 2000 or 2001 to Wave 5 (Detail Tables 3-44 through 3-46 and Table 3-T).

3.3.3   Parenting Skills and Anti-Drug Education

About a third of parents report having attended drug prevention or parent effectiveness programs. On average across the waves, 30 percent reported attendance at a drug abuse prevention activity in the previous 12 months and 29 percent said they attended a parent effectiveness program in the previous year (Detail Tables 3-76 and 3-77).

Ethnicity is associated with attendance at parent effectiveness programs, with African American parents reporting significantly higher attendance than either White or Hispanic parents. Hispanic parents reported the second highest levels of attendance (Detail Tables 3-76 and 3-77).

■ **There was little change in parents' reported attendance at drug prevention or parenting skills programs.** There was no overall change and only one subgroup reported statistically significant attendance increases or decreases among parents for either of these programs from 2000 or 2001 to Wave 5 (Detail Tables 3-76 and 3-77).

Hispanic parents reported an 8 percentage point decrease in attending drug abuse prevention programs from 2000 to 2001 (30% to 22%), but then from 2001 to Wave 5 they reported a 9 percentage point increase to 31 percent. Similarly, Hispanic parents reported a 6 percentage point decrease from 2000 to 2001 in attending parent effectiveness programs (26% to 20%), but then reported an 11 percentage point increase from 2001 to 31 percent by the first half of 2002 (Detail Tables 3-76 and 3-77).

3.4   Discussions about Drugs

In this section, evidence is presented about discussions among youth and parents and youth and friends concerning drug use, and about the drug advertisements. There is some discussion about the content of talk about drugs and some focus on changes in conversations across time. Differences between youth and parent reports of their conversations are striking.

3.4.1   Youth Discussions with Friends and Parents about Drugs

Most youth have conversations about drugs, and many of them have such conversations frequently. About 74 percent of youth aged 12 to 18 years reported having had at least one conversation about drugs with friends in the previous 6 months. Approximately 71 percent reported having had at least

one conversation with parents about drugs in the previous 6 months, and 47 percent reported having had four or more conversations with parents or friends about drugs in the past 6 months (Detail Tables 3-47 and 3-48, 3-52 through 3-54). The analyses that follow present evidence about the association of respondent characteristics and year of interview with both youth and parent reports of discussions about drugs. They use the percentage of youth or parents who report two or more conversations in the previous 6 months as the criterion measure. Overall, 60 percent of youth report this number of conversations with friends and 49 percent with parents. In contrast, over 80 percent of parents reported two or more conversations with their children (Detail Table 6-10). These differences will be explored further in Chapter 6.

- **Age, gender, and ethnicity played a role in conversations with friends about drugs.** Older youth aged 16 to 18 were more likely to report having had two or more such conversations with friends than younger youth; the difference between the percentage points for 12- to 13-year-olds and 16- to 18-year-olds reporting two or more such conversations was over 25 percentage points (Detail Table 3-48). Additionally, females were more likely than males to report discussions about drugs. While in earlier waves White youth were significantly more likely than African American youth to have had two or more conversations about drugs with friends, this gap has narrowed. Waves 4 and 5 have witnessed an increase in the number of African American youth reporting having had two or more conversations with friends (Detail Tables 3-48).

- **Sensation-seeking and risk score were also associated with conversations with friends about drug use.** High sensation-seeking youth and high-risk youth reported markedly higher levels of drug conversations than their respective low sensation-seeking and lower risk counterparts. For instance, 77 percent of high-risk youth reported having had two or more conversations with friends about drugs in the past 6 months, compared to only 49 percent of low-risk youth. Similarly, 70 percent of high sensation-seeking youth reported having had two or more conversations with friends about drugs in the past 6 months, while only 48 percent of low sensation-seeking youth reported having had two or more such conversations (Detail Table 3-48). These associations are, in part, an artifact given that older youth have higher sensation-seeking and risk levels and also report a higher rate of conversations.

- **In contrast, youth reports of two or more conversations with parents did not significantly vary by age, but did significantly vary by gender, race-ethnicity, and sensation-seeking tendency of the child.** Female youth were significantly more likely than male youth to have had two or more conversations with their parents about drugs and African-American youth were more likely to have had two or more conversations about drugs with parents than White or Hispanic youth.

3.4.2 Changes in Drug Conversations Across Years

Youth reports of drug conversations with friends overall were stable. Youth reports of drug conversations with parents, however, decreased significantly from 2000 to the first half of 2002, both overall and among several subgroups.

- **Overall, the percent of youth reporting two or more drug conversations with parents significantly declined by 5 percentage points from year 2000 to Wave 5.** This decrease was apparent for all age subgroups, although significant only for 12- to 13-year-olds. Among this youngest group, there was a 9 percentage point decrease in the percent of youth reporting having had two or more drug conversations with parents. Significant decreases were also seen among males, White youth, lower risk youth, and both high and low sensation seekers (Detail Table 3-53 and Table 3-U).

- **Only younger youths' (12- to 13-year-olds) drug conversations with friends changed significantly from 2001 to Wave 5** (Table 3-U and Detail Table 3-48). From 2000 to 2001, 12- to

13-year-olds reported a significant decrease in having had two or more drug conversations with friends in the past 6 months. However in Wave 5, reports of such conversations among this age group increased, returning to the original level seen in 2000. All other age groups and other subgroups showed no statistically significant change (Detail Tables 3-48 through 3-51 and Table 3-U).

Table 3-U. Change in drug-related conversations by youth across waves

Percent with two or more conversations in the past 6 months	Age Groups	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
With friends, reported by youth of ages:	12 to 13	44.2	39.2	43.7	-0.6 (-4.3 to 3.2)	**4.4* (0.6 to 8.2)**
	14 to 15	60.4	65.1	61.7	1.3 (-3.8 to 6.5)	-3.4 (-7.7 to 0.9)
	16 to 18	69.5	70.7	69.5	0.0 (-4.5 to 4.5)	-1.2 (-5.2 to 2.9)
With parents, reported by youth of ages:	12 to 13	57.8	52.0	49.1	**-8.7* (-13.1 to -4.3)**	-2.9 (-7.4 to 1.6)
	14 to 15	55.2	51.7	51.0	-4.2 (-8.9 to 0.4)	-0.7 (-6.2 to 4.7)
	16 to 18	50.0	46.4	47.5	-2.5 (-7.6 to 2.6)	1.1 (-3.8 to 6.1)
By parents with children of ages:	12 to 13	79.2	81.3	82.3	**3.1* (0.4 to 5.8)**	1.0 (-1.9 to 4.0)
	14 to 15	80.5	84.1	85.4	4.9 (-0.4 to 10.3)	1.3 (-2.9 to 5.6)
	16 to 18	79.0	82.6	83.0	3.9 (-0.7 to 8.6)	0.4 (-3.5 to 4.4)

* Between year change significant at $p<0.05$.

- **Parents reported much higher levels of conversation with their children at all ages than youth report, but the parent and youth reports are going in different directions.** Conflicting statistically significant changes over the time of the Campaign underscore the disparity. Parent reports of two or more drug-related conversations significantly increased 4 percentage points from year 2000 to Wave 5 whereas youth reports of such conversations decreased significantly by 5 percentage points over the same time period. In contrast to the moderately lower youth reports of conversations with parents among older youth, parent reports showed essentially no variation across ages of youth, and little variation with other characteristics of youth (Detail Table 6-10). This inconsistency with the youth reports is addressed further in Chapter 6, where the effects of the Campaign on parent–child talking are discussed.

Content of Drug Conversations

In the course of conversations about drug use, young people of all ages discussed the negative consequences that happen because of drugs, but some also spoke positively about drugs. Around 50 percent of young people aged 12 to 18 reported talking with their friends about "bad things that happen if you use drugs" within the past 6 months. Approximately 26 percent said they talked about "specific things I could do to stay away from drugs," and around 22 percent had conversations about how "marijuana use isn't so bad" (Detail Tables 3-49 to 3-51). The only significant overall change in content of drug conversations was a decline in youth having conversations about specific things they could do to stay away from drugs. Subgroups differed significantly on the frequency of having different types of drug conversations.

Saying positive things about drugs appears to be largely a function of age. While few 12- to 13-year-olds reported engaging in conversation about how "marijuana use isn't so bad," 20 percent of 14- to 15-year-olds and 33 percent of 16- to 18-year-olds have been involved in such conversations. Age had a smaller effect on the other two discussion types. Older youth, those 16- to 18-years-old, had fewer conversations about "specific things I could do to stay away from drugs" than younger teens, but had more conversations about the "bad things that happen if you use drugs" than younger teens (Table 3-V).

Table 3-V. Youth topics of conversation with friends by age group across all waves

Age groups	Specific things I could do to stay away from drugs (%)	Bad things that happen if you use drugs (%)	Marijuana use isn't so bad (%)
12 to 13	29.1	45.5	6.9
14 to 15	27.4	49.8	19.9
16 to 18	23.3	51.7	33.0

Sensation seeking and risk score are strongly associated with a youth's likelihood of having conversations about how "marijuana use isn't so bad." While 32 percent of high sensation-seeking youth had such conversations in the past 6 months, only 10 percent of low sensation-seeking youth had them. And compared to the relatively small 9 percent of low-risk youth who had conversations about how "marijuana use isn't so bad," 40 percent of high-risk youth had similar talks with friends. Sensation-seeking and risk also appear to be associated with other types of drug conversations. Fewer high sensation-seeking youth and high-risk youth had conversations in the past 6 months about "specific things they could do to stay away from drugs" than their low sensation-seeking and low-risk counterparts, but they had more conversations in the past 6 months about "bad things that happen if you use drugs" (Detail Tables 3-49 through 3-51).

Ethnicity was also associated with the types of conversations that youth had about drugs. White youth were significantly less likely than youth of other ethnicities to have had conversations with friends about "specific things they could do to stay away from drugs" and Hispanic youth were more likely to discuss negative consequences of drug use than other ethnicities (Detail Tables 3-49 through 3-51).

■ **From 2000 to Wave 5, there was a significant unfavorable decline of 4 percentage points in the proportion of all youth who reported conversations about "specific things I could do to stay away from drugs"** (Detail Tables 3-49 to 3-51). In 2000, 30 percent of the overall sample of youth reported such conversations; while in Wave 5, only 26 percent reported the same. The percent of all youth having conversations about negative consequences of drug use or about marijuana use "not being so bad" did not change significantly over this time period.

■ **There were both significant favorable and unfavorable changes among age subgroups.** Twelve- to 13-year-olds showed a favorable change with a 3 percentage point decrease from 2000 to Wave 5 in the proportion reporting conversations that "marijuana use isn't so bad" and a 3 percentage point increase in conversations about "bad things that happen if you use drugs" between 2001 and Wave 5. This follows a decline from 2000 to 2001. Conversely, 14- to 18-year-olds appeared to change unfavorably over this time period. Among this age group, there was a statistically significant 4 percentage point decrease in conversations about the "specific things that I could do to stay away from drugs" from 2000 to Wave 5 and a significant decrease of 4 percentage points in discussions about "bad things that happen if you use drugs" (Detail Tables 3-49 through 3-51).

3.4.3 Discussions about Anti-Drug Ads

Youth reported having conversations about the Campaign anti-drug ads (Table 3-W). Twenty-eight percent of 12- to 18-year-olds reported having a conversation about the anti-drug ads with their parents and 41 percent recalled having such a conversation with friends or others in the previous 6 months (Detail Table 3-55 and 3-56). There were no overall statistically significant changes in discussions about anti-drug ads from 2000 to Wave 5, or 2001 to Wave 5; moreover, with one exception, subgroups showed no significant changes as well.

Table 3-W. Changes in youth conversations about anti-drug ads from Wave 1 to Wave 5

Age group and discussion partner	Percent with at least one conversation about anti-drug ads in past 6 months			2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)		
Discussions with parents:					
Youth aged 12 to 13	38.7	36.0	35.5	-3.2 (-7.2 to,0.8)	-0.4 (-4.6 to 3.7)
Youth aged 14 to 15	30.4	28.0	27.2	-3.3 (-7.5 to 1.0)	-0.8 (-5.6 to 3.9)
Youth aged 16 to 18	18.8	21.2	22.1	3.3 (-0.5 to 7.1)	0.9 (-3.4 to 3.3)
Discussions with others (friends, other adults):					
Youth aged 12 to 13	42.2	38.3	39.8	-2.4 (-7.1 to 2.3)	1.5 (-2.24 to 5.4)
Youth aged 14 to 15	42.4	41.8	43.0	0.6 (-4.3 to 5.4)	1.3 (-3.2 to 5.7)
Youth aged 16 to 18	40.1	37.8	39.5	-0.8 (-3.3 to 1.6)	1.4 (-1.5 to 4.4)

■ **Age, ethnicity, sensation seeking, and risk score were related to conversations with parents about the anti-drug ads.** A higher percent of young youth aged 12 to 13 years reported conversations with their parents about anti-drug ads than older youth. Similarly, a greater proportion of low sensation-seeking and low-risk youth reported anti-drug ad conversations with their parents than high sensation-seeking and high-risk youth. Also, African-American youth have significantly more such conversations with parents compared to White and Hispanic youth (Detail Table 3-55).

■ **Gender was strongly associated with anti-drug ad conversations with friends and adults other than parents.** Females were significantly more likely than males to have talked with friends or other adults about the anti-drug ads (Detail Table 3-56).

■ **Overall, youth conversations about anti-drug ads with parents and with friends remained stable between 2000 and Wave 5.** The only exception was a statistically significant decline in such conversations with parents reported by Hispanic youth, from 35 percent to 28 percent.

3.5   Perceptions of Media and Community Attention to Drug Use

3.5.1   Youth's Perceived Media Coverage of Youth and Drugs

Youth see and hear a good deal about drug use among young people in the mass media. More than 95 percent of all youth reported at least monthly exposure to media stories about young people and drug use.[14] The media sources that respondents were asked about included television and radio news; television movies, sitcoms, and dramas; television talk shows; rental and theater movies; and magazines. However, there was a statistically significant decrease in the reported overall exposure to drug-related coverage from 2000 to the first half of 2002, as well as significant decreases in exposure to certain media and among certain subgroups.

■ **Almost 50 percent of youth noticed media coverage about drug use among young people at least once a week on at least one of these media.** Almost 30 percent noticed such stories weekly on television or radio news, and more than 20 percent recalled such stories appearing weekly in television movies, sitcoms, or dramas, and on television talk shows. Fewer young people noticed such stories appearing weekly in movies or in magazines (Detail Tables 3-57 through 3-61).

[14]See question D9 in the Teen questionnaire.

Recall of drug stories on various media is related to gender, age, and ethnicity. Younger youth, aged 12 to 13, reported less exposure to stories about drugs and youth than did older youth across all types of media, and significantly less on TV talk shows. African American youth were more likely than White and Hispanic youth to recall stories about youth and drugs in all media and were significantly more likely than White youth to recall such stories in movies. Females reported more exposure than males to stories about drugs among youth on all media types except movies, and significantly more on TV talk shows (Detail Tables 3-57 through 3-61).

■ **From 2000 to Wave 5, there was an overall statistically significant decrease of 5 percentage points in youth recalling stories about drug use in at least one medium in recent months.** In 2000, slightly more than 50 percent of youth recalled stories with drug themes in at least one medium in recent months, but in 2001, this had declined to 48.8 percent and then to 47.1 percent in the first half of 2002. This pattern may not fairly represent the actual trends over time, however. Waves 1 through 3 were all quite similar (around 50%); the noticeable decline (to 44%) occurred only in Wave 4, (the second half of 2001), and continued through Wave 5. From 2000 to the first half of 2002, declines were also significant for TV or radio news (-5 percentage points) and TV talk shows (-3 percentage points) (Detail Tables 3-57, 3-59 and 3-62).

3.5.2 Parents' Exposure to Non-Campaign Anti-Drug or Parenting Messages

Across waves, parents reported often seeing drug themes presented in the media. Nearly 65 percent of parents reported weekly exposure to at least one media source dealing with the issues of youth and drugs (Table 3-V). Slightly less than half of all parents reported having seen or heard stories about drug use on television or radio news programs at least weekly in recent months. More than 30 percent of parents noticed such stories appearing weekly in newspapers and in television entertainment programs; and more than 20 percent saw drug-related stories on television talk shows or television news magazines. Fewer parents reported weekly exposure to drug stories from non-news radio, movies, and magazines (Detail Tables 3-63 through 3-69). Statistically significant changes in recall of exposure to stories about youth and drugs that were heard or seen in particular media sources are discussed below.

■ **Ethnicity and education were associated with recall of exposure to stories about youth and drugs in the media.** White parents were less likely than both African American and Hispanic parents to report having noticed stories dealing with drug use among young people in all media except newspapers. College graduates were less likely to report having noticed stories on all media except magazine and newspaper articles (Detail Tables 3-63 through 3-69).

■ **There was little overall change from 2000 or 2001 to Wave 5 in parents' recall of having seen media stories about young people and drug use at least weekly.** However, statistically significant changes were seen in three media sources. Parents' reports of having noticed such stories in TV movies, sitcoms, or dramas increased by 5 percentage points from 2000 to the first half of 2002. Parents' reports of noticing stories about young people and drug use on non-news radio programs increased 3 percentage points from 2000 to Wave 5, and parents' recall of having noticed such stories in magazines at least weekly increased 3 percentage points from 2001 to the first half of 2002 (Table 3-X and Detail Table 3-64 to 3-68).

■ **Significant subgroup differences were also reported in several types of media from 2000 or 2001 to Wave 5.** Most notably, Hispanic parents reported a 13 percentage point increase from 2000 to Wave 5 in having noticed stories in TV movies, sitcoms, or dramas, which was more than White parents. African American parents reported a 7 percentage point increase from 2000 to Wave 5 in noticing stories in magazine articles and parents with some college experience noted a

5 percentage point decrease in noticing stories in newspaper articles (Detail Table 3–65, 3-67 through 3-69).

Table 3-X. Parents' exposure to weekly media stories about drugs across waves

	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
TV or radio news	50.4	47.5	48.4	-2.0 (-5.0 to 1.0)	0.9 (-2.4 to 4.1)
Newspapers	32.8	31.3	31.1	-1.7 (-4.5 to 1.1)	-0.2 (-3.0 to 2.6)
TV dramas, sitcoms, movies	28.6	32.5	33.3	4.7* (1.8 to 7.6)	0.8 (-2.4 to 4.0)
TV talk, magazine shows	22.8	21.4	22.8	0.0 (-3.2 to 3.2)	1.4 (-1.5 to 4.3)
Radio (not news)	13.2	14.6	16.4	3.2* (0.4 to 6.1)	1.8 (-0.9 to 4.5)
Movies	9.4	9.5	11.2	1.8 (-0.2 to 3.8)	1.7 (-0.3 to 3.6)
Magazines	8.2	7.6	10.2	2.0 (-0.1 to 4.0)	2.6* (0.7 to 4.4)
At least one source	64.0	63.1	63.5	-0.5 (-3.1 to 2.1)	0.4 (-2.8 to 3.7)

* Between year change significant at $p < 0.05$.

Parent Reports of Local Anti-Drug Activity

Most parents reported some awareness of anti-drug activity in their localities. About 45 percent of all parents reported having heard a lot about police crackdowns on drug use or drug sales in their community within the past year and over 30 percent had "heard a lot" about anti-drug programs in schools or community centers. Reports of a political focus on drugs were less prominent than legal enforcement or prevention programs. Only 17 percent of all parents had heard a lot about drug-related laws proposed by state or local governments within the past year. Thirteen percent reported hearing public officials speak about drugs, and 7 percent had heard a lot about drug-related propositions or referenda on the ballot for public voting (Table 3-Y, Detail Tables 3-71 through 3-75).

There was only one statistically significant change from 2000 or 2001 to the first half of 2002 in parents' awareness of drug activities; a 4 percentage point decrease in parents saying they had heard a lot about anti-drug programs in schools or community centers from 2000 to Wave 5 (Table 3-Y).

■ Ethnicity and education are associated with knowledge of various types of drug-related activities. White parents were less likely to have heard a lot about political and legal activities compared to Hispanic and African American parents; African American parents were the most likely to have heard a lot about these activities (Detail Tables 3-71 through 3-75). Parents with less than a high school education were more likely to have heard a lot about drug-related propositions/referenda and about speeches about drugs (Detail Table 3-72 and 3-75).

3.6   Summary and Conclusions

The data provided to the evaluators by the Media Campaign describes what media time and space have been purchased over the 34-month period from September 1999 to June 2002. On average, the Campaign purchased enough media time to expect the average youth to be exposed to 2.5 directly targeted messages per week, and the average parent to be exposed to about 2.2 messages per week. For both parents and youth, there was some instability in the amount of GRPs bought over each measurement wave (roughly 6 months). For youth, exposures per week in Waves 1 and 2 were quite similar at 2.6 and 2.5, respectively. They increased to 2.8 exposures per week in Wave 3, and then

Table 3-Y. Change in parent exposure to drug-related communication across waves[1]

Measure	Waves 1 & 2 2000 (%)	Waves 3 & 4 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
Percentage hearing a lot about anti-drug programs in community in past year	34.4	30.2	30.7	-3.7* (-6.4 to –0.9)	0.5 (-2.6 to 3.6)
Percentage hearing a lot about speeches about drugs by public officials in past year	15.2	13.4	12.6	-2.5* (-5.4 to –0.3)	-0.8 (-2.9 to 1.3)
Percentage hearing a lot about anti-drug laws in past year	17.8	16.4	16.7	-1.1 (-3.3 to 1.1)	0.3 (-1.9 to 2.5)
Percentage hearing a lot about drug-related referenda in past year	7.9	8.0	7.4	-0.5 (-2.4 to 1.4)	-0.6 (-2.8 to 1.6)
Percentage hearing a lot about police crackdowns on drug use or sales in past year	45.6	43.8	44.9	-0.8 (-4.4 to 2.9)	1.1 (-2.4 to 4.6)

[1] For parents with children aged 12 to 18.

* Between year change significant at $p < 0.05$.

decreased to 2.1 per week in Wave 4. In Wave 5, youth GRPs increased again to 2.6 per week. For parents, there was more exposure instability across waves. During Wave 1, media time purchased for parents was enough to expect 2.7 exposures per week. During Wave 2 it fell to 1.5 exposures per week, then climbed back to 2.3 exposures per week in Wave 3. In Wave 4, parent exposures fell again to 1.9 per week, and slightly increased to 2.1 per week in Wave 5.

The Campaign also varied the emphasis on the behavioral ad platforms in each wave. The available data allowed classification of the Campaign TV and radio ads, which made up 80 percent of all GRPs for youth, although only about 60 percent of all GRPs for parents. For youth, an early focus on Negative Consequences of drug use had almost disappeared by Wave 3, but was revitalized in Wave 4 and remained strong in Wave 5. A focus on Normative Education/Positive Alternatives was strong across all five waves, while Resistance Skills were emphasized in Waves 1 and 3, but not included in Waves 2, 4 or 5. For parents, the Parenting Skills/Personal Efficacy/Monitoring platform was maintained through all five waves, and was especially strong in Waves 2 and 4. But the Your Child at Risk platform received only some weight at Wave 3, while the Perceptions of Harm platform was included only at Wave 1. Some of the Your Child at Risk platform advertising in Waves 3 and 4 focused on the risks of inhalants. For parents, the new Drugs and Terror messages received approximately a fifth of the GRPs in Wave 5.

The Evaluation used two types of measures of exposure to Campaign messages. The first, a general exposure measure, combined recall of exposure to anti-drug messages on four media (TV and radio, print, outdoor media, and movies/videotapes). Both parents and youth reported high exposure on those measures. The median response was 9 exposures per month for parents and 12.5 exposures per month for youth. This was probably equivalent to between 2 to 3 exposures per week. There was no overall detectable change in exposure from 2000 to Wave 5, suggesting this general exposure measure was insensitive to the changes in media purchases.

The second exposure measure asked for recalled frequency of viewing specific ads on television and radio that were on the air in the 60 days prior to the interview. These produced lower estimates of exposure to the Campaign, with parents reporting a median of 4 exposures and youth reporting a median of 7.5 exposures to the TV ads "in recent months." This was probably equivalent to 0.4 to 1.1 exposures per week respectively. For both youth and parents, there was a substantial increase in recalled specific exposure across the five waves (with some up and down movement). For parents, recall of weekly television ad exposure was up 28 percentage points (from 26% to 52%) between 2000 and the first half of 2002, while youth recall on the same measure increased slightly more than 11 percentage points (from 35% to 47%) over the same period.

Recall of specific radio ads was assessed for youth during Waves 2, 3, 4, and 5, and for parents across all five waves. The absolute level of recall of radio ads remained much lower than for television ads in both groups. Among youth at Wave 2, 3 percent of youth said they had heard radio ads weekly; this had increased to 11 percent at Wave 3, then decreased to 3 percent in Wave 4, and decreased slightly again to 1.4 percent in Wave 5. For parents, weekly recall increased from 8 percent at Wave 1 to 11 percent at Wave 2, increased to 15 percent in Wave 3, decreased to 13 percent at Wave 4, and declined further to 2 percent in Wave 5. The pattern of youth recall of radio ads tracks GRP radio purchases reasonably well, for parents the match is less clear.

All youth and parents were asked to provide their assessments of the ads they had been shown. Both groups remained generally positive. Youth evaluations of the ads became more positive from 2000 to the first part of 2002, while parent evaluations increased from 2000 to 2001, but decreased somewhat in Wave 5, while still remaining more enthusiastic than youth.

Overall use of the Internet continued to grow for youth and for parents. However, the level of visits to anti- (or pro-) drug sites was below 10 percent and unchanging for youth. Parent claims that they had visited either anti-drug sites or parenting skills sites both grew from 2000 to Wave 5, although their absolute levels remained relatively low at just over 10 percent.

In addition to distributing messages directly, the Campaign hopes also to reach its audiences indirectly, through other institutions and routes. While for many of these other informational sources there was a substantial level of exposure to anti-drug messages, there was little evidence that exposure to such messages was increasing over the course of the Campaign. Thus it is difficult to claim these complementary exposures as indirect exposures produced by the Campaign. Rather they are best understood as an ongoing context for the Campaign.

The Campaign's efforts with respect to youth organizations has focused on integrating drug prevention messages and strategies into existing organizations' educational programs and extra-curricular activities. Approximately two-thirds of the youth reported recent in-school drug education but that had declined between 2000 and the first half of 2002. Potential Campaign influence through out-of-school activities was also examined. Youth reported that these activities were relatively rare; attendance at such activities had decreased from 2000 to 2001, but rebounded in the first half of 2002, while still remaining low.

Parents reported lots of drug-related discussions with their children, with a statistically significant increase of 4 percentage points between 2000 to the first half of 2002. Youth reported a substantial level of such conversations, even if less than their parents claimed. However, from 2000 to the first half of 2002, youth reported significantly fewer conversations with their parents. Additionally, from

2000 to Wave 5, there was a significant decline of 4 percentage points in the proportion of all youth who reported conversations about "specific things I could do to stay away from drugs."

Both youth and parents were asked about exposure to drug and youth stories across a variety of mass media. Parents were asked about their awareness of any local anti-drug activity. Among youth, there was a 5 percentage point increase in exposure to such stories from 2000 to Wave 5, and although no overall significant changes were seen for parents, exposure did increase among specific media sources. While there were reasonably high levels of recall of mass media stories, and sometimes of local anti-drug activities, there was no change for most of them across waves. Around 30 percent of parents reported attending drug abuse prevention programs and parenting effectiveness programs in the past year, but this did not change significantly over time.

Overall, the Campaign purchased enough media messages to expect the average youth to be exposed to more than two targeted messages per week, and youth and parents did recall seeing and hearing them. Notable changes from 2000 and 2001 to Wave 5 include increases in recall of specific TV ads for youth and parents, an increase in recall of radio ads for youth, and a decrease in recall of radio ads for parents. Youth were still not reporting much contact with anti-drug information on the Internet; parents also reported low levels of such contact, with some small increase over time. There was little evidence that anti-drug messages from other institutions were increasing over the course of the Campaign, and in some cases there were slight declines, including for in-school drug education and in children's reports of talking with parents, while parents were reporting a positive trend in such conversations.

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4. Trends in Youth Marijuana and Inhalant Use

This chapter focuses on trends in youth marijuana and inhalant use as reported by three sources: the Monitoring the Future (MTF), the National Household Survey of Drug Abuse (NHSDA) and the Media Campaign's evaluation survey—National Survey of Parents and Youth (NSPY). Data are also presented regarding trends in youth reports of marijuana offers.

Along with cross-sectional analyses based on the five waves of NSPY data collection, this chapter also presents results from longitudinal analyses of reported marijuana use. The NSPY study to date has two rounds of data for most respondents: Wave 1 respondents were reinterviewed at Wave 4, and Wave 2 and Wave 3 respondents were followed up at Wave 5. Longitudinal analyses will look at overall changes from Round 1 (Waves 1, 2, and 3) to Round 2 (Waves 4 and 5).

4.1 MTF Trends in Marijuana Use

The MTF study is sponsored by the National Institute on Drug Abuse (NIDA). It is conducted every spring using nationally representative samples of 8th, 10th, and 12th graders in their classrooms. Students in both public and private schools are represented. Data collection is via a self-administered paper-and-pencil questionnaire. The number of schools sampled has been about 420 in recent years, and the number of responding students approximately 50,000. From 1991 to 2001, the MTF has maintained a student response rate between 82 and 91 percent in participating schools, varying by grade level. The main reason for student nonresponse is student absence from class at the time of data collection. The study uses a standard set of three questions to determine usage levels for the various drugs. For instance, the questions about marijuana use are as follows: "On how many occasions (if any), have you used marijuana… (a) in your lifetime? (b) during the past 12 months? (c) during the last 30 days?" Each of the three questions is answered on the same scale: 0 occasions, 1-2 occasions, 3-5, 6-9, 10-19, 20-39, and 40 or more occasions. Because of its longevity, the MTF study serves as an important benchmark for comparing results and judging the nation's success in combating drug use by youth.

According to the latest MTF study, there are no significant changes in lifetime, annual, or past month marijuana use. For 8th, 10th, and 12th graders, 2001 levels are essentially the same as they were in 2000, which had not changed significantly from 1999 levels (Table 4-A).

Table 4-A. MTF lifetime, annual, and past-month marijuana use in 1999, 2000, and 2001

| | Marijuana use | | | | | | | | |
| | Ever (%) | | | Past year (%) | | | Past month (%) | | |
Grade	1999	2000	2001	1999	2000	2001	1999	2000	2001
8th	22.0	20.3	20.4	16.5	15.6	15.4	9.7	9.1	9.2
10th	40.9	40.3	40.1	32.1	32.2	32.7	19.4	19.7	19.8
12th	49.7	48.8	49.0	37.8	36.5	37.0	23.1	21.6	22.4

MTF researchers conclude that after reaching a peak in 1996 among 8th graders and in 1997 among 10th and 12th graders, annual marijuana use has declined only very modestly, with no significant changes in more recent years (Johnston, O'Malley, and Bachman, 2002). This long-term trend is evident in Figure 4-A.

Figure 4-A. Percentage of 8th, 10th, and 12th graders reporting annual marijuana use: MTF 1991-2001
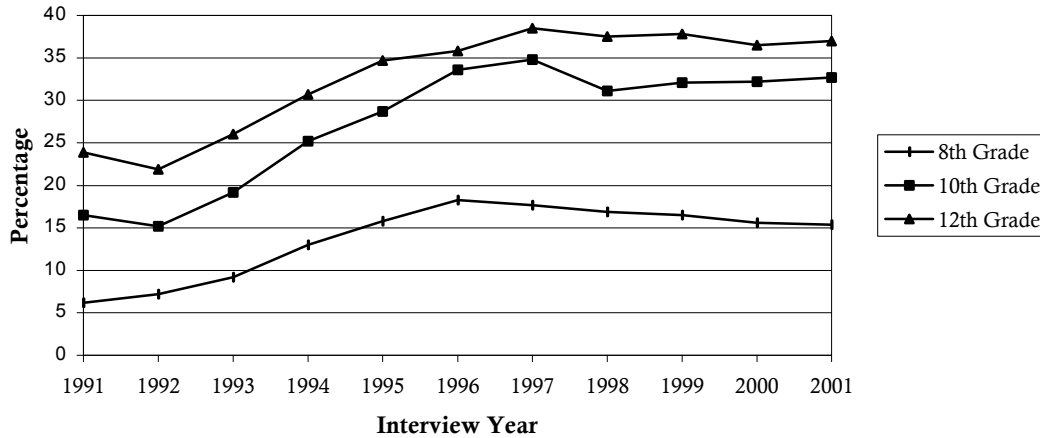
The 11-year trends for lifetime and past month use were similar, with sharp increases in the early 1990s followed by stabilization and some declines starting in 1996. MTF researchers note that the two directional changes registered in the past decade for many illicit drugs, among them marijuana, were first evident among 8th graders. They interpret this as a suggestion that "8th graders may be the most immediately responsive to changing influences in the larger social environment" (Johnston, O'Malley, and Bachman, 2001). While there is a fairly steady decline among eighth graders since 1996, there is no suggestion that the decline can be attributed to the Media Campaign. The decline has not accelerated since the start of the nationwide Media Campaign in 1998, nor since the start of Phase III in late 1999. In addition, the decline remains small in absolute terms; the 2001 rate for 8th graders of 15 percent remains well above the all time low rate in 1991 of 6 percent.

4.2   NHSDA Trends in Marijuana Use

The National Household Survey on Drug Abuse (NHSDA) is an annual survey that provides information on the use of illicit drugs, alcohol, and tobacco by the civilian, noninstitutionalized population of the United States aged 12 years old and older. Initiated in 1971, the survey is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). Until 1999, the survey collected data by self-administered questionnaires given to a representative sample of the population in face-to-face interviews at their place of residence. Since 1999, the NHSDA interview has been carried out using a computer-assisted interviewing methodology. Because of the major redesign of the sample and data collection method in 1999, estimates for 1999 and later are generally not comparable with estimates from 1998 and earlier. The NHSDA interviews approximately 70,000 people, including samples in every state, over each 12-month period.

Table 4-B presents patterns of marijuana use for 1999, 2000, and 2001. No significant changes in all the three measures of marijuana use are reported between 1999 and 2000. However, between 2000 and 2001, significant increases in lifetime, past year, and past month marijuana use were found for 12- to 17-year-olds. For lifetime and past year marijuana use, similar increases were found for the older youth (16 to 17 and 14 to 15) but not for the younger ones (12 to 13).

Table 4-B. NHSDA lifetime, annual, and past-month marijuana use in 1999, 2000, and 2001

Age groups	Marijuana use								
	Lifetime (%)			Past year (%)			Past month (%)		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
12 to 13	4.0	4.0	3.9	3.2	2.7	3.1	1.5	1.1	1.5
14 to 15	17.6	17.5	18.8	13.5	13.3	**14.8***	6.9	6.9	7.6
16 to 17	34.3	34.0	**36.4***	25.5	24.5	**27.6***	13.2	13.7	14.9
12 to 17	18.7	18.3	**19.7***	14.2	13.4	**15.2***	7.2	7.2	**8.0***

* Difference with regard to previous year is significant at $p < .05$.

The NHSDA provides significance tests only for changes between adjacent years. The NHSDA estimates of marijuana use do not increase or decrease monotonically from 1999 to 2001; therefore, in the absence of the appropriate tests of significance between nonadjacent years, it is unclear whether changes in marijuana use between 1999 and 2001 are significant.

4.3 NSPY Trends in Marijuana Use

This section focuses on marijuana use as reported by youth during the five NSPY waves of data collection completed to date. As in the previous report, rates for 9- to 11-year-olds are not available because many of the youth initially in this age group aged into the next group (12- and 13-year-olds) by the followup wave of data collection. Rates of marijuana use for 9- to 11-year-olds at the time of their initial interview, however, were quite low across all measures of marijuana use (lifetime, past year, and past month), with the highest at 1.3 percent for lifetime use at Wave 1. This analysis concentrates on youth between the ages of 12 and 18.

The previous report found that there were no significant reductions in marijuana use for any of the target age groups between the years 2000 (the average estimate of Waves 1 and 2) and 2001 (the average estimate of Waves 3 and 4). However, there was evidence of increases among 14- to 15-year-olds for past month and regular use between 2000 and 2001.

This report focuses on changes between year 2000 and Wave 5 and between year 2001 and Wave 5. Overall, there are no significant changes (declines or increases) in lifetime, past year, past month, or regular use of marijuana. Detail Tables 4-1 through 4-4 present this information for a variety of subgroups. Table 4-C presents overall estimates (for all youth aged 12 to 18), along with estimates of the proportion of youth within each age group that reported marijuana use across the four measures.

It was noted in the previous report that the absolute levels of past month and regular use among 14- to 15-year-olds doubled from 2000 to 2001. The corresponding levels in the Wave 5 data, however, are not statistically different from either the 2000 or the 2001 levels. As Wave 5 covers only the first half of 2002, the lack of Wave 5 versus 2000 and 2001 differences may be a sample size or seasonality issue. Thus, while encouraging that the increase did not continue, it is premature to conclude that the pattern of increased past month and regular use among 14- to 15-year-olds found in the previous

report has disappeared in 2002. Wave 5 data for 2002 are consistent with the absence of trends in marijuana use reported by the MTF surveys for previous years, from 1999 to 2001.

Table 4-C. NSPY trends in marijuana use across measures by age group

Use measure	Age groups	Percent reporting use				
		Year 2000 (%)	Year 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
Lifetime						
	12 to 13	4.9	4.1	4.9	-0.1 (-1.8 to 1.6)	0.7 (-1.0 to 2.5)
	14 to 15	15.1	18.9	19.5	4.5 (-0.5 to 9.4)	0.7 (-3.6 to 5.0)
	16 to 18	40.3	39.9	38.9	-1.3 (-6.4 to 3.7)	-1.0 (-5.6 to 3.6)
	12 to 18	21.8	22.6	23.0	1.2 (-1.2 to 3.7)	0.4 (-2.0 to 2.7)
Past year						
	12 to 13	3.3	2.6	3.2	-0.1 (-1.4 to 1.2)	0.6 (-1.0 to 2.1)
	14 to 15	11.3	13.8	13.2	1.8 (-1.9 to 5.5)	-0.6 (-4.1 to 2.9)
	16 to 18	29.1	26.8	26.3	-2.8 (-7.5 to 1.9)	-0.5 (-4.8 to 3.7)
	12 to 18	15.8	15.5	15.5	-0.3 (-2.3 to 1.7)	0.0 (-2.0 to 2.0)
Past month						
	12 to 13	1.4	1.1	1.1	-0.3 (-1.1 to 0.4)	0.0 (-1.1 to 1.0)
	14 to 15	3.6	7.2	6.2	2.6 (-0.3 to 5.5)	-1.0 (-3.6 to 1.5)
	16 to 18	14.7	14.0	15.3	0.7 (-2.7 to 4.0)	1.3 (-2.3 to 5.0)
	12 to 18	7.2	8.0	8.4	1.2 (-0.5 to 2.8)	0.3 (-1.2 to 1.9)
Regular						
	12 to 13	0.5	0.3	0.6	0.1 (-0.5 to 0.7)	0.3 (-0.3 to 0.9)
	14 to 15	2.2	5.4	3.8	1.7 (-0.1 to 3.5)	-1.6 (-3.7 to 0.5)
	16 to 18	12.4	11.7	11.7	-0.8 (-3.9 to 2.4)	0.0 (-3.2 to 3.3)
	12 to 18	5.6	6.3	6.1	0.4 (-0.9 to 1.7)	-0.3 (-1.7 to 1.2)

4.4 NSPY Comparison with MTF and NHSDA Data

Hornik et al., (2000) reported similar direction of trends over time but marked differences in absolute levels of estimates of marijuana use throughout the 1990s among the MTF, NHSDA[1], and the Partnership Attitude Tracking Study (PATS)[2]. In general, the estimates provided by PATS were the highest, followed by MTF, and those provided by NHSDA were the lowest. Given the variation in these estimates across surveys, the estimates from the NSPY were expected to vary somewhat from those presented in these three surveys. However, because both PATS and MTF are school-based surveys, and NHSDA and NSPY are home-based surveys, one would expect that the estimates from NSPY would be closer to those from NHSDA. In fact, that was the case.

NSPY 2000 estimates of use of marijuana are within sampling error limits of NHSDA estimates from the 2000 data (Table 4-D). The NHSDA also reported no statistically significant change in marijuana

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[1] The National Household Survey of Drug Abuse (NHSDA) is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). This survey system can be used to measure change from the 70s and 80s until 1998 and from 1999 forward but cannot be easily used to measure change from 1998 and earlier, to 1999 and later, because of a major redesign in 1999 that substantially disrupted the time series.

[2] The Partnership Attitude Tracking Study (PATS) is sponsored by the Partnership for a Drug-Free America (PDFA).

use among 12- to 17-year-old youth between 1999 and 2000; NSPY data do not cover 1999 and so cannot be used for direct comparisons for that year. NHSDA confidence interval estimates for 2001 have not yet been published so comparisons with 2001 NSPY results cannot be made.

Table 4-D. Comparison of published NHSDA 2000 data with NSPY 2000 (Waves 1 and 2) data on use of marijuana among youth aged 12 to 17 (percentages and confidence intervals)

All 12- to 17-year-olds	Marijuana use		
	Lifetime % (CI)	Past year % (CI)	Past month % (CI)
NHSDA 2000*	18.3 (17.7 to 18.9)	13.4 (12.86 to 13.94)	7.2 (6.78 to 7.62)
NSPY 2000 (Waves 1 and 2)	19.2 (17.4 to 21.1)	14.0 (12.5 to 15.7)	6.0 (5.0 to 7.3)

* NHSDA results http://www.samhsa.gov/publications/publications.html

The NHSDA study reported significant increases in all three estimates of marijuana use among 12- to 17-year-olds between 2000 and 2001. With a smaller sample size, the NSPY detected a significant increase in marijuana use between 2000 and 2001 only for 14- to 15-year-olds and only with respect to past month and regular marijuana use. No NHSDA data are available for 2002 to enable comparisons with the absence of trends found in the NSPY data between both 2000 and 2001, and the first half of 2002.

MTF 2000 and 2001 estimates of marijuana use are higher than the NSPY 2000 and 2001 estimates (Table 4-E). There are no published MTF estimates for 2002 as yet. As noted earlier, the MTF estimates were also higher than the NHSDA estimates throughout the 1990s. The reasons for these differences are not entirely clear. They may stem from the wording of the questionnaire, the setting for the interviews (school versus home), response rates, coverage rates, some combination thereof, or other factors such as edit/imputation rules. It is also possible that the discrepancy may be accounted for in part by the fact that MTF is conducted during the spring of each year, while NSPY data is collected throughout the year. On average, respondents to NSPY in a given grade may be 4 months younger, based on date of interview, than are respondents to the MTF survey.[3] To the extent that changes in behavior took place during this period, they are likely to be reflected in differential estimates of marijuana use.

Table 4-E. Comparison of MTF and NSPY 2000 and 2001 data on marijuana use

Survey and grade	Marijuana use					
	Lifetime (%)		Past year (%)		Past month (%)	
	2000	2001	2000	2001	2000	2001
MTF 8th	20.3	20.4	15.6	15.4	9.1	9.2
NSPY 8th	9.5	10.3	6.4	7.1	2.4	3.5
MTF 10th	40.3	40.1	32.2	32.7	19.7	19.8
NSPY 10th	27.2	23.1	19.3	17.0	9.1	9.7
MTF 12th	48.8	49.0	36.5	37.0	21.6	22.4
NSPY12th	40.0	47.2	30.8	32.1	16.5	19.0

[3] This difference reflects two factors: NSPY respondents are interviewed throughout the year, and all respondents interviewed after the end of an academic year are assigned to the grade they are entering.

4.5 Marijuana Offers

This section reviews the evidence about trends in youth reports of receiving offers of marijuana. This is an important behavioral outcome, both because the Campaign has aired some messages that encourage resistance to offers of marijuana and because offers are closely related to marijuana use. The association between offers and use is also discussed.

In the previous report, no age group showed a statistically significant change in receiving offers at all or in the past 30 days. Across all subpopulations, youth reports of receiving marijuana offers were stable between years 2000 and 2001.

Incorporating Wave 5 data, reports of marijuana offers are stable over time as well. Table 4-F focuses on the proportion of youth within each age group that reported never receiving offers and receiving offers in the previous 30 days. The table shows the strong age gradient of offers and the lack of any significant changes from 2000 and 2001 to Wave 5.

Table 4-F. NSPY trends in youth reports of marijuana offers

		Percent reporting marijuana offers				
Use measure	Age groups	Year 2000 (%)	Year 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
Never received offers						
	12 to 13	81.7	82.9	81.6	-0.1 (-3.8 to 3.6)	-1.3 (-4.5 to 2.0)
	14 to 15	53.8	54.9	53.4	-0.3 (-5.0 to 4.3)	-1.5 (-6.8 to 3.9)
	16 to 18	29.4	29.6	32.0	2.6 (-1.8 to 6.9)	2.4 (-2.2 to 6.9)
	12 to 18	52.5	53.4	53.2	0.7 (-2.0 to 3.4)	-0.2 (-2.9 to 2.5)
Received offers in the past month						
	12 to 13	9.9	9.0	9.7	-0.2 (-2.1 to 1.8)	0.7 (-1.4 to 2.7)
	14 to 15	26.6	27.8	29.8	3.3 (-1.5 to 8.0)	2.0 (-2.6 to 6.6)
	16 to 18	46.6	46.6	46.7	0.1 (-4.5 to 4.7)	0.1 (-5.2 to 5.5)
	12 to 18	29.4	29.6	30.7	1.2 (-1.1 to 3.6)	1.1 (-1.3 to 3.6)

In addition, as shown in Detail Tables 4-6 and 4-7, there are no subpopulations that show consistent significant changes in offers between the average estimates for 2000 and 2001, and Wave 5.

Whereas cross-sectional data on the association between offers and marijuana use does not enable one to make any claims as to directionality, longitudinal data allow one to clarify whether receiving offers precedes use or is only a correlate of it. The previous report found that nonusers who reported receiving marijuana offers at Wave 1 were much more likely to have initiated marijuana use by Wave 4 than were nonusers who reported never having received an offer.

This pattern is confirmed with the full followup sample; Table 4-G presents this information. The analysis includes only youth who indicated that they had not used marijuana at Round 1 (i.e., initial interview) and were 12 to 18 years old at Round 2, (i.e., first follow-up interview). Within each age group, initiation of marijuana use by Round 2 is compared for those who had indicated at Round 1 that they had received an offer with those who said they had not received an offer.

**Table 4-G. Marijuana initiation at Round 2 by marijuana offers received
at Round 1 among nonusers by age group**

	Age group at Round 2					
	12 to 13		14 to 15		16 to 18	
	Ever received offer at R1 % (CI)		Ever received offer at R1 % (CI)		Ever received offer at R1 % (CI)	
Initiated marijuana use by R2	No	Yes	No	Yes	No	Yes
	2.7 (1.9 to 3.7)	21.8 (14.6 to 31.3)	8.0 (6.1 to 10.5)	30.8 (24.9 to 37.4)	13.6 (10.3 to 17.6)	30.9 (26.4 to 30.9)

Across age groups, nonusers who reported having received marijuana offers at Round 1 were much more likely to have initiated marijuana use by Round 2 than were nonusers who reported never having received an offer. As can be seen in Table 4-G, among 14- to 15-year-olds who had never used marijuana at Round 1, nearly 31 percent of those who reported having received offer(s) had used marijuana by Round 2, while only 8 percent of those who reported never having received an offer had used marijuana by Round 2. Among the youngest group, the comparable percentages are nearly 22 and 3 percent. It is important to note, however, that while receiving offers is closely related to use, most of those who received offers did not report use. Nearly 70 percent of the oldest nonusers who reported ever receiving marijuana offers at Round 1 had still not initiated marijuana use by Round 2.

4.6 NSPY, MTF, and NHSDA Trends in Inhalant Use

As reported in Chapter 3, there has been very little inhalant-focused advertising for youth through Phase III. Only in Wave 4 were any youth inhalant ads broadcast, and they were only 4 percent of the broadcast media GRPs even in that wave. This was estimated to be enough to reach only 7 in 100 youths in the average week. It would seem unlikely that this would be enough exposure to produce a detectable inhalant-specific effect on youth. If there were Campaign effects on inhalant use, it would more likely reflect the effects of the generalized anti-drug message of the Campaign, which the youth had then applied to inhalants. In Wave 5, no inhalant-related ads were broadcast.

The MTF results for inhalants are presented in Table 4-H for 1999 through 2001. MTF provides significance tests only for changes between adjacent years. Only two results are significant against that criterion: lifetime use for 8th graders declined between 1999 and 2000, and past year use for 12th graders declined between 2000 and 2001. However, if tests were provided for the 1999 to 2001 period, it is likely that additional declines would have been significant.

Table 4-H. MTF lifetime, annual and past month inhalant use 1999, 2000, and 2001

	Inhalant use								
	Lifetime (%)			Past year (%)			Past month (%)		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
8th	19.7	**17.9***	17.1	10.3	9.4	9.1	5.0	4.5	4.0
10th	17.0	16.6	15.2	7.2	7.3	6.6	2.6	2.6	2.4
12th	15.4	14.2	13.0	5.6	5.9	**4.5***	2.0	2.2	1.7

* Difference with regard to previous year is significant at p < .05.

Indeed (Figure 4-B), MTF researchers note that inhalant use among youth increased in the early 1990s through 1995, with all grades exhibiting a steady decline since then (Johnston, O'Malley, and

Bachman, 2002). Given those long-term trends initiated in 1995, the observed recent declines, which seem mostly to continue the secular trend, cannot be easily attributed to the Campaign.

Figure 4-B Percentage of 8th, 10th, and 12th graders reporting annual inhalant use: MTF 1991-2001
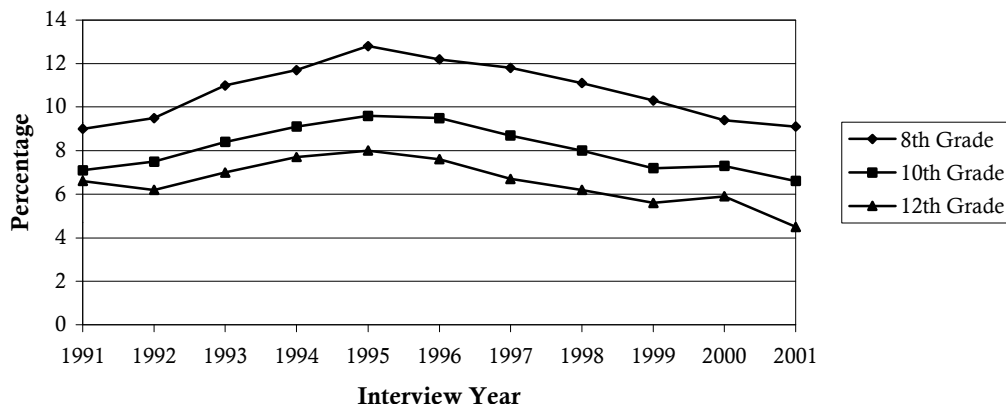
The NHSDA results for inhalant use are reported in Table 4-I. As noted previously, the NHSDA provides significance tests only for changes between adjacent years. There were no statistically significant changes on the three measures of inhalant use among 12- to 17-year-olds between 1999 and 2000, and between 2000 and 2001. However, between 1999 and 2000, significant decreases in past year and past month inhalant use were found for 12- to 13-year-olds.

Table 4-I. NHSDA lifetime, annual and past month inhalant use 1999, 2000, and 2001

Age groups	Inhalant use								
	Lifetime (%)			Past year (%)			Past month (%)		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
12 to 13	6.8	6.8	6.1	3.5	**2.8***	2.9	1.3	**0.7***	0.9
14 to 15	9.9	9.9	9.7	4.2	4.1	4.2	1.0	1.2	1.3
16 to 17	10.6	10.0	10.0	4.0	3.7	3.4	0.9	1.0	0.7
12 to 17	9.1	8.9	8.6	3.9	3.5	3.5	1.1	1.0	1.0

*Difference with regard to previous year is significant at p < .05.

The previous report found that NSPY levels of lifetime use decreased significantly by 1.3 percentage points among all youth aged 12 to 18 from 2000 to 2001. The Wave 5 level of lifetime inhalant use is not significantly different from either of the corresponding levels in 2000 and 2001. As this may be due to sample size issues, similarly to marijuana use, it is premature to conclude that the decrease in lifetime inhalant use for 12- to 18-year-olds found in the previous report between years 2000 and 2001 has disappeared in 2002. For the first half of 2002, the comparison of Wave 5 estimates with the average estimates for year 2000 and 2001 shows no significant decreases in any of the four measures of inhalant use (Table 4-J).

There are significant increases in past month inhalant use for 14- to 15-year-olds from year 2000 to Wave 5, and in regular use for 12- to 13-year-olds from year 2001 to Wave 5. Examination of single wave estimates, however, reveals fluctuating patterns of inhalant use for both age groups. Estimates of past month inhalant use among 14- to 15-year-olds for Waves 1 through 5 are 0.5, 0.1, 1.2, 0.4, and 1.1, respectively. Estimates of regular inhalant use among 12- to 13-year-olds for Waves 1 through 5

Table 4-J. NSPY trends in inhalant use

Use measure	Age groups	Year 2000 (%)	Year 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
				Percent reporting use		
Lifetime						
	12 to 13	1.3	1.7	1.7	0.4 (-0.6 to 1.5)	0.1 (-1.0 to 1.1)
	14 to 15	5.7	3.6	3.6	-2.2 (-4.9 to 0.6)	0.0 (-1.8 to 1.7)
	16 to 18	7.8	5.8	6.8	-1.0 (-3.4 to 1.3)	0.9 (-1.3 to 3.2)
	12 to 18	5.2	3.9	4.3	-0.9 (-2.3 to 0.4)	0.4 (-0.6 to 1.5)
Past year						
	12 to 13	0.8	1.1	0.9	0.1 (-0.6 to 0.8)	-0.2 (-1.0 to 0.5)
	14 to 15	2.6	1.9	2.3	-0.3 (-1.7 to 1.2)	0.5 (-1.0 to 2.0)
	16 to 18	3.1	2.3	2.1	-1.0 (-2.8 to 0.9)	-0.2 (-1.7 to 1.3)
	12 to 18	2.3	1.8	1.8	-0.5 (-1.3 to 0.4)	0.0 (-0.7 to 0.8)
Past month						
	12 to 13	0.2	0.4	0.5	0.3 (-0.1 to 0.6)	0.1 (-0.5 to 0.6)
	14 to 15	0.3	0.8	1.1	**0.8 * (0.0 to 1.5)**	0.3 (-0.7 to 1.2)
	16 to 18	0.9	0.4	1.0	0.1 (-0.9 to 1.2)	0.6 (-0.3 to 1.4)
	12 to 18	0.5	0.5	0.9	0.4 (-0.1 to 0.9)	0.3 (-0.1 to 0.8)
Regular						
	12 to 13	0.1	0.0	0.3	0.2 (-0.1 to 0.5)	**0.3* (0.0 to 0.5)**
	14 to 15	0.2	0.2	0.4	0.2 (-0.3 to 0.8)	0.2 (-0.3 to 0.7)
	16 to 18	0.4	0.4	0.2	-0.2 (-0.7 to 0.3)	-0.1 (-0.6 to 0.4)
	12 to 18	0.3	0.2	0.3	0.0 (-0.2 to 0.3)	0.1 (-0.2 to 0.4)

*Change significant at p<.05.

are 0.0, 0.2, 0.0, 0.0, and 0.3, respectively. Given these fluctuations and the fact that the absolute level of these use estimates is fairly low, it would seem more appropriate to focus on the overall stability of inhalant use.

Also, Detail Tables 4-8 to 4-11 show that, with one exception, there are no significant changes consistently found across measures of inhalant use for specific subpopulations. Higher risk 14- to 18-year-olds report significant decreases in lifetime and past year inhalant use from year 2000 to Wave 5.

As noted in the previous report also, the levels of use reported in the MTF and NSPY are quite different, with NSPY continuing to report much lower estimates of use than MTF. The NHSDA 2001 reported levels of use for 12- to 17-year-olds suggest that its estimates lie between the MTF and NSPY estimates (lifetime: 8.6%; past year: 3.5%; and last month: 1.0%). The reasons for these differences are not known. They may be caused by question wording, the school versus home setting for the interviews, response or coverage rates, the data collection methods implemented, or some combination of these possible causes. The issue of question wording deserves particular attention. The questionnaire wording used by NSPY and MTF are presented in Figure 4-C. NSPY used more abstract language than did MTF. MTF asked specifically about having "sniffed glue" instead of the more abstract wording of having "used inhalants." The NHSDA asked a still more detailed series of questions covering specific types of inhalants, in order to determine whether a respondent ever used inhalants (the NHSDA questionnaire can be found at

http://www.samhsa.gov/publications/publications.html). The choice to use the more abstract language in NSPY was a response to a concern that more direct language might teach youth how to inhale, particularly since the questions were to be asked of children as young as nine, while MTF questions were asked of youth who were already in 8th grade. However, the use of abstraction may have had a cost if respondents did not always know what was to be considered inhalants. Also, the NSPY begins with a "gate" question that asks whether inhalants have ever been used. Only respondents who report ever having used inhalants were asked about use in the past year. In contrast, the MTF questionnaire has no "gate" question on ever having used a substance. Rather, it asks of everyone the frequency of usage over different time intervals.

Figure 4-C. NSPY and MTF inhalant question sequences

<div style="border:1px solid">

The NSPY sequence asks:
"The next questions are about inhalants. Inhalants are liquids, sprays, and gases that people sniff, huff, or inhale to get high or make them feel good. Have you ever, even once, used an inhalant for kicks or to get high? [if yes] During the last 12 months, on how many occasions have you used an inhalant for kicks or to get high?"

The MTF question asks:
"On how many occasions (if any) have you sniffed glue, or breathed the contents of aerosol spray cans, or inhaled any other gases or sprays in order to get high during the last 12 months?"

</div>

A particular anomaly in the two tables is the different age gradient for the two studies. The MTF shows a negative age gradient: older youth report less use across measures than do younger respondents. In contrast, the NSPY results show the opposite pattern with older respondents reporting more rather than less recent inhalant use. There is no ready explanation for this difference in pattern. However, it may be worth noting that the third major study of drug use among adolescents, the NHSDA, reports estimates between MTF and NSPY overall and does not find any age gradient at all in inhalant use.

4.7 Predictors of Marijuana Use and the Development of a Risk Model

The previous report incorporated a new subgroup category defined by a youth's risk of marijuana use. Youth were stratified into lower and higher risk subgroups. This reflected the expectations of Campaign implementers who argued from the start of the Campaign that their target audience was those youth at risk of marijuana use. Previously, risk had been represented by sensation-seeking; however, beginning with the fourth report, the idea of risk has been extended to include other characteristics that put a child at risk of marijuana use. This section briefly describes the development of the risk model, the measures used, and its effectiveness in predicting marijuana use.

Stratification into risk subgroups was made on the basis of cross-predicted risk probabilities for marijuana use in the past year. The sample for the development of the "risk score" (the predicted probability of the undesired event) was aggregated across the first three NSPY waves of data collection. Only youth who were 12 to 18 years old were included, a total of 4,804 cases.

The outcome variable was defined as marijuana use that began or continued in the last 12 months. Youth who had used in previous years but not in the past year were excluded from the analysis. The list of youth and parental covariates was gleaned from existing literature on risk factors for adolescent problem behavior in general and for substance use in particular. However, the consideration of what variables were to be included was subject to an additional limitation. No variable that might have been affected by the Campaign directly or indirectly or that could be a consequence as well as a cause of marijuana use was eligible for inclusion. For example, a well known predictor of risk is the number of friends an individual has who use marijuana. However, there is some risk that the friend's use may be an effect of the individual's use as well as a cause. Including such variables in the risk model would have created ambiguity in the interpretation of the risk variable, in its relationship to possible Campaign effects. Where it was possible, some variables that could have held such ambiguous relationships were constructed so that they would not. Thus, child cigarette and alcohol use as antecedent covariates are well established in the literature; the measures used here were constructed so as to avoid capturing reciprocal effects between them and marijuana use. Only cigarette or alcohol use that had occurred more than 1 year prior to the interview was included. That was temporally precedent to current use. Given the cross-sectional nature of the data, other promising risk covariates were excluded in order to avoid such causal ambiguity, for example, marijuana offers, association with deviant peers, child-parent conflict, among others.

Table 4-K presents the results for the final model.[4] The strongest predictors are: having started smoking prior to the past 12 months, sensation seeking, age, and having started drinking prior to the past 12 months, all of which are youth characteristics and behaviors. To ease interpretation, the last column presents the adjusted odds ratio estimates. Children who had started using cigarettes prior to the past year were nearly four and a half times more likely (i.e., the odds ratio) to use marijuana in the past year than were children who had not started smoking prior to the past 12 months. Each 1-point increase in the child's sensation-seeking tendencies was associated with an increase of 116 percent in the odds of marijuana use in the past 12 months. Each 1-year increase in age was associated with a 42 percent increase in the odds of marijuana use in the past 12 months. Children who had started drinking prior to the past year had approximately twice the odds of using marijuana in the past year, than did children who had not started alcohol use before that period. Children living in large urban areas had 31 percent greater odds of having used marijuana in the past year than children living in towns and rural areas.

The strength of parental factors included in the model was, overall, of lower magnitude; and some variables did not achieve statistical significance at the conventional level ($p<.05$) in the final model. Children from households in which parenting is shared have only 0.64 times the odds of using marijuana in the past year as children living in single parent households. Children whose parent reported tobacco use in the past month had 1.5 times greater odds of using marijuana in the past year than children whose parent had not smoked cigarettes in the preceding month. Likewise, parental marijuana use was associated with a 40 percent increase in the odds of child past-year marijuana use.[5]

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[4] With regard to the analytical procedure, the data set was split into 10 random groups; one of these was randomly dropped, and a logistic regression model was fitted to the remaining 9 groups. The fitted model was then used to assign the risk scores of persons in the omitted group. The logistic regression model was run so that each of the 10 groups was dropped in turn, resulting in a cross-predicted risk score for every person in the sample. In a second step, all 10 models were rerun using only variables that had been found to be significant in any of the previous analyses. Coefficients were averaged across these latter 10 models, and they were the basis for the cross-predicted probability.

[5] Covariates that did not make it into the risk measure are wave, youth gender, youth race/ethnicity, parent binge drinking in past 30 days, age of parent, parental education, and annual household income.

Table 4-K. Youth and parent covariates for youth past year marijuana use

	Estimate	Standard error	Waldc^2	Significance level	Odds ratio [1]
Intercept	-9.9651	.5842	290.9522	<.0001	
Youth covariates					
Age (12-18)	.3530	.0323	119.2926	<.0001	1.4233
Sensation seeking (high versus low)	.7730	.0692	124.8318	<.0001	2.1663
Started smoking 12+ months ago	1.4890	.1250	141.9463	<.0001	4.4327
Started drinking 12+ months ago	.7655	.1216	39.6234	<.0001	2.1501
Urbanicity 1 (urban vs. rural)	.2704	.0815	11.0169	.0009	1.3105
Urbanicity 2 (suburban versus rural)	-.0036	.0852	.0018	.9661	.9964
Parent covariates					
Marijuana use in past 5 years	.3361	.1678	4.0142	.0451	1.3995
Cigarette use in past month	.4127	.1233	11.1949	.0008	1.5109
Had no drink in past month	-.1727	.1180	2.1418	.1433	.8414
Attendance at religious services	-.0943	.0656	2.0703	.1502	.9100
Rating of importance of religion	-.0768	.0713	1.1595	.2816	.9261
Shares parenting with other adult in household	-.4396	.1186	13.7378	.0002	.6443

[1]Likelihood of a youth using marijuana in the past year.

Across the first three NSPY waves of data collection, the sample used to develop the risk model, only about 11.5 percent of youth reported marijuana use during the preceding year. Given such a low base rate, the risk probabilities for nonusers tend to be fairly low. The average 12- to 18-year-old had about a 12 percent predicted probability of annual marijuana use, with half of the youth having less than a 4 percent risk of use.

Across the five waves of data collection to date, subgroup analyses by risk yield statistically significant differences in marijuana use. During this period, about a third of the sample was classified as at higher risk, set at having a risk of use equal to or greater than 8 percent. While an 8 percent cutoff seems low, this measure represents a relative risk and not an absolute risk, hence the use of the terms "higher" and "lower." Though there are no differences in trends by risk group (see Detail Tables 4-1 through 4-4), there are considerable differences in the absolute levels of youth reports of marijuana use by risk group. Because child's age is an important predictor in the risk model, it is important to determine whether the differences by risk group do not disappear when controlling for age. Table 4-L presents the results for different measures of marijuana use by risk subgroup within age groups, averaging estimates across the five waves of data collection.

Table 4-L. Differences in percent of youth reporting marijuana use by age and risk subgroup across five waves

Youth Characteristics		Marijuana Use Measure			
Age groups	Risk group	Lifetime % (CI)	Past Year % (CI)	Past Month % (CI)	Regular % (CI)
12 to 13					
	Higher	29.1 (22.8 to 35.5)	21.1 (15.6 to 26.6)	8.6 (4.9 to 12.3)	4.2 (2.3 to 7.4)
	Lower	2.1 (1.5 to 2.7)	1.3 (0.8 to 1.8)	0.5 (0.2 to 0.8)	0.1 (0.0 to 0.4))
14 to 18					
	Higher	50.1 (47.4 to 52.7)	35.8 (33.5 to 38.1)	18.4 (16.7 to 20.2)	14.7 (13.1 to 16.4)
	Lower	6.3 (5.1 to 7.6)	4.3 (3.2 to 5.5)	1.8 (1.2 to 2.5)	1.1 (.7 to 1.9)

Marijuana use reported by children at higher risk is on average 16 times larger than that reported by children at lower risk across the different measures and age groups. For example, among 12- to 13-year-olds, 0.5 percent of children at lower risk and 8.6 percent of children at higher risk reported past month marijuana use during this period. Among the older group, a little less than 2 percent of children at lower risk and 18 percent of children at higher risk reported past month use in the same period.

In addition to examining cross-sectional trends, analyses by risk probabilities can be useful for studying changes in marijuana use over time. The previous report found considerable differences in marijuana initiation at Wave 4 by child risk among youth who had never used marijuana at the time of first interview. This pattern is confirmed with the full followup sample. Excluding those who reported use at the first time point, children at higher risk do progress into use at greater rates than children at lower risk, even after controlling for age, as can be seen in Table 4-M.

Table 4-M. Marijuana initiation at Round 2 by child risk and age among nonusers at Round 1

	Age group at Round 2					
	12 to 13		14 to 15		16 to 18	
	Risk group at R1 % (CI)		Risk group at R1 % (CI)		Risk group at R1 % (CI)	
Initiated marijuana use by R2	Higher	Lower	Higher	Lower	Higher	Lower
	22.9 (14.3 to 34.5)	2.8 (2.0 to 3.9)	33.7 (26.6 to 41.7)	6.8 (5.1 to 8.9)	31.3 (26.6 to 36.4)	8.7 (6.0 to 12.6)

Overall for the whole sample, while 31 percent of nonusing children at higher risk had initiated marijuana use by followup, only 5.5 percent of lower risk children had done so. This pattern is replicated within age groups.

Summary

These analyses do not show any significant reductions in marijuana or inhalant use associated with the initiation of the Campaign for any of the target age groups.

The NSPY data collection covers the period from November 1999 through June 2002, substantially parallel to Phase III of the National Youth Anti-Drug Media Campaign. As noted in prior reports, this analysis could not detect changes if they had already occurred before the initiation of Phase III, for example, with the initiation of the national broadcasts in Phase II at the beginning of 1998. However, MTF data do cover that earlier period. MTF reports indicate that marijuana use had been stable from 1998 through April 2001, the end point for currently available data. Indeed, the only evidence for change in marijuana use comes from the NHSDA, and the NHSDA evidence suggests an increase and not a decrease in marijuana use for 12- to-17-year-olds.

The NSPY results (for 2000 through 2002) showed no decline in inhalant use. In contrast, the MTF results did show a decline in inhalant use between 1999 and 2001. The NHSDA results suggest a decline in inhalant use between 1999 and 2000 for 12- to 13-year-olds only; the decline did not continue between 2000 and 2001. However, the MTF decline was a continuation of the downward trend begun before the initiation of the Campaign; the NHSDA data do not permit sorting out trend effects from Campaign effect. Thus none of these data suggest that the Campaign was associated with a new decline in inhalant use.

As in the previous report, youth reports of receiving offers of marijuana were stable. Also, temporal order of the association between offers of marijuana and use was further clarified in analyses of the differences in marijuana initiation at followup among nonusing children who had reported receiving offers at time of first interview. It is important to note, however, that for both longitudinal analyses of marijuana initiation at Round 2, around 70 percent of youth who had received offers at Round 1 and a similar proportion of youth at higher risk for marijuana use had not initiated marijuana use at followup.

There are, likewise, substantial differences in absolute levels of use of both marijuana and inhalants by youth stratification into higher and lower risk subgroups. Moreover, longitudinal analyses show a strong association between predicted risk among nonusers at Round 1 and progression into marijuana use by Round 2. Youth at high risk were the particular target for the Campaign, and thus any evidence for a decline in drug use among them would be of particular interest. However, there is no evidence from the trend data that the introduction of the Campaign was associated with a reduction of use among these high risk youth. Their pattern of use over time is stable, parallel to that of other youth.

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5. Campaign Effects on Youth

The primary audience for the Campaign is young people, with some focus until recently on youth in the early teen years who are seen as particularly vulnerable to initiation of drug use. The objectives of the Campaign include reducing the number of young people who try marijuana at all, and reducing the number of trial users who go on to regular use. Current regular users are not a primary target audience for the Campaign. Although the Campaign has at times focused on a variety of drugs (methamphetamines, Ecstasy, inhalants, and others), the major focus has been on drugs overall and marijuana specifically. Aside from alcohol and nicotine, marijuana is the illicit drug by far the most likely to be used by youth. Marijuana is thus the focus of the analyses presented here, and some attention is also paid to inhalants.

In part, the Campaign has aimed to affect youth drug use through influencing the behavior of parents and other adults important in youths' lives. Increased adult engagement in youths' lives is accepted as an important intervention in preventing drug use. The success of the Campaign in reaching and affecting adults is discussed in Chapter 6. However, the Campaign also expects to influence youth directly through its heavy promotion of anti-drug messages with advertising and other efforts. This chapter focuses on the assessment of this direct path of effect. Chapter 4 presented evidence for changes in drug use during Phase III of the Campaign. The evidence presented there did not support a claim of change in marijuana use overall or in any of the subgroups thus far. This chapter focuses back one step in the process of change, to the cognitive precursors of behavior outlined in the Campaign model laid out in Chapter 2. Is there evidence that the Campaign is influencing intentions to use marijuana, beliefs and attitudes about the outcomes of marijuana use, perceived social norms about marijuana use, or self-efficacy to turn down marijuana?

5.1 The Logic of Inferences About Effects

It would be desirable to show that target outcomes, including improved cognitions about marijuana use, are trending in a direction consistent with Campaign objectives. However, any observed positive trend, that is, a trend favorable to the campaign, may reflect only external forces other than the Campaign. There are many forces in society that potentially affect adolescent drug use (e.g., drug prices, drug availability, content of popular media), and a trend alone won't permit unambiguous attribution to the Campaign. An observed lack of a favorable trend might also miss real Campaign effects. The Campaign might be successfully keeping the level of drug use and its cognitive precursors from getting worse as the result of other negative forces, or it might be that this study lacked the statistical sensitivity to detect a small change. Still, despite these ambiguities, it will be easier to accept Campaign effects in the context of favorable trends than to have to explain why the lack of such a trend is still consistent with a Campaign effect. Given that the trend between 1992 and 1998 toward increased drug use justified the mounting of the Campaign, finding a reversal of that trend is desirable.

For a favorable trend to be more firmly linked to the Campaign, the presence of a second class of evidence is required: that youth who were more exposed to the Campaign do "better" on the desired outcomes (i.e., that youth who reported seeing Campaign ads two or three times a week are more

likely to believe, for instance, that there were negative outcomes of marijuana use than those who reported ad exposure less than once a week). However, even were such associations to be found, the results would be subject to three concerns. First, there is the risk that the observed association between exposure and outcomes is the result of other variables that affect them both; for example, youth who do less well in school are more likely to turn to drugs and also may spend more time watching television and thus seeing ads. The threat to an inference of Campaign effects from these other variables is addressed directly through the implementation of statistical controls for potential confounding variables. The procedure used for that purpose, propensity scoring, is described in detail in Appendix C.

Second, the absence of an association between exposure and outcome does not permit definitive rejection of all Campaign effects. Chapter 2 recognized the possibility of effects not detectable through comparisons between more and less well-exposed individuals. To the extent that effects are shared in social networks, or diffused through changes in institutional practices, they are sometimes not detectable through individual level comparisons.

The third concern in making inferences from cross-sectional associations is that the association might be the result of the influence of outcomes on exposure rather than exposure on outcomes. For example, is it possible that youth with a negative view of drugs are more likely to remember anti-drug advertising? This could explain the association just as well as the idea that exposure to that advertising affected their view of drugs. This concern, called the threat of reverse causation, cannot be eliminated under most circumstances with cross-sectional data. Therefore, in the face of significant associational results, it will be necessary to have data that will give evidence of causal order. Longitudinal analysis, described next, may provide such evidence.

With the Waves 4 and 5 data collections, the Campaign evaluation has access to over time, cohort data, with youth interviewed at Waves 1, 2, and 3 having been re-interviewed at Waves 4 and 5. As previously described in Chapter 2, the primary longitudinal analysis is delayed-effects analysis. This examines the association between exposure at Round 1, or Waves 1, 2, and 3, and outcomes measured at Round 2, or Waves 4 and 5. Because Round 1 exposure is measured prior to Round 2 outcomes, this analysis permits the sorting of causal order. However, a causal inference from the delayed-effects association is still threatened by possible effects of confounders, as are the cross-sectional analyses. The same statistical procedure, propensity scoring, was used to address those concerns. It is described in Appendix C.[1] With these delayed-effects associations, we are able to establish that any observed association between exposure and the later outcome cannot be the result of the outcome affecting exposure. Any delayed-effects association would either reflect delayed-effects of exposure at Round 1 directly on outcomes after Round 1, or that the effects of exposure at Round 1 would reflect continuing levels of subsequent exposure through Round 2 which, in turn, affects outcome at Round 2. Both of these routes are consistent with a claim of influence of Campaign exposure on outcome.

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[1] The delayed-effects association would ordinarily be controlled for the Round 1 value of the outcome measures. This could not be done for the whole sample, in this case, because the youth who were aged 9 to 11 at Round 1 but older than 12 at Round 2 did not receive the full battery of outcome questions at Round 1. This should not bias the results, since as shown previously and show again in this report, there is no association between simultaneously measured exposure and outcome. Thus the Round 1 outcome could not account for the Round 1 exposure—Round 2 outcome association. However, since most such measures for the 9- to 11-year-olds are not available, it cannot be stated with absolute certainty that the lack of simultaneous association would hold for them as well.

The additional explanatory power gained by the delayed-effects associations is critical. This followup data can serve to sort out with some confidence the causal order between variables. Thus, the longitudinal analyses included in this chapter address one major concern raised above about making causal claims from cross-sectional associations. The remaining challenge to a claim of causal influence of exposure on outcome is that there was some additional confounder, not measured at Round 1, which influenced exposure at Round 1 and outcome at Round 2, but not outcome at Round 1.

In sum, the best cross-sectional evidence consistent with a Campaign effect is an association of reported exposure to the Campaign with the target outcomes statistically controlled for likely confounders. If this is accompanied by evidence of a favorable trend in the outcome, the argument that there was a Campaign effect is strengthened. Finally, evidence for a delayed effect provides a clearer understanding of the causal order between exposure and outcomes.

The overall analysis focuses on effects among current nonusers of marijuana who are 12- to 18-year-olds. Baseline current users do not receive a great deal of attention in the presentation. The Campaign would like to increase the resistance of these youth to use of marijuana. However, there are not enough of them in the samples, particularly at younger ages, to provide very much statistical sensitivity to their changes. Although almost 40 percent of 16- to 18-year-olds report prior use, fewer 12- to 13-year-olds (less than 5%) and 14- to 15-year-olds (less than 20%) report use. Therefore, analyses with those samples will be able to detect only large changes in outcomes.

In addition to the overall analysis, this chapter presents trend and cross-sectional associational results for subgroups of youth. The subgroup analyses are used for two purposes. If there is an overall effect for all 12- to 18-year-olds, there is a search for evidence that the trends or the association is significantly larger or smaller for particular groups. If there is no overall effect, the subgroups are examined to see if there is evidence of effect for only a subpopulation. As with the previous report, this chapter will include subgroup analyses by youth's risk for marijuana use with youth classified as "higher" or "lower" risk. This report also introduces the analysis of subgroups defined by wave at first interview. This was meant to permit the examination of whether different periods of the Campaign had different effects on the outcomes. A favorable increase across waves in the cross-sectional exposure-outcome association, for example, would be consistent with a claim that the Campaign's message was increasing in effectiveness. These subgroups are described later in this chapter and in further detail in Chapter 4. Subgroups' differences are noted when they show a consistent pattern. All trend, cross-sectional, and delayed-effects associational analyses are fully presented in the Detail Tables and summarized in the text.

The chapter contains a large number of analyses designed to examine Campaign effects, using several different analytic approaches and conducting analyses both for the full sample and for many different subgroups. Statistical tests of significance are used for each analysis to establish whether any effects observed might be simply the result of sampling error. In assessing the findings from these significance tests, it needs to be recognized that, even if there were no Campaign effects whatsoever, some of the large number of tests will produce significant results. Thus, for example, in the simplified case of 100 completely independent statistical tests with no effect present for any of them, one would expect that five of the tests would be significant if a 5 percent significance level is used. Considerable caution should therefore be exercised in assessing an isolated significant effect when many tests are conducted. For this reason, in interpreting the many analyses in this chapter, consistent patterns of effects are highlighted and individual significant effects are downplayed.

5.2 Development of Overall Scales, Combining Trial and Regular Use, and Summarizing Multiple Related Items

The Detail Tables provide information about trends in a total of 34 cognitive outcomes related to use of marijuana and 6 outcomes related to use of inhalants. In order to present that information efficiently, and to maximize the power of the analyses, this chapter presents that information largely through the use of a small number of summed indices. The indices reflect the expected theoretical model of Campaign effects. The use of these scales provides several advantages:

■ Summed indices are, in general, more reliable than single measures, thus allowing easier detection of meaningful trends and associations;

■ Using a small number of indices reduces the risk of chance findings of statistical significance when a very large number of tests are examined—a risk compounded when subgroups are to be examined for possible differential effects;

■ Given the particular structure of the youth questionnaire, in which not all respondents are asked identical sets of questions, the use of summed indices permits a sharp increase in the numbers of respondents eligible for particular analyses, again increasing sensitivity to any true effects; and

■ A theory-driven analysis featuring a small number of indices allows for a focused presentation of results.

In Chapter 2, the basic theoretical model underpinning the evaluation was presented. The model argues that if the Campaign were to be successful, it would affect behavior through one or more of the paths depicted in Figure 5-A.

Figure 5-A. The expected relationships among cognitive outcomes
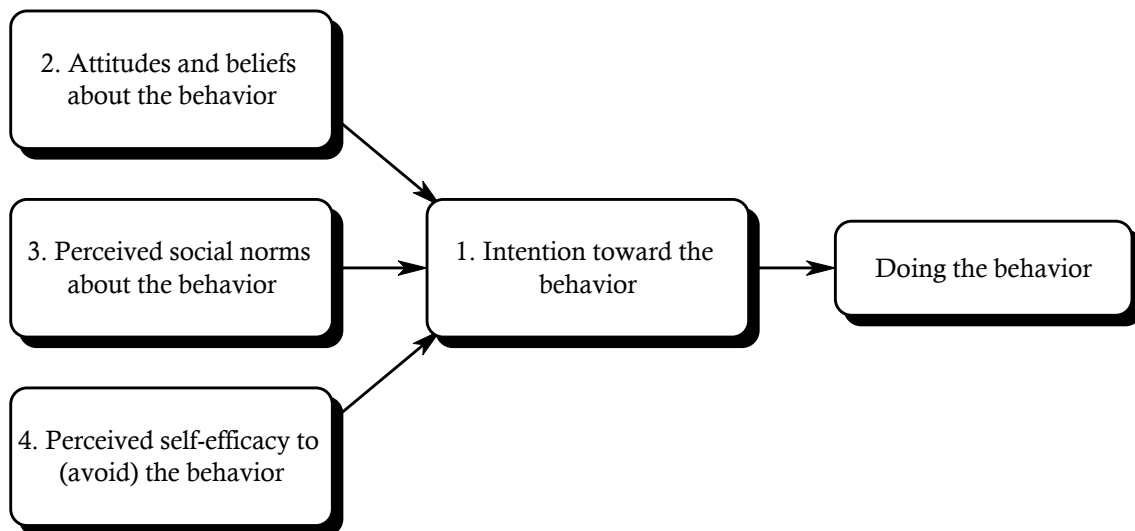
The analysis of marijuana cognitive outcomes focuses on four measures that correspond to the expected four predictors of behavior:

■ **Intentions to use marijuana at all in the next year.** The question asked how likely it was that the respondent would use marijuana even once or twice in the next year, and permitted answers of

definitely not, probably not, probably yes, and definitely yes. A substantial majority, 87 percent, of current nonusers aged 12 to 18 said, "definitely not." In the analyses below, this group is compared to the 13 percent of nonusers who were not definite in their intended rejection of use. Intentions are a very strong predictor of future behavior. Among Round 1 nonusers, 10 percent of those who said "definitely not" to any use of marijuana over the next year had initiated use by Round 2 (12 to 18 months later). Of those who said anything other than "definitely not" the rate of initiation was 42 percent.

■ **Attitudes and beliefs about marijuana.** All youth respondents were asked questions about how likely it was that a series of specific consequences would result if "you" use marijuana, either regularly (every month or almost every month) or once or twice over the next year. The eight consequences asked about for "once or twice" use included "Upset my parents," "Get in trouble with the law," "Lose control of myself," " Start using stronger drugs," "Be more relaxed," "Have a good time with friends," "Feel better," and "Be like the coolest kids." The eight consequences asked about for regular use included "Damage my brain," "Mess up my life," "Do worse in school," "Be acting against my moral beliefs," "Lose my ambition," "Lose my friends' respect," "Have a good time with friends," and "Be more creative and imaginative." Each nonusing respondent was randomly asked about one of the two eight-belief sequences. They were also each asked two questions that assessed overall attitude toward either "once or twice" use or regular use. All of the youth with prior use experience were asked about the consequences of and attitudes toward regular use.

It is useful to look at the attitudes and beliefs about the two behaviors—using once or twice, and using regularly—as distinct. In the earlier reports, analysis focused on distinguishing between the two sets of outcomes. However, beginning with the Third Semi-Annual Report, it was decided to sacrifice the distinctions to allow the creation of a single index to capture beliefs and attitudes about marijuana. Since youth who have never used marijuana, referred to in this report as "nonusers," were randomly assigned to answer questions about "once or twice" or regular use, it was possible to equilibrate the two sets of responses on a single scale. This permitted the maximization of the number of youth who could be studied in a particular analysis and thus the power to detect an effect if any were present.

The following steps were used to create the index. All nonusers were divided into two groups: those who had been randomly assigned to answer the questions about "once or twice" use, and the rest who were assigned to answer the questions about regular use. Each subgroup was then used in separate analyses in which intention to use was predicted from the eight consequence beliefs and two attitudes in a logistic regression equation. The regression coefficients from the prediction equation were then used to weight each of the items for a summed index. The weights derived from the nonusers' equations were also used to construct index scores for the population of prior users to ease interpretation. Each of the summed indices was then calibrated so that its mean and standard deviation were equal to 100 for the 12- to 18-year-old nonusers at Wave 1. Then the two indices were treated as equivalent to a single index with higher scores corresponding to more anti-drug attitudes and beliefs. This index could be used for all respondents, regardless of which sequence of questions they answered. The development of this and each of the following indices is described in more detail in Appendix E.

The summed Attitudes/Beliefs Index, as expected, was substantially associated with the intention to use marijuana in the next year. Figure 5-B presents that relationship graphically. Twenty percent of those with the lowest scores on that index said "definitely not" to marijuana use in the next year, while almost 100 percent of those who were at the highest levels rejected such use.

Figure 5-B. Marijuana nonuse intention by Attitudes/Beliefs Index
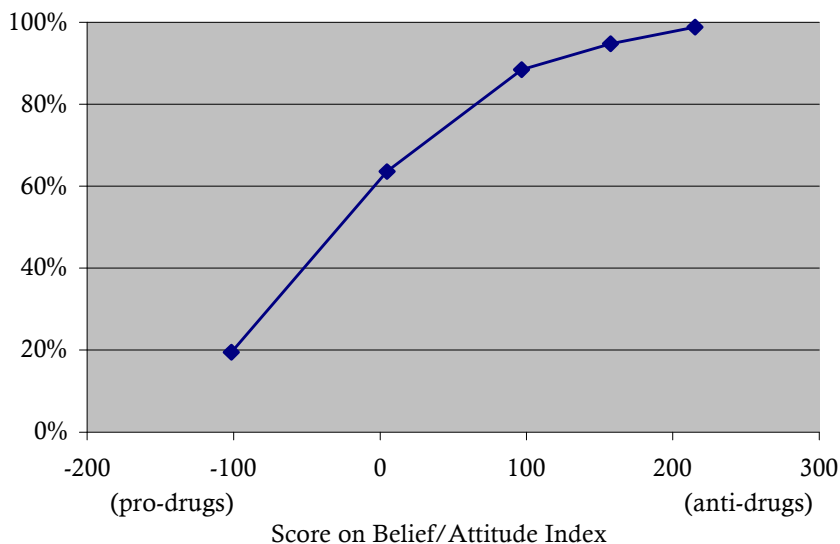
- **Perceived social norms.** The perceived Social Norms Index was formed in a parallel way to the Attitudes/Beliefs Index. There were five parallel questions that assessed social normative pressure with regard to each of "once or twice" and regular use of marijuana. They asked about the perception of friends' use of marijuana, other peers' use of marijuana, parents' disapproval of "your" marijuana use, friends disapproval of "your" marijuana use, and disapproval of "your" marijuana use by most people important to you, in each case in the context of "once or twice" use or regular use over the next year. Using a regression model, the questions were then weighted according to their ability to predict the intention to use marijuana once or twice in the next year. The indices for nonusing youth randomly assigned to answer the "once or twice" or regular use questions were both set to a mean of 100 and a standard deviation of 100 for 12- to 18-year-old nonusers at Wave 1. The youth who had previously used marijuana and who had been asked the social norm questions about regular use were assigned index scores using the weights developed for the nonusers. Once again, all respondents were then assigned their score on the overall index based on their scores on the separate indices.

  The perceived Social Norms Index was substantially correlated with intentions, although the relationship was not quite as strong as that between the Attitudes/Beliefs Index and intention (Figure 5-C).

- **Self-efficacy to refuse marijuana.** All respondents were asked the same five questions about their confidence that they could turn down the use of marijuana under various circumstances ("How sure are you that you can say no to marijuana, if you really wanted to, if: You are at a party where most people are using it; A very close friend suggests you use it; You are home alone and feeling sad or bored; You are on school property and someone offers it; You are hanging out at a friend's house whose parents aren't home"). Using a regression model, the five questions were used to predict the intention to use marijuana once or twice in the next year. Each question was then weighted in the overall index reflecting the coefficient of the item in the predictive equation. Once again, to ease interpretation, responses were standardized to a mean of 100 and a standard deviation of 100 for Wave 1 12- to 18-year-old nonusers. The new index predicted intentions similarly, but less powerfully, than the other two indices (Figure 5-D).

Figure 5-C. Marijuana nonuse intention by Social Norms Index
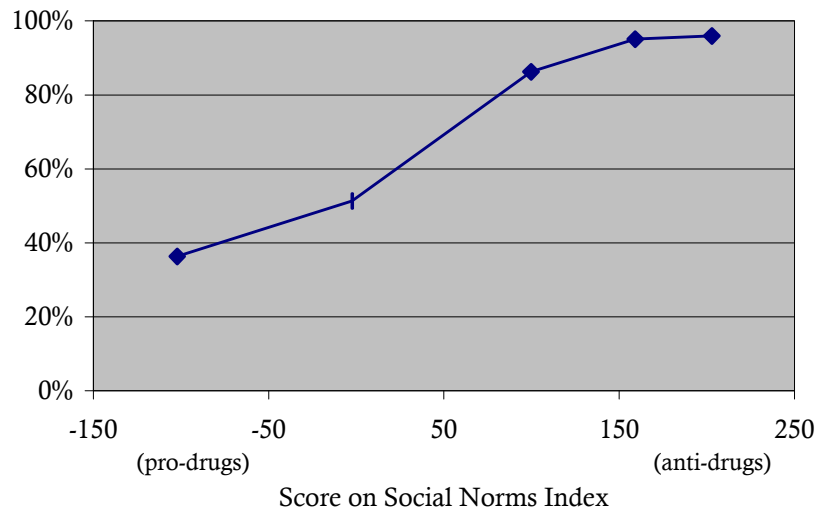
Figure 5-D. Marijuana nonuse intention by Self-Efficacy Index
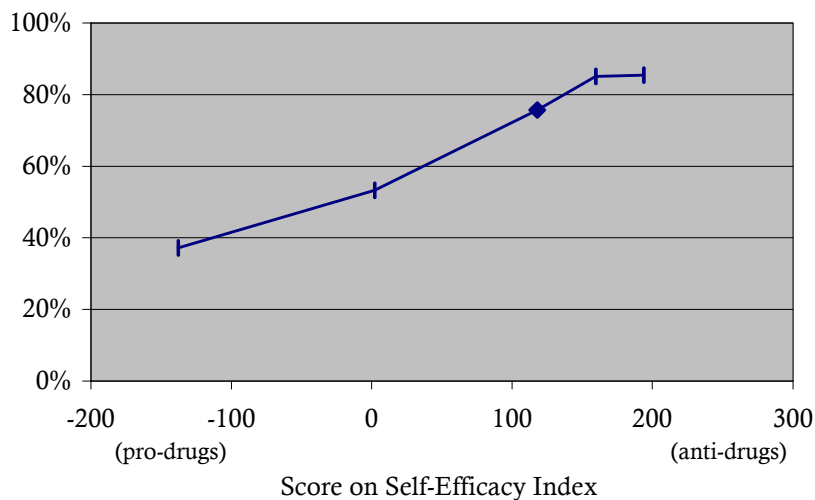
5.3   Trends in Drug Attitudes and Beliefs, and Intentions about Use of Marijuana among Nonusing 12- to 18-Year-Olds

This section covers trends in intentions about trial use, attitudes and beliefs, perceived social norms, and self-efficacy about use across NSPY waves. The trends are broken out by age. It also discusses the evidence for diversity in trends across various subgroups.

All indices are scaled so that a higher score indicates stronger anti-drug attitudes, beliefs, and intentions.

5.3.1   Intentions About Marijuana Trial Use by Age and by Wave

There is no statistically significant change for the full 12- to 18-year-old sample in intentions to use marijuana once or twice over the five waves of measurement among prior nonusers. There is, however, a small trend, unfavorable to the Campaign, on marijuana intentions among 14- to 18-year-old nonusers. The downward trend appears to be statistically equivalent among both the 14- to 15-year-olds and 16- to 18-year-olds. Table 5-A presents these data. (See also Detail Table 5-1.)

Table 5-A. Trends in intentions to use marijuana once or twice for nonusers, by child age

| Age groups | Percent of nonusers saying "definitely not" | | | | |
	Year 2000 (%)	Year 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	92.3	90.9	91.7	-0.6 (-2.8, 1.7)	0.9 (-1.7, 3.4)
14 to 15	85.1	83.8	82.1	-3.0 (-6.8, 0.7)	-1.7 (-4.9, 1.4)
16 to 18	84.6	83.5	82.0	-2.6 (-7.3, 2.0)	-1.5 (-6.0, 3.0)
14 to 18	84.9	83.7	82.0	**-2.9* (-5.6, -0.1)**	-1.6 (-4.3, 1.0)
12 to 18	87.5	86.3	85.6	-1.9 (-3.9, 0.1)	-0.7 (-2.5, 1.0)

Note: The question asked was, " How likely is it that you will use marijuana, even once or twice, over the next 12 months? When we say marijuana, we mean marijuana or hashish."

* Between-year difference significant at $p < 0.05$.

The table provides two other pieces of information. Most nonusing youth, regardless of age, do not intend to use marijuana even once or twice in the next year. These reported intentions are consistent with the reported behavior of the population. It is possible to compare the levels of lifetime use reported by each age level, and from that information estimate what the annual rate of initiation is among nonusers. For 12- to 13-year-olds, the annual rate of marijuana initiation is about 6 percent; for 14- to 15-year-olds it is 11 percent, and for 16- to 17-year-olds it is 12 percent. Each of these numbers is close to two-thirds of the numbers of youth who do not indicate they will "definitely not" initiate marijuana use in the next year.

Also, there is some age association in these responses, with 14- to 18-year-olds less likely to say definitely not than 12- to 13-year-olds. However, the age effects are understated in this table, because the table presents only the responses of nonusers. Since almost 40 percent of 16- to 18-year-olds in Wave 5 were prior users, the numbers presented here are not reflective of the intentions of all youth in the age group. In Wave 5, among nonusers, 92 percent of all 12- to 13-year-olds, 82 percent of all 14- to 15-year-olds, and 82 percent of all 16- to 18-year-olds say "definitely not" to this question. Among both prior and nonusers, 78 percent of all 12- to 13-year-olds, 65 percent of all 14- to 15-year-olds, and 59 percent of all 16- to 18-year-olds say "definitely not" to this question.

5.3.2   Attitudes/Beliefs by Age and by Wave

The results for the Attitudes/Beliefs Index show no overall effects and no significant effects for any of the age subgroups. Table 5-B presents the results for each age subgroup and the entire sample of 12- to 18-year-olds. (See also Detail Table 5-2.) Table 5-B shows no statistically significant trend for the full sample comparing Year 2000 with Wave 5 and Year 2001 with Wave 5.

Table 5-B. Trends in Attitudes/Beliefs Index about marijuana use among nonusers by child age

| Age groups | Score on Index | | | | |
	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	129.20	121.40	127.21	-1.99 (-8.60, 4.63)	5.81 (-1.60, 13.23)
14 to 15	102.29	100.85	101.33	-0.96 (-11.53, 9.60)	0.48 (-7.57, 8.53)
16 to 18	91.31	85.13	94.02	2.71 (-8.95, 14.37)	8.89 (-3.01, 20.79)
14 to 18	97.28	93.42	97.64	0.36 (-6.94, 7.66)	4.22 (-2.58, 11.02)
12 to 18	108.55	103.49	108.17	-0.38 (-5.49, 4.73)	4.68 (-0.57, 9.93)

Note: The index was standardized so 12- to 18-year-old nonusers had a mean and standard deviation of 100 at Wave 1.

Table 5-B does show a clear age gradient, despite the omission of marijuana users from the analysis, with older nonusers expressing weaker anti-drug sentiments than younger nonusers. In Wave 5, 12- to 13-year-olds had an index score of 127, while 16- to 18-year-olds had an index score of 94 (Detail Table 5-2).

5.3.3 Perceived Social Norms about Marijuana Use by Age and by Wave

Social norms against marijuana use show a significant decline from 2000 to Wave 5 for the full sample. The effects are apparently shared among all of the age groups. Table 5-C presents the essential results with additional detail presented in Detail Table 5-3.

Table 5-C. Trends in Social Norms Index about marijuana use among nonusers by child age

| Age groups | Score on Index | | | | |
	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	136.87	129.47	129.63	**-7.24* (-13.08, -1.40)**	0.15 (-6.34, 6.64)
14 to 15	97.63	98.22	91.34	-6.29 (-17.17, 4.59)	-6.89 (-16.93, 3.16)
16 to 18	83.91	70.65	75.53	-8.38 (-20.52, 3.75)	4.88 (-7.84, 17.59)
14 to 18	91.37	85.19	83.36	-8.01 (-16.34, 0.33)	-1.83 (-10.26, 6.59)
12 to 18	107.43	101.12	99.83	**-7.60* (-13.28, -1.93)**	-1.29 (-7.04, 4.45)

Note: The index was standardized so 12- to 18-year-old nonusers had a mean and standard deviation of 100 at Wave 1.

* Between-year difference significant at p < 0.05.

Once again, the age gradient is clear, with older nonusers exhibiting more pro-drug norms than younger nonusers. The 16- to 18-year-olds scored an average of 76 in Wave 5; the 12- to 13-year-olds scored 54 points higher, even though marijuana users are excluded from the table.

5.3.4 Perceived Self-efficacy about Marijuana Use by Age and by Wave

The self-efficacy results suggest a trend favorable to the Campaign. The final index was the summed scale of five questions that dealt with the youths' confidence that they could turn down marijuana in a variety of circumstances. The overall results for the 12- to 18-year-olds as a group show significant favorable changes between Year 2000 and Wave 5 and between 2001 and Wave 5. The trend for each age group is statistically equivalent to the overall sample trend (Table 5-D and Detail Table 5-4).

Table 5-D. Trends in Self-Efficacy Index about marijuana use among nonusers by child age

| | Score on Index | | | | |
Age groups	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	101.14	100.85	119.34	**18.20* (11.45, 24.95)**	**18.50* (11.30, 25.69)**
14 to 15	96.62	111.95	111.64	**15.02* (3.83, 26.21)**	-0.31 (-8.41, 7.79)
16 to 18	110.79	108.73	121.80	11.01 (-1.42, 23.44)	**13.07* (1.62, 24.51)**
14 to 18	103.09	110.43	116.77	**13.68* (4.73, 22.63)**	6.34 (-0.28, 12.96)
12 to 18	102.40	106.98	117.68	**15.28* (8.89, 21.67)**	**10.70* (5.79, 15.61)**

Note: The index was standardized so 12- to 18-year-old nonusers had a mean and standard deviation of 100 at Wave 1.

* Between-year difference significant at $p<0.05$.

There is no age gradient in Table 5-D for the self-efficacy measure among nonusers. However, when users are included there is a small association (12- to 13-year-olds=98.2; 14- to 15-year-olds=89.9, and 16- to 18-year-olds=88.0.)

5.3.5   Evidence for Diversity in Trends in Cognitions about Marijuana Use

The diversity effects analyses address two complementary questions. When there was not evidence of a significant overall trend, was there evidence of such a trend for a subgroup, in addition to the age subgroup effects described above? Alternately, when there was overall evidence of trend, did any subgroup show a significantly different trend? Altogether, there are seven subgroups of three grouping variables (two sexes; three race/ethnicity groups; two risk groups[2]). These groups are examined across four measures, making a total of 28 trend comparisons. For two of the outcomes (social norms and efficacy) there was an overall trend. All of the subgroups' trends were statistically consistent with the overall trend effects. For the other two outcomes, intentions and the attitude/belief index, for which the overall trend was not significant, there is only one subgroup trend that does not match the overall trend. Specifically, for the intentions outcome, there was a negative trend for the lower risk subgroup.

5.4   Cross-Sectional (Concurrent) Associations of Anti-Drug Advertising Exposure with Attitudes, Beliefs, and Intentions about Marijuana Use among 12- to 18-Year-Old Nonusers

The next step in the analysis turns to the examination of associations of recalled exposure and the four major outcomes. In contrast to the trend data, the associational evidence speaks directly to the influence of individual exposure to the Campaign. The analyses below show only rare evidence of association, and the observed associations are more often unfavorable than favorable.

Chapter 3 describes the two types of exposure measures available for analysis. One, called general exposure, represents the sum of recalled exposure in recent months to anti-drug advertising in four different types of sources (television and radio, movies and videos, print media including newspapers and magazines, and outdoor media). Some of that exposure could have represented recall of ads

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[2] The Detail Tables present trend information for high and low risk groups and sensation-seeking groups. The risk group variable incorporates the sensation-seeking variable as well as other predictors of drug use. To avoid substantial redundancy of reporting, the text includes consideration of only the risk subgroups.

directed to parents, and some recall of ads presented by other institutions. The specific exposure measure sums the recalled exposure to the youth-targeted individual Campaign television ads that had been on the air in the two months before the interview.

Table 5-E presents the exposure levels for the 12- to 18-year-old population overall (i.e., across Waves 1 through 5). The distribution of exposures among nonusers, who are the focus of the analyses reported below, are very close to these overall estimates.

Table 5-E. Exposure per month reported by 12- to 18-year-olds

	<1 exposure (%)	1 – 3 exposures (%)	4 – 11 exposures (%)	12+ exposures (%)
General exposure	22.9		23.3	52.2
Specific exposure	19.7	34.4	35.7	10.2

The general exposure measures display substantially higher levels than do the specific exposure levels. For example, 52 percent of youth reported general exposure 12 or more times per month, but 10 percent reported specific exposure at that level. There are three factors that may contribute to that difference: the general exposure measure included more sources than the specific exposure measure; the general exposure measure allows recall of advertising that was directed to other audiences, while the specific exposure measure focuses only on television[3] ads directed to the youth; and finally, the general exposure measure may be less demanding since it does not require the respondent to claim that he or she has seen a specific ad. One might speculate, therefore, that it is at greater risk of inflated reporting. Since the two measures may capture different aspects of exposure, the evidence of association is presented for both of them, with the interpretation strengthened when both show the same pattern of effects.

The general exposure association tables compare youth who reported exposure less than 4 times per month, 4 to 11 times per month, and 12 or more times per month. There were very few youth who reported no exposure so they could not be considered separately. The specific exposure tables include four categories, since it was feasible to break out the lowest exposure group into those who recalled exposure less than 1 time per month and those who recalled ad exposure 1 to 3 times per month. However, the highest exposure group for the specific exposure measure is quite small, so in many of the tables the estimates for outcomes for this group have very wide confidence intervals. Usually the specific exposure claims must rely on the differences among the other three exposure groups. Subsequently, when the longitudinal analyses that rely on a reduced sample are presented, only three categories of specific exposure are used, with the top two categories collapsed.

In the exposure analyses that follow, the effects are corrected for the influence of confounder variables using the propensity scoring procedures described in Appendix C. They are the estimates of what people at each level of exposure would have been like had they all been similar on measured variables that were associated with exposure.

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[3] The measures of specific exposure include only reports of exposure to television advertising. During Wave 1, the measure of exposure to radio advertising excluded ads that were only audio versions of television ads, which were the great majority of the ads. It was not meaningful to include specific radio exposure with the television exposure in the specific exposure index for that wave. Although all radio ads were asked about in Waves 2 through 5, and the exposure to them is reported in Chapter 3, they were not included in the exposure index for the analyses reported in this chapter so that comparability across waves could be maintained. However, recall of television advertising was, in any case, much greater than recall of radio ads, so it is unlikely that this exclusion is substantially affecting the associations reported here (Detail Tables 3-2 and 3-17).

All cross-sectional analyses of exposure include data from all five waves, but are restricted to 12- to 18-year-olds who reported never using marijuana.[4] Each of the detail tables that present these associational results (Detailed Tables 5-33 through 5-40) also provides estimates for subgroups of that population defined by youth characteristics (age, gender, race/ethnicity, risk of marijuana use, and sensation-seeking).

Each table presents three different measures of Campaign effect. The first, called the direct campaign effect, compares the score on the outcome variable (e.g., intention to use marijuana even once or twice in the next year) for the entire sample with the score projected to be achieved by the lowest exposure group if the entire population had received that level of exposure. It asks whether the average person was different from those who had minimal exposure. It is the best estimate of the average effect of the Campaign across the population. In addition, in order to have an estimate of the magnitude of association, the gamma coefficient is presented. Like the Pearson correlation coefficient, gamma varies from –1 to +1, with 0 being no relationship.[5] The final measure, called the maximum campaign effect, compares youth with the highest and lowest levels of exposure. De facto it answers the question: If the Campaign had been able to give everyone 12 or more exposures per month, how much of an effect would there have been? While each table reports all three tests, the presentation focuses on the gamma estimate to determine whether there is an overall effect. There is a risk that the use of three tests to examine each effect increases the likelihood of misleadingly claiming chance effects. Given the need to choose only one test, gamma was the one chosen. It is the only one of the tests that uses all of the data, and thus provides the fullest picture of association. The other tests are used to provide alternative views of the results, but they are not the focus of claims about Campaign effects.

5.4.1 Overall Analyses of Four Cognitive Measures by Exposure

After controlling for confounders by propensity scoring, there is no significant cross-sectional association between either exposure measure and intentions to use marijuana for the entire Wave 1 through Wave 5 population of 12- to 18-year-old youth (see Table 5-F and Detail Tables 5-33 and 5-34).

There is also no statistically significant cross-sectional association between general exposure and the Attitudes/Beliefs Index, nor between specific exposure and the Attitudes/Belief Index as shown by the nonsignificant gammas in the table above. However, there is a significant direct effect (comparing the lowest exposed group with the average group) of specific exposure on the Attitudes/Belief Index, in an unfavorable direction. This is shown in Table 5-G as well as in Detail Tables 5-35 and 5-36.

Table 5-F. Exposure per month and intentions to use marijuana reported by nonuser 12- to 18-year-olds

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[4] These analyses treat all interviews as independent, although the Waves 4 and 5 interviews were done with youth first interviewed in Waves 1 through 3. This would violate the assumption of independence of observations ordinarily required for the calculation of standard errors from a sample. However, the estimation procedures used in these analyses, making use of the WESVAR program, adjust for any nonindependence.

[5] Unlike the Pearson correlation, gamma does not assume that both exposure and the outcome are measured as interval level variables. It is appropriately used to estimate associations between ordered variables. In previous reports this association was estimated with the Spearman rho coefficient for magnitude and the Jonkheere-Terpstra test for significance. Since the last report was published, staff statisticians have developed a procedure for estimating both the magnitude and the statistical significance for a single commonly reported coefficient, Goodman and Kruskal's gamma, in the context of the complex sample design. Using a single coefficient and statistical test provides a clearer presentation approach. Moreover, they found that it gamma produces virtually identical inferences about the nature of the observed associations as were produced by the previous two-part procedure.

	<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
Percent saying "definitely not" to likelihood of using marijuana even once or twice - overall average= 86.6%							
General exposure	87.8		85.5	86.4	-1.2 (-3.6 to 1.3)	-.037 (-.12 to .05)	-1.3 (-4.2 to 1.6)
Specific exposure	88.6	87.1	85.2	88.0	-2.0 (-4.2 to 0.1)	-.028 (-.14 to .09)	-0.6 (-6.0 to 4.7)

Table 5-G. Exposure per month and Attitudes/Beliefs Index among nonuser 12- to 18-year-olds

	<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
Mean score on attitudes/belief index: average for the sample= 106.6							
General exposure	108.25		104.63	107.66	-1.63 (-8.47 to 5.20)	.001 (-.03 to .04)	-0.59 (-9.22 to 8.05)
Specific exposure	114.40	107.92	102.03	110.37	**-7.78* (-14.45 to -1.11)**	-0.020 (-.06 to .02)	-4.02 (-16.26 to 8.21)

* Significant at p < 0.05.

The results for the cross-sectional association of Campaign ad exposure and the Social Norms Index are presented in Table 5-H. There is again no significant overall effect for youth aged 12 to 18. (See also Detail Tables 5-37 and 5-38.)

Table 5-H. Exposure per month and Social Norms Index among 12- to 18-year-olds

	<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
Mean score on Social Norms Index: average for the sample=103.2							
General exposure	105.92		99.79	103.41	-2.70 (-8.98 to 3.58)	-.010 (-.04 to .02)	-2.51 (-9.59 to 4.57)
Specific exposure	109.45	105.47	100.63	104.30	-6.22 (-12.67 to 0.22)	-.19 (-.06 to .02)	-5.15 (-17.67 to 7.36)

The cross-sectional results for the self-efficacy scale are essentially consistent with the Attitudes/Beliefs Index. There is no statistically significant cross-sectional association of general exposure and the Self Efficacy to Refuse Index, nor of specific exposure and Self-Efficacy. There is a significant direct effect of specific exposure on the Self Efficacy Index in an unfavorable direction. Table 5-I summarizes the self-efficacy results (see also Detail Tables 5-39 and 5-40).

Table 5-I. Exposure per month and Self-Efficacy to Refuse Marijuana Index among 12- to 18-year-olds

	<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
Mean score on Self-Efficacy Index: average for the sample=107.9							
General exposure	105.73		103.66	110.87	2.17 (-4.43 to 8.78)	0.005 (-.03 to .05)	5.14 (-3.13 to 13.40)
Specific exposure	115.22	106.30	106.79	123.54	**-7.31 * (-12.82 to -1.81)**	.014 (-.04 to .07)	8.33 (-0.06 to 16.71)

* Significant at p < 0.05.

In conclusion then, the gamma statistic provides no supportive evidence that concurrent campaign exposure is associated either favorably or unfavorably with any of the four cognitive outcomes for the full sample of 12- to 18-year-olds. The direct effect suggests an unfavorable association between

specific exposure and attitudes/behavior and self-efficacy. The next sections ask whether, in the absence of overall effects, there is any evidence of association for subgroups of the population.

5.4.2 Evidence of Diversity of Associations by Age of Youth, Risk Group, Gender, and Race/Ethnicity

Through the period covered by this report, the Campaign has been particularly focused on younger teens as its primary audience. Thus, there has been a particular interest in showing that there are effects among that group, represented here by the youth aged 12 to 13. They are, in general, not at high immediate risk of drug use; 95 percent of them report having never used marijuana, and more than 90 percent of the current nonusers say they definitely won't use marijuana in the next year. However, they are maturing into the age when more of them will try marijuana and other drugs. Thus they are of primary importance as an audience for the Campaign, and separating the results of younger (12 to 13) and older (14 to 18) teens is, therefore, informative.

Detail Tables 5-33 through 5-40 present data for two age subgroups: youth aged 12 to 13 and youth aged 14 to 18. There are a total of 16 analyses presented: two age groups by two exposure measures by four cognitive measures. In that entire set, there are no significant effects.

The Campaign has also had a particular interest in reaching higher risk individuals. Accordingly, the Campaign has been designed with a recognition that youth vary in their risk of drug use and tries to reach the subgroup category of high risk youth. There were no overall significant associations for either of the risk subgroups.

In addition to the subgroup analyses by age and risk, for which the Campaign had clear expectations of subgroup effects, separate analyses were also performed for subgroups defined by gender and race/ethnicity. There were a total of 40 such subgroup analyses examined: five groups (defined by two genders and three race/ethnicities) by four outcomes by two exposure measures. Since there were no a priori hypotheses about which of these groups were more or less likely to show effects, the possibility of chance effects needs particular attention. With 40 tests, it might be expected that a few tests would be significant at the conventional level by chance. In fact, there were no significant results.

5.5 Summary and Discussion of Trend and Cross-sectional Results for Marijuana Cognitions

This section summarizes the trend and cross-sectional associational results presented thus far for marijuana cognitions. As noted above, the most desirable result for a claim of Campaign effects from these data would be a favorable trend on a target outcome, and a favorable association between exposure to the Campaign and the outcome. The trends are significant for two of the outcomes (social norms and self-efficacy) for the entire population but in opposite directions, favorable to the Campaign for self-efficacy and unfavorable to the Campaign for social norms. In addition, there was an unfavorable effect for intentions for 14- to 18-year-olds, and an unfavorable effect on the attitude/belief index for youth who were at lower risk for marijuana use.

There was no evidence (judged by gamma) for statistically significant associations overall, nor for either of the age subgroups nor for any of the other subgroups. The trend results provide mixed evidence about favorable versus unfavorable, versus no Campaign effects, but the associational data

does not support any claims of effects in either direction. Thus far then, the analyses do not support an inference of Campaign effects.

5.6 Campaign Effects on Inhalant Intentions and Attitudes Among Prior Nonusers

During the Wave 3 data collection, the Campaign raised the profile of its anti-inhalant advertising, particularly those ads directed at parents, which might have been accessible to youth as well. About 43 percent of all radio and television GRPs for parents in Wave 3 related to inhalants. However, no parent anti-inhalant ad time was purchased in Waves 4 or 5. For general market youth, no anti-inhalant ads were run during Wave 3, and only a small amount of inhalant-specific advertising was directed toward youth in Wave 4 (about 4% of all youth-directed GRPs—see Table 3-I), and none in Wave 5. This pattern of buys may not be consistent with expecting changes among youth in behavior or cognitions. Nonetheless, this section of the report examines change in inhalant cognitions across time.

The analysis of trends focuses on two summary measures. The first is parallel to the marijuana intentions measure used in the previous sections. The analysis is limited to 12- to 18-year-old prior nonusers of inhalants. The second index sums four questions that addressed the youths' attitudes about inhalant use: disapproval of "once or twice" and regular inhalant use by others, and perception of risk of harm from once or twice and regular inhalant use. These questions were modeled on questions asked in the Monitoring The Future survey for many years. They contrast with the more personal and specific questions that were asked about the consequences of marijuana use and which made up the indices presented above. As with the marijuana Attitudes/Beliefs Index, the responses to the four questions were summed according to weights derived from the prediction of the intentions question in a logistic regression equation, and standardized to have a mean and standard deviation of 100 for 12- to 18-year-olds at Wave 1.

5.6.1 Intentions and Attitudes about Inhalant Use by Age and by Wave

There is no statistically significant change between Year 2000 to Wave 5 and Year 2001 to Wave 5 for any of the age subgroups in their intention to use inhalants in the next year. Almost all youth said they would not use in Wave 5 and almost all youth said they would not use in Years 2000 and 2001 (Table 5-J and Detail Table 5-27). This may be the result of a "ceiling effect"; the Campaign cannot show significant favorable effects because the criterion outcome is already so high.

Table 5-J. Trends in intentions to use inhalants once or twice by youth age

	Percent of nonusers saying "definitely not"				
Age groups	Year 2000 (%)	Year 2001 (%)	Wave 5 (Jan-June 2002) (%)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	95.4	94.4	94.0	-1.5 (-3.4 to 0.4)	-0.5 (-2.8 to 1.8)
14 to 15	93.3	95.7	95.2	1.9 (-0.4 to 4.2)	-0.4 (-2.6 to 1.7)
16 to 18	96.2	94.8	96.4	0.2 (-1.7 to 2.1)	1.6 (-0.9 to 4.2)
12 to 18	95.1	95.0	95.3	0.3 (-0.8 to 1.4)	0.3 (-1.0 to 1.7)

Note: The question asked, "How likely is it that you will use inhalants to get high, even once or twice over the next 12 months?"

Table 5-K shows a statistically significant favorable trend in the Attitudes/Beliefs Index for the overall sample (see also Detail Table 5-28). The index's pattern also shows a little more variation by age: older youth tend to be slightly more accepting of inhalant use than younger ones though, in general, the age gradient is less clear cut than for marijuana. On average in Wave 5, 12- to 13-year-olds had a score of 122, while 16- to 18-year-olds had a score of 101.

Table 5-K. Trends in Attitudes/Beliefs Index about inhalant use by youth age

	Score on Index				
Age groups	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	117.34	117.77	122.26	4.92 (-1.64 to 11.48)	4.49 (-2.86 to 11.83)
14 to 15	100.10	91.61	104.44	4.35 (-5.58 to 14.27)	**12.83* (2.00 to 23.66)**
16 to 18	90.64	102.86	101.01	10.37 (-1.63 to 22.38)	-1.85 (-13.28 to 9.57)
12 to 18	101.73	103.64	108.33	**6.60* (1.14 to 12.06)**	4.69 (-1.21 to 10.58)

Note: The index was standardized so 12- to 18-year-old nonusers had mean and standard deviation of 100 at Wave 1.

* Significant at $p < .05$

All nonusing 12- to 18-year-olds show a positive significant change in attitudes and beliefs from Year 2000 to Wave 5, hence a favorable overall trend. Additionally, the 14- to 15-year-olds show a significant favorable trend from the Year 2001 to Wave 5, however, this largely represents a reversal of the decline from Year 2000 to 2001 and a return to its original level.

5.6.2 Evidence of Diversity in Trends

Aside from the age subgroup effects just described, there are no other significant trend effects for intentions in any of the subgroups of interest (males vs. females, Whites vs. African American vs. Hispanics, or among risk subgroups).

There are, however, significant trends in attitudes and beliefs about inhalant use for two subgroups: males and low-risk respondents. From Year 2000 to Wave 5, males show statistically significant positive change in anti-drug beliefs and attitudes, increasing from a score of 102 to 112, a clearly favorable trend. In addition, there is also an improvement from Year 2001 to Wave 5 in attitudes and beliefs for low-risk individuals consistent with Campaign goals. These results show a contrasting picture to the more unfavorable trend results regarding marijuana use.

5.7 Delayed-Effects Associations of Anti-Drug Advertising Exposure with Attitudes, Beliefs, and Intentions about Marijuana Use among 12- to 18-Year-Old Nonusers

This section presents an analysis of cohort data: the youth who were initially interviewed at Waves 1, 2, or 3 (Round 1), and again at Waves 4 or 5 (Round 2). With these youth, who averaged 12 to 18 months between their Round 1 and Round 2 interviews, it is possible to examine whether level of exposure to advertising at Round 1 predicts subsequent changes on the important outcomes by

Round 2.[6] Given the lack of evidence of Campaign effects shown in the previous sections, finding evidence for a delayed effect on the cognitive outcomes and on reported marijuana use had not been expected. Nonetheless, while the trend data showed both favorable and unfavorable changes since the start of the Campaign, and the cross-sectional analysis showed no evidence of effects at all, the longitudinal analysis exhibits a mix of no effect and unfavorable effect results. Where there are any effects, those who were more exposed to the Campaign at Round 1 tended to move more markedly in a "pro-drug" direction as they aged than those who were less exposed. These are consistent with the results from the previous report (Hornik, et al 2002).

The delayed-effects exposure analysis commences with a display of the fully adjusted results for the 12- to 18-year-olds. It then discusses results for each of the major subgroups. These analyses are adjusted for the complex sample design and the full set of potential confounders. The confounder adjustments follow the same procedures used for the cross-sectional association analyses above, although the propensity scores used for adjusting were based on the propensity models for the Round 1 exposure scores for this sample (see Appendix C). Only youth who were nonusers at Round 1 and were re-interviewed at Round 2 were eligible for this analysis.

Table 5-L presents the results of the delayed-effects analysis for the sample of youth who were 12- to 18-year-olds at Round 2 but who had never used marijuana at Round 1. (These results and the ones for subgroups are found also in Detail Tables 5-41 through 5-50.) The table shows 10 results. For the eight cognitive outcomes, all of the gammas are negative with four of the eight results statistically significant for the full sample. These outcomes involve intentions, social norms, and self-efficacy. The associations between both general and specific exposure at Round 1, with Round 2 intentions to not use marijuana, are unfavorable and statistically significant. Youth who were higher on exposure at Round 1 were more likely to intend to use marijuana at Round 2 than those with lower exposure at Round 1. A similar relationship was found for social norms. Youth with higher general exposure at Round 1 had more "pro-drug" social norms at Round 2 than those with lower exposure at Round 1. There is also a significant unfavorable relationship between specific exposure and self-efficacy. That is, youth with higher exposure at Round 1 had lower self-efficacy at Round 2 than those with lower exposure at Round 1. Only the attitude/belief index shows no association at all with either measure of prior exposure.

In contrast to the evidence from the cognitive variables, the overall results do not show any effect of Campaign exposure on behavior; i.e., the initiation of use. About 13 percent of all of these nonusing youth initiated marijuana use between the measurement waves. However the level of exposure youth reported at Round 1 does not predict their initiation, once the propensity scoring adjustments are incorporated.

The next question to be addressed is whether these results are consistent for the subgroups. When there was a significant unfavorable overall effect, were the subgroups showing consistent results? And, in the cases where there was no significant overall effect, was there evidence of a significant effect for one or more subgroups?

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[6] Youth measured first in Wave 1 or Wave 2 had an average of 18 months between interviews; youth interviewed first in Wave 3 had only 12 months between interviews. The annual rate of initiation for all groups was about the same (9.6%) with annual initiation rates of 9.2%, 8.7%, and 10.8% for Waves 1, 2, and 3, which are not significantly different from one another. Thus there was no evidence of seasonality in their rates of initiation, although the groups were interviewed in different halves of the year. In addition, as will be shown in Table 5-M below, there was no difference in effects observed across subgroups defined by Wave at first interview.

Table 5-L. Exposure per month at Round 1 and outcomes at Round 2 among 12- to 18-year-olds who were nonusers of marijuana at Round 1

Round 2 outcome (average)		Round 1 Exposure				Gamma (95% CI)
		<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures	
Percent (Not) intending to use	General exposure	84.0%		78.4%	77.4%	**-.14* (-.25 to -.03)**
	Specific exposure	82.3%	78.2%	76.5%		**-.12* (-.21 to -.02)**
Attitudes/Beliefs Index (Mean score)	General exposure	99.55		87.38	90.46	-.03 (-.08 to .01)
	Specific exposure	92.34	93.39	85.98		-.03 (-.08 to .02)
Social Norms Index (Mean score)	General exposure	99.19		79.53	82.96	**-.07* (-.12 to -.02)**
	Specific exposure	90.21	85.89	77.79		-.05 (-.11 to .00)
Self-Efficacy Index (Mean score)	General exposure	105.80		105.81	106.66	-.01 (-.07 to .05)
	Specific exposure	119.96	102.17	104.33		**-.08* (-.15 to -.02)**
Percent Initiation of Use	General exposure	12.0%	11.8%	13.2%		.04 (-10 to .18)
	Specific exposure	12.8%	13.2%	12.8%		.00 (-.11 to .11)

* Significant at p < .05.

In general, where there were overall effects, the subgroups were not significantly different from the full sample, or from one another. Where there were overall effects some of the subgroups showed significant effects themselves, and the rest showed effects that were statistically consistent with the overall effects. This pattern is displayed in Table 5-M, focusing on the rows where there was a significant overall effect. In this table, for the cognitive outcomes, which are all scaled so that a high score is anti-drug, a negative gamma is unfavorable to the Campaign. For the initiation of marijuana use measure, a positive gamma indicates that exposure is associated with more initiation, and is unfavorable to the Campaign.

The diversity issue worth more attention is whether there were significant effects for subgroups when there was no overall effect. A summary of these results can be seen in Table 5-M as well, focusing on the rows where the overall gamma was not significant.

Neither of the measures of exposure was related to the attitude belief index for the subgroups, with two exceptions. There was a significant unfavorable association between the general exposure model among youth first interviewed at Wave 2, and the youth who were at low risk.

The social norms index was related, overall, with prior general exposure, in an unfavorable direction. The overall association was negative but not statistically significant for the specific exposure index, however it was significant for those first interviewed at Wave 1 and those first interviewed at Wave 3. In addition, the coefficient for specific exposure was negative for every one of the subgroups, reinforcing the appearance of a general unfavorable effect for this index as well.

Table 5-M. Association (gamma) between Exposure at Round 1 and Youth Outcomes at Round 2[1]

	Exposure Measure (gamma)	Age		Gender		Race/ethnicity			Risk of MJ Use		Wave of 1st interview		
		12-13	14-18	Male	Fem.	White	Afri-Amer.	Hisp	High	Low	1	2	3
Percent (Not) intending to use	General (-.14)	**-.40***	-.07	**-.17***	-.10	**-.18***	-.20	.12	-.00	**-.27***	-.05	**-.29***	-.08
	Specific (-.12)	-.11	**-.13***	-.06	**-.18***	-.12	**-.28***	.02	-.06	**-.15***	-.14	-.06	-.17
Attitudes /Beliefs Index	General (-.03)	-.07	-.01	-.05	-.02	-.03	-.09	-.01	.05	-.06	-.02	**-.10***	.02
	Specific (-.03)	-.08	-.02	-.03	-.03	-.03	-.06	.02	.01	-.02	-.03	-.02	-.05
Social Norms Index	General (-.07)	-.05	-.04	-.06	**-.07***	-.05	-.07	**-.12***	.05	**-.09***	.00	-.06	**-.13***
	Specific (-.05)	-.04	-.06	-.03	-07	-.05	-.06	-.03	-.04	-.06	**-.08***	.02	**-.11***
Self-Efficacy Index	General (-.01)	-.05	.01	-.03	.01	-.03	-.09	.11	.02	-.06	.02	-.07	.03
	Specific (-.08)	-.03	-.11	-.08	-.09	**-.09***	.04	-.12	-.10	-.06	-.09	-.08	-.07
Percent Initiation of MJ Use	General (.04)	.00	.02	.06	.02	.07	-.08	.02	-.03	.07	-.15	.15	.14
	Specific (.00)	.12	-.02	-.05	.06	.07	-.21	-.18	.09	-.09	.13	-.09	.03

* Significant at $p < .05$.

[1] In this table a positive association is favorable to the Campaign for the cognitive outcomes, but unfavorable to the Campaign for initiation of marijuana use.

Although the specific exposure scale was significantly associated with self-efficacy, the general exposure measure was not associated with the self-efficacy index. This lack of significant associations with general exposure was also the case for each of the subgroup analyses.

Similarly, initiation of marijuana use, which showed no overall association, also showed no significant association for any of the subgroups. This is a potentially important result for two reasons. The other measures, particularly intentions, are highly related to use, and are predictive of initiation of use. The intention measure does show a strong negative association with prior exposure, making the failure to find one for initiation itself surprising. In addition, in the previous report there was statistically significant evidence for a possible effect of specific exposure on initiation for some subgroups in the Wave 1 sample (females, 12- to 13-year-olds, lower risk youth) but they are not replicated here where the Waves 2 and 3 samples are also included.[7] It is worth noting, however, that there are a total of 120 results for subgroups presented in Table 5-M. Nineteen of those subgroup results are statistically significant. Every one of these statistically significant results is unfavorable to the Campaign.

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[7] Close examination of three of these subgroups when all waves are considered (Whites, 12- to 13-year-olds and females) shows that there was still an unfavorable association for these groups between the specific exposure index and marijuana initiation before introducing the confounder controls through propensity scoring. The gamma for the Whites was .176, for the 12- to 13-year-olds was .262, and for the Females, .214. However the introduction of the propensity model sharply increases the sampling error around the gammas, and although the confounder controlled estimates of gamma for these three groups are still positive (unfavorable), the confidence limits are now sufficiently wide so that it is not possible to say whether they are different from no association at all.

This report introduces the analysis of subgroups defined by wave at first interview. This was meant to permit the examination of whether different periods of the Campaign had different effects on the outcomes. The final three columns of Table 5-M present that evidence. None of the gammas in those columns are statistically different than the overall pattern in the row. Both the youth who were first interviewed in Wave 2 and those who were interviewed in Wave 3 show two significant effects, while those interviewed during Wave 1 show one significant effect and all five are unfavorable. In all three columns the predominant pattern of gammas is unfavorable. These results provide no support for a claim that the delayed-effects of the Campaign have varied across the three first waves.

While the negative results described above are not desirable from the perspective of the Campaign, they are consistent with the similarly unfavorable results published in the last semi-annual report. However it was again important to make sure that the observed results were not an artifact of the complex adjustment procedures. While the adjustments for confounders were based in statistical theory, it would provide additional strength if the apparent results did not only appear at the end of that process. In Table 5-N, the overall results are presented again, unadjusted for confounder control, but incorporating NSPY sample weights.

Table 5-N. Exposure per month at Round 1 and outcomes at Round 2 among 12- to 18-year-olds who were nonusers of marijuana at Round 1- (data not corrected for confounders)

Outcome (average)		<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures	Gamma (95% CI)
Percent (Not) intending to use	General exposure	85.4%		80.1%	75.1%	-.22* (-.31,-.14)
	Specific exposure	85.7%	78.8%	74.9%		-.20* (-.27,-.13)
Attitudes/Beliefs Index (Mean score)	General exposure	106.5		91.2	83.6	-.08* (-.11,-.05)
	Specific exposure	102.3	94.7	81.3		-.08* (-.11,-.04)
Social Norms Index (Mean score)	General exposure	106.2		84.8	74.7	-.13* (-.17,-.09)
	Specific exposure	103.4	88.7	70.8		-.12* (-.16,-.09)
Self-Efficacy Index (Mean score)	General exposure	109.5		110.5	105.8	-.05* (-0.10,-0.0)
	Specific exposure	123.8	104.1	102.7		-.09* (-0.14,-.04)
Percent Initiation of Marijuana use	General exposure	10.6%		11.6%	14.1%	.12* (.01,.23)
	Specific exposure	10.4%	12.9%	13.8%		.09 (-.01,.19)
N	General exposure	1053-1068		993-1008	2345-2371	4390-4448
N	Specific exposure	957-972	1635-1655	1798-1821		4390-4448

* Significant at p < .05

These results make it clear that the unfavorable associations do not result from the procedures used to adjust for confounders. For both measures of exposure, and for all of the four cognitive outcomes and for general exposure with the measure of initiation of use, the relationship is unfavorable and

significant. Therefore, the pattern in Table 5-N is consistent with the unfavorable delayed-effects results found for the fully adjusted data. Indeed, in almost every case, the original association was less unfavorable to the Campaign after the confounder controls were introduced.

5.8 Summary and Discussion

In this chapter, a number of results were presented pertinent to direct Campaign effects on youth.[8] For each of the four cognitive indices plus reported use of marijuana, this report examined: 1) trends/changes from 2000 to the first half of 2002, 2) cross-sectional associations with both general and specific exposure, and 3) delayed-effects associations for the youth first interviewed in Waves 1, 2, and 3.

Chapter 4 presented the trends for marijuana use. There was no trend in marijuana use from the NSPY between 2000 and the start of 2002, neither overall nor for any of the age subgroups. The MTF findings through 2001 similarly showed no recent trend in use. However the just published NHSDA 2001 results suggested a significant increase in marijuana use for the population of 12- to 17-year-olds between 2000 and 2001 for all three indicators of use: lifetime, past year, and past month. The absolute size of the changes was small, and statistically detectable because of the NHSDA's large sample size. A change of a similar magnitude would not be detectable for NSPY.

This chapter presents the trends for cognitive outcomes to complement the use data from Chapter 4. The trends are significant for two of the outcomes (social norms and self-efficacy) for the entire youth population but in opposite directions, favorable to the Campaign for self-efficacy and unfavorable to the Campaign for social norms. In addition, there was an unfavorable effect for intentions for 14- to 18-year-olds, and an unfavorable effect on the attitude/belief index for youth who were at lower risk for marijuana use. However, trends alone, whether favorable or unfavorable to the Campaign, do not establish Campaign effect. Other forces may be affecting marijuana use in addition to the Campaign and influencing its upward or downward movement, regardless of Campaign effects.

The next step of analysis was to look at the cross-sectional associations between individual exposure to the Campaign and the several outcomes, as an additional strategy for sorting out Campaign effects. This analysis focused entirely on nonusers of marijuana at the time of the interview. The Wave 5 results largely confirm a pattern that was observed in the earlier reports from Waves 2 to 4. Scores on all of the cognitive outcomes did not vary systematically with levels of either the general or the specific exposure scale. No significant cross-sectional associations were observed, neither overall nor for any of the many subgroups examined, using the gamma coefficient as the criterion for a claim. None of the central analyses of effects supported a favorable Campaign effect and none supported an unfavorable effect on intentions, attitudes and beliefs, perceived social norms, or self-efficacy with regard to marijuana use, once the effects of potential confounders were removed.

The final step of the analysis utilized the availability of two rounds of measurement, 12 to 18 months apart, for the entire sample of youth. This made it possible to examine the association of exposure to advertising at the first measurement occasion (Round 1) and the subsequent scores on the outcomes, including the four cognitive outcomes, as well as marijuana use. This analysis was restricted to youth who were nonusers at Round 1, so the measure of marijuana use at Round 2 was effectively a measure of initiation of use. The delayed-effects results provided no evidence of a favorable Campaign

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[8] Indirect effects mediated through parent exposure are presented in Chapter 6.

effect. On the contrary, all of the evidence from the delayed-effects analysis suggested either no Campaign effect, or an unfavorable effect. Three of the four cognitive outcomes showed an unfavorable significant association of exposure and outcomes for one or both of the exposure measures. The youth, who reported more exposure to Campaign advertising at Round 1, were more likely subsequently to show some intention to use marijuana and to report less self-efficacy to resist marijuana if it was available to them. However, they were not more likely to actually report more initiation of marijuana, once the full set of confounders were statistically controlled, nor were they more likely to report higher pro-marijuana scores on an index of beliefs and attitudes. The delayed-effects analysis suggests an unfavorable effect of the Campaign. The significant unfavorable effects on intentions, self-efficacy, and to some extent, social norms, have not yet produced statistically significant effects on marijuana initiation. However, those cognitive measures are very strongly predictive of subsequent marijuana initiation. Among nonusing youth, the odds of initiating use by Round 2 were 8 times as great for those who did not versus those who did say "definitely not" to the intentions question at Round 1. Thus these analyses do not support an inference of a favorable Campaign effect. In addition, there continues to be evidence that exposure to the Campaign predicts poorer, rather than better outcomes.

Can the results from the delayed-effects analysis be due to a statistical artifact? There are two logical threats to a causal claim that the Campaign produced an unfavorable effect. The first is that in the sheer complexity of the statistical analysis, with its adjustment for confounder effects, some error crept in and that the observed results are merely an artifact of that process. Multiple points argue against this theory. First, the fully weighted and controlled model provides similar results to a simple analysis of the uncontrolled data. The basic effects are all in the same direction. Second, the complex analysis has been undertaken with extended checks and quality control oversight.

There are two specific risks to causal inference associated with the analysis approach undertaken. First, is it possible that the potential covariates that were included in the analysis were not adequately controlled in the process? Second, is it possible that some unmeasured covariates could account for the observed negative association?

Propensity scoring is designed to remove the effects of confounding variables from the association between outcomes and exposures. It is possible to detect the success of that process by showing that the potential covariates do not vary across the adjusted exposure categories. This property is referred to as balance. If a confounder has been successfully balanced, it will have the same average score across all exposure levels, once propensity has been controlled. If confounders are not balanced, results can be biased. The ability to assess balance is an important advance of propensity scoring over traditional analysis of covariance (Rosenbaum and Rubin, 1984). A number of tests of balance were conducted for the overall data, as well as for the subgroups including age, race, gender, sensation seeking, risk-score, and wave. For each of these subgroups, the tests of balance were conducted on a large number of variables (more than a hundred variables, including some variables that were not in the original model). The analysis paid special attention to balancing variables that we considered to be substantively important. Overall, the number of covariates out of balance for the full sample and for the age subgroups were very few (fewer than 5% of the variables tested for balance).

The second threat is more substantive in character. Is it possible that there is some unmeasured covariate? Is there some variable not included in the propensity model that could have influenced recall of exposure to the television advertising at Round 1 and the outcomes at Round 2? An unmeasured covariate can bias the effect estimates even if all the measured covariates are perfectly

balanced. One can never be sure, of course. That is the difference between a randomized experiment and an observational study. It is always possible that some unmeasured characteristic accounts for an observed result.

However, such an unmeasured variable would have to have a particular character. The obvious possibility would be that youth with more interest in marijuana, with more positive beliefs and perceived social norms, pay more attention to the advertising. However, insofar as this can be examined, that does not appear to be a viable explanation. Baseline data are lacking on many of the cognitive measures for the youth who were just 9- to 11-years-old at Round 1, and these make up a substantial portion of the 12- to 13-year-olds at Round 2. Therefore, control could be implemented for these baseline cognitions only for the older youth. However, these Round 1 cognitions do not account for the observed unfavorable effect. There is no cross-sectional association between exposure and the outcomes. Thus the unmeasured variable would have to be one that suggests that youth who reported high exposure at Round 1 would have had a different trajectory regardless of that exposure, that the exposure was only an indicator of the already present tendency to move toward a more pro-drug position. The difference in trajectories would have to be not associated with any of the other variables that were measurable at Round 1, including projected risk of drug use, which predicted a great deal of the transition to drug use, and which was not associated with exposure levels.

This unmeasured covariate problem is related to the internal validity threat of *selection-maturation* (Cook and Campbell, 1979), which often must be confronted in quasi-experimental studies of youth. Here, such a threat occurs if the highest exposure groups have differential rates of "normal growth" between Round 1 and Round 2. Practically speaking, this is likely to occur if the measured variables do not fully capture the "selection" process producing the various exposure levels. Thus far there is no specific evidence that this is true, although it may be. Given the above findings, the evaluation team must proceed with caution, but with the recognition that the relationship has not been rejected by the challenges to it undertaken thus far.

How can it be that there is no significant trend in marijuana use, and there is no significant cross-sectional association of specific exposure and outcomes, but there is a robust unfavorable delayed-effects association? The following paragraphs offer some speculations.

Trend effects are, in fact, partly consistent with an unfavorable Campaign effect. There was evidence for an unfavorable, overall trend in social norms, and an unfavorable trend in intentions for 14- to 18-year-olds. Also, the newly published NHSDA results suggest that there was a small increase in marijuana use between 2000 and 2001, an increase that would not have been detectable with the NSPY sample. However, the favorable trend on the self-efficacy index is not consistent with the evidence for an unfavorable delayed-effects on the same outcome.

A more difficult inconsistency has to do with the failure to find any cross-sectional association between either measure of exposure and any of the cognitive outcomes. How can it be that there is an unfavorable delayed-effects but no cross-sectional association? The limited sets of analyses performed to investigate this issue have not yet provided a good answer.

There is then some difficulty, certainly, in reconciling the full set of results. The inference logic set at the outset asked for three mutually supportive results to make a claim for positive Campaign effects: a favorable trend, a favorable association, and evidence for a favorable delayed-effects. Obviously these have not been found, and thus there are no grounds to make a claim that the Campaign has had a

favorable effect on youth thus far. Still, if those same criteria were applied to claiming unfavorable Campaign effects, they have not been met for that purpose either.

Despite the above uncertainties, there is one more problem to address. How could it be that the Campaign could have produced an unfavorable effect? Through what mechanism could the Campaign have produced such an effect on intentions (both exposure measures), perceived norms (general exposure only), and perceptions of self-efficacy (specific exposure only)? The theory underlying the Campaign and the evaluation were all about the process of producing anti-drug beliefs and behavior. At this point in the evaluation, any explanation for the observed result is based on speculation.

Some of the strongest results relate to social norms. There are unfavorable trend and delayed-effects of general exposure present for that outcome for the entire population. At the same time, there is a strong delayed effect of specific exposure on self-efficacy. Is it possible that the Campaign, while its explicit message is anti-drug, provides a second implicit message—that drugs are a big problem and their use is widespread? The Campaign's communication plan had proposed using messages that would say that most kids don't use drugs. But, in fact, there were very few messages broadcast during Wave 1 through 3 that put this idea forward. Contrarily, the messages that were broadcast—negative consequences (20%), normative positive consequences (56%), and resistance skills (32%)—all have as an implicit assumption that drugs are a problem. Is it possible that youth took from these messages that drug use is expected behavior, and that resistance to drug use (as measured by self-efficacy) may be difficult given its pervasiveness?

A second speculation is that youth do not like being told what to do. The more they are told what to do the more resistant they are to the messages. A body of psychological theory refers to this phenomenon as "reactance." The more heavily exposed to the ads youth were, the more resistant to their ideas they became. As far as we know, there has not been prior evidence of reactance in published evaluation of campaigns. Snyder (2002) published a meta-analysis of 48 behavior change programs that made use of mass media. None of them showed an unfavorable effect. All of the evidence supporting this reactance hypothesis has come from experimental studies. Nonetheless, it may be possible that youth have gotten so much anti-drug information from school and elsewhere that their response to this extra exposure has been to go in the opposite direction.

5.8.1 Conclusion

Overall, the results are mixed. Some are consistent with no Campaign effects on youth, while some, particularly the delayed-effects analyses, are consistent with an unfavorable effect. This report did not find any evidence that the unfavorable effects were restricted to one of the periods of the Campaign. The previous report was based on only about 40 percent of the current sample, and at that time it was promised that the current report would provide a more definitive determination. By and large the current report sustains the unfavorable results from the previous one. The major exception is the lack of statistically significant evidence now for an unfavorable prediction of marijuana initiation for any subgroup once the full confounder set is controlled. An unfavorable result is a surprising result, both because it was unexpected for the Campaign and because it has no real precedent in the published communication campaign literature. Explanations presented for a possible unfavorable Campaign effect are speculation with only a small amount of empirical support.

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6.   Campaign Effects on Parents

A continuing theme of the parent Campaign has been to encourage parents to engage with their children to protect them against the risk of drug use. This idea is summarized in the slogan, Parents: The Anti-Drug. The major component has been to encourage parents to monitor their children's behavior by knowing where they are and with whom, and by making sure they have adult supervision. A second component has been to encourage talking between parents and children about drugs. Also, although largely restricted to the time period covered by Wave 1 data collection, the Campaign had a substantial level of advertising that encouraged parents to do fun things with their children as a positive part of their engagement with them.

The evaluation examined evidence for Campaign effects on those three classes of outcomes: monitoring children's behavior, talking with children about drugs, and engaging in fun activities with children. In the previous reports, based on both favorable trends over time and cross-sectional associations, there was evidence supportive of Campaign effects on objectives related to talking with children; for beliefs and attitudes regarding monitoring of children; and, in the case of the cross-sectional associations, for doing fun activities with them. These results still hold when Wave 5 is added. The interpretation of these trend and cross-sectional results were somewhat ambiguous as to whether the observed cross-sectional association reflected the influence of the Campaign on the outcomes or the influence of parents' engagement with youth on their tendency to recall the Campaign's messages. The previous report addressed these concerns with a longitudinal sample of parents interviewed at Wave 1 and re-interviewed at Wave 4. With this report it is possible to examine followup data with parents interviewed at Round 1 (including Waves 1, 2, and 3) and re-interviewed at Round 2 (Waves 4 and 5), which represents an increase of 150 percent in the longitudinal sample compared to the Wave 4 report, which included only 40 percent of the full sample. This permits a more sensitive examination of the possibility that Round 1 exposure to messages predicted change by Round 2 in the outcomes, thus helping to address the concern about causal direction.

This chapter first discusses the logic supporting claims of Campaign effects and presents the primary outcome variables. In Section 6.2 it turns to evidence for change in those outcome variables over the five waves of data collection. Sections 6.3 and 6.4 present the evidence for cross-sectional and delayed-effects associations of exposure to Campaign advertising with the major outcome variables. The following section reviews results from cross-sectional and delayed-effects analyses of parent exposure on youth outcomes. Finally, Section 6.6 brings together the trend, associational, and delayed-effects analyses and discusses conclusions about Campaign effects.

6.1 The Logic of Inference and the Development of Parent Outcome Scales

As discussed in the previous chapter, it would be desirable to show that target outcomes are trending in a direction favorable[1] to Campaign objectives: more monitoring, more talking, and more fun activities. This would be desirable even though trend data, by itself, is not definitive with regard to inferences about Campaign effects, recognizing that forces external to the Campaign may be influencing trends either for better or for worse.

Second, it would be desirable to show that parents who were more exposed to the Campaign displayed more of the desired outcomes than parents who were less exposed. For example, were parents who reported seeing Campaign ads two or three times a week more likely to have talked with their children about drugs than were parents who report ad exposure less than once a week? These observed associations are controlled for a large number of confounder variables that might have influenced both exposure and outcome and, therefore, were the true cause of the observed association. (See Appendix C for the propensity score methodology that was used.)

Using cross-sectional data, several previous reports presented a favorable association of reported exposure to the Campaign with the target outcomes statistically controlled for likely confounders as the best evidence consistent with a Campaign effect. If this was accompanied by evidence of a favorable trend in the outcome, the argument that there was a Campaign effect was strengthened. Capitalizing on a much larger longitudinal sample than the previous report, this report continues to explore delayed-effects analyses that allow a clearer understanding of the causal order between exposure and outcomes.

The threat of reverse causation, a major concern with cross-sectional analyses, is that the association might be the result of the influence of outcomes on exposure rather than exposure on outcomes. This report, as did the previous one, benefits from cohort data available over time; parents interviewed at Wave 1 were re-interviewed at Wave 4, and parents interviewed at Wave 2 and at Wave 3 were re-interviewed at Wave 5. As explained in Chapter 2, the delayed-effects analysis involves examining the association between exposure measured at Round 1 and outcome measured at Round 2, statistically controlling both for the Round 1 levels of the outcomes and for confounders. This delayed-effects association captures both the delayed-effects of exposure at Round 1 if that effect did not emerge until after Round 1, as well as the effects of exposure at Round 1 that flow through exposure at Round 2 to outcome at Round 2.

The overall analysis focuses on effects among all parents of 12- to 18-year-olds. The age range is restricted to match the age range of the youth at risk of drug use and the primary focus of the previous chapter. In addition to the overall analysis, the chapter presents both trend, associational, and longitudinal data for subgroups of parents. This report introduces analysis of subgroup of parents defined by wave of interview, allowing an examination of whether the effects of the Campaign might vary across the measurement periods. The cross-sectional results are presented according to year of current interview, while the delayed-effects association results are presented according to wave of first interview. The subgroup analyses are used for two purposes. If there is an overall effect for all parents, there is a search for evidence that the trends or the association is significantly larger or smaller for

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[1] Throughout this chapter both trends and associations consistent with Campaign objectives are called "favorable." Trends and associations that go in the opposite direction from those expected by the Campaign are called "unfavorable."

particular groups. If there is no overall effect, the subgroups are examined to see if there is evidence of effect for only a subpopulation.

The primary analyses presented focus on five summed outcome measures: talking behavior, talking cognitions, monitoring behavior, monitoring cognitions, and fun activities undertaken. These measures summarize 21 individual measures. Trends in all the individual measures are presented in the Detail Tables, but the Campaign effects analyses focus on these five measures. The use of only five measures reflects three purposes. The combination of multiple measures into single indices may increase the sensitivity of the measure in detecting effects. Multi-item indices are ordinarily less error prone than single item measures. Also, the more results that are presented, the more likely it is that a result will be significant at the conventional (p=.05) level by chance. By focusing on a smaller number of outcomes, particularly when it comes to subgroup analyses, the risk of making inferences on the basis of rare and misleading significant results is reduced. Finally, the presentation of five distinct outcomes is more focused, allowing writers and readers to make sense of the results more easily.

The choice of indices and the procedures for weighting the individual items in the summed indices is described next. The three behavioral indices follow the procedures that have been used in the previous semiannual reports. The talking behavior index, with a range of 0 to 3, gives a point to parents for each of the following: for talking with their son or daughter about drugs at least twice in the previous 6 months, for having discussed family rules about drug use, and for having discussed specific things that the child could do to stay away from drugs. The monitoring behavior index, which also varied from 0 to 3, gave points to parents for saying they "always or almost always" knew what their child was doing when he or she was away from home, had a pretty good idea about the child's plans for the coming day, and for saying their child never spent free time in the afternoon hanging out with friends without adult supervision. These questions were also asked of youth, so that youth and parent responses could be directly compared. The fun activities variable combined the responses of parents to questions about the frequency of in-home joint projects and activities, and going together to out-of-home activities. Parents who reported doing the sum of both activities three or more times each week were assigned one, with everyone else assigned zero.

The two cognitive indices were constructed on a different basis, and parallel to the way the indices in Chapter 5 were created. These belief and attitude variables, presented in Figure 6-A, were summed with weights reflecting their independent prediction of the behavioral scales just described. Thus the eight items that addressed beliefs and attitudes about monitoring were entered into a multinomial logistic regression equation predicting the parent score on the behavioral scale. Similarly, the seven items that addressed self-efficacy about and general attitudes toward talking with children were used to predict the parent-child talk behavior scale. Appendix E describes the procedures for developing these indices in detail.

The substantive logic for this approach reflects the underlying models of the campaign presented in Chapter 2. The beliefs and attitudes are important not for their own sake, but only insofar as they account for behavior. By weighting them according to their predictive strength, they make up an index of cognitions maximized for its ability to account for behavior. This strategy of weighting beliefs and attitudes permits an argument that if the Campaign affects these cognitive outcomes, it also forecasts effects on behavior. These weighted summed scores had no natural metric. To ease their interpretation, the two scales were standardized so that the entire population of parents had a mean of 100 and a standard deviation of 100 at Wave 1. This provides a natural metric for comparing the magnitude of change over time and between groups.

Figure 6-A. Beliefs and attitudes about monitoring

Monitoring Cognitions:

1. Closely monitoring {CHILD NAME}'s daily activities is:

a. Extremely bad	1	2	3	4	5	6	7	Extremely good
b. Extremely unpleasant	1	2	3	4	5	6	7	Extremely pleasant
c. Extremely unimportant	1	2	3	4	5	6	7	Extremely important

Please indicate how much you disagree or agree with each of the following statements. Think about the next 12 months.

2. Closely monitoring {CHILD NAME }'s daily activities will:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. Make it more likely that {CHILD NAME } will do well in school	1	2	3	4	5
b. Make me feel like I am doing my job as a parent	1	2	3	4	5
d. Make it less likely that {CHILD NAME } will try any drug, even once or twice	1	2	3	4	5
e. Make it less likely that {CHILD NAME } will use any drug *nearly every month*	1	2	3	4	5
f. Make {CHILD NAME } feel I am invading {his/her} privacy	1	2	3	4	5

Talking Cognitions:

Discussing drug use in the *next 12 months* with {CHILD NAME}, would be:

a. Extremely bad	1	2	3	4	5	6	7	Extremely good
b. Extremely unpleasant	1	2	3	4	5	6	7	Extremely pleasant
c. Extremely unimportant	1	2	3	4	5	6	7	Extremely important

How sure are you that you would be able to talk about illicit drug use with {CHILD NAME}, under each of the following circumstances:

	Very unsure	Unsure	Neither sure nor unsure	Sure	Very sure
a. If {CHILD NAME} asked me questions about drug use in general?	1	2	3	4	5
b. If {CHILD NAME} asked me what specific things {he/she} could do to stay away from drugs?	1	2	3	4	5
c. If {CHILD NAME} and I had been having conflicts over other things not related to drugs, and our relationship was tense?	1	2	3	4	5
d. If {CHILD NAME} asked me about my own past use of drugs?	1	2	3	4	5

The previous report illustrated the cross-sectional association between the cognitive indices and their respective behavioral outcomes, which the addition of Wave 5 data only confirms. The association between monitoring cognitions and behavior is particularly strong, with parents at the low end of the monitoring cognition scale doing 0.50 of the three monitoring behaviors while those at the high end undertake 2.2 of the three behaviors. The association between talking cognitions and behavior, though less clear cut, is also substantial, with parents at the low end of the talking cognitions scale reporting 1.5 of the three talking behaviors while those at the high end report 2.7 of the three behaviors.

Delayed-effects analyses of the association between parent behaviors and cognitions at Round 1 and youth outcomes at Round 2 provide additional support for both the validity of the parent measures and, more generally, for Media Campaign goals regarding parental monitoring and involvement in fun activities. The following analyses exclude youth who had used marijuana at Round 1 and their parents.

Figures 6B and 6C present the association between parental reports of monitoring behavior and cognitions at Round 1 and youth reports of marijuana initiation at Round 2. In both cases there is a significant and strong favorable relationship, which holds up even after controlling for youth age (not shown). While only 5 percent of children whose parents reported performing the three monitoring

behaviors at Round 1 had initiated marijuana use at Round 2, 20 percent of children whose parents reported no monitoring behaviors had initiated marijuana use by Round 2. Likewise, and with a more clearly cut linear association, among children of parents who scored on the high end of the monitoring cognitions index at Round 1 only 8 percent reported marijuana initiation at Round 2 versus nearly 33 percent of children with parents scoring on the low end at Round 1.

Figure 6-B. Youth marijuana initiation at Round 2 by parent monitoring behavior at Round 1
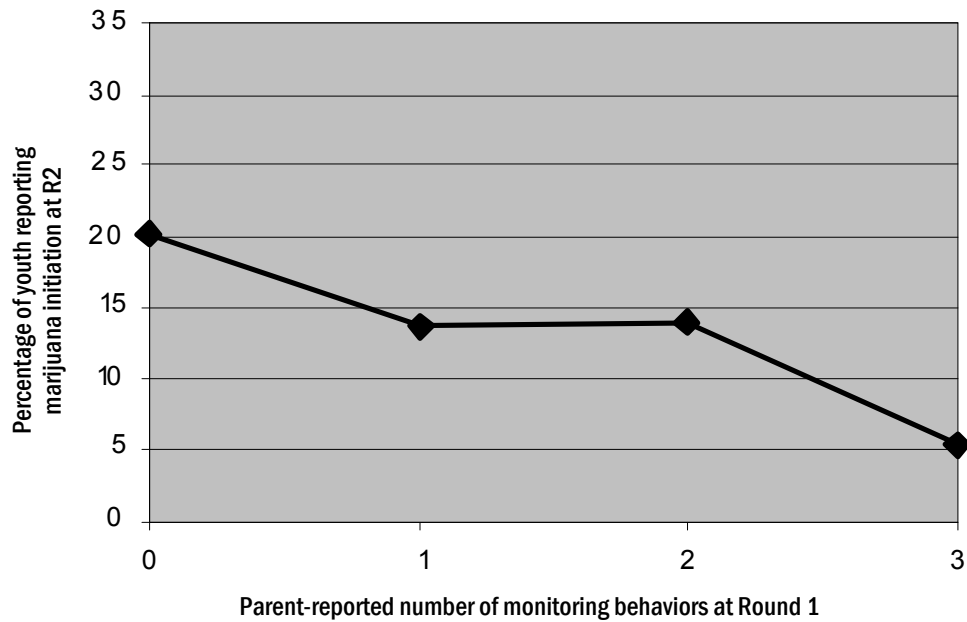
Figure 6-C. Youth marijuana initiation at Round 2 by parent monitoring cognitions at Round 1
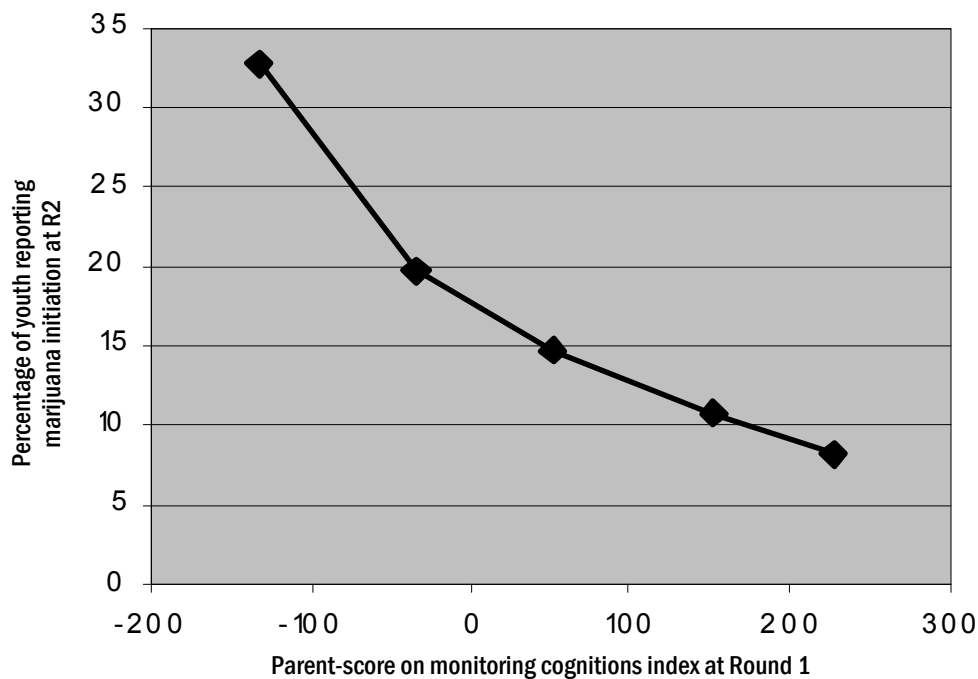
The delayed-effects association between parent-reported involvement in fun activities at Round 1 and youth marijuana initiation at Round 2 is also substantial and statistically significant (Figure 6-D). Nineteen percent of children whose parents reported no fun activities in the preceding week at Round 1 reported marijuana initiation at Round 2, as compared to only 11 percent of children whose parents reported having engaged in six fun activities at Round 1.

Figure 6-D. Youth marijuana initiation at Round 2 by parent-reported fun activities at Round 1
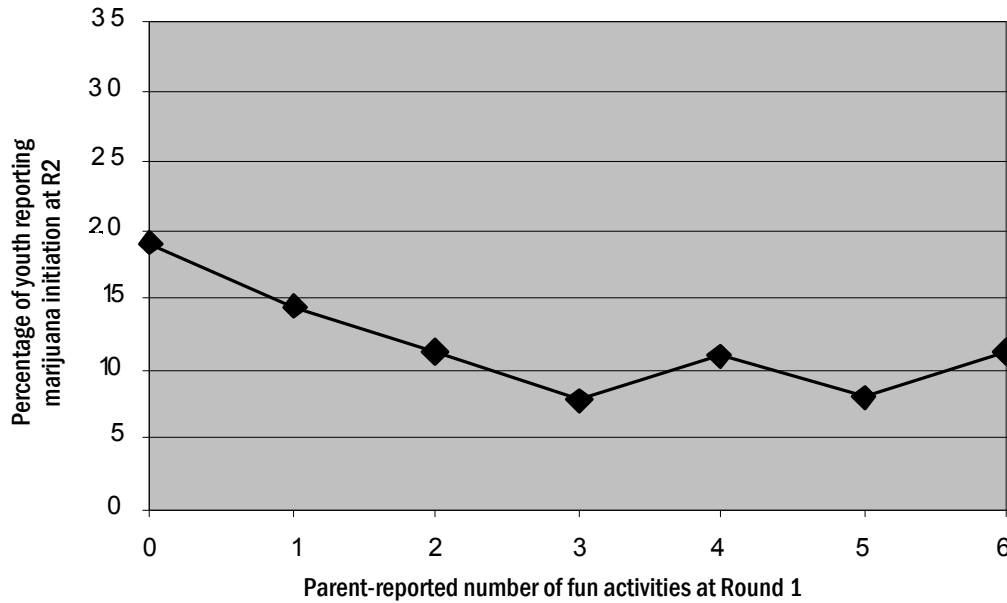
By contrast, there is no delayed-effects association between parental reports of talking behaviors and cognitions and youth marijuana initiation. Marijuana initiation at Round 2 was at 13 percent for children of parents who reported no household conversation about drugs and of those who reported all three talking behaviors at Round 1 (Figure 6-E). Children whose parents had earlier reported unfavorable talking cognitions were as likely to initiate marijuana use at Round 2 as were children whose parents scored high on talking cognitions (Figure 6-F).

Figure 6-E. Youth marijuana initiation at Round 2 by parent talking behavior at Round 1
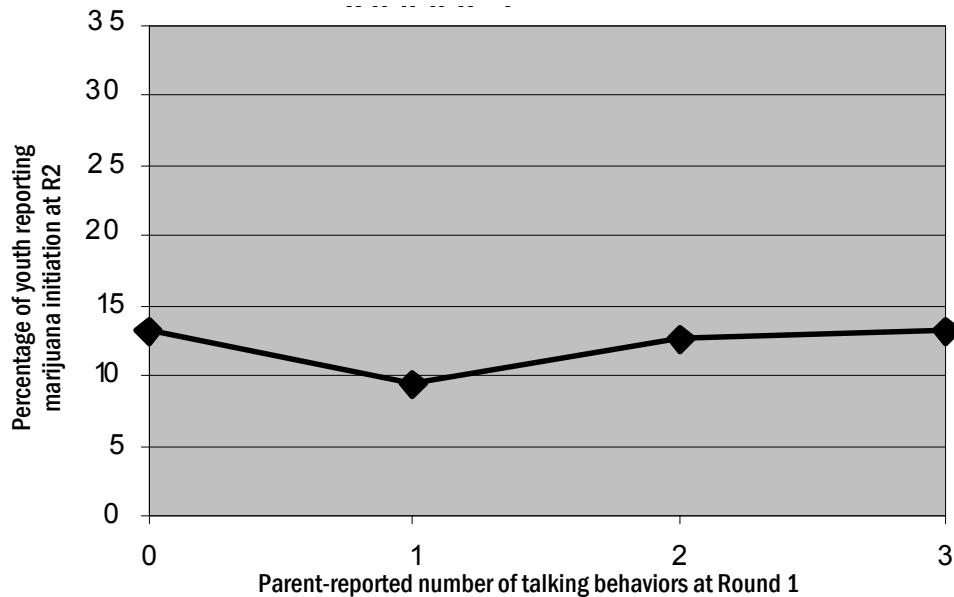
Figure 6-F. Youth marijuana initiation at Round 2 by parent talking cognitions at Round 1
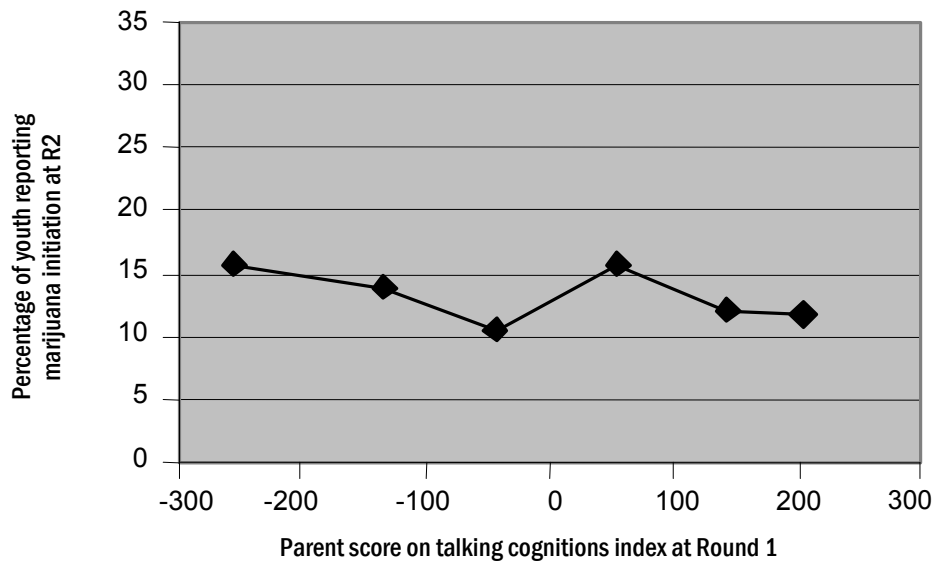
These delayed-effects results are consistent with the cross-sectional results reported in the Third Semi-Annual Report (Hornik et al, 2001). That report showed clear associations of monitoring cognitions and behavior with drug use and intentions, but no such favorable associations for talking cognitions or behavior with drug use or intentions. There are also strong associations between parent reports of engaging in fun activities with their children and marijuana intentions and behaviors. Parents who engage in more activities with their children are less likely to have children who intend to use, or who actually report use of marijuana, even controlling for age of child.

The next section begins with evidence for trends on the five indices.

6.2   Trends in Outcomes

This section covers monitoring behaviors and cognitions, talking behaviors and cognitions, engagement in fun activities, and evidence for diversity in observed trends. Trend analyses will focus on changes between year 2000 and Wave 5 (January to June, 2002) given that these largely reflect pre-existing patterns between the yearly averages for years 2000 and 2001. Changes between year 2001 and Wave 5 are in the same direction but, for the most part, are not statistically significant (see Detail Tables 6-1 to 6-54).

6.2.1   Monitoring Behaviors

Table 6-A presents evidence of changes in monitoring behavior over the study period and the test for statistical significance of the difference between estimates for 2000 (Waves 1 and 2) and the first half of 2002. Three conclusions can be drawn from this table (see also Detail Table 6-3).

First, focusing on the entire population of parents of 12- to 18-year-olds, there is a statistically significant trend toward a favorable change. There is also a statistically significant favorable trend for two of the age subgroups, parents of 12- to 13-year-olds and of 14- to 15-year-olds. Since the recommendation for increased monitoring as an approach to prevention of drug use has often focused

on younger children, the finding of a significant trend among these parents is particularly encouraging. Thus the overall conclusion is that in the first half of 2002 parents are reporting they monitor their children, particularly their younger children, more than in 2000.

Table 6-A. Parental monitoring behavior by child age (parent reports)

Age groups	Number of Monitoring Behaviors				
	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	1.65	1.80	1.82	**0.17* (0.06 to 0.28)**	0.02 (-0.07 to 0.11)
14 to 15	1.47	1.46	1.60	**0.13* (0.02 to 0.23)**	**0.14* (0.04 to 0.25)**
16 to 18	1.17	1.21	1.21	0.04 (-0.06 to 0.14)	0.00 (-0.11 to 0.12)
14 to 18	1.31	1.32	1.38	0.07 (-0.01 to 0.15)	0.06 (-0.03 to 0.14)
12 to 18	1.41	1.46	1.51	**0.10* (0.04 to 0.16)**	0.05 (-0.02 to 0.11)

* Change significant at p < 0.05.

Second, parents monitor children of different ages to different degrees. Older children are much less monitored than younger children. Detail Tables 6-11 through 6-13 present the data for each of the three behaviors that make up the scale. On average, 71 percent of 12- to 13-year-olds' parents, but only 51 percent of 16- to 18-year-olds' parents, say they always or almost always know where their children are when they are away from home. Likewise, 72 percent of 12- to 13-year-olds' parents versus 53 percent of 16- to 18-year-olds' parents always or almost always know their child's plans for the coming day. Finally, 38 percent of 12- to 13-year-olds' parents versus 17 percent of 16- to 18-year-olds' parents claim that their child never spends time with other children without adult supervision.

Youth report that their parents engage in these behaviors less frequently than do parents, at every age. As examples, while 62 percent of parents of 12- to 18-year-olds claimed they always or almost always knew where children were when they were away from home, only 49 percent of youth agreed; 63 percent of parents but only 32 percent of youth claimed that parents always or almost always knew the child's plans for the coming day. Finally, 27 percent of parents, but only 8 percent of youth said they never spent time alone with other children without adult supervision. Also, as can be seen in Table 6-B, there is no parallel pattern of change in youth reports that would reinforce parents' claims. For 12- to 18-year-olds, parents claim to be monitoring more, but youth do not report a similar change (see also Detail Table 6-3).

Table 6-B. Parental monitoring behavior by child age (youth reports)

Age groups	Number of Monitoring Behaviors				
	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	1.03	1.08	1.10	0.07 (-0.01 to 0.15)	0.01 (-0.07 to 0.09)
14 to 15	0.87	0.88	0.94	0.07 (-0.03 to 0.17)	0.05 (-0.05 to 0.16)
16 to 18	0.75	0.70	0.71	-0.04 (-0.11 to 0.04)	0.01 (-0.07 to 0.09)
14 to 18	0.80	0.78	0.81	0.01 (-0.06 to 0.07)	0.02 (-0.04 to 0.09)
12 to 18	0.87	0.87	0.89	0.03 (-0.02 to 0.07)	0.02 (-0.03 to 0.07)

6.2.2 Monitoring Cognitions

The change in parents' monitoring cognitions over the five waves is parallel to the claims of behavior change. Table 6-C presents the data for each of the youth age subgroups (see also Detail Table 6-1). The cognitive results show an overall statistically significant favorable trend for parents of all youth aged 12 to 18 with all of the age subgroups showing change in the same direction. All of the change on this measure had apparently taken place between 2000 and 2001, with the 2001 level already at 92.66 for the parents of 12- to 18-year-olds.

Table 6-C. Parental monitoring cognitions by youth age

| Age groups | Score on the index with 100 as the average[1] | | | | |
	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	114.80	122.95	122.20	7.40 (-0.73 to 15.53)	0.75 (-7.34 to 5.84)
14 to 15	91.55	94.47	94.93	3.39 (-6.69 to 13.46)	0.46 (-8.41 to 9.33)
16 to 18	62.07	67.43	68.51	6.43 (-2.47 to 15.34)	1.08 (-10.76 to 12.92)
14 to 18	75.67	79.96	79.95	4.28 (-2.66 to 11.23)	-0.01 (-7.69 to 7.68)
12 to 18	87.18	92.66	92.55	**5.38* (0. 31 to 10.44)**	-0.11 (-5.93 to 5.71)

[1] The scale has a mean of 100 and a standard deviation of 100 for all parents at Round 1.

* Change significant at $p < 0.05$.

Trends in the individual questions that make up the monitoring cognitions scale are presented in Detail Tables 6-39 through 6-44 and Detail Table 6-51. Many of the individual questions show a parallel pattern of favorable change.

6.2.3 Talking Behaviors

Table 6-D summarizes the information about the extent of parent–child conversations about drugs (see also Detail Table 6-4). Parents could earn up to three points if they reported talking about drugs at least twice in the past 6 months, as well as talking about family rules about drugs, and about specific things a child could do to avoid drugs.

Table 6-D. Parent – child talk about drugs by youth age (parent reports)

| Age groups | Number of Talking Behaviors (0 to 3) | | | | |
	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	2.29	2.38	2.42	**0.13* (0.06 to 0.21)**	0.04 (-0.04 to 0.13)
14 to 15	2.28	2.39	2.48	**0.20* (0.06 to 0.3)**	**0.09* (0.00 to 0.18)**
16 to 18	2.21	2.33	2.31	0.10 (-0.03 to 0.23)	-0.01 (-0.13 to 0.10)
14 to 18	2.24	2.36	2.39	**0.14* (0.03 to 0.25)**	0.03 (-0.04 to 0.10)
12 to 18	2.26	2.36	2.40	**0.14* (0.06 to 0.23)**	0.03 (-0.03 to 0.10)

* Change significant at $p < 0.05$.

Parents are widely claiming to do a good deal of talking about drugs with their children. The average parent claims to engage in 2.4 out of the 3 measured talking behaviors. As with the monitoring results above, parents report more frequent talk with younger children than with 16- to 18-year-olds.

This table also shows an overall pattern of increasing talk. The size of the absolute change is small, from 2.26 to 2.40. Each of the individual questions showed a change of only around 4.5 percent. (See Detail Tables 6-6, 6-7, and 6-10.) Despite the small magnitude of change, the data are consistent with a claim that the Campaign is associated with a favorable trend in parent reports of talk for all parents of 12- to 18-year-olds.

The parallel data from youth about the same talk questions provide a very different picture from the parent reports (Table 6-E and Detail Table 6-4), with much lower absolute levels of reported talk. While parents report undertaking 2.4 out of 3 behaviors, their children report approximately 1.5 of those behaviors. Finally, while parents showed a small but favorable change, the youth reports show an unfavorable change of the same magnitude, which is also statistically significant. Every age group of children, except for the 16- to 18-year-olds, shows a statistically significant unfavorable trend. As will be shown below, there is evidence that these favorable parent-reported trends among parents of all youth aged 12 to 18 complement a strong cross-sectional association between exposure and talking behavior. However, the lack of support in child reports of talking behavior brings into question an otherwise strong inference about Campaign effects on parent and youth talk about drugs.

Table 6-E. Parent – child talk about drugs by youth age (youth reports)

| | Number of Talking Behaviors (0 to 3) | | | | |
Age groups	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
12 to 13	1.74	1.58	1.53	**-0.20* (-0.32 to –0.09)**	-0.05 (-0.17 to 0.07)
14 to 15	1.56	1.42	1.42	**-0.14* (-0.26 to -0.02)**	0.00 (-0.14 to 0.14)
16 to 18	1.32	1.27	1.24	-0.08 (-0.18 to 0.02)	-0.03 (-0.14 to 0.07)
14 to 18	1.43	1.34	1.31	**-0.11* (-0.19 to –0.04)**	-0.02 (-0.11 to 0.06)
12 to 18	1.52	1.41	1.38	**-0.14* (-0.20 to –0.07)**	-0.03 (-0.10 to 0.04)

* Change significant at $p < 0.05$.

In addition to questions about general talk with youth about drugs, all parents and youth were asked whether they had ever talked specifically about the anti-drug ads with the other group. About half of the parents of 12- to 18-year-olds and a little more than one-quarter of youth reported such conversations. There is evidence that the rate of conversations about the anti-drug ads reported by parents increased from 2000 to the first half of 2002. Youth reports, however, show no significant change over this same period (see also Detail Table 6-24).

6.2.4   Talking Cognitions

Table 6-F presents the data about the summed scale for parent attitudes and beliefs about talking with their children about drugs (see also Detail Table 6-2). There is no overall statistically significant pattern of improvement for parents of all youth aged 12 to 18, although the 95 percent confidence interval barely overlaps zero. There is a statistically significant favorable trend for parents of 14- to 18-year-olds (see also Detail Table 6-2).

Table 6-F. Parent cognitions about talk about drugs by youth age

Age groups	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
				Score on summed scale with average = 100 at Wave 1	
12 to 13	109.29	112.07	107.84	-1.45 (-9.03 to 6.13)	-4.23 (-12.96 to 4.50)
14 to 15	103.15	108.63	108.97	5.82 (-4.87 to 16.50)	0.34 (-10.06 to 10.73)
16 to 18	81.63	90.74	92.90	**11.27* (1.39 to 21.15)**	2.16 (-8.04 to 12.36)
14 to 18	91.56	99.03	99.86	**8.30* (1.19 to 15.41)**	0.83 (-7.07 to 8.73)
12 to 18	96.77	102.88	102.24	5.47 (-0.11 to 11.04)	-0.64 (-7.15 to 5.87)

* Change significant at p < 0.05.

6.2.5 Fun Activities

During the first period of Phase III, corresponding to the Wave 1 data collection period, the Campaign encouraged parents to engage in fun activities with their children. The variable presented in Table 6-G indicates the proportion of parents who claimed to do at least three or more activities with their child each week, either at home or out-of-home (see also Detail Tables 6-5, 6-16, and 6-17).

Table 6-G. Parents doing fun activities with their child by youth age

Age groups	Year 2000 (Mean)	Year 2001 (Mean)	Wave 5 (Jan-June 2002) (Mean)	2000 to Wave 5 Change (95% CI)	2001 to Wave 5 Change (95% CI)
				Percent saying they did three or more activities per week	
12 to 13	74.8	74.7	73.4	-1.4 (-5.0 to 2.1)	-1.3 (-4.9 to 2.4)
14 to 15	67.8	64.3	62.5	**-5.3* (-10.3 to - 0.3)**	-1.9 (-6.5 to 2.8)
16 to 18	51.1	51.9	50.9	-0.1 (-5.4 to 5.1)	-1.0 (-5.7 to 3.8)
14 to 18	58.8	57.7	55.9	-2.8 (-6.5 to 0.8)	-1.7 (-5.1 to 1.7)
12 to 18	63.5	62.7	61.2	-2.4 (-5.4 to 0.7)	-2.4 (-4.3 to 1.2)

* Change significant at p < 0.05.

Table 6-G offers three striking results. First, parents report doing a lot of fun activities with their children. More than 60 percent claim to be doing three or more activities from the start. This created something of a ceiling for the Campaign: if most parents already saw themselves as doing fun activities with their children, then a message to do fun activities might not have suggested a deficit in current behavior that needed improvement. Second, the level of activity is sharply associated with the age of the child. Across all five waves, nearly three-fourths of parents of 12- to 13-year-olds reported such activities, while only about half the parents of 16- to 18-year-olds did so (Detail Table 6-5). In contrast to the results for talking and monitoring, youth and parent reports of fun activities are consistent in their average levels. The fun activities questions were asked of youth only in 2001 and 2002. However in those years, the proportions claiming to do three or more activities were within one percentage point for youth and parents. Finally, the evidence does not support a claim of increasing levels of activity for parents of 12- to 18-year olds or any subgroups. This theme was emphasized only during Wave 1 of the Campaign; if there had been any effects, they were likely to have already been present when respondents were first interviewed. The lack of upward trend after that wave may reflect the subsequent change in Campaign focus.

6.2.6   Evidence for Diversity in Trends

Is it possible that the overall patterns presented above might vary for subgroups of parents? There are two circumstances of interest: when there is no overall significant trend but a particular subgroup does show a significant trend, and when two subgroups show different trends. The overall presentation outlined the diversity of trends among parents with children of different ages. This section focuses on diversity among parents based on their children's gender, sensation-seeking level, and risk for marijuana use, as well as the parent's gender and educational level. Also, if a parent had two children in the 12- to 18-year-old sample (one 12 to 13 and one 14 to 18), the parent was asked separate questions about each child's behavior and cognitions referring to each one. Both sets of answers are included in the overall results.

Diversity of Trends for Monitoring Behavior and Cognitions

Tables 6-A and 6-C presented the overall subgroup results for parents' monitoring behavior and cognitions by age of child. There was a just statistically significant favorable change for parents of 12- to 18-year-olds on monitoring behavior, so the question is whether trends were different for different subgroups. The observed absolute change from year 2000 to the first half of 2002 was larger for some groups than others (see Detail Table 6-3), and 11 subgroups showed statistical significance. However, all of the confidence intervals for yearly change overlap with the confidence interval for the overall change estimate. The appropriate conclusion is that the evidence does not permit a claim for differential trends.

While the differences in trends are not statistically significant, it is worth noting that the actual behaviors, averaged across the five waves, are different by subgroups. Parents are more likely to monitor girls (1.54 on the 0 to 3 scale) than they are boys (1.28), although boy monitoring is catching up: boy monitoring showed a significant increase from 2000 to the first half of 2002, while girl monitoring also increased but not significantly so. Most notably, the previous report, which first incorporated risk for marijuana use in the subgroup analyses, found consistent differences with regard to monitoring behavior and various measures of monitoring beliefs and attitudes by risk group. These differences held up even after controlling for child age.

Wave 5 data confirm this pattern of significant differences by child risk. Table 6-H presents the five-wave averages of parent reports of monitoring behaviors, monitoring cognitions, and intentions to monitor. Only parents of youth aged 12 to 18 who had never used marijuana are used for these analyses of differences by risk so as to avoid making inferences where reverse causation might be a greater concern.

Eight of the nine comparisons yield statistically significant differences when controlling for child age. Parents of children at higher risk across all age groups report fewer monitoring behaviors and hold less favorable views regarding monitoring. Parents of the youngest and oldest youth at higher risk also report fewer intentions to monitor.

Table 6-H. Parent monitoring behaviors and cognitions by child age and risk

Youth characteristics		Parent reports averaged across five waves of:		
Age groups	Risk	Monitoring behavior mean (CI)	Monitoring cognitions mean (CI)	Intention to monitor mean (CI)
12 to 13	Higher	**1.34** (1.20 to 1.49)	**88.2** (73.5 to 102.9)	**1.38** (1.30 to 1.46)
	Lower	**1.81** (1.76 to 1.85)	**124.6** (119.1 to 125.3)	**1.57** (1.55 to 1.59)
14 to 15	Higher	**1.38** (1.26 to 1.50)	**71.32** (59.2 to 83.5)	**1.43** (1.38 to 1.48)
	Lower	**1.65** (1.59 to 1.71)	**111.5** (105.8 to 117.3)	**1.51** (1.47 to 1.54)
16 to 18	Higher	**1.21** (1.10 to 1.31)	**70.3** (59.9 to 80.7)	**1.12** (1.06 to 1.18)
	Lower	**1.55** (1.45 to 1.65)	**96.5** (87.8 to 105.2)	**1.30** (1.25 to 1.36)

NOTE: Significant differences between parents of higher and lower risk children within age groups are in bold type.

Diversity of Trends for Talking Behavior and Cognitions

Table 6-D presented the evidence about trends in talking behavior, establishing a statistically significant trend for all parents of 12- to 18-year-olds. In addition, a number of subgroups showed significant change, but the confidence intervals around their rates of change overlapped with the overall change estimate (see Detail Table 6-4). The appropriate conclusion is that the observed change in talking behavior between years was widely shared.

Talking cognitions, as presented in Table 6-F, showed no significant change from 2000 to the first half of 2002 for the full population of parents of youth aged 12 to 18. There were significant favorable trends for parents of 14- to 18-year-olds (see Detail Table 6-2).

There were, however, a few significant subgroup differences in absolute levels of talking behavior and cognitions averaged across the five waves. Mothers were more likely to report household talk than were fathers (2.45 vs. 2.30); mothers also reported significantly more favorable talking cognitions than did fathers (111 vs. 87). Parents of African American and Hispanic children reported more household talk than parents of White children (2.57 and 2.66 vs. 2.31); they also reported significantly more favorable talking cognitions than did parents of White children (136 and 124 vs. 90). Finally, parents with a high school education or less reported significantly more favorable talking cognitions than parents with some college education or more (106 vs. 95).

In sharp contrast with the consistent differences in monitoring behavior and cognitions by risk subgroup, the previous report found that parents of children at higher and lower risk report similar levels of talking behavior and cognitions within age subgroups. This absence of subgroup differences is confirmed in Wave 5.

Given that the predicted risk probability for marijuana use did not incorporate parental monitoring or talking behaviors, finding consistent differences between parents of higher and lower risk children for the one and not the other is striking. Parents of youth at higher risk for marijuana use consistently report fewer monitoring behaviors and less favorable monitoring cognitions than parents of youth at lower risk, whereas parental reports of household talking behavior and cognitions do not vary by child risk.

Looking at the risk model more closely (see Chapter 4, section 4-6), the strongest predictors of marijuana use are child cigarette use, sensation-seeking, age, and alcohol use. Parental factors that are incorporated into the risk measure and have significant effects are parental cigarette use and family

structure. Perhaps parents of children who use cigarettes have higher sensation-seeking tendencies, are older, use alcohol, and find it harder to monitor them, and that is also reflected in their beliefs and attitudes about monitoring.

Interestingly, as in the previous report, children's accounts of parental monitoring and talking behaviors parallel these results. That is, across all age groups, children at higher risk for marijuana use report their parents are performing significantly fewer monitoring behaviors than do children at lower risk. There are no differences in child reports of parental talking behaviors by risk subgroup.

Diversity of Trends for Reports of Fun Activities

No trend was found in reports of fun activities for the total population of parents of 12- to 18-year-olds (Table 6-G). When the data for subgroups were examined, almost all differences between the average estimates for year 2000 and the first half of 2002 were not statistically significant but all were in an unfavorable direction, overall and for any subgroup. There were two subgroups for which a monotonically decreasing trend was found from 2000 to the first half of 2002: parents of 14- to 15-year-olds, and parents of high sensation-seekers.

In summary, the trend data provides evidence of favorable change for both monitoring behavior and cognitions, and for talking behavior for part of the sample for talking cognitions, and no change at all for fun activities. In general, there are no patterns of consistent trend differences for particular subgroups, though child risk for marijuana use yields interesting differences in absolute levels of parental and child reports of monitoring. This chapter next turns to the complementary evidence about the association of exposure and these outcomes.

6.3 Cross-sectional Association of Advertising Exposure with Parent Outcomes

Chapter 3 described the two types of exposure measures available for analysis. One, called general exposure, represents the sum of recalled exposure in recent months to advertising in four different types of sources (television and radio; movies and videos; print media, including newspapers and magazines; and outdoor media). The specific exposure measure sums the recalled exposure to the individual radio and television ads that had been on the air in the 2 months before the interview. The general exposure measures display substantially higher levels than do the specific exposure levels. For example, around 43 percent of parents reported general exposure 12 or more times per month, but only 12 percent reported specific exposure at that level. There are three factors that may contribute to that difference: the general exposure measure includes more sources than the specific exposure measure; the general exposure measure allows recall of advertising that was directed to other audiences, while the specific exposure measure focuses only on ads directed to the parent; finally, the general exposure measure may be less demanding since it does not require the respondent to claim that he or she has seen a specific ad. One might speculate, therefore, that general exposure is at greater risk of inflated reporting. Because the two measures may capture different aspects of exposure, the evidence of association is presented for both of them, with the interpretation strengthened when both show the same pattern of effects.

The general exposure association tables compare parents who reported exposure fewer than 4 times per month, 4 to 11 times per month, and 12 or more times per month. There were very few parents

who reported no exposure so they could not be considered separately. The specific exposure tables include four categories, since it was feasible to break out the lowest exposure group into those who recalled exposure less than 1 time per month and those who recalled ad exposure 1 to 3 times per month. However, the highest exposure group for the specific exposure measure is quite small, so in many of the tables the estimates for outcomes for this group have a very wide confidence interval. Usually the specific exposure claims must rely on the differences among the other three exposure groups. Table 6-I presents the distributions for both general and specific exposure for all parents of 12- to 18-year-olds (see also Detail Tables 6-55, 6-66).

Table 6-I. Exposures per month reported by parents of 12- to 18-year-olds across five waves

	<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures
General exposure	30.7%		26.7%	42.6%
Specific exposure	24.1%	32.6%	31.6%	11.6%

In all exposure analyses, the effects are corrected for the influence of confounder variables using the propensity scoring procedures described in Appendix C. They are the estimates of what people at each level of exposure would have been like had they all been similar on variables that were associated with exposure.

All analyses are restricted to parents of 12- to 18-year-olds. Each table presents three different estimators of Campaign effect. The first (called the direct campaign effect) compares the score on the outcome variable (e.g., parental monitoring behavior) for the entire sample with the score achieved by the lowest exposure group. It asks whether the average person was different from what the average person in the entire population is projected to have been like had the population only had minimal exposure. It is the best estimate of the average effects of the Campaign across the population. Gamma, the second estimator, is a measure of the magnitude of association that indicates whether there is an overall pattern for those who have higher exposure to be higher on the outcome variable. It varies from –1 to +1, with estimates closer to either end showing stronger associations. Where the confidence interval for gamma does not include 0, the association between exposure and outcome is statistically significant at the $p<.05$ level. This test is best at estimating whether exposure to the Campaign affected parents at all, and it is the one used in the final summary to make a claim for Campaign effects.

The final measure, called the maximum campaign effect, compares parents with the highest and lowest levels of exposure. De facto, it answers the question: If the Campaign had been able to give everyone 12 or more exposures per month, how much of an effect would there have been? The detail tables also provide estimates for subgroups of that population defined by youth characteristics (age, gender, race/ethnicity) and parent characteristics (gender, education), and by interview rounds (Waves 1 to 3 and Waves 4 and 5).

6.3.1 Cross-sectional Association of Monitoring Behavior and Cognitions Scales with General and Specific Exposure

Neither the general nor the specific exposure measure is associated with parent reports of monitoring behavior. This is true for all the parents of 12- to 18-year-olds, and for all of the subgroups, with one exception to be discussed below. It is true for all of the measures of effects. Table 6-J presents the summary data for both exposure measures, with the full version in Detail Tables 6-61 and 6-62.

**Table 6-J. Cross-sectional association of exposure per month and monitoring
behavior reported by parents of 12- to 18-year-olds**

	Score on the monitoring behavior index, with 1.45 the overall mean across five waves						
	<1 exposure	1 – 3 exposures	4 – 11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General exposure	1.44		1.45	1.49	0.02 (-0.05 to 0.08)	0.024 (-0.02 to 0.07)	0.05 (-0.04 to 0.14)
Specific exposure	1.45	1.43	1.46	1.50	0.00 (-0.06 to 0.06)	0.019 (-0.03 to 0.07)	0.05 (-0.10 to 0.20)

In contrast to their reports of behavior, parent reports of cognitions about monitoring do show association with exposure. All three estimates of effects are statistically significant for general exposure, and in a consistent direction for the specific exposure measure. However, none of the estimates of effects for specific exposure was significant. These data are presented in Table 6-K, which summarizes the information that is fully presented in Detail Tables 6-57 and 6-58.

**Table 6-K. Cross-sectional association of exposure per month and monitoring
cognitions reported by parents of 12- to 18-year-olds**

	Score on monitoring cognition index with 90.55 the overall mean across five waves						
	<1 exposure	1 – 3 exposures	4 – 11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General exposure	82.99		88.00	96.50	**7.56* (1.95 to 13.17)**	**0.053* (0.02 to 0.08)**	**13.51* (5.61 to 21.41)**
Specific exposure	86.41	87.85	90.62	97.52	4.14 (-2.83 to 11.11)	0.028 (-0.01 to 0.07)	11.11 (-3.03 to 25.24)

* Significant at $p < 0.05$.

The general exposure measure is correctly ordered with regard to the monitoring cognitions index, with the mean score larger at each succeeding level. Though larger than for the association between the two measures of exposure and monitoring behavior, the gamma estimates for the associations with monitoring cognitions are fairly small (0.053 and 0.028 for general and specific exposure, respectively).

6.3.2 Cross-sectional Association of Talking Behavior and Cognitions Scales with General and Specific Exposure

If the monitoring behavior and cognitions show some inconsistency, the talking behavior and cognitions tables consistently support an inference of a Campaign effect. Table 6-L presents the evidence for the association with talking behaviors, with the complete results in Detail Tables 6-63 and 6-64.

**Table 6-L. Cross-sectional association of exposure per month and talking behaviors
reported by parents of 12- to 18-year-olds**

	Score on the 0 to 3 point scale, with overall average at 2.33 across five waves						
	<1 exposure	1 – 3 exposures	4 – 11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General exposure	2.19		2.32	2.46	**0.14*** **(0.08 to 0.19)**	**0.149*** **(0.10 to 0.20)**	**0.26*** **(0.18 to 0.35)**
Specific exposure	2.26	2.27	2.41	2.46	**0.07*** **(0.01 to 0.13)**	**0.129*** **(0.07 to 0.18)**	**0.20*** **(0.08 to 0.31)**

* Significant at $p < 0.05$.

Both the general and specific exposure measures are associated with talking for all three tests: direct effects, gamma, and maximum potential effect. That is, parents of 12- to 18-year olds who report more exposure to the Campaign's messages are more likely to report talking to their children as well.

Table 6-M provides closely parallel information for cognitions about talking. Against both measures of exposure, those who report seeing many ads are substantially more likely to report that they value talking with their children about drugs. Both analyses put the difference between the highest and lowest exposure groups at greater than 20 percentage points, after major potential confounding variables are controlled, a very large difference. Likewise, gamma estimates for the association between both talking behavior and cognitions with general and specific exposure are larger than for their association with monitoring behavior and cognition.

**Table 6-M. Cross-sectional association of exposure per month and talking cognitions
reported by parents of 12- to 18-year-olds**

	Score on the talking cognitions index with 100.35 the overall average across five waves						
	<1 exposure	1 – 3 exposures	4 – 11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General exposure	86.57		94.55	115.84	**13.78*** **(9.03 to 18.52)**	**0.102*** **(0.07 to 0.13)**	**29.26*** **(21.77 to 36.76)**
Specific exposure	92.31	93.18	106.72	118.96	**8.04*** **(1.57 to 14.51)**	**0.084*** **(0.04 to 0.12)**	**26.65*** **(13.65 to 39.65)**

* Significant at $p < 0.05$.

6.3.3 Cross-sectional Association of Fun Activities with General and Specific Exposure

Table 6-N presents a strong picture of association between reported exposure to both general and specific advertising and the proportion of parents doing three or more activities per week with their children. For both the general and the specific exposure measures, all three tests of association are statistically significant. This is a somewhat surprising result, given the lack of an overall upward trend in the previously reported data (see Table 6-G) and the reduced emphasis on the fun activities objective after the first few months of data collection. This result is not merely the result of effects appearing during the first wave. The same pattern of association is present among respondents at each wave. The possible explanations for this result are discussed in the final section of the chapter.

**Table 6-N. Cross-sectional association of exposure per month and fun activities
reported by parents of 12- to 18-year-olds**

Exposure measure	Percent of parents doing three or more activities per week, with overall average at 63 percent across five waves						
	<1 exposure	1-3 exposures	4-11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General	56.9		63.2	65.5	5.8* (3.2 to 8.4)	0.121* (7 to 17)	8.6* (5.0 to 12.2)
Specific	55.3	62.6	63.0	71.7	7.4* (4.5 to 10.3)	0.175* (12 to 23)	16.4* (10.7 to 22.1)

* Significant at p < 0.05.

6.3.4   Evidence for Diversity in Cross-sectional Associations

There are two ways to examine questions of diverse effects among subgroups. First, in situations where there was no overall evidence of an association, is there evidence that there were effects on some important subgroups? Second, in the presence of overall associations, is there evidence that these are significantly different among subgroups? This section addresses these two questions. In general, there is no evidence of differential associations in Detail Tables 6-57 through 6-66 across subgroups.

Each of the five outcome variables was subject to three tests for associations, using the general exposure and the specific exposure measure. Seven of the 10 overall association analyses were significant for all parents of 12- to 18-year-olds: the associations of general and specific exposure with the two talking outcomes, with reports of fun activities, and the association between general exposure and monitoring cognitions. Generally, most of the subgroup analyses in each of those analyses were also significant, and none could be shown to be different in terms of its overall association (gamma) from the pattern found for the whole sample. There were three analyses where the overall associations were not statistically significant: both general and specific exposure measures with the monitoring behavior index, and the specific exposure measure with the monitoring cognitions index. Overall, in these three cases, the lack of an overall association was matched by a lack of subgroup associations. The subgroup analysis involved a total of 117 comparisons. Only 2 of the 117 showed a statistically significant association as measured by gamma. Both times, the subgroup to show a significant effect was fathers. Thus, in 9 out of 10 outcomes, the reasonable inference was that there was an association for fathers: either the overall association was significant (and the fathers' association was not different from the overall significant association), or there was a subgroup association for fathers in the absence of an overall association. The only exception was for the general exposure association with monitoring behavior.

In summary, where there were overall associations, most subgroups also showed statistically significant associations as well. Where there was no association for the entire population, only one subgroup, fathers, showed a significant association.

6.4   Delayed-effects Analyses of Parent Outcomes

Delayed-effects analyses involve examining the association between exposure measured at Round 1 and outcome measured at Round 2, statistically controlling for Round 1 values of the outcomes as well as confounders. This delayed-effects association captures both the delayed-effects of exposure at Round 1 if that effect did not emerge until after Round 1, as well as the effects of exposure at Round 1

that flow through exposure at Round 2 to outcome at Round 2. These analyses examine the association of Round 1 exposure and Round 2 outcomes, over and above the association of Round 1 exposure with Round 1 outcomes. They will not detect any effects of exposure on outcomes that have already affected the Round 1 measures. The focus of delayed-effects analyses presented here is parents of youth who were 12 to 18 at Round 2, when they were re-interviewed. The detail tables also contain information about each specific longitudinal pair-up (Wave 1 with Wave 4, Wave 2 with Wave 5, and Wave 3 with Wave 5). Though emphasis is placed on Round 1 to Round 2 analyses, distinctive patterns of change for specific longitudinal pair-ups are also noted. Subgroup and subsample differences are also noted, though longitudinal results yield fewer of these than cross-sectional analyses did.

Delayed-effects analyses uses the same two exposure measures presented in the preceding section, general and specific exposure, both reported at Round 1. As with cross-sectional results, parents reported general exposure at substantially higher levels than specific exposure. For example, 43 percent of parents reported general exposure 12 or more times per month, but only 9 percent reported specific exposure at that level (Table 6-O). For delayed-effects analyses involving the specific exposure measure, only three categories of exposure are used: parents who reported exposure less than 1 time per month, 1 to 3 times per month, and 4 or more times per month. As it was explained previously, because the two measures may capture different aspects of exposure, the evidence of delayed-effects association is presented for both, with the interpretation strengthened when both show the same pattern of effects. In all exposure analyses, the effects are corrected for the influence of outcomes measured at Round 1 and confounder variables using the propensity scoring procedures described in Appendix C. They are the estimates of what people at each level of exposure would have been like had they all been similar on measured variables that were associated with exposure. Also, the same three different estimators of Campaign effects are presented in the associational tables: direct effect, gamma, and maximum effect.

Table 6-O. Exposures per month reported by parents at Round 1

	<1 exposure	1 to 3 exposures	4 to 11 exposures	12+ exposures
General exposure	29.1%		27.8%	43.1
Specific exposure	28.5%	34.6%	36.9%	

6.4.1 Delayed-effects Association of General and Specific Exposure with Monitoring Behavior and Cognitions Scales

The previous report found that neither the general nor the specific exposure measure were associated with longitudinal parent reports of monitoring behavior. This remains true for all the parents of 12- to 18-year-olds and for all measures of effects in this report as well. Table 6-P presents the summary data for both exposure measures. These results parallel those for cross-sectional analyses reported in Table 6-J, with neither general nor specific exposure significantly associated with parent monitoring behavior measured at the same time.

No delayed-effects subgroup associations were found for specific exposure. For general exposure, there were a few scattered additional results across subgroups. Given the number of tests of statistical significance performed and the lack of significant overall subgroup associations, it is plausible that these results reflect mere chance associations.

**Table 6-P. Delayed-effects analyses of exposure per month and monitoring behavior
reported by parents of 12- to 18-year-olds**

Exposure measure	Score on the monitoring behavior index at Round 2 by exposure at Round 1, with 1.49 the overall mean						
	<1 exposure	1-3 exposures	4-11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General	1.55		1.44	1.51	-0.07 (-0.14 to 0.01)	-0.019 (-0.07 to 0.04)	-0.04 (-0.15 to 0.07)
Specific	1.47	1.43	1.49		0.02 (-0.07 to 0.11)	0.008 (-0.06 to 0.07)	0.02 (-0.11 to 0.15)

Delayed-effects analyses of the association between general and specific exposure with monitoring cognitions do not render any overall significant effect either (Table 6-Q). The previous report noted a significant unfavorable direct effect of general exposure on monitoring cognitions; this finding is not sustained with the complete Round 1-Round 2 sample. Despite the fact that the propensity scores were re-estimated since the last report, the Wave 1 to Wave 4 delayed-effects association still holds, with significant unfavorable direct and maximum effects (see Detail Tables 6-67 and 6-68).

**Table 6-Q. Delayed-effects analyses of exposure per month and monitoring cognitions
reported by parents of 12- to 18-year-olds**

Exposure measure	Score on monitoring cognition index at Round 2 with 90.76 the overall mean, by parental exposure at Round 1						
	<1 exposure	1-3 exposures	4-11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General	99.21		92.40	95.77	-8.45 (-17.55 to 0.65)	-0.020 (-0.06 to 0.03)	-3.45 (-15.34 to 8.45)
Specific	92.26	89.45	89.67		-1.49 (-11.35 to 8.36)	-0.011 (-0.07 to 0.05)	-2.59 (-18.64 to 13.47)

Thus, while the cross-sectional results yielded favorable direct, overall and maximum associations of general exposure with monitoring cognitions, there is no evidence for any additional delayed-effects of general exposure at Round 1 on monitoring cognitions at Round 2.

There is also no evidence of consistent patterns of subgroup effects in the delayed-effects associations of general and specific exposure and monitoring cognitions (see Detail Tables 6-67 and 6-68).

6.4.2 Delayed-effects Association of General and Specific Exposure with Talking Behavior and Cognitions Scales

The previous report found no significant delayed-effects associations of either exposure measure with talking behavior. In contrast, with the current larger samples for parents of 12- to 18-year-olds, there was a favorable overall effect of general exposure on talking behavior (Table 6-R). That is, parents who reported more general exposure at Round 1 reported significantly more household talk at Round 2. The association is also monotonic. However, the effect as measured by gamma is fairly small (0.083).

There is no evidence of significant delayed-effects associations of specific exposure and talking behavior for the whole sample nor for any subgroup or subsample (see Detail Table 6-74).

**Table 6-R. Delayed-effects analyses of exposure per month and talking behavior
reported by parents of 12- to 18-year-olds**

Exposure measure	Score on the 0 to 3 point talking behavior scale at Round 2, with 2.40 the overall mean, by parental exposure at Round 1						
	<1 exposure	1-3 exposures	4-11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General	2.34		2.42	2.46	0.06 (-0.03 to 0.15)	**0.083* (0.01 to 0.16)**	0.12 (0.00 to 0.24)
Specific	2.41	2.36	2.44		-0.01 (-0.07 to 0.05)	0.029 (-0.03 to 0.09)	0.03 (-0.06 to 0.12)

* Significant at p < 0.05.

Delayed-effects analyses show no statistically significant overall effects for the association of either exposure measure with talking cognitions (Table 6-S). No consistent pattern of effects was found across subgroups, for either general or specific exposure (see Detail Tables 6-69, 6-70). Results of delayed-effects analyses of both exposure measures and talking cognitions contrast with those reported for cross-sectional associations, which yielded a significant and favorable overall association (see Table 6-M).

**Table 6-S. Delayed-effects analyses of exposure per month and talking cognitions
reported by parents of 12- to 18-year-olds**

Exposure measure	Score on talking cognition index at Round 2 with 100.08 the overall mean, by parental exposure at Round 1						
	<1 exposure	1-3 exposures	4-11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General	98.48		93.40	110.08	1.60 (-6.58 to 9.78)	0.046 (-0.00 to 0.09)	**11.60* (0.10 to 23.10)**
Specific	102.28	97.36	102.38		-2.19 (-10.39 to 6.01)	0.012 (-0.04 to 0.06)	0.11 (-12.52 to 12.73)

* Significant at p < 0.05.

6.4.3 Delayed-effects Association of General and Specific Exposure with Fun Activities

The previous report found a favorable overall delayed-effects association of specific exposure with parent reports of fun activities. In this report, for parents of 12- to 18-year-olds, favorable overall and maximum effects were found for general exposure to anti-drug advertising on parent reports of fun activities. That is, parents who at Round 1 reported a higher level of general exposure to anti-drug advertising were more likely to report high levels of fun activities at Round 2. For general exposure, there were six subgroups for which significant delayed-effects associations were found. However, for all subgroups the confidence intervals for the estimates of effects in subgroups overlapped with the confidence interval for the overall estimate (see Detail Table 6-75).

The delayed-effects associations of specific exposure and fun activity reports were not statistically significant, overall and for any subgroup (see Table 6-T and Detail Table 6-76).

**Table 6-T. Delayed-effects analyses of exposure per month and fun activities
reported by parents of 12- to 18-year-olds**

Exposure measure	Proportion of parents doing three or more activities per week at Round 2 with overall average at .61, by exposure at Round 1						
	<1 exposure	1-3 exposures	4-11 exposures	12+ exposures	Direct effect (CI)	Gamma (CI)	Maximum effect (CI)
General	.57		.58	.65	**.04*** **(0.00 to 0.08)**	**0.098*** **(0.02 to 0.18)**	**.07*** **(0.01 to 0.13)**
Specific	.60	.60	.63		0.02 (-0.03 to 0.06)	0.038 (-0.04 to 0.12)	0.03 (-0.03 to 0.09)

* Significant at $p < 0.05$.

6.5 Evidence of Association of Parent Exposure with Youth Outcomes

While parent cognitions and behaviors are conceived as intermediate variables meant to influence youth, it is worthwhile to ask whether there is a direct association of parent exposure and the youth cognitive and behavioral outcomes of main interest. These are marijuana use, intentions to use, attitudes/beliefs about marijuana, perception of social norms regarding marijuana, and self-efficacy to refuse marijuana offers. Examining this direct association is particularly advisable given the number of significant favorable associations of parent exposure with parent outcomes in cross-sectional analyses and the delayed-effects association of parent behaviors and cognitions with youth outcomes (see section 6-1). The following sections describe these cross-sectional and delayed-effects overall associations between parent exposure and youth outcomes.

6.5.1 Cross-sectional Association of Parent Exposure with Youth Outcomes

Table 6-U presents the results, with more extensive information provided in Detail Tables 6-77 through 6-86.

For all youth aged 12 to 18, there were no cross-sectional overall associations for either measure of parental exposure and youth past year marijuana use. There was one significant association by subgroup: for the general exposure measure there were unfavorable direct, overall, and maximum associations for Hispanic youth. This subgroup association was not found in the previous report. For the specific exposure measure, there were no significant associations. This subgroup result must therefore be interpreted with caution.

For all youth 12 to 18 years old, there were no significant overall associations between either measure of exposure and intentions to not use marijuana, anti-marijuana beliefs and attitudes, perceived anti-marijuana social norms, and self-efficacy to refuse marijuana.

There were 414 tests of significance undertaken for subgroup analyses (17 subgroups by 5 outcomes by 2 measures of exposure, each tested for the direct effect, the overall association (gamma) and the maximal effect). Of the 414, 15 were significant. Among these were 138 tests for overall association (gamma), out of which only 4 were significant. Overall, this pattern of rare significant results is

**Table 6-U. Cross-sectional association between parental exposure
youth outcomes among all youths 12 to 18**

Youth outcomes across 5 waves		Parental exposure level				Gamma (CI)
		<1 exposure	1 – 3 exposures	4 – 11 exposures	12 + exposures	
Percent reporting marijuana initiation	General exposure	15.0%		15.4%	15.7%	0.018 (-0.05 to 0.08)
	Specific exposure	14.6%	15.2%	15.4%	17.6%	0.057 (-0.05 to 0.17)
Percent definitely not intending to use	General exposure	73.9%		72.7%	73.7%	-0.003 (-0.07 to 0.06)
	Specific exposure	76.1%	72.8%	72.6%	74.1%	-0.028 (-0.10 to 0.05)
Attitudes/Beliefs Index (Mean score)	General exposure	77.04		72.91	77.69	0.001 (-0.03 to 0.03)
	Specific exposure	79.4	75.86	72.51	81.96	0.002 (-0.03 to 0.04
Social Norms Index (Mean score)	General exposure	73.75		69.77	72.60	-0.005 (-0.03 to 0.02)
	Specific exposure	77.18	73.31	69.22	70.44	-0.020 (-0.06 to 0.02)
Self-efficacy Index (Mean score)	General exposure	93.33		91.52	91.29	-0.016 (-0.04 to 0.01)
	Specific exposure	94.56	90.73	91.02	96.76	-0.005 (-0.04 to 0.03)

consistent with what might be expected by chance. However, there was one pattern of results justifying further consideration. Several significant subgroup associations were found, in an unfavorable direction, for parents of Hispanic youth (see Detail Tables 6-77 through 6-86). For parents of Hispanic youth, 6 of 30 tests were significant involving four of the five outcomes and always involving measures of general exposure. The interpretation of subgroup results is always subject to revision when a large number of tests are undertaken. Nonetheless, the repeated unfavorable pattern for the parents of Hispanic youth is worth some concern. However the essential conclusion from these analyses is that the cross-sectional associations of parent exposure and parent outcomes have not yet shown evidence of indirect positive effects of parent exposure on youth.

6.5.2 Delayed-effects Association of Parent Exposure with Youth Outcomes

The following delayed-effects analyses involve examining the association of parent exposure at Round 1 with youth cognitive and behavioral outcomes at Round 2 over and above the cross-sectional association between parent exposure and youth outcomes at Round 1. The analyses include only nonusing youth at Round 1 who were 12 to 18 years old at followup and their parents.

For all youth 12 to 18 years old, there were no significant delayed-effects associations between either measure of parent exposure and youth outcomes (Table 6-V).

**Table 6-V. Parental exposure at Round 1 and youth outcomes at Round 2 among
12- to 18-year-olds who were nonusers of marijuana at Round 1**

Round 2 Youth Outcome		Parental exposure at Round 1				Gamma (CI)
		<1 exposure	1 – 3 exposure	4 – 11 exposures	12 + exposures	
Percent reporting marijuana initiation	General exposure	13.6%		10.8%	13.4%	-0.019 (-0.12 to 0.08)
	Specific exposure	11.8%	12.1%	14.1%		0.018 (-0.09 to 0.12)
Percent definitely not intending to use	General exposure	78.3%		79.1%	76.6%	-0.010 (-0.10 to 0.08)
	Specific exposure	76.7%	78.6%	78.9%		0.049 (-0.05 to 0.15)
Attitudes/Beliefs Index (Mean score)	General exposure	89.49		95.25	86.85	-0.006 (-0.05 to 0.04)
	Specific exposure	91.95	90.62	88.40		-0.006 -0.05 to 0.04
Social Norms Index (Mean score)	General exposure	87.89		88.66	79.54	-0.026 (-0.07 to 0.02)
	Specific exposure	81.64	87.27	80.36		0.000 (-0.05 to 0.05)
Self-efficacy Index (Mean score)	General exposure	115.27		111.67	101.93	-0.059 (-0.12 to 0.00)
	Specific exposure	108.67	110.70	102.82		-0.012 (-0.07 to 0.05)

In the absence of overall effects, significant delayed-effects associations for subgroups are of particular interest. There were 22 significant subgroup associations out of 420 examined, suggesting only chance results. Only one subgroup showed a consistent pattern and only for one outcome (see Detail Tables 6-87 to 6-96). Hispanic youth, whose parents were more highly exposed to both general and specific anti-drug advertising at Round 1, perceived more strongly anti-marijuana social norms in their environment. This favorable result should be interpreted with caution: Parents of Hispanic youth showed unfavorable cross-sectional associations of general ad exposure with all the other youth outcomes. Perceived anti-marijuana social norms is the only outcome for which no cross-sectional associations were found for parents of Hispanic youth (see section 6.5.1). Also, given the number of tests of statistical significance performed for subgroup analyses, the delayed-effects associations found cannot be easily separated from what one would expect to find by chance.

6.6   Summary and Discussion

The inferential logic laid out at the start of this chapter suggests that support for Campaign effects would reflect three favorable results: a favorable trend on a target outcome, a favorable cross-sectional association between exposure to the Campaign and the outcome, and finally a favorable delayed-effects association between exposure and the subsequent outcome measure. Table 6-W summarizes the results for all of the outcomes on each of these criteria. Each row in that table indicates whether there was a full sample trend, whether there was a full sample cross-sectional association with the general or specific exposure measures, and whether there was a full sample delayed-effects association with the two exposure measures. The association criterion is whether or not the gamma estimate was significant at the p<.05 level. In addition, each row in the table indicates whether a subgroup of the

Table 6-W. Summary of all parent effects on parent and youth outcomes among all parents of 12- to 18-year olds

	All parents of 12 to 18 youth					If not significant for all parents of youth aged 12 to18, for which subgroups?				
	Trend	Cross-sectional association		Lagged Association		Trend	Cross-sectional association		Lagged association	
		General	Specific	General	Specific		General	Specific	General	Specific
Parent Outcomes										
Talking behavior	**Favorable**	**Favorable**	**Favorable**	**Favorable**	No	--	--	--	--	No
Talking Cognitions	No	**Favorable**	**Favorable**	No	No	**16-18 (F)**	--	--	**White (F)**	No
Monitoring Behavior	**Favorable**	No	No	No	No	--	None	**Fathers (F)**	None	No
Monitoring Cognitions	**Favorable**	**Favorable**	No	No	No	--	--	**Fathers (F)**	No	No
Doing Fun Activities	No	**Favorable**	**Favorable**	**Favorable**	No	**14-15 (U) Higher sensation-seekers (U)**	--	--	--	No
Youth MJ Outcomes										
Past year use	No	No	No	No	No	**African American(U)**	**Hispanic (U)**	None	None	**12-13 (U)**
Intentions to use	No	No	No	No	No	**14-18 (U) Lower Risk (U)**	None	None	None	No
Attitudes & Beliefs	No	No	No	No	No	None	None	**12-13 (U)**	None	No
Social Norms	**Unfavorable**	No	No	No	No	--	None	**Females (U)**	**14-18 (U) African Am. (U) Hispanic (F) High Risk (U)**	**Hispanic (F)**
Self Efficacy	**Favorable**	No	No	No	No	--	**Higher risk (U)**	None	**Low sensation-seekers (U)**	**W2 → 5 (U)**

Favorable or (F): Significant result at p<.05 favorable to Campaign goals.

Unfavorable or (U): Significant result at p<.05 unfavorable to Campaign goals.

-- Subgroup tests not significantly different than result for full sample.

No – No significant effect overall.

None – No significant effect for any subgroup, when there was no overall effect.

population showed one of those effects, even if the full sample did not. (It also would have shown if a subgroup was significantly different from the full sample, even if there was a full sample effect, but that did not occur.)

This table suggests that a claim of Campaign effect on parents has some support, most notably for talking behavior. A claim that the Campaign effect on parents led to a youth effect has no support.

Each of the outcomes is reviewed in turn. The best results are for the talking behavior measure. Parents claim to have done more of it as the Campaign progressed. Both of the exposure measures are associated with parent claims of talk measured at the same time. The general exposure measure is also predictive of delayed-effects on the talk measure, reducing a concern that the cross-sectional association reflects a reverse causal effect. Only the delayed-effects analysis with the specific exposure failed to support an inference of Campaign effect. These results provide substantial support for the existence of Campaign effect on talking behavior. However there are two concerns about this claim. As has been shown, youth report a very different picture about parent talk with them about drug topics. Youth reports of talking are much lower than parent reports, and more notably youth report that drug talk with parents is declining over the course of the Campaign. This creates concern about the confidence to be placed in the upward trend reported by parents. Also, there is little evidence that the talk variable, as measured here, is related to youth drug use. Parent reports of talk do not predict any lowered likelihood of youth initiating marijuana use for nonusing youth. Thus any claim of a Campaign effect on parents is tempered by a concern that it is an effect on an outcome with an uncertain relation to youth behavior.

Talking cognitions offers similar but lesser support of a Campaign effect. Its trend is no longer significant overall, although it is still positive for the older youth who are the majority of the sample. As in previous reports, both the general and specific exposure measures have a significant cross-sectional association with talking cognitions. However, there are no delayed-effects associations overall for either exposure measure or for any subgroup, leaving somewhat reduced confidence in which variable is cause and which is effect. In addition, there is no evidence that talking cognitions are associated with youth marijuana intentions or behavior. Even if the Campaign is affecting talking cognitions, and such cognitions produce change in talk behavior, there is no strong basis for expecting an effect of such behavior on youth.

Monitoring behavior provides the least evidence for a Campaign effect. There is a significant upward trend, and there is a significant cross-sectional association between specific exposure and monitoring behavior for fathers. However no other subgroup shows such an association, and there is no cross-sectional association for the general exposure measure, nor any delayed-effects association with either exposure measure overall or for any subgroup. The evidence for a Campaign effect on this outcome has to be seen as weak. This is unfortunate since, in contrast to the talking outcomes, monitoring behavior is an important predictor of the initiation of marijuana use.

The monitoring cognitions scale shows a positive trend over time as well as a specific exposure cross-sectional association for fathers as does monitoring behavior. In addition, the scale shows a cross-sectional association for general exposure for the full sample. However, there is no evidence for a delayed-effects association overall or for any subgroup with either of the exposure measures. There is good reason to think that affecting parental monitoring cognitions would affect youth behavior. The monitoring cognition scale has a substantial association with monitoring behavior, and like monitoring behavior, is associated with youth marijuana use and intentions. However, the evidence for a Campaign effect on monitoring cognitions, while stronger than for monitoring behavior itself,

remains positive but not definitive. Without the evidence for a delayed effect, so that the causal order issue can be sorted out, it remains unclear whether parent ad exposure affects their beliefs about the value of monitoring, or their commitment to engaging with their children influences their monitoring beliefs and their attention and recall of the advertising.

The final direct parent outcome, doing fun things with their children also presents a mixed bag of evidence. There are significant favorable cross-sectional associations with both exposure measures as well as a significant delayed-effects association with general exposure. There is no significant positive trend, however, and for two groups (14- to 15-year-olds and higher sensation-seekers) the trend is downward. However, there are two interpretations of the lack of a trend that might still be consistent with a claim of effect for the Campaign. Trend data can reflect many influences in addition to the Campaign. There might have been external forces that were producing downward pressure on this behavior and the Campaign served to maintain the current level. Or, the lack of a positive trend might be attributable to the fact that this theme was only explicitly part of the Campaign during the first Wave. Then the level of "doing fun activities" was already reflecting the Campaign's influence during 2000. However, this interpretation would suggest that the associations of fun activity with exposure ought to be highest for those exposed in Wave 1 or in 2000, and that is not the case. In sum, there is suggestive evidence of a Campaign effect on this behavior among parents, but it does not satisfy all three of the criteria set out a priori for making a strong claim of effect. It is worth noting that, like the monitoring measures, parent claims of doing fun activity are associated with lower intentions for using marijuana and reduced initiation of marijuana use among youth.

Table 6-W then shows mixed evidence for the effects of parent exposure on parent behavior, but at least some of the evidence supports such a Campaign effect. When the summary turns to effects of parent exposure on youth outcomes, however, there is no supportive evidence. There are no reported full sample youth outcome effects. Subgroup effects are rare and, when they appear, they are consistently in an unfavorable direction.

How is this pattern of supportive evidence for Campaign effects of parent exposure on parent behavior, but no positive effects of parent exposure on youth outcomes to be explained? Three explanations fit these data. The claim of Campaign effects on parent outcomes might be mistaken. None of the outcomes has evidence that satisfies all of the a priori criteria for strong claims of effect, and if there were no effect, in fact, then one would not expect an indirect effect on youth. Second, talking behavior, the outcome with the clearest evidence for effects for parents, is not related to youth marijuana use or intentions, so even if there had been a Campaign effect on such talking it would not have been expected to affect youth outcomes. Third, indirect effects are hard to detect. If there were a small effect of the Campaign on a behavior, and a small effect of that behavior on the youth outcome, the resulting indirect effect would be the product of those two effects. For example, if the effect of the Campaign on monitoring behavior were .10, and the effect of monitoring behavior on youth marijuana use were .20, the expected effect of the Campaign exposure on marijuana use would be the product of those two effects, or .02 (.10 x .20). An effect of .02 could not be detected. The Campaign's indirect effects through parents could only be detected if there had been effects on several of the parent behaviors and each of those were related to the youth outcomes, and the sum of all the individual indirect paths had been large enough as a set to produce a detectable cumulative effect. All of these three explanations remain possible. Each of them may explain the current conclusion about the parent component of the Campaign: there is evidence consistent with an effect of the Campaign on some parent outcomes, but no evidence for indirect effects of parent exposure to the Campaign on youth outcomes.

Detail Tables

Notes on tables: The Detail Tables corresponding to Chapters 2 through 6 each have a Year 2000 estimate (the average of Waves 1 and 2), a Year 2001 estimate (the average of Waves 3 and 4) and a Wave 5 estimate. This shows change across years. The tables also include an estimate of change from 2000 to Wave 5 and from 2001 to Wave 5 with a 95 percent confidence interval (CI). Significant changes between the two years are flagged with an asterisk. Significant change was defined as having a 95 percent CI that does not overlap a no-change value of zero. The simple averages for 2000 and 2001 are particularly useful for analyzing stable subgroup diversity. "S" denotes cells where statistics were suppressed because the sample size was too small to meet NIDA publication standards. See Appendix A for details on suppression rules.

Table 2-1. Sample sizes and population estimates for youth subpopulations

Characteristics	Sample size[1]					95% Confidence interval for population estimates (in thousands)				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Youth aged 9 to 18	3,299	2,362	2,458	2,477	4,040	(39,182-39,661)	(39,764-40,098)	(40,248-40,349)	(40,436-40,518)	(40,531-40,613)
Youth aged 12 to 18										
12 to 13	1,050	658	725	663	1,211	(7,701-7,856)	(7,955-8,032)	(8,036-8,074)	(8,137-8,219)	(8,240-8,269)
14 to 15	551	394	376	806	1,009	(7,995-9,055)	(8,208-9,648)	(8,321-9,949)	(7,893-9,085)	(7,944-8,885)
16 to 18	609	387	380	585	854	(10,099-11,082)	(9,698-11,121)	(9,467-11,099)	(10,429-11,621)	(10,814-11,756)
14 to 18	1,160	781	756	1,391	1,863	(18,933-19,299)	(19,273-19,402)	(19,382-19,454)	(19,513-19,513)	(19,661-19,739)
12 to 18	2,210	1,439	1,481	2,054	3,074	(26,669-27,120)	(27,257-27,405)	(27,431-27,514)	(27,651-27,733)	(27,913-27,996)
Youth aged 12 to 18										
Gender										
Males	1,162	723	744	1,094	1,542	(13,495-13,800)	(13,937-14,089)	(14,030-14,102)	(14,150-14,343)	(14,286-14,309)
Females	1,048	716	737	960	1,532	(13,106-13,389)	(13,243-13,393)	(13,388-13,426)	(13,339-13,551)	(13,614-13,700)
Race/ethnicity										
White	1,495	955	969	1,403	2,050	(17,730-18,353)	(17,219-18,694)	(17,722-18,509)	(18,127-18,683)	(17,838-18,660)
African American	306	216	232	269	453	(3,993-4,141)	(4,229-4,262)	(4,238-4,238)	(4,365-4,365)	(4,321-4,456)
Hispanic	330	210	209	312	437	(3,815-3,863)	(3,950-4,022)	(4,005-4,005)	(4,062-4,062)	(4,103-4,160)
Risk score										
Higher risk	659	391	398	628	874	(9,486-10,754)	(8,427-10,019)	(8,837-10,487)	(9,011-10,342)	(9,262-10,398)
Lower risk	1,308	896	934	1,241	1,870	(13,264-14,665)	(13,900-15,771)	(14,088-15,727)	(14,792-16,147)	(14,180-15,232)
Sensation seeking										
High	1,160	737	767	1,125	1,611	(14,267-15,648)	(13,602-15,270)	(14,865-16,432)	(14,432-15,774)	(14,463-15,660)
Low	991	667	679	879	1,402	(10,553-11,998)	(11,318-12,999)	(10,537-12,141)	(11,212-12,659)	(11,800-13,021)
Use of Marijuana										
Nonuser[2]	1,826	1,210	1,238	1,641	2,527	(20,073-21,473)	(20,619-22,229)	(20,214-22,069)	(20,685-22,105)	(20,927-22,012)
Occasional user[3]	183	108	106	172	232	(2,360-3,373)	(2,041-3,164)	(1,990-2,999)	(2,029-2,980)	(2,195-2,923)

[1]Sample sizes for Waves 1, 3 and 4 differ from the previous reports because cases were deleted from these waves due to errors detected when refielding for Round 2. These small changes in sample size affect nearly all tables in the current report.

[2]Nonusers are those who have never used marijuana in the past.

[3]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

NOTE: The detail by race and ethnicity does not add to 100 percent of the total because the detail on other races is not shown.

Table 2-2. Sample sizes and population estimates for parent subpopulations

Characteristics	Sample size[1]					95% Confidence interval for population estimates (in thousands)				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
All parents_____	2,284	1,632	1,680	1,752	2,882	(42,635-43,503)	(41,817-42,879)	(36,542-50,511)	(33,126-51,403)	(33,349-51,726)
Parents of youth aged 12 to 18_____	1,728	1,129	1,149	1,520	2,304	(31,367-33,055)	(30,968-32,422)	(26,526-37,357)	(25,561-40,989)	(27,476-42,751)
Gender										
Males_____	571	425	392	503	816	(11,238-12,969)	(12,925-15,190)	(10,583-15,851)	(9,000-15,531)	(11,230-18,384)
Females_____	1,157	704	757	1,017	1,488	(19,109-21,106)	(16,391-18,885)	(15,294-22,154)	(16,179-25,840)	(15,826-24,787)
Race/ethnicity										
White_____	1,165	768	773	1,040	1,552	(21,693-23,117)	(20,797-22,311)	(17,892-27,598)	(16,469-29,726)	(16,560-29,236)
African American____	252	172	180	217	352	(3,325-4,090)	(3,510-4,370)	(2,308-5,993)	(2,128-6,204)	(2,258-6,762)
Hispanic_____	248	146	150	216	307	(3,977-4,982)	(4,121-5,047)	(2,276-5,855)	(1,964-7,028)	(2,513-8,562)
Education										
Less than high school_	260	166	149	215	307	(3,846-5,209)	(3,556-5,054)	(2,731-4,887)	(2,895-5,545)	(3,406-6,706)
High school graduate_	599	346	396	497	681	(9,565-11,524)	(8,482-11,157)	(8,829-13,286)	(8,178-13,670)	(7,742-12,982)
Some college_____	419	334	308	421	686	(7,258-9,149)	(8,207-10,463)	(6,112-9,546)	(6,994-11,640)	(7,530-12,121)
College graduate____	426	279	293	387	627	(7,514-9,540)	(7,162-9,049)	(7,331-10,982)	(6,288-11,340)	(7,389-12,214)
One or more child(ren)[2] aged										
12 to 13_____	1,002	619	682	622	1,136	(12,055-12,926)	(12,476-13,295)	(8,840-17,018)	(8,078-16,821)	(11,280-17,740)
14 to 18_____	1,077	726	703	1,145	1,561	(23,267-25,203)	(22,277-24,343)	(19,543-27,681)	(19,068-31,741)	(20,061-31,329)
12 to 18_____	1,728	1,129	1,149	1,520	2,304	(31,367-33,055)	(30,968-32,422)	(26,526-37,357)	(25,561-40,989)	(27,476-42,751)

[1]Sample sizes for Waves 1 and 3 differ from the previous reports because cases were deleted from these waves due to errors detected when refielding for Round 2. These small changes in sample size affect nearly all tables in the current report.

[2]Responses from parents with children in multiple rows are included in each relevant row.

NOTE: The detail by race and ethnicity does not add to 100 percent of the total because the detail on other races is not shown.

Table 2-3. Sample sizes and population estimates for dyads[1,2]

Characteristics	Sample size[3]					95% Confidence interval for population estimates (in thousands)				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Youth aged 9 to 18	3,108	2,210	2,305	2,354	3,876	(39,239-39,711)	(39,238-39,762)	(40,054-40,296)	(40,482-40,495)	(37,825-42,550)
Youth aged 12 to 18										
12 to 13	990	616	683	636	1,165	(7,801-7,916)	(7,958-8,033)	(8,030-8,125)	(8,198-8,198)	(7,860-8,615)
14 to 15	520	370	355	759	968	(8,058-9,270)	(8,148-9,639)	(8,575-10,243)	(7,936-9,194)	(7,498-9,290)
16 to 18	564	354	343	550	802	(9,885-10,986)	(9,310-10,823)	(9,041-10,732)	(10,311-11,569)	(9,819-12,154)
14 to 18	1,084	724	698	1,309	1,770	(18,905-19,294)	(18,729-19,191)	(19,199-19,393)	(19,499-19,512)	(17,531-21,229)
12 to 18	2,074	1,340	1,381	1,945	2,935	(26,738-27,179)	(26,726-27,186)	(27,267-27,479)	(27,697-27,710)	(26,143-29,092)
Youth aged 12 to 18										
Gender										
Males	1,098	673	698	1,039	1,470	(13,599-13,936)	(13,861-14,058)	(13,969-14,094)	(14,148-14,349)	(13,895-14,375)
Females	976	667	683	906	1,465	(13,061-13,321)	(12,763-13,229)	(13,254-13,428)	(13,354-13,555)	(12,226-14,739)
Race/ethnicity										
White	1,415	902	935	1,341	1,992	(17,836-18,619)	(17,133-18,856)	(18,088-19,161)	(18,164-18,949)	(17,495-19,211)
African American	291	203	210	259	428	(3,627-3,997)	(3,753-4,446)	(4,033-4,488)	(4,001-4,336)	(4,008-4,527)
Hispanic	296	184	178	281	389	(3,586-4,160)	(3,288-4,110)	(3,225-3,917)	(3,733-4,294)	(3,310-4,495)
Risk score										
Higher risk	659	391	397	628	874	(10,214-11,538)	(9,021-10,750)	(9,562-11,309)	(9,664-11,027)	(9,197-11,320)
Lower risk	1,308	896	934	1,242	1,871	(14,171-15,612)	(15,060-16,945)	(15,236-16,927)	(15,533-16,948)	(14,725-16,149)
Sensation seeking										
High	1,091	685	722	1,065	1,534	(14,161-15,630)	(13,274-15,016)	(14,918-16,480)	(14,304-15,705)	(13,878-15,863)
Low	928	622	627	835	1,343	(10,597-12,135)	(11,182-13,054)	(10,375-11,989)	(11,319-12,796)	(11,404-13,131)
Use of Marijuana										
Nonuser[4]	1,720	1,131	1,158	1,564	2,427	(20,284-21,680)	(20,491-22,197)	(20,247-22,072)	(20,702-22,278)	(20,316-22,565)
Occasional user[5]	170	103	100	163	217	(2,381-3,388)	(1,951-3,107)	(2,018-3,011)	(2,059-3,123)	(2,021-2,808)

[1]Youth weights rather than dyad weights were used for this table; therefore, dyad population estimates will be too low.

[2]Wave 3 dyad estimates do not match those printed in the Wave 3 report due to an error in that report.

[3]Sample sizes for Waves 1 and 3 differ from the previous reports because cases were deleted from these waves due to errors detected when refielding for Round 2. These small changes in sample size affect nearly all tables in the current report.

[4]Nonusers are those who have never used marijuana in the past.

[5]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

NOTE: The detail by race and ethnicity does not add to 100 percent of the total because the detail on other races is not shown.

Table 3-1. Percent of youth recalling having seen youth-targeted Campaign TV ads at least once per week, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent recalling having seen TV ads at least once per week | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	41.4	(38.3,44.6)	55.1	(52.1,58.1)	49.9	(46.2,53.7)	8.6	*(3.9,13.2)	-5.2	*(-9.7,-0.7)
14 to 15	38.6	(34.9,42.5)	53.6	(49.4,57.7)	47.9	(43.4,52.5)	9.3	*(3.5,15.1)	-5.7	(-11.8,0.5)
16 to 18	32.4	(28.9,36.1)	47.3	(43.7,51.0)	42.9	(38.5,47.4)	10.5	*(4.7,16.2)	-4.5	(-10.1,1.1)
14 to 18	35.2	(32.5,38.0)	50.2	(47.3,53.0)	45.0	(41.4,48.7)	9.8	*(5.0,14.6)	-5.1	*(-9.8,-0.5)
12 to 18	37.0	(34.8,39.2)	51.6	(49.2,54.0)	46.5	(43.4,49.6)	9.5	*(5.4,13.5)	-5.2	*(-9.2,-1.1)
Youth aged 12 to 18										
Gender										
Males	35.5	(32.7,38.6)	48.8	(45.6,52.1)	47.3	(43.4,51.3)	11.8	*(6.4,17.1)	-1.5	(-6.4,3.4)
Females	38.5	(35.7,41.5)	54.6	(51.2,58.0)	45.6	(42.4,48.9)	7.1	*(2.5,11.6)	-9.0	*(-14.1,-3.9)
Race/ethnicity										
White	34.4	(31.9,37.0)	49.5	(46.6,52.5)	46.1	(42.3,50.0)	11.7	*(6.8,16.7)	-3.4	(-8.7,1.8)
African American	46.6	(40.4,53.0)	57.1	(51.1,62.9)	50.7	(44.0,57.5)	4.1	(-3.8,12.0)	-6.4	(-14.1,1.4)
Hispanic	41.4	(36.3,46.8)	56.4	(50.6,62.0)	44.0	(37.0,51.2)	2.6	(-6.9,12.0)	-12.4	*(-19.6,-5.2)
Risk score										
Higher risk	35.2	(31.7,38.9)	48.0	(43.6,52.4)	45.7	(41.4,50.2)	10.5	*(4.6,16.5)	-2.2	(-8.1,3.6)
Lower risk	38.4	(35.9,40.9)	52.8	(50.2,55.4)	45.9	(42.5,49.4)	7.6	*(3.4,11.8)	-6.9	*(-11.1,-2.6)
Sensation seeking										
High	37.0	(34.0,40.1)	51.7	(48.4,55.0)	48.0	(44.4,51.7)	11.1	*(5.9,16.3)	-3.7	(-8.6,1.3)
Low	36.9	(33.7,40.3)	51.3	(48.3,54.4)	45.0	(41.4,48.5)	8.0	*(3.0,13.0)	-6.4	*(-11.3,-1.5)

Table 3-2. Summary of recall among youth for all eligible Campaign TV ads

Total recall Number of ad viewings per month	Recall for all TV platform ads					Average for all waves	
	Wave 1[1] %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	%	95% CI
Youth aged 12 to 13							
0	16.0	11.7	14.1	10.0	11.2	12.6	(11.5,13.7)
0.01 to .99	8.0	5.4	3.8	4.0	6.8	5.6	(4.8,6.5)
1 - 3.99	36.8	39.9	31.5	26.5	32.1	33.3	(31.7,34.9)
4 - 11.99	31.5	34.6	40.0	43.5	36.5	37.3	(35.5,39.1)
12 or more	7.7	8.3	10.6	16.0	13.4	11.3	(10.1,12.6)
Total	100.0	99.9	100.0	100.0	100.0	100.1	---
Mean	8.57	9.28	10.53	12.98	11.66	10.63	(10.17,11.10)
95% CI	(7.90,9.25)	(8.45,10.11)	(9.76,11.30)	(11.93,14.03)	(10.52,12.80)	---	---
Youth aged 14 to 18							
0	18.1	13.1	12.8	12.7	12.2	13.7	(12.3,15.4)
0.01 to .99	7.9	8.6	5.2	4.7	6.2	6.5	(5.7,7.4)
1 - 3.99	40.9	41.7	34.6	29.7	36.6	36.7	(35.1,38.3)
4 - 11.99	28.5	30.1	37.3	40.4	35.1	34.3	(32.6,36.0)
12 or more	4.7	6.6	10.1	12.6	10.0	8.8	(8.0,9.7)
Total	100.1	100.1	100.0	100.1	100.1	100.0	---
Mean	7.22	8.23	10.18	11.28	10.19	9.43	(9.10,9.76)
95% CI	(6.77,7.67)	(7.45,9.00)	(9.33,11.03)	(10.64,11.92)	(9.49,10.88)	---	---

[1]Wave 1 estimates do not match those printed in the Wave 3 report due to an errort in that report.

Table 3-3. Summary of recall of TV ads among youth for the "Negative Consequences" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Negative Consequences" TV ads						
	Wave 1 %	Wave 2 %	Wave 3[1] %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Youth aged 12 to 13							
0	65.9	65.6	100.0	43.1	42.5	63.2	(61.3,65.1)
0.01 to .99	4.1	3.8	0.0	4.6	8.3	4.2	(3.5,4.9)
1 - 3.99	21.6	17.8	0.0	29.9	24.2	18.7	(17.4,20.2)
4 - 11.99	8.0	11.4	0.0	21.7	18.3	12.0	(10.8,13.3)
12 or more	0.4	1.4	0.0	0.8	6.7	1.9	(1.4,2.5)
Total	100.0	100.0	100.0	100.1	100.0	100.0	---
Mean	2.15	2.71	0.00	4.49	6.11	3.12	(2.84,3.39)
95% CI	(1.87,2.44)	(2.15,3.27)	(S)	(3.85,5.12)	(5.16,7.05)	---	---
Youth aged 14 to 18							
0	66.1	65.8	100.0	46.0	40.7	63.6	(61.7,65.6)
0.01 to .99	6.6	4.6	0.0	5.0	7.5	4.7	(4.1,5.6)
1 - 3.99	23.0	21.1	0.0	29.3	27.4	20.2	(18.8,21.6)
4 - 11.99	4.1	7.6	0.0	19.2	20.0	10.3	(9.3,11.3)
12 or more	0.1	0.9	0.0	0.4	4.4	1.2	(0.9,1.5)
Total	99.9	100.0	100.0	99.9	100.0	100.0	---
Mean	1.62	2.20	0.00	4.06	5.52	2.69	(2.49,2.89)
95% CI	(1.43,1.81)	(1.79,2.61)	(S)	(3.58,4.55)	(4.88,6.16)	---	---

[1]Interviews included no ads in this platform for Wave 3.

Table 3-4. Summary of recall of TV ads among youth for the "Normative Positive Consequences" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Normative Positive Consequences" TV ads						
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Youth aged 12 to 13							
0	45.3	34.6	38.0	19.6	27.6	32.9	(31.1,34.6)
0.01 to .99	8.8	12.1	5.0	5.9	8.8	8.1	(7.1,9.3)
1 - 3.99	32.5	41.9	31.5	36.2	39.7	36.4	(34.7,38.1)
4 - 11.99	12.0	10.2	22.3	29.9	21.5	19.3	(17.7,21.0)
12 or more	1.4	1.1	3.2	8.3	2.4	3.3	(2.8,3.9)
Total	100.0	99.9	100.0	99.9	100.0	100.0	---
Mean	3.60	3.48	5.42	8.49	5.56	5.33	(5.07,5.60)
95% CI	(3.23,3.97)	(2.98,3.99)	(4.81,6.02)	(7.78,9.20)	(5.05,6.06)	---	---
Youth aged 14 to 18							
0	46.9	41.1	43.5	25.7	30.2	37.4	(35.7,39.2)
0.01 to .99	7.0	14.8	6.1	5.3	9.9	8.6	(7.7,9.6)
1 - 3.99	34.7	32.8	28.5	36.0	40.4	34.5	(33.2,35.8)
4 - 11.99	11.4	11.1	20.0	27.1	18.1	17.6	(16.5,18.8)
12 or more	0.1	0.2	1.9	5.9	1.4	1.9	(1.6,2.3)
Total	100.1	100.0	100.0	100.0	100.0	100.0	---
Mean	3.14	3.15	4.66	7.22	4.67	4.57	(4.38,4.77)
95% CI	(2.89,3.40)	(2.73,3.56)	(4.16,5.15)	(6.76,7.68)	(4.38,4.96)	---	---

Table 3-5. Summary of recall of TV ads among youth for the "Resistance Skills" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Resistance Skills" TV ads						
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4[1] %	Wave 5[1] %	Average for all waves %	95% CI
Youth aged 12 to 13							
0	50.4	80.4	40.8	100.0	100.0	74.7	(73.3,76.1)
0.01 to .99	5.0	0.8	3.8	0.0	0.0	1.9	(1.5,2.4)
1 - 3.99	29.1	12.7	29.7	0.0	0.0	14.1	(12.9,15.3)
4 - 11.99	13.7	5.9	24.3	0.0	0.0	8.7	(7.8,9.7)
12 or more	1.8	0.2	1.3	0.0	0.0	0.7	(0.4,1.0)
Total	100.0	100.0	99.9	100.0	100.0	100.1	---
Mean	3.65	1.45	5.11	0.00	0.00	2.02	(1.87,2.16)
95% CI	(3.23,4.07)	(1.11,1.79)	(4.61,5.62)	(S)	(S)	---	---
Youth aged 14 to 18							
0	54.3	82.4	33.8	100.0	100.0	74.2	(72.8,75.6)
0.01 to .99	5.6	1.6	4.5	0.0	0.0	2.3	(1.8,2.9)
1 - 3.99	27.9	8.8	33.9	0.0	0.0	14.0	(12.9,15.3)
4 - 11.99	10.9	7.1	27.1	0.0	0.0	9.0	(8.0,10.1)
12 or more	1.4	0.1	0.8	0.0	0.0	0.4	(0.3,0.7)
Total	100.1	100.0	100.1	100.0	100.0	99.9	---
Mean	3.06	1.38	5.52	0.00	0.00	1.98	(1.85,2.11)
95% CI	(2.71,3.41)	(1.04,1.73)	(4.98,6.06)	(S)	(S)	---	---

[1]Interviews included no ads in this platform for Wave 4 or Wave 5.

Table 3-6. Percent of parents[1] recalling having seen parent-targeted Campaign TV ads at least once per week, by parent characteristics and age of child(ren)

| | Percent recalling having seen TV ads at least once per week | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Total	24.1	(22.2,26.1)	29.7	(26.9,32.7)	51.6	(49.2,54.1)	27.5	*(24.4,30.7)	21.9	*(18.5,25.4)
Gender										
Male	21.3	(18.3,24.7)	26.0	(22.3,30.1)	51.0	(47.7,54.2)	29.7	*(25.1,34.2)	25.0	*(20.1,29.8)
Female	26.0	(23.9,28.2)	32.1	(28.6,35.7)	52.1	(48.5,55.7)	26.1	*(21.9,30.3)	20.1	*(15.5,24.6)
Race/ethnicity										
White	20.8	(18.7,23.1)	29.3	(26.0,32.9)	51.6	(49.0,54.3)	30.9	*(27.4,34.4)	22.3	*(17.9,26.7)
African American	24.4	(20.1,29.4)	36.6	(29.9,43.8)	54.0	(48.0,59.9)	29.6	*(22.7,36.4)	17.4	*(7.9,26.9)
Hispanic	42.2	(36.5,48.1)	30.4	(24.8,36.6)	56.2	(48.6,63.5)	14.0	*(4.4,23.6)	25.8	*(17.2,34.5)
Education										
Less than high school	34.0	(29.0,39.4)	37.0	(30.9,43.5)	48.9	(42.1,55.8)	14.9	*(6.7,23.2)	11.9	*(2.7,21.2)
High school graduate	25.0	(21.9,28.3)	31.0	(26.6,35.8)	56.5	(52.1,60.8)	31.5	*(26.1,36.9)	25.5	*(19.4,31.6)
Some college	25.4	(22.4,28.5)	33.1	(28.2,38.3)	55.4	(50.9,59.8)	30.1	*(25.0,35.2)	22.4	*(16.2,28.5)
College graduate	16.3	(13.6,19.4)	21.5	(18.1,25.5)	44.3	(39.6,49.1)	28.0	*(23.0,33.0)	22.7	*(17.0,28.5)
One or more child(ren)[2] aged:										
12 to 13	22.4	(20.1,24.8)	29.8	(26.5,33.3)	53.4	(49.8,57.0)	31.0	*(26.7,35.4)	23.6	*(19.1,28.1)
14 to 18	25.1	(22.9,27.6)	29.8	(26.5,33.3)	50.4	(47.3,53.5)	25.3	*(21.4,29.1)	20.6	*(16.4,24.8)
12 to 18	24.1	(22.2,26.1)	29.7	(26.9,32.7)	51.6	(49.2,54.1)	27.5	*(24.4,30.7)	21.9	*(18.5,25.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-7. Summary of recall among parents[1] for all eligible Campaign TV ads

Total recall Number of ad viewings per month	Recall for all platforms' TV ads						
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Overall							
0 _____	33.9	41.8	33.1	19.4	10.4	27.3	(25.6,29.1)
0.01 to .99_____	7.9	7.0	9.3	4.6	4.2	6.5	(5.8,7.3)
1 - 3.99 _____	32.8	28.5	37.8	36.8	33.7	34.0	(32.6,35.3)
4 - 11.99 _____	19.8	17.8	16.4	32.4	40.2	25.7	(24.1,27.3)
12 or more_____	5.7	4.8	3.4	6.8	11.4	6.5	(5.7,7.4)
Total _____	100.1	99.9	100.0	100.0	99.9	100.0	---
Mean_____	6.17	5.39	4.95	8.29	11.06	7.26	(6.87,7.64)
95% CI_____	(5.62,6.72)	(4.78,6.00)	(4.37,5.53)	(7.79,8.79)	(10.51,11.62)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

Table 3-8. Summary of recall of TV ads among parents[1] for the "Parenting Skills/Personal Efficacy" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Parenting Skills/Personal Efficacy" TV ads						
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4[2] %	Wave 5 %	Average for all waves	
						%	95% CI
Overall							
0 _____	63.5	51.5	92.2	25.9	16.3	49.1	(46.1,52.1)
0.01 to .99_____	6.1	7.6	1.3	4.5	5.2	4.9	(4.4,5.5)
1 - 3.99 _____	23.5	28.4	6.1	38.8	38.3	27.3	(25.7,29.0)
4 - 11.99 _____	6.3	10.0	0.4	26.8	33.8	15.9	(14.3,17.6)
12 or more_____	0.6	2.5	0.0	3.9	6.3	2.8	(2.3,3.4)
Total _____	100.0	100.0	100.0	99.9	99.9	100.0	---
Mean_____	1.99	3.48	0.30	6.53	8.53	4.27	(3.90,4.64)
95% CI_____	(1.79,2.18)	(2.97,3.99)	(0.21,0.39)	(6.07,7.00)	(8.02,9.04)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Estimates for Wave 4 are different from those in the Wave 4 report because we have recategorized some ads in this platform.

Table 3-9. Summary of recall of TV ads among parents[1] for the "Your Child at Risk" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Your Child at Risk" TV ads						
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves	
						%	95% CI
Overall							
0 _____	63.8	89.5	99.3	95.4	97.8	89.3	(87.7,90.8)
0.01 to .99_____	3.5	0.8	0.0	0.6	0.0	1.0	(0.8,1.3)
1 - 3.99 _____	17.3	4.6	0.2	2.9	0.8	5.1	(4.3,6.1)
4 - 11.99 _____	13.1	4.4	0.4	1.0	1.4	4.0	(3.3,4.8)
12 or more_____	2.4	0.7	0.0	0.1	0.0	0.6	(0.4,0.9)
Total _____	100.1	100.0	99.9	100.0	100.0	100.0	---
Mean_____	3.38	1.03	0.06	0.31	0.23	0.98	(0.83,1.14)
95% CI_____	(2.90,3.85)	(0.79,1.27)	(0.00,0.12)	(0.12,0.50)	(0.06,0.40)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

Table 3-10. Summary of recall of TV ads among parents[1] for the "Perceptions of Harm" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Perceptions of Harm/Marijuana" TV ads						
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4[2] %	Wave 5[2] %	Average for all waves %	95% CI
Overall							
0	78.7	96.0	38.3	100.0	100.0	83.1	(80.7,85.2)
0.01 to .99	5.4	0.8	10.5	0.0	0.0	3.3	(2.7,3.9)
1 - 3.99	13.2	2.9	37.4	0.0	0.0	10.4	(9.0,12.1)
4 - 11.99	2.4	0.3	12.7	0.0	0.0	3.0	(2.4,3.7)
12 or more	0.3	0.0	1.1	0.0	0.0	0.3	(0.1,0.5)
Total	100.0	100.0	100.0	100.0	100.0	100.1	---
Mean	0.95	0.18	3.73	0.00	0.00	0.95	(0.80,1.10)
95% CI	(0.79,1.12)	(0.11,0.24)	(3.28,4.18)	(S)	(S)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Interviews included no ads in this platform for Wave 4 or Wave 5.

Table 3-11. Summary of recall of TV ads among parents[1] on the topic of inhalants

Total recall Number of ad viewings per month	Recall for all inhalant TV ads						
	Wave 1 %	Wave 2[2] %	Wave 3 %	Wave 4[3] %	Wave 5[3] %	Average for all waves %	95% CI
Overall							
0	92.6	100.0	66.5	98.9	97.8	91.3	(89.7,92.7)
0.01 to .99	2.0	0.0	6.5	0.1	0.0	1.7	(1.3,2.1)
1 - 3.99	4.2	0.0	23.5	0.9	0.8	5.7	(4.7,7.1)
4 - 11.99	1.1	0.0	3.2	0.2	1.4	1.2	(0.9,1.7)
12 or more	0.1	0.0	0.2	0.0	0.0	0.1	(0.0,0.3)
Total	100.0	100.0	99.9	100.1	100.0	100.0	---
Mean	0.36	0.00	1.59	0.07	0.23	0.44	(0.36,0.52)
95% CI	(0.25,0.47)	(S)	(1.31,1.87)	(0.00,0.13)	(0.06,0.40)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]TV ads on the topic of inhalants were not aired during Wave 2.

[3]No general market ads on the topic of inhalants were aired in Waves 4 and 5. However, a small number of Spanish anti-inhalant ads were aired.

Table 3-12. Overall evaluation of TV ads by youth by age, gender, race/ethnicity, risk score, sensation seeking, and marijuana use

| | Mean TV ad evaluation scale score[1] (-2 = most negative response, 2 = most positive response) | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	1.00	(0.95,1.05)	1.00	(0.96,1.04)	0.97	(0.91,1.04)	-0.03	(-0.10,0.05)	-0.02	(-0.10,0.05)
14 to 15	0.79	(0.73,0.86)	0.73	(0.68,0.78)	0.83	(0.77,0.89)	0.04	(-0.04,0.12)	0.10	*(0.03,0.18)
16 to 18	0.54	(0.47,0.62)	0.59	(0.53,0.65)	0.65	(0.58,0.71)	0.10	*(0.01,0.19)	0.06	(-0.02,0.13)
14 to 18	0.66	(0.61,0.71)	0.65	(0.62,0.69)	0.72	(0.68,0.77)	0.06	(0.00,0.13)	0.07	*(0.02,0.12)
12 to 18	0.76	(0.72,0.80)	0.75	(0.73,0.78)	0.80	(0.76,0.84)	0.04	(-0.01,0.09)	0.05	*(0.00,0.09)
Youth aged 12 to 18										
Gender										
Males	0.64	(0.58,0.71)	0.67	(0.62,0.73)	0.76	(0.70,0.81)	0.11	*(0.03,0.19)	0.08	*(0.00,0.16)
Females	0.88	(0.83,0.93)	0.84	(0.79,0.88)	0.84	(0.80,0.89)	-0.04	(-0.11,0.03)	0.01	(-0.05,0.06)
Race/ethnicity										
White	0.74	(0.68,0.79)	0.68	(0.64,0.72)	0.76	(0.72,0.81)	0.03	(-0.04,0.09)	0.08	*(0.03,0.13)
African American	0.87	(0.80,0.94)	0.98	(0.90,1.06)	0.92	(0.82,1.03)	0.05	(-0.06,0.17)	-0.05	(-0.18,0.08)
Hispanic	0.79	(0.68,0.89)	0.87	(0.79,0.95)	0.82	(0.73,0.91)	0.03	(-0.10,0.16)	-0.05	(-0.16,0.07)
Risk score										
Higher risk	0.52	(0.44,0.59)	0.52	(0.46,0.58)	0.58	(0.52,0.65)	0.07	(-0.03,0.17)	0.06	(-0.01,0.14)
Lower risk	0.93	(0.88,0.98)	0.91	(0.87,0.95)	0.93	(0.88,0.99)	0.00	(-0.06,0.07)	0.02	(-0.03,0.08)
Sensation seeking										
High	0.58	(0.53,0.63)	0.57	(0.52,0.61)	0.64	(0.60,0.69)	0.06	(-0.01,0.13)	0.08	*(0.02,0.13)
Low	0.99	(0.93,1.04)	1.01	(0.96,1.05)	0.99	(0.94,1.04)	0.00	(-0.07,0.08)	-0.02	(-0.08,0.05)
Use of marijuana										
Nonuser[2]	0.87	(0.82,0.91)	0.87	(0.84,0.91)	0.90	(0.86,0.94)	0.03	(-0.03,0.09)	0.03	(-0.02,0.07)
Occasional user[3]	0.36	(0.25,0.48)	0.49	(0.37,0.61)	0.52	(0.38,0.65)	0.15	*(0.00,0.30)	0.03	(-0.13,0.19)

[1]Means represent the average response to a three-item evaluation scale (i.e., statements regarding whether the ad was attention-getting, convincing, and personally relevant).

[2]Nonusers are those who have never used marijuana in the past.

[3]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 3-13. Overall evaluation of TV ads by youth by age, gender, race/ethnicity, risk score, sensation seeking, and marijuana use

	Agreement that TV ads exaggerate the problem[1] (-2 = strongly agree, 2 = strongly disagree)									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	0.84	(0.77,0.90)	0.76	(0.69,0.83)	0.90	(0.83,0.97)	0.06	(-0.04,0.17)	0.14	*(0.04,0.23)
14 to 15	0.74	(0.68,0.80)	0.73	(0.68,0.79)	0.80	(0.72,0.88)	0.06	(-0.04,0.16)	0.07	(-0.02,0.16)
16 to 18	0.65	(0.56,0.74)	0.69	(0.62,0.75)	0.71	(0.63,0.79)	0.06	(-0.04,0.17)	0.02	(-0.08,0.13)
14 to 18	0.69	(0.64,0.75)	0.71	(0.66,0.75)	0.75	(0.69,0.81)	0.06	(-0.02,0.14)	0.04	(-0.04,0.12)
12 to 18	0.73	(0.69,0.78)	0.72	(0.69,0.76)	0.79	(0.75,0.84)	0.06	(0.00,0.12)	0.07	*(0.01,0.13)
Youth aged 12 to 18										
Gender										
Males	0.66	(0.59,0.72)	0.64	(0.58,0.70)	0.74	(0.68,0.81)	0.09	(-0.01,0.18)	0.10	*(0.01,0.20)
Females	0.82	(0.76,0.87)	0.81	(0.76,0.86)	0.85	(0.77,0.92)	0.03	(-0.06,0.12)	0.03	(-0.05,0.12)
Race/ethnicity										
White	0.73	(0.68,0.78)	0.70	(0.66,0.75)	0.79	(0.73,0.84)	0.05	(-0.03,0.13)	0.08	*(0.01,0.16)
African American	0.77	(0.64,0.90)	0.76	(0.64,0.87)	0.80	(0.68,0.92)	0.03	(-0.12,0.17)	0.04	(-0.12,0.20)
Hispanic	0.72	(0.62,0.82)	0.80	(0.70,0.91)	0.83	(0.69,0.97)	0.11	(-0.06,0.28)	0.03	(-0.11,0.17)
Risk score										
Higher risk	0.54	(0.46,0.62)	0.57	(0.50,0.64)	0.60	(0.52,0.69)	0.06	(-0.05,0.18)	0.03	(-0.08,0.14)
Lower risk	0.89	(0.83,0.94)	0.83	(0.78,0.88)	0.93	(0.87,0.99)	0.04	(-0.04,0.12)	0.10	*(0.03,0.17)
Sensation seeking										
High	0.60	(0.55,0.66)	0.60	(0.56,0.65)	0.65	(0.59,0.70)	0.04	(-0.03,0.12)	0.04	(-0.03,0.11)
Low	0.90	(0.83,0.97)	0.89	(0.83,0.96)	0.99	(0.92,1.05)	0.09	(0.00,0.18)	0.09	(0.00,0.19)
Use of marijuana										
Nonuser[2]	0.82	(0.78,0.87)	0.81	(0.76,0.86)	0.91	(0.86,0.96)	0.09	*(0.02,0.15)	0.10	*(0.04,0.16)
Occasional user[3]	0.44	(0.31,0.56)	0.54	(0.39,0.68)	0.57	(0.42,0.71)	0.13	(-0.06,0.31)	0.03	(-0.17,0.22)

[1]All estimates represent average disagreement with statement that an ad "exaggerates the problem."

[2]Nonusers are those who have never used marijuana in the past.

[3]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 3-14. Overall evaluation of TV ads by parents[1] by gender, race/ethnicity, education, and age of child(ren)

| | Mean TV ad evaluation scale score[2] (-2 = most negative response, 2 = most positive response) | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Overall_____	1.07	(1.02,1.11)	1.27	(1.24,1.31)	1.20	(1.15,1.25)	0.13	*(0.07,0.19)	-0.07	*(-0.12,-0.02)
Gender										
Male_____	0.99	(0.92,1.06)	1.19	(1.13,1.26)	1.14	(1.07,1.21)	0.15	*(0.05,0.26)	-0.05	(-0.14,0.03)
Female_____	1.12	(1.06,1.17)	1.32	(1.29,1.36)	1.24	(1.20,1.29)	0.13	*(0.07,0.18)	-0.08	*(-0.13,-0.03)
Race/ethnicity										
White_____	1.01	(0.95,1.07)	1.24	(1.20,1.28)	1.14	(1.10,1.18)	0.13	*(0.06,0.20)	-0.10	*(-0.15,-0.05)
African American_____	1.16	(1.07,1.25)	1.36	(1.27,1.45)	1.37	(1.28,1.46)	0.21	*(0.09,0.33)	0.01	(-0.11,0.13)
Hispanic_____	1.29	(1.21,1.36)	1.39	(1.28,1.50)	1.36	(1.27,1.45)	0.07	(-0.04,0.18)	-0.04	(-0.17,0.10)
Education										
Less than high school_____	1.25	(1.17,1.33)	1.29	(1.18,1.41)	1.25	(1.10,1.40)	0.00	(-0.15,0.15)	-0.04	(-0.21,0.14)
High school graduate_____	1.04	(0.98,1.11)	1.25	(1.19,1.31)	1.25	(1.18,1.31)	0.20	*(0.13,0.28)	0.00	(-0.08,0.08)
Some college_____	1.05	(0.95,1.14)	1.34	(1.29,1.40)	1.18	(1.11,1.25)	0.13	*(0.01,0.25)	-0.17	*(-0.25,-0.08)
College graduate_____	0.99	(0.91,1.06)	1.22	(1.16,1.28)	1.14	(1.06,1.23)	0.16	*(0.04,0.28)	-0.08	(-0.19,0.03)
One or more child(ren)[3] aged:										
12 to 13_____	1.11	(1.06,1.16)	1.30	(1.25,1.34)	1.23	(1.18,1.28)	0.12	*(0.06,0.18)	-0.07	*(-0.13,0.00)
14 to 18_____	1.04	(0.99,1.09)	1.26	(1.23,1.30)	1.18	(1.13,1.24)	0.14	*(0.07,0.21)	-0.08	*(-0.14,-0.02)
12 to 18_____	1.07	(1.02,1.11)	1.27	(1.24,1.31)	1.20	(1.15,1.25)	0.13	*(0.07,0.19)	-0.07	*(-0.12,-0.02)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Means represent the average response across ads to a three-item evaluation scale (i.e., statements regarding whether the ad was attention-getting, convincing, and personally relevant).

[3]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-15. Overall evaluation of TV ads by parents[1] by gender, race/ethnicity, education, and age of child(ren)

Characteristics	Average for Waves 1 and 2 (Year 2000) Mean	95% CI	Average for Waves 3 and 4 (Year 2001) Mean	95% CI	Wave 5 (Jan 2002-June 2002) Mean	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
Agreement that TV ads exaggerate the problem[2] ((-2 = strongly agree, 2 = strongly disagree))										
Overall_____	0.99	(0.93,1.05)	1.22	(1.18,1.27)	1.14	(1.09,1.20)	0.15	*(0.06,0.24)	-0.08	*(-0.15,-0.01)
Gender										
Male_____	0.99	(0.88,1.09)	1.18	(1.10,1.26)	1.09	(0.99,1.18)	0.10	(-0.03,0.23)	-0.09	(-0.21,0.02)
Female_____	0.99	(0.91,1.07)	1.25	(1.19,1.31)	1.18	(1.12,1.24)	0.19	*(0.07,0.30)	-0.07	(-0.15,0.01)
Race/ethnicity										
White_____	1.03	(0.96,1.10)	1.27	(1.22,1.32)	1.19	(1.14,1.25)	0.17	*(0.08,0.26)	-0.08	*(-0.15,0.00)
African American_____	1.03	(0.88,1.17)	1.11	(0.99,1.23)	1.09	(0.91,1.27)	0.06	(-0.16,0.28)	-0.02	(-0.21,0.17)
Hispanic_____	0.93	(0.77,1.09)	1.20	(1.07,1.33)	1.05	(0.89,1.22)	0.12	(-0.10,0.34)	-0.15	(-0.36,0.06)
Education										
Less than high school_____	0.80	(0.64,0.96)	1.03	(0.91,1.16)	0.88	(0.69,1.08)	0.08	(-0.18,0.34)	-0.15	(-0.37,0.07)
High school graduate_____	0.95	(0.86,1.05)	1.20	(1.10,1.29)	1.18	(1.09,1.28)	0.23	*(0.10,0.36)	-0.01	(-0.15,0.13)
Some college_____	1.12	(1.00,1.23)	1.30	(1.22,1.38)	1.17	(1.09,1.26)	0.06	(-0.08,0.19)	-0.13	*(-0.23,-0.02)
College graduate_____	1.01	(0.93,1.10)	1.28	(1.20,1.36)	1.20	(1.12,1.27)	0.18	*(0.05,0.31)	-0.09	(-0.20,0.03)
One or more child(ren)[3] aged:										
12 to 13_____	1.02	(0.96,1.08)	1.22	(1.15,1.28)	1.14	(1.08,1.20)	0.12	*(0.03,0.21)	-0.08	(-0.15,0.00)
14 to 18_____	0.98	(0.91,1.06)	1.22	(1.17,1.28)	1.14	(1.07,1.21)	0.16	*(0.05,0.26)	-0.09	*(-0.17,0.00)
12 to 18_____	0.99	(0.93,1.05)	1.22	(1.18,1.27)	1.14	(1.09,1.20)	0.15	*(0.06,0.24)	-0.08	*(-0.15,-0.01)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]All estimates represent average disagreement with statement that an ad "exaggerates the problem."

[3]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-16. Percent of youth recalling having heard all radio ads at least once per week, averaged over aired ads, by age, gender, race/ethnicity, risk score, sensation seeking, and marijuana use

	Percent recalling having heard all radio ads at least once per week									
	Average for Waves 1 and 2 (Year 2000)[1]		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Avg %	95% CI	Avg %	95% CI	Avg %	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	N/A	N/A	6.5	(5.1,8.3)	1.6	(1.0,2.5)	N/A	N/A	-4.9	*(-6.7,-3.2)
14 to 15	N/A	N/A	9.2	(7.3,11.4)	1.7	(1.0,2.7)	N/A	N/A	-7.5	*(-9.6,-5.4)
16 to 18	N/A	N/A	7.3	(5.6,9.4)	1.0	(0.5,2.2)	N/A	N/A	-6.2	*(-8.5,-4.0)
14 to 18	N/A	N/A	8.1	(6.9,9.6)	1.3	(0.8,2.1)	N/A	N/A	-6.8	*(-8.2,-5.4)
12 to 18	N/A	N/A	7.7	(6.6,8.9)	1.4	(1.0,2.0)	N/A	N/A	-6.3	*(-7.4,-5.1)
Youth aged 12 to 18										
Gender										
Males	N/A	N/A	7.2	(5.8,8.8)	1.2	(0.8,2.0)	N/A	N/A	-5.9	*(-7.5,-4.3)
Females	N/A	N/A	8.2	(6.9,9.7)	1.6	(1.0,2.5)	N/A	N/A	-6.6	*(-8.2,-5.1)
Race/ethnicity										
White	N/A	N/A	6.4	(5.3,7.6)	1.6	(1.0,2.4)	N/A	N/A	-4.8	*(-6.1,-3.5)
African American	N/A	N/A	12.6	(9.2,16.9)	0.7	(0.3,2.0)	N/A	N/A	-11.8	*(-15.8,-7.9)
Hispanic	N/A	N/A	8.0	(5.2,12.1)	1.3	(0.6,2.7)	N/A	N/A	-6.7	*(-9.8,-3.5)
Risk score										
Higher risk	N/A	N/A	9.0	(7.1,11.5)	1.4	(0.8,2.4)	N/A	N/A	-7.6	*(-10.0,-5.2)
Lower risk	N/A	N/A	6.6	(5.3,8.2)	1.3	(0.8,2.0)	N/A	N/A	-5.4	*(-6.9,-3.9)
Sensation seeking										
High	N/A	N/A	8.7	(7.3,10.4)	1.6	(1.0,2.6)	N/A	N/A	-7.2	*(-8.9,-5.4)
Low	N/A	N/A	6.5	(5.1,8.3)	1.2	(0.7,1.9)	N/A	N/A	-5.3	*(-7.0,-3.7)
Use of marijuana										
Nonuser[2]	N/A	N/A	7.2	(6.1,8.6)	1.3	(0.9,1.9)	N/A	N/A	-5.9	*(-7.2,-4.6)
Occasional user[3]	N/A	N/A	9.1	(6.0,13.7)	1.7	(0.4,7.0)	N/A	N/A	-7.4	*(-12.2,-2.7)

[1]Wave 1 interviews asked respondents only about ads that had aired exclusively on the radio and did not ask about radio ads that were the soundtracks for television ads. During Wave 1 almost all ads were soundtracks so there were no meaningful estimates of radio exposure.

[2]Nonusers are those who have never used marijuana in the past.

[3]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 3-17. Summary of recall among youth for all eligible Campaign radio ads

Total recall Number of ad viewings per month	Recall for all radio platforms' ads						
	Wave 1[1] %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Youth aged 12 to 18							
0 _____	N/A	65.2	42.7	69.5	86.2	64.7	(63.5,66.0)
0.01 to .99_____	N/A	10.9	17.2	10.5	5.3	11.3	(10.6,12.2)
1 - 3.99 _____	N/A	20.3	27.8	16.9	7.1	19.0	(17.9,20.2)
4 - 11.99 _____	N/A	3.4	10.9	2.7	1.4	4.5	(4.0,5.0)
12 or more_____	N/A	0.2	1.3	0.4	0.0	0.4	(0.3,0.6)
Total _____	N/A	100.0	99.9	100.0	100.0	99.9	---
Mean_____	N/A	1.35	3.05	1.16	0.51	1.52	(1.43,1.61)
95% CI_____	N/A	(1.18,1.52)	(2.74,3.35)	(1.01,1.32)	(0.41,0.61)	---	---

[1]Wave 1 interviews asked respondents only about ads that had aired exclusively on the radio and did not ask about radio ads that were the soundtracks for television ads. During Wave 1 almost all ads were soundtracks so there were no meaningful estimates of radio exposure.

Table 3-18. Summary of recall of radio ads among youth for the "Negative Consequences" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Negative Consequences" radio ads						
	Wave 1[1] %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Youth aged 12 to 18							
0 _____	N/A	81.3	96.1	84.1	93.1	85.4	(84.5,86.2)
0.01 to .99_____	N/A	7.6	1.5	6.3	2.3	5.8	(5.2,6.4)
1 - 3.99 _____	N/A	9.5	2.2	9.0	3.7	7.8	(7.1,8.6)
4 - 11.99 _____	N/A	1.6	0.3	0.6	0.8	1.0	(0.8,1.2)
12 or more_____	N/A	0.0	0.0	0.0	0.0	0.0	(0.0,0.1)
Total _____	N/A	100.0	100.1	100.0	99.9	100.0	---
Mean_____	N/A	0.63	0.13	0.46	0.28	0.48	(0.44,0.52)
95% CI_____	N/A	(0.49,0.77)	(0.07,0.19)	(0.39,0.53)	(0.21,0.35)	---	---

[1]Wave 1 interviews asked respondents only about ads that had aired exclusively on the radio and did not ask about radio ads that were the soundtracks for television ads. During Wave 1 almost all ads were soundtracks so there were no meaningful estimates of radio exposure.

Table 3-19. Summary of recall of radio ads among youth for the "Normative Positive Consequences" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Normative Positive Consequences" radio ads						
	Wave 1[1] %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Youth aged 12 to 18							
0 _____	N/A	98.9	71.7	80.6	93.1	86.7	(85.7,87.8)
0.01 to .99_____	N/A	0.3	9.0	8.1	2.9	5.0	(4.5,5.5)
1 - 3.99 _____	N/A	0.7	14.5	9.4	3.4	6.8	(6.0,7.6)
4 - 11.99 _____	N/A	0.0	4.2	1.9	0.6	1.4	(1.1,1.8)
12 or more_____	N/A	0.0	0.5	0.1	0.0	0.1	(0.1,0.2)
Total _____	N/A	99.9	99.9	100.1	100.0	100.0	---
Mean_____	N/A	0.04	1.39	0.70	0.23	0.53	(0.47,0.60)
95% CI_____	N/A	(0.01,0.07)	(1.13,1.65)	(0.58,0.83)	(0.16,0.29)	---	---

[1]Wave 1 interviews asked respondents only about ads that had aired exclusively on the radio and did not ask about radio ads that were the soundtracks for television ads. During Wave 1 almost all ads were soundtracks so there were no meaningful estimates of radio exposure.

Table 3-20. Summary of recall of radio ads among youth for the "Resistance Skills" strategic platform ads

Total recall Number of ad viewings per month	Percent recalling "Resistance Skills" radio ads						
	Wave 1[1] %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5[2] %	Average for all waves %	95% CI
Youth aged 12 to 18							
0	N/A	89.8	62.4	99.6	100.0	88.4	(87.6,89.2)
0.01 to .99	N/A	3.0	13.5	0.2	0.0	4.0	(3.6,4.6)
1 - 3.99	N/A	6.3	19.3	0.2	0.0	6.2	(5.6,6.9)
4 - 11.99	N/A	1.0	4.6	0.0	0.0	1.3	(1.1,1.6)
12 or more	N/A	0.0	0.2	0.0	0.0	0.0	(0.0,0.1)
Total	N/A	100.1	100.0	100.0	100.0	99.9	---
Mean	N/A	0.39	1.53	0.01	0.00	0.46	(0.41,0.50)
95% CI	N/A	(0.30,0.49)	(1.37,1.69)	(0.00,0.01)	(S)	---	---

[1]Wave 1 interviews asked respondents only about ads that had aired exclusively on the radio and did not ask about radio ads that were the soundtracks for television ads. During Wave 1 almost all ads were soundtracks so there were no meaningful estimates of radio exposure.

[2]Radio ads for the "Resistance Skills" strategic platform were not aired during Wave 5.

Table 3-21. Percent of parents[1] recalling having heard parent-targeted Campaign radio ads at least once per week, averaged[2] over aired ads, by gender, race/ethnicity, education, and age of child(ren)

| | Percent recalling having heard radio ads at least once per week | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Avg %	95% CI	Avg %	95% CI	Avg %	95% CI	Est	95% CI	Est	95% CI
Overall_____	10.5	(9.0,12.2)	16.0	(14.2,17.9)	3.0	(2.1,4.3)	-7.6	*(-9.6,-5.5)	-13.0	*(-15.1,-10.9)
Gender										
Male_____	13.8	(11.3,16.9)	16.0	(13.3,19.2)	3.2	(1.9,5.2)	-10.7	*(-14.0,-7.4)	-12.9	*(-16.0,-9.7)
Female_____	8.2	(6.7,10.2)	15.9	(13.8,18.3)	2.9	(1.9,4.4)	-5.4	*(-7.5,-3.3)	-13.1	*(-15.8,-10.4)
Race/ethnicity										
White_____	10.9	(9.3,12.8)	14.2	(12.3,16.4)	2.1	(1.4,3.2)	-8.8	*(-10.8,-6.8)	-12.1	*(-14.3,-9.9)
African American_____	9.0	(5.6,14.0)	22.4	(17.3,28.5)	4.9	(2.6,9.0)	-4.1	(-9.4,1.2)	-17.5	*(-24.0,-11.0)
Hispanic_____	11.7	(8.1,16.6)	18.2	(13.6,23.9)	4.8	(2.4,9.4)	-6.9	*(-12.6,-1.2)	-13.4	*(-19.9,-6.9)
Education										
Less than high school_____	15.3	(11.4,20.2)	21.5	(16.7,27.2)	5.6	(2.7,11.0)	-9.7	*(-16.6,-2.8)	-15.9	*(-23.2,-8.7)
High school graduate_____	10.5	(8.0,13.7)	15.0	(12.1,18.5)	3.3	(1.8,6.1)	-7.2	*(-10.6,-3.8)	-11.7	*(-15.3,-8.1)
Some college_____	11.0	(8.3,14.4)	20.0	(16.4,24.1)	2.5	(1.5,3.9)	-8.5	*(-11.6,-5.5)	-17.5	*(-21.6,-13.4)
College graduate_____	7.6	(5.4,10.5)	10.9	(8.5,13.9)	1.8	(0.9,3.8)	-5.7	*(-8.4,-3.1)	-9.1	*(-12.1,-6.1)
One or more child(ren)[3] aged:										
12 to 13_____	10.6	(8.9,12.6)	16.8	(14.7,19.0)	3.4	(2.2,5.2)	-7.1	*(-9.6,-4.7)	-13.3	*(-15.8,-10.9)
14 to 18_____	10.4	(8.6,12.5)	15.9	(13.7,18.4)	2.6	(1.6,4.1)	-7.8	*(-10.3,-5.3)	-13.3	*(-15.9,-10.7)
12 to 18_____	10.5	(9.0,12.2)	16.0	(14.2,17.9)	3.0	(2.1,4.3)	-7.6	*(-9.6,-5.5)	-13.0	*(-15.1,-10.9)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]See Sections 2.2.5, 2.4.1, 3.2.2 and E.3 for guidance on interpretation of this table and information on how it was created. Note that the overall line that shows that 3.0 percent of parents recall hearing Campaign-sponsored ad aimed at parents at least once per week can also be derived by summing the "4-11.9" and "12 or more" lines of Table 3-22, except for rounding error.

[3]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-22. Summary of recall of radio ads among parents[1] overall for all strategic platforms

Total recall	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Overall							
0	51.5	53.8	41.7	48.9	91.9	58.1	(56.1,60.2)
0.01 to .99	9.2	5.7	11.8	4.4	0.7	6.2	(5.5,7.0)
1 - 3.99	29.3	29.6	29.5	31.8	4.4	24.6	(23.0,26.2)
4 - 11.99	8.2	10.5	15.2	12.7	2.2	9.6	(8.7,10.7)
12 or more	1.7	0.4	1.9	2.1	0.8	1.4	(1.1,1.8)
Total	99.9	100.0	100.1	99.9	100.0	99.9	---
Mean	3.05	2.95	3.93	3.77	0.79	2.87	(2.68,3.05)
95% CI	(2.70,3.41)	(2.66,3.24)	(3.47,4.40)	(3.41,4.13)	(0.49,1.08)	---	---

Column header spanning Wave 1 – Average for all waves: Recall for all radio platform ads

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

Table 3-23. Summary of recall of radio ads among parents[1] for the "Parenting Skills/Personal Efficacy" strategic platform ads

| Total recall | Percent recalling "Parenting Skills/Personal Efficacy" radio ads | | | | | | |
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4[2] %	Wave 5 %	Average for all waves %	95% CI
Overall							
0 _____	71.9	53.8	90.4	59.3	93.3	74.0	(72.4,75.7)
0.01 to .99_____	5.9	5.7	2.6	3.6	0.5	3.6	(3.1,4.1)
1 - 3.99 _____	18.5	29.6	6.4	28.2	4.8	17.3	(16.0,18.8)
4 - 11.99 _____	3.6	10.5	0.5	7.8	1.1	4.7	(4.1,5.3)
12 or more_____	0.2	0.4	0.1	1.1	0.2	0.4	(0.3,0.6)
Total _____	100.1	100.0	100.0	100.0	99.9	100.0	---
Mean_____	1.37	2.95	0.42	2.59	0.43	1.54	(1.42,1.65)
95% CI_____	(1.15,1.58)	(2.66,3.24)	(0.29,0.56)	(2.29,2.90)	(0.29,0.58)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Estimates for Wave 4 are different from those in the Wave 4 report because we have recategorized some ads in this platform.

Table 3-24. Summary of recall of radio ads among parents[1] for the "Your Child at Risk" strategic platform ads

Total recall	Wave 1 %	Wave 2[2] %	Wave 3[2] %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
			Percent recalling "Your Child at Risk" radio ads				
Overall							
0 _____	77.6	100.0	100.0	97.3	99.3	94.9	(94.0,95.7)
0.01 to .99_____	4.2	0.0	0.0	0.0	0.1	0.8	(0.6,1.2)
1 - 3.99 _____	13.2	0.0	0.0	1.9	0.2	3.0	(2.5,3.6)
4 - 11.99 _____	4.5	0.0	0.0	0.7	0.4	1.1	(0.8,1.5)
12 or more_____	0.5	0.0	0.0	0.0	0.1	0.1	(0.1,0.3)
Total _____	100.0	100.0	100.0	99.9	100.1	99.9	---
Mean_____	1.34	0.00	0.00	0.18	0.10	0.32	(0.25,0.39)
95% CI_____	(1.10,1.59)	(S)	(S)	(0.06,0.30)	(-0.01,0.20)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Radio ads for the "Your child at risk" strategic platform were not aired during Waves 2 and 3.

Table 3-25. Summary of recall of radio ads among parents[1] for the "Perceptions of Harm" strategic platform ads

Total recall	Wave 1 %	Wave 2[2] %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Overall							
0	91.0	100.0	52.9	81.5	95.7	84.4	(82.8,85.9)
0.01 to .99	2.5	0.0	9.8	3.9	0.8	3.4	(2.8,4.0)
1 - 3.99	5.9	0.0	25.3	11.6	2.4	8.9	(8.1,9.9)
4 - 11.99	0.6	0.0	10.4	2.7	1.1	2.9	(2.5,3.5)
12 or more	0.0	0.0	1.6	0.2	0.0	0.4	(0.2,0.7)
Total	100.0	100.0	100.0	99.9	100.0	100.0	---
Mean	0.34	0.00	3.00	0.97	0.26	0.90	(0.78,1.02)
95% CI	(0.25,0.43)	(S)	(2.56,3.45)	(0.79,1.14)	(0.16,0.36)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Radio ads for the "Perceptions of Harm/Marijuana" strategic platform were not aired during Wave 2.

Table 3-26. Summary of recall of radio ads among parents[1] on the topic of inhalants

	Recall for all inhalant radio ads						
	Wave 1	Wave 2[2]	Wave 3	Wave 4[3]	Wave 5[3]	Average for all waves	
Total recall	%	%	%	%	%	%	95% CI
Overall							
0	91.0	100.0	63.1	99.0	99.3	90.7	(89.2,92.1)
0.01 to .99	2.5	0.0	9.8	0.0	0.1	2.4	(1.9,3.1)
1 - 3.99	5.9	0.0	21.0	0.5	0.2	5.4	(4.5,6.4)
4 - 11.99	0.6	0.0	5.9	0.4	0.4	1.4	(1.1,1.9)
12 or more	0.0	0.0	0.1	0.0	0.1	0.1	(0.0,0.2)
Total	100.0	100.0	99.9	99.9	100.1	100.0	---
Mean	0.34	0.00	1.75	0.09	0.10	0.45	(0.37,0.52)
95% CI	(0.25,0.43)	(S)	(1.48,2.02)	(0.02,0.15)	(-0.01,0.20)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Radio ads on the topic of inhalants were not aired during Wave 2.

[3]No general market ads on the topic of inhalants were aired in Waves 4 and 5. However, a small number of Spanish anti-inhalant ads were aired.

Table 3-27. Recall of general anti-drug advertising among youth

Total recall Number of ad viewings per month	Percent recalling general anti-drug advertising						
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	Average for all waves %	95% CI
Youth aged 12 to 13							
0 to .99	9.3	7.2	7.3	11.7	8.8	8.8	(7.8,10.0)
1 - 3.99	15.9	14.4	16.7	20.1	15.8	16.5	(14.9,18.3)
4 - 11.99	23.8	25.3	21.8	24.0	23.8	23.8	(22.4,25.2)
12 or more	51.0	53.0	54.1	44.3	51.5	50.9	(48.7,53.0)
Total	100.0	99.9	99.9	100.1	99.9	100.0	---
Mean	28.65	32.22	29.78	27.04	31.61	29.87	(28.40,31.33)
95% CI	(26.44,30.87)	(28.60,35.85)	(26.87,32.69)	(24.08,30.00)	(28.27,34.94)	---	---
Youth aged 14 to 18							
0 to .99	5.9	5.1	5.3	7.4	6.6	6.0	(5.2,7.0)
1 - 3.99	17.4	15.4	17.8	19.0	17.6	17.4	(16.2,18.7)
4 - 11.99	26.2	22.0	24.1	26.6	25.4	24.8	(23.3,26.4)
12 or more	50.4	57.6	52.8	46.9	50.4	51.7	(49.7,53.7)
Total	99.9	100.1	100.0	99.9	100.0	99.9	---
Mean	26.51	32.83	28.57	25.93	30.25	28.81	(27.55,30.07)
95% CI	(24.45,28.57)	(29.52,36.13)	(26.06,31.08)	(23.78,28.08)	(27.96,32.55)	---	---

Table 3-28. Recall of general TV and radio advertising, by youth by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of youth reporting having seen or heard TV or radio ads at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	53.2	(49.6,56.8)	53.7	(51.0,56.3)	64.9	(61.2,68.4)	11.7	*(8.0,15.4)	11.2	*(7.6,14.9)
14 to 15_____	59.3	(54.9,63.6)	60.9	(57.3,64.4)	67.7	(64.6,70.6)	8.3	*(3.5,13.2)	6.7	*(2.1,11.3)
16 to 18_____	57.5	(53.9,61.1)	54.3	(50.4,58.2)	62.7	(59.3,66.1)	5.2	*(0.3,10.1)	8.4	*(2.8,13.9)
14 to 18_____	58.3	(55.1,61.5)	57.3	(54.6,60.0)	64.8	(62.3,67.3)	6.5	*(2.5,10.4)	7.5	*(3.8,11.2)
12 to 18_____	56.9	(54.0,59.7)	56.2	(54.0,58.4)	64.9	(62.7,67.0)	8.0	*(5.1,10.9)	8.6	*(5.8,11.4)
Youth aged 12 to 18										
Gender										
Males_____	57.4	(53.9,60.8)	54.8	(51.8,57.8)	64.6	(61.8,67.3)	7.3	*(3.6,10.9)	9.8	*(6.1,13.5)
Females_____	56.3	(52.9,59.7)	57.7	(55.0,60.4)	65.1	(62.1,68.0)	8.7	*(5.1,12.3)	7.4	*(3.5,11.2)
Race/ethnicity										
White_____	57.5	(54.6,60.3)	55.2	(52.5,58.0)	63.8	(61.1,66.3)	6.3	*(2.8,9.7)	8.5	*(4.7,12.4)
African American___	56.4	(49.6,63.0)	59.5	(54.3,64.6)	73.1	(66.8,78.5)	16.7	*(9.4,24.0)	13.6	*(7.8,19.3)
Hispanic_____	53.2	(47.9,58.4)	57.3	(52.4,62.1)	63.9	(59.2,68.3)	10.7	*(3.3,18.1)	6.6	*(0.3,12.8)
Risk score										
Higher risk_____	58.9	(54.7,63.0)	58.3	(54.3,62.1)	65.8	(62.4,69.1)	6.9	*(1.9,12.0)	7.6	*(2.8,12.4)
Lower risk_____	55.5	(51.8,59.1)	56.2	(53.6,58.7)	64.6	(62.0,67.2)	9.1	*(5.5,12.7)	8.4	*(5.4,11.5)
Sensation seeking										
High_____	60.9	(58.2,63.6)	59.1	(56.1,61.9)	66.8	(63.9,69.6)	5.9	*(1.9,9.8)	7.7	*(3.9,11.5)
Low_____	51.6	(47.1,56.1)	52.4	(49.2,55.6)	63.1	(60.1,66.0)	11.5	*(7.1,15.9)	10.7	*(6.9,14.4)

Table 3-29. Recall of newspaper and magazine advertising, by youth by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of youth reporting having seen newspaper or magazine ads at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	27.8	(25.4,30.4)	24.0	(21.8,26.5)	21.8	(18.7,25.2)	-6.1	*(-10.1,-2.0)	-2.3	(-5.8,1.2)
14 to 15_____	29.8	(26.1,33.8)	26.1	(23.3,29.1)	28.1	(25.0,31.5)	-1.7	(-7.2,3.8)	2.1	(-2.0,6.1)
16 to 18_____	25.9	(22.8,29.3)	23.2	(20.4,26.3)	21.8	(19.1,24.8)	-4.1	(-8.4,0.1)	-1.4	(-5.5,2.7)
14 to 18_____	27.7	(25.3,30.3)	24.5	(22.4,26.8)	24.5	(22.5,26.7)	-3.2	*(-6.1,-0.3)	0.0	(-2.9,2.9)
12 to 18_____	27.7	(25.8,29.8)	24.4	(22.6,26.3)	23.7	(21.9,25.6)	-4.0	*(-6.3,-1.8)	-0.7	(-2.9,1.5)
Youth aged 12 to 18										
Gender										
Males_____	28.0	(25.1,30.9)	24.2	(21.8,26.7)	21.5	(18.7,24.6)	-6.4	*(-10.2,-2.7)	-2.7	(-6.0,0.7)
Females_____	27.5	(24.9,30.3)	24.6	(22.0,27.4)	26.0	(23.7,28.5)	-1.5	(-4.9,1.9)	1.4	(-1.9,4.7)
Race/ethnicity										
White_____	25.4	(22.9,28.1)	21.3	(19.0,23.8)	20.4	(18.4,22.5)	-5.1	*(-8.0,-2.1)	-0.9	(-3.5,1.6)
African American___	33.9	(29.5,38.6)	33.1	(28.4,38.1)	28.9	(23.6,34.7)	-5.0	(-12.3,2.2)	-4.2	(-10.7,2.3)
Hispanic_____	32.2	(27.8,36.9)	29.7	(25.7,34.1)	32.3	(27.0,38.1)	0.1	(-6.8,7.0)	2.6	(-3.9,9.0)
Risk score										
Higher risk_____	30.6	(27.2,34.1)	25.6	(22.4,29.1)	25.5	(22.3,29.1)	-5.0	*(-10.0,-0.1)	-0.1	(-4.6,4.5)
Lower risk_____	27.2	(24.6,29.9)	23.3	(21.1,25.7)	22.7	(20.5,25.1)	-4.4	*(-7.6,-1.3)	-0.6	(-3.0,1.9)
Sensation seeking										
High_____	29.5	(26.8,32.4)	26.0	(23.4,28.8)	24.6	(22.1,27.3)	-5.0	*(-8.6,-1.3)	-1.4	(-4.7,1.8)
Low_____	25.6	(23.1,28.4)	22.2	(19.9,24.7)	22.9	(20.4,25.6)	-2.7	(-6.1,0.6)	0.7	(-2.5,3.9)

Table 3-30. Recall of movie theater and video rental advertising, by youth by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of youth reporting having seen movie theatre or video rental ads at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	7.9	(6.6,9.5)	9.0	(7.2,11.1)	9.9	(8.0,12.2)	2.0	(-0.6,4.7)	1.0	(-1.4,3.3)
14 to 15_____	6.5	(5.1,8.3)	7.0	(5.4,9.0)	10.5	(8.3,13.3)	4.0	*(1.0,7.0)	3.5	*(0.5,6.5)
16 to 18_____	7.8	(6.0,10.1)	4.9	(3.5,6.8)	8.8	(6.5,11.8)	1.0	(-2.5,4.5)	3.9	*(0.8,6.9)
14 to 18_____	7.2	(6.0,8.6)	5.9	(4.7,7.3)	9.5	(7.9,11.5)	2.3	*(0.2,4.5)	3.7	*(1.6,5.7)
12 to 18_____	7.4	(6.4,8.6)	6.8	(5.8,7.9)	9.7	(8.3,11.3)	2.2	*(0.4,4.1)	2.9	*(1.3,4.5)
Youth aged 12 to 18										
Gender										
Males_____	7.8	(6.2,9.8)	7.4	(6.2,8.9)	9.6	(8.1,11.4)	1.8	(-0.5,4.1)	2.2	*(0.2,4.2)
Females_____	7.0	(5.7,8.5)	6.1	(4.8,7.6)	9.7	(7.5,12.4)	2.7	(-0.2,5.6)	3.6	*(1.1,6.1)
Race/ethnicity										
White_____	5.8	(4.5,7.4)	4.6	(3.7,5.6)	6.4	(5.2,7.8)	0.7	(-1.0,2.3)	1.8	*(0.4,3.3)
African American___	13.3	(10.0,17.5)	11.5	(8.8,15.0)	17.8	(13.4,23.2)	4.5	(-1.9,10.9)	6.3	*(0.8,11.7)
Hispanic_____	9.4	(7.0,12.3)	12.1	(8.7,16.7)	13.5	(10.1,17.7)	4.1	(-0.6,8.9)	1.4	(-3.5,6.3)
Risk score										
Higher risk_____	9.3	(7.1,12.2)	6.7	(5.0,9.0)	10.1	(7.5,13.5)	0.8	(-3.4,5.0)	3.4	(0.0,6.8)
Lower risk_____	6.1	(5.0,7.5)	6.6	(5.4,8.0)	9.1	(7.6,10.8)	2.9	*(0.9,4.9)	2.5	*(0.7,4.3)
Sensation seeking										
High_____	7.8	(6.3,9.6)	6.6	(5.3,8.3)	9.0	(7.3,11.0)	1.2	(-1.5,3.9)	2.3	*(0.1,4.6)
Low_____	6.9	(5.2,9.0)	6.7	(5.4,8.3)	10.3	(8.1,13.0)	3.4	*(0.4,6.5)	3.6	*(1.1,6.2)

Table 3-31. Recall of billboard and other public posting advertising, by youth by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of youth reporting having seen billboard or other public posting ads at least weekly | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	28.6	(26.1,31.1)	26.0	(23.3,28.8)	28.9	(25.4,32.7)	0.4	(-3.9,4.6)	3.0	(-1.1,7.1)
14 to 15_____	27.3	(24.0,30.8)	29.0	(26.1,32.1)	29.3	(26.0,32.8)	2.0	(-2.9,6.9)	0.2	(-3.8,4.3)
16 to 18_____	25.7	(22.6,29.0)	25.0	(21.7,28.5)	26.9	(23.1,31.1)	1.2	(-3.5,6.0)	1.9	(-2.9,6.7)
14 to 18_____	26.4	(24.1,28.8)	26.8	(24.4,29.3)	27.9	(25.1,30.9)	1.5	(-1.8,4.9)	1.1	(-2.2,4.4)
12 to 18_____	27.0	(25.2,28.9)	26.6	(24.6,28.6)	28.2	(25.8,30.7)	1.2	(-1.4,3.7)	1.6	(-0.9,4.2)
Youth aged 12 to 18										
Gender										
Males_____	28.8	(26.3,31.4)	26.3	(23.5,29.3)	27.0	(23.8,30.4)	-1.8	(-5.5,1.9)	0.7	(-3.2,4.6)
Females_____	25.2	(22.6,28.0)	26.8	(24.4,29.4)	29.5	(26.7,32.4)	4.3	*(0.7,7.8)	2.6	(-0.5,5.7)
Race/ethnicity										
White_____	24.1	(21.8,26.6)	23.5	(21.0,26.3)	25.1	(22.2,28.3)	1.0	(-2.4,4.4)	1.6	(-1.9,5.1)
African American___	35.1	(29.5,41.1)	34.3	(29.7,39.3)	36.6	(31.5,42.0)	1.5	(-4.7,7.8)	2.3	(-3.5,8.1)
Hispanic_____	31.9	(27.2,36.9)	31.5	(27.0,36.3)	34.1	(28.2,40.6)	2.3	(-5.1,9.7)	2.7	(-4.8,10.1)
Risk score										
Higher risk_____	28.3	(25.5,31.4)	28.3	(24.6,32.3)	29.2	(25.5,33.1)	0.8	(-3.3,4.9)	0.9	(-3.9,5.7)
Lower risk_____	26.7	(24.2,29.3)	26.2	(24.1,28.4)	27.5	(24.5,30.7)	0.8	(-3.1,4.7)	1.3	(-2.0,4.6)
Sensation seeking										
High_____	28.1	(25.9,30.5)	27.5	(24.8,30.4)	28.8	(26.0,31.8)	0.7	(-2.5,3.9)	1.3	(-1.8,4.4)
Low_____	25.9	(22.8,29.3)	25.1	(22.7,27.6)	27.8	(24.5,31.4)	1.9	(-2.7,6.4)	2.7	(-0.8,6.3)

Table 3-32. Summary of recall of general anti-drug advertising among parents[1]

Total recall Number of ad viewings per month	Percent recalling general anti-drug advertising					Average for all waves	
	Wave 1 %	Wave 2 %	Wave 3 %	Wave 4 %	Wave 5 %	%	95% CI
Overall							
0 to .99	7.4	6.6	7.4	7.8	8.3	7.5	(6.7,8.4)
1 - 3.99	20.8	23.4	22.9	26.8	23.7	23.5	(22.2,24.9)
4 - 11.99	28.6	28.0	28.9	29.2	29.2	28.8	(27.3,30.3)
12 or more	43.2	42.0	40.7	36.1	38.8	40.2	(38.4,42.0)
Total	100.0	100.0	99.9	99.9	100.0	100.0	---
Mean	22.01	20.21	21.09	19.63	20.62	20.70	(19.49,21.92)
95% CI	(20.51,23.51)	(18.16,22.26)	(18.93,23.25)	(17.83,21.42)	(18.29,22.95)	---	---

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

Table 3-33. Recall of general TV and radio advertising, by parents[1] gender, race/ethnicity, education, and age of child(ren)

	Percent of parents reporting having seen or heard TV or radio ads at least weekly									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	49.6	(47.0,52.2)	48.7	(46.6,50.8)	55.2	(52.4,58.0)	5.6	*(2.4,8.8)	6.5	*(3.5,9.6)
Gender										
Male	46.8	(42.8,50.8)	48.2	(44.6,51.8)	53.8	(49.7,58.0)	7.1	*(1.5,12.7)	5.6	*(0.7,10.5)
Female	51.6	(48.3,54.9)	49.0	(46.2,51.8)	56.2	(52.8,59.6)	4.6	*(0.9,8.3)	7.2	*(3.2,11.3)
Race/ethnicity										
White	48.6	(45.6,51.6)	47.6	(45.3,50.0)	52.0	(48.9,55.1)	3.4	(-0.6,7.4)	4.4	*(0.9,7.9)
African American	55.5	(48.5,62.2)	55.6	(48.5,62.4)	59.1	(52.2,65.7)	3.6	(-4.7,12.0)	3.5	(-5.4,12.5)
Hispanic	55.5	(49.7,61.2)	51.3	(45.0,57.5)	65.7	(60.1,70.8)	10.2	*(3.2,17.2)	14.4	*(5.2,23.6)
Education										
Less than high school	43.2	(37.5,49.2)	51.0	(43.8,58.3)	59.0	(51.9,65.8)	15.8	*(7.7,23.9)	8.0	(-2.9,18.8)
High school graduate	52.6	(48.8,56.3)	51.8	(47.6,55.9)	60.0	(54.8,64.9)	7.4	*(2.0,12.8)	8.2	*(0.9,15.5)
Some college	55.1	(50.9,59.3)	52.8	(48.1,57.6)	52.7	(47.5,57.7)	-2.5	(-8.8,3.9)	-0.2	(-6.6,6.2)
College graduate	43.1	(38.6,47.6)	40.1	(36.5,43.9)	50.7	(46.0,55.4)	7.6	*(1.6,13.7)	10.6	*(5.1,16.0)
One or more child(ren)[2] aged:										
12 to 13	47.2	(44.4,50.0)	50.4	(47.5,53.3)	55.6	(51.9,59.2)	8.4	*(4.7,12.0)	5.2	*(0.7,9.6)
14 to 18	51.0	(48.0,54.1)	48.1	(45.3,50.9)	54.3	(50.9,57.7)	3.3	(-1.0,7.5)	6.2	*(2.6,9.8)
12 to 18	49.6	(47.0,52.2)	48.7	(46.6,50.8)	55.2	(52.4,58.0)	5.6	*(2.4,8.8)	6.5	*(3.5,9.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-34. Recall of newspaper and magazine advertising, by parents'[1] gender, race/ethnicity, education, and age of child(ren)

| | Percent of parents reporting having seen newspaper or magazine ads at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	21.6	(19.8,23.6)	19.8	(17.8,22.1)	19.7	(17.0,22.6)	-2.0	(-4.7,0.8)	-0.2	(-3.1,2.8)
Gender										
Male	20.6	(17.9,23.5)	19.4	(16.3,23.0)	19.4	(16.0,23.4)	-1.1	(-5.1,2.9)	0.0	(-4.3,4.4)
Female	22.4	(20.1,24.9)	20.1	(17.7,22.8)	19.9	(16.8,23.3)	-2.5	(-5.9,0.8)	-0.3	(-3.7,3.2)
Race/ethnicity										
White	17.8	(15.6,20.1)	17.1	(14.9,19.5)	14.9	(12.7,17.4)	-2.9	*(-5.3,-0.5)	-2.2	(-4.7,0.3)
African American	34.2	(28.0,41.0)	31.7	(25.6,38.4)	29.9	(24.5,35.9)	-4.3	(-12.4,3.8)	-1.7	(-8.9,5.4)
Hispanic	30.7	(25.0,37.0)	23.4	(19.3,28.2)	28.1	(22.6,34.4)	-2.6	(-9.6,4.5)	4.7	(-3.2,12.6)
Education										
Less than high school	21.7	(17.5,26.5)	25.0	(19.3,31.6)	25.3	(19.2,32.6)	3.7	(-3.5,10.9)	0.4	(-8.1,8.9)
High school graduate	25.0	(21.4,29.0)	21.7	(18.5,25.3)	20.8	(17.5,24.7)	-4.2	(-9.5,1.2)	-0.9	(-5.3,3.6)
Some college	21.5	(18.4,25.0)	22.1	(18.5,26.2)	19.8	(16.1,24.2)	-1.7	(-6.8,3.4)	-2.3	(-7.7,3.0)
College graduate	17.3	(14.4,20.7)	13.2	(10.5,16.4)	15.5	(12.0,19.8)	-1.8	(-6.1,2.5)	2.4	(-2.2,7.0)
One or more child(ren)[2] aged:										
12 to 13	19.5	(17.4,21.7)	19.7	(17.2,22.5)	19.9	(17.2,22.9)	0.4	(-3.0,3.9)	0.2	(-3.3,3.8)
14 to 18	22.3	(19.9,24.8)	19.8	(17.4,22.6)	19.9	(16.8,23.5)	-2.3	(-5.6,1.0)	0.1	(-3.3,3.5)
12 to 18	21.6	(19.8,23.6)	19.8	(17.8,22.1)	19.7	(17.0,22.6)	-2.0	(-4.7,0.8)	-0.2	(-3.1,2.8)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-35. Recall of movie theater and video rental advertising, by parents'[1] gender, race/ethnicity, education, and age of child(ren)

| | Percent of parents reporting having seen movie theatre or video rental ads at least weekly | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	2.8	(2.3,3.4)	3.9	(3.0,5.0)	3.5	(2.5,5.0)	0.7	(-0.6,1.9)	-0.3	(-1.7,1.0)
Gender										
Male	1.4	(0.9,2.3)	2.9	(1.9,4.3)	3.2	(1.9,5.6)	1.9	(-0.2,4.0)	0.4	(-1.6,2.4)
Female	3.8	(3.1,4.7)	4.5	(3.3,6.1)	3.7	(2.5,5.4)	-0.1	(-1.5,1.3)	-0.8	(-2.4,0.8)
Race/ethnicity										
White	0.9	(0.6,1.5)	1.9	(1.2,3.1)	1.1	(0.6,1.8)	0.2	(-0.5,0.9)	-0.8	(-1.9,0.2)
African American	7.2	(4.9,10.4)	8.4	(5.4,12.7)	9.3	(6.0,14.0)	2.1	(-2.8,7.0)	0.9	(-4.3,6.0)
Hispanic	7.0	(4.6,10.5)	8.6	(5.6,12.9)	7.8	(4.4,13.5)	0.8	(-3.3,5.0)	-0.7	(-5.9,4.4)
Education										
Less than high school	7.7	(5.6,10.5)	8.1	(5.4,12.0)	8.0	(4.7,13.3)	0.3	(-3.8,4.4)	-0.1	(-4.6,4.4)
High school graduate	3.0	(2.0,4.6)	3.9	(2.6,5.9)	3.0	(1.7,5.3)	0.0	(-2.2,2.2)	-0.9	(-3.1,1.3)
Some college	1.9	(1.2,3.0)	4.0	(2.4,6.5)	3.3	(1.8,6.1)	1.4	(-0.8,3.6)	-0.6	(-3.4,2.1)
College graduate	1.1	(0.6,1.9)	1.8	(1.0,3.4)	1.9	(1.0,3.7)	0.8	(-0.4,2.1)	0.1	(-1.6,1.8)
One or more child(ren)[2] aged:										
12 to 13	2.7	(1.9,3.8)	5.4	(4.2,6.9)	3.4	(2.3,4.8)	0.7	(-0.8,2.2)	-2.0	*(-3.8,-0.2)
14 to 18	2.8	(2.2,3.6)	3.3	(2.4,4.7)	3.9	(2.6,5.6)	1.0	(-0.4,2.5)	0.5	(-1.2,2.2)
12 to 18	2.8	(2.3,3.4)	3.9	(3.0,5.0)	3.5	(2.5,5.0)	0.7	(-0.6,1.9)	-0.3	(-1.7,1.0)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-36. Recall of billboard and other public posting advertising, by parents'[1] gender, race/ethnicity, education, and age of child(ren)

| | Percent of parents reporting having seen billboard or other public posting ads at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	23.6	(21.7,25.7)	23.1	(21.0,25.2)	23.4	(20.7,26.3)	-0.2	(-3.2,2.7)	0.4	(-2.7,3.4)
Gender										
Male	23.7	(20.5,27.2)	22.0	(19.1,25.2)	22.6	(19.4,26.2)	-1.0	(-5.0,2.9)	0.6	(-3.5,4.7)
Female	23.6	(21.3,26.1)	23.7	(21.2,26.4)	24.0	(20.6,27.7)	0.3	(-3.7,4.4)	0.3	(-3.5,4.0)
Race/ethnicity										
White	20.5	(18.4,22.7)	19.7	(17.5,22.2)	19.6	(17.0,22.4)	-0.9	(-3.8,2.1)	-0.1	(-3.0,2.8)
African American	32.3	(27.6,37.4)	32.9	(26.2,40.3)	31.1	(25.5,37.3)	-1.2	(-8.1,5.6)	-1.8	(-11.1,7.5)
Hispanic	32.1	(26.2,38.8)	30.1	(25.2,35.5)	33.8	(27.2,41.1)	1.7	(-5.4,8.7)	3.8	(-4.6,12.1)
Education										
Less than high school	24.9	(20.1,30.5)	25.4	(20.9,30.4)	28.7	(21.7,36.9)	3.8	(-5.3,12.8)	3.3	(-6.1,12.7)
High school graduate	24.0	(20.6,27.8)	23.3	(19.9,27.1)	25.1	(20.8,30.0)	1.1	(-4.7,6.8)	1.9	(-3.9,7.6)
Some college	24.7	(20.9,28.9)	25.6	(21.8,29.7)	22.9	(18.8,27.5)	-1.8	(-6.9,3.2)	-2.7	(-8.1,2.7)
College graduate	21.7	(18.3,25.5)	19.2	(16.1,22.8)	19.6	(16.3,23.4)	-2.1	(-7.2,3.0)	0.4	(-4.1,4.8)
One or more child(ren)[2] aged:										
12 to 13	23.2	(20.8,25.8)	24.7	(22.4,27.2)	24.3	(21.2,27.6)	1.1	(-2.7,4.8)	-0.4	(-4.1,3.2)
14 to 18	23.9	(21.6,26.4)	22.4	(19.7,25.3)	23.9	(20.6,27.5)	0.0	(-3.7,3.7)	1.5	(-2.4,5.5)
12 to 18	23.6	(21.7,25.7)	23.1	(21.0,25.2)	23.4	(20.7,26.3)	-0.2	(-3.2,2.7)	0.4	(-2.7,3.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-37. Percent of youth using the Internet, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent using the Internet during previous 6 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	79.8	(77.2,82.1)	84.2	(81.6,86.4)	87.5	(85.4,89.4)	7.7	*(4.6,10.9)	3.4	*(0.5,6.2)
14 to 15	86.9	(83.9,89.4)	92.0	(89.9,93.6)	90.1	(87.7,92.0)	3.2	*(0.1,6.3)	-1.9	(-4.9,1.1)
16 to 18	87.1	(84.3,89.4)	88.5	(85.7,90.8)	89.0	(86.0,91.3)	1.9	(-2.1,5.9)	0.5	(-2.7,3.6)
14 to 18	87.0	(84.9,88.8)	90.1	(88.4,91.5)	89.4	(87.4,91.1)	2.4	(-0.2,5.1)	-0.6	(-3.0,1.7)
12 to 18	84.9	(83.3,86.4)	88.4	(86.9,89.7)	88.9	(87.3,90.3)	4.0	*(1.7,6.2)	0.5	(-1.5,2.6)
Youth aged 12 to 18										
Gender										
Males	85.2	(82.9,87.2)	89.0	(86.9,90.7)	89.3	(87.3,91.0)	4.1	*(1.2,7.0)	0.3	(-2.4,3.0)
Females	84.6	(82.6,86.4)	87.7	(85.6,89.5)	88.5	(86.3,90.3)	3.9	*(0.9,6.8)	0.8	(-2.2,3.7)
Race/ethnicity										
White	89.9	(88.2,91.4)	91.9	(90.3,93.2)	91.0	(89.3,92.5)	1.1	(-1.2,3.3)	-0.9	(-3.2,1.4)
African American	75.2	(70.6,79.3)	82.2	(77.7,86.0)	84.5	(79.5,88.5)	9.3	*(2.6,15.9)	2.3	(-3.4,8.0)
Hispanic	70.5	(64.9,75.6)	77.8	(72.4,82.3)	82.1	(77.4,86.1)	11.6	*(5.3,17.9)	4.4	(-1.9,10.7)
Risk score										
Higher risk	85.9	(83.0,88.3)	90.5	(88.3,92.4)	90.1	(87.4,92.3)	4.3	*(0.5,8.0)	-0.4	(-3.5,2.7)
Lower risk	84.9	(82.6,86.9)	87.9	(85.9,89.7)	88.6	(86.9,90.2)	3.7	*(0.9,6.6)	0.7	(-1.8,3.2)
Sensation seeking										
High	88.3	(86.4,90.0)	90.9	(89.4,92.2)	92.3	(90.4,93.7)	3.9	*(1.4,6.4)	1.4	(-0.8,3.5)
Low	80.7	(77.8,83.3)	85.5	(83.1,87.6)	85.0	(82.2,87.4)	4.3	*(0.3,8.2)	-0.5	(-4.0,3.0)

Table 3-38. Percent of youth visiting anti-drug Internet sites, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent visiting anti-drug Internet sites during previous 6 months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	9.7	(8.0,11.7)	8.4	(7.1,10.0)	9.0	(7.3,11.1)	-0.7	(-3.1,1.8)	0.6	(-1.8,3.0)
14 to 15_____	9.6	(7.5,12.2)	11.8	(9.5,14.5)	11.2	(9.1,13.8)	1.7	(-2.0,5.3)	-0.6	(-3.7,2.6)
16 to 18_____	9.4	(7.3,12.1)	9.8	(7.5,12.6)	8.0	(6.3,10.0)	-1.5	(-4.4,1.5)	-1.8	(-4.7,1.1)
14 to 18_____	9.5	(8.0,11.2)	10.7	(9.0,12.6)	9.4	(8.2,10.6)	-0.1	(-2.3,2.0)	-1.3	(-3.1,0.5)
12 to 18_____	9.5	(8.4,10.9)	10.0	(8.8,11.4)	9.3	(8.3,10.3)	-0.3	(-2.0,1.4)	-0.8	(-2.2,0.7)
Youth aged 12 to 18										
Gender										
Males_____	9.0	(7.2,11.1)	8.7	(7.1,10.6)	7.5	(6.4,8.7)	-1.5	(-3.6,0.5)	-1.3	(-3.0,0.5)
Females_____	10.1	(8.3,12.3)	11.4	(9.5,13.7)	11.1	(9.5,13.0)	1.0	(-1.9,3.8)	-0.3	(-2.8,2.3)
Race/ethnicity										
White_____	8.5	(7.3,9.8)	9.5	(8.0,11.2)	9.3	(8.0,10.8)	0.9	(-1.1,2.8)	-0.2	(-1.9,1.6)
African American___	11.7	(8.2,16.3)	11.9	(8.4,16.7)	9.2	(7.0,12.2)	-2.4	(-7.3,2.5)	-2.7	(-6.7,1.3)
Hispanic_____	11.9	(8.5,16.5)	9.9	(6.8,14.1)	8.2	(5.9,11.2)	-3.7	(-8.6,1.2)	-1.7	(-5.5,2.2)
Risk score										
Higher risk_____	10.1	(8.0,12.6)	11.5	(9.3,14.1)	8.8	(7.0,11.0)	-1.3	(-4.4,1.9)	-2.7	(-5.6,0.2)
Lower risk_____	8.3	(6.9,9.8)	9.3	(7.9,11.0)	9.0	(7.6,10.6)	0.8	(-1.3,2.9)	-0.3	(-2.3,1.7)
Sensation seeking										
High_____	10.4	(8.6,12.5)	11.7	(9.8,13.8)	10.9	(9.5,12.6)	0.5	(-2.1,3.2)	-0.7	(-3.1,1.6)
Low_____	7.8	(6.3,9.7)	7.9	(6.5,9.7)	7.0	(5.6,8.7)	-0.8	(-3.0,1.4)	-0.9	(-3.0,1.1)

Table 3-39. Percent of youth visiting pro-drug Internet sites, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent visiting pro-drug Internet sites during previous 6 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	2.8	(2.0,3.9)	2.3	(1.5,3.4)	2.8	(2.0,4.0)	0.0	(-1.5,1.5)	0.5	(-0.7,1.7)
14 to 15	4.9	(3.6,6.6)	6.3	(4.7,8.2)	5.2	(3.8,7.0)	0.2	(-2.0,2.5)	-1.1	(-3.0,0.8)
16 to 18	6.8	(5.2,8.9)	7.4	(5.7,9.5)	6.3	(4.7,8.3)	-0.5	(-3.1,2.1)	-1.1	(-3.7,1.5)
14 to 18	6.0	(5.0,7.1)	6.9	(5.7,8.3)	5.8	(4.7,7.1)	-0.2	(-1.8,1.5)	-1.0	(-2.8,0.7)
12 to 18	5.0	(4.3,5.9)	5.5	(4.7,6.6)	4.9	(4.1,5.9)	-0.1	(-1.4,1.2)	-0.6	(-1.9,0.7)
Youth aged 12 to 18										
Gender										
Males	6.2	(5.1,7.5)	6.2	(4.9,7.9)	4.8	(3.8,6.0)	-1.4	(-3.1,0.2)	-1.5	(-3.2,0.2)
Females	3.9	(2.8,5.3)	4.8	(3.9,5.9)	5.1	(3.9,6.7)	1.2	(-0.6,3.1)	0.3	(-1.4,2.1)
Race/ethnicity										
White	5.1	(4.2,6.3)	5.7	(4.6,6.9)	5.4	(4.3,6.9)	0.3	(-1.3,1.9)	-0.2	(-1.9,1.5)
African American	4.2	(2.5,6.9)	5.2	(3.3,8.1)	3.0	(1.9,4.9)	-1.2	(-3.7,1.3)	-2.2	(-4.4,0.0)
Hispanic	3.7	(2.3,6.1)	4.8	(2.5,8.9)	4.5	(2.6,7.7)	0.8	(-2.5,4.0)	-0.3	(-4.3,3.7)
Risk score										
Higher risk	8.4	(6.6,10.5)	9.8	(8.0,11.9)	8.3	(6.5,10.6)	-0.1	(-2.9,2.7)	-1.5	(-4.0,1.1)
Lower risk	2.5	(1.8,3.5)	2.8	(2.0,3.9)	2.3	(1.7,3.1)	-0.2	(-1.3,0.9)	-0.5	(-1.6,0.6)
Sensation seeking										
High	7.2	(5.9,8.7)	8.5	(7.0,10.3)	7.4	(6.0,9.0)	0.2	(-1.8,2.2)	-1.1	(-3.3,1.0)
Low	2.3	(1.4,3.6)	1.8	(1.2,2.7)	1.9	(1.3,2.8)	-0.4	(-1.7,0.8)	0.0	(-0.9,0.9)

Table 3-40. Percent of parents[1] using the Internet, by gender, race/ethnicity, education, and age of child(ren)

| | Percent using the Internet during previous 6 months | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	64.3	(61.9,66.6)	69.8	(66.8,72.6)	73.6	(69.5,77.3)	9.3	*(4.9,13.7)	3.8	*(0.4,7.2)
Gender										
Male	67.0	(63.3,70.5)	69.5	(64.9,73.7)	74.0	(69.2,78.3)	7.0	*(1.5,12.6)	4.6	(-0.3,9.4)
Female	62.4	(59.7,65.0)	70.0	(66.5,73.3)	73.3	(68.5,77.5)	10.8	*(5.9,15.8)	3.3	(-0.7,7.3)
Race/ethnicity										
White	71.2	(68.6,73.6)	78.2	(75.7,80.5)	82.9	(80.8,84.8)	11.8	*(8.8,14.7)	4.7	*(1.9,7.4)
African American	50.7	(43.7,57.7)	55.4	(48.8,61.8)	58.7	(51.0,66.1)	8.0	(-0.6,16.6)	3.3	(-3.6,10.3)
Hispanic	39.9	(34.1,46.1)	39.0	(33.2,45.1)	46.3	(39.8,53.0)	6.4	(-1.4,14.2)	7.3	(-1.3,16.0)
Education										
Less than high school	30.2	(24.6,36.3)	26.1	(20.5,32.7)	33.9	(27.8,40.6)	3.8	(-4.9,12.4)	7.8	*(0.6,15.0)
High school graduate	52.8	(48.9,56.7)	61.3	(57.2,65.2)	67.1	(62.2,71.6)	14.3	*(7.9,20.6)	5.8	*(0.4,11.2)
Some college	73.1	(69.1,76.8)	77.1	(73.0,80.8)	81.9	(77.5,85.6)	8.7	*(4.1,13.4)	4.7	(-0.2,9.7)
College graduate	87.8	(84.2,90.6)	93.0	(90.3,95.0)	92.5	(89.4,94.8)	4.8	*(0.9,8.6)	-0.5	(-3.7,2.8)
One or more child(ren)[2] aged:										
12 to 13	66.0	(63.3,68.6)	69.8	(66.5,72.9)	74.3	(70.1,78.1)	8.3	*(3.3,13.3)	4.5	*(0.7,8.3)
14 to 18	63.3	(60.4,66.0)	69.9	(66.5,73.1)	73.4	(69.0,77.3)	10.1	*(5.3,14.8)	3.4	(-0.4,7.3)
12 to 18	64.3	(61.9,66.6)	69.8	(66.8,72.6)	73.6	(69.5,77.3)	9.3	*(4.9,13.7)	3.8	*(0.4,7.2)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-41. Percent of parents[1] visiting anti-drug Internet sites, by gender, race/ethnicity, education, and age of child(ren)

	Percent visiting anti-drug Internet sites during previous 6 months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	6.7	(5.8,7.9)	8.6	(7.5,10.0)	8.9	(7.5,10.5)	2.2	*(0.5,3.8)	0.2	(-1.5,2.0)
Gender										
Male	6.4	(4.7,8.6)	6.5	(4.9,8.5)	7.4	(5.3,10.3)	1.1	(-1.6,3.7)	0.9	(-1.6,3.5)
Female	7.0	(5.8,8.4)	10.0	(8.5,11.8)	10.0	(8.4,11.8)	3.0	*(1.0,5.0)	-0.1	(-2.1,2.0)
Race/ethnicity										
White	6.2	(5.1,7.4)	8.1	(6.9,9.5)	7.2	(6.0,8.8)	1.1	(-0.6,2.8)	-0.8	(-2.7,1.0)
African American	10.1	(7.1,14.1)	12.0	(8.5,16.9)	13.3	(8.9,19.5)	3.3	(-2.3,8.8)	1.3	(-4.3,6.9)
Hispanic	6.5	(3.6,11.8)	7.5	(4.9,11.4)	8.5	(5.3,13.3)	2.0	(-2.0,5.9)	1.0	(-3.8,5.8)
Education										
Less than high school	2.8	(1.4,5.5)	3.2	(1.6,6.3)	5.1	(3.0,8.7)	2.3	(-0.9,5.6)	1.9	(-1.4,5.2)
High school graduate	4.3	(3.1,6.0)	7.9	(6.2,10.1)	7.9	(5.9,10.4)	3.5	*(1.2,5.9)	-0.1	(-2.8,2.7)
Some college	9.9	(7.3,13.3)	11.7	(9.4,14.5)	9.9	(7.5,13.0)	0.0	(-3.4,3.4)	-1.8	(-4.9,1.3)
College graduate	8.5	(6.5,11.2)	9.0	(6.6,12.3)	10.9	(8.3,14.2)	2.4	(-1.1,5.9)	1.9	(-2.3,6.1)
One or more child(ren)[2] aged:										
12 to 13	5.7	(4.6,7.0)	8.9	(7.5,10.5)	9.1	(7.6,10.8)	3.3	*(1.3,5.4)	0.1	(-2.2,2.5)
14 to 18	7.0	(5.9,8.5)	8.3	(6.9,9.9)	9.2	(7.5,11.3)	2.2	*(0.0,4.3)	1.0	(-1.3,3.3)
12 to 18	6.7	(5.8,7.9)	8.6	(7.5,10.0)	8.9	(7.5,10.5)	2.2	*(0.5,3.8)	0.2	(-1.5,2.0)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-42. Percent of parents[1] visiting parenting skill Internet sites, by gender, race/ethnicity, education, and age of child(ren)

| | Percent visiting parenting skill Internet sites during previous 6 months | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	7.7	(6.7,8.9)	9.4	(8.2,10.7)	10.4	(9.0,12.1)	2.7	*(1.0,4.4)	1.1	(-0.7,2.8)
Gender										
Male	6.9	(5.2,9.0)	6.5	(4.8,8.7)	8.5	(6.3,11.5)	1.7	(-1.0,4.3)	2.1	(-0.7,4.8)
Female	8.3	(7.1,9.8)	11.2	(9.6,13.1)	11.8	(10.0,13.8)	3.5	*(1.3,5.7)	0.6	(-1.7,2.8)
Race/ethnicity										
White	7.2	(6.1,8.6)	9.0	(7.7,10.5)	9.2	(7.8,10.9)	2.0	*(0.2,3.9)	0.2	(-1.7,2.1)
African American	10.6	(7.4,15.0)	12.2	(8.7,16.8)	13.7	(9.2,19.9)	3.1	(-2.5,8.7)	1.5	(-4.0,7.0)
Hispanic	7.2	(4.1,12.2)	7.2	(4.7,10.9)	9.4	(6.0,14.4)	2.2	(-2.1,6.5)	2.2	(-2.4,6.8)
Education										
Less than high school	2.9	(1.4,5.6)	3.0	(1.4,6.1)	4.8	(2.7,8.3)	1.9	(-1.3,5.1)	1.8	(-1.5,5.0)
High school graduate	4.4	(3.1,6.2)	8.4	(6.5,10.7)	8.6	(6.5,11.2)	4.2	*(1.6,6.7)	0.2	(-2.8,3.2)
Some college	11.0	(8.2,14.6)	12.0	(9.5,15.0)	11.5	(9.2,14.3)	0.5	(-2.9,4.0)	-0.5	(-3.7,2.8)
College graduate	11.1	(9.0,13.7)	11.0	(8.7,13.9)	14.3	(11.2,18.0)	3.2	(-0.6,6.9)	3.3	(-0.7,7.2)
One or more child(ren)[2] aged:										
12 to 13	7.7	(6.3,9.3)	10.2	(8.8,11.9)	10.7	(9.0,12.6)	3.0	*(0.5,5.5)	0.4	(-2.0,2.9)
14 to 18	7.6	(6.3,9.2)	8.6	(7.2,10.3)	10.5	(8.7,12.5)	2.9	*(0.7,5.0)	1.8	(-0.4,4.1)
12 to 18	7.7	(6.7,8.9)	9.4	(8.2,10.7)	10.4	(9.0,12.1)	2.7	*(1.0,4.4)	1.1	(-0.7,2.8)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-43. In-school drug education experience of youth by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent ever attending drug education class or program in school									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	83.6	(81.3,85.6)	80.5	(77.9,83.0)	76.2	(73.1,79.0)	-7.4	*(-10.8,-4.0)	-4.4	*(-7.9,-0.8)
14 to 15	80.1	(76.6,83.2)	76.2	(73.0,79.1)	77.5	(74.6,80.1)	-2.7	(-6.7,1.4)	1.3	(-2.5,5.1)
16 to 18	75.6	(72.4,78.4)	70.8	(67.4,73.9)	67.5	(63.7,71.1)	-8.1	*(-12.3,-3.8)	-3.3	(-8.1,1.4)
14 to 18	77.6	(75.2,79.8)	73.2	(70.9,75.4)	71.7	(69.4,74.0)	-5.9	*(-8.7,-3.0)	-1.5	(-4.2,1.2)
12 to 18	79.3	(77.4,81.1)	75.4	(73.5,77.2)	73.1	(71.1,74.9)	-6.3	*(-8.5,-4.0)	-2.3	*(-4.5,-0.1)
Youth aged 12 to 18										
Gender										
Males	76.9	(74.5,79.1)	73.5	(71.0,75.9)	70.2	(67.0,73.1)	-6.7	*(-10.1,-3.3)	-3.4	*(-6.4,-0.3)
Females	81.9	(79.4,84.1)	77.3	(74.7,79.7)	76.1	(73.3,78.6)	-5.8	*(-8.8,-2.8)	-1.2	(-4.4,2.0)
Race/ethnicity										
White	79.2	(77.0,81.3)	75.2	(72.7,77.5)	72.8	(70.4,75.1)	-6.4	*(-9.0,-3.7)	-2.3	(-5.2,0.5)
African American	81.4	(77.3,85.0)	82.8	(79.0,86.0)	81.1	(75.9,85.3)	-0.4	(-5.4,4.6)	-1.7	(-7.5,4.0)
Hispanic	79.7	(74.2,84.2)	67.3	(62.4,71.8)	66.3	(61.0,71.2)	-13.4	*(-19.2,-7.5)	-1.0	(-7.6,5.6)
Risk score										
Higher risk	77.8	(75.1,80.3)	70.9	(67.3,74.2)	69.5	(65.9,73.0)	-8.3	*(-12.5,-4.1)	-1.4	(-5.5,2.8)
Lower risk	80.8	(78.1,83.1)	78.3	(75.9,80.5)	75.5	(72.9,77.8)	-5.3	*(-8.3,-2.3)	-2.8	(-5.8,0.2)
Sensation seeking										
High	78.9	(76.1,81.4)	73.7	(71.5,75.8)	71.5	(68.9,74.0)	-7.4	*(-11.0,-3.8)	-2.2	(-4.8,0.4)
Low	80.2	(77.1,82.9)	77.6	(74.4,80.5)	74.9	(72.4,77.2)	-5.3	*(-8.8,-1.8)	-2.7	(-6.4,1.0)

Table 3-44. Out-of-school drug education experience of youth by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent ever attending drug education class or program outside school									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	10.0	(8.3,12.0)	8.5	(7.0,10.2)	8.6	(7.0,10.6)	-1.4	(-3.8,1.1)	0.2	(-2.0,2.3)
14 to 15	11.2	(8.8,14.3)	10.2	(8.1,12.8)	10.9	(8.4,14.0)	-0.3	(-3.8,3.2)	0.7	(-2.7,4.1)
16 to 18	13.4	(11.0,16.2)	11.8	(9.7,14.4)	13.6	(10.9,16.7)	0.2	(-3.8,4.1)	1.7	(-2.1,5.5)
14 to 18	12.4	(10.6,14.5)	11.1	(9.6,12.8)	12.4	(10.6,14.5)	0.0	(-2.4,2.4)	1.3	(-1.1,3.7)
12 to 18	11.7	(10.3,13.3)	10.3	(9.1,11.7)	11.3	(9.9,12.8)	-0.4	(-2.2,1.4)	1.0	(-1.0,2.9)
Youth aged 12 to 18										
Gender										
Males	13.1	(11.3,15.3)	10.3	(8.7,12.2)	12.2	(9.8,15.1)	-0.9	(-4.2,2.3)	1.9	(-1.0,4.8)
Females	10.2	(8.4,12.4)	10.4	(8.6,12.5)	10.4	(8.7,12.3)	0.1	(-2.1,2.4)	0.0	(-2.7,2.7)
Race/ethnicity										
White	10.7	(8.9,12.8)	9.1	(7.8,10.7)	9.9	(8.1,12.0)	-0.8	(-3.4,1.8)	0.7	(-1.5,2.9)
African American	17.2	(13.5,21.6)	16.8	(12.9,21.7)	17.2	(13.2,22.0)	0.0	(-5.3,5.3)	0.3	(-6.1,6.8)
Hispanic	10.9	(7.1,16.5)	9.0	(6.8,11.9)	12.1	(8.1,17.6)	1.2	(-3.1,5.4)	3.1	(-2.1,8.2)
Risk score										
Higher risk	14.4	(11.6,17.7)	12.9	(10.5,15.8)	13.7	(11.2,16.7)	-0.6	(-4.6,3.3)	0.8	(-2.7,4.4)
Lower risk	9.9	(8.3,11.7)	8.3	(6.9,9.8)	9.3	(7.7,11.2)	-0.5	(-2.7,1.6)	1.1	(-1.2,3.3)
Sensation seeking										
High	12.3	(10.6,14.3)	10.3	(8.6,12.2)	12.0	(10.3,14.0)	-0.3	(-3.0,2.3)	1.7	(-0.4,3.9)
Low	10.8	(8.7,13.2)	10.5	(8.8,12.5)	10.4	(8.3,13.0)	-0.3	(-3.2,2.5)	0.0	(-3.1,3.1)

Table 3-45. Recent in-school drug education experience of youth by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent attending drug education class or program in school in the past 12 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	75.4	(72.5,78.2)	73.6	(70.3,76.7)	70.3	(66.3,73.9)	-5.2	*(-9.5,-0.8)	-3.4	(-7.9,1.2)
14 to 15_____	68.6	(63.5,73.3)	68.3	(64.0,72.3)	70.7	(67.2,74.0)	2.2	(-3.9,8.3)	2.4	(-2.5,7.4)
16 to 18_____	55.5	(51.5,59.5)	54.7	(50.4,58.9)	52.3	(47.5,57.0)	-3.2	(-8.8,2.3)	-2.4	(-8.4,3.6)
14 to 18_____	61.8	(58.4,65.1)	61.2	(58.0,64.4)	60.6	(57.6,63.5)	-1.2	(-5.2,2.8)	-0.6	(-4.1,2.9)
12 to 18_____	66.2	(63.4,68.8)	65.0	(62.3,67.5)	63.7	(61.3,66.0)	-2.5	(-5.6,0.6)	-1.3	(-4.1,1.4)
Youth aged 12 to 18										
Gender										
Males_____	62.0	(58.8,65.0)	62.6	(59.0,66.1)	59.9	(56.3,63.5)	-2.1	(-6.3,2.2)	-2.7	(-6.6,1.1)
Females_____	70.3	(66.9,73.5)	67.5	(63.9,70.8)	67.5	(64.1,70.8)	-2.8	(-7.0,1.5)	0.1	(-4.1,4.2)
Race/ethnicity										
White_____	67.2	(64.3,70.1)	65.4	(62.2,68.6)	64.0	(61.1,66.8)	-3.2	(-6.7,0.2)	-1.4	(-4.9,2.0)
African American__	68.7	(63.7,73.3)	73.3	(68.4,77.6)	73.9	(67.6,79.3)	5.1	(-1.3,11.5)	0.6	(-6.7,7.9)
Hispanic_____	59.5	(50.6,67.8)	53.1	(46.9,59.2)	52.3	(45.8,58.7)	-7.2	(-16.4,2.0)	-0.9	(-9.4,7.7)
Risk score										
Higher risk_____	61.9	(58.1,65.6)	59.1	(54.4,63.5)	57.6	(53.2,62.0)	-4.3	(-10.1,1.6)	-1.4	(-6.9,4.1)
Lower risk_____	69.2	(65.7,72.5)	68.9	(65.7,72.0)	68.0	(64.9,70.9)	-1.2	(-5.4,2.9)	-0.9	(-4.8,2.9)
Sensation seeking										
High_____	65.9	(61.8,69.7)	63.1	(59.8,66.2)	61.8	(58.8,64.8)	-4.0	(-8.9,0.8)	-1.2	(-4.6,2.2)
Low_____	66.4	(62.2,70.4)	67.3	(63.3,71.2)	65.7	(62.5,68.8)	-0.7	(-5.4,4.0)	-1.6	(-5.9,2.7)

Table 3-46. Recent out-of-school drug education experience of youth by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent attending drug education class or program outside of school in the past 12 months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	6.8	(5.5,8.4)	5.0	(3.9,6.2)	5.9	(4.5,7.7)	-0.9	(-3.0,1.2)	1.0	(-0.8,2.7)
14 to 15_____	7.5	(5.4,10.3)	5.5	(4.2,7.1)	7.2	(5.1,9.9)	-0.3	(-3.5,2.9)	1.7	(-1.3,4.6)
16 to 18_____	7.6	(6.0,9.6)	6.7	(5.2,8.6)	7.5	(5.8,9.6)	-0.1	(-2.6,2.4)	0.8	(-1.8,3.4)
14 to 18_____	7.5	(6.1,9.3)	6.1	(5.1,7.4)	7.4	(6.0,9.0)	-0.2	(-2.3,1.9)	1.2	(-0.8,3.2)
12 to 18_____	7.3	(6.1,8.7)	5.8	(4.9,6.8)	6.9	(5.8,8.2)	-0.4	(-2.1,1.3)	1.1	(-0.5,2.8)
Youth aged 12 to 18										
Gender										
Males_____	7.8	(6.5,9.5)	5.5	(4.5,6.8)	7.9	(6.1,10.2)	0.1	(-2.4,2.6)	2.4	(-0.2,5.0)
Females_____	6.8	(5.2,8.8)	6.1	(4.8,7.5)	5.9	(4.6,7.5)	-0.9	(-3.3,1.5)	-0.2	(-2.3,2.0)
Race/ethnicity										
White_____	6.6	(5.0,8.6)	4.9	(3.9,6.1)	6.4	(5.0,8.1)	-0.2	(-2.5,2.2)	1.5	(-0.5,3.6)
African American__	11.3	(8.6,14.7)	10.3	(7.4,14.1)	8.6	(5.8,12.6)	-2.7	(-7.0,1.6)	-1.7	(-6.4,2.9)
Hispanic_____	6.8	(4.1,11.0)	5.4	(3.6,7.9)	7.8	(5.1,11.8)	1.0	(-1.7,3.8)	2.5	(-1.6,6.5)
Risk score										
Higher risk_____	9.2	(7.0,12.0)	7.2	(5.4,9.5)	7.6	(5.9,9.8)	-1.5	(-4.4,1.3)	0.4	(-2.3,3.2)
Lower risk_____	6.1	(4.9,7.5)	4.9	(3.9,6.1)	6.1	(4.7,7.9)	0.0	(-2.0,2.0)	1.2	(-0.6,3.1)
Sensation seeking										
High_____	7.8	(6.2,9.7)	5.6	(4.4,7.2)	6.9	(5.8,8.3)	-0.9	(-3.1,1.4)	1.3	(-0.6,3.2)
Low_____	6.6	(5.1,8.5)	6.0	(4.8,7.5)	6.8	(5.0,9.2)	0.2	(-2.3,2.8)	0.8	(-1.6,3.1)

Table 3-47. Youth conversations with friends about drugs, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent who never had conversation with friends about drugs in the past 6 months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	36.8	(34.1,39.6)	42.0	(39.4,44.7)	37.1	(34.1,40.2)	0.3	(-3.5,4.1)	-4.9	*(-9.0,-0.9)
14 to 15_____	24.6	(21.3,28.3)	22.5	(19.7,25.6)	24.1	(20.9,27.7)	-0.5	(-5.5,4.5)	1.6	(-2.4,5.6)
16 to 18_____	18.3	(16.0,20.9)	18.8	(16.7,21.2)	18.9	(15.9,22.3)	0.6	(-3.3,4.4)	0.0	(-3.4,3.5)
14 to 18_____	21.2	(19.2,23.3)	20.5	(18.7,22.4)	21.1	(18.7,23.8)	0.0	(-3.3,3.2)	0.6	(-2.0,3.3)
12 to 18_____	25.7	(24.1,27.4)	26.8	(25.4,28.3)	25.8	(24.0,27.8)	0.1	(-2.1,2.4)	-1.0	(-3.1,1.2)
Youth aged 12 to 18										
Gender										
Males_____	29.1	(26.5,31.9)	29.9	(27.5,32.4)	28.9	(26.2,31.9)	-0.2	(-3.9,3.5)	-0.9	(-4.5,2.7)
Females_____	22.1	(20.3,24.2)	23.6	(21.3,26.0)	22.6	(20.3,25.2)	0.5	(-2.4,3.3)	-1.0	(-4.1,2.1)
Race/ethnicity										
White_____	24.6	(22.6,26.6)	25.2	(23.4,27.1)	24.7	(22.4,27.0)	0.1	(-2.7,2.8)	-0.6	(-3.4,2.3)
African American__	30.3	(25.2,35.9)	31.3	(26.0,37.0)	29.1	(24.2,34.6)	-1.2	(-8.5,6.2)	-2.1	(-8.0,3.7)
Hispanic_____	26.0	(21.3,31.4)	27.2	(23.1,31.8)	23.1	(18.2,28.8)	-3.0	(-9.5,3.6)	-4.2	(-10.6,2.3)
Risk score										
Higher risk_____	12.4	(10.1,15.0)	12.6	(10.2,15.4)	13.6	(10.7,17.2)	1.3	(-2.7,5.2)	1.0	(-3.0,5.1)
Lower risk_____	33.6	(31.4,35.9)	35.4	(33.2,37.6)	33.2	(30.6,35.8)	-0.4	(-3.5,2.6)	-2.2	(-5.6,1.1)
Sensation seeking										
High_____	16.1	(14.2,18.3)	17.8	(15.9,20.0)	17.3	(15.1,19.7)	1.1	(-2.2,4.4)	-0.6	(-3.6,2.4)
Low_____	36.9	(34.0,39.9)	38.1	(35.4,40.9)	35.6	(32.8,38.5)	-1.3	(-4.9,2.3)	-2.5	(-6.2,1.2)

Table 3-48. Young people's conversations with friends about drugs, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent who had two or more conversations with friends about drugs in the past 6 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	44.2	(41.5,47.0)	39.2	(36.7,41.9)	43.7	(40.2,47.1)	-0.6	(-4.3,3.2)	4.4	*(0.6,8.2)
14 to 15_____	60.4	(56.3,64.3)	65.1	(61.6,68.3)	61.7	(58.1,65.2)	1.3	(-3.8,6.5)	-3.4	(-7.7,0.9)
16 to 18_____	69.5	(66.5,72.4)	70.7	(68.2,73.1)	69.5	(65.7,73.1)	0.0	(-4.5,4.5)	-1.2	(-5.2,2.9)
14 to 18_____	65.4	(62.8,67.8)	68.2	(65.9,70.4)	66.2	(63.4,68.9)	0.8	(-2.5,4.2)	-2.0	(-4.9,1.0)
12 to 18_____	59.2	(57.4,61.1)	59.7	(57.8,61.5)	59.5	(57.3,61.7)	0.3	(-2.2,2.8)	-0.1	(-2.5,2.3)
Youth aged 12 to 18										
Gender										
Males_____	55.9	(52.9,58.8)	56.5	(54.1,58.9)	57.3	(54.3,60.3)	1.5	(-2.2,5.1)	0.8	(-3.0,4.7)
Females_____	62.7	(60.3,65.2)	63.0	(60.1,65.8)	61.8	(58.8,64.7)	-0.9	(-4.1,2.3)	-1.1	(-4.3,2.0)
Race/ethnicity										
White_____	61.2	(58.8,63.6)	61.3	(59.2,63.3)	61.3	(58.9,63.7)	0.1	(-3.0,3.3)	0.0	(-2.8,2.9)
African American__	51.6	(46.5,56.7)	54.0	(47.7,60.2)	58.3	(52.5,63.8)	6.6	(-0.6,13.8)	4.3	(-2.4,10.9)
Hispanic_____	60.8	(55.3,65.9)	59.3	(54.3,64.2)	57.8	(51.8,63.6)	-3.0	(-9.4,3.5)	-1.6	(-9.4,6.3)
Risk score										
Higher risk_____	77.2	(74.2,79.9)	77.3	(73.9,80.4)	76.9	(73.0,80.4)	-0.3	(-5.1,4.6)	-0.4	(-5.5,4.7)
Lower risk_____	47.8	(45.4,50.3)	49.2	(46.9,51.5)	49.0	(46.1,51.9)	1.1	(-2.2,4.5)	-0.2	(-3.5,3.0)
Sensation seeking										
High_____	71.3	(69.0,73.5)	70.8	(68.3,73.1)	69.9	(66.9,72.8)	-1.3	(-5.0,2.3)	-0.8	(-4.3,2.7)
Low_____	44.9	(41.7,48.2)	46.2	(43.3,49.2)	47.7	(44.5,51.0)	2.8	(-1.0,6.7)	1.5	(-2.1,5.2)

Table 3-49. Types of conversations among youth with friends about drugs, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent who had conversation with friend that "Marijuana use isn't so bad," in the past 6 months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	10.0	(8.2,12.1)	7.4	(6.2,8.9)	6.9	(5.6,8.6)	-3.1	*(-5.6,-0.6)	-0.5	(-2.7,1.8)
14 to 15_____	19.5	(16.1,23.4)	21.5	(18.5,24.9)	19.9	(16.9,23.3)	0.4	(-4.3,5.2)	-1.6	(-5.9,2.7)
16 to 18_____	33.4	(30.0,37.0)	34.5	(30.9,38.2)	33.0	(29.5,36.7)	-0.4	(-5.4,4.7)	-1.5	(-6.4,3.5)
14 to 18_____	27.1	(24.9,29.4)	28.6	(26.2,31.1)	27.4	(25.2,29.8)	0.3	(-2.8,3.5)	-1.2	(-4.3,2.0)
12 to 18_____	22.1	(20.4,23.9)	22.4	(20.7,24.3)	21.5	(19.8,23.3)	-0.7	(-3.0,1.7)	-0.9	(-3.2,1.3)
Youth aged 12 to 18										
Gender										
Males_____	24.6	(22.2,27.2)	23.4	(20.9,26.0)	22.4	(19.8,25.3)	-2.2	(-5.4,1.0)	-1.0	(-4.5,2.6)
Females_____	19.5	(17.2,22.0)	21.4	(18.9,24.2)	20.5	(18.2,23.0)	1.0	(-2.2,4.2)	-0.9	(-4.2,2.4)
Race/ethnicity										
White_____	22.6	(20.6,24.8)	22.8	(20.5,25.2)	22.6	(20.5,24.9)	0.0	(-2.6,2.7)	-0.2	(-3.0,2.7)
African American__	20.8	(16.2,26.2)	20.5	(16.2,25.5)	18.1	(13.8,23.6)	-2.6	(-9.9,4.6)	-2.3	(-9.3,4.7)
Hispanic_____	23.1	(18.8,28.1)	22.3	(17.8,27.5)	22.1	(17.4,27.6)	-1.0	(-7.9,5.8)	-0.2	(-5.9,5.5)
Risk score										
Higher risk_____	41.7	(37.8,45.6)	43.2	(39.4,47.0)	39.5	(36.0,43.2)	-2.2	(-7.6,3.3)	-3.7	(-8.8,1.5)
Lower risk_____	9.2	(7.5,11.2)	9.3	(7.9,10.9)	9.3	(7.7,11.1)	0.1	(-2.5,2.7)	0.0	(-2.3,2.2)
Sensation seeking										
High_____	31.8	(29.5,34.1)	32.6	(29.8,35.4)	31.5	(29.1,33.9)	-0.3	(-3.3,2.7)	-1.1	(-4.6,2.4)
Low_____	10.6	(8.3,13.4)	9.6	(8.1,11.4)	9.7	(8.0,11.8)	-0.9	(-4.1,2.3)	0.1	(-2.1,2.3)

Table 3-50. Types of conversations among youth with friends about drugs, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent who had conversation with friend about "Specific things I could do to stay away from drugs," in the past 6 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	32.7	(30.3,35.3)	29.3	(26.8,31.8)	29.1	(26.2,32.3)	-3.6	(-7.4,0.3)	-0.1	(-3.6,3.4)
14 to 15	30.5	(27.1,34.2)	30.2	(27.5,33.0)	27.4	(24.5,30.4)	-3.2	(-8.1,1.8)	-2.8	(-6.3,0.6)
16 to 18	27.3	(24.2,30.6)	27.7	(24.2,31.5)	23.3	(20.2,26.7)	-4.0	(-8.1,0.2)	-4.4	(-9.2,0.4)
14 to 18	28.7	(26.7,30.9)	28.8	(26.7,31.1)	25.0	(23.1,27.1)	-3.7	*(-6.5,-0.9)	-3.8	*(-6.5,-1.1)
12 to 18	29.9	(28.3,31.5)	28.9	(27.2,30.8)	26.2	(24.5,28.1)	-3.7	*(-6.0,-1.3)	-2.7	*(-4.9,-0.6)
Youth aged 12 to 18										
Gender										
Males	27.7	(25.3,30.2)	27.0	(24.7,29.4)	22.4	(19.9,25.2)	-5.3	*(-8.5,-2.1)	-4.6	*(-7.8,-1.3)
Females	32.2	(29.9,34.6)	31.1	(28.5,33.7)	30.2	(27.7,32.9)	-2.0	(-5.2,1.2)	-0.8	(-3.9,2.3)
Race/ethnicity										
White	26.5	(24.7,28.4)	24.9	(22.8,27.1)	20.3	(18.1,22.8)	-6.2	*(-9.1,-3.2)	-4.5	*(-7.5,-1.6)
African American	35.6	(30.8,40.7)	39.2	(34.6,44.1)	38.0	(33.0,43.2)	2.4	(-4.7,9.5)	-1.3	(-7.3,4.8)
Hispanic	40.2	(35.5,45.1)	37.1	(31.6,43.0)	39.6	(34.6,44.8)	-0.6	(-7.7,6.4)	2.5	(-3.6,8.5)
Risk score										
Higher risk	28.2	(25.5,31.1)	28.1	(24.7,31.8)	23.9	(20.4,27.8)	-4.3	(-8.9,0.3)	-4.2	(-9.3,1.0)
Lower risk	31.1	(28.8,33.5)	29.8	(27.5,32.1)	27.7	(25.3,30.2)	-3.4	*(-6.6,-0.3)	-2.1	(-5.1,0.9)
Sensation seeking										
High	28.7	(26.4,31.2)	25.5	(23.0,28.1)	23.2	(20.9,25.6)	-5.6	*(-8.7,-2.4)	-2.3	(-5.2,0.6)
Low	31.7	(29.1,34.4)	33.8	(31.1,36.7)	30.0	(27.3,32.8)	-1.8	(-6.0,2.4)	-3.9	*(-7.6,-0.2)

Table 3-51. Types of conversations among youth with friends about drugs, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent who had conversation with friend about "Bad things that happen if you use drugs," in the past 6 months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	46.3	(44.0,48.7)	41.9	(39.4,44.4)	45.5	(42.4,48.7)	-0.8	(-4.6,2.9)	3.6	*(0.1,7.1)
14 to 15	51.2	(47.0,55.3)	51.7	(48.1,55.2)	49.8	(46.6,52.9)	-1.4	(-7.0,4.1)	-1.9	(-6.0,2.2)
16 to 18	54.6	(50.9,58.2)	56.3	(52.9,59.6)	51.7	(48.1,55.3)	-2.9	(-8.2,2.5)	-4.6	(-9.4,0.3)
14 to 18	53.0	(50.4,55.7)	54.2	(51.9,56.4)	50.9	(48.4,53.3)	-2.2	(-6.1,1.7)	-3.3	*(-6.3,-0.3)
12 to 18	51.1	(49.0,53.2)	50.6	(48.9,52.3)	49.3	(47.4,51.2)	-1.8	(-4.7,1.2)	-1.3	(-3.4,0.8)
Youth aged 12 to 18										
Gender										
Males	45.8	(43.0,48.6)	47.0	(44.2,49.9)	43.3	(40.1,46.5)	-2.5	(-6.5,1.6)	-3.7	(-7.4,0.0)
Females	56.6	(53.4,59.8)	54.4	(51.8,57.0)	55.6	(52.5,58.5)	-1.1	(-5.3,3.2)	1.2	(-2.3,4.6)
Race/ethnicity										
White	49.6	(47.0,52.2)	49.8	(47.7,51.9)	47.9	(45.6,50.2)	-1.7	(-5.3,1.8)	-1.9	(-4.3,0.5)
African American	50.0	(44.9,55.2)	52.7	(47.4,57.9)	49.4	(43.2,55.7)	-0.6	(-9.4,8.2)	-3.2	(-11.3,4.8)
Hispanic	56.3	(51.4,61.2)	53.3	(47.7,58.8)	57.6	(52.0,63.0)	1.2	(-5.9,8.3)	4.3	(-2.2,10.9)
Risk score										
Higher risk	54.7	(50.9,58.4)	55.1	(51.6,58.6)	52.0	(48.1,56.0)	-2.7	(-7.8,2.5)	-3.1	(-8.3,2.1)
Lower risk	49.0	(46.4,51.6)	47.8	(45.7,50.0)	47.7	(44.7,50.7)	-1.3	(-5.3,2.6)	-0.2	(-3.4,3.0)
Sensation seeking										
High	54.5	(51.3,57.7)	52.1	(49.2,54.9)	50.7	(47.7,53.6)	-3.9	(-8.6,0.9)	-1.4	(-5.0,2.2)
Low	47.5	(44.2,50.9)	49.1	(46.3,51.9)	47.8	(44.9,50.7)	0.3	(-4.3,4.9)	-1.3	(-5.1,2.5)

Table 3-52. Young people's conversations with parents about drugs, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent who never had conversation with parents about drugs in the past 6 months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	22.3	(20.0,24.8)	29.1	(26.8,31.6)	28.9	(26.0,32.0)	6.6	*(3.2,10.0)	-0.2	(-4.0,3.6)
14 to 15	24.3	(21.1,27.7)	28.0	(24.6,31.8)	28.7	(25.0,32.8)	4.5	*(0.4,8.5)	0.7	(-5.1,6.4)
16 to 18	27.8	(25.3,30.4)	28.4	(25.3,31.8)	29.4	(25.9,33.1)	1.6	(-2.6,5.9)	1.0	(-2.9,4.8)
14 to 18	26.2	(24.1,28.3)	28.3	(25.9,30.8)	29.1	(26.5,31.8)	2.9	(-0.1,6.0)	0.9	(-2.2,3.9)
12 to 18	25.1	(23.4,26.7)	28.5	(26.6,30.5)	29.0	(27.1,31.1)	4.0	*(1.7,6.3)	0.5	(-1.9,3.0)
Youth aged 12 to 18										
Gender										
Males	26.1	(23.8,28.5)	31.8	(29.1,34.7)	30.8	(28.0,33.9)	4.8	*(1.4,8.2)	-1.0	(-4.7,2.7)
Females	24.0	(21.6,26.6)	25.0	(22.6,27.6)	27.2	(24.7,29.9)	3.2	(-0.4,6.8)	2.2	(-1.4,5.8)
Race/ethnicity										
White	25.8	(23.9,27.9)	28.5	(26.2,30.9)	29.5	(27.0,32.1)	3.7	*(0.8,6.6)	1.0	(-2.0,4.0)
African American	25.1	(20.9,29.8)	28.3	(23.8,33.3)	25.3	(21.2,29.9)	0.2	(-5.8,6.2)	-3.0	(-9.2,3.2)
Hispanic	20.4	(16.0,25.6)	27.3	(23.2,31.7)	27.3	(22.3,33.1)	6.9	*(0.2,13.7)	0.1	(-5.0,5.1)
Risk score										
Higher risk	25.5	(22.7,28.5)	27.3	(24.3,30.6)	28.2	(24.7,32.0)	2.7	(-1.8,7.2)	0.9	(-3.0,4.8)
Lower risk	24.4	(22.1,27.0)	27.8	(25.5,30.2)	29.3	(26.5,32.3)	4.9	*(1.6,8.1)	1.5	(-2.2,5.2)
Sensation seeking										
High	26.3	(24.4,28.3)	28.6	(25.9,31.5)	30.8	(28.3,33.4)	4.5	*(1.2,7.8)	2.1	(-1.5,5.7)
Low	23.4	(20.5,26.6)	27.9	(25.3,30.7)	27.1	(24.2,30.3)	3.7	*(0.4,7.1)	-0.8	(-4.7,3.1)

Table 3-53. Young people's conversations with parents about drugs, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent who had two or more conversations with parents about drugs in the past 6 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	57.8	(54.6,60.8)	52.0	(49.2,54.7)	49.1	(45.7,52.4)	-8.7	*(-13.1,-4.3)	-2.9	(-7.4,1.6)
14 to 15_____	55.2	(51.2,59.2)	51.7	(48.1,55.3)	51.0	(46.9,55.1)	-4.2	(-8.9,0.4)	-0.7	(-6.2,4.7)
16 to 18_____	50.0	(46.4,53.7)	46.4	(42.8,50.0)	47.5	(43.8,51.3)	-2.5	(-7.6,2.6)	1.1	(-3.8,6.1)
14 to 18_____	52.4	(49.6,55.2)	48.8	(46.3,51.3)	49.0	(46.0,52.0)	-3.4	(-7.0,0.2)	0.2	(-3.2,3.7)
12 to 18_____	53.9	(51.6,56.2)	49.7	(47.7,51.7)	49.0	(46.8,51.2)	-4.9	*(-7.5,-2.3)	-0.7	(-3.3,1.8)
Youth aged 12 to 18										
Gender										
Males_____	53.4	(50.5,56.2)	46.5	(43.8,49.2)	46.3	(43.3,49.4)	-7.0	*(-10.6,-3.4)	-0.1	(-3.7,3.4)
Females_____	54.5	(51.3,57.7)	53.1	(50.1,56.2)	51.8	(48.9,54.7)	-2.7	(-6.2,0.8)	-1.3	(-5.4,2.7)
Race/ethnicity										
White_____	53.0	(50.5,55.6)	49.0	(46.4,51.6)	46.7	(43.9,49.6)	-6.3	*(-9.5,-3.1)	-2.3	(-5.4,0.9)
African American__	56.3	(50.3,62.2)	53.2	(47.4,59.0)	58.8	(54.0,63.4)	2.5	(-4.5,9.5)	5.6	(-1.5,12.7)
Hispanic_____	58.1	(52.6,63.3)	50.4	(45.4,55.4)	52.4	(45.9,58.8)	-5.7	(-13.8,2.5)	2.0	(-4.8,8.7)
Risk score										
Higher risk_____	53.5	(49.9,57.1)	49.6	(46.1,53.0)	49.4	(45.3,53.4)	-4.2	(-9.8,1.5)	-0.2	(-4.7,4.3)
Lower risk_____	54.7	(51.8,57.5)	50.9	(48.2,53.6)	48.9	(46.2,51.5)	-5.8	*(-8.9,-2.8)	-2.0	(-5.6,1.6)
Sensation seeking										
High_____	50.8	(48.1,53.5)	47.6	(44.6,50.8)	45.6	(42.6,48.6)	-5.2	*(-9.0,-1.5)	-2.1	(-5.7,1.5)
Low_____	57.7	(54.1,61.1)	52.4	(49.8,55.1)	52.8	(49.9,55.7)	-4.8	*(-8.6,-1.1)	0.4	(-3.5,4.3)

Table 3-54. Young people's conversations with parents or friends about drugs, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent who had four or more conversations with parents or friends about drugs in the past 6 months | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	42.2	(39.3,45.2)	36.1	(33.4,39.0)	35.7	(32.6,38.9)	-6.6	*(-10.5,-2.7)	-0.5	(-4.6,3.7)
14 to 15_____	47.6	(43.8,51.4)	51.0	(48.0,54.1)	49.4	(45.6,53.2)	1.8	(-3.2,6.9)	-1.6	(-6.2,3.0)
16 to 18_____	55.1	(51.9,58.3)	54.0	(50.5,57.4)	52.8	(49.2,56.3)	-2.3	(-7.2,2.6)	-1.2	(-5.8,3.4)
14 to 18_____	51.7	(49.3,54.1)	52.6	(50.3,55.0)	51.4	(48.7,54.0)	-0.3	(-3.9,3.2)	-1.3	(-4.6,2.1)
12 to 18_____	49.0	(47.1,50.8)	47.8	(45.8,49.8)	46.7	(44.7,48.8)	-2.2	(-4.6,0.2)	-1.0	(-3.7,1.6)
Youth aged 12 to 18										
Gender										
Males_____	47.5	(44.5,50.6)	46.3	(43.7,49.0)	44.8	(41.6,48.1)	-2.7	(-6.6,1.2)	-1.5	(-5.4,2.4)
Females_____	50.5	(48.0,52.9)	49.3	(46.3,52.3)	48.7	(46.1,51.4)	-1.8	(-5.0,1.5)	-0.6	(-4.3,3.2)
Race/ethnicity										
White_____	50.6	(48.4,52.7)	48.8	(46.5,51.1)	47.4	(44.7,50.1)	-3.2	*(-6.3,-0.1)	-1.4	(-4.5,1.8)
African American__	41.1	(36.2,46.2)	43.4	(37.6,49.3)	46.3	(41.8,50.9)	5.2	(-1.8,12.2)	2.9	(-4.1,10.0)
Hispanic_____	52.0	(46.0,58.0)	48.4	(43.6,53.1)	47.2	(40.3,54.2)	-4.8	(-11.9,2.3)	-1.1	(-7.7,5.4)
Risk score										
Higher risk_____	62.5	(59.6,65.4)	61.2	(57.3,64.9)	60.0	(55.9,64.1)	-2.5	(-7.8,2.8)	-1.2	(-6.2,3.9)
Lower risk_____	40.0	(37.4,42.5)	39.9	(37.5,42.4)	38.8	(36.1,41.7)	-1.1	(-4.2,2.0)	-1.1	(-4.9,2.7)
Sensation seeking										
High_____	56.8	(54.0,59.4)	55.3	(52.4,58.1)	53.8	(50.9,56.7)	-2.9	(-6.7,0.8)	-1.4	(-5.3,2.5)
Low_____	39.2	(36.2,42.3)	38.4	(35.2,41.7)	38.3	(35.2,41.4)	-1.0	(-5.0,3.0)	-0.1	(-4.5,4.2)

Table 3-55. Young people's conversations about anti-drug ads, by age, gender, race/ethnicity, risk score, and sensation seeking

Characteristics	Percent who talked with parents/caregivers about anti-drug ads in recent months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	38.7	(36.2,41.4)	36.0	(33.4,38.6)	35.5	(32.2,39.0)	-3.2	(-7.2,0.8)	-0.4	(-4.6,3.7)
14 to 15_____	30.4	(27.1,34.1)	28.0	(24.9,31.3)	27.2	(23.9,30.7)	-3.3	(-7.5,1.0)	-0.8	(-5.6,3.9)
16 to 18_____	18.8	(15.8,22.2)	21.2	(18.4,24.4)	22.1	(19.4,25.1)	3.3	(-0.5,7.1)	0.9	(-3.3,5.0)
14 to 18_____	24.1	(22.0,26.3)	24.3	(22.0,26.8)	24.3	(22.0,26.7)	0.2	(-2.5,2.9)	0.0	(-3.4,3.3)
12 to 18_____	28.3	(26.6,30.0)	27.7	(25.9,29.6)	27.6	(25.6,29.6)	-0.7	(-2.8,1.4)	-0.1	(-2.7,2.4)
Youth aged 12 to 18										
Gender										
Males_____	26.9	(24.7,29.3)	25.3	(23.0,27.7)	25.4	(22.8,28.3)	-1.5	(-4.6,1.6)	0.2	(-3.3,3.7)
Females_____	29.6	(26.9,32.5)	30.2	(27.6,33.0)	29.7	(26.7,32.8)	0.1	(-3.6,3.8)	-0.5	(-4.2,3.2)
Race/ethnicity										
White_____	26.1	(24.1,28.2)	26.6	(24.5,28.8)	26.2	(23.9,28.6)	0.1	(-2.5,2.6)	-0.4	(-3.4,2.6)
African American__	33.9	(28.9,39.3)	33.9	(28.9,39.4)	35.2	(30.9,39.7)	1.3	(-4.7,7.2)	1.2	(-5.9,8.4)
Hispanic_____	35.4	(31.0,40.1)	26.1	(22.5,30.1)	28.0	(22.9,33.7)	-7.5	*(-13.4,-1.6)	1.8	(-4.7,8.4)
Risk score										
Higher risk_____	19.7	(16.9,22.8)	20.4	(17.5,23.5)	22.4	(19.3,25.9)	2.7	(-1.4,6.9)	2.1	(-2.3,6.4)
Lower risk_____	34.1	(31.8,36.4)	32.7	(30.4,35.0)	31.6	(29.3,33.9)	-2.5	(-5.3,0.3)	-1.1	(-4.2,2.0)
Sensation seeking										
High_____	21.3	(19.2,23.6)	21.2	(18.9,23.7)	22.4	(19.7,25.3)	1.0	(-2.0,4.1)	1.1	(-2.2,4.5)
Low_____	37.0	(34.1,40.0)	36.3	(33.7,39.1)	34.0	(31.4,36.8)	-3.0	(-6.5,0.6)	-2.3	(-6.1,1.4)

Table 3-56. Young people's conversations about anti-drug ads, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent who talked with others (friends, other adults, etc.) about anti-drug ads in recent months | | | | | | | | | |
| Characteristics | \multicolumn{2}{c}{Average for Waves 1 and 2 (Year 2000)} | | \multicolumn{2}{c}{Average for Waves 3 and 4 (Year 2001)} | | \multicolumn{2}{c}{Wave 5 (Jan 2002-June 2002)} | | \multicolumn{2}{c}{Change from Waves 1 and 2 (2000) to Wave 5} | | \multicolumn{2}{c}{Change from Waves 3 and 4 (2001) to Wave 5} |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	42.2	(39.1,45.4)	38.3	(35.2,41.6)	39.8	(36.7,43.0)	-2.4	(-7.1,2.3)	1.5	(-2.4,5.4)
14 to 15_____	42.4	(38.5,46.5)	41.8	(38.5,45.1)	43.0	(39.8,46.4)	0.6	(-4.3,5.4)	1.3	(-3.2,5.7)
16 to 18_____	40.1	(36.3,44.1)	37.8	(34.4,41.3)	39.5	(35.3,43.8)	-0.7	(-6.0,4.6)	1.7	(-4.0,7.4)
14 to 18_____	41.2	(38.6,43.8)	39.6	(37.0,42.3)	41.0	(38.4,43.7)	-0.2	(-3.1,2.7)	1.4	(-2.2,5.0)
12 to 18_____	41.5	(39.4,43.6)	39.2	(37.0,41.5)	40.7	(38.4,43.0)	-0.8	(-3.3,1.6)	1.4	(-1.5,4.4)
Youth aged 12 to 18										
Gender										
Males_____	37.5	(35.0,40.1)	33.4	(30.8,36.2)	35.1	(32.1,38.2)	-2.4	(-6.1,1.2)	1.7	(-2.2,5.6)
Females_____	45.5	(42.8,48.3)	45.2	(41.9,48.6)	46.3	(43.2,49.5)	0.8	(-2.7,4.3)	1.1	(-3.4,5.6)
Race/ethnicity										
White_____	40.7	(38.2,43.2)	37.9	(35.3,40.6)	39.3	(37.2,41.4)	-1.3	(-3.9,1.3)	1.4	(-1.5,4.3)
African American__	44.9	(39.7,50.1)	42.8	(37.7,48.0)	43.5	(38.0,49.1)	-1.4	(-8.3,5.5)	0.7	(-6.0,7.4)
Hispanic_____	42.2	(37.1,47.5)	38.4	(33.0,44.2)	44.5	(37.4,51.9)	2.3	(-6.4,11.1)	6.1	(-3.5,15.7)
Risk score										
Higher risk_____	44.0	(40.4,47.6)	37.4	(33.6,41.4)	41.6	(37.1,46.2)	-2.4	(-7.9,3.1)	4.2	(-1.9,10.3)
Lower risk_____	39.4	(36.7,42.3)	40.3	(37.7,43.0)	41.3	(38.5,44.2)	1.9	(-1.6,5.4)	1.0	(-2.5,4.5)
Sensation seeking										
High_____	42.7	(40.2,45.3)	39.1	(36.4,42.0)	42.2	(39.1,45.4)	-0.5	(-4.1,3.1)	3.1	(-0.8,6.9)
Low_____	39.6	(36.1,43.2)	39.6	(36.6,42.8)	39.0	(36.0,42.0)	-0.6	(-5.0,3.8)	-0.7	(-4.7,3.4)

Table 3-57. Recall of stories on TV news or radio news about drugs among youth by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent recalling stories on TV or radio news at least once a week in recent months | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	31.7	(28.9,34.7)	26.7	(24.1,29.6)	26.6	(23.3,30.2)	-5.2	*(-9.5,-0.8)	-0.2	(-4.0,3.6)
14 to 15_____	31.9	(28.2,36.0)	29.1	(26.3,32.0)	26.1	(23.1,29.3)	-5.9	*(-10.7,-1.1)	-3.0	(-6.6,0.6)
16 to 18_____	32.7	(29.0,36.7)	30.2	(26.6,34.2)	29.1	(25.7,32.8)	-3.7	(-8.6,1.3)	-1.2	(-6.8,4.5)
14 to 18_____	32.4	(29.6,35.3)	29.7	(27.2,32.4)	27.8	(25.5,30.2)	-4.6	*(-8.1,-1.1)	-1.9	(-5.2,1.3)
12 to 18_____	32.2	(29.9,34.6)	28.9	(26.8,31.0)	27.4	(25.5,29.5)	-4.8	*(-7.6,-1.9)	-1.4	(-4.0,1.2)
Youth aged 12 to 18										
Gender										
Males_____	31.7	(28.7,34.9)	27.4	(24.4,30.6)	27.0	(24.1,30.0)	-4.7	*(-8.4,-1.0)	-0.4	(-4.8,4.0)
Females_____	32.7	(29.9,35.6)	30.4	(27.8,33.2)	27.9	(25.5,30.6)	-4.8	*(-8.3,-1.2)	-2.5	(-5.6,0.6)
Race/ethnicity										
White_____	31.8	(29.3,34.4)	27.1	(24.6,29.8)	25.5	(23.2,27.9)	-6.3	*(-9.7,-3.0)	-1.7	(-4.9,1.6)
African American__	35.2	(30.1,40.8)	32.6	(27.6,38.1)	30.5	(25.6,36.0)	-4.7	(-11.9,2.5)	-2.1	(-8.8,4.6)
Hispanic_____	32.4	(26.9,38.5)	32.1	(27.0,37.6)	31.5	(26.4,37.2)	-0.9	(-7.3,5.5)	-0.5	(-8.6,7.5)
Risk score										
Higher risk_____	35.4	(31.7,39.4)	29.3	(26.2,32.7)	28.8	(25.4,32.6)	-6.6	*(-11.7,-1.5)	-0.5	(-5.0,4.1)
Lower risk_____	30.5	(27.6,33.5)	28.1	(26.0,30.4)	27.1	(24.4,30.0)	-3.4	(-7.2,0.3)	-1.0	(-4.2,2.1)
Sensation seeking										
High_____	34.7	(31.5,38.0)	28.4	(25.9,31.1)	29.3	(26.6,32.1)	-5.4	*(-9.4,-1.4)	0.8	(-2.7,4.4)
Low_____	29.1	(25.9,32.5)	29.8	(26.6,33.2)	25.6	(22.6,28.8)	-3.5	(-8.0,0.9)	-4.2	*(-7.9,-0.6)

Table 3-58. Recall of stories in TV movies, sitcoms, or dramas about drugs among youth by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent recalling stories about drugs in TV movies, sitcoms, or dramas at least once a week in recent months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	19.1	(16.9,21.6)	16.6	(14.3,19.0)	19.9	(17.4,22.8)	0.8	(-2.6,4.1)	3.4	(-0.1,6.9)
14 to 15_____	24.7	(22.0,27.7)	25.2	(22.4,28.2)	23.3	(20.6,26.3)	-1.4	(-5.4,2.5)	-1.9	(-5.8,2.0)
16 to 18_____	25.1	(22.0,28.5)	24.8	(21.7,28.2)	22.8	(19.8,26.2)	-2.3	(-6.9,2.3)	-2.0	(-5.5,1.5)
14 to 18_____	24.9	(22.9,27.0)	25.0	(22.5,27.7)	23.0	(20.9,25.3)	-1.9	(-5.2,1.4)	-2.0	(-4.7,0.8)
12 to 18_____	23.3	(21.6,25.0)	22.6	(20.5,24.7)	22.2	(20.4,24.0)	-1.1	(-3.7,1.5)	-0.4	(-2.6,1.8)
Youth aged 12 to 18										
Gender										
Males_____	22.0	(19.8,24.4)	21.1	(18.7,23.7)	20.1	(17.8,22.8)	-1.8	(-5.2,1.6)	-1.0	(-4.0,2.1)
Females_____	24.6	(22.2,27.2)	24.1	(21.3,27.1)	24.3	(21.7,27.0)	-0.3	(-3.9,3.3)	0.2	(-2.9,3.2)
Race/ethnicity										
White_____	22.2	(20.1,24.5)	22.2	(19.8,24.8)	21.2	(19.4,23.2)	-1.0	(-4.0,1.9)	-1.0	(-3.7,1.6)
African American__	28.1	(23.8,32.9)	25.9	(21.7,30.6)	25.7	(21.9,29.9)	-2.4	(-7.8,2.9)	-0.2	(-5.4,5.0)
Hispanic_____	23.4	(18.9,28.6)	21.4	(17.4,26.0)	22.2	(16.7,28.7)	-1.2	(-9.1,6.6)	0.7	(-5.4,6.9)
Risk score										
Higher risk_____	27.6	(24.7,30.8)	24.6	(21.0,28.5)	22.5	(19.8,25.5)	-5.1	*(-9.5,-0.7)	-2.1	(-6.4,2.3)
Lower risk_____	21.1	(19.2,23.1)	21.0	(18.7,23.4)	22.4	(20.2,24.8)	1.4	(-1.5,4.2)	1.5	(-1.2,4.1)
Sensation seeking										
High_____	24.9	(22.4,27.6)	22.9	(20.2,26.0)	23.7	(21.1,26.6)	-1.2	(-5.1,2.8)	0.8	(-2.7,4.3)
Low_____	21.3	(18.6,24.4)	22.3	(19.6,25.2)	20.6	(17.9,23.6)	-0.7	(-4.3,2.8)	-1.7	(-5.0,1.6)

Table 3-59. Recall of stories on TV talk shows about drugs among youth by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent recalling stories about drugs on TV talk shows at least once a week in recent months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	16.3	(14.4,18.5)	15.3	(13.3,17.5)	14.5	(12.7,16.4)	-1.9	(-4.5,0.8)	-0.8	(-3.4,1.8)
14 to 15_____	22.9	(19.9,26.2)	19.9	(17.2,22.9)	17.7	(15.2,20.6)	-5.1	*(-9.4,-0.9)	-2.2	(-6.2,1.9)
16 to 18_____	25.1	(22.0,28.5)	24.5	(21.0,28.4)	21.9	(18.3,26.0)	-3.2	(-8.2,1.9)	-2.6	(-7.3,2.1)
14 to 18_____	24.1	(21.9,26.5)	22.4	(20.2,24.8)	20.1	(17.7,22.8)	-4.0	*(-7.4,-0.6)	-2.3	(-5.2,0.5)
12 to 18_____	21.8	(20.0,23.8)	20.4	(18.6,22.3)	18.5	(16.6,20.6)	-3.3	*(-6.0,-0.7)	-1.9	(-4.1,0.4)
Youth aged 12 to 18										
Gender										
Males_____	18.2	(15.8,20.9)	18.3	(16.0,21.0)	15.6	(13.4,18.2)	-2.6	(-5.9,0.7)	-2.7	(-5.8,0.4)
Females_____	25.6	(23.2,28.3)	22.5	(20.2,24.9)	21.5	(18.7,24.6)	-4.1	*(-8.0,-0.3)	-1.0	(-4.2,2.2)
Race/ethnicity										
White_____	19.8	(17.6,22.3)	19.7	(17.6,22.0)	16.0	(14.1,18.2)	-3.8	*(-6.8,-0.8)	-3.6	*(-6.2,-1.1)
African American__	29.6	(25.5,34.2)	25.5	(20.6,31.0)	22.6	(18.2,27.8)	-7.0	*(-12.6,-1.5)	-2.9	(-9.0,3.3)
Hispanic_____	24.9	(19.7,30.9)	19.0	(14.7,24.2)	22.4	(16.7,29.2)	-2.5	(-9.1,4.1)	3.4	(-4.7,11.5)
Risk score										
Higher risk_____	25.9	(22.9,29.2)	24.6	(21.4,28.0)	20.9	(17.5,24.8)	-5.0	(-10.1,0.1)	-3.7	(-8.3,1.0)
Lower risk_____	19.1	(16.9,21.6)	17.3	(15.3,19.4)	17.0	(15.1,19.2)	-2.1	(-4.9,0.8)	-0.2	(-3.0,2.6)
Sensation seeking										
High_____	23.7	(21.1,26.5)	21.8	(19.2,24.5)	18.5	(15.9,21.3)	-5.2	*(-8.9,-1.5)	-3.3	(-6.7,0.1)
Low_____	19.7	(17.2,22.4)	18.9	(16.4,21.7)	18.8	(16.3,21.7)	-0.9	(-4.2,2.5)	-0.1	(-3.2,3.1)

Table 3-60. Recall of stories in movies (theater/rental) about drugs among youth by age, gender, race/ethnicity, risk score, and sensation seeking

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
Youth aged 12 to 18										
12 to 13	12.4	(10.7,14.3)	12.6	(10.4,15.2)	15.2	(13.0,17.7)	2.8	(-0.2,5.8)	2.6	(-0.5,5.7)
14 to 15	17.4	(14.8,20.3)	20.2	(17.5,23.2)	17.9	(15.0,21.2)	0.5	(-3.6,4.6)	-2.3	(-6.3,1.8)
16 to 18	22.7	(19.5,26.2)	20.4	(17.3,23.8)	20.2	(17.0,23.9)	-2.5	(-7.3,2.4)	-0.1	(-4.7,4.5)
14 to 18	20.3	(18.2,22.6)	20.3	(18.0,22.8)	19.2	(16.7,22.0)	-1.1	(-4.5,2.4)	-1.0	(-4.1,2.0)
12 to 18	18.0	(16.5,19.6)	18.1	(16.3,20.0)	18.1	(16.2,20.2)	0.1	(-2.5,2.6)	0.0	(-2.0,2.0)
Youth aged 12 to 18										
Gender										
Males	20.1	(18.1,22.4)	18.4	(16.1,20.9)	17.2	(14.8,19.9)	-2.9	(-6.3,0.5)	-1.2	(-3.8,1.5)
Females	15.8	(13.8,18.0)	17.7	(15.3,20.5)	19.0	(16.5,21.8)	3.2	*(0.1,6.2)	1.2	(-1.9,4.3)
Race/ethnicity										
White	16.3	(14.6,18.1)	16.4	(14.5,18.4)	16.9	(14.8,19.3)	0.7	(-2.4,3.7)	0.5	(-2.0,3.0)
African American	23.0	(19.0,27.5)	25.0	(21.0,29.5)	20.7	(17.3,24.6)	-2.3	(-7.8,3.3)	-4.3	(-9.0,0.4)
Hispanic	20.9	(16.7,25.7)	19.0	(14.8,24.1)	21.2	(15.6,28.0)	0.3	(-6.8,7.4)	2.2	(-4.3,8.6)
Risk score										
Higher risk	25.4	(22.3,28.9)	23.0	(20.2,26.0)	22.6	(19.1,26.4)	-2.9	(-7.6,1.8)	-0.4	(-4.9,4.0)
Lower risk	11.9	(10.3,13.8)	14.4	(12.7,16.3)	15.6	(13.5,18.1)	3.7	*(1.0,6.4)	1.3	(-0.9,3.5)
Sensation seeking										
High	21.4	(19.0,23.9)	20.6	(18.2,23.2)	20.1	(17.7,22.6)	-1.3	(-4.6,2.0)	-0.5	(-3.8,2.7)
Low	13.5	(11.4,15.9)	14.6	(12.4,17.1)	16.0	(13.5,18.9)	2.5	(-1.3,6.2)	1.4	(-1.7,4.5)

Table 3-61. Recall of stories in magazines about drugs among youth by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent recalling stories about drugs in magazines at least once a week in recent months									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	10.2	(8.8,11.9)	8.3	(6.7,10.3)	10.3	(8.7,12.0)	0.0	(-2.1,2.2)	1.9	(-0.5,4.3)
14 to 15_____	13.0	(10.6,15.8)	9.9	(8.0,12.2)	11.8	(9.9,14.0)	-1.2	(-4.1,1.8)	1.9	(-1.0,4.9)
16 to 18_____	12.5	(10.3,15.2)	11.0	(8.9,13.6)	12.7	(10.4,15.5)	0.2	(-3.0,3.4)	1.7	(-2.2,5.6)
14 to 18_____	12.7	(10.9,14.8)	10.5	(9.0,12.2)	12.3	(10.6,14.2)	-0.4	(-3.0,2.2)	1.8	(-0.9,4.6)
12 to 18_____	12.0	(10.6,13.6)	9.9	(8.6,11.3)	11.7	(10.4,13.2)	-0.3	(-2.1,1.6)	1.9	(-0.3,4.0)
Youth aged 12 to 18										
Gender										
Males_____	9.9	(8.2,12.0)	8.6	(7.1,10.4)	10.3	(8.7,12.2)	0.4	(-1.9,2.7)	1.7	(-1.0,4.4)
Females_____	14.2	(12.2,16.4)	11.2	(9.5,13.1)	13.2	(11.0,15.8)	-0.9	(-3.8,1.9)	2.0	(-1.2,5.3)
Race/ethnicity										
White_____	11.4	(9.6,13.5)	9.2	(7.8,10.8)	10.1	(8.8,11.7)	-1.2	(-3.6,1.1)	1.0	(-1.0,3.0)
African American__	14.6	(11.3,18.8)	13.3	(10.1,17.4)	14.1	(10.6,18.6)	-0.5	(-5.9,4.9)	0.8	(-5.1,6.7)
Hispanic_____	11.2	(8.3,14.9)	9.6	(6.9,13.3)	16.7	(12.3,22.4)	5.5	(-0.2,11.2)	7.1	*(0.5,13.8)
Risk score										
Higher risk_____	14.3	(11.7,17.3)	11.8	(9.8,14.1)	13.1	(10.6,16.0)	-1.2	(-4.9,2.4)	1.2	(-2.6,5.1)
Lower risk_____	10.3	(8.9,12.0)	8.7	(7.3,10.3)	10.9	(9.3,12.7)	0.6	(-1.8,2.9)	2.2	(-0.2,4.6)
Sensation seeking										
High_____	12.6	(10.7,14.7)	10.6	(8.8,12.7)	12.4	(10.4,14.7)	-0.2	(-2.8,2.4)	1.8	(-1.2,4.8)
Low_____	11.2	(9.4,13.4)	9.1	(7.5,10.9)	11.2	(9.3,13.4)	0.0	(-2.9,2.9)	2.2	(-0.6,5.0)

Table 3-62. Weekly recall of drug themes in at least one media outlet among youth by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent recalling stories at least once a week in recent months in at least one venue									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	46.3	(43.4,49.2)	40.4	(37.4,43.4)	42.4	(39.1,45.7)	-3.9	*(-7.8,0.0)	2.0	(-2.5,6.5)
14 to 15	54.3	(50.6,58.0)	48.7	(45.3,52.1)	47.6	(44.4,50.8)	-6.7	*(-11.6,-1.9)	-1.1	(-5.5,3.3)
16 to 18	54.5	(50.9,58.1)	55.1	(51.2,58.9)	50.1	(45.7,54.5)	-4.4	(-9.5,0.6)	-5.0	(-11.0,0.9)
14 to 18	54.4	(51.9,56.9)	52.2	(49.3,55.1)	49.0	(46.3,51.7)	-5.4	*(-9.1,-1.8)	-3.2	(-6.9,0.5)
12 to 18	52.1	(50.0,54.2)	48.8	(46.4,51.2)	47.1	(44.8,49.4)	-5.0	*(-7.8,-2.2)	-1.7	(-4.7,1.4)
Youth aged 12 to 18										
Gender										
Males	49.8	(46.9,52.8)	46.1	(42.8,49.4)	44.4	(40.9,48.0)	-5.4	*(-9.9,-1.0)	-1.6	(-5.7,2.4)
Females	54.4	(51.4,57.3)	51.7	(48.8,54.5)	49.9	(46.6,53.2)	-4.5	*(-8.7,-0.2)	-1.8	(-6.0,2.5)
Race/ethnicity										
White	50.7	(48.2,53.3)	46.9	(44.0,49.9)	44.9	(42.1,47.7)	-5.8	*(-9.3,-2.3)	-2.0	(-5.7,1.6)
African American	58.0	(52.4,63.5)	56.2	(50.8,61.5)	52.9	(48.0,57.8)	-5.1	(-11.6,1.3)	-3.3	(-10.1,3.5)
Hispanic	53.2	(46.5,59.8)	48.5	(42.8,54.2)	49.0	(41.9,56.1)	-4.3	(-11.6,3.0)	0.5	(-9.6,10.5)
Risk score										
Higher risk	58.7	(54.8,62.6)	53.9	(50.2,57.6)	50.7	(46.5,54.8)	-8.0	*(-13.6,-2.4)	-3.2	(-8.8,2.3)
Lower risk	47.8	(45.2,50.5)	44.7	(42.1,47.4)	45.6	(43.1,48.0)	-2.3	(-5.8,1.2)	0.8	(-2.6,4.3)
Sensation seeking										
High	56.1	(52.8,59.3)	50.3	(47.3,53.4)	48.3	(45.2,51.4)	-7.8	*(-11.9,-3.8)	-2.1	(-6.0,1.8)
Low	47.4	(44.0,50.8)	47.2	(43.6,50.9)	46.2	(43.0,49.4)	-1.2	(-5.8,3.4)	-1.0	(-5.4,3.4)

Table 3-63. Parents'[1] recall of TV or radio news programs with drug themes in recent months, by gender, race/ethnicity, education, and age of child(ren)

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
Overall	50.4	(48.2,52.5)	47.5	(45.5,49.6)	48.4	(45.7,51.0)	-2.0	(-5.0,1.0)	0.8	(-2.4,4.1)
Gender										
Males	49.9	(46.0,53.8)	45.5	(41.6,49.4)	48.4	(44.7,52.1)	-1.5	(-7.4,4.3)	2.9	(-2.7,8.6)
Females	50.7	(47.8,53.6)	48.9	(45.9,51.8)	48.3	(45.3,51.3)	-2.4	(-5.7,1.0)	-0.5	(-4.6,3.5)
Race/ethnicity										
White	49.2	(46.7,51.7)	45.4	(42.9,47.8)	47.0	(44.3,49.7)	-2.2	(-5.9,1.5)	1.6	(-2.2,5.4)
African American	56.6	(50.0,63.0)	50.7	(45.7,55.7)	49.4	(41.9,56.9)	-7.2	(-15.9,1.5)	-1.3	(-10.5,7.9)
Hispanic	54.1	(48.2,59.8)	57.6	(51.0,64.0)	57.6	(52.0,62.9)	3.5	(-4.0,11.0)	-0.1	(-8.7,8.6)
Education										
Less than high school	56.9	(51.4,62.3)	53.3	(47.0,59.5)	52.4	(45.1,59.6)	-4.5	(-13.4,4.3)	-0.9	(-11.2,9.5)
High school graduate	48.4	(43.9,52.9)	47.1	(43.3,50.9)	50.2	(45.8,54.6)	1.8	(-4.5,8.2)	3.1	(-2.8,9.1)
Some college	49.1	(44.8,53.4)	47.7	(43.6,51.8)	47.3	(42.8,51.9)	-1.8	(-7.2,3.6)	-0.3	(-6.5,5.8)
College graduate	50.1	(45.6,54.6)	45.1	(40.7,49.6)	45.3	(41.3,49.5)	-4.8	(-10.7,1.1)	0.2	(-4.8,5.2)
One or more child(ren)[2] aged:										
12 to 13	48.0	(45.1,51.0)	47.6	(44.8,50.5)	49.3	(45.4,53.3)	1.3	(-3.3,6.0)	1.7	(-3.1,6.5)
14 to 18	51.4	(49.0,53.9)	47.4	(45.0,49.9)	47.7	(44.7,50.7)	-3.7	*(-7.2,-0.2)	0.2	(-3.6,4.1)
12 to 18	50.4	(48.2,52.5)	47.5	(45.5,49.6)	48.4	(45.7,51.0)	-2.0	(-5.0,1.0)	0.8	(-2.4,4.1)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-64. Parents'[1] recall of TV movies, sitcoms, or dramas with drug themes in recent months, by gender, race/ethnicity, education, and age of child(ren)

| | Percent reporting having noticed stories in TV movies, sitcoms, or dramas dealing with drug use among young people at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall_____	28.6	(26.5,30.8)	32.5	(30.4,34.7)	33.3	(30.8,36.0)	4.7	*(1.8,7.6)	0.8	(-2.4,4.0)
Gender										
Males_____	28.5	(25.0,32.4)	32.1	(28.4,36.0)	32.9	(29.3,36.7)	4.3	(-0.7,9.4)	0.8	(-4.6,6.2)
Females_____	28.7	(26.3,31.3)	32.8	(29.8,35.9)	33.6	(30.5,36.9)	4.9	*(1.3,8.6)	0.8	(-3.3,5.0)
Race/ethnicity										
White_____	27.5	(25.2,30.0)	30.7	(28.2,33.4)	30.0	(27.2,33.0)	2.4	(-0.8,5.7)	-0.7	(-4.0,2.5)
African American____	34.2	(27.4,41.6)	35.7	(28.1,44.1)	39.6	(33.3,46.2)	5.4	(-3.0,13.8)	3.8	(-7.2,14.9)
Hispanic_____	32.0	(26.3,38.4)	40.2	(33.8,47.1)	44.7	(38.5,51.2)	12.7	*(4.2,21.2)	4.5	(-3.0,12.0)
Education										
Less than high school_	31.7	(25.6,38.4)	34.3	(28.3,40.9)	38.1	(31.3,45.5)	6.5	(-2.3,15.2)	3.8	(-5.8,13.4)
High school graduate_	29.9	(26.7,33.2)	33.7	(30.1,37.4)	36.9	(31.9,42.2)	7.1	*(1.0,13.1)	3.2	(-3.0,9.4)
Some college_____	27.9	(24.3,31.9)	34.6	(30.3,39.0)	32.3	(28.2,36.7)	4.4	(-1.2,9.9)	-2.2	(-8.6,4.1)
College graduate_____	26.2	(22.6,30.2)	28.0	(23.8,32.5)	28.0	(23.8,32.6)	1.8	(-2.9,6.4)	0.0	(-5.8,5.9)
One or more child(ren)[2] aged:										
12 to 13_____	27.9	(25.8,30.1)	33.1	(29.7,36.7)	34.2	(31.0,37.5)	6.3	*(2.4,10.2)	1.1	(-3.7,5.9)
14 to 18_____	28.8	(26.1,31.5)	31.8	(29.4,34.3)	32.9	(30.0,35.9)	4.1	*(0.9,7.3)	1.1	(-2.6,4.8)
12 to 18_____	28.6	(26.5,30.8)	32.5	(30.4,34.7)	33.3	(30.8,36.0)	4.7	*(1.8,7.6)	0.8	(-2.4,4.0)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-65. Parents'[1] recall of TV talk shows or TV news magazine programs with drug themes in recent months, by gender, race/ethnicity, education, and age of child(ren)

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
					Percent reporting having noticed stories on TV talk shows or TV news magazine programs dealing with drug use among young people at least weekly					
Overall	22.8	(21.0,24.7)	21.4	(19.3,23.6)	22.8	(20.2,25.6)	0.0	(-3.2,3.2)	1.4	(-1.5,4.3)
Gender										
Males	20.2	(17.3,23.4)	22.0	(18.7,25.7)	20.7	(17.7,24.1)	0.6	(-4.2,5.3)	-1.3	(-5.9,3.2)
Females	24.6	(22.1,27.2)	21.0	(18.4,23.8)	24.3	(20.9,28.1)	-0.3	(-4.3,3.7)	3.3	(-0.3,7.0)
Race/ethnicity										
White	19.6	(17.7,21.6)	18.3	(16.2,20.7)	19.0	(16.4,21.9)	-0.5	(-3.7,2.6)	0.7	(-2.3,3.7)
African American	32.9	(27.5,38.8)	33.0	(26.9,39.7)	38.1	(32.1,44.5)	5.3	(-2.1,12.6)	5.1	(-4.0,14.2)
Hispanic	30.3	(24.7,36.6)	27.1	(21.0,34.3)	28.8	(22.4,36.1)	-1.6	(-11.2,8.1)	1.6	(-5.7,8.9)
Education										
Less than high school	29.1	(24.5,34.1)	29.0	(23.1,35.6)	24.5	(18.9,31.0)	-4.6	(-12.0,2.7)	-4.5	(-12.2,3.1)
High school graduate	25.3	(21.9,29.1)	23.1	(20.0,26.6)	26.7	(22.7,31.1)	1.3	(-4.7,7.4)	3.5	(-2.1,9.1)
Some college	21.7	(18.5,25.3)	22.2	(18.3,26.5)	24.2	(20.1,28.8)	2.5	(-2.7,7.6)	2.0	(-3.9,8.0)
College graduate	17.0	(14.3,20.2)	14.9	(12.0,18.5)	16.4	(13.6,19.6)	-0.6	(-4.2,2.9)	1.4	(-2.6,5.4)
One or more child(ren)[2] aged:										
12 to 13	21.4	(19.0,24.1)	21.9	(18.9,25.3)	21.5	(19.0,24.3)	0.1	(-3.6,3.8)	-0.4	(-3.7,2.9)
14 to 18	23.5	(21.3,25.7)	21.3	(18.9,23.8)	23.3	(20.2,26.6)	-0.2	(-4.0,3.7)	2.0	(-1.3,5.3)
12 to 18	22.8	(21.0,24.7)	21.4	(19.3,23.6)	22.8	(20.2,25.6)	0.0	(-3.2,3.2)	1.4	(-1.5,4.3)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-66. Parents'[1] recall of non-news radio programs with drug themes in recent months, by gender, race/ethnicity, education, and age of child(ren)

| | Percent reporting having noticed stories on non-news radio programs dealing with drug use among young people at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall_____	13.2	(11.7,14.9)	14.6	(13.0,16.3)	16.4	(14.0,19.2)	3.2	*(0.4,6.1)	1.8	(-0.9,4.5)
Gender										
Males_____	13.4	(11.2,16.1)	14.6	(12.3,17.2)	16.7	(13.9,20.0)	3.3	(-0.5,7.1)	2.2	(-1.1,5.4)
Females_____	13.0	(11.3,14.9)	14.6	(12.6,16.9)	16.2	(13.2,19.7)	3.2	(-0.1,6.4)	1.6	(-1.8,4.9)
Race/ethnicity										
White_____	10.4	(8.8,12.3)	11.2	(9.7,12.8)	11.5	(9.7,13.7)	1.1	(-1.2,3.5)	0.3	(-2.1,2.7)
African American____	23.3	(17.4,30.5)	22.3	(16.3,29.8)	25.6	(20.4,31.6)	2.3	(-3.9,8.4)	3.3	(-4.9,11.5)
Hispanic_____	20.8	(15.6,27.2)	24.8	(20.0,30.4)	30.3	(23.4,38.1)	9.4	(-0.2,19.1)	5.4	(-3.6,14.4)
Education										
Less than high school_	18.5	(14.7,23.0)	21.2	(16.1,27.4)	26.3	(20.4,33.3)	7.9	(-0.4,16.2)	5.1	(-3.2,13.4)
High school graduate_	13.7	(11.3,16.4)	16.4	(13.3,19.9)	17.4	(13.7,21.9)	3.7	(-1.3,8.7)	1.0	(-4.2,6.2)
Some college_____	12.7	(10.3,15.5)	14.7	(11.4,18.8)	16.1	(12.7,20.2)	3.4	(-1.1,8.0)	1.4	(-3.9,6.7)
College graduate____	10.0	(7.8,12.6)	9.3	(7.4,11.7)	10.5	(8.0,13.6)	0.5	(-2.9,4.0)	1.2	(-1.9,4.4)
One or more child(ren)[2] aged:										
12 to 13_____	12.4	(10.7,14.4)	15.2	(12.8,17.9)	15.3	(12.8,18.2)	2.9	(-0.2,6.0)	0.2	(-2.9,3.2)
14 to 18_____	13.2	(11.4,15.1)	14.3	(12.5,16.3)	17.2	(14.4,20.3)	4.0	*(0.7,7.3)	2.9	(-0.2,5.9)
12 to 18_____	13.2	(11.7,14.9)	14.6	(13.0,16.3)	16.4	(14.0,19.2)	3.2	*(0.4,6.1)	1.8	(-0.9,4.5)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-67. Parents'[1] recall of movies seen in theaters or rental videos with drug themes in recent months, by gender, race/ethnicity, education, and age of child(ren)

| | Percent reporting having noticed stories in movies (theaters or rental videos) dealing with drug use among young people at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	9.4	(8.2,10.7)	9.5	(8.2,11.1)	11.2	(9.5,13.2)	1.8	(-0.2,3.8)	1.7	(-0.3,3.6)
Gender										
Males	9.3	(7.3,11.9)	8.3	(6.5,10.4)	11.9	(9.3,15.1)	2.6	(-1.0,6.1)	3.6	*(0.6,6.6)
Females	9.4	(8.1,11.0)	10.4	(8.5,12.5)	10.7	(8.6,13.3)	1.3	(-1.2,3.8)	0.4	(-2.3,3.0)
Race/ethnicity										
White	7.0	(5.8,8.5)	7.9	(6.4,9.8)	8.2	(6.6,10.2)	1.2	(-0.9,3.3)	0.3	(-1.7,2.3)
African American	16.4	(12.2,21.8)	14.0	(10.2,18.9)	18.4	(14.4,23.1)	1.9	(-3.7,7.6)	4.4	(-1.5,10.2)
Hispanic	14.7	(10.6,20.1)	14.3	(10.0,19.9)	17.1	(12.6,22.8)	2.4	(-3.9,8.6)	2.8	(-3.8,9.5)
Education										
Less than high school	13.6	(10.3,17.8)	13.8	(10.9,17.3)	15.9	(11.7,21.3)	2.4	(-3.0,7.7)	2.2	(-3.6,7.9)
High school graduate	9.8	(8.0,11.9)	9.8	(7.7,12.3)	13.0	(9.6,17.4)	3.2	(-1.0,7.5)	3.2	(-0.9,7.4)
Some college	9.2	(7.0,12.0)	11.8	(8.9,15.6)	10.0	(7.5,13.1)	0.8	(-3.1,4.6)	-1.9	(-5.9,2.1)
College graduate	6.9	(5.1,9.4)	5.0	(3.9,6.5)	8.3	(6.0,11.3)	1.4	(-2.1,4.8)	3.3	*(0.2,6.3)
One or more child(ren)[2] aged:										
12 to 13	8.7	(7.2,10.4)	10.8	(9.2,12.8)	11.3	(9.3,13.6)	2.6	*(0.1,5.0)	0.4	(-2.6,3.5)
14 to 18	9.9	(8.5,11.5)	9.0	(7.5,10.9)	11.8	(9.8,14.1)	1.9	(-0.6,4.3)	2.7	*(0.5,4.9)
12 to 18	9.4	(8.2,10.7)	9.5	(8.2,11.1)	11.2	(9.5,13.2)	1.8	(-0.2,3.8)	1.7	(-0.3,3.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-68. Parents'[1] recall of magazine articles with drug themes in recent months, by gender, race/ethnicity, education, and age of child(ren)

| | Percent reporting having noticed stories in magazine articles dealing with drug use among young people at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall_____	8.2	(6.8,9.9)	7.6	(6.5,8.9)	10.2	(8.3,12.4)	2.0	(-0.1,4.0)	2.6	*(0.7,4.4)
Gender										
Males_____	7.9	(6.0,10.4)	6.0	(4.6,7.9)	8.0	(5.9,10.7)	0.1	(-2.6,2.7)	2.0	(-0.6,4.6)
Females_____	8.4	(6.7,10.5)	8.6	(7.1,10.5)	11.8	(9.5,14.4)	3.4	*(0.8,6.0)	3.1	*(0.9,5.3)
Race/ethnicity										
White_____	6.0	(4.6,7.7)	6.2	(5.0,7.5)	6.4	(5.0,8.2)	0.4	(-1.5,2.2)	0.2	(-1.5,1.9)
African American____	13.6	(9.6,18.9)	14.3	(10.4,19.3)	20.6	(15.4,27.1)	7.1	*(0.2,13.9)	6.3	*(0.3,12.4)
Hispanic_____	13.4	(8.8,19.9)	9.4	(6.8,13.0)	15.2	(10.4,21.7)	1.8	(-5.1,8.7)	5.8	(-0.2,11.7)
Education										
Less than high school_	9.3	(6.4,13.2)	11.5	(7.3,17.7)	13.1	(8.3,20.0)	3.8	(-3.3,10.9)	1.5	(-5.8,8.9)
High school graduate_	7.6	(5.4,10.4)	8.0	(6.3,10.2)	10.3	(7.2,14.4)	2.7	(-1.7,7.1)	2.2	(-1.6,6.1)
Some college_____	7.5	(5.6,10.0)	8.2	(6.0,11.0)	10.6	(7.6,14.5)	3.1	(-0.4,6.6)	2.4	(-1.8,6.6)
College graduate____	8.6	(6.0,12.1)	4.8	(3.3,7.0)	8.2	(6.1,11.0)	-0.4	(-3.4,2.6)	3.4	*(0.5,6.3)
One or more child(ren)[2] aged:										
12 to 13_____	7.1	(5.8,8.6)	8.4	(6.9,10.2)	8.5	(6.9,10.4)	1.4	(-0.6,3.4)	0.1	(-2.0,2.2)
14 to 18_____	8.5	(6.8,10.5)	7.5	(6.1,9.2)	10.6	(8.3,13.5)	2.1	(-0.5,4.7)	3.0	*(0.5,5.5)
12 to 18_____	8.2	(6.8,9.9)	7.6	(6.5,8.9)	10.2	(8.3,12.4)	2.0	(-0.1,4.0)	2.6	*(0.7,4.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-69. Parents'[1] recall of newspaper articles with drug themes in recent months, by gender, race/ethnicity, education, and age of child(ren)

| | Percent reporting having noticed stories in newspaper articles dealing with drug use among young people at least weekly | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall_____	32.8	(30.5,35.3)	31.3	(29.0,33.7)	31.1	(29.0,33.3)	-1.7	(-4.5,1.1)	-0.2	(-3.0,2.6)
Gender										
Males_____	33.3	(29.8,37.1)	30.5	(27.0,34.3)	29.8	(26.2,33.8)	-3.5	(-8.0,1.0)	-0.7	(-5.2,3.8)
Females_____	32.5	(29.8,35.3)	31.8	(28.7,34.9)	32.0	(29.4,34.8)	-0.4	(-4.1,3.2)	0.3	(-3.4,4.0)
Race/ethnicity										
White_____	32.6	(30.1,35.2)	31.6	(28.8,34.5)	30.5	(27.9,33.3)	-2.1	(-5.0,0.8)	-1.1	(-4.1,2.0)
African American____	39.2	(30.8,48.2)	34.3	(27.9,41.4)	36.9	(31.1,43.0)	-2.3	(-10.8,6.2)	2.5	(-6.2,11.2)
Hispanic_____	29.7	(24.3,35.7)	29.0	(22.6,36.3)	28.0	(22.1,34.8)	-1.6	(-9.9,6.6)	-0.9	(-9.5,7.6)
Education										
Less than high school_	25.5	(21.1,30.6)	30.1	(24.1,36.8)	26.4	(19.5,34.6)	0.8	(-7.3,9.0)	-3.7	(-12.9,5.5)
High school graduate_	29.3	(26.2,32.6)	31.3	(27.0,36.0)	32.7	(28.4,37.2)	3.4	(-2.2,9.0)	1.3	(-4.4,7.0)
Some college_____	35.8	(31.7,40.0)	32.8	(29.2,36.7)	30.7	(26.4,35.3)	-5.1	*(-10.1,0.0)	-2.1	(-7.7,3.4)
College graduate____	37.8	(33.7,42.2)	30.2	(26.3,34.4)	32.6	(28.1,37.4)	-5.2	(-10.8,0.4)	2.4	(-2.7,7.5)
One or more child(ren)[2] aged:										
12 to 13_____	31.9	(29.6,34.3)	30.2	(27.2,33.3)	29.8	(26.6,33.2)	-2.1	(-5.7,1.5)	-0.4	(-4.9,4.2)
14 to 18_____	33.2	(30.5,36.1)	31.8	(29.0,34.8)	31.7	(29.3,34.2)	-1.5	(-4.9,1.8)	-0.1	(-3.5,3.3)
12 to 18_____	32.8	(30.5,35.3)	31.3	(29.0,33.7)	31.1	(29.0,33.3)	-1.7	(-4.5,1.1)	-0.2	(-3.0,2.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-70. Weekly recall of drug themes in at least one media outlet among parents',[1] by gender, race/ethnicity, education, and age of child(ren)

| | Percent saying they heard a weekly story in at least one medium in the past 12 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	64.0	(62.1,65.9)	63.1	(61.1,65.0)	63.5	(60.9,66.1)	-0.5	(-3.1,2.1)	0.4	(-2.8,3.7)
Gender										
Males	64.5	(60.9,68.0)	62.9	(59.8,65.9)	64.1	(59.9,68.1)	-0.4	(-5.7,4.8)	1.2	(-4.1,6.5)
Females	63.7	(61.2,66.1)	63.2	(60.1,66.3)	63.1	(60.1,66.0)	-0.6	(-3.9,2.8)	-0.1	(-4.2,4.0)
Race/ethnicity										
White	61.7	(59.4,63.8)	60.7	(58.3,63.1)	61.6	(58.7,64.5)	0.0	(-3.2,3.2)	0.9	(-2.7,4.5)
African American	74.4	(68.6,79.4)	70.8	(65.0,76.1)	68.0	(61.2,74.1)	-6.4	(-14.4,1.6)	-2.9	(-10.3,4.6)
Hispanic	67.2	(61.0,72.8)	69.7	(61.9,76.5)	70.0	(63.7,75.6)	2.8	(-4.2,9.8)	0.3	(-10.0,10.6)
Education										
Less than high school	68.3	(62.2,73.8)	71.1	(64.9,76.6)	68.1	(61.9,73.8)	-0.2	(-7.8,7.4)	-3.0	(-11.7,5.8)
High school graduate	61.8	(58.4,65.1)	63.5	(59.4,67.4)	66.4	(61.2,71.1)	4.6	(-1.5,10.6)	2.9	(-3.9,9.7)
Some college	64.1	(60.2,67.8)	62.9	(59.4,66.3)	61.5	(56.4,66.4)	-2.6	(-8.4,3.3)	-1.4	(-7.3,4.5)
College graduate	64.3	(60.0,68.4)	59.1	(55.2,62.9)	60.1	(56.0,64.0)	-4.2	(-9.6,1.1)	1.0	(-3.6,5.5)
One or more child(ren)[2] aged:										
12 to 13	62.2	(59.5,64.9)	62.4	(59.5,65.3)	63.9	(60.3,67.3)	1.7	(-2.5,5.8)	1.4	(-3.2,6.1)
14 to 18	64.8	(62.5,67.1)	63.3	(61.0,65.6)	62.7	(59.7,65.7)	-2.0	(-5.5,1.4)	-0.6	(-4.3,3.2)
12 to 18	64.0	(62.1,65.9)	63.1	(61.1,65.0)	63.5	(60.9,66.1)	-0.5	(-3.1,2.1)	0.4	(-2.8,3.7)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-71. Parents'[1] awareness of drug activities/controversies in their community in the past 12 months, by gender, race/ethnicity, education, and age of child(ren)

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
Overall	34.3	(31.9,36.9)	30.2	(28.0,32.4)	30.7	(28.2,33.3)	-3.7	*(-6.4,-0.9)	0.5	(-2.6,3.6)
Gender										
Males	30.9	(27.2,34.9)	26.5	(23.2,30.1)	27.8	(24.1,31.9)	-3.1	(-7.9,1.7)	1.3	(-3.3,6.0)
Females	36.7	(33.9,39.6)	32.5	(29.8,35.3)	32.7	(29.9,35.7)	-4.0	*(-7.5,-0.5)	0.2	(-3.8,4.2)
Race/ethnicity										
White	35.0	(31.9,38.2)	30.0	(27.6,32.7)	29.9	(27.0,32.9)	-5.1	*(-8.2,-2.0)	-0.2	(-3.6,3.2)
African American	33.1	(26.0,41.1)	30.8	(25.4,36.8)	27.4	(21.6,34.0)	-5.8	(-13.8,2.3)	-3.4	(-11.7,4.9)
Hispanic	33.0	(27.7,38.8)	31.2	(25.5,37.5)	35.2	(28.9,42.1)	2.2	(-5.6,10.0)	4.1	(-5.0,13.1)
Education										
Less than high school	28.4	(23.1,34.4)	27.0	(21.0,34.1)	32.4	(26.2,39.3)	4.0	(-4.6,12.5)	5.4	(-4.3,15.0)
High school graduate	27.4	(23.8,31.3)	25.3	(21.9,29.1)	26.2	(22.3,30.5)	-1.2	(-6.1,3.8)	0.9	(-4.8,6.5)
Some college	36.3	(32.3,40.5)	29.8	(25.9,34.0)	31.5	(27.1,36.2)	-4.8	(-10.3,0.6)	1.7	(-3.5,6.9)
College graduate	43.7	(39.4,48.2)	37.7	(32.7,43.0)	33.5	(29.2,38.1)	-10.2	*(-16.0,-4.5)	-4.2	(-10.6,2.2)
One or more child(ren)[2] aged:										
12 to 13	38.8	(35.9,41.7)	33.2	(30.4,36.1)	30.6	(27.2,34.1)	-8.2	*(-12.2,-4.2)	-2.6	(-6.7,1.5)
14 to 18	32.6	(29.7,35.7)	29.5	(26.9,32.3)	30.6	(27.7,33.6)	-2.0	(-5.3,1.2)	1.0	(-2.7,4.7)
12 to 18	34.3	(31.9,36.9)	30.2	(28.0,32.4)	30.7	(28.2,33.3)	-3.7	*(-6.4,-0.9)	0.5	(-2.6,3.6)

Header spanning: Percent saying they heard a lot about anti-drug programs in schools or community centers in their community in the past 12 months

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-72. Parents'[1] awareness of drug activities/controversies in their community in the past 12 months, by gender, race/ethnicity, education, and age of child(ren)

| | Percent saying they heard a lot about speeches about drugs by public officials in their community in the past 12 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall_____	15.2	(13.2,17.4)	13.4	(11.9,15.2)	12.6	(10.7,14.9)	-2.5	(-5.4,0.3)	-0.8	(-2.9,1.3)
Gender										
Males_____	16.4	(13.1,20.4)	14.4	(12.0,17.1)	13.0	(10.4,16.2)	-3.4	(-7.8,1.0)	-1.4	(-4.9,2.1)
Females_____	14.3	(12.5,16.4)	12.8	(10.7,15.3)	12.4	(10.1,15.2)	-1.9	(-5.0,1.1)	-0.5	(-3.0,2.1)
Race/ethnicity										
White_____	13.1	(11.3,15.2)	9.7	(8.0,11.6)	8.1	(6.5,10.1)	-5.0	*(-7.6,-2.4)	-1.6	(-3.9,0.8)
African American____	20.0	(15.1,26.1)	22.0	(17.2,27.8)	16.4	(13.1,20.3)	-3.7	(-9.6,2.3)	-5.7	*(-11.0,-0.4)
Hispanic_____	21.3	(15.7,28.2)	22.6	(17.7,28.4)	26.0	(20.1,32.8)	4.6	(-4.9,14.1)	3.4	(-4.6,11.3)
Education										
Less than high school_	18.2	(13.8,23.6)	19.3	(14.4,25.3)	20.9	(15.1,28.3)	2.7	(-4.9,10.3)	1.6	(-6.0,9.3)
High school graduate_	11.4	(9.0,14.5)	10.9	(8.5,13.8)	10.4	(7.9,13.6)	-1.0	(-4.8,2.8)	-0.4	(-4.2,3.4)
Some college_____	15.0	(12.0,18.7)	11.6	(9.0,15.0)	12.5	(9.6,16.2)	-2.5	(-7.1,2.1)	0.9	(-3.1,4.8)
College graduate____	17.5	(14.1,21.5)	15.5	(12.4,19.4)	10.6	(7.8,14.4)	-6.8	*(-11.8,-1.9)	-4.9	*(-9.1,-0.7)
One or more child(ren)[2] aged:										
12 to 13_____	14.5	(12.3,17.1)	14.5	(12.3,17.0)	12.9	(10.3,16.0)	-1.6	(-4.9,1.7)	-1.6	(-4.6,1.4)
14 to 18_____	15.7	(13.3,18.4)	13.4	(11.6,15.5)	12.4	(10.3,14.9)	-3.3	(-6.7,0.1)	-1.0	(-3.7,1.6)
12 to 18_____	15.2	(13.2,17.4)	13.4	(11.9,15.2)	12.6	(10.7,14.9)	-2.5	(-5.4,0.3)	-0.8	(-2.9,1.3)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-73. Parents'[1] awareness of drug activities/controversies in their community in the past 12 months, by gender, race/ethnicity, education, and age of child(ren)

| | Percent saying they heard a lot about drug-related laws proposed by state or local governments in their community in the past 12 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	17.8	(16.1,19.6)	16.4	(14.8,18.2)	16.7	(14.8,18.9)	-1.1	(-3.3,1.1)	0.3	(-1.9,2.5)
Gender										
Males	19.5	(16.6,22.7)	19.6	(16.7,22.9)	19.3	(16.3,22.7)	-0.2	(-4.1,3.7)	-0.3	(-4.1,3.4)
Females	16.7	(14.8,18.7)	14.3	(12.4,16.6)	14.8	(12.5,17.4)	-1.8	(-4.8,1.2)	0.5	(-2.4,3.4)
Race/ethnicity										
White	14.7	(12.8,16.9)	14.1	(12.2,16.3)	13.4	(11.6,15.5)	-1.3	(-3.7,1.2)	-0.7	(-2.9,1.5)
African American	30.0	(24.6,36.0)	22.1	(16.6,28.9)	23.3	(18.2,29.4)	-6.7	*(-13.0,-0.4)	1.2	(-6.1,8.5)
Hispanic	23.3	(18.1,29.5)	22.3	(18.0,27.2)	24.4	(19.0,30.9)	1.1	(-6.0,8.2)	2.2	(-5.4,9.7)
Education										
Less than high school	20.7	(16.5,25.8)	18.5	(13.9,24.3)	21.4	(15.6,28.8)	0.7	(-6.7,8.0)	2.9	(-5.2,11.0)
High school graduate	14.1	(11.9,16.6)	14.6	(12.1,17.6)	15.4	(12.7,18.5)	1.3	(-2.2,4.8)	0.8	(-3.1,4.6)
Some college	18.4	(15.2,22.2)	15.7	(13.0,18.8)	17.6	(14.1,21.7)	-0.9	(-5.2,3.5)	1.9	(-2.2,6.0)
College graduate	19.4	(16.0,23.3)	18.1	(14.4,22.5)	14.6	(11.7,18.1)	-4.8	*(-9.2,-0.3)	-3.5	(-7.6,0.6)
One or more child(ren)[2] aged:										
12 to 13	15.6	(13.6,17.9)	16.0	(13.4,18.8)	14.9	(12.6,17.6)	-0.7	(-3.8,2.4)	-1.1	(-4.2,2.1)
14 to 18	18.3	(16.3,20.4)	16.5	(14.6,18.6)	17.8	(15.6,20.3)	-0.4	(-3.2,2.3)	1.3	(-1.4,4.1)
12 to 18	17.8	(16.1,19.6)	16.4	(14.8,18.2)	16.7	(14.8,18.9)	-1.1	(-3.3,1.1)	0.3	(-1.9,2.5)

[1] All parents and caregivers of youth aged 12 to 18 who live with their children.

[2] Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-74. Parents'[1] awareness of drug activities/controversies in their community in the past 12 months, by gender, race/ethnicity, education, and age of child(ren)

| Characteristics | Percent saying they heard a lot about police crackdowns on drug use or sales in their community in the past 12 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	45.6	(42.3,49.0)	43.8	(41.2,46.4)	44.9	(42.4,47.4)	-0.8	(-4.4,2.9)	1.1	(-2.4,4.6)
Gender										
Males	47.4	(42.8,52.1)	44.8	(40.7,48.9)	46.0	(41.9,50.1)	-1.5	(-7.2,4.2)	1.2	(-4.1,6.5)
Females	44.4	(40.8,48.0)	43.2	(40.1,46.3)	44.1	(41.2,47.0)	-0.3	(-4.1,3.5)	0.9	(-3.2,5.1)
Race/ethnicity										
White	44.3	(40.2,48.4)	43.8	(40.5,47.2)	43.6	(40.8,46.5)	-0.7	(-5.1,3.7)	-0.2	(-4.5,4.1)
African American	59.2	(51.8,66.1)	49.7	(43.1,56.3)	55.6	(48.3,62.6)	-3.6	(-12.4,5.2)	5.9	(-3.4,15.2)
Hispanic	44.1	(38.3,50.2)	41.8	(35.7,48.2)	42.6	(37.1,48.3)	-1.5	(-8.7,5.8)	0.8	(-7.4,9.1)
Education										
Less than high school	47.9	(41.6,54.2)	41.9	(33.8,50.4)	44.5	(38.5,50.7)	-3.4	(-11.6,4.9)	2.6	(-8.3,13.6)
High school graduate	44.1	(39.3,48.9)	37.8	(34.0,41.7)	42.3	(37.5,47.2)	-1.8	(-6.9,3.3)	4.5	(-1.4,10.4)
Some college	46.5	(42.1,50.9)	48.4	(43.8,53.0)	48.5	(44.0,53.1)	2.1	(-4.2,8.4)	0.2	(-6.0,6.3)
College graduate	45.4	(39.9,51.0)	47.6	(42.8,52.5)	44.1	(39.1,49.2)	-1.3	(-8.6,5.9)	-3.6	(-9.9,2.8)
One or more child(ren)[2] aged:										
12 to 13	42.7	(39.3,46.2)	43.1	(39.6,46.6)	43.7	(39.9,47.5)	1.0	(-3.1,5.0)	0.6	(-4.3,5.5)
14 to 18	46.7	(42.9,50.5)	44.5	(41.5,47.6)	45.2	(42.3,48.1)	-1.5	(-5.8,2.8)	0.6	(-3.6,4.9)
12 to 18	45.6	(42.3,49.0)	43.8	(41.2,46.4)	44.9	(42.4,47.4)	-0.8	(-4.4,2.9)	1.1	(-2.4,4.6)

[1] All parents and caregivers of youth aged 12 to 18 who live with their children.

[2] Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-75. Parents'[1] awareness of drug activities/controversies in their community in the past 12 months, by gender, race/ethnicity, education, and age of child(ren)

| | Percent saying they heard a lot about drug-related propositions/referenda on ballot for public voting in their community in the past 12 months | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	7.9	(6.6,9.3)	8.0	(6.7,9.4)	7.4	(5.9,9.2)	-0.5	(-2.4,1.4)	-0.6	(-2.8,1.6)
Gender										
Males	7.7	(5.9,10.0)	9.1	(7.0,11.8)	8.9	(6.5,12.0)	1.2	(-1.7,4.1)	-0.3	(-3.9,3.4)
Females	8.0	(6.5,9.8)	7.2	(5.9,8.8)	6.3	(4.9,8.0)	-1.7	(-3.8,0.3)	-1.0	(-3.2,1.3)
Race/ethnicity										
White	5.2	(4.1,6.5)	6.5	(5.0,8.2)	4.6	(3.5,5.9)	-0.6	(-2.2,1.0)	-1.9	(-3.9,0.1)
African American	13.5	(9.0,19.9)	12.9	(9.5,17.2)	14.3	(9.8,20.3)	0.7	(-4.7,6.2)	1.4	(-4.5,7.3)
Hispanic	12.8	(8.8,18.1)	11.2	(8.1,15.3)	12.4	(7.8,19.3)	-0.3	(-8.3,7.6)	1.2	(-5.9,8.4)
Education										
Less than high school	14.7	(11.3,18.9)	8.9	(5.5,14.1)	12.4	(7.1,20.5)	-2.3	(-10.5,5.8)	3.5	(-5.6,12.5)
High school graduate	5.9	(4.3,8.1)	8.2	(6.1,10.9)	6.1	(4.5,8.3)	0.2	(-2.2,2.6)	-2.1	(-5.4,1.3)
Some college	7.5	(5.1,11.0)	6.9	(4.9,9.5)	7.7	(5.4,10.8)	0.2	(-3.3,3.7)	0.8	(-2.7,4.4)
College graduate	7.0	(4.9,9.9)	8.4	(6.3,11.0)	5.5	(3.7,8.1)	-1.5	(-4.5,1.5)	-2.8	(-6.1,0.5)
One or more child(ren)[2] aged:										
12 to 13	6.5	(5.4,7.9)	7.6	(6.0,9.4)	5.8	(4.3,7.8)	-0.7	(-2.5,1.1)	-1.7	(-4.1,0.6)
14 to 18	8.3	(6.7,10.2)	8.3	(6.8,10.1)	7.9	(6.2,10.0)	-0.4	(-2.7,1.9)	-0.4	(-3.0,2.1)
12 to 18	7.9	(6.6,9.3)	8.0	(6.7,9.4)	7.4	(5.9,9.2)	-0.5	(-2.4,1.4)	-0.6	(-2.8,1.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 3-76. Parental[1] attendance at drug abuse prevention programs[2], by age, gender, and race/ethnicity of child(ren)

	Percent attending a drug abuse prevention program									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	33.1	(30.1,36.3)	32.5	(29.8,35.3)	30.2	(27.4,33.2)	-2.9	(-7.2,1.4)	-2.3	(-6.3,1.7)
14 to 15_____	32.2	(28.2,36.4)	29.4	(25.8,33.2)	30.3	(27.2,33.7)	-1.9	(-7.1,3.4)	0.9	(-3.6,5.5)
16 to 18_____	26.6	(23.6,29.9)	28.1	(24.4,32.2)	28.2	(25.0,31.7)	1.6	(-3.0,6.1)	0.1	(-4.1,4.3)
14 to 18_____	29.2	(26.8,31.7)	28.7	(25.8,31.8)	29.1	(26.9,31.4)	-0.1	(-2.9,2.8)	0.4	(-2.8,3.6)
12 to 18_____	30.3	(28.2,32.6)	29.8	(27.5,32.3)	29.4	(27.5,31.4)	-0.9	(-3.5,1.7)	-0.4	(-3.2,2.4)
Youth aged 12 to 18										
Gender										
Males_____	30.5	(27.4,33.9)	28.7	(25.5,32.0)	30.5	(27.7,33.4)	0.0	(-4.0,3.9)	1.8	(-1.7,5.4)
Females_____	30.2	(27.0,33.6)	31.1	(28.1,34.2)	28.3	(25.7,31.1)	-1.8	(-5.2,1.5)	-2.7	(-6.7,1.2)
Race/ethnicity										
White_____	30.3	(27.7,33.0)	30.4	(27.7,33.3)	28.7	(26.1,31.4)	-1.6	(-4.5,1.3)	-1.7	(-5.3,1.8)
African American__	33.1	(28.0,38.5)	34.7	(29.5,40.3)	32.6	(26.9,38.9)	-0.5	(-8.0,7.1)	-2.1	(-9.2,5.0)
Hispanic_____	29.9	(25.2,35.1)	21.6	(16.8,27.3)	31.1	(25.6,37.3)	1.2	(-6.2,8.6)	9.6	*(2.9,16.3)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 3-77. Parental[1] attendance at parent effectiveness programs[2], by age, gender, and race/ethnicity of child(ren)

| | Percent attending parent effectiveness programs | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	29.5	(26.5,32.6)	29.9	(27.1,32.9)	32.2	(29.2,35.4)	2.7	(-1.1,6.6)	2.3	(-1.5,6.1)
14 to 15	29.5	(25.3,34.1)	30.2	(26.4,34.1)	27.9	(24.7,31.4)	-1.6	(-7.3,4.2)	-2.2	(-7.4,2.9)
16 to 18	27.5	(24.1,31.3)	25.1	(21.4,29.3)	29.6	(25.5,34.1)	2.1	(-3.1,7.3)	4.5	(-0.5,9.4)
14 to 18	28.4	(25.5,31.5)	27.5	(24.5,30.6)	28.9	(25.9,32.1)	0.4	(-3.7,4.6)	1.4	(-2.3,5.2)
12 to 18	28.7	(26.3,31.3)	28.2	(25.7,30.8)	29.9	(27.4,32.4)	1.1	(-2.2,4.5)	1.7	(-1.4,4.8)
Youth aged 12 to 18										
Gender										
Males	29.5	(26.3,33.0)	29.2	(25.9,32.8)	32.0	(28.7,35.5)	2.5	(-1.3,6.2)	2.8	(-1.1,6.6)
Females	27.9	(25.0,31.1)	27.1	(24.5,29.9)	27.7	(24.8,30.8)	-0.2	(-4.7,4.2)	0.6	(-3.2,4.4)
Race/ethnicity										
White	28.4	(25.6,31.4)	27.4	(24.3,30.7)	26.8	(24.2,29.6)	-1.6	(-5.2,2.0)	-0.6	(-4.4,3.2)
African American	32.5	(27.0,38.4)	38.7	(32.2,45.7)	39.0	(32.0,46.5)	6.6	(-2.1,15.2)	0.3	(-8.2,8.8)
Hispanic	26.2	(20.9,32.3)	20.0	(14.3,27.3)	30.8	(24.4,38.0)	4.5	(-2.3,11.4)	10.8	*(3.2,18.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 4-1. Youth reporting ever having used marijuana, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent reporting marijuana use ever									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	4.9	(3.8,6.4)	4.1	(3.1,5.5)	4.9	(3.7,6.4)	-0.1	(-1.8,1.6)	0.7	(-1.0,2.5)
14 to 15_____	15.1	(12.1,18.6)	18.9	(16.2,21.9)	19.5	(15.9,23.7)	4.5	(-0.5,9.4)	0.7	(-3.6,5.0)
16 to 18_____	40.3	(36.1,44.6)	39.9	(36.3,43.6)	38.9	(35.2,42.8)	-1.3	(-6.4,3.7)	-1.0	(-5.6,3.6)
14 to 18_____	28.8	(26.3,31.5)	30.4	(27.6,33.3)	30.7	(28.1,33.4)	1.9	(-1.6,5.3)	0.3	(-2.8,3.4)
12 to 18_____	21.8	(20.0,23.8)	22.6	(20.7,24.8)	23.0	(21.1,25.0)	1.2	(-1.2,3.7)	0.4	(-2.0,2.7)
Youth aged 12 to 13										
Gender										
Males_____	5.6	(4.1,7.5)	4.7	(3.1,7.1)	5.1	(3.4,7.5)	-0.5	(-3.0,2.0)	0.4	(-2.7,3.5)
Females_____	4.2	(2.9,6.3)	3.5	(2.5,5.1)	4.7	(3.2,6.7)	0.4	(-1.5,2.3)	1.1	(-0.7,3.0)
Race/ethnicity										
White_____	4.2	(3.0,5.9)	3.5	(2.4,5.2)	3.7	(2.4,5.8)	-0.5	(-2.5,1.6)	0.2	(-1.7,2.1)
African American__	5.5	(2.9,10.3)	2.3	(1.0,5.1)	6.0	(3.4,10.2)	0.5	(-4.1,5.1)	3.7	*(0.0,7.3)
Hispanic_____	6.9	(3.9,12.0)	8.4	(4.7,14.6)	6.3	(3.8,10.4)	-0.5	(-6.0,4.9)	-2.1	(-7.2,3.0)
Risk score										
Higher risk_____	34.1	(24.9,44.6)	22.4	(14.2,33.4)	31.2	(21.8,42.4)	-2.9	(-18.4,12.6)	8.8	(-4.2,21.8)
Lower Risk_____	2.1	(1.3,3.4)	2.1	(1.4,3.1)	2.0	(1.2,3.2)	-0.1	(-1.4,1.1)	-0.1	(-1.4,1.3)
Sensation seeking										
High_____	9.5	(7.1,12.6)	7.9	(5.5,11.3)	8.7	(6.3,11.9)	-0.8	(-4.0,2.5)	0.8	(-2.5,4.0)
Low_____	1.6	(0.9,2.7)	1.7	(1.0,2.8)	1.9	(1.1,3.4)	0.3	(-0.9,1.5)	0.2	(-1.0,1.5)

Table 4-1. Youth reporting ever having used marijuana, by age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent reporting marijuana use ever									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	30.5	(26.5,34.9)	32.3	(28.5,36.2)	32.3	(28.6,36.3)	1.8	(-3.4,7.0)	0.1	(-4.7,4.9)
Females	27.0	(23.8,30.5)	28.4	(25.0,32.1)	28.9	(25.9,32.1)	1.9	(-2.0,5.7)	0.5	(-3.4,4.4)
Race/ethnicity										
White	29.8	(26.7,33.1)	31.4	(28.0,35.1)	32.4	(29.1,35.8)	2.6	(-1.2,6.3)	1.0	(-2.6,4.5)
African American	25.2	(20.0,31.2)	24.0	(18.6,30.4)	27.6	(20.8,35.6)	2.4	(-6.7,11.6)	3.6	(-6.5,13.7)
Hispanic	28.4	(22.1,35.6)	32.2	(24.3,41.2)	31.5	(23.8,40.3)	3.1	(-5.9,12.0)	-0.7	(-9.6,8.1)
Risk score										
Higher risk	49.2	(45.5,52.9)	52.0	(47.9,56.1)	47.9	(43.7,52.1)	-1.3	(-6.8,4.2)	-4.1	(-9.4,1.2)
Lower risk	5.3	(3.7,7.4)	6.9	(5.2,9.1)	7.2	(5.2,10.0)	1.9	(-1.0,4.8)	0.3	(-2.8,3.5)
Sensation seeking										
High	38.7	(35.4,42.2)	37.9	(34.3,41.7)	39.5	(36.1,43.0)	0.7	(-4.1,5.5)	1.6	(-2.7,5.8)
Low	14.4	(11.1,18.5)	17.7	(14.8,21.0)	17.6	(14.1,21.8)	3.2	(-2.0,8.4)	-0.1	(-4.6,4.4)

Table 4-2. Youth reporting using marijuana in the past year, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent reporting marijuana use in the past year									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	3.3	(2.4,4.4)	2.6	(1.7,4.0)	3.2	(2.3,4.4)	-0.1	(-1.4,1.2)	0.6	(-1.0,2.1)
14 to 15	11.3	(8.7,14.6)	13.8	(11.4,16.5)	13.2	(10.3,16.6)	1.8	(-1.9,5.5)	-0.6	(-4.1,2.9)
16 to 18	29.1	(25.6,32.8)	26.8	(23.6,30.3)	26.3	(23.0,29.8)	-2.8	(-7.5,1.9)	-0.5	(-4.8,3.7)
14 to 18	21.0	(18.9,23.2)	20.9	(18.6,23.4)	20.7	(18.5,23.0)	-0.3	(-3.0,2.4)	-0.2	(-3.0,2.6)
12 to 18	15.8	(14.3,17.5)	15.5	(13.8,17.3)	15.5	(13.9,17.2)	-0.3	(-2.3,1.7)	0.0	(-2.0,2.0)
Youth aged 12 to 13										
Gender										
Males	3.5	(2.5,4.9)	2.6	(1.4,4.7)	3.0	(1.8,5.0)	-0.5	(-2.3,1.4)	0.4	(-2.2,3.0)
Females	3.0	(1.9,4.8)	2.7	(1.7,4.2)	3.3	(2.2,5.0)	0.3	(-1.6,2.2)	0.7	(-0.9,2.3)
Race/ethnicity										
White	2.4	(1.5,3.7)	2.2	(1.4,3.7)	2.4	(1.4,3.9)	0.0	(-1.5,1.6)	0.1	(-1.5,1.8)
African American	4.3	(1.9,9.3)	0.8	(0.2,3.3)	4.1	(1.9,9.0)	-0.2	(-4.8,4.5)	3.3	*(0.1,6.5)
Hispanic	5.1	(2.7,9.2)	5.5	(2.4,12.3)	4.4	(2.2,8.5)	-0.7	(-5.1,3.7)	-1.2	(-6.2,3.9)
Risk score										
Higher risk	23.0	(16.2,31.6)	18.4	(11.2,28.7)	22.2	(14.0,33.3)	-0.8	(-12.1,10.4)	3.8	(-8.4,16.0)
Lower risk	1.5	(0.9,2.7)	1.3	(0.7,2.3)	1.0	(0.5,1.7)	-0.5	(-1.5,0.5)	-0.3	(-1.4,0.7)
Sensation seeking										
High	6.4	(4.6,8.9)	5.4	(3.3,8.6)	5.8	(4.0,8.3)	-0.6	(-3.2,1.9)	0.4	(-2.7,3.6)
Low	0.9	(0.5,1.7)	0.8	(0.3,1.7)	1.1	(0.5,2.4)	0.2	(-0.9,1.2)	0.3	(-0.6,1.1)

Table 4-2. Youth reporting using marijuana in the past year, by age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent reporting marijuana use in the past year									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	23.5	(19.8,27.7)	21.7	(18.7,25.0)	21.5	(18.3,25.0)	-2.1	(-6.4,2.3)	-0.2	(-4.4,3.9)
Females	18.4	(15.8,21.2)	20.1	(17.0,23.6)	19.9	(17.0,23.1)	1.5	(-2.1,5.2)	-0.2	(-3.9,3.5)
Race/ethnicity										
White	22.7	(20.0,25.7)	22.4	(19.4,25.7)	23.3	(20.6,26.2)	0.5	(-2.8,3.9)	0.9	(-2.9,4.6)
African American	17.6	(13.0,23.4)	15.6	(11.5,20.8)	12.4	(8.3,18.0)	-5.2	(-12.1,1.7)	-3.2	(-10.1,3.8)
Hispanic	16.8	(12.3,22.6)	19.6	(14.4,26.1)	21.0	(14.1,30.2)	4.2	(-4.3,12.8)	1.4	(-5.1,8.0)
Risk score										
Higher risk	37.2	(33.9,40.6)	36.0	(32.3,40.0)	32.8	(29.1,36.7)	-4.4	(-9.1,0.3)	-3.3	(-8.7,2.1)
Lower risk	3.4	(2.2,5.5)	4.9	(3.4,7.0)	5.0	(3.3,7.5)	1.6	(-1.1,4.3)	0.1	(-2.6,2.9)
Sensation seeking										
High	29.9	(27.0,33.1)	27.5	(24.2,30.9)	28.7	(25.6,32.1)	-1.2	(-5.3,2.8)	1.3	(-3.0,5.6)
Low	7.9	(5.7,10.8)	9.9	(7.7,12.8)	9.0	(6.5,12.2)	1.1	(-2.6,4.8)	-1.0	(-4.6,2.7)

Table 4-3. Youth reporting using marijuana in the past month, by age, gender, race/ethnicity, risk score, and sensation seeking

Characteristics	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	1.4	(0.9,2.1)	1.1	(0.5,2.3)	1.1	(0.6,1.9)	-0.3	(-1.1,0.4)	0.0	(-1.1,1.0)
14 to 15	3.6	(2.3,5.4)	7.2	(5.4,9.6)	6.2	(4.3,8.8)	2.6	(-0.3,5.5)	-1.0	(-3.6,1.5)
16 to 18	14.7	(12.4,17.3)	14.0	(11.3,17.2)	15.3	(12.7,18.4)	0.7	(-2.7,4.0)	1.3	(-2.3,5.0)
14 to 18	9.6	(8.1,11.3)	10.9	(9.1,13.0)	11.4	(9.7,13.4)	1.8	(-0.5,4.1)	0.5	(-1.8,2.8)
12 to 18	7.2	(6.1,8.4)	8.0	(6.7,9.5)	8.4	(7.2,9.7)	1.2	(-0.5,2.8)	0.3	(-1.2,1.9)
Youth aged 12 to 13										
Gender										
Males	1.9	(1.1,3.2)	1.5	(0.6,3.7)	1.3	(0.6,2.7)	-0.6	(-1.9,0.6)	-0.2	(-1.9,1.5)
Females	0.8	(0.4,1.7)	0.7	(0.3,1.7)	0.8	(0.3,2.2)	0.0	(-0.9,0.9)	0.1	(-0.9,1.1)
Race/ethnicity										
White	1.2	(0.6,2.1)	0.6	(0.2,1.7)	0.8	(0.3,2.0)	-0.4	(-1.4,0.6)	0.2	(-0.8,1.1)
African American	1.6	(0.5,5.6)	0.8	(0.2,3.3)	1.7	(0.7,4.3)	0.1	(-2.4,2.6)	0.9	(-1.1,2.9)
Hispanic	1.9	(0.7,5.2)	2.9	(0.8,10.2)	1.7	(0.6,5.3)	-0.2	(-2.9,2.6)	-1.2	(-5.4,3.0)
Risk score										
Higher risk	11.3	(6.5,18.7)	6.2	(2.2,16.2)	7.6	(3.2,17.0)	-3.7	(-11.9,4.6)	1.4	(-7.8,10.6)
Lower risk	0.4	(0.2,0.9)	0.6	(0.3,1.5)	0.4	(0.2,1.1)	0.0	(-0.5,0.5)	-0.2	(-0.9,0.5)
Sensation seeking										
High	2.4	(1.4,4.1)	2.3	(1.0,5.1)	1.9	(0.9,3.8)	-0.5	(-2.2,1.1)	-0.4	(-2.7,1.9)
Low	0.5	(0.2,1.2)	0.2	(0.1,0.9)	0.5	(0.2,1.4)	-0.1	(-0.7,0.6)	0.2	(-0.4,0.8)

Table 4-3. Youth reporting using marijuana in the past month, by age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent reporting marijuana use in the past month									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	11.6	(9.0,14.9)	11.1	(8.6,14.1)	12.2	(9.5,15.5)	0.5	(-2.8,3.9)	1.1	(-2.7,4.8)
Females	7.5	(5.6,10.1)	10.7	(8.5,13.4)	10.7	(8.3,13.6)	3.1	(-0.2,6.4)	-0.1	(-3.1,2.9)
Race/ethnicity										
White	9.7	(7.9,11.9)	12.2	(9.9,14.8)	12.6	(10.6,15.0)	2.9	*(0.1,5.8)	0.5	(-2.3,3.3)
African American	8.5	(5.2,13.9)	8.1	(5.2,12.5)	8.4	(4.9,14.1)	-0.1	(-6.2,5.9)	0.3	(-5.7,6.2)
Hispanic	10.0	(6.7,14.7)	7.9	(4.2,14.5)	11.3	(7.0,17.9)	1.3	(-4.8,7.5)	3.4	(-2.1,8.9)
Risk score										
Higher risk	17.9	(15.1,21.1)	18.9	(15.9,22.5)	18.5	(15.4,21.9)	0.6	(-4.0,5.2)	-0.5	(-5.1,4.2)
Lower risk	1.0	(0.5,1.9)	2.4	(1.3,4.4)	2.3	(1.4,3.7)	1.3	(-0.1,2.6)	-0.1	(-2.2,1.9)
Sensation seeking										
High	14.3	(11.8,17.2)	14.3	(11.7,17.4)	16.4	(13.6,19.7)	2.1	(-1.9,6.2)	2.1	(-1.6,5.7)
Low	2.7	(1.5,4.5)	5.3	(3.8,7.4)	4.4	(2.9,6.7)	1.7	(-0.5,3.9)	-0.9	(-3.5,1.7)

Table 4-4. Youth reporting regular marijuana use[1], by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent reporting regular marijuana use									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	0.5	(0.3,1.1)	0.3	(0.1,0.8)	0.6	(0.3,1.5)	0.1	(-0.5,0.7)	0.3	(-0.3,0.9)
14 to 15	2.2	(1.4,3.3)	5.4	(3.9,7.6)	3.8	(2.7,5.5)	1.7	(-0.1,3.5)	-1.6	(-3.7,0.5)
16 to 18	12.4	(10.3,14.9)	11.7	(9.3,14.6)	11.7	(9.4,14.5)	-0.8	(-3.9,2.4)	0.0	(-3.2,3.3)
14 to 18	7.7	(6.6,9.1)	8.8	(7.3,10.7)	8.4	(6.8,10.2)	0.6	(-1.3,2.5)	-0.5	(-2.6,1.6)
12 to 18	5.6	(4.8,6.6)	6.3	(5.2,7.6)	6.1	(5.0,7.4)	0.4	(-0.9,1.7)	-0.3	(-1.7,1.2)
Youth aged 14 to 18										
Gender										
Males	9.9	(7.8,12.5)	10.9	(8.6,13.7)	9.5	(7.3,12.2)	-0.4	(-3.4,2.5)	-1.4	(-4.7,1.9)
Females	5.5	(3.9,7.8)	6.7	(5.1,8.8)	7.2	(4.9,10.5)	1.7	(-1.4,4.7)	0.5	(-2.2,3.2)
Race/ethnicity										
White	8.7	(7.1,10.7)	10.4	(8.4,12.7)	9.3	(7.3,11.9)	0.6	(-2.0,3.2)	-1.0	(-3.7,1.7)
African American	4.2	(2.2,7.9)	3.7	(2.0,6.7)	5.8	(3.1,10.6)	1.6	(-2.3,5.6)	2.1	(-2.3,6.5)
Hispanic	5.8	(3.2,10.5)	7.4	(3.8,14.0)	8.0	(4.6,13.5)	2.2	(-3.4,7.7)	0.6	(-4.5,5.6)
Risk score										
Higher risk	14.7	(12.5,17.3)	14.9	(12.3,17.8)	14.4	(11.4,18.0)	-0.3	(-3.9,3.2)	-0.5	(-4.8,3.8)
Lower risk	0.4	(0.2,1.0)	1.8	(0.9,3.8)	1.0	(0.5,2.1)	0.7	(-0.2,1.5)	-0.8	(-2.5,0.9)
Sensation seeking										
High	11.6	(9.6,13.9)	12.7	(10.3,15.4)	12.5	(10.0,15.5)	0.9	(-2.3,4.0)	-0.2	(-3.5,3.2)
Low	2.3	(1.2,4.5)	2.5	(1.7,3.8)	2.3	(1.3,4.0)	0.0	(-2.0,2.1)	-0.2	(-1.6,1.2)

[1]Regular use = Used 10 or more times in past year.

Table DT 4-5 has been intentionally deleted

Table 4-6. Youth never receiving offers of marijuana, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent reporting never receiving offers of marijuana									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
All youth aged 12 to 18										
12 to 13	81.7	(79.4,83.8)	82.9	(80.8,84.7)	81.6	(78.4,84.4)	-0.1	(-3.8,3.6)	-1.3	(-4.5,2.0)
14 to 15	53.8	(50.3,57.3)	54.9	(50.7,59.0)	53.4	(49.3,57.6)	-0.3	(-5.0,4.3)	-1.5	(-6.8,3.9)
16 to 18	29.4	(26.0,33.0)	29.6	(26.7,32.7)	32.0	(28.4,35.7)	2.6	(-1.8,6.9)	2.4	(-2.2,6.9)
14 to 18	40.5	(37.6,43.5)	41.0	(38.3,43.9)	41.2	(38.3,44.0)	0.6	(-2.9,4.2)	0.1	(-3.5,3.7)
12 to 18	52.5	(50.3,54.7)	53.4	(51.2,55.5)	53.2	(50.9,55.4)	0.7	(-2.0,3.4)	-0.2	(-2.9,2.5)
Youth aged 12 to 13										
Gender										
Males	81.2	(77.6,84.3)	82.6	(79.7,85.1)	80.2	(74.9,84.6)	-1.0	(-7.1,5.1)	-2.4	(-7.6,2.9)
Females	82.3	(79.3,84.9)	83.2	(79.3,86.4)	83.0	(79.6,86.0)	0.8	(-3.6,5.2)	-0.1	(-4.6,4.3)
Race/ethnicity										
White	84.4	(82.0,86.5)	84.7	(82.1,86.9)	83.7	(80.4,86.5)	-0.8	(-4.7,3.2)	-1.0	(-4.8,2.7)
African American	78.1	(70.4,84.2)	85.1	(79.7,89.3)	73.8	(62.5,82.7)	-4.2	(-15.3,6.9)	-11.3	*(-20.5,-2.1)
Hispanic	72.5	(65.0,78.8)	73.6	(67.3,79.0)	80.6	(75.1,85.2)	8.1	(-0.1,16.4)	7.0	*(0.0,14.1)
Risk score										
Higher risk	37.2	(28.4,47.0)	37.4	(27.1,49.0)	30.9	(22.4,40.9)	-6.3	(-18.9,6.3)	-6.5	(-19.6,6.6)
Lower risk	86.0	(83.6,88.0)	87.9	(85.8,89.6)	86.1	(83.1,88.7)	0.2	(-3.5,3.8)	-1.7	(-5.1,1.6)
Sensation seeking										
High	71.3	(67.4,74.9)	71.5	(67.3,75.5)	71.0	(65.5,75.9)	-0.3	(-6.5,5.8)	-0.6	(-6.8,5.6)
Low	89.5	(87.1,91.6)	90.5	(88.2,92.4)	89.3	(86.6,91.6)	-0.2	(-3.4,3.0)	-1.2	(-4.0,1.6)

Table 4-6. Youth never receiving offers of marijuana, by age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent reporting never receiving offers of marijuana									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	37.3	(33.9,40.9)	37.2	(33.4,41.3)	38.9	(35.1,42.7)	1.5	(-3.3,6.4)	1.6	(-3.8,7.1)
Females	43.8	(39.2,48.5)	45.1	(41.0,49.2)	43.5	(39.8,47.3)	-0.3	(-4.9,4.3)	-1.6	(-6.6,3.4)
Race/ethnicity										
White	41.4	(38.3,44.6)	42.6	(39.3,45.9)	42.2	(39.2,45.3)	0.9	(-2.9,4.7)	-0.3	(-4.5,3.9)
African American	37.3	(31.1,43.9)	39.3	(32.7,46.4)	35.4	(28.9,42.4)	-1.9	(-11.5,7.7)	-4.0	(-12.4,4.4)
Hispanic	34.7	(26.7,43.7)	35.0	(28.1,42.7)	35.8	(29.2,43.0)	1.1	(-8.7,10.9)	0.8	(-8.4,10.0)
Risk score										
Higher risk	20.6	(17.9,23.6)	19.1	(16.6,22.0)	24.0	(20.0,28.5)	3.4	(-1.1,7.9)	4.8	(0.0,9.7)
Lower risk	63.3	(58.2,68.0)	65.1	(60.7,69.3)	63.0	(58.9,66.8)	-0.3	(-6.1,5.5)	-2.2	(-8.0,3.7)
Sensation seeking										
High	31.1	(28.0,34.5)	31.4	(28.3,34.8)	30.0	(26.7,33.5)	-1.1	(-5.2,3.0)	-1.4	(-5.9,3.1)
Low	53.5	(48.2,58.7)	57.3	(52.2,62.2)	57.3	(52.8,61.7)	3.8	(-3.2,10.8)	0.0	(-7.0,7.0)

Table 4-7. Youth receiving offers of marijuana one or more times in the past 30 days, by age, gender, race/ethnicity, risk score, and sensation seeking

| Characteristics | Percent reporting receiving offers of marijuana one or more times in past 30 days | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	9.9	(8.4,11.6)	9.0	(7.6,10.8)	9.7	(8.1,11.6)	-0.2	(-2.1,1.8)	0.7	(-1.4,2.7)
14 to 15_____	26.6	(23.0,30.5)	27.8	(24.3,31.7)	29.8	(26.2,33.8)	3.3	(-1.5,8.0)	2.0	(-2.6,6.6)
16 to 18_____	46.6	(42.8,50.4)	46.6	(42.7,50.5)	46.7	(42.4,51.0)	0.1	(-4.5,4.7)	0.1	(-5.2,5.5)
14 to 18_____	37.5	(34.8,40.2)	38.1	(35.2,41.0)	39.5	(36.5,42.5)	2.0	(-1.2,5.2)	1.4	(-2.0,4.8)
12 to 18_____	29.4	(27.4,31.5)	29.6	(27.5,31.8)	30.7	(28.5,33.0)	1.2	(-1.1,3.6)	1.1	(-1.3,3.6)
Youth aged 12 to 13										
Gender										
Males_____	10.2	(8.1,12.9)	8.0	(6.3,10.1)	9.8	(7.2,13.2)	-0.4	(-3.6,2.7)	1.8	(-1.5,5.1)
Females_____	9.5	(7.7,11.6)	10.1	(7.7,13.2)	9.6	(7.6,12.1)	0.1	(-2.7,3.0)	-0.5	(-3.8,2.8)
Race/ethnicity										
White_____	7.7	(6.1,9.6)	8.0	(6.2,10.2)	8.0	(6.1,10.3)	0.3	(-2.3,2.8)	0.0	(-2.8,2.7)
African American____	11.5	(7.5,17.2)	5.9	(3.1,10.9)	13.7	(8.5,21.4)	2.2	(-4.7,9.2)	7.8	*(2.1,13.5)
Hispanic_____	17.9	(13.0,24.2)	15.9	(11.8,21.0)	14.5	(11.0,18.8)	-3.5	(-9.8,2.9)	-1.4	(-7.3,4.5)
Risk score										
Higher risk_____	41.2	(33.0,49.8)	40.3	(29.8,51.8)	45.8	(35.2,56.9)	4.7	(-7.3,16.7)	5.6	(-9.2,20.3)
Lower risk_____	6.9	(5.5,8.5)	6.3	(5.0,7.9)	6.5	(5.1,8.3)	-0.4	(-2.4,1.7)	0.1	(-1.8,2.1)
Sensation seeking										
High_____	16.2	(13.4,19.4)	16.7	(13.6,20.3)	16.9	(13.6,20.8)	0.7	(-3.3,4.6)	0.2	(-4.5,4.9)
Low_____	5.2	(3.8,7.1)	4.1	(2.9,5.8)	4.5	(3.2,6.5)	-0.7	(-2.9,1.5)	0.5	(-1.5,2.4)

Table 4-7. Youth receiving offers of marijuana one or more times in the past 30 days, by age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent reporting receiving offers of marijuana one or more times in past 30 days									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males_____	39.7	(36.0,43.6)	38.5	(34.3,42.9)	41.2	(37.8,44.7)	1.5	(-2.8,5.7)	2.7	(-2.1,7.5)
Females_____	35.2	(31.1,39.5)	37.7	(34.3,41.1)	37.7	(34.0,41.5)	2.5	(-2.3,7.3)	0.0	(-4.4,4.5)
Race/ethnicity										
White_____	37.1	(33.8,40.4)	36.9	(33.3,40.6)	38.3	(35.0,41.8)	1.3	(-2.7,5.3)	1.5	(-2.4,5.3)
African American____	39.6	(34.1,45.5)	34.6	(28.5,41.2)	45.8	(39.4,52.3)	6.1	(-1.1,13.3)	11.2	*(2.1,20.3)
Hispanic_____	39.7	(32.9,47.0)	47.3	(39.8,54.9)	44.6	(37.6,51.9)	4.9	(-4.3,14.1)	-2.7	(-12.9,7.6)
Risk score										
Higher risk_____	55.2	(51.1,59.3)	56.7	(52.6,60.7)	53.2	(48.5,57.8)	-2.0	(-7.4,3.4)	-3.5	(-9.2,2.2)
Lower risk_____	17.6	(14.4,21.3)	18.4	(15.3,22.1)	21.3	(18.4,24.5)	3.7	(-1.0,8.5)	2.9	(-1.4,7.2)
Sensation seeking										
High_____	47.4	(44.1,50.7)	45.5	(41.7,49.4)	49.3	(45.3,53.2)	1.9	(-2.6,6.4)	3.7	(-0.9,8.3)
Low_____	23.3	(19.6,27.6)	25.7	(21.8,30.0)	25.2	(21.7,29.1)	1.9	(-2.7,6.5)	-0.5	(-5.7,4.8)

Table 4-8. Youth reporting ever having used inhalants, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent reporting inhalant use ever									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	1.3	(0.9,1.9)	1.7	(1.1,2.6)	1.7	(1.1,2.7)	0.4	(-0.6,1.5)	0.1	(-1.0,1.1)
14 to 15_____	5.7	(3.8,8.5)	3.6	(2.5,5.0)	3.6	(2.4,5.2)	-2.2	(-4.9,0.6)	0.0	(-1.8,1.7)
16 to 18_____	7.8	(6.3,9.7)	5.8	(4.5,7.6)	6.8	(5.0,9.2)	-1.0	(-3.4,1.3)	0.9	(-1.3,3.2)
14 to 18_____	6.9	(5.6,8.3)	4.8	(3.9,6.0)	5.4	(4.2,6.9)	-1.5	(-3.2,0.3)	0.6	(-0.8,2.0)
12 to 18_____	5.2	(4.4,6.3)	3.9	(3.2,4.8)	4.3	(3.4,5.5)	-0.9	(-2.3,0.4)	0.4	(-0.6,1.5)
Youth aged 12 to 13										
Gender										
Males_____	1.4	(0.9,2.3)	1.1	(0.5,2.3)	1.7	(0.9,3.2)	0.3	(-1.1,1.6)	0.6	(-0.8,2.0)
Females_____	1.1	(0.6,2.1)	2.3	(1.3,4.0)	1.8	(0.9,3.4)	0.7	(-0.7,2.0)	-0.6	(-2.2,1.1)
Race/ethnicity										
White_____	1.4	(0.9,2.1)	1.6	(1.0,2.7)	1.8	(1.0,3.2)	0.4	(-0.8,1.6)	0.2	(-1.1,1.4)
African American____	0.7	(0.1,3.6)	0.9	(0.2,3.5)	0.4	(0.0,4.4)	-0.3	(-1.9,1.3)	-0.4	(-2.0,1.1)
Hispanic_____	1.3	(0.5,3.1)	2.6	(1.1,5.8)	2.8	(1.1,6.8)	1.5	(-1.3,4.4)	0.2	(-3.1,3.6)
Risk score										
Higher risk_____	9.0	(5.3,14.6)	10.7	(6.1,18.0)	10.2	(5.4,18.4)	1.2	(-7.0,9.4)	-0.5	(-9.4,8.4)
Lower risk_____	0.6	(0.3,1.0)	0.7	(0.3,1.5)	1.0	(0.6,1.8)	0.4	(-0.3,1.2)	0.3	(-0.5,1.1)
Sensation seeking										
High_____	2.8	(1.9,4.1)	2.7	(1.7,4.1)	3.6	(2.2,5.7)	0.8	(-1.5,3.1)	0.9	(-1.3,3.2)
Low_____	0.1	(0.0,0.4)	1.0	(0.4,2.3)	0.4	(0.1,1.7)	0.3	(-0.3,0.9)	-0.6	(-1.3,0.1)

Table 4-8. Youth reporting ever having used inhalants, by age, gender, race/ethnicity, risk score, and sensation seeking (continued)

| | Percent reporting inhalant use ever | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	8.9	(6.6,11.9)	5.3	(3.8,7.5)	5.3	(3.7,7.6)	-3.6	*(-6.5,-0.7)	0.0	(-2.5,2.4)
Females	4.7	(3.5,6.3)	4.3	(3.2,5.7)	5.5	(4.0,7.5)	0.8	(-1.4,2.9)	1.2	(-0.7,3.2)
Race/ethnicity										
White	7.6	(6.0,9.7)	5.4	(4.3,6.7)	6.5	(4.9,8.7)	-1.1	(-3.4,1.2)	1.2	(-0.7,3.0)
African American	1.4	(0.5,3.8)	1.6	(0.8,3.5)	1.7	(0.7,3.9)	0.3	(-1.7,2.3)	0.1	(-1.5,1.6)
Hispanic	7.9	(5.0,12.1)	6.0	(3.4,10.2)	4.8	(2.8,8.3)	-3.1	(-7.2,1.1)	-1.2	(-4.3,2.0)
Risk score										
Higher risk	12.2	(10.1,14.7)	9.0	(7.2,11.3)	8.1	(6.0,10.7)	-4.2	*(-7.2,-1.2)	-1.0	(-3.5,1.5)
Lower risk	1.4	(0.7,2.7)	0.7	(0.4,1.1)	1.0	(0.4,2.6)	-0.3	(-1.7,1.1)	0.3	(-0.6,1.3)
Sensation seeking										
High	11.1	(9.1,13.4)	6.5	(5.1,8.3)	7.7	(5.9,10.0)	-3.3	*(-6.0,-0.6)	1.3	(-0.9,3.4)
Low	0.6	(0.3,1.2)	2.1	(1.2,3.7)	2.0	(1.1,3.6)	1.4	*(0.2,2.7)	-0.1	(-1.6,1.4)

Table 4-9. Youth reporting using inhalant in the past year, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent reporting inhalant use in the past year | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	0.8	(0.5,1.4)	1.1	(0.7,2.0)	0.9	(0.5,1.6)	0.1	(-0.6,0.8)	-0.2	(-1.0,0.5)
14 to 15	2.6	(1.7,4.0)	1.9	(1.1,3.2)	2.3	(1.4,3.8)	-0.3	(-1.7,1.2)	0.5	(-1.0,2.0)
16 to 18	3.1	(1.9,4.8)	2.3	(1.3,3.9)	2.1	(1.2,3.8)	-1.0	(-2.8,0.9)	-0.2	(-1.7,1.3)
14 to 18	2.9	(2.1,3.9)	2.1	(1.4,3.1)	2.2	(1.5,3.3)	-0.7	(-1.9,0.6)	0.1	(-0.9,1.2)
12 to 18	2.3	(1.7,3.0)	1.8	(1.3,2.5)	1.8	(1.3,2.6)	-0.5	(-1.3,0.4)	0.0	(-0.7,0.8)
Youth aged 12 to 13										
Gender										
Males	0.8	(0.4,1.8)	0.6	(0.2,1.8)	0.8	(0.4,1.6)	0.0	(-0.8,0.9)	0.2	(-0.7,1.1)
Females	0.9	(0.4,1.8)	1.7	(0.9,3.2)	1.0	(0.4,2.4)	0.1	(-0.9,1.1)	-0.7	(-1.9,0.5)
Race/ethnicity										
White	0.9	(0.5,1.7)	1.2	(0.6,2.3)	1.2	(0.6,2.1)	0.3	(-0.7,1.2)	0.0	(-0.9,0.9)
African American	0.5	(0.1,4.1)	0.4	(0.0,3.3)	S	(S)	S	(S)	S	(S)
Hispanic	1.0	(0.4,2.7)	2.1	(0.8,5.3)	1.0	(0.3,3.9)	0.0	(-1.7,1.7)	-1.1	(-3.6,1.4)
Risk score										
Higher risk	6.0	(2.9,12.0)	7.0	(3.2,14.9)	6.4	(2.9,13.7)	0.4	(-6.0,6.8)	-0.6	(-8.3,7.0)
Lower risk	0.3	(0.2,0.7)	0.5	(0.2,1.2)	0.5	(0.2,1.0)	0.1	(-0.3,0.6)	0.0	(-0.6,0.5)
Sensation seeking										
High	1.8	(1.1,3.1)	1.8	(1.0,3.3)	1.7	(1.0,2.8)	-0.1	(-1.4,1.1)	-0.1	(-1.6,1.4)
Low	0.0	(0.0,0.8)	0.7	(0.2,2.0)	0.4	(0.1,1.6)	0.4	(-0.1,0.9)	-0.3	(-0.8,0.3)

Table 4-9. Youth reporting using inhalants in the past year, by age, gender, race/ethnicity, risk score, and sensation seeking (continued)

| | Percent reporting inhalant use in the past year | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	3.4	(2.1,5.4)	2.7	(1.6,4.5)	2.3	(1.4,3.8)	-1.1	(-3.0,0.8)	-0.4	(-2.0,1.3)
Females	2.3	(1.5,3.5)	1.4	(0.9,2.3)	2.1	(1.3,3.3)	-0.2	(-1.5,1.1)	0.6	(-0.5,1.8)
Race/ethnicity	3.3	(2.2,4.8)	2.6	(1.7,4.1)	2.3	(1.4,3.7)	-1.0	(-2.6,0.6)	-0.3	(-1.7,1.0)
White	3.3	(2.2,4.8)	2.6	(1.7,4.1)	2.4	(1.5,3.8)	-0.9	(-2.5,0.8)	-0.2	(-1.6,1.2)
African American	0.1	(0.0,0.8)	0.5	(0.1,2.4)	1.3	(0.3,5.5)	1.2	(-0.7,3.2)	0.8	(-1.3,2.9)
Hispanic	2.0	(1.0,4.3)	1.1	(0.6,2.2)	2.3	(1.1,4.9)	0.2	(-2.1,2.5)	1.2	(-0.6,2.9)
Risk score	5.4	(3.9,7.5)	3.9	(2.6,6.0)	3.1	(1.9,5.0)	-2.3	*(-4.5,-0.1)	-0.8	(-2.8,1.2)
Higher risk	5.4	(3.9,7.6)	3.9	(2.6,6.0)	3.1	(1.9,4.9)	-2.4	*(-4.5,-0.2)	-0.8	(-2.8,1.2)
Lower risk	0.4	(0.1,1.1)	0.6	(0.3,1.0)	0.8	(0.3,2.2)	0.3	(-0.6,1.3)	0.2	(-0.7,1.0)
Sensation seeking	4.5	(3.2,6.2)	2.9	(1.8,4.5)	3.0	(2.0,4.5)	-1.5	(-3.3,0.4)	0.2	(-1.5,1.8)
High	4.5	(3.2,6.3)	2.9	(1.8,4.5)	3.1	(2.1,4.6)	-1.4	(-3.3,0.4)	0.2	(-1.4,1.9)
Low	0.5	(0.2,1.1)	0.8	(0.4,1.4)	0.9	(0.3,2.5)	0.3	(-0.6,1.3)	0.1	(-0.9,1.1)

Table 4-10. Youth reporting using inhalants in the past month, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent reporting inhalant use in the past month | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	0.2	(0.1,0.5)	0.4	(0.2,1.1)	0.5	(0.3,0.9)	0.3	(-0.1,0.6)	0.1	(-0.5,0.6)
14 to 15_____	0.3	(0.1,0.6)	0.8	(0.4,1.8)	1.1	(0.5,2.1)	0.8	*(0.0,1.5)	0.3	(-0.7,1.2)
16 to 18_____	0.9	(0.4,1.9)	0.4	(0.2,1.0)	1.0	(0.5,2.1)	0.1	(-0.9,1.2)	0.6	(-0.3,1.4)
14 to 18_____	0.6	(0.3,1.1)	0.6	(0.4,1.0)	1.0	(0.6,1.7)	0.4	(-0.2,1.1)	0.4	(-0.2,1.1)
12 to 18_____	0.5	(0.3,0.8)	0.5	(0.3,0.8)	0.9	(0.5,1.4)	0.4	(-0.1,0.9)	0.3	(-0.1,0.8)
Youth aged 12 to 13										
Gender										
Males_____	0.2	(0.0,0.7)	0.5	(0.1,1.6)	0.4	(0.2,0.8)	0.2	(-0.1,0.6)	-0.1	(-0.7,0.6)
Females_____	0.3	(0.1,0.8)	0.4	(0.1,1.3)	0.6	(0.2,1.6)	0.3	(-0.3,1.0)	0.2	(-0.6,1.0)
Race/ethnicity										
White_____	0.2	(0.1,0.5)	0.5	(0.2,1.3)	0.5	(0.3,1.0)	0.3	(-0.1,0.7)	0.1	(-0.6,0.7)
African American____	S	(S)	S	(S)	S	(S)	S	(S)	S	(S)
Hispanic_____	0.7	(0.2,2.8)	0.9	(0.2,4.0)	1.0	(0.3,3.9)	0.3	(-1.3,2.0)	0.1	(-2.0,2.3)
Risk score										
Higher risk_____	0.4	(0.0,3.5)	2.9	(0.7,10.4)	3.5	(1.5,8.0)	3.1	*(0.0,6.2)	0.6	(-4.2,5.5)
Lower risk_____	0.2	(0.1,0.6)	0.2	(0.0,0.8)	0.2	(0.1,0.7)	0.0	(-0.3,0.3)	0.1	(-0.3,0.4)
Sensation seeking										
High_____	0.5	(0.2,1.2)	0.7	(0.2,2.3)	1.0	(0.5,2.0)	0.5	(-0.3,1.2)	0.2	(-0.9,1.4)
Low_____	0.0	(0.0,0.8)	0.2	(0.1,1.1)	0.1	(0.1,0.3)	0.1	*(0.0,0.2)	-0.1	(-0.5,0.3)

Table 4-10. Youth reporting using inhalants in the past month, by age, gender, race/ethnicity, risk score, and sensation seeking (continued)

| | Percent reporting inhalant use in the past month | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	0.6	(0.2,1.8)	0.4	(0.1,1.1)	1.7	(0.9,3.2)	1.1	(-0.1,2.3)	1.3	*(0.1,2.4)
Females	0.6	(0.3,1.0)	0.8	(0.4,1.3)	0.3	(0.1,1.1)	-0.3	(-0.8,0.2)	-0.5	(-1.0,0.1)
Race/ethnicity										
White	0.5	(0.3,0.9)	0.7	(0.4,1.2)	1.1	(0.6,2.1)	0.6	(-0.2,1.3)	0.4	(-0.5,1.3)
African American	0.1	(0.0,0.8)	0.5	(0.1,2.4)	0.6	(0.1,4.5)	0.5	(-0.7,1.6)	0.0	(-1.4,1.4)
Hispanic	0.0	(0.0,2.5)	0.3	(0.1,0.9)	1.5	(0.5,4.1)	1.5	(0.0,2.9)	1.2	(-0.4,2.8)
Risk score										
Higher risk	1.3	(0.7,2.4)	1.1	(0.6,2.0)	1.3	(0.7,2.3)	0.0	(-1.2,1.2)	0.2	(-0.9,1.2)
Lower risk	0.0	(0.0,0.9)	0.1	(0.1,0.4)	0.4	(0.1,1.3)	0.4	(-0.1,0.8)	0.2	(-0.3,0.7)
Sensation seeking										
High	1.0	(0.5,1.8)	0.8	(0.4,1.6)	1.4	(0.8,2.4)	0.5	(-0.5,1.5)	0.6	(-0.4,1.6)
Low	0.1	(0.0,0.4)	0.2	(0.0,0.8)	0.3	(0.1,2.0)	0.3	(-0.4,0.9)	0.2	(-0.5,0.8)

Table 4-11. Youth reporting regular inhalant use,[1] by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent reporting regular inhalant use									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	0.1	(0.0,0.6)	0.0	(0.0,0.5)	0.3	(0.1,0.7)	0.2	(-0.1,0.5)	0.3	*(0.0,0.5)
14 to 15_____	0.2	(0.0,1.1)	0.2	(0.1,0.9)	0.4	(0.2,1.1)	0.2	(-0.3,0.8)	0.2	(-0.3,0.7)
16 to 18_____	0.4	(0.2,0.9)	0.4	(0.2,0.8)	0.2	(0.0,1.3)	-0.2	(-0.7,0.3)	-0.1	(-0.6,0.4)
14 to 18_____	0.3	(0.2,0.6)	0.3	(0.1,0.6)	0.3	(0.1,0.8)	0.0	(-0.4,0.3)	0.0	(-0.3,0.4)
12 to 18_____	0.3	(0.2,0.4)	0.2	(0.1,0.4)	0.3	(0.1,0.6)	0.0	(-0.2,0.3)	0.1	(-0.2,0.4)
Youth aged 14 to 18										
Gender										
Males_____	0.6	(0.3,1.1)	0.4	(0.1,0.9)	0.6	(0.2,1.5)	0.0	(-0.7,0.7)	0.2	(-0.5,0.9)
Females_____	0.1	(0.1,0.3)	0.2	(0.1,0.6)	0.1	(0.0,0.6)	-0.1	(-0.2,0.1)	-0.2	(-0.4,0.1)
Race/ethnicity										
White_____	0.5	(0.3,0.9)	0.4	(0.2,0.9)	0.3	(0.1,1.1)	-0.3	(-0.8,0.2)	-0.1	(-0.6,0.4)
African American____	0.0	(0.0,2.6)	0.0	(0.0,2.6)	0.4	(0.1,1.1)	0.4	(-0.1,0.8)	0.4	(-0.1,0.8)
Hispanic_____	0.0	(0.0,2.5)	0.4	(0.1,1.1)	0.7	(0.2,2.8)	0.7	(-0.3,1.6)	0.3	(-0.8,1.3)
Risk score										
Higher risk_____	0.7	(0.4,1.3)	0.6	(0.2,1.2)	0.6	(0.2,1.6)	-0.1	(-0.8,0.7)	0.1	(-0.7,0.8)
Lower risk_____	0.0	(0.0,0.2)	0.1	(0.0,0.3)	0.0	(0.0,0.8)	0.0	(-0.1,0.0)	-0.1	(-0.2,0.0)
Sensation seeking										
High_____	0.6	(0.3,1.0)	0.5	(0.2,1.0)	0.5	(0.2,1.3)	-0.1	(-0.7,0.5)	0.0	(-0.6,0.6)
Low_____	0.0	(0.0,1.0)	0.0	(0.0,0.9)	0.1	(0.0,0.2)	0.1	*(0.0,0.1)	0.1	*(0.0,0.1)

[1]Regular use = Used 10 or more times in past year.

Table 5-1. Nonusers[1] intentions to use marijuana[2] even once or twice in the next 12 months, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent definitely not intending to try marijuana									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	92.3	(90.6,93.7)	90.9	(89.0,92.5)	91.7	(89.6,93.4)	-0.6	(-2.8,1.7)	0.9	(-1.7,3.4)
14 to 15	85.1	(82.3,87.5)	83.8	(80.9,86.4)	82.1	(79.4,84.5)	-3.0	(-6.8,0.7)	-1.7	(-4.9,1.4)
16 to 18	84.6	(81.4,87.3)	83.5	(79.3,86.9)	82.0	(77.9,85.4)	-2.6	(-7.3,2.0)	-1.5	(-6.0,3.0)
14 to 18	84.9	(82.9,86.7)	83.7	(81.2,85.9)	82.0	(79.7,84.1)	-2.9	*(-5.6,-0.1)	-1.6	(-4.3,1.0)
12 to 18	87.5	(86.1,88.8)	86.3	(84.6,87.9)	85.6	(84.0,87.0)	-1.9	(-3.9,0.1)	-0.7	(-2.5,1.0)
Youth aged 12 to 18										
Gender										
Males	86.7	(84.4,88.7)	87.1	(84.6,89.4)	84.2	(81.4,86.6)	-2.5	(-5.7,0.7)	-3.0	(-6.0,0.0)
Females	88.4	(86.2,90.2)	85.4	(83.2,87.4)	87.0	(84.8,88.8)	-1.4	(-4.1,1.4)	1.5	(-1.0,4.1)
Race/ethnicity										
White	87.5	(85.7,89.1)	86.7	(84.5,88.6)	85.8	(83.6,87.8)	-1.7	(-4.3,0.9)	-0.9	(-2.9,1.2)
African American	87.2	(82.9,90.5)	85.4	(81.1,88.8)	85.0	(79.3,89.3)	-2.2	(-7.8,3.5)	-0.4	(-6.7,5.9)
Hispanic	87.5	(83.2,90.9)	87.1	(82.7,90.5)	83.6	(78.5,87.7)	-3.9	(-9.8,2.0)	-3.5	(-9.6,2.5)
Risk score										
Higher risk	75.2	(71.1,78.9)	70.3	(64.8,75.2)	73.4	(68.7,77.6)	-1.8	(-7.6,4.0)	3.2	(-3.4,9.7)
Lower risk	92.2	(90.5,93.6)	91.6	(89.9,93.0)	89.8	(88.2,91.2)	-2.4	*(-4.6,-0.2)	-1.8	(-3.9,0.2)
Sensation seeking										
High	80.6	(78.1,83.0)	79.0	(76.5,81.4)	77.9	(75.2,80.4)	-2.7	(-6.1,0.6)	-1.1	(-4.0,1.8)
Low	94.0	(92.1,95.5)	93.6	(91.4,95.2)	92.3	(90.3,94.0)	-1.7	(-4.0,0.7)	-1.2	(-3.5,1.0)

[1]Nonusers are those who have never used marijuana in the past.

[2]All youth, regardless of current or prior marijuana usage, were asked "How likely is it that you will use marijuana, even once or twice, over the next 12 months?"

Table 5-2. Nonusers'[1] personal beliefs about outcomes and attitudes toward marijuana use[2], by age, gender, race/ethnicity, risk score, and sensation seeking

	Beliefs about outcomes of marijuana use									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	129.20	(122.81,135.59)	121.40	(116.34,126.47)	127.21	(121.16,133.27)	-1.99	(-8.60,4.63)	5.81	(-1.60,13.23)
14 to 15	102.29	(94.63,109.96)	100.85	(93.16,108.55)	101.33	(93.97,108.69)	-0.96	(-11.53,9.60)	0.48	(-7.57,8.53)
16 to 18	91.31	(81.30,101.32)	85.13	(74.91,95.36)	94.02	(83.31,104.73)	2.71	(-8.95,14.37)	8.89	(-3.01,20.79)
14 to 18	97.28	(90.50,104.06)	93.42	(86.90,99.95)	97.64	(91.22,104.07)	0.36	(-6.94,7.66)	4.22	(-2.58,11.02)
12 to 18	108.55	(103.15,113.95)	103.49	(98.77,108.21)	108.17	(102.82,113.52)	-0.38	(-5.49,4.73)	4.68	(-0.57,9.93)
Youth aged 12 to 18										
Gender										
Males	102.83	(96.30,109.35)	102.47	(96.41,108.53)	104.29	(95.85,112.73)	1.46	(-6.57,9.49)	1.82	(-6.79,10.42)
Females	114.29	(107.31,121.28)	104.52	(97.65,111.40)	112.11	(105.45,118.77)	-2.18	(-11.10,6.74)	7.59	(-1.02,16.19)
Race/ethnicity										
White	111.66	(105.49,117.82)	106.08	(99.89,112.27)	112.39	(105.26,119.53)	0.73	(-6.59,8.06)	6.31	(-1.07,13.69)
African American	100.69	(89.64,111.73)	95.17	(84.85,105.49)	93.93	(82.69,105.17)	-6.76	(-19.43,5.91)	-1.24	(-14.07,11.59)
Hispanic	102.35	(90.54,114.15)	109.00	(97.56,120.44)	103.84	(91.81,115.88)	1.50	(-15.85,18.85)	-5.16	(-18.18,7.87)
Risk score										
Higher risk	62.54	(50.85,74.23)	49.27	(36.48,62.06)	58.93	(45.37,72.49)	-3.61	(-17.28,10.07)	9.66	(-6.23,25.56)
Lower risk	125.09	(119.31,130.87)	121.91	(117.77,126.05)	124.64	(119.28,130.00)	-0.45	(-6.99,6.09)	2.73	(-3.07,8.53)
Sensation seeking										
High	81.87	(73.70,90.03)	76.20	(68.77,83.63)	82.78	(74.42,91.13)	0.91	(-7.98,9.80)	6.58	(-3.06,16.22)
Low	132.85	(125.50,140.21)	131.42	(125.77,137.06)	131.84	(126.20,137.49)	-1.01	(-9.53,7.51)	0.43	(-6.69,7.54)

[1]Nonusers are those who have never used marijuana in the past.

[2]Measurement of this construct is detailed in Appendix E.

Table 5-3. Nonusers'[1] perceptions of social norms regarding marijuana use[2], by age, gender, race/ethnicity, risk score, and sensation seeking

	Mean score on anti-marijuana social norm index									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	136.87	(132.24,141.49)	129.47	(124.07,134.87)	129.63	(124.98,134.27)	-7.24	*(-13.08,-1.40)	0.15	(-6.34,6.64)
14 to 15	97.63	(90.50,104.75)	98.22	(89.74,106.71)	91.34	(82.57,100.10)	-6.29	(-17.17,4.59)	-6.89	(-16.93,3.16)
16 to 18	83.91	(74.22,93.60)	70.65	(61.22,80.08)	75.53	(64.10,86.96)	-8.38	(-20.52,3.75)	4.88	(-7.84,17.59)
14 to 18	91.37	(85.63,97.10)	85.19	(78.91,91.48)	83.36	(75.73,90.99)	-8.01	(-16.34,0.33)	-1.83	(-10.26,6.59)
12 to 18	107.43	(103.30,111.57)	101.12	(96.67,105.58)	99.83	(94.55,105.11)	-7.60	*(-13.28,-1.93)	-1.29	(-7.04,4.45)
Youth aged 12 to 18										
Gender										
Males	98.60	(92.36,104.83)	95.10	(88.72,101.48)	91.70	(83.49,99.92)	-6.89	(-16.10,2.32)	-3.40	(-12.52,5.73)
Females	116.29	(109.74,122.84)	107.25	(100.48,114.01)	108.08	(102.55,113.60)	-8.22	*(-16.37,-0.07)	0.83	(-7.11,8.77)
Race/ethnicity										
White	112.65	(107.15,118.15)	107.24	(102.06,112.41)	104.07	(97.03,111.10)	-8.58	*(-17.03,-0.13)	-3.17	(-10.75,4.41)
African American	83.02	(74.10,91.93)	74.01	(65.35,82.67)	85.21	(72.25,98.18)	2.20	(-14.50,18.89)	11.20	(-2.54,24.95)
Hispanic	104.38	(93.38,115.38)	107.55	(94.65,120.45)	87.86	(76.62,99.10)	-16.51	*(-32.03,-1.00)	-19.69	*(-36.62,-2.75)
Risk score										
Higher risk	56.52	(44.65,68.40)	41.07	(30.99,51.15)	34.75	(21.86,47.64)	-21.77	*(-37.90,-5.65)	-6.32	(-22.82,10.18)
Lower risk	124.10	(120.22,127.99)	121.74	(116.84,126.64)	122.15	(117.61,126.68)	-1.96	(-7.44,3.52)	0.41	(-5.80,6.61)
Sensation seeking										
High	83.88	(77.36,90.40)	75.74	(69.41,82.07)	70.42	(61.70,79.14)	-13.46	*(-22.28,-4.64)	-5.32	(-15.23,4.58)
Low	128.20	(123.24,133.16)	126.88	(120.67,133.10)	126.90	(120.32,133.48)	-1.30	(-8.40,5.79)	0.02	(-8.45,8.48)

[1]Nonusers are those who have never used marijuana in the past.

[2]Measurement of this construct is detailed in Appendix E.

Table 5-4. Nonusers'[1] self-efficacy to refuse marijuana[2], by age, gender, race/ethnicity, risk score, and sensation seeking

| | Mean score on self-efficacy to refuse marijuana index | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	101.14	(96.10,106.19)	100.85	(95.61,106.09)	119.34	(114.36,124.32)	18.20	*(11.45,24.95)	18.50	*(11.30,25.69)
14 to 15	96.62	(86.90,106.35)	111.95	(105.56,118.34)	111.64	(104.65,118.63)	15.02	*(3.83,26.21)	-0.31	(-8.41,7.79)
16 to 18	110.79	(101.88,119.71)	108.73	(98.17,119.30)	121.80	(113.13,130.47)	11.01	(-1.42,23.44)	13.07	*(1.62,24.51)
14 to 18	103.09	(96.41,109.76)	110.43	(104.42,116.44)	116.77	(111.54,122.00)	13.68	*(4.73,22.63)	6.34	(-0.28,12.96)
12 to 18	102.40	(97.58,107.22)	106.98	(102.75,111.21)	117.68	(113.82,121.55)	15.28	*(8.89,21.67)	10.70	*(5.79,15.61)
Youth aged 12 to 18										
Gender										
Males	97.31	(90.87,103.74)	107.17	(101.78,112.55)	115.11	(108.69,121.53)	17.81	*(8.43,27.18)	7.95	*(0.70,15.19)
Females	107.51	(100.57,114.45)	106.80	(100.39,113.20)	120.29	(114.84,125.75)	12.78	*(4.93,20.64)	13.50	*(6.06,20.94)
Race/ethnicity										
White	110.88	(105.66,116.10)	111.43	(107.25,115.60)	122.45	(117.65,127.25)	11.57	*(4.58,18.56)	11.03	*(5.39,16.67)
African American	85.18	(73.13,97.23)	101.14	(88.20,114.09)	110.71	(101.47,119.95)	25.53	*(11.10,39.97)	9.57	(-3.97,23.11)
Hispanic	87.86	(74.28,101.44)	98.09	(83.33,112.84)	104.20	(88.38,120.02)	16.34	(-4.06,36.74)	6.11	(-10.63,22.85)
Risk score										
Higher risk	94.18	(83.90,104.46)	84.46	(72.89,96.02)	99.02	(86.93,111.11)	4.84	(-11.76,21.43)	14.57	(-2.06,31.19)
Lower risk	106.51	(101.22,111.80)	116.13	(111.87,120.38)	123.86	(119.85,127.86)	17.34	*(10.83,23.85)	7.73	*(2.32,13.14)
Sensation seeking										
High	88.16	(80.78,95.55)	88.88	(82.45,95.30)	104.21	(97.68,110.74)	16.05	*(6.38,25.72)	15.34	*(6.53,24.14)
Low	116.76	(110.79,122.73)	125.83	(120.92,130.75)	130.38	(125.76,135.00)	13.62	*(6.21,21.03)	4.55	(-1.42,10.51)

[1]Nonusers are those who have never used marijuana in the past.

[2]Measurement of this construct is detailed in Appendix E.

Table DT 5-5 has been intentionally deleted

Table 5-6. Beliefs about possible outcomes of using marijuana even once or twice among nonusing[1] youth aged 12 to 18, by age

| | Percent holding strong anti-drug beliefs[2] | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Outcome by Age	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Upset my parents/caregivers										
12 to 13	82.8	(79.2,85.8)	79.6	(75.6,83.2)	83.6	(79.6,86.9)	0.8	(-3.9,5.6)	3.9	(-0.9,8.8)
14 to 18	80.4	(76.5,83.9)	84.5	(81.1,87.3)	84.3	(79.8,87.9)	3.8	(-0.7,8.3)	-0.2	(-5.1,4.7)
12 to 18	81.3	(78.6,83.7)	82.7	(80.1,85.1)	84.0	(80.7,86.9)	2.7	(-0.8,6.3)	1.3	(-2.3,4.9)
Get in trouble with the law										
12 to 13	45.4	(41.6,49.3)	41.4	(36.8,46.2)	50.7	(46.2,55.2)	5.3	(-0.5,11.1)	9.3	*(3.2,15.4)
14 to 18	37.6	(32.9,42.5)	37.8	(33.5,42.4)	41.1	(35.4,47.0)	3.5	(-2.5,9.5)	3.3	(-3.8,10.3)
12 to 18	40.4	(37.2,43.7)	39.1	(35.6,42.7)	44.7	(40.5,48.9)	4.3	(-0.3,8.9)	5.5	*(0.6,10.5)
Lose control of myself										
12 to 13	34.0	(30.7,37.5)	32.8	(28.7,37.1)	41.0	(37.0,45.1)	7.0	*(1.9,12.0)	8.2	*(2.3,14.1)
14 to 18	29.2	(25.4,33.2)	28.7	(24.7,33.0)	30.4	(26.0,35.3)	1.3	(-4.6,7.1)	1.8	(-4.3,7.8)
12 to 18	30.9	(28.0,33.9)	30.2	(27.0,33.6)	34.4	(31.1,37.8)	3.5	(-0.7,7.6)	4.2	(-0.3,8.7)
Start using stronger drugs										
12 to 13	11.3	(9.0,14.0)	14.8	(11.7,18.6)	17.4	(14.7,20.4)	6.1	*(2.3,9.9)	2.5	(-1.7,6.7)
14 to 18	14.0	(11.6,16.9)	15.1	(12.0,18.7)	14.1	(11.1,17.7)	0.1	(-4.1,4.3)	-1.0	(-5.8,3.8)
12 to 18	13.0	(11.2,15.1)	15.0	(12.7,17.6)	15.3	(13.2,17.6)	2.3	(-0.6,5.1)	0.3	(-3.1,3.7)
Be more relaxed										
12 to 13	54.5	(49.7,59.2)	52.2	(47.0,57.4)	56.2	(50.7,61.5)	1.7	(-3.9,7.2)	4.0	(-2.4,10.4)
14 to 18	44.0	(39.6,48.4)	41.0	(36.1,46.0)	40.8	(35.7,46.1)	-3.2	(-9.8,3.5)	-0.2	(-5.9,5.4)
12 to 18	47.7	(44.8,50.7)	45.1	(41.4,48.7)	46.5	(42.6,50.5)	-1.2	(-5.4,3.0)	1.5	(-2.6,5.5)
Have a good time with friends										
12 to 13	50.0	(46.1,53.9)	47.1	(42.1,52.1)	55.9	(50.6,61.1)	5.8	*(0.5,11.2)	8.8	*(2.5,15.0)
14 to 18	41.6	(37.6,45.8)	39.7	(35.1,44.5)	42.9	(38.0,48.0)	1.3	(-4.8,7.4)	3.2	(-2.0,8.4)
12 to 18	44.6	(41.7,47.6)	42.3	(38.6,46.2)	47.8	(43.7,51.8)	3.1	(-1.1,7.3)	5.4	*(1.1,9.7)

Table 5-6. Beliefs about possible outcomes of using marijuana even once or twice among nonusing[1] youth aged 12 to 18, by age (continued)

	Percent holding strong anti-drug beliefs[2]									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Outcome by Age	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Feel better										
12 to 13	60.9	(55.9,65.6)	59.7	(54.3,64.9)	62.6	(57.6,67.4)	1.8	(-3.9,7.4)	2.9	(-2.1,8.0)
14 to 18	57.9	(53.0,62.6)	51.7	(47.0,56.3)	55.3	(50.4,60.2)	-2.5	(-8.7,3.6)	3.7	(-2.0,9.3)
12 to 18	59.0	(55.1,62.7)	54.6	(50.7,58.4)	58.1	(54.2,61.9)	-0.9	(-5.2,3.4)	3.5	(-0.5,7.6)
Be like the coolest kids										
12 to 13	66.2	(61.8,70.3)	60.8	(56.5,64.9)	66.2	(61.9,70.3)	0.0	(-5.9,5.9)	5.5	*(0.0,10.9)
14 to 18	63.5	(59.7,67.2)	60.6	(56.0,64.9)	64.8	(59.9,69.3)	1.2	(-4.6,7.1)	4.2	(-1.6,10.0)
12 to 18	64.5	(61.7,67.2)	60.6	(57.0,64.2)	65.3	(61.6,68.8)	0.8	(-3.5,5.2)	4.7	*(0.4,8.9)

[1]Nonusers are those who have never used marijuana in the past.

[2]Percentages displayed for negative outcomes ("Upset my parents" through "Start using stronger drugs") are those who answered "Very likely." For positive outcomes, ("Be more relaxed" through "Be like the coolest kids") percentages reported are those who answered "Very unlikely."

Table 5-7. Nonusers'[1] perceptions of friends' use of marijuana even once or twice in the past 12 months, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent saying none or a few friends use even once or twice									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	92.8	(91.0,94.3)	92.3	(89.6,94.4)	90.1	(87.5,92.1)	-2.7	(-5.6,0.1)	-2.3	(-5.1,0.6)
14 to 15_____	74.1	(69.4,78.2)	78.5	(73.8,82.6)	76.6	(71.9,80.8)	2.5	(-2.8,7.9)	-1.9	(-7.7,3.9)
16 to 18_____	67.3	(59.4,74.3)	67.7	(61.3,73.5)	69.4	(62.8,75.3)	2.1	(-7.2,11.3)	1.7	(-7.3,10.7)
14 to 18_____	71.1	(67.1,74.8)	73.3	(69.5,76.7)	73.1	(69.8,76.2)	2.0	(-2.6,6.6)	-0.2	(-5.0,4.6)
12 to 18_____	79.0	(76.2,81.5)	80.3	(77.7,82.7)	79.7	(77.6,81.7)	0.8	(-2.5,4.0)	-0.6	(-4.0,2.8)
Youth aged 12 to 18										
Gender										
Males_____	77.3	(73.4,80.9)	83.2	(79.8,86.2)	80.8	(77.8,83.5)	3.5	(-0.9,7.9)	-2.4	(-6.8,2.0)
Females_____	80.6	(77.3,83.6)	77.4	(74.0,80.4)	78.5	(74.4,82.2)	-2.1	(-7.0,2.9)	1.2	(-4.3,6.7)
Race/ethnicity										
White_____	80.3	(76.9,83.3)	81.1	(77.6,84.1)	78.0	(74.9,80.8)	-2.3	(-6.8,2.2)	-3.1	(-7.7,1.5)
African American__	73.7	(66.3,79.9)	83.0	(77.1,87.6)	85.2	(78.5,90.0)	11.5	*(3.7,19.3)	2.1	(-6.0,10.3)
Hispanic_____	73.8	(65.9,80.4)	73.9	(65.0,81.2)	79.5	(72.6,85.0)	5.7	(-3.0,14.4)	5.5	(-4.4,15.4)
Risk score										
Higher risk_____	56.6	(49.9,63.1)	61.7	(54.2,68.7)	60.4	(52.4,68.0)	3.8	(-6.9,14.6)	-1.3	(-12.4,9.8)
Lower risk_____	85.5	(82.1,88.3)	86.9	(84.2,89.2)	84.8	(82.2,87.1)	-0.7	(-4.4,2.9)	-2.1	(-5.2,0.9)
Sensation seeking										
High_____	69.8	(64.9,74.3)	72.7	(67.9,77.1)	72.6	(68.0,76.8)	2.8	(-4.1,9.7)	-0.1	(-6.2,5.9)
Low_____	86.8	(83.5,89.6)	87.1	(83.9,89.7)	85.6	(81.8,88.8)	-1.2	(-5.4,3.0)	-1.5	(-5.7,2.7)

[1]Nonusers are those who have never used marijuana in the past.

Table 5-8. Nonusers'[1] perceptions of others' use of marijuana even once or twice in the past 12 months, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent saying none or a few other kids of the same age[2] use even once or twice | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	75.7	(73.1,78.1)	77.4	(74.5,80.0)	73.9	(70.5,77.0)	-1.8	(-6.0,2.3)	-3.5	(-7.1,0.0)
14 to 15	38.6	(34.5,42.9)	38.7	(34.3,43.3)	36.8	(33.5,40.3)	-1.8	(-7.5,3.9)	-1.9	(-7.5,3.7)
16 to 18	19.4	(15.7,23.8)	20.2	(15.1,26.5)	17.8	(13.8,22.7)	-1.6	(-7.0,3.9)	-2.4	(-9.0,4.3)
14 to 18	29.9	(26.8,33.1)	29.9	(26.2,33.9)	27.3	(24.4,30.4)	-2.6	(-6.9,1.7)	-2.6	(-7.0,1.7)
12 to 18	45.8	(43.6,47.9)	46.6	(43.9,49.3)	43.6	(41.0,46.2)	-2.2	(-5.6,1.3)	-3.0	(-6.4,0.3)
Youth aged 12 to 18										
Gender										
Males	49.2	(46.0,52.4)	51.4	(47.5,55.2)	48.0	(44.4,51.5)	-1.2	(-6.1,3.7)	-3.4	(-8.4,1.5)
Females	42.3	(39.6,45.0)	41.8	(38.6,45.0)	39.2	(36.3,42.1)	-3.2	(-7.2,0.9)	-2.6	(-6.4,1.1)
Race/ethnicity										
White	44.2	(41.6,46.8)	45.6	(42.2,49.0)	42.2	(39.3,45.1)	-2.0	(-5.9,1.9)	-3.4	(-7.5,0.7)
African American	47.5	(42.5,52.5)	43.0	(37.9,48.3)	45.1	(37.6,52.9)	-2.4	(-12.0,7.3)	2.1	(-7.4,11.7)
Hispanic	47.8	(42.0,53.7)	55.4	(46.7,63.8)	45.6	(40.0,51.3)	-2.3	(-8.8,4.3)	-9.8	*(-18.3,-1.4)
Risk score										
Higher risk	20.9	(17.3,25.0)	18.7	(14.6,23.7)	15.0	(12.3,18.3)	-5.9	*(-10.7,-1.0)	-3.7	(-8.8,1.4)
Lower risk	54.2	(51.6,56.8)	55.7	(52.6,58.8)	54.7	(51.9,57.5)	0.5	(-3.2,4.2)	-1.0	(-4.5,2.5)
Sensation seeking										
High	35.6	(32.3,39.0)	36.1	(32.2,40.2)	33.5	(30.5,36.7)	-2.1	(-6.3,2.2)	-2.6	(-7.4,2.1)
Low	54.6	(51.7,57.5)	56.8	(53.3,60.3)	52.7	(48.7,56.7)	-1.9	(-6.3,2.5)	-4.1	(-8.5,0.3)

[1]Nonusers are those who have never used marijuana in the past.

[2]If respondent is currently in school, question wording referred to "kids in your grade at school."

Table 5-9. Nonusers'[1] attitudes[2] toward trial marijuana use, by age, gender, race/ethnicity, risk score, and sensation seeking

					Attitude 1=strong pro-drug 7=strong anti-drug					
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	6.68	(6.59,6.77)	6.59	(6.49,6.68)	6.69	(6.61,6.78)	0.01	(-0.11,0.14)	0.11	(-0.01,0.23)
14 to 15	6.47	(6.31,6.62)	6.49	(6.38,6.59)	6.51	(6.38,6.64)	0.04	(-0.15,0.24)	0.03	(-0.14,0.19)
16 to 18	6.57	(6.44,6.69)	6.33	(6.15,6.51)	6.51	(6.33,6.69)	-0.06	(-0.26,0.14)	0.18	(-0.08,0.44)
14 to 18	6.51	(6.41,6.61)	6.41	(6.30,6.52)	6.51	(6.40,6.62)	0.00	(-0.14,0.14)	0.10	(-0.04,0.24)
12 to 18	6.57	(6.50,6.65)	6.48	(6.39,6.56)	6.58	(6.51,6.65)	0.01	(-0.09,0.11)	0.11	*(0.00,0.21)
Youth aged 12 to 18										
Gender										
Males	6.58	(6.47,6.69)	6.51	(6.38,6.64)	6.63	(6.55,6.71)	0.05	(-0.08,0.19)	0.13	(-0.04,0.29)
Females	6.56	(6.46,6.66)	6.44	(6.34,6.54)	6.52	(6.39,6.65)	-0.04	(-0.20,0.12)	0.08	(-0.07,0.23)
Race/ethnicity										
White	6.61	(6.52,6.69)	6.54	(6.45,6.64)	6.66	(6.58,6.73)	0.05	(-0.06,0.17)	0.11	(-0.01,0.24)
African American	6.47	(6.20,6.73)	6.36	(6.14,6.58)	6.38	(6.07,6.69)	-0.09	(-0.50,0.32)	0.02	(-0.35,0.39)
Hispanic	6.51	(6.31,6.72)	6.39	(6.16,6.62)	6.41	(6.18,6.63)	-0.11	(-0.43,0.22)	0.02	(-0.31,0.35)
Risk score										
Higher risk	6.33	(6.17,6.48)	5.94	(5.70,6.19)	6.34	(6.11,6.58)	0.02	(-0.28,0.31)	0.40	*(0.09,0.71)
Lower risk	6.64	(6.55,6.74)	6.63	(6.56,6.71)	6.64	(6.55,6.73)	0.00	(-0.12,0.12)	0.01	(-0.10,0.11)
Sensation seeking										
High	6.45	(6.34,6.56)	6.16	(5.99,6.34)	6.51	(6.43,6.60)	0.07	(-0.07,0.21)	0.35	*(0.17,0.53)
Low	6.67	(6.58,6.77)	6.76	(6.68,6.84)	6.64	(6.51,6.76)	-0.04	(-0.19,0.11)	-0.13	(-0.28,0.03)

[1]Nonusers are those who have never used marijuana in the past.

[2]For youth aged 12 to 18, attitude is based on a scale of two items (extremely bad, unenjoyable/good, enjoyable).

Table 5-10. Nonusers'[1] beliefs about outcomes[2] of trial marijuana use, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Beliefs about outcomes -2=strong pro-drug +2=strong anti-drug | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	0.77	(0.71,0.83)	0.77	(0.70,0.85)	0.93	(0.86,1.01)	0.16	*(0.07,0.26)	0.16	*(0.08,0.25)
14 to 15	0.73	(0.63,0.82)	0.79	(0.71,0.88)	0.76	(0.69,0.84)	0.04	(-0.06,0.14)	-0.03	(-0.12,0.06)
16 to 18	0.59	(0.48,0.71)	0.71	(0.61,0.80)	0.76	(0.66,0.87)	0.17	*(0.02,0.32)	0.05	(-0.09,0.20)
14 to 18	0.67	(0.60,0.74)	0.75	(0.68,0.82)	0.76	(0.69,0.83)	0.09	*(0.01,0.18)	0.01	(-0.07,0.10)
12 to 18	0.71	(0.66,0.75)	0.76	(0.71,0.81)	0.83	(0.77,0.89)	0.12	*(0.06,0.19)	0.07	*(0.01,0.13)
Youth aged 12 to 18										
Gender										
Males	0.70	(0.64,0.76)	0.73	(0.66,0.80)	0.78	(0.70,0.86)	0.08	(0.00,0.16)	0.05	(-0.04,0.14)
Females	0.71	(0.63,0.79)	0.79	(0.72,0.87)	0.89	(0.82,0.95)	0.17	*(0.08,0.27)	0.09	*(0.01,0.18)
Race/ethnicity										
White	0.77	(0.72,0.82)	0.81	(0.75,0.88)	0.87	(0.80,0.94)	0.10	*(0.02,0.17)	0.06	(-0.02,0.13)
African American	0.56	(0.41,0.71)	0.64	(0.50,0.78)	0.68	(0.54,0.82)	0.12	(-0.05,0.29)	0.05	(-0.12,0.21)
Hispanic	0.59	(0.44,0.74)	0.72	(0.57,0.86)	0.83	(0.69,0.96)	0.24	*(0.07,0.42)	0.11	(-0.05,0.27)
Risk score										
Higher risk	0.46	(0.37,0.55)	0.45	(0.36,0.55)	0.58	(0.46,0.70)	0.12	(-0.03,0.26)	0.12	(-0.03,0.27)
Lower risk	0.78	(0.73,0.83)	0.88	(0.81,0.94)	0.91	(0.85,0.97)	0.12	*(0.06,0.19)	0.03	(-0.04,0.10)
Sensation seeking										
High	0.59	(0.52,0.67)	0.61	(0.54,0.68)	0.72	(0.64,0.79)	0.12	*(0.03,0.21)	0.11	*(0.02,0.19)
Low	0.80	(0.73,0.87)	0.91	(0.84,0.98)	0.94	(0.87,1.01)	0.13	*(0.04,0.22)	0.03	(-0.06,0.11)

[1]Nonusers are those who have never used marijuana in the past.

[2]For youth aged 12 to 18, average of individual items presented in Table 5-6, with positive outcomes ("Be more relaxed" through "Be like the coolest kids") reverse coded before taking average.

Table 5-11. Nonusers'[1] perceived parental expectations about trial marijuana use, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent of youth reporting parents strongly disapprove of trial marijuana use									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	95.6	(93.4,97.1)	95.9	(93.2,97.6)	98.0	(96.4,98.9)	2.4	*(0.3,4.5)	2.0	(-0.2,4.3)
14 to 15	96.6	(93.3,98.3)	95.7	(93.5,97.2)	95.5	(92.7,97.2)	-1.1	(-3.9,1.6)	-0.3	(-2.6,2.1)
16 to 18	91.2	(85.7,94.7)	92.2	(87.3,95.3)	94.2	(89.9,96.7)	3.0	(-2.5,8.5)	2.0	(-2.5,6.4)
14 to 18	94.2	(90.8,96.4)	94.0	(91.5,95.8)	94.8	(92.5,96.5)	0.6	(-2.6,3.8)	0.8	(-1.7,3.3)
12 to 18	94.7	(92.4,96.3)	94.7	(93.2,96.0)	96.1	(94.5,97.2)	1.4	(-0.8,3.5)	1.3	(-0.4,3.0)
Youth aged 12 to 18										
Gender										
Males	94.9	(92.1,96.7)	95.7	(93.5,97.2)	95.8	(93.0,97.5)	1.0	(-2.1,4.0)	0.1	(-2.6,2.9)
Females	94.5	(91.6,96.5)	93.8	(91.6,95.4)	96.3	(94.4,97.6)	1.8	(-1.0,4.6)	2.5	*(0.3,4.8)
Race/ethnicity										
White	95.4	(92.3,97.3)	96.1	(94.5,97.3)	95.6	(93.4,97.0)	0.2	(-2.8,3.2)	-0.6	(-2.8,1.7)
African American	92.5	(85.5,96.2)	91.8	(86.0,95.3)	98.7	(97.0,99.4)	6.2	*(1.2,11.3)	6.9	*(2.3,11.6)
Hispanic	92.9	(87.1,96.2)	91.1	(86.0,94.4)	95.0	(90.2,97.5)	2.1	(-2.1,6.4)	4.0	*(0.3,7.7)
Risk score										
Higher risk	90.4	(84.0,94.4)	90.1	(84.3,93.9)	90.3	(84.7,93.9)	-0.1	(-7.2,6.9)	0.1	(-6.0,6.3)
Lower risk	95.8	(94.0,97.0)	96.6	(95.2,97.6)	97.5	(96.0,98.4)	1.7	*(0.1,3.4)	0.9	(-0.4,2.3)
Sensation seeking										
High	93.5	(89.2,96.1)	93.0	(90.2,95.0)	93.7	(90.6,95.9)	0.3	(-3.7,4.3)	0.8	(-2.3,3.9)
Low	95.6	(93.2,97.2)	96.3	(94.8,97.4)	98.1	(96.9,98.9)	2.5	*(0.6,4.5)	1.8	*(0.3,3.3)

[1]Nonusers are those who have never used marijuana in the past.

Table 5-12. Nonusers'[1] perceived social expectations about trial marijuana use, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent of youth reporting friends strongly disapprove of trial marijuana use									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	70.5	(66.8,74.0)	66.2	(61.7,70.4)	70.1	(66.5,73.4)	-0.4	(-4.8,4.1)	3.9	(-1.1,9.0)
14 to 15_____	55.9	(49.6,61.9)	57.2	(51.3,63.0)	59.3	(53.1,65.3)	3.5	(-4.3,11.2)	2.1	(-5.5,9.7)
16 to 18_____	58.9	(52.7,64.9)	52.4	(46.0,58.8)	57.5	(50.5,64.3)	-1.4	(-9.6,6.8)	5.1	(-3.7,13.9)
14 to 18_____	57.2	(53.1,61.2)	54.9	(50.4,59.3)	58.5	(53.7,63.0)	1.2	(-3.7,6.1)	3.6	(-2.4,9.5)
12 to 18_____	62.0	(59.2,64.8)	59.1	(55.8,62.3)	63.0	(59.5,66.4)	1.0	(-2.4,4.3)	3.9	(-0.2,8.0)
Youth aged 12 to 18										
Gender										
Males_____	55.9	(51.7,60.1)	51.9	(47.1,56.6)	56.4	(51.7,61.1)	0.5	(-5.1,6.2)	4.6	(-0.9,10.1)
Females_____	68.2	(63.7,72.5)	66.5	(61.6,71.1)	70.1	(65.1,74.7)	1.9	(-3.8,7.6)	3.6	(-2.6,9.8)
Race/ethnicity										
White_____	63.3	(59.5,67.0)	61.7	(57.9,65.3)	65.8	(61.3,70.1)	2.5	(-1.6,6.7)	4.2	(-1.2,9.5)
African American__	53.5	(45.7,61.1)	42.8	(36.8,49.1)	56.0	(48.2,63.6)	2.6	(-9.1,14.2)	13.2	*(6.2,20.2)
Hispanic_____	64.0	(57.4,70.1)	66.0	(58.9,72.4)	52.9	(44.6,61.0)	-11.1	*(-20.9,-1.3)	-13.1	*(-21.8,-4.3)
Risk score										
Higher risk_____	36.8	(31.5,42.4)	37.6	(30.9,44.9)	43.0	(35.8,50.6)	6.3	(-0.9,13.4)	5.4	(-4.0,14.9)
Lower risk_____	68.8	(65.6,71.8)	66.1	(62.7,69.3)	68.2	(64.6,71.6)	-0.6	(-4.6,3.4)	2.1	(-2.5,6.6)
Sensation seeking										
High_____	50.5	(45.9,55.0)	45.8	(41.7,49.9)	48.6	(43.4,53.8)	-1.9	(-8.0,4.2)	2.8	(-3.4,9.0)
Low_____	72.7	(68.7,76.4)	70.8	(66.5,74.8)	75.0	(70.0,79.4)	2.3	(-3.2,7.8)	4.1	(-2.2,10.5)

[1]Nonusers are those who have never used marijuana in the past.

Table 5-13. Beliefs about possible outcomes of regular marijuana use by 12- to 13-year-old nonusers[1]

	Percent holding strong anti-drug outcome beliefs[2]									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Outcome	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Damage my brain_____	61.2	(57.2,65.1)	61.6	(57.5,65.7)	62.6	(57.2,67.7)	1.3	(-4.4,7.0)	0.9	(-5.3,7.1)
Mess up my life_____	66.8	(62.5,70.9)	67.3	(63.3,71.1)	70.9	(64.5,76.5)	4.1	(-2.2,10.3)	3.6	(-3.1,10.3)
Do worse in school____	64.9	(61.4,68.3)	67.4	(63.2,71.3)	70.7	(64.6,76.1)	5.7	*(0.1,11.4)	3.3	(-3.0,9.6)
Be acting against my moral beliefs_____	51.3	(47.6,55.0)	54.0	(50.2,57.8)	54.9	(49.0,60.7)	3.6	(-2.2,9.5)	0.9	(-4.3,6.2)
Lose my ambition_____	48.5	(45.1,52.0)	52.3	(48.0,56.5)	49.8	(44.5,55.1)	1.3	(-4.2,6.8)	-2.4	(-8.0,3.2)
Lose my friends' respect_____	53.0	(48.8,57.3)	55.7	(51.4,60.0)	58.5	(53.1,63.8)	5.5	(-0.5,11.4)	2.8	(-4.0,9.6)
Have a good time with friends_____	51.9	(47.2,56.6)	54.2	(49.9,58.4)	50.2	(45.5,54.9)	-1.8	(-7.6,4.1)	-4.0	(-10.2,2.1)
Be more creative and imaginative_____	61.9	(57.7,66.0)	65.3	(61.4,69.0)	61.5	(56.3,66.4)	-0.5	(-6.5,5.6)	-3.8	(-9.9,2.3)

[1]Nonusers are those who have never used marijuana in the past.

[2]Percentages displayed for negative outcomes ("Damage brain" through "Lose my friends' respect") are those who answered, "Very likely." For positive outcomes, ("Have a good time with friends," and "Be more creative and imaginative") percentages reported are those who answered "Very unlikely."

Table 5-14. Beliefs about possible outcomes of regular marijuana use by 14- to 18-year-old nonusers[1] and occasional users[2]

| | Percent holding strong anti-drug outcome beliefs[3] | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Outcome	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Damage my brain										
Nonusers_____	55.2	(50.5,59.9)	56.7	(52.0,61.3)	61.0	(56.2,65.6)	5.8	*(0.0,11.5)	4.3	(-1.1,9.6)
Occasional users___	28.0	(18.9,39.4)	25.3	(17.6,35.1)	24.8	(16.8,35.1)	-3.2	(-16.0,9.6)	-0.5	(-13.8,12.8)
Mess up my life										
Nonusers_____	58.9	(53.2,64.4)	62.5	(58.0,66.7)	60.5	(55.6,65.2)	1.5	(-4.8,7.9)	-2.0	(-7.0,3.0)
Occasional users___	16.1	(9.6,25.9)	20.5	(13.5,29.8)	15.9	(9.1,26.3)	-0.3	(-12.0,11.5)	-4.6	(-15.8,6.7)
Do worse in school										
Nonusers_____	60.5	(55.2,65.6)	59.1	(54.3,63.7)	59.5	(54.5,64.3)	-1.0	(-7.5,5.4)	0.4	(-5.4,6.2)
Occasional users___	19.3	(12.8,27.9)	22.7	(15.4,32.2)	13.1	(7.6,21.7)	-6.1	(-17.1,4.9)	-9.6	(-20.2,1.1)
Be acting against my moral beliefs										
Nonusers_____	58.7	(54.2,63.0)	59.1	(54.4,63.7)	61.0	(56.6,65.3)	2.4	(-3.6,8.3)	1.9	(-3.8,7.6)
Occasional users___	12.8	(7.5,21.1)	16.0	(9.0,26.9)	22.4	(12.8,36.3)	9.6	(-3.9,23.1)	6.4	(-8.5,21.3)
Lose my ambition										
Nonusers_____	44.0	(39.4,48.6)	44.1	(39.6,48.7)	48.2	(44.0,52.4)	4.3	(-1.8,10.3)	4.1	(-0.8,9.1)
Occasional users___	10.2	(5.5,18.1)	18.8	(11.0,30.0)	15.0	(8.4,25.5)	4.8	(-6.0,15.7)	-3.8	(-16.4,8.9)
Lose my friends' respect										
Nonusers_____	42.0	(37.5,46.5)	40.0	(35.5,44.6)	44.6	(39.9,49.4)	2.6	(-4.1,9.3)	4.6	(-1.2,10.4)
Occasional users___	6.7	(3.7,12.0)	11.5	(5.7,21.6)	5.7	(2.8,11.4)	-1.0	(-7.1,5.1)	-5.8	(-14.4,2.9)
Have a good time with friends										
Nonusers_____	38.0	(33.5,42.8)	39.0	(34.6,43.6)	42.2	(37.7,46.8)	4.2	(-1.8,10.2)	3.2	(-3.0,9.3)
Occasional users___	10.9	(5.3,21.0)	13.7	(8.0,22.5)	7.2	(3.3,15.2)	-3.7	(-12.6,5.3)	-6.5	(-16.2,3.2)
Be more creative and imaginative										
Nonusers_____	54.4	(49.5,59.3)	50.8	(45.6,55.9)	53.0	(48.5,57.4)	-1.4	(-7.0,4.2)	2.2	(-3.2,7.6)
Occasional users___	17.1	(10.1,27.5)	22.1	(14.7,31.7)	20.2	(11.5,33.2)	3.2	(-10.1,16.4)	-1.8	(-13.1,9.5)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

[3]Percentages displayed for negative outcomes ("Damage brain" through "Lose my friends' respect") are those who answered, "Very likely." For positive outcomes, ("Have a good time with friends," and "Be more creative and imaginative") percentages reported are those who answered "Very unlikely."

Table 5-15. Nonusers[1] and occasional users[2] regular marijuana use intentions, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent definitely not intending to use marijuana regularly									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	97.9	(97.0,98.5)	96.6	(95.3,97.5)	95.8	(94.3,96.9)	-2.0	*(-3.5,-0.5)	-0.7	(-2.5,1.1)
14 to 15	95.4	(93.7,96.6)	94.7	(93.0,96.1)	95.3	(93.8,96.5)	-0.1	(-2.0,1.9)	0.6	(-1.5,2.7)
16 to 18	95.0	(92.7,96.6)	93.3	(90.4,95.4)	94.1	(91.3,96.0)	-0.9	(-3.6,1.7)	0.7	(-2.3,3.7)
14 to 18	95.2	(93.9,96.3)	94.1	(92.5,95.3)	94.7	(93.3,95.8)	-0.5	(-2.1,1.1)	0.6	(-1.0,2.3)
12 to 18	96.1	(95.3,96.9)	95.0	(94.0,95.8)	95.1	(94.0,96.0)	-1.0	(-2.3,0.2)	0.1	(-1.1,1.4)
Youth occasional users aged 14 to 18										
14 to 18	50.6	(43.4,57.8)	44.0	(37.4,50.7)	43.4	(35.2,52.0)	-7.2	(-18.1,3.7)	-0.6	(-11.5,10.4)
Youth nonusers aged 12 to 18										
Gender										
Males	96.0	(94.9,96.9)	95.0	(93.5,96.2)	94.2	(92.5,95.5)	-1.8	*(-3.5,-0.2)	-0.8	(-2.8,1.1)
Females	96.3	(95.0,97.3)	95.0	(93.4,96.2)	96.0	(94.3,97.3)	-0.2	(-2.0,1.5)	1.1	(-0.8,3.0)
Race/ethnicity										
White	96.9	(95.9,97.6)	95.7	(94.4,96.8)	95.4	(94.0,96.5)	-1.5	(-2.9,0.0)	-0.3	(-1.9,1.2)
African American	96.6	(94.6,97.9)	95.0	(92.1,96.9)	94.1	(90.0,96.6)	-2.5	(-6.4,1.3)	-0.9	(-4.8,2.9)
Hispanic	93.3	(89.1,95.9)	93.4	(90.2,95.6)	93.6	(89.0,96.3)	0.3	(-4.5,5.1)	0.2	(-4.3,4.7)
Risk score										
Higher risk	90.7	(87.0,93.4)	89.2	(85.5,92.1)	90.6	(87.2,93.2)	-0.1	(-4.5,4.3)	1.4	(-3.0,5.7)
Lower risk	98.2	(97.4,98.8)	97.0	(96.0,97.7)	96.7	(95.6,97.6)	-1.5	*(-2.6,-0.3)	-0.2	(-1.4,0.9)
Sensation seeking										
High	93.8	(92.0,95.2)	92.2	(90.5,93.6)	92.8	(90.9,94.3)	-1.0	(-3.2,1.2)	0.6	(-1.5,2.7)
Low	98.4	(97.6,98.9)	97.7	(96.6,98.5)	97.1	(95.3,98.2)	-1.3	(-2.7,0.2)	-0.6	(-2.2,1.0)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 5-16. Nonusers'[1] and occasional users'[2] perceptions of friends' regular use of marijuana in the past 12 months, by age, gender, race/ethnicity, risk, and sensation seeking

| | Percent saying none or a few friends use nearly every month | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13_____	94.9	(93.9,95.7)	94.5	(92.8,95.8)	94.2	(92.7,95.4)	-0.7	(-2.3,0.9)	-0.3	(-2.4,1.8)
14 to 18_____	81.0	(78.3,83.4)	79.4	(76.8,81.7)	80.4	(77.5,83.0)	-0.6	(-3.8,2.6)	1.0	(-1.7,3.7)
12 to 18_____	85.9	(84.1,87.5)	84.9	(83.1,86.5)	85.4	(83.4,87.2)	-0.5	(-2.7,1.7)	0.5	(-1.4,2.5)
Youth occasional users aged 14 to 18										
14 to 18_____	31.5	(23.2,41.2)	36.7	(26.8,47.8)	32.6	(23.2,43.6)	1.1	(-12.2,14.4)	-4.1	(-18.5,10.2)
Youth nonusers aged 12 to 18										
Gender										
Males_____	86.2	(83.6,88.5)	84.4	(82.0,86.5)	86.4	(83.9,88.6)	0.2	(-2.9,3.3)	2.0	(-0.7,4.8)
Females_____	85.6	(83.3,87.6)	85.3	(82.5,87.8)	84.4	(81.5,86.9)	-1.2	(-4.5,2.1)	-1.0	(-4.2,2.2)
Race/ethnicity										
White_____	86.9	(84.9,88.7)	86.8	(84.9,88.6)	85.7	(83.2,87.8)	-1.2	(-3.9,1.5)	-1.1	(-3.3,1.0)
African American____	83.6	(78.8,87.5)	82.4	(76.5,87.0)	83.7	(78.9,87.6)	0.1	(-5.8,5.9)	1.3	(-4.0,6.6)
Hispanic_____	81.5	(76.7,85.6)	79.8	(73.3,85.0)	84.4	(79.5,88.3)	2.8	(-3.0,8.7)	4.6	(-1.8,11.0)
Risk score										
Higher risk_____	70.3	(65.4,74.7)	69.7	(64.9,74.1)	70.6	(65.6,75.1)	0.3	(-5.8,6.5)	0.9	(-5.5,7.2)
Lower risk_____	91.2	(89.3,92.8)	90.0	(88.0,91.6)	91.7	(90.1,93.0)	0.5	(-1.4,2.4)	1.7	(-0.2,3.6)
Sensation seeking										
High_____	80.6	(77.7,83.1)	79.6	(77.0,82.1)	79.1	(75.9,82.0)	-1.4	(-5.4,2.5)	-0.5	(-3.8,2.8)
Low_____	90.6	(88.5,92.4)	89.8	(87.2,91.9)	91.2	(88.9,93.0)	0.6	(-1.8,2.9)	1.4	(-1.2,4.0)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 5-17. Nonusers[1] and occasional users[2] perceptions of others' regular use of marijuana in the past 12 months, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent saying none or a few other kids of the same age[3] use nearly every month | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	87.9	(85.9,89.6)	86.8	(84.6,88.7)	84.8	(82.2,87.1)	-3.1	(-6.3,0.1)	-2.0	(-5.3,1.2)
14 to 18	46.5	(42.9,50.1)	49.9	(46.3,53.6)	44.7	(41.2,48.3)	-1.8	(-6.3,2.7)	-5.2	*(-9.0,-1.5)
12 to 18	60.9	(58.5,63.2)	62.9	(60.3,65.4)	58.6	(55.9,61.2)	-2.3	(-5.6,1.0)	-4.3	*(-7.2,-1.4)
Youth occasional users aged 14 to 18										
14 to 18	21.1	(15.9,27.5)	18.6	(14.1,24.0)	17.3	(12.2,23.9)	-3.8	(-11.0,3.3)	-1.3	(-8.6,6.1)
Youth nonusers aged 12 to 18										
Gender										
Males	65.3	(61.7,68.7)	67.8	(64.7,70.9)	62.3	(58.6,65.8)	-3.0	(-8.1,2.0)	-5.6	*(-9.5,-1.7)
Females	56.5	(53.2,59.7)	57.8	(54.2,61.2)	54.8	(51.6,58.1)	-1.6	(-5.8,2.5)	-2.9	(-7.0,1.2)
Race/ethnicity										
White	60.8	(57.8,63.8)	63.7	(60.7,66.6)	59.9	(56.6,63.1)	-1.0	(-5.5,3.6)	-3.8	*(-7.3,-0.3)
African American	61.1	(55.5,66.4)	58.9	(52.1,65.4)	55.7	(49.1,62.2)	-5.3	(-12.8,2.1)	-3.2	(-12.0,5.6)
Hispanic	59.2	(52.9,65.1)	62.1	(55.1,68.7)	56.0	(49.7,62.1)	-3.2	(-10.2,3.9)	-6.1	(-12.4,0.1)
Risk score										
Higher risk	40.3	(35.4,45.5)	39.0	(33.8,44.6)	28.4	(23.5,33.8)	-12.0	*(-18.5,-5.4)	-10.7	*(-16.7,-4.7)
Lower risk	68.3	(65.5,70.9)	71.1	(68.1,74.0)	69.9	(66.9,72.8)	1.7	(-2.5,5.8)	-1.2	(-4.2,1.8)
Sensation seeking										
High	55.5	(51.5,59.4)	56.0	(51.8,60.2)	49.5	(45.7,53.2)	-6.1	*(-11.1,-1.0)	-6.6	*(-11.0,-2.1)
Low	64.9	(62.0,67.7)	69.2	(65.9,72.2)	66.9	(63.0,70.6)	2.0	(-2.5,6.5)	-2.3	(-6.0,1.4)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

[3]If respondent is currently in school, asked about "kids in your grade at school."

Table 5-18. Nonusers'[1] and occasional users'[2] attitudes regarding regular marijuana use[3], by age, gender, race/ethnicity, risk score, and sensation seeking

	Attitude 1=strong pro-drug, 7=strong anti-drug									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	6.70	(6.64,6.75)	6.64	(6.56,6.73)	6.70	(6.63,6.78)	0.01	(-0.09,0.10)	0.06	(-0.05,0.17)
14 to 18	6.50	(6.42,6.57)	6.45	(6.37,6.53)	6.48	(6.40,6.55)	-0.02	(-0.11,0.08)	0.03	(-0.07,0.12)
12 to 18	6.56	(6.51,6.62)	6.52	(6.46,6.58)	6.55	(6.50,6.61)	-0.01	(-0.08,0.06)	0.03	(-0.04,0.11)
Youth occasional users aged 14 to 18										
14 to 18	4.77	(4.43,5.10)	5.13	(4.89,5.36)	4.96	(4.66,5.25)	0.19	(-0.25,0.63)	-0.17	(-0.52,0.18)
Youth nonusers aged 12 to 18										
Gender										
Males	6.48	(6.40,6.56)	6.51	(6.43,6.59)	6.52	(6.44,6.61)	0.05	(-0.05,0.14)	0.01	(-0.08,0.11)
Females	6.65	(6.58,6.72)	6.53	(6.44,6.61)	6.58	(6.50,6.66)	-0.07	(-0.17,0.03)	0.05	(-0.05,0.16)
Race/ethnicity										
White	6.57	(6.51,6.64)	6.49	(6.40,6.57)	6.56	(6.49,6.63)	-0.01	(-0.10,0.07)	0.07	(-0.01,0.15)
African American	6.56	(6.44,6.68)	6.52	(6.32,6.71)	6.50	(6.32,6.69)	-0.05	(-0.26,0.15)	-0.01	(-0.25,0.23)
Hispanic	6.59	(6.45,6.73)	6.71	(6.61,6.82)	6.53	(6.36,6.70)	-0.06	(-0.28,0.16)	-0.18	(-0.39,0.02)
Risk score										
Higher risk	6.24	(6.10,6.38)	6.18	(6.03,6.33)	6.17	(6.01,6.32)	-0.08	(-0.26,0.11)	-0.02	(-0.25,0.22)
Lower risk	6.69	(6.64,6.74)	6.64	(6.57,6.71)	6.72	(6.68,6.77)	0.03	(-0.03,0.10)	0.08	*(0.01,0.16)
Sensation seeking										
High	6.37	(6.28,6.46)	6.34	(6.25,6.44)	6.34	(6.25,6.43)	-0.03	(-0.14,0.09)	0.00	(-0.12,0.11)
Low	6.74	(6.68,6.81)	6.71	(6.63,6.78)	6.76	(6.69,6.82)	0.01	(-0.07,0.10)	0.05	(-0.04,0.13)

[1]Nonusers are those who have never used marijuana in the past.
[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.
[3]Attitude is a mean of two items (extremely bad, unenjoyable/good, enjoyable).

Table 5-19. Nonusers[1] and occasional users[2] beliefs about outcomes regarding regular marijuana use[3], by age, gender, race/ethnicity, risk score, and sensation seeking

| | | | | | Beliefs about outcomes -2=strong pro-drug +2=strong anti-drug | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13_____	1.18	(1.12,1.24)	1.20	(1.14,1.27)	1.23	(1.13,1.33)	0.05	(-0.05,0.15)	0.03	(-0.09,0.14)
14 to 18_____	1.11	(1.03,1.19)	1.06	(0.98,1.14)	1.09	(1.02,1.17)	-0.02	(-0.12,0.09)	0.03	(-0.04,0.11)
12 to 18_____	1.13	(1.07,1.20)	1.11	(1.05,1.17)	1.14	(1.08,1.20)	0.00	(-0.07,0.08)	0.03	(-0.03,0.09)
Youth occasional users aged 14 to 18										
14 to 18_____	-0.08	(-0.26,0.09)	0.03	(-0.20,0.25)	-0.01	(-0.18,0.16)	0.08	(-0.16,0.31)	-0.03	(-0.28,0.21)
Youth nonusers aged 12 to 18										
Gender										
Males_____	1.07	(0.99,1.15)	1.05	(0.96,1.14)	1.07	(0.98,1.16)	0.00	(-0.10,0.11)	0.02	(-0.10,0.13)
Females_____	1.20	(1.11,1.29)	1.17	(1.08,1.25)	1.20	(1.12,1.28)	0.00	(-0.11,0.12)	0.03	(-0.05,0.12)
Race/ethnicity										
White_____	1.21	(1.14,1.28)	1.17	(1.10,1.24)	1.24	(1.18,1.30)	0.03	(-0.05,0.11)	0.07	*(0.00,0.14)
African American____	0.92	(0.79,1.04)	0.96	(0.77,1.15)	0.79	(0.63,0.95)	-0.13	(-0.31,0.06)	-0.17	(-0.37,0.04)
Hispanic_____	1.00	(0.75,1.25)	1.03	(0.84,1.23)	1.06	(0.90,1.22)	0.06	(-0.22,0.33)	0.03	(-0.21,0.27)
Risk score										
Higher risk_____	0.93	(0.81,1.05)	0.91	(0.78,1.04)	0.84	(0.70,0.97)	-0.09	(-0.26,0.07)	-0.07	(-0.25,0.10)
Lower risk_____	1.22	(1.14,1.30)	1.19	(1.12,1.26)	1.25	(1.18,1.32)	0.03	(-0.07,0.13)	0.06	(-0.02,0.14)
Sensation seeking										
High_____	1.03	(0.95,1.12)	1.03	(0.95,1.12)	1.07	(0.99,1.15)	0.04	(-0.07,0.15)	0.04	(-0.05,0.13)
Low_____	1.22	(1.13,1.31)	1.19	(1.10,1.28)	1.20	(1.10,1.29)	-0.03	(-0.14,0.09)	0.01	(-0.10,0.11)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

[3]Average of individual items presented in 5-13, with positive outcomes (good time with friends, be more creative and imaginative) reverse coded before taking average.

Table 5-20. Nonusers'[1] and occasional users'[2] perceived parental expectations regarding regular marijuana use, by age, gender, race/ethnicity, risk score, and sensation seeking

Characteristics	Percent of youth reporting parents strongly disapprove of regular marijuana use									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13_____	94.9	(92.6,96.6)	94.5	(92.2,96.2)	96.6	(93.0,98.4)	1.7	(-1.6,5.0)	2.1	(-0.6,4.8)
14 to 18_____	95.5	(93.5,96.9)	94.9	(92.5,96.6)	97.0	(95.0,98.3)	1.6	(-0.7,3.9)	2.1	(-0.5,4.7)
12 to 18_____	95.3	(93.5,96.6)	94.8	(92.9,96.2)	96.9	(95.1,98.0)	1.6	(-0.4,3.7)	2.1	*(0.1,4.1)
Youth occasional users aged 14 to 18										
14 to 18_____	75.1	(65.4,82.8)	80.8	(68.2,89.2)	84.9	(75.9,90.9)	9.8	(-2.0,21.6)	4.1	(-8.3,16.5)
Youth nonusers aged 12 to 18										
Gender										
Males_____	94.7	(92.5,96.3)	94.5	(91.6,96.5)	97.3	(95.2,98.5)	2.6	*(0.1,5.0)	2.7	(0.0,5.5)
Females_____	95.9	(93.6,97.3)	95.0	(92.8,96.6)	96.6	(94.3,98.0)	0.7	(-1.7,3.1)	1.5	(-1.0,4.1)
Race/ethnicity										
White_____	96.5	(94.5,97.8)	96.5	(94.8,97.6)	97.9	(96.1,98.8)	1.4	(-0.8,3.5)	1.4	(-0.5,3.3)
African American____	89.4	(83.6,93.3)	90.7	(82.7,95.2)	93.2	(85.5,97.0)	3.9	(-3.2,10.9)	2.6	(-5.2,10.4)
Hispanic_____	96.4	(93.6,98.0)	92.6	(87.7,95.6)	95.7	(89.3,98.4)	-0.6	(-4.9,3.6)	3.1	(-1.9,8.1)
Risk score										
Higher risk_____	92.8	(88.1,95.7)	96.2	(92.9,98.0)	95.4	(91.4,97.6)	2.7	(-2.4,7.7)	-0.8	(-4.5,2.9)
Lower risk_____	96.2	(94.4,97.4)	94.4	(91.9,96.2)	97.2	(95.0,98.4)	1.0	(-1.3,3.3)	2.8	*(0.4,5.2)
Sensation seeking										
High_____	94.8	(92.1,96.6)	95.1	(92.4,96.9)	97.0	(94.9,98.2)	2.2	(-0.6,4.9)	1.9	(-1.1,4.8)
Low_____	96.0	(94.2,97.3)	94.5	(91.7,96.4)	96.8	(93.7,98.4)	0.8	(-1.9,3.6)	2.3	(-0.8,5.4)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 5-21. Nonusers'[1] and occasional users'[2] perceived social expectations regarding regular marijuana use, by age, gender, race/ethnicity, risk score, and sensation seeking

| Characteristics | Percent of youth reporting friends strongly disapprove of regular marijuana use | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	70.5	(66.0,74.7)	72.3	(68.6,75.7)	70.7	(66.7,74.5)	0.2	(-5.9,6.2)	-1.5	(-6.0,2.9)
14 to 18	58.1	(53.6,62.5)	56.5	(52.1,60.8)	59.9	(55.4,64.2)	1.8	(-4.0,7.5)	3.4	(-2.3,9.2)
12 to 18	62.4	(58.8,65.9)	62.1	(58.7,65.4)	63.6	(60.2,66.8)	1.2	(-3.2,5.5)	1.5	(-2.7,5.7)
Youth occasional users aged 14 to 18										
14 to 18	12.0	(7.0,19.7)	14.8	(8.4,24.7)	13.0	(7.7,20.9)	1.0	(-8.7,10.7)	-1.8	(-11.0,7.4)
Youth nonusers aged 12 to 18										
Gender										
Males	55.3	(50.0,60.5)	57.7	(53.8,61.5)	59.0	(53.7,64.0)	3.6	(-3.1,10.4)	1.3	(-4.4,6.9)
Females	69.4	(64.4,74.0)	66.5	(61.4,71.2)	68.0	(63.6,72.0)	-1.5	(-7.6,4.6)	1.5	(-5.1,8.1)
Race/ethnicity										
White	66.5	(61.9,70.8)	64.5	(60.8,68.1)	66.4	(62.4,70.2)	0.0	(-5.9,5.8)	1.9	(-3.1,7.0)
African American	46.3	(38.7,53.9)	51.3	(42.4,60.2)	53.7	(44.9,62.3)	7.4	(-4.8,19.7)	2.4	(-8.0,12.7)
Hispanic	59.2	(49.8,68.0)	65.1	(56.6,72.8)	58.2	(48.5,67.3)	-1.1	(-13.6,11.5)	-6.9	(-20.3,6.4)
Risk score										
Higher risk	47.9	(40.1,55.8)	38.7	(32.4,45.4)	41.3	(34.3,48.7)	-6.6	(-16.4,3.3)	2.6	(-6.3,11.6)
Lower risk	67.3	(63.4,70.9)	69.7	(65.5,73.6)	71.9	(68.5,75.1)	4.6	(-0.3,9.6)	2.1	(-3.0,7.3)
Sensation seeking										
High	52.8	(47.8,57.8)	52.6	(47.9,57.2)	52.9	(47.9,57.8)	0.0	(-6.4,6.5)	0.3	(-5.7,6.3)
Low	70.3	(65.9,74.3)	72.6	(67.6,77.0)	73.6	(69.0,77.7)	3.3	(-2.3,8.9)	1.0	(-4.7,6.7)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 5-22. Disapproval of occasional marijuana use by others, by age, prior use, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of youth who report strongly disapproving of others' occasional marijuana use | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	63.8	(61.2,66.3)	65.1	(62.3,67.9)	65.0	(61.7,68.1)	1.2	(-2.1,4.4)	-0.2	(-3.6,3.3)
14 to 15	42.2	(38.4,46.1)	39.1	(35.6,42.7)	42.8	(38.7,47.1)	0.6	(-4.4,5.6)	3.7	(-0.6,8.1)
16 to 18	26.8	(23.9,30.0)	26.2	(22.8,30.0)	27.4	(24.4,30.7)	0.6	(-3.8,5.0)	1.2	(-3.2,5.6)
14 to 18	33.8	(31.5,36.2)	32.0	(29.4,34.9)	34.0	(31.4,36.7)	0.2	(-2.7,3.2)	2.0	(-1.1,5.1)
12 to 18	42.5	(40.5,44.5)	41.7	(39.4,44.0)	43.1	(40.8,45.5)	0.6	(-1.7,2.9)	1.4	(-1.1,3.8)
Youth aged 12 to 18										
Nonusers[1]	52.5	(50.1,54.8)	51.2	(48.5,53.8)	53.4	(50.8,56.0)	1.0	(-1.9,3.8)	2.2	(-0.5,5.0)
Occasional Users[2]	5.4	(3.4,8.5)	6.4	(3.3,12.1)	2.2	(0.9,5.2)	-3.2	*(-6.4,-0.1)	-4.3	(-9.2,0.6)
Youth nonusers aged 12 to 18										
Gender										
Males	53.7	(50.4,57.0)	53.1	(49.4,56.8)	54.4	(50.6,58.1)	0.6	(-3.0,4.3)	1.2	(-3.3,5.8)
Females	51.2	(48.1,54.3)	49.2	(45.8,52.6)	52.5	(49.0,55.9)	1.2	(-2.8,5.3)	3.3	(-0.4,7.0)
Race/ethnicity										
White	51.5	(48.8,54.2)	50.8	(47.8,53.9)	52.5	(49.6,55.5)	1.0	(-2.4,4.5)	1.7	(-1.7,5.2)
African American	53.2	(47.6,58.8)	48.9	(42.9,54.9)	53.0	(45.0,60.8)	-0.2	(-10.0,9.5)	4.1	(-2.8,11.0)
Hispanic	57.1	(51.7,62.4)	53.8	(47.2,60.3)	56.3	(50.6,61.9)	-0.8	(-7.4,5.7)	2.5	(-5.1,10.1)
Risk score										
Higher risk	28.8	(24.5,33.6)	22.9	(18.6,27.9)	26.2	(21.5,31.6)	-2.6	(-8.4,3.3)	3.3	(-2.7,9.4)
Lower risk	60.6	(57.9,63.2)	59.9	(56.7,63.0)	62.8	(59.9,65.7)	2.3	(-1.1,5.6)	3.0	(-0.1,6.0)
Sensation seeking										
High	36.6	(33.5,39.8)	35.1	(31.7,38.6)	36.7	(33.6,39.8)	0.0	(-4.1,4.2)	1.6	(-2.4,5.6)
Low	66.3	(63.1,69.4)	66.9	(63.5,70.1)	68.5	(64.7,72.1)	2.2	(-1.8,6.3)	1.7	(-2.7,6.1)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 5-23. Disapproval of regular marijuana use by others, by age, prior use, gender, race/ethnicity, risk score, and sensation seeking

	Percent of youth who report strongly disapproving of others' regular marijuana use									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	79.2	(77.1,81.3)	79.2	(76.6,81.5)	80.5	(77.4,83.3)	1.3	(-1.8,4.3)	1.3	(-1.9,4.6)
14 to 15_____	62.2	(57.5,66.6)	60.5	(56.2,64.5)	63.3	(59.4,67.1)	1.2	(-4.3,6.6)	2.9	(-2.3,8.0)
16 to 18_____	48.7	(44.7,52.8)	47.3	(43.5,51.0)	45.9	(41.6,50.3)	-2.8	(-7.7,2.1)	-1.3	(-6.2,3.5)
14 to 18_____	54.8	(51.9,57.6)	53.2	(50.5,55.9)	53.4	(50.3,56.3)	-1.4	(-4.9,2.0)	0.1	(-2.4,2.6)
12 to 18_____	61.8	(59.6,64.0)	60.7	(58.4,63.0)	61.1	(58.5,63.7)	-0.7	(-3.5,2.1)	0.4	(-1.7,2.5)
Youth aged 12 to 18										
Nonusers[1] _____	72.9	(70.6,75.2)	72.3	(69.7,74.8)	72.7	(70.1,75.2)	-0.2	(-3.1,2.7)	0.4	(-1.8,2.7)
Occasional users[2]___	21.0	(15.5,27.8)	22.7	(18.2,28.0)	20.2	(14.7,27.0)	-0.9	(-9.6,7.8)	-2.6	(-10.5,5.4)
Youth nonusers aged 12 to 18										
Gender										
Males_____	72.4	(68.9,75.6)	71.8	(68.3,75.2)	72.1	(68.3,75.6)	-0.3	(-4.3,3.8)	0.2	(-3.3,3.8)
Females_____	73.5	(70.7,76.1)	72.8	(69.7,75.7)	73.4	(70.3,76.2)	-0.1	(-3.6,3.3)	0.6	(-2.9,4.0)
Race/ethnicity										
White_____	74.8	(71.9,77.6)	75.5	(72.2,78.4)	75.4	(72.7,77.9)	0.5	(-3.2,4.2)	-0.1	(-3.0,2.7)
African American____	67.1	(61.1,72.6)	66.8	(60.9,72.3)	65.2	(56.3,73.1)	-1.9	(-11.7,7.9)	-1.7	(-9.6,6.3)
Hispanic_____	69.8	(64.7,74.4)	66.4	(60.2,72.1)	68.9	(63.4,73.9)	-0.9	(-7.5,5.8)	2.5	(-4.7,9.7)
Risk score										
Higher risk_____	54.0	(48.6,59.2)	51.7	(46.0,57.4)	47.4	(40.5,54.4)	-6.6	(-13.5,0.4)	-4.3	(-12.0,3.3)
Lower risk_____	79.3	(76.8,81.6)	78.7	(75.7,81.4)	82.0	(79.8,84.0)	2.7	(-0.1,5.5)	3.3	*(0.2,6.3)
Sensation seeking										
High_____	62.7	(59.5,65.8)	60.9	(57.3,64.4)	58.9	(55.2,62.5)	-3.9	(-8.8,1.0)	-2.0	(-6.0,1.9)
Low_____	82.0	(78.7,84.9)	83.7	(80.8,86.2)	85.4	(82.5,87.9)	3.4	(-0.2,7.0)	1.8	(-1.2,4.8)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 5-24. Perceptions of how much others risk harming themselves if they use marijuana occasionally, by age, prior use, gender, race/ethnicity, risk score, and sensation seeking

	Percent saying great risk of harm from occasional use of marijuana									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	45.0	(42.0,48.1)	44.6	(41.4,47.9)	48.1	(44.9,51.3)	3.0	(-1.0,7.1)	3.5	(-0.6,7.5)
14 to 15	27.9	(24.7,31.5)	29.5	(26.1,33.1)	29.2	(25.9,32.6)	1.2	(-3.0,5.5)	-0.3	(-4.8,4.1)
16 to 18	18.6	(15.9,21.8)	19.3	(16.6,22.4)	18.8	(16.2,21.7)	0.2	(-3.6,3.9)	-0.5	(-4.8,3.8)
14 to 18	22.8	(20.5,25.3)	23.9	(21.6,26.4)	23.2	(21.3,25.3)	0.4	(-2.1,2.9)	-0.7	(-3.8,2.4)
12 to 18	29.2	(27.2,31.3)	29.9	(27.8,32.0)	30.3	(28.5,32.2)	1.1	(-1.1,3.3)	0.5	(-2.1,3.0)
Youth aged 12 to 18										
Nonusers[1]	35.9	(33.6,38.4)	36.4	(33.9,39.0)	37.5	(35.4,39.7)	1.6	(-1.2,4.4)	1.1	(-1.9,4.1)
Occasional users[2]	5.1	(2.1,11.6)	7.0	(3.8,12.6)	2.0	(0.8,5.0)	-3.1	(-7.8,1.7)	-5.0	*(-9.7,-0.2)
Youth nonusers aged 12 to 18										
Gender										
Males	35.8	(32.6,39.1)	37.3	(34.4,40.3)	37.3	(34.5,40.1)	1.5	(-2.6,5.5)	0.0	(-4.0,3.9)
Females	36.1	(33.1,39.3)	35.5	(32.1,39.1)	37.8	(34.9,40.7)	1.7	(-2.0,5.3)	2.2	(-2.0,6.4)
Race/ethnicity										
White	36.0	(33.0,39.0)	35.0	(32.3,37.9)	38.1	(35.6,40.7)	2.2	(-1.4,5.7)	3.1	(-0.2,6.4)
African American	32.7	(27.4,38.6)	38.6	(32.1,45.4)	35.2	(29.4,41.5)	2.4	(-5.8,10.7)	-3.4	(-11.2,4.4)
Hispanic	39.7	(34.6,45.0)	40.3	(33.7,47.3)	35.3	(29.5,41.6)	-4.3	(-11.6,2.9)	-5.0	(-13.9,3.9)
Risk score										
Higher risk	18.7	(15.3,22.7)	19.6	(15.3,24.7)	20.2	(15.9,25.2)	1.5	(-4.3,7.2)	0.6	(-6.0,7.2)
Lower risk	42.6	(39.5,45.8)	41.6	(38.6,44.6)	43.5	(40.6,46.4)	0.8	(-2.8,4.5)	1.9	(-1.8,5.7)
Sensation seeking										
High	25.8	(23.2,28.7)	25.0	(22.0,28.3)	26.9	(24.5,29.5)	1.1	(-2.7,4.9)	2.0	(-1.9,5.8)
Low	45.4	(41.4,49.5)	48.1	(44.7,51.5)	47.1	(43.5,50.8)	1.7	(-3.0,6.5)	-1.0	(-6.1,4.1)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 5-25. Perceptions of how much others risk harming themselves if they use marijuana regularly, by age, prior use, gender, race/ethnicity, risk score, and sensation seeking

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
Youth aged 12 to 18										
12 to 13	73.7	(70.9,76.4)	72.7	(69.5,75.7)	75.0	(71.0,78.7)	1.3	(-2.5,5.2)	2.3	(-1.4,6.0)
14 to 15	61.4	(57.5,65.3)	60.9	(56.9,64.7)	61.0	(57.7,64.2)	-0.4	(-4.8,3.9)	0.1	(-4.1,4.3)
16 to 18	45.5	(41.8,49.2)	47.9	(44.2,51.7)	41.3	(37.4,45.4)	-4.1	(-9.1,0.8)	-6.6	*(-12.3,-0.8)
14 to 18	52.7	(49.9,55.5)	53.8	(51.0,56.5)	49.7	(47.2,52.3)	-3.0	(-5.9,0.0)	-4.0	*(-7.5,-0.6)
12 to 18	58.8	(56.5,61.0)	59.3	(56.9,61.5)	57.0	(54.6,59.4)	-1.8	(-4.2,0.7)	-2.3	(-5.0,0.5)
Youth aged 12 to 18										
Nonusers[1]	68.8	(66.2,71.4)	69.4	(66.8,71.9)	67.8	(65.1,70.3)	-1.1	(-4.0,1.8)	-1.6	(-4.7,1.4)
Occasional users[2]	23.8	(19.1,29.3)	30.9	(25.0,37.4)	21.9	(16.7,28.2)	-1.9	(-10.0,6.1)	-8.9	*(-17.5,-0.4)
Youth nonusers aged 12 to 18										
Gender										
Males	66.0	(62.8,68.9)	67.1	(63.5,70.6)	65.1	(61.4,68.7)	-0.8	(-4.9,3.2)	-2.0	(-6.9,2.9)
Females	71.7	(68.0,75.2)	71.7	(68.2,75.0)	70.4	(67.3,73.4)	-1.3	(-5.2,2.6)	-1.3	(-5.3,2.8)
Race/ethnicity										
White	71.3	(68.6,73.9)	70.7	(67.6,73.7)	71.7	(68.9,74.5)	0.4	(-3.1,4.0)	1.0	(-2.4,4.4)
African American	62.9	(56.1,69.2)	67.7	(61.5,73.3)	55.6	(49.7,61.3)	-7.3	(-15.5,0.9)	-12.1	*(-19.4,-4.7)
Hispanic	64.2	(57.3,70.5)	65.9	(60.9,70.6)	64.4	(57.3,70.9)	0.2	(-7.8,8.2)	-1.5	(-10.8,7.8)
Risk score										
Higher risk	54.2	(49.3,59.1)	53.9	(48.5,59.2)	48.7	(42.2,55.3)	-5.5	(-12.6,1.7)	-5.1	(-12.8,2.5)
Lower risk	74.2	(71.0,77.2)	74.9	(72.0,77.6)	74.0	(71.5,76.4)	-0.2	(-3.5,3.2)	-0.9	(-4.1,2.3)
Sensation seeking										
High	61.7	(58.4,64.9)	61.0	(57.3,64.5)	61.6	(57.9,65.2)	-0.1	(-4.7,4.5)	0.6	(-3.6,4.9)
Low	75.2	(70.6,79.3)	78.3	(75.0,81.3)	73.5	(70.2,76.6)	-1.7	(-6.7,3.3)	-4.8	*(-9.2,-0.3)

[1]Nonusers are those who have never used marijuana in the past.

[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.

Table 5-26. Nonusers[1] and occasional users[2] self-efficacy to refuse marijuana[3], by age, gender, race/ethnicity, risk score, and sensation seeking

	Mean score on Self-efficacy to resist use index									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	101.14	(96.10,106.19)	100.85	(95.61,106.09)	119.34	(114.36,124.32)	18.20	*(11.45,24.95)	18.50	*(11.30,25.69)
14 to 15	96.62	(86.90,106.35)	111.95	(105.56,118.34)	111.64	(104.65,118.63)	15.02	*(3.83,26.21)	-0.31	(-8.41,7.79)
16 to 18	110.79	(101.88,119.71)	108.73	(98.17,119.30)	121.80	(113.13,130.47)	11.01	(-1.42,23.44)	13.07	*(1.62,24.51)
14 to 18	103.09	(96.41,109.76)	110.43	(104.42,116.44)	116.77	(111.54,122.00)	13.68	*(4.73,22.63)	6.34	(-0.28,12.96)
12 to 18	102.40	(97.58,107.22)	106.98	(102.75,111.21)	117.68	(113.82,121.55)	15.28	*(8.89,21.67)	10.70	*(5.79,15.61)
Youth occasional users aged 14 to 18										
14 to 18	25.00	(2.88,47.12)	46.82	(24.73,68.90)	46.20	(26.24,66.16)	21.20	(-12.03,54.44)	-0.62	(-32.80,31.57)
Youth nonusers aged 12 to 18										
Gender										
Males	97.31	(90.87,103.74)	107.17	(101.78,112.55)	115.11	(108.69,121.53)	17.81	*(8.43,27.18)	7.95	*(0.70,15.19)
Females	107.51	(100.57,114.45)	106.80	(100.39,113.20)	120.29	(114.84,125.75)	12.78	*(4.93,20.64)	13.50	*(6.06,20.94)
Race/ethnicity										
White	110.88	(105.66,116.10)	111.43	(107.25,115.60)	122.45	(117.65,127.25)	11.57	*(4.58,18.56)	11.03	*(5.39,16.67)
African American	85.18	(73.13,97.23)	101.14	(88.20,114.09)	110.71	(101.47,119.95)	25.53	*(11.10,39.97)	9.57	(-3.97,23.11)
Hispanic	87.86	(74.28,101.44)	98.09	(83.33,112.84)	104.20	(88.38,120.02)	16.34	(-4.06,36.74)	6.11	(-10.63,22.85)
Risk score										
Higher risk	94.18	(83.90,104.46)	84.46	(72.89,96.02)	99.02	(86.93,111.11)	4.84	(-11.76,21.43)	14.57	(-2.06,31.19)
Lower risk	106.51	(101.22,111.80)	116.13	(111.87,120.38)	123.86	(119.85,127.86)	17.34	*(10.83,23.85)	7.73	*(2.32,13.14)
Sensation seeking										
High	88.16	(80.78,95.55)	88.88	(82.45,95.30)	104.21	(97.68,110.74)	16.05	*(6.38,25.72)	15.34	*(6.53,24.14)
Low	116.76	(110.79,122.73)	125.83	(120.92,130.75)	130.38	(125.76,135.00)	13.62	*(6.21,21.03)	4.55	(-1.42,10.51)

[1]Nonusers are those who have never used marijuana in the past.
[2]Occasional users are those who have used marijuana 1 to 9 times in the past 12 months.
[3]Measurement of this construct is detailed in Appendix E.

Table 5-27. Nonusers[1] intentions to use inhalants even once or twice, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent definitely not intending to try inhalants									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	95.4	(94.1,96.5)	94.4	(92.9,95.7)	94.0	(92.1,95.4)	-1.5	(-3.4,0.4)	-0.5	(-2.8,1.8)
14 to 15	93.3	(90.9,95.1)	95.7	(94.3,96.7)	95.2	(92.9,96.8)	1.9	(-0.4,4.2)	-0.4	(-2.6,1.7)
16 to 18	96.2	(94.5,97.4)	94.8	(92.7,96.3)	96.4	(94.4,97.7)	0.2	(-1.7,2.1)	1.6	(-0.9,4.2)
14 to 18	94.9	(93.5,96.0)	95.2	(94.1,96.1)	95.9	(94.4,97.0)	1.0	(-0.5,2.5)	0.7	(-0.9,2.3)
12 to 18	95.1	(94.1,95.9)	95.0	(94.1,95.7)	95.3	(94.2,96.2)	0.3	(-0.8,1.4)	0.3	(-1.0,1.7)
Youth aged 12 to 18										
Gender										
Males	96.0	(94.7,97.0)	95.6	(94.4,96.5)	96.3	(94.8,97.3)	0.3	(-1.2,1.7)	0.7	(-1.0,2.3)
Females	94.1	(92.5,95.4)	94.3	(92.9,95.4)	94.3	(92.6,95.7)	0.2	(-1.7,2.1)	0.0	(-2.0,2.0)
Race/ethnicity										
White	95.1	(93.8,96.1)	94.8	(93.8,95.7)	94.4	(92.7,95.7)	-0.7	(-2.1,0.8)	-0.4	(-2.3,1.4)
African American	96.3	(94.6,97.5)	95.8	(93.2,97.5)	95.9	(92.9,97.7)	-0.4	(-2.9,2.1)	0.1	(-3.3,3.4)
Hispanic	96.5	(94.7,97.7)	95.1	(92.6,96.7)	97.7	(95.8,98.8)	1.2	(-0.8,3.2)	2.6	(-0.1,5.3)
Risk score										
Higher risk	93.0	(90.7,94.8)	92.9	(91.0,94.5)	94.0	(91.8,95.7)	1.0	(-1.5,3.6)	1.1	(-1.5,3.7)
Lower risk	96.3	(95.2,97.2)	96.2	(95.3,96.9)	96.2	(95.1,97.1)	-0.1	(-1.3,1.2)	0.1	(-1.2,1.3)
Sensation seeking										
High	92.4	(90.9,93.7)	92.4	(90.9,93.6)	93.5	(91.8,94.8)	1.0	(-0.9,2.9)	1.1	(-1.0,3.1)
Low	98.2	(97.3,98.8)	98.3	(97.5,98.8)	97.5	(96.1,98.4)	-0.7	(-2.0,0.6)	-0.8	(-2.1,0.5)

[1]Nonusers are those who have never used inhalants in the past.

Table 5-28. Nonusers'[1] beliefs about outcomes regarding inhalant use[2], by age, gender, race/ethnicity, risk score, and sensation seeking

| | Mean score on inhalant beliefs and attitudes index | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	117.34	(112.97,121.71)	117.77	(112.54,123.01)	122.26	(116.63,127.89)	4.92	(-1.64,11.48)	4.49	(-2.86,11.83)
14 to 15	100.10	(92.96,107.24)	91.61	(82.39,100.84)	104.44	(96.46,112.42)	4.35	(-5.58,14.27)	12.83	*(2.00,23.66)
16 to 18	90.64	(82.22,99.06)	102.86	(94.90,110.83)	101.01	(92.74,109.28)	10.37	(-1.63,22.38)	-1.85	(-13.28,9.57)
14 to 18	94.99	(89.65,100.33)	97.70	(91.41,103.99)	102.51	(96.85,108.16)	7.52	*(0.09,14.95)	4.80	(-2.97,12.57)
12 to 18	101.73	(97.62,105.84)	103.64	(98.79,108.49)	108.33	(103.91,112.75)	6.60	*(1.14,12.06)	4.69	(-1.21,10.58)
Youth aged 12 to 18										
Gender										
Males	101.55	(95.57,107.54)	106.67	(100.06,113.29)	112.13	(106.31,117.96)	10.58	*(3.75,17.40)	5.46	(-1.67,12.59)
Females	101.91	(96.28,107.53)	100.45	(93.99,106.90)	104.34	(97.18,111.50)	2.43	(-5.58,10.44)	3.89	(-5.57,13.35)
Race/ethnicity										
White	101.40	(97.12,105.68)	103.60	(97.57,109.63)	106.12	(100.62,111.62)	4.72	(-1.84,11.28)	2.52	(-5.06,10.11)
African American	108.79	(99.50,118.08)	116.26	(107.41,125.11)	113.96	(102.22,125.71)	5.17	(-8.51,18.86)	-2.30	(-14.12,9.53)
Hispanic	101.72	(88.28,115.17)	91.29	(75.06,107.52)	106.07	(95.19,116.95)	4.35	(-11.30,19.99)	14.78	(-3.62,33.18)
Risk score										
Higher risk	74.14	(66.54,81.75)	80.06	(70.65,89.47)	81.34	(72.31,90.37)	7.20	(-2.85,17.24)	1.28	(-10.64,13.21)
Lower risk	118.66	(114.10,123.23)	115.54	(109.80,121.28)	124.39	(119.76,129.02)	5.73	(-0.34,11.79)	8.85	*(2.30,15.40)
Sensation seeking										
High	77.32	(71.37,83.28)	79.77	(72.05,87.49)	82.52	(76.01,89.02)	5.19	(-3.29,13.67)	2.75	(-7.26,12.76)
Low	130.02	(124.66,135.39)	133.47	(129.25,137.69)	138.38	(133.31,143.46)	8.36	*(1.01,15.71)	4.91	(-1.59,11.41)

[1]Nonusers are those who have never used inhalants in the past.

[2]Measurement of this construct is detailed in Appendix E.

Table 5-29. Nonusers'[1] and occasional users'[2] disapproval of others' using inhalants even once or twice, by age, gender, race/ethnicity, risk score, and sensation seeking

| Characteristics | Percent of youth who report strongly disapproving of others' trial inhalant use | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	73.9	(71.5,76.1)	74.9	(72.4,77.2)	75.7	(72.6,78.6)	1.8	(-1.3,5.0)	0.8	(-2.7,4.3)
14 to 15	66.0	(62.3,69.5)	60.2	(56.2,64.2)	67.1	(63.5,70.4)	1.1	(-3.5,5.6)	6.8	*(2.2,11.4)
16 to 18	59.5	(55.4,63.4)	66.5	(62.5,70.3)	64.1	(60.3,67.6)	4.6	(-1.3,10.5)	-2.4	(-7.7,2.9)
14 to 18	62.5	(59.7,65.1)	63.6	(60.7,66.5)	65.4	(62.8,67.9)	2.9	(-0.8,6.6)	1.7	(-1.9,5.4)
12 to 18	65.9	(63.7,68.0)	67.0	(64.7,69.2)	68.5	(66.3,70.6)	2.6	(-0.2,5.3)	1.5	(-1.3,4.3)
Youth occasional users aged 14 to 18										
14 to 18	15.2	(6.8,30.6)	S	(S)	30.3	(17.3,47.4)	15.1	(-4.1,34.3)	S	(S)
Youth nonusers aged 12 to 18										
Gender										
Males	66.8	(63.8,69.6)	68.9	(65.6,72.0)	70.4	(67.3,73.4)	3.7	*(0.4,7.0)	1.6	(-2.2,5.3)
Females	65.1	(62.1,67.9)	65.0	(62.1,67.8)	66.4	(63.3,69.4)	1.4	(-2.6,5.3)	1.5	(-2.7,5.6)
Race/ethnicity										
White	64.4	(62.0,66.7)	65.6	(62.8,68.3)	66.7	(64.0,69.2)	2.3	(-1.1,5.7)	1.1	(-2.7,4.9)
African American	72.1	(67.2,76.5)	75.0	(70.4,79.2)	72.4	(65.1,78.7)	0.3	(-6.3,7.0)	-2.6	(-8.3,3.1)
Hispanic	68.7	(62.4,74.4)	64.9	(57.6,71.6)	69.4	(64.8,73.7)	0.7	(-6.4,7.7)	4.5	(-3.5,12.4)
Risk score										
Higher risk	52.9	(49.2,56.6)	56.2	(52.0,60.3)	55.7	(51.6,59.7)	2.8	(-2.3,7.9)	-0.5	(-5.8,4.8)
Lower risk	73.4	(70.8,75.9)	72.2	(69.3,74.8)	75.7	(73.4,77.9)	2.3	(-0.9,5.5)	3.5	*(0.2,6.9)
Sensation seeking										
High	54.4	(51.7,57.2)	56.4	(53.1,59.6)	55.7	(52.6,58.7)	1.2	(-2.9,5.3)	-0.7	(-4.9,3.4)
Low	78.7	(75.3,81.8)	79.9	(77.2,82.3)	83.1	(80.4,85.6)	4.4	*(0.5,8.4)	3.3	(-0.3,6.8)

[1]Nonusers are those who have never used inhalants in the past.
[2]Occasional users are those who have used inhalants 1 to 9 times in the past 12 months.

Table 5-30. Nonusers[1] and occasional users[2] disapproval of others' regular inhalant use, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent of youth who report strongly disapproving of others' regular inhalant use									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	85.3	(83.3,87.1)	83.6	(81.3,85.7)	85.1	(82.6,87.3)	-0.2	(-3.2,2.8)	1.5	(-1.3,4.3)
14 to 15	80.0	(77.0,82.7)	76.9	(72.8,80.5)	83.0	(79.9,85.7)	3.0	(-0.3,6.4)	6.2	*(1.7,10.6)
16 to 18	79.6	(75.9,82.9)	81.2	(77.4,84.5)	81.1	(77.7,84.0)	1.4	(-3.4,6.3)	-0.1	(-5.0,4.7)
14 to 18	79.8	(77.2,82.1)	79.2	(76.5,81.7)	81.9	(79.8,83.8)	2.1	(-0.9,5.1)	2.7	(-0.4,5.8)
12 to 18	81.5	(79.5,83.3)	80.5	(78.3,82.6)	82.9	(81.2,84.4)	1.4	(-1.0,3.8)	2.3	(-0.1,4.7)
Youth occasional users aged 14 to 18										
14 to 18	24.1	(13.2,39.8)	S	(S)	S	(S)	S	(S)	S	(S)
Youth nonusers aged 12 to 18										
Gender										
Males	80.8	(78.2,83.2)	80.2	(77.1,82.9)	82.3	(79.8,84.5)	1.5	(-1.5,4.4)	2.1	(-0.7,5.0)
Females	82.1	(79.6,84.3)	80.9	(78.1,83.4)	83.4	(80.6,85.9)	1.4	(-2.1,4.8)	2.6	(-1.3,6.4)
Race/ethnicity										
White	83.0	(81.1,84.7)	83.3	(81.0,85.3)	84.1	(82.3,85.7)	1.1	(-1.5,3.8)	0.8	(-1.7,3.3)
African American	79.1	(74.7,82.9)	78.6	(73.7,82.8)	81.8	(76.3,86.3)	2.7	(-3.0,8.4)	3.2	(-2.0,8.4)
Hispanic	79.8	(74.1,84.6)	71.8	(64.8,77.9)	77.5	(72.3,81.9)	-2.4	(-8.8,4.1)	5.6	(-3.0,14.3)
Risk score										
Higher risk	74.5	(71.0,77.6)	73.8	(69.5,77.7)	74.9	(70.8,78.5)	0.4	(-4.1,4.9)	1.1	(-3.9,6.1)
Lower risk	85.9	(83.9,87.6)	83.8	(81.3,86.0)	87.9	(86.0,89.5)	2.0	(-0.4,4.4)	4.1	*(1.4,6.8)
Sensation seeking										
High	75.3	(72.7,77.8)	73.6	(70.5,76.6)	74.5	(71.9,76.9)	-0.9	(-4.4,2.7)	0.8	(-3.0,4.6)
Low	88.1	(85.8,90.1)	89.1	(86.9,90.9)	92.5	(90.9,93.9)	4.4	*(1.7,7.1)	3.5	*(0.9,6.0)

[1]Nonusers are those who have never used inhalants in the past.
[2]Occasional users are those who have used inhalants 1 to 9 times in the past 12 months.

Table 5-31. Nonusers[1] and occasional users[2] perceptions of how much others risk harming themselves if they use inhalants even once or twice, by age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent saying great risk of harm from trial use of inhalants | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	47.8	(45.3,50.3)	49.6	(46.3,52.9)	51.6	(48.4,54.8)	3.8	(0.0,7.6)	2.0	(-2.4,6.3)
14 to 15	47.3	(43.8,50.8)	48.6	(45.1,52.0)	48.4	(44.4,52.5)	1.1	(-3.9,6.2)	-0.1	(-5.0,4.8)
16 to 18	48.7	(44.9,52.5)	49.9	(46.2,53.6)	51.6	(47.4,55.7)	2.9	(-2.3,8.1)	1.7	(-3.4,6.8)
14 to 18	48.0	(45.4,50.7)	49.3	(46.8,51.8)	50.2	(46.9,53.5)	2.2	(-1.8,6.2)	0.9	(-3.0,4.9)
12 to 18	48.0	(45.9,50.0)	49.4	(47.3,51.5)	50.6	(48.1,53.1)	2.6	(-0.2,5.5)	1.2	(-1.8,4.3)
Youth occasional users aged 14 to 18										
14 to 18	15.6	(7.4,30.1)	S	(S)	22.1	(11.0,39.4)	6.5	(-11.9,24.8)	S	(S)
Youth nonusers aged 12 to 18										
Gender										
Males	47.2	(44.3,50.0)	50.6	(47.5,53.7)	52.7	(49.6,55.7)	5.5	*(1.5,9.5)	2.1	(-2.2,6.4)
Females	48.8	(45.9,51.6)	48.1	(45.0,51.3)	48.5	(45.0,52.0)	-0.3	(-4.0,3.4)	0.4	(-3.8,4.5)
Race/ethnicity										
White	47.5	(45.1,49.9)	48.6	(45.9,51.3)	50.0	(47.1,52.9)	2.5	(-1.1,6.1)	1.4	(-2.3,5.0)
African American	49.2	(44.1,54.3)	54.8	(49.0,60.4)	53.7	(48.6,58.7)	4.5	(-2.2,11.2)	-1.1	(-9.2,7.0)
Hispanic	51.8	(46.9,56.8)	49.1	(43.4,54.8)	50.4	(44.7,56.1)	-1.4	(-9.3,6.5)	1.3	(-6.5,9.1)
Risk score										
Higher risk	45.7	(41.3,50.1)	47.7	(43.6,51.7)	48.6	(43.3,53.9)	2.9	(-3.6,9.4)	0.9	(-5.4,7.3)
Lower risk	49.9	(47.3,52.6)	49.6	(46.8,52.4)	52.0	(49.5,54.6)	2.1	(-1.2,5.4)	2.4	(-1.2,6.0)
Sensation seeking										
High	41.5	(38.6,44.4)	43.1	(40.1,46.2)	46.5	(43.2,49.9)	5.0	*(0.9,9.1)	3.4	(-0.8,7.6)
Low	55.7	(52.7,58.6)	57.5	(54.5,60.5)	55.4	(51.6,59.1)	-0.3	(-4.9,4.3)	-2.1	(-7.1,2.9)

[1]Nonusers are those who have never used inhalants in the past.

[2]Occasional users are those who have used inhalants 1 to 9 times in the past 12 months.

Table 5-32. Nonusers[1] and occasional users[2] perceptions of how much others risk harming themselves if they use inhalants regularly, by age, gender, race/ethnicity, risk score, and sensation seeking

	Percent saying great risk of harm from regular use of inhalants									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth nonusers aged 12 to 18										
12 to 13	81.2	(79.0,83.3)	80.5	(78.0,82.7)	81.2	(77.8,84.1)	0.0	(-4.0,3.9)	0.7	(-3.3,4.7)
14 to 15	83.0	(79.7,85.9)	83.8	(81.1,86.1)	81.2	(78.6,83.6)	-1.8	(-5.8,2.2)	-2.5	(-5.8,0.8)
16 to 18	84.5	(81.0,87.4)	86.4	(84.2,88.3)	84.7	(80.8,87.9)	0.2	(-3.6,3.9)	-1.7	(-5.9,2.4)
14 to 18	83.8	(81.8,85.7)	85.2	(83.5,86.7)	83.2	(80.7,85.3)	-0.7	(-3.3,1.9)	-2.0	(-4.7,0.6)
12 to 18	83.0	(81.6,84.4)	83.8	(82.6,85.0)	82.6	(80.7,84.3)	-0.5	(-2.5,1.6)	-1.2	(-3.2,0.8)
Youth occasional users aged 14 to 18										
14 to 18	S	(S)	S	(S)	S	(S)	S	(S)	S	(S)
Youth nonusers aged 12 to 18										
Gender										
Males	82.1	(79.7,84.2)	83.0	(81.0,84.9)	83.8	(81.3,86.0)	1.8	(-1.5,5.0)	0.8	(-2.4,4.0)
Females	84.0	(81.6,86.1)	84.6	(82.6,86.5)	81.3	(78.6,83.7)	-2.7	(-5.6,0.1)	-3.3	*(-5.9,-0.8)
Race/ethnicity										
White	86.4	(84.6,88.0)	86.5	(84.9,87.9)	85.6	(83.5,87.4)	-0.8	(-3.2,1.7)	-0.9	(-3.1,1.3)
African American	75.9	(71.4,79.9)	77.7	(72.5,82.2)	75.5	(70.1,80.2)	-0.4	(-7.0,6.2)	-2.2	(-8.9,4.4)
Hispanic	77.4	(72.8,81.4)	78.5	(75.1,81.5)	78.7	(72.9,83.5)	1.3	(-5.2,7.8)	0.2	(-6.2,6.6)
Risk score										
Higher risk	83.9	(80.6,86.8)	84.0	(81.4,86.3)	82.3	(78.5,85.6)	-1.6	(-6.1,2.9)	-1.7	(-5.7,2.4)
Lower risk	82.7	(80.6,84.6)	83.7	(82.0,85.3)	82.8	(80.6,84.9)	0.2	(-2.5,2.9)	-0.9	(-3.3,1.5)
Sensation seeking										
High	82.1	(79.3,84.5)	82.4	(80.3,84.4)	82.9	(80.5,85.0)	0.8	(-2.6,4.2)	0.4	(-2.3,3.2)
Low	84.1	(81.5,86.5)	86.2	(84.2,87.9)	82.3	(79.0,85.1)	-1.9	(-5.4,1.6)	-3.9	*(-7.3,-0.5)

[1]Nonusers are those who have never used inhalants in the past.
[2]Occasional users are those who have used inhalants 1 to 9 times in the past 12 months.

Table 5-33. The relationship between exposure to general anti-drug advertising and nonusing youths' intentions to not use marijuana, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round

November 1999 through June 2002

	Percent of youth reporting each exposure level							
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Youth aged 12 to 18								
12 to 13_____	91.7 (90.5,92.7)	92.7 (90.0,94.8)	90.2 (87.5,92.4)	91.6 (90.3,92.7)	-1.1 (-3.4,1.2)	-0.049	(-0.16,0.07)	-1.1 (-3.8,1.5)
14 to 18_____	83.7 (82.2,85.2)	84.9 (80.6,88.4)	83.0 (80.2,85.4)	83.5 (81.3,85.4)	-1.1 (-4.7,2.4)	-0.034	(-0.14,0.07)	-1.4 (-5.7,2.9)
12 to 18_____	86.6 (85.5,87.6)	87.8 (84.9,90.1)	85.5 (83.6,87.3)	86.4 (85.0,87.7)	-1.2 (-3.6,1.3)	-0.037	(-0.12,0.05)	-1.3 (-4.2,1.6)
Youth aged 12 to 18								
Gender								
Male_____	86.3 (84.6,87.8)	86.8 (83.1,89.8)	84.3 (80.8,87.2)	86.8 (84.5,88.8)	-0.5 (-3.7,2.7)	0.000	(-0.11,0.11)	0.0 (-4.1,4.1)
Female_____	86.9 (85.4,88.2)	88.7 (84.5,92.0)	86.7 (84.1,89.0)	86.1 (84.1,87.9)	-1.9 (-5.2,1.5)	-0.078	(-0.20,0.04)	-2.6 (-6.5,1.3)
Race/ethnicity								
White_____	86.7 (85.3,88.1)	88.8 (85.8,91.3)	86.1 (83.6,88.4)	86.3 (84.5,87.9)	-2.1 (-4.6,0.4)	-0.076	(-0.17,0.02)	-2.6 (-5.6,0.5)
African American____	86.0 (83.5,88.2)	81.2 (71.7,88.1)	87.0 (78.4,92.5)	86.5 (82.9,89.4)	4.8 (-3.3,13.0)	0.134	(-0.08,0.35)	5.2 (-3.6,14.0)
Hispanic_____	86.5 (83.7,88.9)	87.8 (82.1,91.8)	84.3 (77.7,89.3)	87.1 (83.6,90.0)	-1.3 (-6.1,3.5)	-0.019	(-0.19,0.15)	-0.6 (-6.4,5.2)

Table 5-33. The relationship between exposure to general anti-drug advertising and nonusing youths' intentions to not use marijuana, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round (continued)

November 1999 through June 2002

	Percent of youth reporting each exposure level							
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Youth aged 12 to 18								
Risk score								
Higher risk_____	72.8 (69.7,75.6)	68.7 (61.3,75.3)	76.2 (70.9,80.8)	72.5 (68.3,76.2)	4.0 (-2.9,11.0)	0.050	(-0.07,0.17)	3.7 (-4.3,11.8)
Lower risk_____	91.5 (90.4,92.4)	93.4 (91.0,95.2)	89.4 (87.2,91.3)	91.7 (90.4,92.8)	-1.9 (-3.9,0.0)	-0.074	(-0.18,0.03)	-1.7 (-4.1,0.7)
Sensation seeking								
High_____	79.3 (77.5,81.0)	80.0 (74.2,84.7)	78.6 (75.1,81.8)	79.5 (77.3,81.6)	-0.7 (-5.5,4.1)	-0.009	(-0.12,0.10)	-0.5 (-6.0,5.1)
Low_____	93.5 (92.1,94.6)	93.7 (90.6,95.8)	93.0 (90.4,94.9)	93.0 (91.1,94.6)	-0.2 (-2.6,2.2)	-0.035	(-0.18,0.11)	-0.6 (-3.4,2.1)
Interview round[1]								
Waves 1-3_____	86.8 (85.4,88.1)	88.0 (83.9,91.3)	86.4 (83.5,88.8)	86.5 (84.4,88.4)	-1.2 (-4.6,2.2)	-0.044	(-0.17,0.08)	-1.5 (-5.8,2.7)
Waves 4-5_____	86.2 (84.9,87.4)	87.4 (84.0,90.1)	84.2 (80.9,87.0)	86.4 (84.4,88.2)	-1.2 (-4.0,1.7)	-0.030	(-0.13,0.07)	-1.0 (-4.6,2.6)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-34. The relationship between exposure to specific anti-drug advertising and nonusing youths' intentions to not use marijuana, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round

November 1999 through June 2002

Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
Youth aged 12 to 18									
12 to 13	91.7 (90.5,92.7)	92.4 (88.3,95.2)	91.4 (89.1,93.2)	91.1 (89.4,92.7)	91.6 (89.0,93.7)	-0.7 (-3.6,2.1)	-0.027	(-0.17,0.11)	-0.8 (-5.0,3.4)
14 to 18	83.7 (82.2,85.2)	86.5 (82.6,89.6)	84.7 (82.5,86.7)	81.7 (79.1,84.1)	85.8 (76.4,91.9)	-2.7 (-5.9,0.4)	-0.032	(-0.19,0.12)	-0.7 (-9.0,7.6)
12 to 18	86.6 (85.5,87.6)	88.6 (85.9,90.9)	87.1 (85.3,88.6)	85.2 (83.3,86.8)	88.0 (82.5,91.9)	-2.0 (-4.1,0.1)	-0.028	(-0.14,0.09)	-0.6 (-6.0,4.7)
Youth aged 12 to 18									
Gender									
Male	86.3 (84.6,87.8)	87.8 (84.4,90.6)	86.8 (83.9,89.3)	86.1 (83.4,88.4)	84.9 (74.1,91.8)	-1.6 (-4.6,1.4)	-0.067	(-0.26,0.12)	-2.9 (-12.0,6.2)
Female	86.9 (85.4,88.2)	89.4 (85.0,92.6)	87.3 (85.1,89.3)	84.3 (81.4,86.8)	91.1 (87.3,93.8)	-2.5 (-5.6,0.6)	0.016	(-0.10,0.13)	1.7 (-3.1,6.5)
Race/ethnicity									
White	86.7 (85.3,88.1)	88.5 (85.3,91.1)	86.8 (84.4,88.8)	85.6 (83.2,87.7)	87.5 (79.6,92.6)	-1.8 (-4.3,0.7)	-0.034	(-0.19,0.12)	-1.1 (-8.2,6.1)
African American	86.0 (83.5,88.2)	89.9 (79.6,95.3)	88.6 (83.3,92.3)	84.0 (79.8,87.5)	89.5 (78.7,95.2)	-3.9 (-10.4,2.6)	-0.034	(-0.36,0.29)	-0.4 (-13.5,12.7)
Hispanic	86.5 (83.7,88.9)	86.6 (79.2,91.7)	88.0 (83.8,91.3)	84.2 (78.5,88.6)	86.8 (77.5,92.7)	-0.1 (-5.5,5.2)	-0.028	(-0.22,0.16)	0.2 (-9.3,9.7)

Table 5-34. The relationship between exposure to specific anti-drug advertising and nonusing youths' intentions to not use marijuana, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round (continued)

November 1999 through June 2002

	Percent of youth reporting each exposure level								
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
Youth aged 12 to 18									
Risk score									
Higher risk_____	72.8 (69.7,75.6)	77.1 (70.7,82.5)	75.5 (70.9,79.6)	69.8 (64.6,74.6)	S (S)	-4.4 (-9.8,1.1)	-0.075	(-0.31,0.16)	S (S)
Lower risk_____	91.5 (90.4,92.4)	92.8 (89.6,95.1)	91.0 (89.1,92.7)	91.0 (89.3,92.5)	92.9 (90.6,94.6)	-1.4 (-3.8,1.0)	0.000	(-0.12,0.12)	0.0 (-3.5,3.6)
Sensation seeking									
High_____	79.3 (77.5,81.0)	82.8 (78.0,86.8)	79.8 (77.1,82.3)	78.0 (74.8,80.9)	79.1 (68.8,86.7)	-3.5 (-7.3,0.2)	-0.067	(-0.21,0.08)	-3.7 (-13.6,6.2)
Low_____	93.5 (92.1,94.6)	93.4 (90.2,95.7)	94.2 (92.1,95.8)	92.2 (90.0,94.0)	95.4 (92.8,97.1)	0.0 (-2.1,2.2)	0.056	(-0.09,0.21)	2.0 (-1.4,5.3)
Interview round[1]									
Waves 1-3_____	86.8 (85.4,88.1)	87.8 (84.1,90.7)	87.3 (85.0,89.4)	85.7 (83.1,87.9)	87.3 (76.2,93.6)	-1.0 (-3.8,1.9)	-0.024	(-0.22,0.17)	-0.5 (-9.7,8.7)
Waves 4-5_____	86.2 (84.9,87.4)	89.7 (85.9,92.6)	86.7 (84.1,88.9)	84.4 (82.3,86.3)	88.9 (85.1,91.8)	-3.5 *(-6.5,-0.4)	-0.034	(-0.14,0.08)	-0.8 (-5.6,3.9)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-35. The relationship between exposure to general anti-drug advertising and nonusing youths' personal anti-marijuana beliefs and attitudes[1], by age, gender, race/ethnicity, risk score, sensation seeking, and interview round

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	126.32	122.76	124.88	128.03	3.56	0.029	(-0.01,0.07)	5.27
	(121.99,130.66)	(114.80,130.72)	(116.52,133.24)	(122.89,133.16)	(-3.61,10.74)			(-3.74,14.27)
14 to 18_____	95.76	99.90	93.91	96.14	-4.14	-0.013	(-0.06,0.03)	-3.76
	(90.83,100.68)	(89.62,110.19)	(86.44,101.38)	(89.86,102.42)	(-13.88,5.59)			(-16.03,8.51)
12 to 18_____	106.61	108.25	104.63	107.66	-1.63	0.001	(-0.03,0.04)	-0.59
	(102.59,110.64)	(101.22,115.27)	(98.42,110.85)	(102.82,112.50)	(-8.47,5.20)			(-9.22,8.05)
Youth aged 12 to 18								
Gender								
Male_____	102.92	103.84	99.91	105.08	-0.91	0.006	(-0.04,0.05)	1.25
	(97.74,108.10)	(94.13,113.55)	(91.50,108.32)	(98.68,111.48)	(-9.42,7.59)			(-9.91,12.40)
Female_____	110.32	112.73	109.34	110.24	-2.42	-0.004	(-0.05,0.04)	-2.50
	(105.52,115.12)	(103.02,122.44)	(100.01,118.67)	(103.89,116.58)	(-11.57,6.74)			(-13.94,8.95)
Race/ethnicity								
White_____	109.58	112.13	109.22	110.17	-2.55	-0.013	(-0.06,0.03)	-1.96
	(104.76,114.40)	(102.69,121.57)	(101.24,117.20)	(104.44,115.89)	(-11.41,6.31)			(-13.34,9.42)
African American____	97.56	100.91	90.58	97.48	-3.35	-0.004	(-0.08,0.07)	-3.43
	(89.48,105.64)	(85.35,116.46)	(76.03,105.13)	(88.68,106.28)	(-17.85,11.15)			(-20.99,14.13)
Hispanic_____	105.61	103.45	110.86	108.07	2.16	0.051	(-0.02,0.12)	4.63
	(98.00,113.21)	(92.12,114.78)	(97.75,123.98)	(97.01,119.14)	(-8.62,12.93)			(-10.98,20.23)

Table 5-35. The relationship between exposure to general anti-drug advertising and nonusing youths' personal anti-marijuana beliefs and attitudes[1], by age, gender, race/ethnicity, risk score, sensation seeking, and interview round (continued)

November 1999 through June 2002

	Exposure level of youth (real or hypothetical)							
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Youth aged 12 to 18								
Risk score								
Higher risk_____	56.79	53.57	60.48	60.41	3.22	0.026	(-0.03,0.08)	6.84
	(48.06,65.53)	(37.60,69.55)	(47.07,73.90)	(48.63,72.19)	(-10.80,17.24)			(-10.18,23.85)
Lower risk_____	123.83	125.30	119.98	124.25	-1.47	0.000	(-0.05,0.05)	-1.05
	(119.94,127.73)	(117.07,133.53)	(113.29,126.68)	(119.44,129.06)	(-9.34,6.40)			(-10.98,8.88)
Sensation seeking								
High_____	79.66	80.06	76.87	83.57	-0.40	0.017	(-0.03,0.06)	3.51
	(74.06,85.27)	(68.58,91.54)	(67.42,86.32)	(77.34,89.79)	(-10.61,9.81)			(-8.69,15.70)
Low_____	132.22	130.83	133.95	130.71	1.39	0.000	(-0.05,0.05)	-0.12
	(127.48,136.96)	(123.76,137.90)	(125.76,142.13)	(124.31,137.11)	(-6.42,9.20)			(-10.75,10.51)
Interview round[2]								
Waves 1-3_____	106.49	107.30	105.71	106.80	-0.81	0.001	(-0.05,0.05)	-0.51
	(101.54,111.45)	(97.03,117.58)	(96.75,114.68)	(100.30,113.29)	(-10.99,9.37)			(-13.32,12.30)
Waves 4-5_____	106.79	109.51	102.87	108.94	-2.72	0.001	(-0.05,0.05)	-0.58
	(102.61,110.97)	(99.84,119.18)	(94.86,110.89)	(102.74,115.13)	(-11.53,6.09)			(-12.08,10.93)

[1]Based on a combined index of beliefs and attitudes toward trial and regular marijuana use as described in Appendix E. See Table 5-2 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-36. The relationship between exposure to specific anti-drug advertising and personal anti-marijuana beliefs and attitudes[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
12 to 13_____	126.32	127.69	126.42	124.53	130.06	-1.36	0.007	(-0.04,0.05)	2.37
	(121.99,130.66)	(116.02,139.35)	(119.81,133.02)	(118.48,130.58)	(118.18,141.94)	(-10.72,7.99)			(-11.68,16.42)
14 to 18_____	95.76	107.02	97.97	89.31	99.25	-11.26	-0.035	(-0.09,0.02)	-7.77
	(90.83,100.68)	(97.70,116.34)	(89.09,106.85)	(81.72,96.91)	(83.98,114.52)	*(-20.21,-2.32)			(-25.28,9.74)
12 to 18_____	106.61	114.40	107.92	102.03	110.37	-7.78	-0.020	(-0.06,0.02)	-4.02
	(102.59,110.64)	(106.71,122.08)	(101.22,114.61)	(96.05,108.01)	(98.80,121.95)	*(-14.45,-1.11)			(-16.26,8.21)
Youth aged 12 to 18									
Gender									
Male_____	102.92	106.93	107.23	98.98	98.39	-4.01	-0.044	(-0.11,0.02)	-8.54
	(97.74,108.10)	(95.60,118.27)	(98.74,115.72)	(91.41,106.56)	(79.58,117.20)	(-14.33,6.31)			(-29.40,12.32)
Female_____	110.32	121.64	108.62	105.03	122.82	-11.33	0.006	(-0.05,0.06)	1.18
	(105.52,115.12)	(111.00,132.29)	(100.63,116.60)	(97.43,112.62)	(108.29,137.35)	*(-21.09,-1.57)			(-14.76,17.11)
Race/ethnicity									
White_____	109.58	114.68	112.90	104.86	115.05	-5.10	-0.009	(-0.06,0.04)	0.36
	(104.76,114.40)	(105.46,123.91)	(106.07,119.73)	(96.97,112.75)	(99.32,130.77)	(-13.84,3.63)			(-17.53,18.25)
African American__	97.56	119.04	96.65	93.89	104.61	-21.48	-0.046	(-0.16,0.07)	-14.43
	(89.48,105.64)	(92.26,145.82)	(80.77,112.53)	(83.16,104.62)	(90.19,119.03)	(-44.88,1.92)			(-45.85,17.00)
Hispanic_____	105.61	114.14	105.01	98.61	109.66	-8.54	-0.018	(-0.10,0.06)	-4.48
	(98.00,113.21)	(95.83,132.46)	(90.04,119.99)	(84.97,112.26)	(90.27,129.05)	(-25.61,8.54)			(-27.67,18.72)

Table 5-36. The relationship between exposure to specific anti-drug advertising and personal anti-marijuana beliefs and attitudes[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
Risk score									
Higher risk_____	56.79 (48.06,65.53)	70.41 (52.11,88.72)	59.58 (44.09,75.07)	49.25 (35.21,63.28)	48.34 (17.08,79.60)	-13.62 (-30.19,2.95)	-0.072	(-0.17,0.03)	-22.07 (-57.37,13.22)
Lower risk_____	123.83 (119.94,127.73)	129.97 (120.77,139.17)	124.57 (118.60,130.55)	120.08 (114.46,125.69)	130.60 (122.89,138.32)	-6.14 (-13.70,1.43)	-0.004	(-0.04,0.03)	0.63 (-9.08,10.34)
Sensation seeking									
High_____	79.66 (74.06,85.27)	89.79 (78.20,101.37)	80.15 (69.95,90.36)	77.38 (68.48,86.28)	86.51 (67.44,105.58)	-10.12 (-21.13,0.89)	-0.015	(-0.08,0.05)	-3.27 (-25.14,18.59)
Low_____	132.22 (127.48,136.96)	136.40 (125.93,146.86)	134.79 (127.47,142.11)	125.76 (119.13,132.40)	131.21 (116.18,146.23)	-4.18 (-13.47,5.12)	-0.025	(-0.08,0.03)	-5.19 (-20.60,10.23)
Interview round[2]									
Waves 1-3_____	106.49 (101.54,111.45)	110.88 (100.53,121.23)	107.35 (98.78,115.92)	102.55 (93.93,111.17)	105.20 (85.32,125.08)	-4.39 (-14.19,5.42)	-0.023	(-0.08,0.04)	-5.68 (-26.99,15.63)
Waves 4-5_____	106.79 (102.61,110.97)	119.02 (107.82,130.22)	108.85 (100.57,117.14)	101.27 (95.33,107.21)	117.28 (108.23,126.34)	*(-22.05,-2.41)	-0.013	(-0.06,0.03)	-1.74 (-14.45,10.97)

[1]Based on a combined index of beliefs and attitudes toward trial and regular marijuana use as described in Appendix E. See Table 5-2 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-37. The relationship between exposure to general anti-drug advertising and perceived anti-marijuana social norms[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round

November 1999 through June 2002

Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Youth aged 12 to 18								
12 to 13	133.09 (129.81,136.37)	131.44 (123.34,139.54)	131.94 (124.11,139.77)	133.17 (128.85,137.49)	1.65 (-6.17,9.47)	0.018	(-0.03,0.06)	1.73 (-7.45,10.90)
14 to 18	86.77 (82.42,91.13)	91.25 (81.94,100.55)	82.76 (74.70,90.82)	86.58 (80.76,92.40)	-4.47 (-13.52,4.58)	-0.019	(-0.06,0.03)	-4.66 (-15.64,6.31)
12 to 18	103.22 (100.06,106.39)	105.92 (99.55,112.29)	99.79 (93.27,106.32)	103.41 (99.54,107.29)	-2.70 (-8.98,3.58)	-0.010	(-0.04,0.02)	-2.51 (-9.59,4.57)
Youth aged 12 to 18								
Gender								
Male	95.52 (91.26,99.79)	93.66 (84.07,103.26)	95.39 (86.06,104.71)	94.54 (88.72,100.36)	1.86 (-7.31,11.03)	0.001	(-0.04,0.04)	0.88 (-10.17,11.93)
Female	110.95 (106.22,115.68)	118.38 (109.71,127.06)	104.18 (96.44,111.92)	112.27 (106.64,117.89)	-7.43 (-15.00,0.13)	-0.021	(-0.06,0.02)	-6.12 (-15.19,2.96)
Race/ethnicity								
White	108.46 (104.69,112.23)	110.55 (102.92,118.17)	107.00 (100.15,113.84)	108.17 (103.15,113.18)	-2.09 (-9.43,5.25)	-0.015	(-0.05,0.02)	-2.38 (-10.71,5.95)
African American	80.06 (74.05,86.07)	76.51 (60.36,92.66)	72.63 (55.15,90.12)	80.39 (71.19,89.59)	3.55 (-12.15,19.25)	0.020	(-0.05,0.09)	3.88 (-14.00,21.76)
Hispanic	101.95 (94.16,109.74)	113.01 (99.11,126.92)	98.35 (80.06,116.64)	104.25 (95.26,113.23)	-11.06 (-24.32,2.20)	-0.032	(-0.11,0.05)	-8.77 (-26.30,8.77)

Table 5-37. The relationship between exposure to general anti-drug advertising and perceived anti-marijuana social norms[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round (continued)

November 1999 through June 2002

| Characteristics | Exposure level of youth (real or hypothetical) | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	45.38	48.48	50.22	43.41	-3.10	-0.013	(-0.08,0.05)	-5.07
	(38.22,52.54)	(32.30,64.66)	(36.63,63.81)	(32.92,53.89)	(-18.19,11.99)			(-23.45,13.30)
Lower risk_____	122.91	122.10	116.61	125.30	0.81	0.012	(-0.03,0.05)	3.21
	(119.68,126.13)	(114.19,130.00)	(108.77,124.45)	(120.66,129.95)	(-7.12,8.74)			(-5.69,12.11)
Sensation seeking								
High_____	77.50	77.84	78.33	77.58	-0.33	-0.004	(-0.05,0.04)	-0.26
	(72.68,82.32)	(67.40,88.27)	(69.06,87.61)	(71.84,83.31)	(-10.41,9.75)			(-11.85,11.34)
Low_____	127.61	128.53	122.00	128.64	-0.93	0.003	(-0.05,0.05)	0.11
	(123.60,131.61)	(120.02,137.05)	(112.89,131.10)	(123.55,133.73)	(-8.20,6.35)			(-9.34,9.55)
Interview round[2]								
Waves 1-3_____	105.96	110.07	102.76	106.44	-4.10	-0.020	(-0.07,0.03)	-3.63
	(102.03,109.89)	(100.21,119.92)	(93.99,111.53)	(101.10,111.78)	(-13.41,5.20)			(-14.57,7.31)
Waves 4-5_____	99.15	100.38	94.96	98.97	-1.23	-0.002	(-0.04,0.04)	-1.41
	(94.99,103.31)	(92.51,108.25)	(84.97,104.95)	(92.54,105.39)	(-9.48,7.03)			(-11.58,8.76)

[1]Based on a combined index of perceived social expectations and perceived social network behavior as described in Appendix E. See Table 5-3 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-38. The relationship between exposure to specific anti-drug advertising and perceived anti-marijuana social norms[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round

November 1999 through June 2002

| | Exposure level of youth (real or hypothetical) | | | | | | | | |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
Youth aged 12 to 18									
12 to 13	133.09 (129.81,136.37)	139.43 (131.93,146.93)	133.25 (126.88,139.62)	130.24 (125.04,135.45)	137.86 (128.87,146.84)	-6.34 (-13.47,0.80)	-0.014	(-0.06,0.03)	-1.57 (-12.57,9.42)
14 to 18	86.77 (82.42,91.13)	92.81 (82.67,102.94)	90.54 (83.18,97.89)	83.89 (77.39,90.38)	85.33 (68.87,101.79)	-6.03 (-15.27,3.20)	-0.027	(-0.09,0.03)	-7.48 (-26.58,11.63)
12 to 18	103.22 (100.06,106.39)	109.45 (102.63,116.27)	105.47 (100.08,110.87)	100.63 (95.98,105.28)	104.30 (93.53,115.06)	-6.22 (-12.67,0.22)	-0.019	(-0.06,0.02)	-5.15 (-17.67,7.36)
Youth aged 12 to 18									
Gender									
Male	95.52 (91.26,99.79)	99.25 (90.96,107.54)	98.84 (91.14,106.55)	94.79 (88.21,101.38)	95.72 (78.82,112.63)	-3.73 (-12.37,4.91)	0.000	(-0.06,0.06)	-3.53 (-21.59,14.54)
Female	110.95 (106.22,115.68)	119.35 (107.97,130.73)	112.23 (104.95,119.51)	106.35 (99.62,113.08)	113.20 (98.90,127.50)	-8.40 (-18.13,1.33)	-0.041	(-0.09,0.01)	-6.15 (-24.86,12.56)
Race/ethnicity									
White	108.46 (104.69,112.23)	112.99 (105.75,120.22)	112.57 (105.90,119.24)	104.97 (98.98,110.96)	117.57 (105.12,130.01)	-4.53 (-12.01,2.96)	0.007	(-0.05,0.06)	4.58 (-9.87,19.03)
African American	80.06 (74.05,86.07)	88.56 (66.43,110.69)	86.42 (74.89,97.95)	78.97 (68.86,89.08)	68.06 (50.42,85.70)	-8.50 (-29.76,12.76)	-0.069	(-0.15,0.01)	-20.50 (-49.88,8.88)
Hispanic	101.95 (94.16,109.74)	108.83 (85.77,131.88)	97.37 (85.81,108.92)	101.31 (84.59,118.03)	104.79 (85.02,124.56)	-6.88 (-26.51,12.76)	-0.018	(-0.11,0.08)	-4.04 (-36.24,28.16)

Table 5-38.   The relationship between exposure to specific anti-drug advertising and perceived anti-marijuana social norms[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
Risk score									
Higher risk_____	45.38	61.71	50.95	35.61	55.98	-16.33	-0.023	(-0.15,0.10)	-5.73
	(38.22,52.54)	(46.10,77.32)	(38.62,63.28)	(24.26,46.97)	(15.44,96.51)	*(-31.37,-1.30)			(-51.05,39.58)
Lower risk_____	122.91	126.60	122.20	124.03	124.66	-3.70	-0.022	(-0.07,0.02)	-1.94
	(119.68,126.13)	(117.90,135.30)	(116.83,127.57)	(119.24,128.83)	(113.83,135.49)	(-11.80,4.41)			(-14.11,10.22)
Sensation seeking									
High_____	77.50	88.77	80.25	74.33	83.17	-11.26	-0.020	(-0.09,0.05)	-5.60
	(72.68,82.32)	(78.51,99.03)	(72.12,88.38)	(67.15,81.50)	(65.75,100.60)	*(-21.34,-1.19)			(-25.52,14.32)
Low_____	127.61	127.32	129.66	126.91	123.15	0.29	-0.016	(-0.08,0.05)	-4.16
	(123.60,131.61)	(115.44,139.20)	(123.35,135.97)	(120.95,132.86)	(106.03,140.28)	(-9.99,10.57)			(-23.07,14.75)
Interview round[2]									
Waves 1-3_____	105.96	110.92	108.79	103.87	100.69	-4.96	-0.033	(-0.10,0.03)	-10.23
	(102.03,109.89)	(101.84,120.00)	(101.76,115.82)	(97.31,110.44)	(83.41,117.97)	(-13.53,3.60)			(-29.87,9.41)
Waves 4-5_____	99.15	107.51	99.97	95.78	109.11	-8.36	-0.003	(-0.05,0.05)	1.60
	(94.99,103.31)	(94.60,120.42)	(93.69,106.26)	(89.89,101.67)	(99.30,118.92)	(-20.02,3.30)			(-14.55,17.74)

[1]Based on a combined index of perceived social expectations and perceived social network behavior as described in Appendix E. See Table 5-3 for a distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-39. The relationship between exposure to general anti-drug advertising and self-efficacy to refuse marijuana[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round

November 1999 through June 2002

Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Youth aged 12 to 18								
12 to 13	105.15	106.29	100.96	106.32	-1.14	-0.014	(-0.07,0.04)	0.04
	(101.83,108.46)	(97.69,114.89)	(93.80,108.12)	(100.79,111.86)	(-8.75,6.47)			(-10.24,10.31)
14 to 18	109.42	105.41	105.08	113.44	4.01	0.016	(-0.04,0.07)	8.03
	(105.61,113.23)	(95.88,114.94)	(95.86,114.31)	(108.10,118.78)	(-5.30,13.33)			(-3.28,19.34)
12 to 18	107.90	105.73	103.66	110.87	2.17	0.005	(-0.03,0.05)	5.14
	(105.04,110.77)	(99.02,112.44)	(97.10,110.21)	(106.70,115.04)	(-4.43,8.78)			(-3.13,13.40)
Youth aged 12 to 18								
Gender								
Male	105.94	98.97	105.08	108.63	6.97	0.014	(-0.04,0.06)	9.66
	(102.00,109.88)	(88.95,108.99)	(96.22,113.95)	(101.82,115.44)	(-3.30,17.24)			(-3.07,22.39)
Female	109.87	112.61	102.23	113.10	-2.73	-0.004	(-0.06,0.05)	0.50
	(105.23,114.52)	(102.91,122.30)	(93.31,111.16)	(108.13,118.08)	(-10.96,5.49)			(-9.62,10.61)
Race/ethnicity								
White	113.65	113.46	113.33	114.32	0.20	-0.024	(-0.07,0.02)	0.86
	(110.65,116.66)	(106.58,120.34)	(107.14,119.52)	(109.90,118.74)	(-6.33,6.72)			(-7.91,9.64)
African American	98.62	93.55	75.15	103.05	5.07	0.045	(-0.03,0.12)	9.49
	(90.97,106.27)	(74.98,112.13)	(51.12,99.19)	(91.84,114.25)	(-13.00,23.13)			(-11.00,29.99)
Hispanic	96.15	86.42	103.06	103.77	9.73	0.076	(-0.02,0.17)	17.35
	(85.84,106.46)	(70.04,102.80)	(87.80,118.31)	(92.20,115.34)	(-3.00,22.46)			*(0.62,34.08)

Table 5-39. The relationship between exposure to general anti-drug advertising and self-efficacy to refuse marijuana[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	91.71	75.67	95.32	95.29	16.04	0.054	(-0.03,0.14)	19.62
	(85.10,98.32)	(57.09,94.24)	(81.47,109.17)	(85.46,105.11)	(-2.55,34.63)			(-2.51,41.75)
Lower risk_____	114.39	116.48	107.80	117.13	-2.09	-0.007	(-0.04,0.03)	0.65
	(111.48,117.30)	(111.05,121.91)	(100.91,114.70)	(113.01,121.25)	(-7.43,3.25)			(-6.05,7.35)
Sensation seeking								
High_____	91.91	84.10	90.00	94.99	7.81	0.035	(-0.02,0.09)	10.89
	(87.66,96.17)	(71.64,96.57)	(79.78,100.23)	(88.81,101.17)	(-4.47,20.09)			(-3.40,25.18)
Low_____	123.51	122.48	118.67	127.22	1.03	-0.010	(-0.06,0.04)	4.74
	(119.67,127.35)	(114.94,130.03)	(110.51,126.83)	(123.46,130.99)	(-4.85,6.91)			(-2.87,12.35)
Interview round[2]								
Waves 1-3_____	102.64	100.52	96.23	106.99	2.13	0.038	(-0.03,0.10)	6.48
	(98.98,106.31)	(90.58,110.46)	(86.95,105.52)	(101.96,112.03)	(-7.93,12.18)			(-5.41,18.36)
Waves 4-5_____	115.73	112.71	115.75	116.56	3.02	0.000	(-0.07,0.07)	3.85
	(112.09,119.36)	(104.13,121.28)	(108.74,122.76)	(109.87,123.25)	(-5.04,11.09)			(-7.48,15.19)

[1]Self-efficacy scale based on 4 questions asking how sure youth are that they can say no to marijuana if they really wanted to: while at a party where most others are using it (C9a); when a very close friend suggests they use it (C9b); when at home alone and feeling sad or bored (C9c); when hanging out at a friend's house whose parents aren't home (C9d). Measurement of this construct is detailed in Appendix E. See Table 5-26 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-40. The relationship between exposure to specific anti-drug advertising and self-efficacy to refuse marijuana[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
12 to 13_____	105.15 (101.83,108.46)	108.73 (100.82,116.64)	99.59 (93.58,105.60)	104.58 (98.93,110.22)	119.50 (109.85,129.16)	-3.58 (-10.78,3.61)	0.039	(-0.01,0.09)	10.78 (-0.22,21.77)
14 to 18_____	109.42 (105.61,113.23)	118.82 (110.62,127.03)	109.91 (104.40,115.41)	108.04 (102.33,113.74)	125.83 (117.90,133.76)	-9.40 *(-16.72,-2.08)	-0.002	(-0.06,0.06)	7.01 (-4.23,18.25)
12 to 18_____	107.90 (105.04,110.77)	115.22 (108.86,121.58)	106.30 (102.33,110.27)	106.79 (102.57,111.00)	123.54 (117.05,130.04)	-7.31 *(-12.82,-1.81)	0.013	(-0.03,0.05)	8.33 (-0.06,16.71)
Youth aged 12 to 18									
Gender									
Male_____	105.94 (102.00,109.88)	113.23 (103.96,122.51)	104.70 (98.82,110.57)	106.53 (100.53,112.54)	118.63 (108.79,128.47)	-7.29 (-15.34,0.75)	0.012	(-0.04,0.07)	5.40 (-7.22,18.02)
Female_____	109.87 (105.23,114.52)	117.15 (107.64,126.65)	107.94 (101.48,114.40)	107.04 (100.74,113.33)	128.65 (120.99,136.30)	-7.27 (-15.43,0.89)	0.014	(-0.04,0.07)	11.50 (-0.82,23.82)
Race/ethnicity									
White_____	113.65 (110.65,116.66)	122.08 (115.53,128.63)	112.02 (107.72,116.31)	112.21 (107.27,117.16)	126.79 (119.31,134.28)	-8.43 *(-14.49,-2.36)	0.005	(-0.05,0.06)	4.71 (-5.33,14.76)
African American__	98.62 (90.97,106.27)	115.83 (97.20,134.45)	94.21 (81.02,107.40)	100.08 (89.28,110.88)	116.71 (93.44,139.97)	-17.21 *(-33.66,-0.76)	-0.004	(-0.11,0.11)	0.88 (-29.19,30.95)
Hispanic_____	96.15 (85.84,106.46)	87.28 (64.90,109.66)	99.23 (89.01,109.45)	92.61 (78.26,106.96)	118.55 (96.70,140.39)	8.87 (-9.75,27.48)	0.061	(-0.07,0.20)	31.27 *(0.36,62.17)

Table 5-40. The relationship between exposure to specific anti-drug advertising and self-efficacy to refuse marijuana[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and interview round (continued)

November 1999 through June 2002

| | Exposure level of youth (real or hypothetical) | | | | | Direct Campaign effect | | | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	(C1-C2)	Gamma	95% CI of gamma	(C5-C2)
Youth aged 12 to 18									
Risk score									
Higher risk_____	91.71	109.26	98.08	82.87	119.56	-17.55	-0.017	(-0.09,0.05)	10.30
	(85.10,98.32)	(96.92,121.60)	(87.93,108.23)	(72.56,93.17)	(104.50,134.62)	*(-27.73,-7.38)			(-7.47,28.08)
Lower risk_____	114.39	118.04	109.35	117.10	127.31	-3.65	0.035	(-0.01,0.08)	9.27
	(111.48,117.30)	(110.39,125.69)	(104.67,114.02)	(112.78,121.43)	(120.56,134.05)	(-10.59,3.28)			(-0.54,19.07)
Sensation seeking									
High_____	91.91	105.45	91.41	90.73	109.43	-13.54	0.004	(-0.05,0.06)	3.98
	(87.66,96.17)	(94.35,116.55)	(84.70,98.13)	(83.92,97.53)	(97.52,121.33)	*(-23.75,-3.33)			(-12.03,19.98)
Low_____	123.51	124.82	120.99	123.33	135.53	-1.31	0.019	(-0.05,0.08)	10.71
	(119.67,127.35)	(117.57,132.07)	(115.61,126.37)	(118.31,128.35)	(127.00,144.06)	(-7.88,5.26)			*(0.59,20.83)
Interview round[2]									
Waves 1-3_____	102.64	111.24	99.11	104.02	121.31	-8.60	0.037	(-0.04,0.11)	10.07
	(98.98,106.31)	(102.26,120.23)	(93.58,104.64)	(98.07,109.98)	(112.25,130.38)	*(-16.66,-0.54)			(-2.54,22.68)
Waves 4-5_____	115.73	120.44	118.21	110.91	126.52	-4.71	-0.015	(-0.08,0.05)	6.08
	(112.09,119.36)	(111.05,129.84)	(111.97,124.44)	(105.38,116.45)	(117.99,135.05)	(-13.46,4.03)			(-5.91,18.07)

[1]Self-efficacy scale based on 4 questions asking how sure youth are that they can say no to marijuana if they really wanted to: while at a party where most others are using it (C9a); when a very close friend suggests they use it (C9b); when at home alone and feeling sad or bored (C9c); when hanging out at a friend's house whose parents aren't home (C9d). Measurement of this construct is detailed in Appendix E. See Table 5-26 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-41. The relationship between exposure to general anti-drug advertising (at round 1[1]) and nonusing youths' intentions to not use marijuana (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	89.4	96.5	90.1	87.7	-7.1	-0.396	*(-0.51,-0.28)	-8.9
	(87.6,91.0)	(94.9,97.6)	(85.7,93.2)	(85.0,89.9)	*(-8.8,-5.4)			*(-11.7,-6.1)
14 to 18_____	73.2	75.9	73.3	72.0	-2.6	-0.065	(-0.19,0.06)	-3.9
	(71.1,75.2)	(69.2,81.5)	(67.9,78.1)	(68.3,75.3)	(-8.6,3.4)			(-11.3,3.6)
12 to 18_____	78.7	84.0	78.4	77.4	-5.4	-0.139	*(-0.25,-0.03)	-6.7
	(77.2,80.1)	(79.4,87.8)	(74.5,81.9)	(74.7,79.8)	*(-9.4,-1.4)			*(-11.9,-1.5)
Youth aged 12 to 18								
Gender								
Male_____	78.2	85.0	78.8	76.7	-6.8	-0.174	*(-0.33,-0.02)	-8.3
	(76.0,80.2)	(78.7,89.7)	(71.9,84.4)	(72.5,80.4)	*(-12.2,-1.4)			*(-15.4,-1.2)
Female_____	79.1	83.0	78.1	78.1	-3.9	-0.102	(-0.25,0.05)	-5.0
	(77.0,81.1)	(75.6,88.5)	(73.2,82.3)	(74.7,81.1)	(-9.9,2.1)			(-12.0,2.1)
Race/ethnicity								
White_____	77.7	85.2	78.1	76.4	-7.5	-0.180	*(-0.30,-0.06)	-8.8
	(75.6,79.7)	(80.3,89.0)	(73.5,82.1)	(73.3,79.3)	*(-11.9,-3.0)			*(-14.5,-3.0)
African American____	80.0	S	S	76.5	-6.2	-0.201	(-0.54,0.14)	S
	(75.2,84.1)	(S)	(S)	(66.9,84.0)	(-19.1,6.7)			(S)
Hispanic_____	79.7	75.1	83.2	80.6	4.6	0.124	(-0.18,0.43)	5.6
	(75.7,83.1)	(58.1,86.7)	(74.5,89.4)	(75.0,85.2)	(-8.2,17.4)			(-10.0,21.1)

Table 5-41. The relationship between exposure to general anti-drug advertising (at round 1[1]) and nonusing youths' intentions to not use marijuana (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

	Percent of youth reporting each exposure level							Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	
Youth aged 12 to 18								
Risk score								
Higher risk_____	58.5	58.8	61.8	59.1	-0.3	0.000	(-0.18,0.18)	0.3
	(54.9,62.1)	(46.2,70.3)	(52.2,70.6)	(53.7,64.3)	(-11.7,11.1)			(-13.1,13.8)
Lower risk_____	86.1	92.3	86.6	83.6	-6.2	-0.266	*(-0.40,-0.13)	-8.6
	(84.6,87.5)	(88.4,94.9)	(84.1,88.8)	(80.3,86.5)	*(-9.0,-3.3)			*(-13.0,-4.3)
Sensation seeking								
High_____	68.1	72.2	67.8	65.9	-4.1	-0.096	(-0.22,0.03)	-6.3
	(65.7,70.3)	(64.5,78.7)	(61.7,73.4)	(61.9,69.6)	(-10.7,2.5)			(-14.5,1.9)
Low_____	89.9	95.6	90.2	89.7	-5.7	-0.266	*(-0.43,-0.11)	-5.9
	(88.1,91.5)	(92.3,97.5)	(86.7,92.8)	(86.5,92.2)	*(-8.3,-3.0)			*(-9.5,-2.4)
Longitudinal wave(s)[2]								
Wave 1-->4_____	77.9	80.1	82.0	77.6	-2.2	-0.048	(-0.25,0.16)	-2.4
	(75.5,80.1)	(70.5,87.1)	(76.4,86.5)	(74.2,80.7)	(-10.2,5.9)			(-11.8,6.9)
Wave 2-->5_____	78.7	91.3	75.7	76.6	-12.6	-0.285	*(-0.43,-0.14)	-14.7
	(76.1,81.2)	(85.4,95.0)	(66.8,82.8)	(71.8,80.9)	*(-17.7,-7.5)			*(-21.5,-7.9)
Wave 3-->5_____	79.2	81.7	78.5	77.9	-2.5	-0.079	(-0.27,0.11)	-3.8
	(76.5,81.7)	(72.9,88.1)	(72.5,83.5)	(72.6,82.4)	(-9.5,4.5)			(-12.8,5.2)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-42. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and nonusing youths' intentions to not use marijuana
(at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	89.4	89.8	90.4	86.5	-0.4	-0.113	(-0.33,0.10)	-3.3
	(87.6,91.0)	(83.7,93.8)	(87.6,92.6)	(82.4,89.8)	(-5.1,4.4)			(-9.4,2.8)
14 to 18_____	73.2	78.3	72.7	70.9	-5.1	-0.126	*(-0.24,-0.02)	-7.4
	(71.1,75.2)	(72.3,83.3)	(69.6,75.6)	(66.7,74.8)	(-10.3,0.1)			*(-13.8,-1.0)
12 to 18_____	78.7	82.3	78.2	76.5	-3.6	-0.117	*(-0.21,-0.02)	-5.8
	(77.2,80.1)	(77.9,86.0)	(75.8,80.5)	(73.4,79.3)	(-7.5,0.2)			*(-10.5,-1.2)
Youth aged 12 to 18								
Gender								
Male_____	78.2	79.4	78.4	76.3	-1.2	-0.059	(-0.19,0.07)	-3.1
	(76.0,80.2)	(72.7,84.8)	(74.4,81.9)	(71.9,80.2)	(-6.4,4.1)			(-9.6,3.4)
Female_____	79.1	85.3	78.1	76.6	-6.2	-0.181	*(-0.32,-0.04)	-8.7
	(77.0,81.1)	(79.5,89.7)	(74.1,81.6)	(71.9,80.7)	*(-11.5,-0.9)			*(-15.4,-2.0)
Race/ethnicity								
White_____	77.7	80.8	76.8	74.5	-3.1	-0.122	(-0.25,0.00)	-6.3
	(75.6,79.7)	(74.9,85.6)	(73.4,79.9)	(70.4,78.2)	(-8.0,1.9)			(-12.6,0.1)
African American____	80.0	88.5	87.1	77.8	-8.5	-0.276	*(-0.54,-0.01)	-10.7
	(75.2,84.1)	(77.2,94.6)	(80.5,91.7)	(70.3,83.9)	*(-16.6,-0.4)			*(-21.1,-0.3)
Hispanic_____	79.7	81.8	74.6	81.0	-2.1	0.018	(-0.22,0.25)	-0.8
	(75.7,83.1)	(67.6,90.6)	(67.3,80.7)	(72.7,87.3)	(-13.1,8.9)			(-13.6,12.1)

Table 5-42. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and nonusing youths' intentions to not use marijuana
(at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	58.5	62.9	56.1	59.0	-4.4	-0.055	(-0.23,0.12)	-3.9
	(54.9,62.1)	(51.5,73.1)	(50.6,61.4)	(51.3,66.3)	(-15.1,6.3)			(-16.9,9.1)
Lower risk_____	86.1	88.5	85.9	83.0	-2.4	-0.149	*(-0.30,-0.00)	-5.5
	(84.6,87.5)	(83.4,92.1)	(83.6,87.9)	(79.5,86.0)	(-6.4,1.6)			*(-10.7,-0.3)
Sensation seeking								
High_____	68.1	71.5	68.4	66.9	-3.5	-0.072	(-0.19,0.04)	-4.6
	(65.7,70.3)	(64.3,77.8)	(64.7,71.8)	(62.3,71.1)	(-9.6,2.7)			(-12.1,2.8)
Low_____	89.9	92.8	88.6	88.0	-2.8	-0.176	(-0.37,0.02)	-4.8
	(88.1,91.5)	(87.6,95.9)	(85.0,91.4)	(83.6,91.3)	(-6.6,1.0)			(-10.1,0.6)
Longitudinal wave(s)[2]								
Wave 1-->4_____	77.9	81.4	77.2	74.4	-3.5	-0.137	(-0.33,0.05)	-7.0
	(75.5,80.1)	(73.6,87.3)	(72.2,81.5)	(68.7,79.3)	(-10.7,3.8)			(-16.8,2.7)
Wave 2-->5_____	78.7	78.7	80.4	75.8	0.1	-0.055	(-0.22,0.11)	-2.8
	(76.1,81.2)	(70.2,85.2)	(76.4,83.8)	(70.8,80.2)	(-7.0,7.1)			(-11.6,5.9)
Wave 3-->5_____	79.2	87.0	76.6	78.9	-7.8	-0.170	(-0.36,0.02)	-8.1
	(76.5,81.7)	(77.7,92.8)	(70.7,81.7)	(73.7,83.3)	*(-14.7,-0.8)			(-16.7,0.5)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-43. The relationship between exposure to general anti-drug advertising (at round 1[1]) and nonusing youths' personal anti-marijuana beliefs and attitudes[2] (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	121.12	131.01	121.84	118.34	-9.89	-0.066	(-0.14,0.01)	-12.67
	(116.15,126.09)	(117.03,144.98)	(111.10,132.59)	(110.50,126.18)	(-23.84,4.06)			(-29.31,3.98)
14 to 18_____	76.08	79.55	72.87	76.29	-3.48	-0.007	(-0.07,0.06)	-3.26
	(70.84,81.31)	(62.84,96.26)	(62.46,83.28)	(68.09,84.50)	(-19.14,12.19)			(-22.58,16.06)
12 to 18_____	90.75	99.55	87.38	90.46	-8.8	-0.034	(-0.08,0.01)	-9.09
	(86.33,95.17)	(88.53,110.57)	(79.15,95.62)	(84.10,96.82)	(-19.25,1.65)			(-22.25,4.08)
Youth aged 12 to 18								
Gender								
Male_____	86.20	96.61	90.58	83.97	-10.41	-0.045	(-0.11,0.02)	-12.64
	(79.49,92.91)	(81.24,111.99)	(78.19,102.97)	(73.64,94.30)	(-25.43,4.61)			(-31.80,6.52)
Female_____	95.49	102.77	84.13	97.38	-7.28	-0.022	(-0.08,0.04)	-5.39
	(90.31,100.67)	(85.12,120.43)	(72.13,96.12)	(89.52,105.24)	(-23.53,8.97)			(-23.14,12.35)
Race/ethnicity								
White_____	92.22	100.09	88.19	91.97	-7.87	-0.029	(-0.08,0.02)	-8.12
	(86.74,97.69)	(87.46,112.72)	(78.12,98.25)	(84.26,99.67)	(-19.77,4.03)			(-22.55,6.31)
African American_____	83.50	S	84.33	79.83	-17.01	-0.093	(-0.23,0.05)	S
	(73.11,93.89)	(S)	(57.81,110.85)	(65.65,94.02)	(-58.50,24.48)			(S)
Hispanic_____	89.57	93.06	96.36	92.97	-3.49	-0.010	(-0.17,0.15)	-0.10
	(79.66,99.49)	(55.21,130.92)	(72.09,120.63)	(79.94,105.99)	(-37.00,30.02)			(-41.83,41.63)

Table 5-43. The relationship between exposure to general anti-drug advertising (at round 1[1]) and nonusing youths' personal anti-marijuana beliefs and attitudes[2] (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	32.46	20.43	34.91	35.32	12.03	0.046	(-0.06,0.15)	14.89
	(23.54,41.38)	(-11.42,52.28)	(14.25,55.58)	(23.10,47.54)	(-16.96,41.03)			(-18.38,48.16)
Lower risk_____	111.65	124.60	110.46	108.11	-12.95	-0.058	*(-0.11,-0.00)	-16.49
	(106.65,116.66)	(113.45,135.76)	(102.25,118.67)	(100.52,115.71)	*(-23.86,-2.03)			*(-29.95,-3.02)
Sensation seeking								
High_____	58.91	66.85	56.59	56.91	-7.94	-0.030	(-0.10,0.03)	-9.94
	(52.40,65.42)	(47.88,85.83)	(44.39,68.79)	(47.71,66.11)	(-25.02,9.14)			(-30.30,10.42)
Low_____	125.74	133.71	121.81	126.96	-7.97	-0.045	(-0.11,0.02)	-6.76
	(121.44,130.04)	(122.15,145.27)	(112.14,131.48)	(120.44,133.47)	(-18.95,3.00)			(-19.88,6.37)
Longitudinal wave(s)[3]								
Wave 1-->4_____	86.49	85.97	84.63	85.84	0.52	-0.019	(-0.10,0.06)	-0.13
	(80.45,92.53)	(62.56,109.38)	(69.91,99.35)	(77.19,94.50)	(-21.91,22.95)			(-24.70,24.45)
Wave 2-->5_____	92.55	119.49	86.53	88.68	-26.94	-0.100	*(-0.20,-0.00)	-30.81
	(85.15,99.94)	(99.09,139.89)	(73.12,99.95)	(77.22,100.13)	*(-47.65,-6.23)			*(-56.53,-5.10)
Wave 3-->5_____	92.66	96.22	90.85	96.87	-3.56	0.015	(-0.06,0.09)	0.65
	(85.48,99.83)	(80.18,112.26)	(72.47,109.23)	(85.32,108.42)	(-19.18,12.05)			(-19.17,20.47)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Based on a combined index of beliefs and attitudes towards trial and regular marijuana use as described in Appendix E. See Table 5-2 for distribution.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-44. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and personal anti-marijuana beliefs and attitudes[2] among nonusing youth (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13	121.12	127.69	121.35	116.31	-6.57	-0.077	(-0.16,0.00)	-11.37
	(116.15,126.09)	(109.53,145.84)	(113.18,129.51)	(105.24,127.39)	(-22.75,9.61)			(-29.39,6.65)
14 to 18	76.08	74.78	81.12	70.04	1.29	-0.017	(-0.08,0.05)	-4.74
	(70.84,81.31)	(58.96,90.60)	(71.18,91.07)	(60.98,79.11)	(-13.01,15.60)			(-23.25,13.77)
12 to 18	90.75	92.34	93.39	85.98	-1.59	-0.031	(-0.08,0.02)	-6.36
	(86.33,95.17)	(79.89,104.79)	(85.76,101.01)	(78.40,93.57)	(-12.51,9.33)			(-20.31,7.59)
Youth aged 12 to 18								
Gender								
Male	86.20	85.19	89.05	81.42	1.01	-0.027	(-0.10,0.05)	-3.78
	(79.49,92.91)	(67.34,103.04)	(76.58,101.53)	(68.97,93.86)	(-15.01,17.03)			(-24.09,16.54)
Female	95.49	99.61	98.08	90.79	-4.12	-0.032	(-0.11,0.04)	-8.81
	(90.31,100.67)	(82.49,116.73)	(90.24,105.92)	(80.59,101.00)	(-19.70,11.47)			(-27.40,9.77)
Race/ethnicity								
White	92.22	93.82	94.84	87.66	-1.61	-0.031	(-0.10,0.04)	-6.17
	(86.74,97.69)	(78.32,109.32)	(85.87,103.81)	(77.70,97.61)	(-15.13,11.92)			(-24.76,12.43)
African American	83.50	95.58	88.52	80.45	-12.08	-0.058	(-0.16,0.05)	-15.13
	(73.11,93.89)	(66.58,124.58)	(61.13,115.90)	(69.41,91.49)	(-36.96,12.80)			(-41.44,11.18)
Hispanic	89.57	72.02	94.08	83.64	17.56	0.015	(-0.14,0.17)	11.62
	(79.66,99.49)	(35.63,108.41)	(73.21,114.95)	(65.48,101.80)	(-15.22,50.33)			(-29.16,52.40)

Table 5-44. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and personal anti-marijuana beliefs and attitudes[2] among nonusing youth (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

Characteristics	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	32.46	26.75	31.67	28.06	5.71	0.013	(-0.09,0.12)	1.30
	(23.54,41.38)	(-1.41,54.91)	(14.32,49.01)	(9.80,46.31)	(-20.10,31.53)			(-29.45,32.06)
Lower risk_____	111.65	111.15	115.74	106.89	0.5	-0.021	(-0.08,0.04)	-4.26
	(106.65,116.66)	(98.29,124.01)	(109.02,122.46)	(98.41,115.37)	(-10.22,11.23)			(-19.85,11.32)
Sensation seeking								
High_____	58.91	64.23	58.80	58.01	-5.32	-0.022	(-0.08,0.04)	-6.22
	(52.40,65.42)	(48.19,80.27)	(46.10,71.50)	(46.49,69.53)	(-20.11,9.47)			(-22.99,10.55)
Low_____	125.74	120.58	129.16	120.91	5.16	-0.017	(-0.10,0.07)	0.33
	(121.44,130.04)	(104.61,136.54)	(122.56,135.76)	(112.14,129.68)	(-8.63,18.96)			(-17.60,18.26)
Longitudinal wave(s)[3]								
Wave 1-->4_____	86.49	90.66	90.15	80.72	-4.17	-0.030	(-0.12,0.06)	-9.94
	(80.45,92.53)	(74.23,107.10)	(79.84,100.46)	(67.85,93.59)	(-20.46,12.11)			(-33.44,13.56)
Wave 2-->5_____	92.55	90.68	93.83	87.92	1.87	-0.016	(-0.10,0.07)	-2.75
	(85.15,99.94)	(68.38,112.97)	(78.64,109.02)	(76.20,99.64)	(-18.33,22.07)			(-26.10,20.59)
Wave 3-->5_____	92.66	95.82	95.99	88.57	-3.16	-0.048	(-0.17,0.07)	-7.25
	(85.48,99.83)	(67.35,124.29)	(83.39,108.58)	(78.40,98.74)	(-29.53,23.20)			(-38.54,24.04)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Based on a combined index of beliefs and attitudes towards trial and regular marijuana use as described in Appendix E. See Table 5-2 for distribution.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-45. The relationship between exposure to general anti-drug advertising (at round 1[1]) and perceived anti-marijuana social norms[2] among nonusing youth
(at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	125.96	141.83	126.31	123.16	-15.87	-0.054	(-0.12,0.01)	-18.67
	(121.69,130.24)	(132.50,151.17)	(116.82,135.80)	(115.33,130.99)	*(-25.42,-6.32)			*(-30.94,-6.40)
14 to 18_____	64.40	72.08	59.83	62.53	-7.67	-0.044	(-0.11,0.02)	-9.55
	(59.09,69.72)	(53.81,90.35)	(47.16,72.51)	(54.47,70.60)	(-24.77,9.42)			(-29.79,10.70)
12 to 18_____	84.46	99.19	79.53	82.96	-14.73	-0.067	*(-0.12,-0.02)	-16.22
	(80.46,88.46)	(87.20,111.18)	(70.29,88.77)	(76.83,89.10)	*(-26.11,-3.35)			*(-30.41,-2.04)
Youth aged 12 to 18								
Gender								
Male_____	77.55	86.68	79.56	75.41	-9.12	-0.058	(-0.14,0.02)	-11.27
	(72.19,82.91)	(67.38,105.97)	(66.40,92.72)	(67.26,83.56)	(-27.41,9.16)			(-32.66,10.12)
Female_____	91.66	112.93	79.50	91.02	-21.27	-0.074	*(-0.13,-0.02)	-21.91
	(86.11,97.21)	(98.35,127.50)	(65.76,93.24)	(82.71,99.32)	*(-34.51,-8.02)			*(-38.14,-5.68)
Race/ethnicity								
White_____	87.84	100.93	80.38	87.96	-13.1	-0.053	(-0.11,0.01)	-12.97
	(82.60,93.07)	(86.07,115.79)	(68.75,92.00)	(80.51,95.41)	(-27.47,1.28)			(-29.96,4.01)
African American_____	69.39	78.14	61.41	65.12	-8.75	-0.071	(-0.22,0.08)	-13.02
	(59.17,79.62)	(43.00,113.28)	(33.81,89.02)	(49.99,80.25)	(-43.94,26.45)			(-53.85,27.81)
Hispanic_____	78.03	108.57	82.75	73.68	-30.54	-0.121	*(-0.22,-0.02)	-34.89
	(70.62,85.45)	(93.35,123.79)	(59.87,105.62)	(63.57,83.80)	*(-44.48,-16.6)			*(-54.17,-15.61)

Table 5-45. The relationship between exposure to general anti-drug advertising (at round 1[1]) and perceived anti-marijuana social norms[2] among nonusing youth (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	19.14	2.19	18.39	20.64	16.96	0.054	(-0.07,0.17)	18.46
	(8.84,29.45)	(-37.22,41.60)	(-1.81,38.59)	(7.83,33.46)	(-18.98,52.89)			(-21.17,58.09)
Lower risk_____	108.48	126.76	103.66	104.33	-18.27	-0.089	*(-0.15,-0.03)	-22.42
	(103.53,113.44)	(116.57,136.94)	(92.94,114.38)	(96.54,112.12)	*(-27.41,-9.14)			*(-34.92,-9.93)
Sensation seeking								
High_____	51.49	60.11	45.36	47.17	-8.61	-0.048	(-0.11,0.02)	-12.94
	(45.31,57.67)	(41.56,78.66)	(32.36,58.36)	(38.95,55.39)	(-25.94,8.71)			(-33.51,7.63)
Low_____	120.71	139.64	117.65	122.05	-18.93	-0.099	*(-0.17,-0.03)	-17.59
	(115.32,126.10)	(129.85,149.43)	(107.06,128.24)	(115.09,129.01)	*(-27.89,-9.98)			*(-29.91,-5.28)
Longitudinal wave(s)[3]								
Wave 1-->4_____	80.97	77.56	85.12	81.59	3.41	-0.001	(-0.09,0.09)	4.04
	(74.93,87.00)	(52.79,102.32)	(68.21,102.03)	(72.64,90.54)	(-19.99,26.80)			(-23.43,31.50)
Wave 2-->5_____	84.62	103.35	79.54	82.92	-18.73	-0.062	(-0.14,0.01)	-20.44
	(77.07,92.17)	(86.10,120.60)	(64.39,94.68)	(71.95,93.88)	*(-35.53,-1.93)			(-41.30,0.43)
Wave 3-->5_____	87.39	116.42	74.43	84.30	-29.03	-0.133	*(-0.21,-0.05)	-32.11
	(79.46,95.32)	(100.79,132.04)	(54.79,94.08)	(71.91,96.70)	*(-44.20,-13.9)			*(-51.57,-12.66)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Based on a combined index of beliefs and attitudes towards trial and regular marijuana use as described in Appendix E. See Table 5-3 for distribution.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-46. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and perceived anti-marijuana social norms[2] among nonusing youth (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	125.96	134.16	121.83	124.31	-8.2	-0.044	(-0.13,0.04)	-9.85
	(121.69,130.24)	(117.31,151.02)	(113.47,130.19)	(113.29,135.33)	(-24.38,7.98)			(-28.87,9.17)
14 to 18_____	64.40	68.38	70.13	53.35	-3.97	-0.056	(-0.12,0.01)	-15.03
	(59.09,69.72)	(52.54,84.21)	(59.65,80.61)	(42.75,63.94)	(-18.42,10.48)			(-32.81,2.75)
12 to 18_____	84.46	90.21	85.89	77.79	-5.75	-0.052	(-0.11,0.00)	-12.42
	(80.46,88.46)	(76.84,103.58)	(78.14,93.64)	(69.83,85.75)	(-17.70,6.20)			(-26.67,1.84)
Youth aged 12 to 18								
Gender								
Male_____	77.55	79.27	80.56	70.78	-1.71	-0.031	(-0.10,0.03)	-8.49
	(72.19,82.91)	(64.06,94.47)	(68.63,92.49)	(58.46,83.09)	(-15.81,12.39)			(-27.02,10.04)
Female_____	91.66	101.34	91.67	85.19	-9.68	-0.073	(-0.15,0.01)	-16.15
	(86.11,97.21)	(81.27,121.40)	(82.32,101.02)	(74.58,95.79)	(-27.60,8.24)			(-36.95,4.65)
Race/ethnicity								
White_____	87.84	88.92	88.27	78.37	-1.08	-0.051	(-0.12,0.02)	-10.55
	(82.60,93.07)	(72.59,105.25)	(78.91,97.62)	(66.79,89.95)	(-15.77,13.60)			(-29.56,8.45)
African American__	69.39	84.83	81.82	66.03	-15.44	-0.056	(-0.18,0.07)	-18.79
	(59.17,79.62)	(52.58,117.07)	(58.97,104.66)	(51.56,80.51)	(-43.65,12.78)			(-53.53,15.94)
Hispanic_____	78.03	95.34	78.36	82.84	-17.31	-0.028	(-0.16,0.10)	-12.50
	(70.62,85.45)	(64.62,126.06)	(61.28,95.43)	(66.95,98.72)	(-46.36,11.75)			(-47.79,22.78)

Table 5-46. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and perceived anti-marijuana social norms[2] among nonusing youth (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

Characteristics	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	19.14	21.68	19.93	4.66	-2.54	-0.043	(-0.15,0.07)	-17.03
	(8.84,29.45)	(-4.76,48.13)	(1.84,38.03)	(-12.49,21.80)	(-27.50,22.43)			(-47.47,13.42)
Lower risk_____	108.48	113.14	110.44	102.24	-4.66	-0.056	(-0.13,0.01)	-10.90
	(103.53,113.44)	(97.16,129.12)	(102.95,117.94)	(94.01,110.47)	(-18.34,9.03)			(-28.11,6.31)
Sensation seeking								
High_____	51.49	55.91	51.22	48.45	-4.42	-0.023	(-0.09,0.04)	-7.46
	(45.31,57.67)	(37.33,74.49)	(38.41,64.02)	(36.63,60.27)	(-21.80,12.97)			(-27.25,12.34)
Low_____	120.71	125.60	122.45	115.71	-4.89	-0.063	(-0.15,0.02)	-9.89
	(115.32,126.10)	(110.37,140.83)	(115.66,129.24)	(104.50,126.92)	(-18.69,8.91)			(-29.04,9.25)
Longitudinal wave(s)[3]								
Wave 1-->4_____	80.97	95.06	79.22	73.26	-14.09	-0.079	*(-0.16,-0.00)	-21.79
	(74.93,87.00)	(80.12,110.00)	(69.33,89.11)	(61.73,84.80)	(-28.78,0.59)			*(-43.09,-0.50)
Wave 2-->5_____	84.62	74.74	91.32	80.60	9.88	0.017	(-0.09,0.12)	5.85
	(77.07,92.17)	(46.50,102.99)	(78.14,104.50)	(68.68,92.52)	(-16.44,36.19)			(-24.10,35.81)
Wave 3-->5_____	87.39	100.64	85.70	78.87	-13.25	-0.107	*(-0.21,-0.01)	-21.77
	(79.46,95.32)	(74.78,126.50)	(69.38,102.02)	(63.69,94.05)	(-37.60,11.09)			(-50.71,7.18)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Based on a combined index of beliefs and attitudes towards trial and regular marijuana use as described in Appendix E. See Table 5-3 for distribution.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-47. The relationship between exposure to general anti-drug advertising (at round 1[1]) and self-efficacy to refuse marijuana[2] among nonusing youth
(at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	110.86	115.31	115.23	106.99	-4.45	-0.045	(-0.14,0.05)	-8.31
	(106.18,115.53)	(101.60,129.01)	(104.70,125.76)	(99.53,114.45)	(-17.13,8.23)			(-22.52,5.90)
14 to 18_____	106.27	99.76	101.84	106.49	6.51	0.013	(-0.07,0.10)	6.74
	(101.71,110.82)	(83.53,115.98)	(92.71,110.96)	(98.10,114.89)	(-8.97,21.99)			(-11.71,25.19)
12 to 18_____	107.76	105.80	105.81	106.66	1.96	-0.008	(-0.07,0.05)	0.86
	(104.07,111.46)	(94.16,117.44)	(98.93,112.68)	(100.31,113.02)	(-8.64,12.56)			(-11.91,13.64)
Youth aged 12 to 18								
Gender								
Male_____	104.66	102.77	107.49	102.20	1.89	-0.026	(-0.12,0.07)	-0.57
	(99.74,109.58)	(85.70,119.84)	(98.03,116.94)	(93.16,111.24)	(-13.68,17.46)			(-19.11,17.98)
Female_____	111.00	109.12	104.10	111.41	1.87	0.012	(-0.07,0.09)	2.29
	(105.87,116.12)	(94.67,123.58)	(91.87,116.32)	(104.13,118.69)	(-11.02,14.77)			(-14.07,18.64)
Race/ethnicity								
White_____	111.15	109.52	106.25	110.10	1.63	-0.030	(-0.10,0.04)	0.58
	(106.76,115.55)	(95.79,123.25)	(97.01,115.48)	(102.09,118.11)	(-11.78,15.04)			(-15.57,16.73)
African American__	111.42	123.70	104.68	105.15	-12.28	-0.091	(-0.26,0.08)	-18.55
	(103.60,119.24)	(105.23,142.16)	(81.49,127.88)	(87.70,122.59)	(-29.27,4.72)			(-42.54,5.43)
Hispanic_____	89.50	79.26	107.51	92.86	10.24	0.111	(-0.05,0.27)	13.60
	(77.27,101.73)	(36.97,121.55)	(89.09,125.92)	(78.21,107.51)	(-25.12,45.61)			(-26.88,54.09)

Table 5-47. The relationship between exposure to general anti-drug advertising (at round 1[1]) and self-efficacy to refuse marijuana[2] among nonusing youth (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

Characteristics	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	90.40	85.45	83.19	94.91	4.95	0.022	(-0.13,0.17)	9.46
	(81.31,99.50)	(50.36,120.55)	(63.10,103.28)	(79.74,110.09)	(-28.72,38.63)			(-28.81,47.73)
Lower risk_____	116.75	122.07	117.13	111.66	-5.32	-0.061	(-0.13,0.01)	-10.41
	(113.03,120.48)	(113.38,130.77)	(110.09,124.17)	(104.21,119.12)	(-13.29,2.65)			(-21.58,0.77)
Sensation seeking								
High_____	90.92	83.73	82.64	90.28	7.19	0.005	(-0.09,0.10)	6.56
	(85.78,96.06)	(63.08,104.37)	(71.28,94.01)	(81.41,99.16)	(-12.19,26.57)			(-16.31,29.42)
Low_____	126.78	127.76	132.35	125.28	-0.98	0.004	(-0.11,0.12)	-2.48
	(122.64,130.93)	(117.98,137.55)	(124.77,139.93)	(118.11,132.46)	(-10.00,8.04)			(-14.41,9.45)
Longitudinal wave(s)[3]								
Wave 1-->4_____	105.82	93.24	116.62	106.32	12.58	0.018	(-0.11,0.14)	13.08
	(100.07,111.57)	(68.97,117.51)	(106.00,127.23)	(97.65,114.98)	(-10.63,35.79)			(-13.09,39.25)
Wave 2-->5_____	107.86	121.56	99.08	104.09	-13.71	-0.065	(-0.19,0.05)	-17.48
	(101.93,113.78)	(106.40,136.72)	(84.23,113.94)	(93.01,115.17)	(-28.93,1.52)			(-37.76,2.81)
Wave 3-->5_____	109.39	104.90	103.60	109.98	4.48	0.025	(-0.09,0.14)	5.07
	(102.44,116.33)	(85.51,124.29)	(93.09,114.11)	(99.32,120.63)	(-11.62,20.58)			(-16.38,26.52)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Self-efficacy scale based on 4 questions asking how sure youth are that they can say no to marijuana if they really wanted to: while at a party where most others are using it (C9a); when a very close friend suggests they use it (C9b); when at home alone and feeling sad or bored (C9c); when hanging out at a friend's house whose parents aren't home (C9d). Measurement of this construct is detailed in Appendix E. See Table 5-26 for distribution.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-48. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and self-efficacy to refuse marijuana[2] among nonusing youth (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	110.86 (106.18,115.53)	119.96 (107.80,132.12)	105.48 (98.08,112.87)	108.86 (100.97,116.75)	-9.1 (-20.48,2.28)	-0.029	(-0.11,0.05)	-11.10 (-24.93,2.73)
14 to 18_____	106.27 (101.71,110.82)	119.97 (109.57,130.37)	100.71 (94.51,106.91)	101.96 (94.29,109.62)	-13.7 *(-23.67,-3.73)	-0.108	*(-0.20,-0.02)	-18.01 *(-31.47,-4.56)
12 to 18_____	107.76 (104.07,111.46)	119.96 (111.61,128.32)	102.17 (96.96,107.37)	104.33 (98.15,110.51)	-12.2 *(-20.29,-4.11)	-0.082	*(-0.15,-0.02)	-15.63 *(-25.98,-5.28)
Youth aged 12 to 18								
Gender								
Male_____	104.66 (99.74,109.58)	112.52 (99.20,125.83)	102.55 (95.67,109.42)	100.45 (92.12,108.79)	-7.86 (-20.26,4.54)	-0.079	(-0.17,0.02)	-12.07 (-27.45,3.32)
Female_____	111.00 (105.87,116.12)	127.53 (116.44,138.62)	101.75 (92.22,111.29)	108.43 (99.05,117.80)	-16.54 *(-27.96,-5.11)	-0.085	(-0.19,0.02)	-19.11 *(-34.04,-4.17)
Race/ethnicity								
White_____	111.15 (106.76,115.55)	122.02 (113.11,130.93)	105.15 (98.28,112.02)	109.27 (102.50,116.03)	-10.87 *(-19.25,-2.49)	-0.088	*(-0.16,-0.02)	-12.75 *(-22.98,-2.53)
African American__	111.42 (103.60,119.24)	118.56 (95.75,141.37)	115.68 (100.97,130.39)	108.15 (94.43,121.88)	-7.14 (-30.30,16.02)	0.039	(-0.16,0.23)	-10.41 (-36.04,15.23)
Hispanic_____	89.50 (77.27,101.73)	S (S)	81.44 (64.39,98.48)	79.29 (53.25,105.32)	-14.47 (-54.48,25.53)	-0.123	(-0.36,0.11)	S (S)

Table 5-48. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and self-efficacy to refuse marijuana[2] among nonusing youth (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	90.40	102.76	81.38	84.90	-12.36	-0.098	(-0.28,0.08)	-17.87
	(81.31,99.50)	(77.32,128.21)	(66.67,96.08)	(68.85,100.95)	(-36.08,11.36)			(-49.46,13.73)
Lower risk_____	116.75	123.69	113.97	114.09	-6.93	-0.065	(-0.15,0.02)	-9.59
	(113.03,120.48)	(113.24,134.13)	(107.93,120.01)	(106.84,121.34)	(-16.80,2.94)			(-23.02,3.83)
Sensation seeking								
High_____	90.92	108.02	80.99	87.37	-17.11	-0.081	*(-0.15,-0.01)	-20.66
	(85.78,96.06)	(96.07,119.98)	(72.27,89.70)	(77.74,96.99)	*(-28.20,-6.01)			*(-35.23,-6.08)
Low_____	126.78	131.98	124.93	126.77	-5.19	-0.059	(-0.19,0.07)	-5.21
	(122.64,130.93)	(119.97,143.98)	(118.01,131.84)	(119.84,133.70)	(-17.11,6.72)			(-19.96,9.55)
Longitudinal wave(s)[3]								
Wave 1-->4_____	105.82	118.05	103.99	98.53	-12.23	-0.091	(-0.21,0.03)	-19.52
	(100.07,111.57)	(104.68,131.42)	(93.75,114.23)	(88.63,108.43)	(-25.57,1.11)			*(-37.92,-1.12)
Wave 2-->5_____	107.86	118.99	103.93	106.39	-11.13	-0.084	(-0.19,0.02)	-12.59
	(101.93,113.78)	(103.50,134.48)	(93.72,114.13)	(94.36,118.43)	(-25.97,3.70)			(-31.61,6.42)
Wave 3-->5_____	109.39	123.00	98.24	107.27	-13.62	-0.072	(-0.20,0.06)	-15.73
	(102.44,116.33)	(106.39,139.61)	(86.18,110.29)	(96.33,118.21)	(-30.33,3.10)			(-36.34,4.87)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Self-efficacy scale based on 4 questions asking how sure youth are that they can say no to marijuana if they really wanted to: while at a party where most others are using it (C9a); when a very close friend suggests they use it (C9b); when at home alone and feeling sad or bored (C9c); when hanging out at a friend's house whose parents aren't home (C9d). Measurement of this construct is detailed in Appendix E. See Table 5-26 for distribution.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-49. The relationship between exposure to general anti-drug advertising (at round 1[1]) and use of marijuana (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	3.8	3.8	3.9	3.8	0.0	0.002	(-0.28,0.29)	0.0
	(2.9,5.1)	(1.9,7.6)	(2.1,7.0)	(2.5,5.8)	(-2.5,2.5)			(-3.0,3.1)
14 to 18_____	17.2	17.3	15.3	18.1	-0.1	0.021	(-0.13,0.18)	0.8
	(15.2,19.3)	(12.4,23.6)	(12.0,19.3)	(14.7,22.0)	(-5.2,5.0)			(-5.8,7.4)
12 to 18_____	12.7	12.0	11.8	13.2	0.7	0.038	(-0.10,0.18)	1.2
	(11.3,14.2)	(8.9,16.0)	(9.3,14.8)	(10.9,16.0)	(-2.5,4.0)			(-3.2,5.7)
Youth aged 12 to 18								
Gender								
Male_____	13.1	12.5	10.2	14.4	0.6	0.057	(-0.14,0.25)	1.9
	(11.3,15.2)	(8.5,18.0)	(7.5,13.9)	(10.9,18.8)	(-3.7,5.0)			(-4.4,8.2)
Female_____	12.3	11.4	13.4	12.0	0.9	0.017	(-0.15,0.18)	0.6
	(10.5,14.2)	(7.3,17.3)	(9.9,17.9)	(9.6,14.8)	(-3.6,5.3)			(-4.7,5.9)
Race/ethnicity								
White_____	13.0	11.4	12.5	13.6	1.6	0.068	(-0.08,0.21)	2.2
	(11.3,14.9)	(8.1,15.7)	(9.2,16.8)	(11.2,16.5)	(-1.9,5.2)			(-2.5,7.0)
African American____	10.7	15.7	8.6	13.0	-5.0	-0.081	(-0.55,0.38)	-2.7
	(7.6,14.8)	(6.8,32.0)	(5.4,13.5)	(6.8,23.2)	(-16.7,6.8)			(-17.4,11.9)
Hispanic_____	14.1	11.4	14.0	12.0	2.7	0.024	(-0.21,0.26)	0.7
	(10.8,18.0)	(6.4,19.4)	(7.6,24.5)	(8.6,16.7)	(-2.5,7.8)			(-6.3,7.6)

Table 5-49. The relationship between exposure to general anti-drug advertising (at round 1[1]) and use of marijuana (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

Characteristics	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	31.3	36.2	25.9	33.1	-4.9	-0.032	(-0.24,0.18)	-3.1
	(27.4,35.5)	(24.3,49.9)	(18.9,34.4)	(27.5,39.2)	(-17.2,7.4)			(-17.3,11.2)
Lower risk_____	5.4	4.6	5.4	5.7	0.8	0.074	(-0.13,0.28)	1.1
	(4.4,6.7)	(3.0,7.2)	(3.9,7.3)	(3.7,8.7)	(-1.0,2.6)			(-2.0,4.2)
Sensation seeking								
High_____	18.4	19.3	16.8	18.9	-0.9	-0.008	(-0.17,0.15)	-0.4
	(16.5,20.4)	(13.6,26.7)	(12.8,21.7)	(15.7,22.6)	(-6.7,4.9)			(-7.7,6.9)
Low_____	6.6	4.9	6.3	7.0	1.6	0.123	(-0.08,0.33)	2.1
	(5.2,8.2)	(3.2,7.5)	(3.8,10.2)	(4.8,10.1)	(-0.7,4.0)			(-1.5,5.7)
Longitudinal wave(s)[2]								
Wave 1-->4_____	14.3	18.4	12.1	13.2	-4.1	-0.145	(-0.37,0.08)	-5.2
	(12.3,16.6)	(11.5,28.0)	(8.3,17.2)	(10.5,16.5)	(-11.6,3.4)			(-14.1,3.7)
Wave 2-->5_____	13.5	11.2	11.1	15.9	2.3	0.147	(-0.09,0.39)	4.8
	(11.0,16.5)	(6.7,18.0)	(6.8,17.4)	(11.4,21.8)	(-3.4,8.1)			(-3.5,13.0)
Wave 3-->5_____	10.5	6.5	12.3	10.1	3.9	0.143	(-0.05,0.34)	3.5
	(8.5,12.8)	(3.7,11.2)	(8.2,18.0)	(6.8,14.6)	*(0.4,7.5)			(-1.5,8.5)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 5-50. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and use of marijuana (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Youth aged 12 to 18								
12 to 13_____	3.8	3.2	4.5	4.7	0.6	0.121	(-0.17,0.41)	1.4
	(2.9,5.1)	(1.3,8.0)	(2.9,6.9)	(2.7,8.1)	(-2.2,3.4)			(-1.9,4.8)
14 to 18_____	17.2	17.9	17.2	17.3	-0.7	-0.015	(-0.15,0.12)	-0.6
	(15.2,19.3)	(13.7,23.1)	(13.3,21.9)	(14.1,20.9)	(-5.1,3.6)			(-6.6,5.3)
12 to 18_____	12.7	12.8	13.2	12.8	-0.1	-0.002	(-0.11,0.11)	-0.1
	(11.3,14.2)	(10.1,16.2)	(10.4,16.7)	(10.7,15.2)	(-3.0,2.8)			(-3.7,3.6)
Youth aged 12 to 18								
Gender								
Male_____	13.1	15.5	13.3	13.6	-2.3	-0.051	(-0.24,0.13)	-1.9
	(11.3,15.2)	(10.6,22.0)	(9.4,18.5)	(10.3,17.8)	(-7.5,2.8)			(-8.6,4.9)
Female_____	12.3	10.1	13.2	11.9	2.2	0.059	(-0.09,0.21)	1.8
	(10.5,14.2)	(6.4,15.5)	(10.3,16.8)	(9.7,14.5)	(-2.1,6.4)			(-2.8,6.4)
Race/ethnicity								
White_____	13.0	11.5	13.0	13.8	1.5	0.069	(-0.08,0.22)	2.3
	(11.3,14.9)	(8.1,16.2)	(10.5,15.9)	(11.3,16.8)	(-2.3,5.3)			(-2.4,7.0)
African American__	10.7	15.4	13.2	8.7	-4.7	-0.210	(-0.54,0.12)	-6.7
	(7.6,14.8)	(6.9,30.8)	(5.1,29.7)	(5.1,14.3)	(-15.7,6.3)			(-19.7,6.2)
Hispanic_____	14.1	S	14.4	11.5	-4.6	-0.180	(-0.53,0.17)	S
	(10.8,18.0)	(S)	(9.2,21.9)	(7.6,17.0)	(-18.5,9.2)			(S)

Table 5-50. The relationship between exposure to specific anti-drug advertising (at round 1[1]) and use of marijuana (at round 2[1]) by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	31.3	25.6	34.5	31.6	5.6	0.094	(-0.07,0.26)	5.9
	(27.4,35.5)	(17.8,35.4)	(26.7,43.2)	(25.8,37.9)	(-3.1,14.4)			(-4.5,16.4)
Lower risk_____	5.4	8.1	5.2	6.5	-2.7	-0.086	(-0.31,0.14)	-1.6
	(4.4,6.7)	(5.1,12.6)	(3.8,7.2)	(4.3,9.8)	(-5.9,0.6)			(-5.9,2.8)
Sensation seeking								
High_____	18.4	17.9	18.8	18.4	0.5	0.011	(-0.13,0.15)	0.5
	(16.5,20.4)	(13.1,24.0)	(14.8,23.6)	(15.1,22.3)	(-4.9,5.9)			(-5.7,6.7)
Low_____	6.6	8.0	7.3	5.9	-1.4	-0.101	(-0.32,0.12)	-2.0
	(5.2,8.2)	(4.8,13.1)	(5.2,10.3)	(3.9,9.0)	(-5.1,2.2)			(-6.6,2.5)
Longitudinal wave(s)[2]								
Wave 1-->4_____	14.3	11.3	15.2	16.1	3.0	0.134	(-0.06,0.32)	4.8
	(12.3,16.6)	(7.1,17.5)	(12.1,18.9)	(12.1,21.0)	(-1.7,7.6)			(-2.0,11.5)
Wave 2-->5_____	13.5	16.9	14.1	13.3	-3.4	-0.092	(-0.31,0.13)	-3.5
	(11.0,16.5)	(10.5,26.1)	(9.3,20.9)	(9.7,18.1)	(-10.7,4.0)			(-12.3,5.2)
Wave 3-->5_____	10.5	10.2	10.3	9.4	0.2	-0.033	(-0.28,0.21)	-0.9
	(8.5,12.8)	(5.5,18.2)	(7.3,14.3)	(7.2,12.1)	(-5.5,6.0)			(-7.8,6.0)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[2]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-1. Parents'[1] monitoring cognitions[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education

	Mean score on parental beliefs and attitudes about monitoring index									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	114.80	(109.53,120.07)	122.95	(118.59,127.32)	122.20	(116.50,127.90)	7.40	(-0.73,15.53)	-0.75	(-7.34,5.84)
14 to 15	91.55	(83.05,100.04)	94.47	(87.42,101.53)	94.93	(88.48,101.38)	3.39	(-6.69,13.46)	0.46	(-8.41,9.33)
16 to 18	62.07	(54.78,69.37)	67.43	(58.82,76.05)	68.51	(60.32,76.70)	6.43	(-2.47,15.34)	1.08	(-10.76,12.92)
14 to 18	75.67	(69.87,81.47)	79.96	(73.68,86.24)	79.95	(74.08,85.83)	4.28	(-2.66,11.23)	-0.01	(-7.69,7.68)
12 to 18	87.18	(82.74,91.61)	92.66	(87.93,97.39)	92.55	(87.66,97.45)	5.38	*(0.31,10.44)	-0.11	(-5.93,5.71)
Youth aged 12 to 18										
Gender										
Males	79.19	(72.80,85.57)	84.10	(77.39,90.80)	87.75	(80.44,95.05)	8.56	*(0.86,16.26)	3.65	(-4.99,12.29)
Females	95.64	(89.56,101.72)	101.71	(95.97,107.45)	97.60	(91.17,104.02)	1.96	(-5.83,9.75)	-4.11	(-12.00,3.77)
Race/ethnicity										
White	84.40	(79.14,89.66)	87.96	(82.44,93.48)	88.34	(82.85,93.84)	3.94	(-1.87,9.76)	0.38	(-6.37,7.13)
African American	92.42	(79.40,105.45)	100.74	(89.71,111.77)	93.87	(80.50,107.23)	1.44	(-13.10,15.98)	-6.87	(-21.73,7.99)
Hispanic	98.48	(86.12,110.85)	105.42	(93.29,117.55)	111.06	(99.14,122.99)	12.58	(-1.00,26.16)	5.65	(-11.97,23.26)
Risk score										
Higher risk	53.86	(45.49,62.23)	57.69	(49.43,65.95)	57.17	(48.73,65.62)	3.31	(-6.33,12.95)	-0.52	(-10.26,9.22)
Lower risk	109.14	(104.80,113.47)	115.21	(110.08,120.35)	116.43	(111.65,121.21)	7.29	*(1.67,12.92)	1.22	(-4.76,7.19)
Sensation seeking										
High	73.35	(67.57,79.12)	80.72	(73.93,87.52)	78.91	(72.75,85.08)	5.57	(-1.91,13.05)	-1.81	(-10.18,6.56)
Low	103.38	(96.95,109.82)	108.02	(101.77,114.28)	109.44	(102.36,116.52)	6.05	(-2.39,14.50)	1.41	(-6.55,9.37)

Table 6-1. Parents'[1] monitoring cognitions[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education
        (continued)

| | Mean score on parental beliefs and attitudes about monitoring index | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Parent gender										
Males_____	72.03	(63.86,80.20)	79.80	(70.56,89.04)	80.81	(72.18,89.45)	8.78	(-1.47,19.04)	1.01	(-9.08,11.11)
Females_____	95.50	(90.01,100.99)	99.01	(93.10,104.91)	99.19	(93.58,104.79)	3.69	(-2.78,10.15)	0.18	(-6.99,7.34)
Parent education										
Less than high school_	89.22	(79.15,99.29)	93.71	(82.10,105.32)	95.54	(82.02,109.07)	6.33	(-8.75,21.41)	1.83	(-16.28,19.94)
High school graduate_	82.57	(74.03,91.11)	85.42	(77.83,93.02)	89.93	(80.85,99.00)	7.36	(-2.84,17.55)	4.50	(-5.93,14.93)
Some college_____	90.98	(81.18,100.78)	102.25	(92.02,112.47)	94.78	(86.47,103.08)	3.79	(-6.97,14.56)	-7.47	(-19.17,4.22)
College graduate_____	87.88	(80.07,95.69)	91.33	(82.48,100.18)	91.86	(83.11,100.60)	3.98	(-6.42,14.37)	0.53	(-11.75,12.80)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Measurement of this construct is detailed in Appendix E.

Table 6-2. Parents'[1] talking cognitions[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education

| | Mean score on parental beliefs and attitudes about talking index | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	109.29	(103.56,115.02)	112.07	(105.30,118.84)	107.84	(101.31,114.37)	-1.45	(-9.03,6.13)	-4.23	(-12.96,4.50)
14 to 15	103.15	(93.68,112.62)	108.63	(101.05,116.21)	108.97	(100.89,117.04)	5.82	(-4.87,16.50)	0.34	(-10.06,10.73)
16 to 18	81.63	(72.92,90.34)	90.74	(83.08,98.40)	92.90	(85.02,100.79)	11.27	*(1.39,21.15)	2.16	(-8.04,12.36)
14 to 18	91.56	(84.97,98.15)	99.03	(93.29,104.77)	99.86	(94.04,105.68)	8.30	*(1.19,15.41)	0.83	(-7.07,8.73)
12 to 18	96.77	(91.84,101.71)	102.88	(98.27,107.49)	102.24	(97.24,107.24)	5.47	(-0.11,11.04)	-0.64	(-7.15,5.87)
Youth aged 12 to 18										
Gender										
Males	93.96	(87.88,100.04)	99.93	(93.64,106.23)	99.46	(92.06,106.87)	5.50	(-1.56,12.57)	-0.47	(-9.51,8.57)
Females	99.75	(92.57,106.94)	105.99	(99.32,112.67)	105.15	(97.79,112.51)	5.40	(-3.32,14.12)	-0.84	(-9.93,8.25)
Race/ethnicity										
White	87.88	(81.98,93.78)	92.73	(87.75,97.70)	89.54	(84.33,94.75)	1.66	(-4.80,8.13)	-3.18	(-10.35,3.98)
African American	119.65	(106.44,132.86)	127.28	(110.64,143.93)	124.05	(111.44,136.66)	4.40	(-7.67,16.48)	-3.23	(-19.91,13.45)
Hispanic	121.63	(111.37,131.90)	122.90	(112.99,132.82)	135.88	(120.63,151.14)	14.25	(-2.22,30.73)	12.98	(-5.98,31.93)
Risk score										
Higher risk	81.42	(73.86,88.98)	92.24	(84.19,100.29)	87.34	(78.54,96.15)	5.92	(-4.19,16.03)	-4.90	(-16.44,6.64)
Lower risk	106.88	(101.25,112.51)	110.35	(104.16,116.54)	110.56	(105.06,116.05)	3.68	(-2.67,10.02)	0.21	(-7.22,7.63)
Sensation seeking										
High	87.58	(81.51,93.65)	97.54	(92.19,102.89)	92.54	(85.81,99.28)	4.96	(-2.92,12.84)	-5.00	(-13.50,3.50)
Low	107.85	(100.91,114.78)	110.74	(103.63,117.85)	113.83	(107.83,119.82)	5.98	(-1.78,13.74)	3.09	(-5.34,11.52)

Table 6-2. Parents'[1] talking cognitions[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education (continued)

	Mean score on parental beliefs and attitudes about talking index									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Parent gender										
Males_____	81.09	(72.65,89.53)	93.28	(85.50,101.06)	87.24	(78.69,95.78)	6.14	(-4.06,16.35)	-6.04	(-16.05,3.97)
Females_____	105.39	(99.61,111.17)	107.62	(100.91,114.33)	110.72	(104.46,116.97)	5.33	(-1.44,12.09)	3.10	(-5.62,11.82)
Parent education										
Less than high school_	119.42	(107.84,131.01)	112.64	(101.22,124.07)	120.90	(106.13,135.66)	1.47	(-15.58,18.53)	8.26	(-9.74,26.25)
High school graduate_	97.27	(88.51,106.02)	104.97	(97.37,112.56)	103.18	(94.62,111.74)	5.91	(-5.35,17.18)	-1.79	(-12.78,9.20)
Some college_____	96.98	(89.22,104.75)	108.08	(99.68,116.49)	107.05	(97.26,116.85)	10.07	(-1.01,21.15)	-1.03	(-13.15,11.09)
College graduate_____	81.44	(70.08,92.81)	89.04	(80.89,97.19)	85.52	(76.13,94.92)	4.08	(-8.02,16.17)	-3.52	(-13.92,6.88)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Measurement of this construct is detailed in Appendix E.

Table 6-3. Parents'[1] monitoring behavior[2,3], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education

| | Mean score on parental monitoring behavior scale (0 to 3) (where higher scores represent more monitoring behavior) **Parent perspective** Child perspective | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	**1.65**	**(1.58,1.71)**	**1.80**	**(1.74,1.86)**	**1.82**	**(1.74,1.90)**	**0.17**	***(0.06,0.28)**	**0.02**	**(-0.07,0.11)**
	1.03	(0.96,1.09)	1.08	(1.03,1.14)	1.10	(1.02,1.17)	0.07	(-0.01,0.15)	0.01	(-0.07,0.09)
14 to 15_____	**1.47**	**(1.39,1.55)**	**1.46**	**(1.38,1.53)**	**1.60**	**(1.53,1.66)**	**0.13**	***(0.02,0.23)**	**0.14**	***(0.04,0.25)**
	0.87	(0.80,0.94)	0.88	(0.82,0.95)	0.94	(0.87,1.01)	0.07	(-0.03,0.17)	0.05	(-0.05,0.16)
16 to 18_____	**1.17**	**(1.10,1.25)**	**1.21**	**(1.11,1.30)**	**1.21**	**(1.13,1.29)**	**0.04**	**(-0.06,0.14)**	**0.00**	**(-0.11,0.12)**
	0.75	(0.69,0.81)	0.70	(0.63,0.78)	0.71	(0.65,0.78)	-0.04	(-0.11,0.04)	0.01	(-0.07,0.09)
14 to 18_____	**1.31**	**(1.25,1.37)**	**1.32**	**(1.26,1.39)**	**1.38**	**(1.32,1.44)**	**0.07**	**(-0.01,0.15)**	**0.06**	**(-0.03,0.14)**
	0.80	(0.75,0.86)	0.78	(0.73,0.84)	0.81	(0.76,0.86)	0.01	(-0.06,0.07)	0.02	(-0.04,0.09)
12 to 18_____	**1.41**	**(1.36,1.46)**	**1.46**	**(1.41,1.52)**	**1.51**	**(1.47,1.56)**	**0.10**	***(0.04,0.16)**	**0.05**	**(-0.02,0.11)**
	0.87	(0.82,0.91)	0.87	(0.83,0.92)	0.89	(0.85,0.94)	0.03	(-0.02,0.07)	0.02	(-0.03,0.07)

Table 6-3. Parents'[1] monitoring behavior[2,3], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education (continued)

| | Mean score on parental monitoring behavior scale (0 to 3) (where higher scores represent more monitoring behavior) Parent perspective Child perspective | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
Gender										
Males	**1.28**	**(1.23,1.34)**	**1.39**	**(1.32,1.46)**	**1.41**	**(1.34,1.47)**	**0.12**	***(0.05,0.20)**	**0.02**	**(-0.07,0.12)**
	0.73	(0.67,0.79)	0.73	(0.67,0.79)	0.74	(0.68,0.79)	0.01	(-0.06,0.07)	0.01	(-0.06,0.07)
Females	**1.54**	**(1.48,1.61)**	**1.55**	**(1.48,1.61)**	**1.62**	**(1.56,1.68)**	**0.07**	**(-0.01,0.16)**	**0.07**	**(-0.01,0.16)**
	1.01	(0.96,1.06)	1.02	(0.97,1.08)	1.05	(0.99,1.12)	0.04	(-0.03,0.12)	0.03	(-0.05,0.11)
Race/ethnicity										
White	**1.45**	**(1.39,1.50)**	**1.49**	**(1.42,1.55)**	**1.52**	**(1.47,1.57)**	**0.07**	***(0.01,0.14)**	**0.03**	**(-0.05,0.10)**
	0.91	(0.86,0.97)	0.91	(0.86,0.96)	0.91	(0.86,0.96)	0.00	(-0.06,0.06)	0.01	(-0.05,0.06)
African American	**1.24**	**(1.13,1.35)**	**1.42**	**(1.30,1.54)**	**1.37**	**(1.23,1.52)**	**0.13**	**(-0.05,0.31)**	**-0.04**	**(-0.21,0.12)**
	0.71	(0.60,0.82)	0.78	(0.67,0.89)	0.79	(0.67,0.90)	0.08	(-0.03,0.18)	0.00	(-0.13,0.13)
Hispanic	**1.45**	**(1.30,1.59)**	**1.40**	**(1.27,1.53)**	**1.62**	**(1.48,1.76)**	**0.17**	**(-0.01,0.35)**	**0.22**	***(0.06,0.38)**
	0.85	(0.75,0.94)	0.82	(0.71,0.93)	0.91	(0.82,1.00)	0.06	(-0.06,0.18)	0.08	(-0.03,0.20)
Risk score										
Higher risk	**1.08**	**(1.00,1.16)**	**1.09**	**(1.00,1.18)**	**1.15**	**(1.07,1.22)**	**0.07**	**(-0.03,0.16)**	**0.06**	**(-0.05,0.17)**
	0.61	(0.55,0.67)	0.55	(0.48,0.62)	0.55	(0.49,0.61)	-0.06	(-0.14,0.01)	-0.01	(-0.08,0.07)
Lower risk	**1.61**	**(1.56,1.67)**	**1.70**	**(1.64,1.76)**	**1.76**	**(1.71,1.82)**	**0.15**	***(0.07,0.23)**	**0.07**	**(-0.01,0.15)**
	1.06	(1.01,1.12)	1.09	(1.04,1.14)	1.12	(1.05,1.18)	0.05	(-0.02,0.12)	0.03	(-0.05,0.10)
Sensation seeking										
High	**1.29**	**(1.22,1.36)**	**1.31**	**(1.23,1.38)**	**1.39**	**(1.33,1.45)**	**0.10**	***(0.02,0.18)**	**0.08**	**(-0.02,0.18)**
	0.62	(0.57,0.67)	0.62	(0.57,0.67)	0.65	(0.60,0.70)	0.03	(-0.03,0.09)	0.03	(-0.03,0.08)
Low	**1.54**	**(1.47,1.60)**	**1.66**	**(1.59,1.72)**	**1.66**	**(1.59,1.73)**	**0.12**	***(0.02,0.22)**	**0.00**	**(-0.10,0.10)**
	1.17	(1.11,1.23)	1.20	(1.13,1.26)	1.18	(1.11,1.25)	0.01	(-0.07,0.09)	-0.02	(-0.10,0.07)

Table 6-3. Parents'[1] monitoring behavior[2,3], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education (continued)

| | Mean score on parental monitoring behavior scale (0 to 3) (where higher scores represent more monitoring behavior) **Parent perspective** Child perspective | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Parent gender										
Males_____	**1.34**	**(1.26,1.43)**	**1.39**	**(1.30,1.48)**	**1.44**	**(1.37,1.50)**	**0.10**	***(0.01,0.19)**	**0.05**	**(-0.04,0.14)**
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Females_____	**1.45**	**(1.39,1.50)**	**1.50**	**(1.44,1.57)**	**1.55**	**(1.49,1.61)**	**0.10**	***(0.03,0.18)**	**0.05**	**(-0.04,0.14)**
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Parent education										
Less than high school___	**1.36**	**(1.25,1.47)**	**1.34**	**(1.21,1.46)**	**1.42**	**(1.28,1.57)**	**0.06**	**(-0.09,0.22)**	**0.09**	**(-0.08,0.25)**
	0.90	(0.80,1.00)	0.83	(0.73,0.92)	0.79	(0.67,0.91)	-0.11	(-0.25,0.03)	-0.04	(-0.18,0.11)
High school graduate___	**1.31**	**(1.23,1.39)**	**1.37**	**(1.30,1.44)**	**1.52**	**(1.44,1.59)**	**0.21**	***(0.11,0.31)**	**0.15**	***(0.05,0.24)**
	0.91	(0.82,1.00)	0.85	(0.77,0.94)	0.90	(0.82,0.99)	-0.01	(-0.11,0.09)	0.05	(-0.04,0.14)
Some college_____	**1.40**	**(1.32,1.49)**	**1.53**	**(1.45,1.62)**	**1.47**	**(1.38,1.56)**	**0.07**	**(-0.05,0.18)**	**-0.07**	**(-0.17,0.04)**
	0.84	(0.77,0.92)	0.92	(0.85,1.00)	0.85	(0.77,0.93)	0.01	(-0.11,0.13)	-0.07	(-0.18,0.03)
College graduate_____	**1.58**	**(1.48,1.67)**	**1.58**	**(1.48,1.68)**	**1.60**	**(1.52,1.68)**	**0.02**	**(-0.10,0.15)**	**0.02**	**(-0.09,0.14)**
	0.88	(0.80,0.96)	0.91	(0.84,0.99)	1.02	(0.95,1.08)	0.14	*(0.05,0.23)	0.10	*(0.02,0.18)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Measurement of this construct is detailed in Appendix E.
[3]These parent questions were repeated separately for each sample child.

Table 6-4. Parents'[1] talking behavior[2,3], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education

	Mean score on parental talking behavior scale (0 to 3) (where higher scores represent more talking behavior) **Parent perspective** Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	**2.29**	**(2.22,2.35)**	**2.38**	**(2.31,2.45)**	**2.42**	**(2.36,2.49)**	**0.13**	***(0.06,0.21)**	**0.04**	**(-0.04,0.13)**
	1.74	(1.65,1.82)	1.58	(1.51,1.66)	1.53	(1.44,1.63)	-0.20	*(-0.32,-0.09)	-0.05	(-0.17,0.07)
14 to 15_____	**2.28**	**(2.16,2.40)**	**2.39**	**(2.30,2.48)**	**2.48**	**(2.41,2.55)**	**0.20**	***(0.06,0.34)**	**0.09**	***(0.00,0.18)**
	1.56	(1.46,1.66)	1.42	(1.33,1.51)	1.42	(1.31,1.53)	-0.14	*(-0.26,-0.02)	0.00	(-0.14,0.14)
16 to 18_____	**2.21**	**(2.13,2.30)**	**2.33**	**(2.25,2.40)**	**2.31**	**(2.22,2.41)**	**0.10**	**(-0.03,0.23)**	**-0.01**	**(-0.13,0.10)**
	1.32	(1.24,1.39)	1.27	(1.19,1.35)	1.24	(1.15,1.32)	-0.08	(-0.18,0.02)	-0.03	(-0.14,0.07)
14 to 18_____	**2.24**	**(2.17,2.32)**	**2.36**	**(2.30,2.41)**	**2.39**	**(2.32,2.45)**	**0.14**	***(0.03,0.25)**	**0.03**	**(-0.04,0.10)**
	1.43	(1.36,1.50)	1.34	(1.27,1.40)	1.31	(1.25,1.38)	-0.11	*(-0.19,-0.04)	-0.02	(-0.11,0.06)
12 to 18_____	**2.26**	**(2.19,2.32)**	**2.36**	**(2.31,2.41)**	**2.40**	**(2.34,2.45)**	**0.14**	***(0.06,0.23)**	**0.03**	**(-0.03,0.10)**
	1.52	(1.46,1.58)	1.41	(1.36,1.46)	1.38	(1.32,1.44)	-0.14	*(-0.20,-0.07)	-0.03	(-0.10,0.04)

Table 6-4. Parents'[1] talking behavior[2,3] by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education (continued)

	Mean score on parental talking behavior scale (0 to 3) (where higher scores represent more talking behavior) **Parent perspective** Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
Gender										
Males	**2.30**	**(2.23,2.37)**	**2.37**	**(2.32,2.42)**	**2.41**	**(2.34,2.48)**	**0.11**	***(0.02,0.20)**	**0.04**	**(-0.04,0.13)**
	1.53	(1.45,1.60)	1.35	(1.28,1.42)	1.33	(1.25,1.41)	-0.20	*(-0.30,-0.09)	-0.02	(-0.11,0.07)
Females	**2.21**	**(2.13,2.29)**	**2.36**	**(2.29,2.42)**	**2.38**	**(2.30,2.46)**	**0.17**	***(0.05,0.29)**	**0.03**	**(-0.05,0.10)**
	1.51	(1.42,1.59)	1.47	(1.40,1.55)	1.43	(1.36,1.50)	-0.07	(-0.16,0.02)	-0.04	(-0.14,0.05)
Race/ethnicity										
White	**2.23**	**(2.16,2.29)**	**2.32**	**(2.26,2.38)**	**2.31**	**(2.24,2.38)**	**0.08**	**(-0.01,0.18)**	**-0.01**	**(-0.09,0.06)**
	1.46	(1.39,1.53)	1.33	(1.26,1.40)	1.27	(1.20,1.34)	-0.19	*(-0.28,-0.11)	-0.06	(-0.14,0.02)
African American	**2.36**	**(2.21,2.52)**	**2.39**	**(2.26,2.52)**	**2.57**	**(2.45,2.70)**	**0.21**	***(0.01,0.42)**	**0.18**	***(0.02,0.34)**
	1.63	(1.49,1.76)	1.64	(1.51,1.77)	1.70	(1.57,1.82)	0.07	(-0.08,0.22)	0.06	(-0.10,0.22)
Hispanic	**2.37**	**(2.24,2.50)**	**2.57**	**(2.47,2.67)**	**2.66**	**(2.57,2.76)**	**0.29**	***(0.11,0.47)**	**0.10**	**(-0.04,0.23)**
	1.72	(1.58,1.85)	1.55	(1.42,1.68)	1.60	(1.43,1.76)	-0.12	(-0.30,0.05)	0.05	(-0.12,0.21)
Risk score										
Higher risk	**2.30**	**(2.23,2.37)**	**2.36**	**(2.28,2.45)**	**2.34**	**(2.24,2.45)**	**0.04**	**(-0.08,0.16)**	**-0.02**	**(-0.13,0.09)**
	1.42	(1.34,1.51)	1.32	(1.24,1.40)	1.29	(1.20,1.38)	-0.13	*(-0.25,-0.02)	-0.03	(-0.14,0.08)
Lower risk	**2.23**	**(2.15,2.32)**	**2.36**	**(2.30,2.43)**	**2.44**	**(2.38,2.49)**	**0.20**	***(0.11,0.29)**	**0.07**	**(0.00,0.15)**
	1.61	(1.53,1.68)	1.50	(1.43,1.56)	1.45	(1.37,1.53)	-0.16	*(-0.25,-0.07)	-0.05	(-0.15,0.05)
Sensation seeking										
High	**2.30**	**(2.23,2.37)**	**2.36**	**(2.30,2.42)**	**2.39**	**(2.32,2.45)**	**0.09**	**(-0.01,0.18)**	**0.03**	**(-0.06,0.11)**
	1.37	(1.30,1.43)	1.30	(1.23,1.38)	1.25	(1.18,1.32)	-0.12	*(-0.21,-0.03)	-0.05	(-0.14,0.04)
Low	**2.21**	**(2.12,2.30)**	**2.37**	**(2.29,2.44)**	**2.41**	**(2.34,2.48)**	**0.20**	***(0.08,0.31)**	**0.04**	**(-0.05,0.13)**
	1.70	(1.60,1.79)	1.56	(1.48,1.64)	1.53	(1.45,1.61)	-0.17	*(-0.27,-0.07)	-0.03	(-0.13,0.07)

Table 6-4. Parents'[1] talking behavior[2,3], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education (continued)

	Mean score on parental talking behavior scale (0 to 3) (where higher scores represent more talking behavior) **Parent perspective** Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Parent gender										
Males_____	**2.10**	**(2.00,2.19)**	**2.25**	**(2.19,2.32)**	**2.30**	**(2.23,2.38)**	**0.21**	***(0.09,0.33)**	**0.05**	**(-0.04,0.14)**
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Females_____	**2.35**	**(2.27,2.42)**	**2.42**	**(2.35,2.48)**	**2.45**	**(2.39,2.51)**	**0.10**	***(0.01,0.20)**	**0.03**	**(-0.04,0.11)**
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Parent education										
Less than high school___	**2.29**	**(2.15,2.43)**	**2.41**	**(2.29,2.53)**	**2.58**	**(2.45,2.72)**	**0.29**	***(0.09,0.49)**	**0.18**	***(0.00,0.35)**
	1.81	(1.66,1.96)	1.65	(1.52,1.78)	1.57	(1.42,1.71)	-0.25	*(-0.42,-0.07)	-0.08	(-0.29,0.12)
High school graduate___	**2.25**	**(2.15,2.34)**	**2.38**	**(2.29,2.46)**	**2.46**	**(2.36,2.56)**	**0.21**	***(0.06,0.36)**	**0.08**	**(-0.05,0.22)**
	1.54	(1.43,1.65)	1.48	(1.38,1.58)	1.46	(1.35,1.57)	-0.08	(-0.24,0.07)	-0.03	(-0.15,0.10)
Some college_____	**2.29**	**(2.18,2.41)**	**2.39**	**(2.31,2.48)**	**2.36**	**(2.26,2.47)**	**0.07**	**(-0.08,0.22)**	**-0.03**	**(-0.14,0.08)**
	1.43	(1.31,1.56)	1.37	(1.28,1.46)	1.37	(1.25,1.48)	-0.07	(-0.21,0.08)	-0.01	(-0.14,0.12)
College graduate_____	**2.20**	**(2.11,2.29)**	**2.29**	**(2.21,2.36)**	**2.26**	**(2.18,2.34)**	**0.06**	**(-0.04,0.16)**	**-0.03**	**(-0.12,0.07)**
	1.46	(1.35,1.58)	1.30	(1.20,1.41)	1.25	(1.15,1.36)	-0.21	*(-0.36,-0.06)	-0.05	(-0.19,0.08)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Measurement of this construct is detailed in Appendix E.
[3]These parent questions were repeated separately for each sample child.

Table 6-5. Parents'[1] and youth's reports on fun activities[2,3], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education

	Percent of parents and children reporting participation in three or more fun activities in past week **Parent perspective** Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	**74.8**	**(72.6,76.9)**	**74.7**	**(71.5,77.7)**	**73.4**	**(70.1,76.4)**	**-1.4**	**(-5.0,2.1)**	**-1.3**	**(-4.9,2.4)**
	N/A	N/A	73.3	(70.6,75.9)	72.2	(69.1,75.1)	N/A	N/A	-1.1	(-4.8,2.5)
14 to 15_____	**67.8**	**(63.4,71.9)**	**64.3**	**(60.7,67.8)**	**62.5**	**(58.9,65.9)**	**-5.3**	***(-10.3,-0.3)**	**-1.9**	**(-6.5,2.8)**
	N/A	N/A	66.6	(63.0,70.0)	62.4	(58.2,66.3)	N/A	N/A	-4.2	(-9.4,0.9)
16 to 18_____	**51.1**	**(47.0,55.1)**	**51.9**	**(47.8,56.0)**	**50.9**	**(47.1,54.8)**	**-0.1**	**(-5.4,5.1)**	**-1.0**	**(-5.7,3.8)**
	N/A	N/A	52.3	(47.9,56.6)	53.2	(47.9,58.3)	N/A	N/A	0.9	(-6.0,7.8)
14 to 18_____	**58.8**	**(55.7,61.8)**	**57.7**	**(54.9,60.4)**	**55.9**	**(52.9,58.9)**	**-2.8**	**(-6.5,0.8)**	**-1.7**	**(-5.1,1.7)**
	N/A	N/A	58.8	(56.1,61.5)	57.1	(53.5,60.7)	N/A	N/A	-1.7	(-5.9,2.5)
12 to 18_____	**63.5**	**(61.0,65.9)**	**62.7**	**(60.5,64.9)**	**61.2**	**(58.5,63.8)**	**-2.4**	**(-5.4,0.7)**	**-1.5**	**(-4.3,1.2)**
	N/A	N/A	63.3	(61.1,65.4)	61.5	(58.8,64.2)	N/A	N/A	-1.7	(-4.9,1.4)

Table 6-5. Parents'[1] and youth's reports on fun activities[2,3], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education (continued)

	Percent of parents and children reporting participation in three or more fun activities in past week									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
Gender										
Males	**61.8**	**(58.3,65.2)**	**59.9**	**(56.9,62.8)**	**58.2**	**(54.2,62.1)**	**-3.6**	**(-8.3,1.1)**	**-1.7**	**(-6.3,3.0)**
	N/A	N/A	59.4	(56.4,62.3)	58.6	(54.7,62.4)	N/A	N/A	-0.8	(-5.5,4.0)
Females	**65.3**	**(62.4,68.2)**	**65.7**	**(62.3,68.9)**	**64.3**	**(61.0,67.4)**	**-1.1**	**(-4.9,2.8)**	**-1.4**	**(-5.4,2.5)**
	N/A	N/A	67.4	(64.6,70.2)	64.6	(61.4,67.6)	N/A	N/A	-2.9	(-6.7,1.0)
Race/ethnicity										
White	**64.8**	**(62.1,67.4)**	**65.4**	**(62.5,68.2)**	**62.3**	**(59.1,65.3)**	**-2.5**	**(-6.4,1.4)**	**-3.1**	**(-6.6,0.3)**
	N/A	N/A	64.6	(61.8,67.2)	58.9	(55.6,62.1)	N/A	N/A	-5.7	*(-9.5,-1.9)
African American	**61.5**	**(54.1,68.3)**	**55.2**	**(50.4,59.9)**	**56.9**	**(50.5,63.1)**	**-4.5**	**(-13.3,4.3)**	**1.8**	**(-7.2,10.7)**
	N/A	N/A	58.6	(51.9,65.0)	66.7	(60.2,72.5)	N/A	N/A	8.0	*(1.4,14.6)
Hispanic	**57.7**	**(51.5,63.6)**	**58.1**	**(52.6,63.4)**	**62.4**	**(55.0,69.3)**	**4.7**	**(-6.0,15.5)**	**4.3**	**(-2.7,11.3)**
	N/A	N/A	64.7	(58.2,70.7)	67.3	(61.3,72.8)	N/A	N/A	2.6	(-6.1,11.4)
Risk score										
Higher risk	**52.7**	**(48.7,56.7)**	**52.6**	**(49.0,56.1)**	**50.0**	**(46.0,53.9)**	**-2.7**	**(-7.5,2.1)**	**-2.6**	**(-7.6,2.4)**
	N/A	N/A	49.5	(45.7,53.2)	48.3	(44.3,52.4)	N/A	N/A	-1.2	(-5.9,3.6)
Lower risk	**69.9**	**(66.7,72.9)**	**69.4**	**(66.8,72.0)**	**67.8**	**(64.5,70.9)**	**-2.1**	**(-6.0,1.8)**	**-1.6**	**(-5.4,2.2)**
	N/A	N/A	71.4	(68.6,74.0)	70.0	(66.7,73.0)	N/A	N/A	-1.4	(-5.0,2.1)
Sensation seeking										
High	**60.4**	**(57.1,63.6)**	**59.4**	**(56.4,62.4)**	**55.7**	**(52.3,59.0)**	**-4.7**	***(-8.9,-0.5)**	**-3.7**	**(-7.6,0.2)**
	N/A	N/A	58.8	(56.0,61.5)	51.9	(48.2,55.7)	N/A	N/A	-6.9	*(-11.6,-2.1)
Low	**66.6**	**(63.0,70.1)**	**66.9**	**(63.6,69.9)**	**67.1**	**(63.2,70.8)**	**0.5**	**(-3.9,4.9)**	**0.3**	**(-4.0,4.5)**
	N/A	N/A	68.5	(65.3,71.5)	71.9	(67.8,75.7)	N/A	N/A	3.4	(-0.9,7.7)

Table 6-5. Parents'[1] and youth's reports on fun activities[2,3], by youth age, gender, race/ethnicity, risk score, and sensation seeking, and parent gender and education (continued)

| | Percent of parents and children reporting participation in three or more fun activities in past week **Parent perspective** Child perspective | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Parent gender										
Males_____	64.4	(60.8,67.8)	64.9	(60.9,68.7)	60.2	(56.0,64.2)	-4.2	(-9.6,1.2)	-4.7	*(-9.4,0.0)
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Females_____	63.0	(59.5,66.5)	61.6	(59.3,63.9)	61.7	(58.7,64.6)	-1.3	(-5.4,2.7)	0.1	(-2.9,3.1)
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Parent education										
Less than high school___	56.0	(49.6,62.2)	55.6	(51.2,59.9)	55.4	(48.5,62.1)	-0.6	(-9.7,8.5)	-0.2	(-7.9,7.4)
	N/A	N/A	61.1	(55.1,66.7)	63.4	(57.0,69.4)	N/A	N/A	2.3	(-6.7,11.3)
High school graduate___	59.8	(56.6,62.8)	58.6	(54.8,62.3)	59.8	(55.3,64.2)	0.0	(-4.8,4.9)	1.2	(-4.5,6.8)
	N/A	N/A	61.7	(57.4,65.8)	57.2	(51.4,62.8)	N/A	N/A	-4.5	(-10.8,1.8)
Some college_____	66.1	(61.6,70.3)	67.7	(64.0,71.2)	61.6	(56.6,66.3)	-4.5	(-10.8,1.7)	-6.1	*(-11.2,-1.1)
	N/A	N/A	67.0	(63.4,70.5)	61.1	(56.2,65.8)	N/A	N/A	-5.9	*(-10.9,-0.9)
College graduate_____	69.9	(64.7,74.6)	67.1	(62.3,71.4)	65.4	(61.3,69.3)	-4.4	(-11.7,2.8)	-1.6	(-7.7,4.4)
	N/A	N/A	64.5	(60.6,68.2)	65.8	(60.5,70.7)	N/A	N/A	1.3	(-5.0,7.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]Measurement of this construct is detailed in Appendix E.
[3]These parent questions were repeated separately for each sample child beginning in Wave 3.

Table 6-6. Percent of parents[1] and their children who reported conversation[2] about family rules or expectations about drug use in past 6 months, by age of child

Talking with children about drugs

	Percent reporting they had conversation about family rules or expectations about drug use									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13	**78.8**	**(76.0,81.4)**	**81.6**	**(78.8,84.2)**	**84.0**	**(81.3,86.5)**	**5.2**	***(2.3,8.1)**	**2.4**	**(-1.1,5.9)**
	59.3	(56.4,62.1)	53.9	(51.0,56.9)	53.3	(49.8,56.9)	-5.9	*(-10.0,-1.8)	-0.6	(-5.2,4.0)
14 to 15	**80.8**	**(76.0,84.7)**	**81.0**	**(77.3,84.2)**	**85.1**	**(82.1,87.7)**	**4.3**	**(-1.0,9.6)**	**4.1**	***(0.7,7.6)**
	53.9	(50.0,57.7)	49.5	(46.1,52.9)	48.3	(44.1,52.6)	-5.5	*(-11.0,0.0)	-1.2	(-6.7,4.4)
16 to 18	**77.0**	**(73.6,80.1)**	**81.7**	**(78.3,84.7)**	**79.6**	**(75.5,83.1)**	**2.6**	**(-2.7,7.8)**	**-2.2**	**(-7.3,3.0)**
	46.4	(43.3,49.5)	46.0	(42.4,49.5)	42.4	(39.0,45.9)	-4.0	(-8.1,0.2)	-3.5	(-8.1,1.0)
14 to 18	**78.7**	**(75.6,81.6)**	**81.4**	**(78.8,83.7)**	**82.0**	**(79.3,84.4)**	**3.2**	**(-1.0,7.4)**	**0.6**	**(-2.8,4.0)**
	49.8	(47.1,52.5)	47.6	(44.9,50.2)	44.9	(42.4,47.5)	-4.8	*(-8.0,-1.7)	-2.6	(-5.9,0.7)
12 to 18	**78.8**	**(76.3,81.0)**	**81.5**	**(79.2,83.5)**	**82.6**	**(80.4,84.6)**	**3.8**	***(0.6,7.0)**	**1.1**	**(-1.6,3.9)**
	52.5	(50.3,54.8)	49.4	(47.3,51.6)	47.4	(45.2,49.6)	-5.1	*(-7.8,-2.4)	-2.0	(-4.8,0.7)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-7. Percent of parents[1] and their children who reported conversation[2] about specific things the child could do to stay away from drugs in past 6 months, by age of child

Talking with children about drugs

	Percent reporting they had conversation about specific things child could do to stay away from drugs									
	Parent perspective Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	**70.9**	**(68.4,73.2)**	**75.0**	**(72.1,77.8)**	**76.1**	**(73.0,78.9)**	**5.2**	***(1.7,8.7)**	**1.0**	**(-2.8,4.9)**
	56.9	(53.5,60.2)	53.3	(50.5,56.0)	52.2	(49.0,55.4)	-4.7	*(-9.1,-0.3)	-1.0	(-5.2,3.1)
14 to 15_____	**66.6**	**(61.9,71.1)**	**73.9**	**(70.2,77.3)**	**77.6**	**(74.0,80.8)**	**11.0**	***(5.2,16.8)**	**3.7**	**(-0.5,8.0)**
	47.4	(43.8,51.1)	40.4	(36.8,44.0)	43.5	(39.7,47.4)	-3.9	(-8.7,0.8)	3.2	(-2.0,8.3)
16 to 18_____	**65.3**	**(61.4,69.0)**	**67.9**	**(64.2,71.5)**	**68.7**	**(64.0,73.1)**	**3.4**	**(-2.1,9.0)**	**0.8**	**(-4.5,6.2)**
	35.7	(32.4,39.1)	35.0	(32.1,38.1)	33.7	(30.5,37.2)	-2.0	(-6.3,2.3)	-1.3	(-5.3,2.7)
14 to 18_____	**65.9**	**(62.8,68.9)**	**70.7**	**(68.1,73.2)**	**72.6**	**(69.4,75.6)**	**6.7**	***(2.1,11.2)**	**1.9**	**(-1.4,5.2)**
	41.0	(38.5,43.6)	37.4	(34.8,40.1)	37.9	(35.3,40.6)	-3.1	(-6.3,0.1)	0.5	(-2.7,3.6)
12 to 18_____	**67.4**	**(64.8,69.9)**	**72.0**	**(69.8,74.0)**	**73.6**	**(71.0,76.1)**	**6.2**	***(2.7,9.8)**	**1.7**	**(-1.1,4.4)**
	45.6	(43.3,48.0)	42.1	(40.0,44.1)	42.1	(39.9,44.4)	-3.5	*(-6.3,-0.7)	0.0	(-2.4,2.5)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-8. Percent of parents[1] and their children who reported conversation[2] about drug use in movies, music, and on TV in past 6 months, by age of child

Talking with children about drugs

	Percent reporting they had conversations about drug use in movies, music, and on TV									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	**60.0**	**(57.0,63.0)**	**65.4**	**(61.6,69.0)**	**64.1**	**(59.7,68.3)**	**4.1**	***(0.3,7.9)**	**-1.3**	**(-5.8,3.3)**
	45.1	(42.6,47.7)	40.3	(37.3,43.4)	38.8	(35.5,42.3)	-6.3	*(-10.3,-2.3)	-1.4	(-5.6,2.7)
14 to 15_____	**59.3**	**(54.7,63.6)**	**60.3**	**(55.8,64.6)**	**66.4**	**(62.3,70.2)**	**7.1**	***(2.2,12.0)**	**6.1**	***(0.5,11.6)**
	34.6	(31.0,38.5)	34.7	(30.9,38.6)	35.9	(32.3,39.5)	1.2	(-3.8,6.3)	1.2	(-3.8,6.1)
16 to 18_____	**52.9**	**(48.2,57.5)**	**59.7**	**(55.8,63.6)**	**58.1**	**(54.5,61.6)**	**5.2**	**(-0.3,10.8)**	**-1.6**	**(-5.9,2.7)**
	28.1	(24.9,31.5)	29.8	(26.8,32.9)	26.8	(23.4,30.6)	-1.2	(-5.1,2.6)	-2.9	(-7.1,1.2)
14 to 18_____	**55.8**	**(52.6,59.1)**	**60.0**	**(56.9,63.0)**	**61.7**	**(58.8,64.5)**	**5.9**	***(2.5,9.2)**	**1.7**	**(-1.6,5.0)**
	31.0	(28.6,33.6)	32.0	(29.7,34.4)	30.7	(28.0,33.5)	-0.3	(-3.4,2.7)	-1.3	(-4.7,2.0)
12 to 18_____	**57.1**	**(54.3,59.8)**	**61.6**	**(58.6,64.5)**	**62.4**	**(59.7,65.1)**	**5.3**	***(2.6,8.1)**	**0.8**	**(-2.0,3.6)**
	35.1	(33.1,37.2)	34.4	(32.5,36.4)	33.1	(30.8,35.5)	-2.0	(-4.5,0.4)	-1.3	(-4.1,1.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-9. Percent of parents[1] and their children who reported conversation[2] about people they know who have gotten in trouble with drugs in past 6 months, by age of child

Talking with children about drugs

	Percent reporting they had conversation about people they know who have gotten in trouble with drugs									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	**65.6**	**(62.6,68.4)**	**66.2**	**(62.2,69.9)**	**66.7**	**(62.8,70.4)**	**1.2**	**(-2.3,4.6)**	**0.6**	**(-3.1,4.2)**
	45.0	(42.0,47.9)	40.0	(37.3,42.7)	41.1	(37.6,44.6)	-3.9	(-8.2,0.5)	1.1	(-2.7,4.9)
14 to 15_____	**69.7**	**(65.2,73.8)**	**72.0**	**(67.5,76.1)**	**77.7**	**(74.1,81.0)**	**8.0**	***(3.0,13.1)**	**5.7**	***(0.9,10.5)**
	51.1	(47.3,55.0)	47.7	(43.9,51.6)	50.4	(46.7,54.1)	-0.7	(-5.2,3.7)	2.7	(-3.1,8.4)
16 to 18_____	**72.2**	**(67.4,76.6)**	**77.4**	**(73.8,80.6)**	**78.9**	**(75.5,82.0)**	**6.7**	***(1.4,12.0)**	**1.6**	**(-3.0,6.1)**
	54.0	(50.2,57.7)	54.2	(50.7,57.7)	50.6	(46.3,54.9)	-3.4	(-9.1,2.2)	-3.6	(-9.2,1.9)
14 to 18_____	**71.0**	**(67.1,74.6)**	**74.9**	**(71.6,77.9)**	**78.4**	**(76.0,80.7)**	**7.4**	***(3.3,11.4)**	**3.5**	***(0.2,6.8)**
	52.7	(49.9,55.5)	51.3	(48.5,54.1)	50.5	(47.3,53.7)	-2.2	(-6.5,2.1)	-0.8	(-5.0,3.4)
12 to 18_____	**69.4**	**(66.3,72.4)**	**72.3**	**(69.3,75.1)**	**74.9**	**(72.7,77.1)**	**5.5**	***(2.7,8.3)**	**2.6**	**(0.0,5.3)**
	50.5	(48.1,52.8)	48.0	(45.7,50.3)	47.7	(45.1,50.3)	-2.7	(-6.1,0.6)	-0.3	(-3.6,3.1)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-10. Percent of parents[1] and their children who reported having two or more conversations[2] with their children/parents about drugs in past 6 months, by youth age, gender, race/ethnicity, risk score, and sensation seeking

Talking with children about drugs

	Percent reporting they had two or more conversations about drugs									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-July 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	**79.2**	**(76.4,81.8)**	**81.3**	**(78.4,83.8)**	**82.3**	**(79.8,84.5)**	**3.1**	***(0.4,5.8)**	**1.0**	(-1.9,4.0)
	57.8	(54.6,60.8)	52.0	(49.2,54.7)	49.1	(45.7,52.4)	-8.7	*(-13.1,-4.3)	-2.9	(-7.4,1.6)
14 to 15_____	**80.5**	**(75.8,84.5)**	**84.1**	**(80.5,87.1)**	**85.4**	**(81.6,88.5)**	**4.9**	**(-0.4,10.3)**	**1.3**	(-2.9,5.6)
	55.2	(51.2,59.2)	51.7	(48.1,55.3)	51.0	(46.9,55.1)	-4.2	(-8.9,0.4)	-0.7	(-6.2,4.7)
16 to 18_____	**79.0**	**(75.8,82.0)**	**82.6**	**(79.6,85.2)**	**83.0**	**(79.6,85.9)**	**3.9**	**(-0.7,8.6)**	**0.4**	(-3.5,4.4)
	50.0	(46.4,53.7)	46.4	(42.8,50.0)	47.5	(43.8,51.3)	-2.5	(-7.6,2.6)	1.1	(-3.8,6.1)
14 to 18_____	**79.7**	**(76.8,82.4)**	**83.3**	**(81.0,85.3)**	**84.0**	**(81.3,86.5)**	**4.3**	***(0.5,8.1)**	**0.8**	(-2.2,3.7)
	52.4	(49.6,55.2)	48.8	(46.3,51.3)	49.0	(46.0,52.0)	-3.4	(-7.0,0.2)	0.2	(-3.2,3.7)
12 to 18_____	**79.6**	**(77.0,81.9)**	**82.7**	**(80.7,84.5)**	**83.5**	**(81.3,85.6)**	**4.0**	***(1.1,6.8)**	**0.8**	(-1.4,3.1)
	53.9	(51.6,56.2)	49.7	(47.7,51.7)	49.0	(46.8,51.2)	-4.9	*(-7.5,-2.3)	-0.7	(-3.3,1.8)

Table 6-10. Percent of parents[1] and their children who reported having two or more conversations[2] with their children/parents about drugs in past 6 months, by youth age, gender, race/ethnicity, risk score, and sensation seeking (continued)

Talking with children about drugs

	Percent reporting they had two or more conversations about drugs									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
Gender										
Males	**81.6**	**(78.8,84.2)**	**82.8**	**(80.5,84.9)**	**85.8**	**(82.9,88.3)**	**4.2**	***(0.6,7.7)**	**3.0**	**(-0.3,6.3)**
	53.4	(50.5,56.2)	46.5	(43.8,49.2)	46.3	(43.3,49.4)	-7.0	*(-10.6,-3.4)	-0.1	(-3.7,3.4)
Females	**77.4**	**(74.1,80.3)**	**82.5**	**(79.9,84.9)**	**81.1**	**(77.7,84.1)**	**3.7**	**(-0.6,8.0)**	**-1.4**	**(-4.5,1.6)**
	54.5	(51.3,57.7)	53.1	(50.1,56.2)	51.8	(48.9,54.7)	-2.7	(-6.2,0.8)	-1.3	(-5.4,2.7)
Race/ethnicity										
White	**80.0**	**(77.1,82.7)**	**83.2**	**(80.9,85.3)**	**83.5**	**(80.7,85.9)**	**3.5**	**(-0.1,7.0)**	**0.3**	**(-2.4,2.9)**
	53.0	(50.5,55.6)	49.0	(46.4,51.6)	46.7	(43.9,49.6)	-6.3	*(-9.5,-3.1)	-2.3	(-5.4,0.9)
African American	**79.8**	**(74.3,84.3)**	**80.4**	**(75.0,84.8)**	**84.4**	**(77.9,89.3)**	**4.7**	**(-1.9,11.2)**	**4.1**	**(-1.8,9.9)**
	56.3	(50.3,62.2)	53.2	(47.4,59.0)	58.8	(54.0,63.4)	2.5	(-4.5,9.5)	5.6	(-1.5,12.7)
Hispanic	**79.6**	**(74.8,83.8)**	**84.8**	**(80.2,88.4)**	**87.2**	**(82.7,90.7)**	**7.6**	***(1.5,13.6)**	**2.4**	**(-3.7,8.5)**
	58.1	(52.6,63.3)	50.4	(45.4,55.4)	52.4	(45.9,58.8)	-5.7	(-13.8,2.5)	2.0	(-4.8,8.7)
Risk score										
Higher risk	**81.3**	**(78.4,83.9)**	**83.8**	**(80.4,86.6)**	**83.2**	**(79.4,86.5)**	**1.9**	**(-2.3,6.1)**	**-0.5**	**(-4.8,3.7)**
	53.5	(49.9,57.1)	49.6	(46.1,53.0)	49.4	(45.3,53.4)	-4.2	(-9.8,1.5)	-0.2	(-4.7,4.3)
Lower risk	**78.5**	**(75.3,81.4)**	**82.1**	**(79.2,84.6)**	**83.9**	**(81.7,86.0)**	**5.4**	***(2.2,8.6)**	**1.9**	**(-1.0,4.7)**
	54.7	(51.8,57.5)	50.9	(48.2,53.6)	48.9	(46.2,51.5)	-5.8	*(-8.9,-2.8)	-2.0	(-5.6,1.6)
Sensation seeking										
High	**81.3**	**(78.5,83.8)**	**83.3**	**(80.7,85.5)**	**85.1**	**(82.2,87.6)**	**3.8**	***(0.6,7.0)**	**1.8**	**(-1.5,5.2)**
	50.8	(48.1,53.5)	47.6	(44.6,50.8)	45.6	(42.6,48.6)	-5.2	*(-9.0,-1.5)	-2.1	(-5.7,1.5)
Low	**77.6**	**(73.7,81.0)**	**81.8**	**(78.4,84.8)**	**81.6**	**(78.1,84.6)**	**4.0**	**(-0.6,8.6)**	**-0.3**	**(-4.3,3.7)**
	57.7	(54.1,61.1)	52.4	(49.8,55.1)	52.8	(49.9,55.7)	-4.8	*(-8.6,-1.1)	0.4	(-3.5,4.3)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-11. Percent of parents[1] and their children who reported that parents know what child is doing when he or she is away from home[2], by age of child

Monitoring Children

	Percent saying they know what child is doing when s/he is away from home									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13	**67.2**	**(64.2,70.0)**	**72.7**	**(70.1,75.1)**	**71.4**	**(67.7,74.9)**	**4.2**	**(-0.5,8.9)**	**-1.3**	**(-5.4,2.9)**
	52.5	(49.5,55.5)	53.3	(50.4,56.2)	56.4	(53.5,59.3)	3.9	*(0.1,7.7)	3.1	(-1.0,7.1)
14 to 15	**61.8**	**(58.2,65.2)**	**62.5**	**(58.9,66.0)**	**65.9**	**(62.7,68.9)**	**4.1**	**(-0.3,8.5)**	**3.3**	**(-1.5,8.2)**
	46.7	(43.2,50.3)	49.3	(45.7,52.9)	51.4	(48.0,54.8)	4.7	(-0.3,9.7)	2.2	(-3.0,7.4)
16 to 18	**50.9**	**(47.3,54.5)**	**53.8**	**(49.4,58.2)**	**50.8**	**(46.8,54.7)**	**-0.1**	**(-4.9,4.7)**	**-3.1**	**(-9.2,3.1)**
	41.0	(38.0,44.0)	41.5	(37.7,45.4)	41.8	(38.4,45.4)	0.8	(-2.9,4.6)	0.3	(-4.2,4.8)
14 to 18	**55.9**	**(53.3,58.5)**	**57.8**	**(54.6,61.0)**	**57.3**	**(54.7,59.9)**	**1.4**	**(-1.6,4.3)**	**-0.5**	**(-4.7,3.6)**
	43.6	(41.0,46.2)	45.0	(42.1,48.0)	45.9	(43.5,48.3)	2.3	(-0.8,5.5)	0.9	(-2.5,4.4)
12 to 18	**59.2**	**(57.0,61.4)**	**62.2**	**(59.7,64.7)**	**61.5**	**(59.4,63.6)**	**2.3**	**(-0.3,4.9)**	**-0.7**	**(-4.2,2.7)**
	46.2	(44.3,48.0)	47.5	(45.1,49.8)	49.0	(47.0,51.0)	2.8	*(0.6,5.0)	1.5	(-1.1,4.1)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-12. Percent of parents[1] and their children who reported that parents know what child's plans are for the coming day[2], by age of child

Monitoring Children

	Percent saying they always or almost always know what child's plans are for the coming day									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	**64.2**	**(61.3,67.0)**	**69.5**	**(66.6,72.3)**	**72.1**	**(68.6,75.4)**	**7.9**	***(3.1,12.8)**	**2.6**	**(-1.2,6.5)**
	34.7	(31.7,37.8)	35.2	(32.2,38.2)	37.3	(33.5,41.3)	2.7	(-1.4,6.7)	2.2	(-2.1,6.5)
14 to 15_____	**58.5**	**(54.2,62.6)**	**59.8**	**(55.5,63.9)**	**65.8**	**(62.5,69.0)**	**7.4**	***(1.5,13.2)**	**6.1**	***(0.9,11.2)**
	31.6	(28.0,35.3)	32.5	(28.7,36.5)	34.8	(31.1,38.8)	3.3	(-1.6,8.2)	2.4	(-3.2,7.9)
16 to 18_____	**49.7**	**(45.7,53.7)**	**51.7**	**(47.6,55.8)**	**53.2**	**(49.3,57.1)**	**3.5**	**(-1.4,8.5)**	**1.5**	**(-3.5,6.5)**
	28.4	(24.9,32.2)	25.0	(21.4,29.0)	26.6	(23.2,30.3)	-1.8	(-6.5,2.9)	1.5	(-3.6,6.7)
14 to 18_____	**53.8**	**(50.8,56.7)**	**55.5**	**(52.2,58.6)**	**58.7**	**(55.8,61.5)**	**4.9**	***(0.8,9.0)**	**3.2**	**(-0.8,7.3)**
	29.8	(26.9,32.9)	28.4	(25.7,31.2)	30.1	(27.5,32.9)	0.3	(-3.1,3.7)	1.7	(-1.7,5.1)
12 to 18_____	**56.8**	**(54.5,59.1)**	**59.6**	**(57.2,62.0)**	**62.7**	**(60.7,64.7)**	**5.9**	***(3.0,8.7)**	**3.1**	***(0.2,6.0)**
	31.2	(28.8,33.8)	30.4	(28.2,32.7)	32.2	(29.8,34.8)	1.0	(-1.7,3.7)	1.9	(-0.8,4.5)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-13. Percent of parents[1] and their children who reported saying child never spends free time in the afternoons hanging out with friends without adult supervision[2], by age of child

Monitoring Children

	Percent saying they never spend unsupervised free time in the afternoons hanging out with friends									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13	**33.6**	**(31.1,36.1)**	**37.8**	**(34.8,41.0)**	**38.4**	**(34.8,42.2)**	**4.9**	***(0.8,9.0)**	**0.6**	**(-3.8,5.0)**
	15.9	(14.1,17.9)	20.2	(17.8,22.8)	15.8	(13.7,18.2)	-0.1	(-3.1,2.9)	-4.4	*(-7.5,-1.2)
14 to 15	**26.8**	**(23.4,30.5)**	**23.3**	**(20.5,26.3)**	**28.2**	**(24.9,31.9)**	**1.5**	**(-3.6,6.5)**	**5.0**	***(0.2,9.7)**
	8.3	(6.2,11.0)	6.3	(5.0,8.0)	7.3	(6.0,9.0)	-0.9	(-3.7,1.9)	1.0	(-1.2,3.2)
16 to 18	**16.9**	**(14.2,19.9)**	**15.5**	**(12.6,18.9)**	**16.9**	**(14.0,20.3)**	**0.1**	**(-3.7,3.9)**	**1.4**	**(-2.9,5.8)**
	5.6	(4.1,7.6)	3.7	(2.6,5.4)	2.9	(2.0,4.1)	-2.7	*(-4.5,-1.0)	-0.9	(-2.2,0.4)
14 to 18	**21.4**	**(19.3,23.8)**	**19.1**	**(17.0,21.4)**	**21.8**	**(19.3,24.6)**	**0.4**	**(-2.9,3.7)**	**2.7**	**(-0.7,6.2)**
	6.8	(5.6,8.3)	4.9	(3.9,6.2)	4.8	(4.0,5.6)	-2.0	*(-3.5,-0.6)	-0.1	(-1.4,1.1)
12 to 18	**25.0**	**(23.3,26.7)**	**24.6**	**(22.7,26.7)**	**26.8**	**(24.5,29.2)**	**1.8**	**(-0.8,4.4)**	**2.2**	**(-0.7,5.0)**
	9.5	(8.4,10.6)	9.4	(8.3,10.6)	8.0	(7.2,9.0)	-1.4	*(-2.7,-0.2)	-1.4	*(-2.7,-0.1)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-14. Percent of parents[1] who reported that they personally know child's friends very well[2], by age of child

Monitoring Children

| | Percent saying they personally know child's friends very well | | | | | | | | | |
| Age of child | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	40.8	(38.0,43.7)	45.1	(42.4,47.8)	44.9	(41.6,48.2)	4.0	(-0.8,8.9)	-0.2	(-3.9,3.4)
14 to 15_____	35.0	(31.9,38.3)	34.6	(31.6,37.7)	37.5	(33.9,41.3)	2.5	(-2.2,7.2)	3.0	(-1.6,7.5)
16 to 18_____	32.5	(29.2,36.1)	34.5	(31.3,37.7)	33.9	(30.2,37.7)	1.3	(-3.9,6.6)	-0.6	(-5.6,4.4)
14 to 18_____	33.7	(31.3,36.1)	34.5	(32.3,36.8)	35.5	(32.8,38.2)	1.8	(-1.8,5.4)	0.9	(-2.5,4.4)
12 to 18_____	35.8	(33.9,37.7)	37.6	(35.8,39.5)	38.3	(36.1,40.5)	2.5	(-0.6,5.5)	0.6	(-2.0,3.2)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-15. Percent of parents[1] who reported that they require child to be home before midnight[2] on weekends, by age of child

Monitoring Children

	Percent saying they require child to be home before midnight									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	95.8	(94.2,97.0)	96.1	(93.0,97.8)	96.0	(93.9,97.4)	0.2	(-1.9,2.3)	-0.1	(-2.1,2.0)
14 to 15_____	95.1	(93.1,96.6)	94.6	(92.1,96.4)	95.9	(94.5,97.0)	0.8	(-1.3,2.9)	1.3	(-1.0,3.6)
16 to 18_____	85.0	(82.2,87.4)	83.7	(81.1,86.0)	83.4	(80.2,86.2)	-1.6	(-5.4,2.2)	-0.4	(-3.5,2.8)
14 to 18_____	89.7	(87.7,91.3)	88.8	(87.2,90.2)	88.8	(86.9,90.5)	-0.8	(-3.2,1.5)	0.0	(-1.9,2.0)
12 to 18_____	91.5	(89.9,92.8)	90.9	(89.5,92.2)	90.9	(89.4,92.3)	-0.5	(-2.4,1.4)	0.0	(-1.6,1.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-16. Parent[1] and youth reports of engaging in projects or activities with children[2] in past week, by youth age, gender, race/ethnicity, risk score, and sensation seeking

Engaging in fun family activities

	Percent saying they did projects or activities with child at home more than once in past week									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	**69.3**	**(66.7,71.8)**	69.3	(66.4,72.1)	**70.1**	**(66.5,73.4)**	**0.8**	**(-3.3,4.8)**	0.8	(-3.1,4.6)
	N/A	N/A	61.2	(58.5,63.8)	61.3	(57.9,64.5)	N/A	N/A	0.1	(-4.0,4.2)
14 to 15_____	**63.2**	**(59.3,67.1)**	58.2	(54.3,62.0)	**58.8**	**(54.8,62.7)**	**-4.4**	**(-9.6,0.7)**	0.6	(-4.6,5.8)
	N/A	N/A	52.2	(48.5,55.8)	50.5	(46.9,54.1)	N/A	N/A	-1.6	(-6.2,2.9)
16 to 18_____	**48.3**	**(43.9,52.8)**	48.3	(44.6,52.1)	**48.7**	**(44.7,52.8)**	**0.4**	**(-5.2,6.0)**	0.4	(-4.3,5.1)
	N/A	N/A	41.9	(38.5,45.3)	46.0	(41.5,50.5)	N/A	N/A	4.1	(-1.3,9.5)
14 to 18_____	**55.2**	**(52.1,58.3)**	52.9	(50.3,55.5)	**53.1**	**(50.0,56.2)**	**-2.1**	**(-6.0,1.8)**	0.2	(-3.4,3.7)
	N/A	N/A	46.5	(44.0,49.1)	47.9	(44.8,51.0)	N/A	N/A	1.4	(-2.2,5.0)
12 to 18_____	**59.4**	**(56.8,61.9)**	57.8	(55.7,59.8)	**58.2**	**(55.4,60.9)**	**-1.2**	**(-4.5,2.1)**	0.4	(-2.6,3.4)
	N/A	N/A	50.8	(49.0,52.7)	51.9	(49.4,54.3)	N/A	N/A	1.0	(-1.9,3.9)

Table 6-16. Parent[1] and youth reports of engaging in projects or activities with children[2] in past week, by youth age, gender, race/ethnicity, risk score, and sensation seeking (continued)

Engaging in fun family activities

Percent saying they did projects or activities with child at home more than once in past week

Parent perspective

Child perspective

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
Youth aged 12 to 18										
Gender										
Males_____	**58.9**	**(55.6,62.2)**	**56.0**	**(52.9,59.0)**	**56.6**	**(52.6,60.6)**	**-2.3**	**(-7.2,2.6)**	**0.7**	**(-4.2,5.5)**
	N/A	N/A	49.8	(46.9,52.7)	50.6	(47.1,54.1)	N/A	N/A	0.8	(-3.2,4.8)
Females_____	**59.8**	**(56.7,62.9)**	**59.7**	**(56.2,63.0)**	**59.8**	**(56.7,62.8)**	**0.0**	**(-3.5,3.4)**	**0.1**	**(-3.8,4.0)**
	N/A	N/A	51.9	(49.8,54.0)	53.2	(49.8,56.5)	N/A	N/A	1.3	(-2.5,5.0)
Race/ethnicity										
White_____	**60.6**	**(57.5,63.5)**	**59.9**	**(57.4,62.3)**	**60.3**	**(57.2,63.3)**	**-0.3**	**(-4.1,3.6)**	**0.4**	**(-2.9,3.8)**
	N/A	N/A	51.3	(48.9,53.7)	50.6	(47.6,53.5)	N/A	N/A	-0.7	(-4.2,2.8)
African American___	**59.5**	**(52.9,65.7)**	**52.0**	**(45.8,58.2)**	**52.0**	**(45.2,58.6)**	**-7.5**	**(-15.4,0.4)**	**-0.1**	**(-9.8,9.6)**
	N/A	N/A	51.9	(46.4,57.5)	57.8	(52.6,62.9)	N/A	N/A	5.9	(-0.8,12.6)
Hispanic_____	**53.4**	**(47.3,59.5)**	**55.0**	**(48.7,61.2)**	**57.4**	**(49.7,64.7)**	**3.9**	**(-6.8,14.7)**	**2.3**	**(-5.3,10.0)**
	N/A	N/A	49.2	(43.8,54.6)	50.4	(44.6,56.1)	N/A	N/A	1.2	(-6.7,9.1)
Risk score										
Higher risk_____	**50.1**	**(46.1,54.1)**	**49.2**	**(45.8,52.5)**	**50.2**	**(45.9,54.5)**	**0.1**	**(-4.8,5.0)**	**1.0**	**(-4.4,6.4)**
	N/A	N/A	41.3	(37.8,45.0)	41.9	(37.8,46.2)	N/A	N/A	0.6	(-4.4,5.6)
Lower risk_____	**64.8**	**(61.6,68.0)**	**63.4**	**(60.7,66.0)**	**63.1**	**(59.6,66.5)**	**-1.7**	**(-5.5,2.1)**	**-0.3**	**(-4.3,3.8)**
	N/A	N/A	57.6	(54.8,60.4)	58.2	(55.3,61.2)	N/A	N/A	0.6	(-3.2,4.4)
Sensation seeking										
High_____	**56.6**	**(53.2,59.9)**	**54.7**	**(51.9,57.5)**	**55.3**	**(52.0,58.6)**	**-1.3**	**(-5.5,3.0)**	**0.6**	**(-3.0,4.2)**
	N/A	N/A	44.9	(42.3,47.6)	45.6	(42.3,48.9)	N/A	N/A	0.6	(-3.4,4.7)
Low_____	**62.1**	**(58.3,65.8)**	**61.4**	**(58.2,64.5)**	**61.1**	**(57.2,64.9)**	**-1.0**	**(-6.2,4.1)**	**-0.3**	**(-4.8,4.1)**
	N/A	N/A	58.8	(56.0,61.6)	58.8	(55.1,62.3)	N/A	N/A	-0.1	(-4.8,4.7)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child beginning in Wave 3.

Table 6-17. Parent[1] and youth reports of going someplace for fun with children[2] in the past week, by youth age, gender, race/ethnicity, risk score, and sensation seeking

Engaging in fun family activities

	Percent saying they went someplace to do activity we both enjoy more than once in past week									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	**60.4**	**(57.5,63.2)**	**59.4**	**(56.4,62.4)**	**56.9**	**(53.7,60.0)**	**-3.5**	***(-6.9,-0.1)**	**-2.6**	**(-6.1,1.0)**
	N/A	N/A	56.3	(53.6,59.0)	55.4	(52.3,58.5)	N/A	N/A	-0.9	(-4.1,2.4)
14 to 15_____	**49.3**	**(45.1,53.5)**	**50.1**	**(46.7,53.4)**	**46.3**	**(42.3,50.2)**	**-3.0**	**(-8.6,2.6)**	**-3.8**	**(-9.0,1.4)**
	N/A	N/A	47.9	(44.6,51.2)	48.4	(44.7,52.3)	N/A	N/A	0.6	(-4.5,5.6)
16 to 18_____	**41.1**	**(36.7,45.5)**	**37.4**	**(33.6,41.3)**	**32.2**	**(28.8,35.9)**	**-8.8**	***(-13.6,-4.0)**	**-5.1**	***(-10.1,-0.1)**
	N/A	N/A	37.0	(33.7,40.4)	40.6	(36.4,45.0)	N/A	N/A	3.6	(-2.2,9.4)
14 to 18_____	**44.8**	**(41.6,48.1)**	**43.2**	**(40.5,46.0)**	**38.3**	**(35.4,41.3)**	**-6.5**	***(-10.3,-2.7)**	**-4.9**	***(-8.9,-1.0)**
	N/A	N/A	41.9	(39.7,44.2)	44.0	(41.0,46.9)	N/A	N/A	2.0	(-1.5,5.5)
12 to 18_____	**49.4**	**(46.8,52.0)**	**48.0**	**(45.7,50.3)**	**43.9**	**(41.4,46.4)**	**-5.6**	***(-8.5,-2.6)**	**-4.2**	***(-7.1,-1.3)**
	N/A	N/A	46.2	(44.4,47.9)	47.4	(45.2,49.6)	N/A	N/A	1.2	(-1.4,3.8)

Table 6-17. Parent[1] and youth reports of going someplace for fun with children[2] in the past week, by youth age, gender, race/ethnicity, risk score, and sensation seeking (continued)

Engaging in fun family activities

	Percent saying they went someplace to do activity we both enjoy more than once in past week									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
Gender										
Males	46.2	(43.4,49.1)	45.3	(42.0,48.6)	41.2	(37.6,45.0)	-5.0	*(-9.4,-0.6)	-4.1	(-8.6,0.4)
	N/A	N/A	43.3	(40.9,45.6)	44.9	(41.9,47.9)	N/A	N/A	1.6	(-2.1,5.3)
Females	52.8	(49.0,56.6)	50.9	(47.6,54.1)	46.6	(43.5,49.8)	-6.2	*(-10.4,-2.0)	-4.3	*(-8.5,-0.1)
	N/A	N/A	49.2	(46.9,51.6)	49.9	(46.9,53.0)	N/A	N/A	0.7	(-2.9,4.4)
Race/ethnicity										
White	51.8	(48.6,55.0)	50.2	(47.0,53.5)	44.2	(41.5,46.9)	-7.6	*(-11.5,-3.7)	-6.1	*(-9.7,-2.4)
	N/A	N/A	45.9	(43.6,48.2)	44.8	(42.1,47.6)	N/A	N/A	-1.0	(-4.4,2.3)
African American	45.0	(39.5,50.7)	42.5	(38.5,46.6)	39.4	(33.6,45.5)	-5.6	(-13.0,1.8)	-3.1	(-10.6,4.5)
	N/A	N/A	43.8	(38.4,49.3)	51.3	(45.7,56.9)	N/A	N/A	7.5	*(0.7,14.3)
Hispanic	41.9	(36.4,47.5)	45.1	(39.9,50.4)	48.0	(41.2,54.9)	6.1	(-2.7,15.0)	2.9	(-4.1,9.9)
	N/A	N/A	50.4	(44.9,55.9)	52.6	(46.9,58.2)	N/A	N/A	2.2	(-5.8,10.2)
Risk score										
Higher risk	40.2	(35.9,44.7)	37.6	(33.7,41.6)	33.1	(29.4,36.9)	-7.1	*(-12.0,-2.3)	-4.5	(-10.1,1.1)
	N/A	N/A	34.6	(31.6,37.7)	36.8	(33.5,40.2)	N/A	N/A	2.2	(-1.7,6.1)
Lower risk	54.9	(52.0,57.8)	54.7	(51.9,57.5)	50.1	(47.2,52.9)	-4.9	*(-8.8,-0.9)	-4.6	*(-8.1,-1.2)
	N/A	N/A	53.6	(51.2,56.0)	53.4	(50.7,56.2)	N/A	N/A	-0.2	(-3.5,3.1)
Sensation seeking										
High	47.2	(43.7,50.7)	44.4	(41.4,47.4)	38.0	(35.2,41.0)	-9.1	*(-13.0,-5.3)	-6.4	*(-10.2,-2.5)
	N/A	N/A	42.3	(40.0,44.6)	39.0	(36.1,42.0)	N/A	N/A	-3.3	(-7.1,0.5)
Low	51.5	(48.5,54.6)	52.5	(49.3,55.7)	50.1	(46.7,53.5)	-1.4	(-5.3,2.4)	-2.4	(-6.3,1.4)
	N/A	N/A	50.9	(48.3,53.5)	57.0	(53.4,60.5)	N/A	N/A	6.0	*(2.3,9.8)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child beginning in Wave 3.

Table 6-18. Parents[1] prior direct involvement by expressing views to family members to support opinions about drug use, by gender, race/ethnicity, education, and age of child(ren)

	Percent saying they expressed views to family members									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall_____	91.1	(89.5,92.5)	91.3	(89.5,92.7)	92.0	(90.7,93.1)	0.8	(-0.9,2.6)	0.7	(-1.1,2.5)
Gender										
Males_____	91.1	(88.6,93.1)	92.6	(90.8,94.1)	93.0	(90.2,95.0)	1.8	(-1.4,5.1)	0.4	(-2.4,3.2)
Females_____	91.1	(89.2,92.7)	90.4	(87.9,92.5)	91.2	(89.7,92.5)	0.1	(-2.0,2.2)	0.8	(-1.6,3.2)
Race/ethnicity										
White_____	92.2	(90.3,93.7)	92.8	(91.3,94.1)	92.8	(91.4,94.0)	0.7	(-1.4,2.7)	0.0	(-1.9,1.9)
African American_____	92.6	(89.4,95.0)	90.0	(84.8,93.6)	91.6	(86.0,95.1)	-1.0	(-5.7,3.6)	1.6	(-2.9,6.0)
Hispanic_____	86.3	(80.7,90.4)	84.9	(78.9,89.5)	88.1	(83.6,91.6)	1.9	(-4.5,8.3)	3.2	(-4.0,10.5)
Education										
Less than high school_____	85.1	(80.9,88.5)	87.2	(82.3,90.8)	86.2	(80.3,90.5)	1.1	(-5.2,7.4)	-1.0	(-6.3,4.4)
High school graduate_____	89.6	(85.9,92.4)	90.3	(87.4,92.6)	91.1	(88.3,93.3)	1.5	(-2.5,5.5)	0.8	(-2.6,4.2)
Some college_____	94.6	(92.2,96.3)	93.6	(90.5,95.7)	93.3	(90.7,95.3)	-1.3	(-4.3,1.7)	-0.3	(-3.3,2.8)
College graduate_____	92.3	(89.8,94.3)	92.3	(89.7,94.3)	94.4	(92.1,96.0)	2.1	(-0.3,4.4)	2.1	(-0.8,5.0)
One or more child(ren)[2] aged:										
12 to 13_____	90.4	(88.3,92.1)	90.8	(88.5,92.8)	91.2	(89.3,92.8)	0.8	(-1.4,3.0)	0.4	(-1.7,2.5)
14 to 18_____	91.9	(90.1,93.3)	92.0	(90.1,93.6)	92.1	(90.5,93.4)	0.2	(-1.7,2.2)	0.1	(-2.0,2.1)
12 to 18_____	91.1	(89.5,92.5)	91.3	(89.5,92.7)	92.0	(90.7,93.1)	0.8	(-0.9,2.6)	0.7	(-1.1,2.5)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 6-19. Parents'[1] prior direct involvement by written letter to political official/newspaper to support opinions about drug use, by gender, race/ethnicity, education, and age of child(ren)

	Percent saying they have written letter to political official/newspaper									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	7.5	(6.3,8.9)	7.9	(6.6,9.3)	7.7	(6.5,9.2)	0.2	(-1.5,1.9)	-0.2	(-2.0,1.6)
Gender										
Males	7.5	(5.4,10.4)	8.9	(6.7,11.6)	8.1	(6.0,10.8)	0.6	(-1.9,3.1)	-0.8	(-4.3,2.8)
Females	7.5	(6.0,9.3)	7.3	(6.0,8.7)	7.5	(6.0,9.3)	0.0	(-1.9,1.9)	0.2	(-1.8,2.2)
Race/ethnicity										
White	6.8	(5.4,8.4)	7.3	(6.0,8.9)	6.5	(5.4,8.0)	-0.2	(-2.1,1.6)	-0.8	(-2.7,1.2)
African American	11.6	(7.9,16.6)	10.8	(6.9,16.3)	12.6	(8.6,18.1)	1.0	(-5.1,7.0)	1.8	(-4.8,8.4)
Hispanic	6.4	(3.6,11.3)	6.7	(4.0,11.1)	9.1	(5.3,15.3)	2.7	(-2.8,8.2)	2.4	(-2.3,7.2)
Education										
Less than high school	8.0	(5.3,12.0)	6.3	(3.5,10.9)	8.1	(4.8,13.6)	0.1	(-5.5,5.8)	1.9	(-3.8,7.5)
High school graduate	6.2	(4.3,8.7)	6.8	(5.2,8.9)	6.7	(4.6,9.6)	0.5	(-2.7,3.7)	-0.2	(-3.3,3.0)
Some college	8.6	(6.2,11.8)	9.9	(7.6,12.9)	8.9	(6.5,12.0)	0.3	(-3.1,3.7)	-1.0	(-4.9,2.9)
College graduate	7.1	(5.5,9.2)	8.0	(5.7,11.3)	7.5	(5.2,10.5)	0.3	(-2.4,3.0)	-0.6	(-3.8,2.6)
One or more child(ren)[2] aged:										
12 to 13	6.0	(4.8,7.5)	7.4	(5.8,9.4)	6.8	(5.2,8.8)	0.7	(-1.5,3.0)	-0.6	(-2.9,1.6)
14 to 18	8.0	(6.4,9.9)	8.4	(6.8,10.2)	8.2	(6.7,10.1)	0.2	(-1.8,2.3)	-0.1	(-2.5,2.3)
12 to 18	7.5	(6.3,8.9)	7.9	(6.6,9.3)	7.7	(6.5,9.2)	0.2	(-1.5,1.9)	-0.2	(-2.0,1.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 6-20. Parents'[1] prior direct involvement by calling radio or TV call-in show to support opinions about drug use, by gender, race/ethnicity, education, and age of child(ren)

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
				Percent saying they called radio or TV call-in show						
Overall	6.3	(5.1,7.6)	7.0	(5.7,8.5)	7.6	(6.0,9.6)	1.4	(-0.5,3.2)	0.7	(-1.3,2.6)
Gender										
Males	6.7	(4.9,9.2)	8.2	(6.2,10.8)	8.0	(5.8,11.0)	1.3	(-1.4,4.0)	-0.2	(-3.3,2.9)
Females	5.9	(4.6,7.6)	6.2	(4.8,7.9)	7.3	(5.6,9.6)	1.4	(-0.7,3.4)	1.2	(-1.0,3.3)
Race/ethnicity										
White	4.7	(3.6,6.1)	5.1	(4.0,6.6)	4.8	(3.6,6.3)	0.1	(-1.3,1.5)	-0.3	(-1.6,0.9)
African American	13.3	(9.5,18.3)	17.2	(12.3,23.4)	14.7	(10.5,20.1)	1.4	(-3.5,6.3)	-2.5	(-9.8,4.8)
Hispanic	7.8	(5.2,11.5)	7.6	(4.6,12.3)	15.4	(10.2,22.5)	7.6	*(0.9,14.2)	7.7	*(1.1,14.4)
Education										
Less than high school	6.5	(4.1,10.1)	8.7	(5.1,14.5)	8.3	(5.2,12.9)	1.8	(-2.9,6.5)	-0.4	(-6.6,5.7)
High school graduate	6.7	(4.8,9.3)	6.1	(4.3,8.5)	9.3	(6.2,13.6)	2.6	(-1.4,6.5)	3.2	(-1.2,7.6)
Some college	8.1	(6.0,10.9)	10.2	(7.2,14.4)	8.6	(5.9,12.3)	0.4	(-3.5,4.4)	-1.7	(-5.3,2.0)
College graduate	3.4	(2.4,5.0)	4.2	(2.6,6.5)	4.4	(2.9,6.8)	1.0	(-1.1,3.0)	0.3	(-2.0,2.6)
One or more child(ren)[2] aged:										
12 to 13	6.3	(5.0,7.9)	6.7	(5.3,8.4)	7.9	(5.6,10.9)	1.6	(-1.2,4.4)	1.2	(-1.6,3.9)
14 to 18	6.0	(4.6,7.8)	7.1	(5.5,9.1)	7.4	(5.6,9.6)	1.4	(-0.7,3.5)	0.3	(-2.1,2.6)
12 to 18	6.3	(5.1,7.6)	7.0	(5.7,8.5)	7.6	(6.0,9.6)	1.4	(-0.5,3.2)	0.7	(-1.3,2.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 6-21. Parents[1] prior direct involvement by attending meeting/rally to support opinions about drug use, by gender, race/ethnicity, education, and age of child(ren)

| | Percent saying they attended meeting/rally in support of position | | | | | | | | | |
| Characteristics | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	27.4	(25.1,29.9)	27.8	(25.1,30.7)	27.3	(24.9,29.9)	0.0	(-2.9,2.8)	-0.5	(-3.7,2.8)
Gender										
Males	25.2	(21.8,28.9)	25.7	(21.8,30.1)	25.8	(22.6,29.2)	0.6	(-3.1,4.3)	0.0	(-4.6,4.7)
Females	28.9	(26.2,31.8)	29.1	(26.1,32.4)	28.5	(25.1,32.1)	-0.4	(-4.4,3.5)	-0.7	(-4.7,3.4)
Race/ethnicity										
White	25.4	(22.9,28.0)	26.1	(22.9,29.5)	24.1	(21.8,26.5)	-1.3	(-4.4,1.8)	-2.0	(-5.2,1.2)
African American	37.9	(32.0,44.2)	44.0	(36.8,51.4)	43.7	(36.6,51.2)	5.8	(-1.8,13.4)	-0.2	(-9.5,9.0)
Hispanic	27.5	(21.5,34.5)	22.4	(16.6,29.6)	27.9	(21.3,35.6)	0.4	(-6.6,7.5)	5.5	(-2.6,13.5)
Education										
Less than high school	24.3	(19.8,29.3)	21.0	(15.9,27.2)	28.3	(21.2,36.7)	4.1	(-3.4,11.5)	7.3	(-2.7,17.3)
High school graduate	22.1	(18.3,26.4)	24.7	(21.6,28.2)	23.4	(19.2,28.2)	1.3	(-5.2,7.8)	-1.4	(-7.5,4.7)
Some college	31.5	(27.7,35.6)	33.5	(29.1,38.1)	29.1	(24.5,34.1)	-2.4	(-7.7,2.8)	-4.4	(-10.3,1.5)
College graduate	30.7	(26.9,34.7)	29.1	(24.5,34.3)	29.2	(25.1,33.6)	-1.5	(-6.3,3.3)	0.1	(-4.7,4.9)
One or more child(ren)[2] aged:										
12 to 13	26.2	(23.2,29.3)	27.8	(24.8,31.0)	25.6	(23.0,28.5)	-0.5	(-4.4,3.3)	-2.2	(-6.2,1.9)
14 to 18	27.8	(25.3,30.5)	28.4	(25.3,31.7)	28.4	(25.1,32.1)	0.6	(-2.9,4.2)	0.0	(-4.0,4.1)
12 to 18	27.4	(25.1,29.9)	27.8	(25.1,30.7)	27.3	(24.9,29.9)	0.0	(-2.9,2.8)	-0.5	(-3.7,2.8)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 6-22. Parents[1] prior direct involvement by joining group actively working on issue to support opinions about drug use, by gender, race/ethnicity, education, and age of child(ren)

| | Percent saying they joined group actively working on issue | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Overall	13.5	(12.0,15.1)	14.0	(12.4,15.6)	14.0	(12.3,16.0)	0.5	(-1.8,2.9)	0.1	(-2.1,2.2)
Gender										
Males	12.5	(10.1,15.3)	14.6	(11.8,17.9)	14.7	(12.3,17.5)	2.3	(-0.8,5.4)	0.1	(-3.4,3.7)
Females	14.2	(12.3,16.4)	13.5	(11.8,15.5)	13.5	(11.4,15.9)	-0.7	(-3.9,2.4)	0.0	(-2.3,2.3)
Race/ethnicity										
White	11.8	(10.1,13.8)	12.5	(10.9,14.4)	11.5	(9.7,13.5)	-0.3	(-2.9,2.3)	-1.1	(-3.3,1.2)
African American	19.9	(15.7,25.0)	24.1	(19.2,29.7)	24.1	(19.3,29.8)	4.2	(-1.8,10.2)	0.1	(-6.4,6.5)
Hispanic	13.0	(9.0,18.6)	12.5	(8.7,17.7)	17.2	(12.5,23.3)	4.2	(-3.0,11.4)	4.7	(-0.8,10.2)
Education										
Less than high school	12.5	(9.1,16.8)	11.6	(8.0,16.7)	16.6	(11.5,23.5)	4.2	(-2.9,11.2)	5.0	(-2.7,12.7)
High school graduate	9.7	(7.7,12.1)	11.0	(8.5,14.0)	12.5	(9.5,16.3)	2.8	(-1.3,7.0)	1.6	(-2.7,5.9)
Some college	13.9	(11.2,17.2)	15.8	(12.6,19.6)	13.7	(10.6,17.5)	-0.2	(-4.3,3.8)	-2.1	(-6.0,1.8)
College graduate	18.5	(15.4,22.0)	17.0	(13.2,21.5)	14.7	(12.0,17.9)	-3.8	(-7.9,0.4)	-2.3	(-6.4,1.9)
One or more child(ren)[2] aged:										
12 to 13	12.0	(10.4,13.8)	12.7	(10.9,14.7)	13.3	(11.1,15.7)	1.2	(-1.5,4.0)	0.5	(-2.2,3.3)
14 to 18	14.2	(12.2,16.4)	14.7	(12.7,16.9)	14.1	(11.9,16.7)	0.0	(-3.1,3.1)	-0.5	(-3.5,2.4)
12 to 18	13.5	(12.0,15.1)	14.0	(12.4,15.6)	14.0	(12.3,16.0)	0.5	(-1.8,2.9)	0.1	(-2.1,2.2)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 6-23. Parents'[1] prior overall direct involvement in activities to support opinions about drug use, by gender, race/ethnicity, education, and age of child(ren)

Characteristics	Summary scale of parent involvement in activities (0-5) (where higher scores represent more types of activities)									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Overall_____	1.46	(1.40,1.51)	1.48	(1.42,1.54)	1.49	(1.43,1.55)	0.03	(-0.04,0.10)	0.01	(-0.07,0.09)
Gender										
Males_____	1.43	(1.34,1.52)	1.50	(1.41,1.60)	1.50	(1.40,1.59)	0.07	(-0.02,0.15)	-0.01	(-0.13,0.12)
Females_____	1.48	(1.41,1.54)	1.47	(1.40,1.53)	1.48	(1.41,1.56)	0.01	(-0.08,0.09)	0.01	(-0.08,0.11)
Race/ethnicity										
White_____	1.41	(1.35,1.46)	1.44	(1.38,1.50)	1.40	(1.35,1.44)	-0.01	(-0.07,0.05)	-0.04	(-0.11,0.02)
African American_____	1.75	(1.62,1.88)	1.86	(1.67,2.05)	1.87	(1.69,2.04)	0.12	(-0.06,0.30)	0.01	(-0.24,0.25)
Hispanic_____	1.40	(1.26,1.55)	1.34	(1.17,1.51)	1.58	(1.38,1.79)	0.18	(-0.03,0.39)	0.24	*(0.02,0.46)
Education										
Less than high school_____	1.36	(1.25,1.48)	1.35	(1.19,1.51)	1.48	(1.27,1.69)	0.12	(-0.10,0.34)	0.13	(-0.14,0.41)
High school graduate_____	1.34	(1.24,1.45)	1.39	(1.32,1.46)	1.43	(1.32,1.53)	0.09	(-0.06,0.24)	0.04	(-0.10,0.18)
Some college_____	1.57	(1.49,1.65)	1.63	(1.53,1.73)	1.54	(1.43,1.64)	-0.03	(-0.15,0.08)	-0.09	(-0.21,0.03)
College graduate_____	1.52	(1.44,1.60)	1.51	(1.40,1.62)	1.50	(1.41,1.60)	-0.02	(-0.12,0.08)	-0.01	(-0.11,0.10)
One or more child(ren)[2] aged:										
12 to 13_____	1.41	(1.35,1.47)	1.46	(1.39,1.52)	1.45	(1.38,1.52)	0.04	(-0.05,0.14)	-0.01	(-0.10,0.08)
14 to 18_____	1.48	(1.42,1.54)	1.51	(1.44,1.58)	1.50	(1.42,1.58)	0.02	(-0.05,0.10)	0.00	(-0.10,0.10)
12 to 18_____	1.46	(1.40,1.51)	1.48	(1.42,1.54)	1.49	(1.43,1.55)	0.03	(-0.04,0.10)	0.01	(-0.07,0.09)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Responses from parents with children in multiple rows are included in each relevant percentage.

Table 6-24. Percent of parents[1] and their children who reported having talked about anti-drug ads[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

	Percent reporting they talked about anti-drug ads with parent/child									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	**51.0**	**(47.8,54.2)**	**54.6**	**(51.3,57.9)**	**55.2**	**(51.5,58.9)**	**4.2**	**(0.0,8.5)**	**0.6**	**(-4.3,5.5)**
	38.7	(36.2,41.4)	36.0	(33.4,38.6)	35.5	(32.2,39.0)	-3.2	(-7.2,0.8)	-0.4	(-4.6,3.7)
14 to 15_____	**51.7**	**(46.8,56.5)**	**49.7**	**(45.9,53.4)**	**52.3**	**(48.4,56.2)**	**0.6**	**(-5.3,6.6)**	**2.7**	**(-2.3,7.6)**
	30.4	(27.1,34.1)	28.0	(24.9,31.3)	27.2	(23.9,30.7)	-3.3	(-7.5,1.0)	-0.8	(-5.6,3.9)
16 to 18_____	**44.4**	**(40.4,48.5)**	**47.7**	**(44.0,51.5)**	**49.9**	**(46.3,53.5)**	**5.5**	***(0.3,10.7)**	**2.2**	**(-2.8,7.1)**
	18.8	(15.8,22.2)	21.2	(18.4,24.4)	22.1	(19.4,25.1)	3.3	(-0.5,7.1)	0.9	(-3.3,5.0)
14 to 18_____	**47.8**	**(44.6,51.0)**	**48.6**	**(45.8,51.5)**	**51.0**	**(48.3,53.6)**	**3.1**	**(-0.1,6.4)**	**2.3**	**(-1.2,5.9)**
	24.1	(22.0,26.3)	24.3	(22.0,26.8)	24.3	(22.0,26.7)	0.2	(-2.5,2.9)	0.0	(-3.4,3.3)
12 to 18_____	**48.8**	**(46.2,51.3)**	**50.4**	**(47.8,52.9)**	**52.2**	**(49.9,54.5)**	**3.5**	***(0.8,6.2)**	**1.8**	**(-1.3,5.0)**
	28.3	(26.6,30.0)	27.7	(25.9,29.6)	27.6	(25.6,29.6)	-0.7	(-2.8,1.4)	-0.1	(-2.7,2.4)

Table 6-24. Percent of parents[1] and their children who reported having talked about anti-drug ads[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent reporting they talked about anti-drug ads with parent/child **Parent perspective** Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
Gender										
Males	**48.9**	**(45.3,52.4)**	**48.7**	**(45.6,51.8)**	**52.9**	**(49.7,56.1)**	**4.1**	***(0.1,8.0)**	**4.2**	***(0.2,8.2)**
	26.9	(24.7,29.3)	25.3	(23.0,27.7)	25.4	(22.8,28.3)	-1.5	(-4.6,1.6)	0.2	(-3.3,3.7)
Females	**48.6**	**(45.1,52.2)**	**52.1**	**(49.1,55.2)**	**51.5**	**(48.6,54.5)**	**2.9**	**(-1.1,6.8)**	**-0.6**	**(-4.7,3.4)**
	29.6	(26.9,32.5)	30.2	(27.6,33.0)	29.7	(26.7,32.8)	0.1	(-3.6,3.8)	-0.5	(-4.2,3.2)
Race/ethnicity										
White	**47.1**	**(44.3,50.0)**	**48.8**	**(45.9,51.7)**	**48.7**	**(45.8,51.6)**	**1.6**	**(-1.7,4.9)**	**-0.1**	**(-3.7,3.5)**
	26.1	(24.1,28.2)	26.6	(24.5,28.8)	26.2	(23.9,28.6)	0.1	(-2.5,2.6)	-0.4	(-3.4,2.6)
African American	**50.8**	**(45.5,56.1)**	**58.0**	**(50.8,64.9)**	**60.9**	**(54.7,66.8)**	**10.1**	***(1.7,18.6)**	**2.9**	**(-6.5,12.4)**
	33.9	(28.9,39.3)	33.9	(28.9,39.4)	35.2	(30.9,39.7)	1.3	(-4.7,7.2)	1.2	(-5.9,8.4)
Hispanic	**54.5**	**(47.4,61.4)**	**50.3**	**(43.4,57.2)**	**59.8**	**(52.2,66.9)**	**5.3**	**(-2.5,13.1)**	**9.5**	***(1.5,17.5)**
	35.4	(31.0,40.1)	26.1	(22.5,30.1)	28.0	(22.9,33.7)	-7.5	*(-13.4,-1.6)	1.8	(-4.7,8.4)
Risk score										
Higher risk	**46.8**	**(43.2,50.4)**	**49.2**	**(45.9,52.5)**	**50.8**	**(47.2,54.5)**	**4.1**	***(0.1,8.1)**	**1.6**	**(-2.7,5.9)**
	19.7	(16.9,22.8)	20.4	(17.5,23.5)	22.4	(19.3,25.9)	2.7	(-1.4,6.9)	2.1	(-2.3,6.4)
Lower risk	**50.5**	**(47.1,53.9)**	**51.0**	**(47.9,54.0)**	**53.2**	**(50.2,56.2)**	**2.7**	**(-1.1,6.5)**	**2.2**	**(-1.6,6.1)**
	34.1	(31.8,36.4)	32.7	(30.4,35.0)	31.6	(29.3,33.9)	-2.5	(-5.3,0.3)	-1.1	(-4.2,2.0)
Sensation seeking										
High	**48.1**	**(44.7,51.5)**	**49.4**	**(46.2,52.6)**	**50.2**	**(46.9,53.4)**	**2.1**	**(-1.4,5.6)**	**0.8**	**(-3.2,4.8)**
	21.3	(19.2,23.6)	21.2	(18.9,23.7)	22.4	(19.7,25.3)	1.0	(-2.0,4.1)	1.1	(-2.2,4.5)
Low	**49.7**	**(46.1,53.3)**	**52.0**	**(48.4,55.6)**	**54.7**	**(51.2,58.1)**	**5.0**	***(0.7,9.3)**	**2.7**	**(-2.3,7.8)**
	37.0	(34.1,40.0)	36.3	(33.7,39.1)	34.0	(31.4,36.8)	-3.0	(-6.5,0.6)	-2.3	(-6.1,1.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table DT 6-25 has been intentionally deleted

Table 6-26. Parents'[1] feelings of self-efficacy to talk with children about drugs[2] if child asked questions about drug use in general, by age of child

	Percent saying they are very sure they could talk to child if…									
	Child asked questions about drug use in general									
Age of child	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	77.9	(74.3,81.2)	77.8	(73.2,81.7)	77.4	(73.9,80.5)	-0.6	(-3.9,2.7)	-0.4	(-3.8,2.9)
14 to 15_____	78.5	(73.2,83.0)	78.4	(73.7,82.6)	77.8	(74.6,80.7)	-0.7	(-5.2,3.9)	-0.6	(-4.9,3.7)
16 to 18_____	76.3	(72.1,80.1)	73.2	(69.4,76.8)	77.1	(73.1,80.6)	0.8	(-4.0,5.6)	3.9	(-0.7,8.5)
14 to 18_____	77.3	(73.3,80.9)	75.6	(72.1,78.8)	77.4	(74.6,80.0)	0.1	(-3.1,3.3)	1.8	(-1.1,4.7)
12 to 18_____	77.5	(73.9,80.8)	76.3	(72.8,79.4)	77.4	(74.7,79.9)	-0.1	(-2.7,2.5)	1.1	(-1.3,3.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]These questions were repeated separately for each sample child.

Table 6-27. Parents'[1] feelings of self-efficacy to talk with children about drugs[2] if child asked specific things to do to avoid drugs, by age of child

	Percent saying they are very sure they could talk to child if…									
	Child asked specific things to do to avoid drugs									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	73.6	(70.5,76.5)	73.2	(68.7,77.2)	76.2	(72.9,79.3)	2.6	(-1.0,6.2)	3.1	(-0.9,7.0)
14 to 15_____	74.9	(69.8,79.3)	73.7	(69.1,77.9)	76.4	(73.0,79.5)	1.5	(-3.4,6.4)	2.7	(-1.8,7.1)
16 to 18_____	71.9	(67.3,76.1)	71.6	(67.9,75.1)	72.3	(68.3,75.9)	0.4	(-4.9,5.6)	0.7	(-3.9,5.2)
14 to 18_____	73.3	(69.3,76.9)	72.6	(69.3,75.7)	74.1	(71.1,76.8)	0.8	(-2.9,4.5)	1.5	(-1.5,4.4)
12 to 18_____	73.4	(69.9,76.6)	72.8	(69.4,75.9)	74.7	(72.2,77.1)	1.3	(-1.7,4.3)	1.9	(-0.6,4.5)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]These questions were repeated separately for each sample child.

Table 6-28. Parents'[1] feelings of self-efficacy to talk with children about drugs[2] if child and parent were having conflicts about other things and relationship was tense, by age of child

Percent saying they are very sure they could talk to child if…

Child and I were having conflicts about other things and relationship was tense

Age of child	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	43.9	(40.7,47.2)	46.0	(41.8,50.3)	46.7	(42.2,51.2)	2.8	(-2.0,7.5)	0.6	(-4.0,5.3)
14 to 15_____	41.0	(37.4,44.8)	44.9	(40.3,49.6)	45.0	(41.2,48.8)	3.9	(-0.5,8.4)	0.1	(-5.7,5.9)
16 to 18_____	39.2	(35.4,43.2)	38.2	(34.1,42.4)	43.0	(38.5,47.6)	3.8	(-1.5,9.0)	4.8	(-0.2,9.8)
14 to 18_____	40.1	(37.1,43.1)	41.3	(37.7,44.9)	43.9	(40.5,47.3)	3.8	*(0.1,7.5)	2.6	(-1.4,6.6)
12 to 18_____	41.2	(38.7,43.7)	42.7	(39.3,46.1)	44.7	(41.7,47.8)	3.5	*(0.5,6.5)	2.0	(-1.4,5.5)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]These questions were repeated separately for each sample child.

Table 6-29. Parents'[1] feelings of self-efficacy to talk with children about drugs[2] if child asked parent about their own past use of drugs, by age of child

Percent saying they are very sure they could talk to child if…

Child asked me about my own past use of drugs

Age of child	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	65.2	(61.7,68.5)	63.2	(59.2,67.1)	65.2	(61.3,68.9)	0.0	(-3.9,3.8)	1.9	(-1.7,5.6)
14 to 15_____	68.6	(64.0,72.8)	66.7	(62.2,71.0)	68.4	(65.1,71.6)	-0.1	(-4.5,4.2)	1.7	(-2.7,6.1)
16 to 18_____	69.0	(65.0,72.7)	64.6	(60.3,68.7)	68.3	(64.5,71.9)	-0.7	(-5.1,3.7)	3.7	(-0.7,8.1)
14 to 18_____	68.8	(65.7,71.7)	65.6	(62.3,68.7)	68.3	(65.8,70.8)	-0.4	(-3.3,2.4)	2.8	(0.0,5.5)
12 to 18_____	67.7	(65.0,70.4)	64.9	(61.8,67.8)	67.4	(65.0,69.7)	-0.3	(-2.5,1.8)	2.5	*(0.1,4.9)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]These questions were repeated separately for each sample child.

Table 6-30. Parents'[1] feelings of self-efficacy to talk with children about drugs[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Parent feelings of self-efficacy to talk with children about drugs (-2 to +2) (where higher scores represent stronger self-efficacy) | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	1.53	(1.49,1.57)	1.53	(1.48,1.59)	1.53	(1.48,1.59)	0.00	(-0.05,0.05)	0.00	(-0.04,0.04)
14 to 15	1.52	(1.47,1.58)	1.55	(1.49,1.60)	1.56	(1.52,1.60)	0.04	(-0.01,0.09)	0.01	(-0.04,0.06)
16 to 18	1.52	(1.47,1.57)	1.48	(1.43,1.52)	1.54	(1.50,1.58)	0.02	(-0.03,0.07)	0.06	*(0.01,0.11)
14 to 18	1.52	(1.48,1.56)	1.51	(1.47,1.55)	1.55	(1.51,1.58)	0.03	(-0.01,0.06)	0.04	*(0.00,0.07)
12 to 18	1.52	(1.49,1.56)	1.52	(1.48,1.56)	1.54	(1.51,1.58)	0.02	(-0.01,0.05)	0.03	(0.00,0.06)
Youth aged 12 to 18										
Gender										
Males	1.51	(1.47,1.55)	1.50	(1.46,1.55)	1.54	(1.49,1.58)	0.03	(-0.01,0.07)	0.04	(-0.01,0.08)
Females	1.54	(1.50,1.58)	1.53	(1.49,1.58)	1.55	(1.51,1.59)	0.01	(-0.03,0.05)	0.02	(-0.02,0.05)
Race/ethnicity										
White	1.53	(1.49,1.57)	1.53	(1.49,1.57)	1.52	(1.49,1.56)	-0.01	(-0.04,0.02)	-0.01	(-0.04,0.03)
African American	1.56	(1.48,1.65)	1.53	(1.41,1.66)	1.61	(1.51,1.72)	0.05	(-0.03,0.13)	0.08	(0.00,0.17)
Hispanic	1.48	(1.42,1.54)	1.45	(1.36,1.53)	1.58	(1.51,1.65)	0.10	*(0.02,0.18)	0.13	*(0.03,0.24)
Risk score										
Higher risk	1.50	(1.45,1.55)	1.49	(1.45,1.53)	1.52	(1.47,1.57)	0.02	(-0.03,0.07)	0.03	(-0.02,0.08)
Lower risk	1.54	(1.50,1.58)	1.55	(1.49,1.60)	1.56	(1.51,1.60)	0.01	(-0.02,0.05)	0.01	(-0.02,0.05)
Sensation seeking										
High	1.51	(1.48,1.54)	1.53	(1.49,1.57)	1.52	(1.48,1.57)	0.01	(-0.03,0.06)	-0.01	(-0.05,0.03)
Low	1.54	(1.48,1.60)	1.51	(1.45,1.57)	1.57	(1.53,1.61)	0.03	(-0.02,0.07)	0.06	*(0.01,0.11)

[1] All parents and caregivers of youth aged 12 to 18 who live with their children.

[2] These questions were repeated separately for each sample child.

Table 6-31. Parents'[1] general attitude toward discussing drugs[2] with children, by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Parents' general attitude toward discussing drugs with children (1 to 7) (where higher scores represent more positive attitudes) | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	6.29	(6.25,6.34)	6.31	(6.26,6.36)	6.29	(6.24,6.34)	0.00	(-0.07,0.06)	-0.02	(-0.09,0.05)
14 to 15	6.20	(6.12,6.28)	6.25	(6.19,6.31)	6.29	(6.22,6.35)	0.09	(-0.01,0.19)	0.04	(-0.05,0.13)
16 to 18	6.03	(5.96,6.10)	6.13	(6.07,6.20)	6.13	(6.06,6.21)	0.10	*(0.01,0.20)	0.00	(-0.09,0.09)
14 to 18	6.11	(6.06,6.16)	6.19	(6.14,6.23)	6.20	(6.15,6.25)	0.09	*(0.02,0.16)	0.02	(-0.05,0.08)
12 to 18	6.16	(6.13,6.20)	6.22	(6.19,6.26)	6.23	(6.18,6.27)	0.06	*(0.01,0.12)	0.00	(-0.05,0.06)
Youth aged 12 to 18										
Gender										
Males	6.15	(6.10,6.20)	6.21	(6.16,6.26)	6.21	(6.15,6.28)	0.06	(0.00,0.13)	0.01	(-0.07,0.08)
Females	6.18	(6.12,6.24)	6.24	(6.18,6.29)	6.24	(6.17,6.31)	0.06	(-0.03,0.15)	0.00	(-0.08,0.09)
Race/ethnicity										
White	6.09	(6.04,6.13)	6.12	(6.08,6.17)	6.13	(6.08,6.17)	0.04	(-0.02,0.10)	0.00	(-0.06,0.06)
African American	6.40	(6.30,6.50)	6.43	(6.32,6.55)	6.38	(6.27,6.50)	-0.01	(-0.12,0.10)	-0.05	(-0.18,0.08)
Hispanic	6.38	(6.27,6.48)	6.46	(6.36,6.55)	6.52	(6.38,6.65)	0.14	(-0.03,0.32)	0.06	(-0.10,0.22)
Risk score										
Higher risk	6.03	(5.97,6.08)	6.13	(6.06,6.19)	6.10	(6.03,6.18)	0.08	(-0.01,0.17)	-0.02	(-0.12,0.07)
Lower risk	6.25	(6.20,6.30)	6.29	(6.25,6.34)	6.30	(6.25,6.35)	0.05	(-0.01,0.11)	0.00	(-0.05,0.06)
Sensation seeking										
High	6.08	(6.03,6.12)	6.16	(6.12,6.21)	6.14	(6.08,6.20)	0.06	(-0.01,0.13)	-0.02	(-0.09,0.05)
Low	6.26	(6.20,6.33)	6.31	(6.26,6.36)	6.33	(6.28,6.38)	0.07	(-0.01,0.14)	0.02	(-0.04,0.08)

[1] All parents and caregivers of youth aged 12 to 18 who live with their children.

[2] These questions were repeated separately for each sample child.

Table 6-32. Parents'[1] perceived social expectations for talking with children about drugs[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent saying that others think parent definitely should talk with children about drugs | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	61.2	(57.7,64.5)	63.9	(61.1,66.7)	64.0	(60.8,67.0)	2.8	(-1.8,7.3)	0.0	(-4.5,4.6)
14 to 15	67.6	(62.9,71.9)	66.0	(61.0,70.6)	62.6	(59.1,66.0)	-4.9	(-10.9,1.0)	-3.4	(-9.6,2.9)
16 to 18	60.4	(56.4,64.3)	62.2	(58.5,65.7)	61.6	(58.2,65.0)	1.2	(-3.1,5.6)	-0.6	(-5.5,4.4)
14 to 18	63.7	(60.4,66.9)	63.9	(60.8,67.0)	62.1	(59.4,64.6)	-1.6	(-5.3,2.0)	-1.9	(-5.9,2.2)
12 to 18	63.0	(60.1,65.7)	63.9	(61.3,66.5)	62.6	(60.5,64.7)	-0.3	(-3.5,2.8)	-1.3	(-4.7,2.0)
Youth aged 12 to 18										
Gender										
Males	63.7	(60.3,67.1)	63.9	(60.6,67.0)	63.4	(60.5,66.3)	-0.3	(-4.2,3.6)	-0.4	(-4.7,3.9)
Females	62.1	(58.3,65.8)	64.0	(60.5,67.4)	61.8	(58.7,64.7)	-0.4	(-4.5,3.8)	-2.3	(-6.7,2.1)
Race/ethnicity										
White	60.3	(57.2,63.3)	62.2	(59.3,65.0)	59.2	(56.5,61.7)	-1.1	(-5.2,3.0)	-3.0	(-6.8,0.7)
African American	72.4	(65.5,78.3)	69.2	(60.7,76.6)	67.3	(61.9,72.3)	-5.0	(-11.2,1.1)	-1.9	(-10.3,6.5)
Hispanic	68.7	(62.6,74.2)	66.2	(60.9,71.2)	73.0	(67.6,77.8)	4.3	(-1.6,10.2)	6.8	(-0.4,14.0)
Risk score										
Higher risk	60.2	(56.2,64.1)	61.8	(57.6,65.8)	59.5	(55.7,63.1)	-0.8	(-5.9,4.4)	-2.3	(-8.2,3.5)
Lower risk	64.6	(61.4,67.7)	66.0	(62.7,69.2)	63.7	(60.9,66.5)	-0.9	(-4.7,3.0)	-2.3	(-6.4,1.8)
Sensation seeking										
High	62.1	(59.0,65.2)	64.4	(61.0,67.7)	61.4	(58.5,64.2)	-0.8	(-4.7,3.1)	-3.1	(-7.6,1.4)
Low	63.5	(58.6,68.2)	63.8	(60.2,67.3)	63.8	(60.8,66.6)	0.2	(-4.8,5.3)	-0.1	(-4.6,4.5)

[1] All parents and caregivers of youth aged 12 to 18 who live with their children.
[2] These questions were repeated separately for each sample child.

Table 6-33. Youth perceptions of difficulty of talking with parents[1] about drugs[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent saying it would be very easy to talk with parents about drugs | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	18.0	(16.1,20.0)	17.3	(15.1,19.8)	17.9	(15.0,21.1)	-0.1	(-3.3,3.2)	0.6	(-2.6,3.7)
14 to 15_____	16.9	(13.8,20.4)	14.3	(12.0,16.9)	16.5	(13.9,19.4)	-0.4	(-3.7,3.0)	2.2	(-1.2,5.6)
16 to 18_____	21.0	(18.1,24.2)	17.8	(15.0,21.0)	22.0	(19.0,25.4)	1.0	(-2.5,4.5)	4.3	*(0.3,8.2)
14 to 18_____	19.1	(16.8,21.7)	16.2	(14.3,18.3)	19.7	(17.5,22.1)	0.5	(-1.8,2.9)	3.5	*(1.0,5.9)
12 to 18_____	18.8	(17.1,20.7)	16.5	(14.9,18.3)	19.2	(17.1,21.4)	0.4	(-1.6,2.3)	2.6	*(0.6,4.7)
Youth aged 12 to 18										
Gender										
Males_____	19.4	(17.0,22.1)	16.0	(14.1,18.2)	20.3	(17.5,23.4)	0.8	(-2.5,4.2)	4.2	*(1.3,7.2)
Females_____	18.2	(16.0,20.5)	17.1	(14.9,19.5)	18.0	(15.3,21.0)	-0.1	(-2.7,2.4)	0.9	(-2.0,3.9)
Race/ethnicity										
White_____	17.6	(15.6,19.9)	14.7	(12.7,16.9)	17.1	(14.8,19.6)	-0.6	(-3.1,2.0)	2.4	(-0.3,5.2)
African American__	24.5	(19.9,29.9)	23.1	(18.8,28.1)	27.8	(21.5,35.1)	3.3	(-3.4,10.0)	4.7	(-1.9,11.3)
Hispanic_____	21.0	(17.2,25.4)	19.1	(15.0,24.1)	20.7	(15.7,26.8)	-0.3	(-6.1,5.5)	1.5	(-3.5,6.6)
Risk score										
Higher risk_____	19.8	(16.5,23.5)	14.6	(12.5,17.0)	19.1	(16.1,22.6)	-0.6	(-4.7,3.5)	4.5	*(1.4,7.6)
Lower risk_____	17.5	(15.3,20.0)	17.6	(15.7,19.6)	18.5	(16.1,21.3)	1.0	(-2.0,4.0)	1.0	(-1.5,3.5)
Sensation seeking										
High_____	15.4	(12.9,18.2)	12.2	(10.4,14.4)	15.0	(12.5,17.9)	-0.4	(-3.3,2.5)	2.8	(-0.2,5.7)
Low_____	22.8	(20.3,25.5)	22.2	(20.1,24.5)	24.3	(21.3,27.7)	1.5	(-2.0,5.1)	2.1	(-1.4,5.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]These questions were repeated separately for each sample child.

Table 6-34. Parent[1] intentions to talk to child about family rules about using drugs[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of parents reporting strong intentions to talk to child about family rules about using drugs | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	54.7	(51.3,58.0)	55.6	(52.8,58.4)	56.9	(53.3,60.3)	2.2	(-2.0,6.3)	1.2	(-2.9,5.4)
14 to 15	54.6	(50.3,58.9)	53.7	(50.1,57.3)	55.0	(51.3,58.7)	0.4	(-4.5,5.2)	1.3	(-2.6,5.2)
16 to 18	44.8	(40.5,49.3)	48.9	(45.0,52.7)	46.9	(42.7,51.1)	2.0	(-3.2,7.3)	-2.0	(-7.0,3.0)
14 to 18	49.4	(46.2,52.5)	51.1	(48.3,53.9)	50.4	(47.4,53.3)	1.0	(-1.9,4.0)	-0.7	(-3.9,2.5)
12 to 18	50.9	(48.3,53.6)	52.4	(50.1,54.8)	52.3	(49.6,55.0)	1.4	(-1.0,3.9)	-0.1	(-2.9,2.7)
Youth aged 12 to 18										
Gender										
Males	52.2	(49.1,55.3)	51.8	(48.7,54.9)	52.7	(49.0,56.4)	0.5	(-3.5,4.5)	0.9	(-3.4,5.3)
Females	49.5	(45.3,53.7)	53.1	(49.8,56.4)	51.9	(48.0,55.7)	2.4	(-1.6,6.4)	-1.2	(-5.1,2.7)
Race/ethnicity										
White	46.7	(43.4,50.0)	48.3	(45.9,50.8)	45.9	(43.4,48.5)	-0.8	(-3.8,2.2)	-2.4	(-5.8,0.9)
African American	59.9	(53.7,65.9)	61.2	(53.1,68.7)	62.5	(54.6,69.7)	2.5	(-3.9,8.9)	1.3	(-5.9,8.5)
Hispanic	61.1	(54.7,67.2)	62.1	(55.6,68.1)	66.9	(59.0,74.0)	5.8	(-1.9,13.4)	4.8	(-3.2,12.9)
Risk score										
Higher risk	49.1	(45.3,52.8)	51.3	(47.7,54.8)	47.2	(43.4,50.9)	-1.9	(-6.5,2.7)	-4.1	(-8.3,0.1)
Lower risk	52.1	(48.7,55.4)	53.8	(50.8,56.8)	55.2	(52.0,58.3)	3.1	(-0.2,6.4)	1.4	(-2.2,4.9)
Sensation seeking										
High	51.0	(48.1,53.9)	51.4	(48.6,54.2)	49.3	(46.5,52.0)	-1.7	(-5.2,1.7)	-2.2	(-5.2,0.8)
Low	50.8	(46.2,55.3)	54.1	(50.8,57.3)	55.9	(52.0,59.7)	5.2	*(0.3,10.0)	1.8	(-2.7,6.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-35. Parent[1] intentions to talk to child about specific things their child can do to stay away from drugs[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of parents reporting strong intentions to talk about specific things their child can do to stay away from drugs | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	51.5	(48.0,54.9)	53.8	(51.2,56.5)	55.9	(52.5,59.3)	4.4	*(0.1,8.7)	2.1	(-2.0,6.2)
14 to 15	50.9	(46.2,55.6)	50.2	(46.5,53.8)	52.1	(48.4,55.9)	1.2	(-3.5,5.9)	2.0	(-3.0,6.9)
16 to 18	37.5	(34.0,41.0)	41.7	(38.4,45.1)	41.2	(37.2,45.3)	3.8	(-0.9,8.4)	-0.5	(-5.2,4.2)
14 to 18	43.7	(40.6,46.8)	45.6	(43.1,48.2)	45.9	(43.1,48.8)	2.3	(-1.0,5.5)	0.3	(-2.8,3.5)
12 to 18	46.0	(43.3,48.7)	48.1	(46.0,50.2)	48.9	(46.5,51.3)	2.9	*(0.2,5.7)	0.9	(-1.8,3.5)
Youth aged 12 to 18										
Gender										
Males	45.5	(42.4,48.6)	46.5	(43.7,49.2)	48.3	(45.0,51.5)	2.8	(-1.1,6.6)	1.8	(-2.0,5.6)
Females	46.4	(42.5,50.4)	49.7	(46.4,53.1)	49.6	(46.1,53.1)	3.1	(-0.9,7.2)	-0.2	(-4.2,3.9)
Race/ethnicity										
White	40.2	(36.9,43.6)	42.2	(40.0,44.5)	41.6	(38.6,44.6)	1.4	(-2.0,4.8)	-0.6	(-4.0,2.8)
African American	56.1	(49.9,62.1)	60.4	(53.6,66.8)	57.3	(50.3,64.0)	1.2	(-5.8,8.1)	-3.1	(-9.9,3.7)
Hispanic	61.9	(56.2,67.2)	59.7	(54.4,64.8)	68.1	(60.8,74.7)	6.3	(-3.2,15.7)	8.4	*(1.5,15.3)
Risk score										
Higher risk	41.1	(37.4,44.9)	42.7	(39.6,46.0)	40.8	(36.8,44.9)	-0.3	(-4.7,4.1)	-2.0	(-6.6,2.6)
Lower risk	49.0	(45.7,52.3)	51.7	(48.8,54.6)	53.6	(50.8,56.4)	4.6	*(0.9,8.2)	1.9	(-1.7,5.5)
Sensation seeking										
High	42.6	(39.5,45.7)	45.3	(42.9,47.7)	44.1	(41.3,46.9)	1.6	(-1.9,5.0)	-1.2	(-4.4,2.0)
Low	49.8	(45.6,54.1)	51.8	(48.6,55.0)	54.8	(51.1,58.5)	5.0	*(0.1,9.9)	3.0	(-0.8,6.8)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-36. Parent[1] intentions to talk to child about drug use in movies, music, and on TV[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

	Percent of parents reporting strong intentions to talk about drug use in movies, music, and on TV									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	38.8	(35.9,41.8)	41.9	(38.6,45.3)	43.0	(39.1,47.0)	4.2	*(0.2,8.2)	1.1	(-3.1,5.3)
14 to 15_____	38.0	(33.7,42.5)	35.5	(32.1,39.0)	37.9	(34.8,41.1)	-0.2	(-5.0,4.7)	2.4	(-1.8,6.6)
16 to 18_____	24.7	(21.5,28.3)	30.4	(27.1,34.0)	27.3	(24.2,30.6)	2.6	(-1.9,7.0)	-3.1	(-7.3,1.0)
14 to 18_____	30.8	(27.9,34.0)	32.8	(30.2,35.4)	31.9	(29.5,34.3)	1.0	(-2.1,4.2)	-0.9	(-3.7,1.9)
12 to 18_____	33.2	(30.8,35.7)	35.5	(33.1,37.9)	35.2	(33.0,37.5)	2.0	(-0.6,4.6)	-0.3	(-2.7,2.1)
Youth aged 12 to 18										
Gender										
Males_____	32.1	(29.4,35.0)	34.6	(31.5,37.8)	34.9	(31.7,38.3)	2.8	(-1.1,6.8)	0.3	(-3.4,4.0)
Females_____	34.3	(30.8,38.0)	36.4	(33.3,39.6)	35.5	(32.4,38.6)	1.1	(-2.8,5.1)	-0.9	(-4.2,2.5)
Race/ethnicity										
White_____	29.0	(26.1,32.1)	30.6	(28.3,33.1)	29.2	(26.8,31.7)	0.2	(-2.8,3.3)	-1.4	(-4.2,1.4)
African American__	38.2	(31.9,45.0)	47.8	(39.9,55.9)	40.9	(34.2,48.0)	2.7	(-5.4,10.7)	-6.9	(-15.4,1.6)
Hispanic_____	44.6	(39.3,49.9)	43.1	(37.0,49.4)	53.2	(46.0,60.3)	8.7	*(1.7,15.6)	10.1	*(1.7,18.5)
Risk score										
Higher risk_____	26.9	(24.0,30.1)	28.2	(24.7,32.0)	28.4	(25.3,31.7)	1.5	(-2.8,5.7)	0.2	(-4.2,4.6)
Lower risk_____	37.2	(34.0,40.5)	40.4	(37.2,43.7)	39.9	(36.7,43.1)	2.7	(-1.4,6.7)	-0.5	(-4.2,3.1)
Sensation seeking										
High_____	30.6	(28.0,33.4)	32.6	(29.8,35.6)	32.5	(29.8,35.3)	1.8	(-1.6,5.3)	-0.1	(-3.4,3.2)
Low_____	36.4	(32.5,40.4)	39.3	(35.7,43.1)	38.3	(34.9,41.8)	1.9	(-2.7,6.5)	-1.0	(-5.0,3.0)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-37. Parent[1] intentions to talk to child about people they know who have gotten into trouble with drugs[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of parents reporting they are very likely to talk about people they know who have gotten into trouble with drugs | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	41.6	(38.6,44.6)	43.3	(39.8,46.9)	41.7	(37.7,45.9)	0.1	(-4.1,4.4)	-1.6	(-5.9,2.7)
14 to 15	45.9	(40.9,51.0)	41.7	(37.5,45.9)	44.3	(40.7,47.9)	-1.6	(-6.7,3.5)	2.6	(-2.2,7.4)
16 to 18	37.6	(33.8,41.6)	43.1	(38.9,47.4)	39.4	(35.3,43.8)	1.8	(-4.3,8.0)	-3.7	(-9.1,1.8)
14 to 18	41.4	(37.9,45.0)	42.4	(39.0,45.9)	41.5	(38.3,44.9)	0.1	(-4.3,4.6)	-0.9	(-5.2,3.4)
12 to 18	41.5	(38.5,44.5)	42.7	(39.6,45.8)	41.6	(38.9,44.3)	0.1	(-3.2,3.5)	-1.1	(-4.4,2.2)
Youth aged 12 to 18										
Gender										
Males	40.9	(37.7,44.1)	42.1	(38.2,46.1)	40.1	(36.8,43.5)	-0.8	(-4.9,3.4)	-2.0	(-6.7,2.6)
Females	42.1	(38.3,46.0)	43.3	(39.4,47.3)	43.2	(39.7,46.8)	1.0	(-3.7,5.8)	-0.1	(-4.5,4.3)
Race/ethnicity										
White	40.4	(37.0,44.0)	42.2	(39.0,45.5)	40.0	(37.0,43.1)	-0.4	(-4.2,3.3)	-2.2	(-6.2,1.8)
African American	45.5	(39.1,52.1)	48.2	(39.2,57.3)	45.2	(37.9,52.7)	-0.3	(-8.0,7.4)	-3.0	(-10.3,4.2)
Hispanic	43.4	(37.1,50.0)	39.2	(33.8,44.8)	43.1	(37.0,49.3)	-0.3	(-7.0,6.3)	3.9	(-4.1,11.9)
Risk score										
Higher risk	41.7	(37.8,45.7)	45.2	(41.1,49.3)	41.3	(37.4,45.3)	-0.4	(-5.9,5.1)	-3.9	(-9.3,1.6)
Lower risk	41.1	(37.8,44.6)	41.5	(38.0,45.0)	41.5	(38.3,44.8)	0.4	(-3.4,4.2)	0.1	(-3.5,3.7)
Sensation seeking										
High	42.2	(39.4,45.0)	41.6	(38.3,45.0)	39.7	(36.8,42.7)	-2.5	(-6.0,1.1)	-1.9	(-5.8,2.0)
Low	40.8	(36.4,45.4)	43.9	(39.5,48.3)	43.9	(39.8,48.1)	3.1	(-2.5,8.7)	0.0	(-5.1,5.2)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-38. Summary scale of parent[1] intentions to talk to child about drugs[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

	Summary scale of intentions to talk about drugs									
	Parents reporting they are very likely to talk (-2 to +2) (where higher scores represent stronger intentions to talk)									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	1.15	(1.09,1.20)	1.17	(1.11,1.22)	1.19	(1.13,1.26)	0.05	(-0.01,0.11)	0.03	(-0.03,0.09)
14 to 15	1.17	(1.10,1.24)	1.13	(1.07,1.19)	1.16	(1.09,1.22)	-0.01	(-0.09,0.06)	0.03	(-0.04,0.11)
16 to 18	0.90	(0.83,0.97)	1.01	(0.95,1.08)	1.00	(0.93,1.06)	0.10	*(0.00,0.20)	-0.02	(-0.10,0.07)
14 to 18	1.03	(0.98,1.08)	1.07	(1.02,1.12)	1.07	(1.02,1.12)	0.04	(-0.02,0.10)	0.00	(-0.06,0.06)
12 to 18	1.06	(1.02,1.10)	1.10	(1.05,1.14)	1.11	(1.06,1.15)	0.04	*(0.00,0.09)	0.01	(-0.04,0.05)
Youth aged 12 to 18										
Gender										
Males	1.06	(1.01,1.11)	1.11	(1.05,1.16)	1.10	(1.04,1.15)	0.03	(-0.03,0.10)	-0.01	(-0.08,0.05)
Females	1.06	(0.99,1.12)	1.09	(1.02,1.15)	1.12	(1.06,1.17)	0.06	(-0.01,0.13)	0.03	(-0.03,0.10)
Race/ethnicity										
White	1.02	(0.97,1.07)	1.08	(1.04,1.12)	1.03	(0.98,1.08)	0.01	(-0.04,0.07)	-0.05	(-0.10,0.01)
African American	1.20	(1.12,1.28)	1.21	(1.07,1.34)	1.23	(1.11,1.35)	0.03	(-0.08,0.13)	0.03	(-0.09,0.14)
Hispanic	1.16	(1.05,1.26)	1.06	(0.94,1.19)	1.28	(1.18,1.38)	0.12	(0.00,0.24)	0.21	*(0.09,0.34)
Risk score										
Higher risk	1.00	(0.95,1.06)	1.04	(0.98,1.11)	1.02	(0.95,1.08)	0.01	(-0.07,0.09)	-0.03	(-0.11,0.05)
Lower risk	1.09	(1.04,1.15)	1.13	(1.08,1.19)	1.16	(1.10,1.21)	0.06	*(0.01,0.12)	0.03	(-0.02,0.07)
Sensation seeking										
High	1.06	(1.02,1.10)	1.06	(1.01,1.11)	1.06	(1.01,1.10)	0.00	(-0.05,0.04)	-0.01	(-0.07,0.05)
Low	1.06	(0.98,1.13)	1.14	(1.08,1.20)	1.16	(1.10,1.23)	0.11	*(0.03,0.19)	0.03	(-0.04,0.09)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-39. Specific belief that parental[1] monitoring[2] will make it more likely that their child will do well in school, by youth age, gender, race/ethnicity, risk score, and sensation seeking

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
Youth aged 12 to 18										
12 to 13	62.1	(59.5,64.7)	65.5	(62.5,68.4)	65.2	(61.6,68.6)	3.1	(-1.1,7.2)	-0.3	(-5.1,4.4)
14 to 15	56.2	(52.2,60.1)	55.0	(51.4,58.7)	55.8	(52.0,59.5)	-0.4	(-5.9,5.1)	0.7	(-3.9,5.3)
16 to 18	44.3	(40.5,48.0)	46.8	(43.2,50.4)	47.3	(43.4,51.1)	3.0	(-1.3,7.3)	0.5	(-4.5,5.4)
14 to 18	49.8	(46.8,52.8)	50.6	(47.9,53.3)	51.0	(48.0,54.0)	1.2	(-2.5,4.9)	0.4	(-2.9,3.6)
12 to 18	53.4	(51.1,55.7)	55.0	(52.8,57.2)	55.2	(52.8,57.7)	1.8	(-1.1,4.7)	0.2	(-2.5,3.0)
Youth aged 12 to 18										
Gender										
Males	52.5	(49.2,55.9)	53.9	(50.7,57.1)	53.3	(49.7,56.8)	0.7	(-3.7,5.1)	-0.6	(-4.6,3.4)
Females	54.4	(51.4,57.3)	56.2	(53.0,59.3)	57.3	(54.2,60.4)	2.9	(-1.0,6.9)	1.1	(-3.1,5.4)
Race/ethnicity										
White	54.3	(51.3,57.2)	55.3	(52.8,57.9)	54.6	(51.5,57.6)	0.3	(-3.0,3.7)	-0.7	(-3.8,2.3)
African American	50.7	(43.8,57.5)	56.1	(50.8,61.4)	49.4	(42.5,56.3)	-1.3	(-11.8,9.3)	-6.7	(-16.3,2.9)
Hispanic	52.6	(45.9,59.2)	51.7	(46.3,57.1)	62.2	(56.6,67.5)	9.6	*(2.5,16.7)	10.5	*(3.8,17.1)
Risk score										
Higher risk	43.5	(39.2,47.8)	44.6	(41.1,48.2)	44.7	(40.5,48.9)	1.2	(-3.2,5.6)	0.1	(-4.9,5.0)
Lower risk	59.9	(57.2,62.5)	62.2	(59.5,64.7)	62.5	(59.7,65.1)	2.6	(-1.0,6.1)	0.3	(-3.0,3.6)
Sensation seeking										
High	51.8	(48.5,55.2)	52.5	(49.5,55.4)	52.2	(48.9,55.5)	0.4	(-4.1,4.8)	-0.3	(-4.0,3.5)
Low	55.0	(51.7,58.1)	58.8	(55.9,61.6)	58.7	(55.0,62.4)	3.8	(-0.8,8.4)	0.0	(-4.5,4.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-40. Specific belief that parental[1] monitoring[2] will make parent feel that they are doing their job as a parent, by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of parents holding strong belief that parental monitoring will make them feel they are doing their job as a parent | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	56.5	(53.9,59.2)	58.3	(55.7,60.9)	61.8	(58.6,64.8)	5.2	*(0.8,9.6)	3.4	(-0.6,7.4)
14 to 15	51.5	(47.7,55.3)	53.1	(49.1,57.1)	53.3	(49.5,57.0)	1.8	(-3.6,7.2)	0.2	(-4.5,4.8)
16 to 18	43.2	(39.6,46.9)	44.0	(40.1,48.0)	49.2	(45.1,53.2)	5.9	*(1.6,10.3)	5.1	(-0.1,10.3)
14 to 18	47.0	(44.7,49.4)	48.2	(45.1,51.4)	50.9	(48.0,53.9)	3.9	*(0.8,7.0)	2.7	(-1.2,6.6)
12 to 18	49.8	(47.9,51.7)	51.2	(48.8,53.7)	54.2	(51.9,56.4)	4.3	*(1.8,6.9)	2.9	(-0.2,6.0)
Youth aged 12 to 18										
Gender										
Males	49.0	(45.9,52.0)	48.8	(46.0,51.6)	52.4	(49.2,55.6)	3.5	(-0.5,7.4)	3.6	(-0.2,7.4)
Females	50.7	(48.0,53.5)	53.8	(50.0,57.5)	56.0	(52.8,59.1)	5.2	*(1.2,9.3)	2.2	(-2.3,6.7)
Race/ethnicity										
White	48.6	(46.3,50.9)	48.9	(46.0,51.7)	51.5	(48.6,54.4)	2.9	(-0.4,6.1)	2.6	(-1.2,6.5)
African American	53.0	(47.5,58.4)	57.8	(52.1,63.2)	54.4	(48.4,60.4)	1.4	(-6.2,9.0)	-3.3	(-10.6,4.0)
Hispanic	52.3	(46.2,58.4)	52.8	(47.6,58.0)	64.6	(59.4,69.5)	12.3	*(7.2,17.4)	11.8	*(6.1,17.5)
Risk score										
Higher risk	43.6	(40.1,47.2)	43.9	(40.0,47.8)	47.4	(43.4,51.4)	3.8	(-0.7,8.3)	3.5	(-2.3,9.4)
Lower risk	54.1	(51.2,56.9)	56.1	(53.2,59.0)	58.6	(55.7,61.4)	4.5	*(0.8,8.2)	2.5	(-1.0,5.9)
Sensation seeking										
High	48.2	(45.3,51.2)	49.1	(45.8,52.4)	50.7	(47.6,53.9)	2.5	(-1.5,6.5)	1.6	(-2.6,5.8)
Low	51.8	(49.2,54.3)	53.9	(50.8,57.0)	58.0	(54.3,61.6)	6.3	*(1.8,10.7)	4.1	(-0.5,8.7)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-41. Specific belief that parental[1] monitoring[2] will make it less likely that their child will try any drug, even once or twice, by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of parents holding strong belief that parental monitoring will make it less likely that their child will try any drug, even once or twice | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	48.8	(45.8,51.8)	53.4	(50.2,56.6)	54.7	(51.3,58.0)	5.9	*(1.2,10.7)	1.3	(-3.6,6.2)
14 to 15_____	41.6	(37.7,45.6)	43.9	(40.3,47.6)	43.6	(40.0,47.3)	2.0	(-2.9,6.9)	-0.3	(-5.6,4.9)
16 to 18_____	34.2	(30.9,37.6)	35.0	(31.9,38.2)	41.4	(37.3,45.7)	7.2	*(2.2,12.2)	6.4	*(0.9,11.9)
14 to 18_____	37.6	(35.2,40.1)	39.1	(36.7,41.6)	42.4	(39.4,45.4)	4.7	*(1.1,8.4)	3.2	(-0.8,7.2)
12 to 18_____	40.9	(38.9,42.9)	43.4	(41.3,45.4)	46.0	(43.6,48.5)	5.1	*(2.2,8.1)	2.7	(-0.9,6.3)
Youth aged 12 to 18										
Gender										
Males_____	39.1	(36.3,42.0)	41.3	(38.4,44.2)	43.9	(40.3,47.5)	4.8	*(0.8,8.8)	2.6	(-2.2,7.4)
Females_____	42.8	(39.8,45.8)	45.5	(42.7,48.4)	48.3	(45.3,51.3)	5.5	*(1.5,9.5)	2.8	(-1.5,7.0)
Race/ethnicity										
White_____	42.0	(39.7,44.3)	44.4	(42.2,46.5)	46.9	(44.3,49.4)	4.9	*(1.6,8.1)	2.5	(-0.7,5.6)
African American__	42.3	(36.2,48.6)	42.2	(36.2,48.5)	41.4	(34.8,48.4)	-0.8	(-10.1,8.5)	-0.8	(-12.1,10.5)
Hispanic_____	35.5	(29.4,42.1)	39.9	(34.3,45.9)	44.5	(37.9,51.2)	9.0	*(1.0,16.9)	4.5	(-5.4,14.4)
Risk score										
Higher risk_____	32.8	(29.8,35.9)	32.5	(29.6,35.5)	36.1	(32.0,40.4)	3.3	(-1.8,8.4)	3.6	(-1.8,9.0)
Lower risk_____	46.2	(43.5,48.9)	50.5	(47.6,53.4)	53.8	(50.8,56.7)	7.6	*(3.8,11.4)	3.3	(-0.8,7.4)
Sensation seeking										
High_____	37.7	(35.1,40.3)	39.9	(37.5,42.3)	41.8	(38.2,45.4)	4.1	(-0.2,8.3)	1.9	(-2.5,6.3)
Low_____	44.9	(41.8,47.9)	47.6	(44.2,51.0)	52.0	(48.6,55.4)	7.1	*(2.5,11.8)	4.4	(-0.8,9.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-42. Specific belief that parental[1] monitoring[2] will make it less likely their child will use any drug nearly every month, by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Percent of parents holding strong belief that parental monitoring will make it less likely their child will use any drug nearly every month | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	53.3	(50.7,55.8)	57.1	(54.1,60.0)	58.3	(54.2,62.3)	5.0	*(0.1,9.9)	1.2	(-4.1,6.6)
14 to 15_____	47.6	(43.6,51.6)	48.7	(45.1,52.4)	49.1	(44.9,53.2)	1.5	(-4.4,7.4)	0.3	(-5.6,6.3)
16 to 18_____	37.6	(34.4,41.0)	38.2	(35.2,41.4)	43.7	(39.9,47.6)	6.1	*(1.6,10.5)	5.4	(-0.1,11.0)
14 to 18_____	42.2	(39.9,44.6)	43.1	(40.7,45.6)	46.0	(42.9,49.2)	3.8	(-0.1,7.7)	2.9	(-1.2,7.0)
12 to 18_____	45.5	(43.4,47.5)	47.2	(45.2,49.2)	49.6	(46.8,52.4)	4.1	*(0.9,7.3)	2.4	(-1.2,6.0)
Youth aged 12 to 18										
Gender										
Males_____	44.3	(41.3,47.4)	45.7	(43.0,48.5)	46.7	(42.9,50.7)	2.4	(-2.1,6.9)	1.0	(-3.9,5.9)
Females_____	46.7	(43.9,49.5)	48.7	(45.8,51.7)	52.6	(49.3,55.9)	5.9	*(1.7,10.1)	3.9	(-0.5,8.2)
Race/ethnicity										
White_____	47.8	(45.5,50.0)	50.6	(48.4,52.7)	52.2	(49.3,55.1)	4.4	*(0.7,8.1)	1.6	(-1.9,5.1)
African American__	42.8	(37.1,48.7)	40.2	(35.1,45.5)	42.2	(35.7,49.0)	-0.6	(-8.7,7.5)	2.0	(-7.2,11.2)
Hispanic_____	38.3	(32.5,44.6)	40.1	(34.7,45.7)	44.5	(38.0,51.3)	6.2	(-1.8,14.1)	4.5	(-4.5,13.4)
Risk score										
Higher risk_____	37.0	(33.8,40.3)	36.9	(33.7,40.2)	39.1	(35.3,43.1)	2.1	(-3.0,7.2)	2.2	(-3.0,7.3)
Lower risk_____	50.8	(48.0,53.6)	54.0	(51.5,56.5)	57.4	(54.2,60.5)	6.6	*(3.0,10.2)	3.4	(-0.6,7.3)
Sensation seeking										
High_____	42.4	(40.1,44.8)	43.7	(41.1,46.4)	44.9	(41.3,48.6)	2.5	(-1.8,6.8)	1.2	(-3.2,5.6)
Low_____	48.9	(46.0,51.8)	51.6	(48.3,54.8)	55.8	(52.0,59.5)	6.9	*(2.3,11.5)	4.2	(-1.1,9.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-43. Specific belief that parental[1] monitoring[2] will make their child feel they are invading his/her privacy, by youth age, gender, race/ethnicity, risk score, and sensation seeking

Characteristics	Average for Waves 1 and 2 (Year 2000) %	95% CI	Average for Waves 3 and 4 (Year 2001) %	95% CI	Wave 5 (Jan 2002-June 2002) %	95% CI	Change from Waves 1 and 2 (2000) to Wave 5 Est	95% CI	Change from Waves 3 and 4 (2001) to Wave 5 Est	95% CI
Youth aged 12 to 18										
12 to 13	18.7	(16.4,21.2)	18.3	(16.2,20.5)	20.1	(17.5,22.8)	1.4	(-1.3,4.1)	1.8	(-1.3,4.9)
14 to 15	14.7	(12.0,18.1)	14.8	(12.3,17.6)	16.6	(14.1,19.5)	1.9	(-1.8,5.5)	1.8	(-2.3,6.0)
16 to 18	14.2	(11.5,17.4)	10.5	(8.3,13.2)	14.7	(11.7,18.4)	0.5	(-3.8,4.9)	4.3	*(1.1,7.4)
14 to 18	14.5	(12.5,16.6)	12.5	(10.8,14.4)	15.6	(13.4,18.0)	1.1	(-1.7,3.9)	3.1	*(0.7,5.5)
12 to 18	15.7	(14.1,17.5)	14.2	(12.8,15.7)	16.9	(15.2,18.8)	1.2	(-1.0,3.4)	2.7	*(0.8,4.6)
Youth aged 12 to 18										
Gender										
Males	14.8	(12.9,17.0)	13.7	(11.8,15.8)	15.7	(13.6,18.0)	0.8	(-2.0,3.7)	2.0	(-0.7,4.7)
Females	16.6	(14.5,18.9)	14.7	(12.6,17.1)	18.2	(15.8,20.9)	1.6	(-1.4,4.6)	3.5	*(0.5,6.4)
Race/ethnicity										
White	12.6	(11.3,14.1)	11.7	(10.1,13.5)	13.5	(11.8,15.4)	0.9	(-1.4,3.1)	1.8	(-0.2,3.9)
African American	20.1	(15.9,25.1)	20.3	(16.0,25.5)	23.4	(18.1,29.6)	3.2	(-2.8,9.3)	3.0	(-3.1,9.2)
Hispanic	22.6	(16.6,30.0)	19.0	(13.6,25.9)	24.5	(19.4,30.4)	1.9	(-6.0,9.8)	5.5	(-3.2,14.3)
Risk score										
Higher risk	13.0	(10.5,16.1)	10.0	(8.0,12.5)	13.0	(10.4,16.2)	0.0	(-3.5,3.4)	3.0	*(0.0,5.9)
Lower risk	17.2	(15.0,19.5)	16.9	(14.8,19.1)	18.6	(16.5,20.7)	1.4	(-1.4,4.1)	1.7	(-0.9,4.3)
Sensation seeking										
High	13.1	(11.3,15.2)	13.3	(11.3,15.6)	14.1	(12.1,16.3)	1.0	(-1.8,3.7)	0.8	(-1.9,3.5)
Low	18.3	(16.0,20.8)	15.5	(13.6,17.6)	20.0	(17.3,23.0)	1.7	(-2.0,5.5)	4.5	*(1.5,7.6)

Percent of parents holding strong belief that parental monitoring will make their child feel they are invading his/her privacy (disagree)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-44. Summary scale of specific beliefs about effectiveness of parental[1] monitoring[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Summary scale of specific beliefs about effectiveness of parental monitoring (-2 to +2) (where higher scores represent stronger promonitoring beliefs) | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	1.14	(1.11,1.17)	1.16	(1.13,1.19)	1.18	(1.13,1.22)	0.04	(-0.02,0.09)	0.02	(-0.04,0.07)
14 to 15_____	1.04	(0.99,1.08)	1.01	(0.95,1.08)	1.03	(0.99,1.08)	0.00	(-0.06,0.06)	0.02	(-0.05,0.09)
16 to 18_____	0.89	(0.84,0.94)	0.90	(0.85,0.94)	0.97	(0.92,1.03)	0.08	*(0.02,0.15)	0.07	*(0.02,0.13)
14 to 18_____	0.96	(0.92,0.99)	0.95	(0.91,0.99)	1.00	(0.96,1.04)	0.04	(0.00,0.09)	0.05	*(0.00,0.09)
12 to 18_____	1.01	(0.98,1.04)	1.01	(0.98,1.05)	1.05	(1.02,1.09)	0.04	*(0.01,0.08)	0.04	*(0.00,0.07)
Youth aged 12 to 18										
Gender										
Males_____	0.99	(0.95,1.03)	0.98	(0.94,1.03)	1.03	(0.98,1.07)	0.04	(-0.02,0.09)	0.04	(-0.01,0.09)
Females_____	1.03	(1.00,1.07)	1.05	(1.00,1.09)	1.08	(1.04,1.13)	0.05	(0.00,0.10)	0.04	(-0.02,0.09)
Race/ethnicity										
White_____	1.03	(1.00,1.06)	1.03	(1.00,1.07)	1.05	(1.01,1.09)	0.02	(-0.02,0.06)	0.02	(-0.02,0.06)
African American__	1.01	(0.92,1.09)	1.06	(0.99,1.12)	1.06	(0.96,1.17)	0.06	(-0.04,0.16)	0.01	(-0.09,0.10)
Hispanic_____	0.92	(0.84,0.99)	0.88	(0.79,0.98)	1.02	(0.95,1.09)	0.11	*(0.02,0.20)	0.14	*(0.03,0.25)
Risk score										
Higher risk_____	0.86	(0.80,0.91)	0.85	(0.80,0.90)	0.90	(0.84,0.96)	0.05	(-0.03,0.12)	0.05	(-0.01,0.12)
Lower risk_____	1.11	(1.08,1.14)	1.12	(1.09,1.16)	1.15	(1.12,1.19)	0.04	*(0.00,0.08)	0.03	(-0.01,0.07)
Sensation seeking										
High_____	0.96	(0.92,0.99)	0.95	(0.91,1.00)	0.98	(0.94,1.03)	0.03	(-0.03,0.08)	0.03	(-0.02,0.08)
Low_____	1.07	(1.03,1.11)	1.09	(1.06,1.13)	1.14	(1.09,1.18)	0.07	*(0.02,0.12)	0.04	(-0.01,0.09)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-45. Specific intention to perform parental[1] monitoring[2] by requiring child to be home at specific time at night, by age of child

| | Percent of parents reporting strong intentions to require child to be home at specific time at night | | | | | | | | | |
| Age of child | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	87.1	(84.9,89.0)	88.2	(86.3,89.9)	90.3	(88.4,92.0)	3.2	*(0.8,5.6)	2.1	(-0.4,4.6)
14 to 15_____	84.1	(80.9,86.9)	87.5	(84.6,90.0)	84.3	(81.0,87.1)	0.2	(-4.3,4.6)	-3.2	(-6.7,0.3)
16 to 18_____	70.7	(66.6,74.5)	70.7	(66.2,74.7)	71.0	(66.9,74.7)	0.3	(-5.0,5.6)	0.3	(-4.9,5.5)
14 to 18_____	76.9	(74.0,79.6)	78.5	(75.5,81.2)	76.8	(74.1,79.2)	-0.2	(-3.8,3.5)	-1.7	(-5.2,1.8)
12 to 18_____	79.9	(77.6,82.1)	81.4	(79.1,83.5)	80.8	(78.7,82.8)	0.9	(-1.9,3.6)	-0.6	(-3.2,2.1)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]These questions were repeated separately for each sample child.

Table 6-46. Specific intention to perform parental[1] monitoring[2] by limiting the time child spends with other children without adult supervision, by age of child

	Percent of parents reporting strong intentions to limit the time child spends with other children without adult supervision									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	58.8	(55.4,62.0)	59.9	(56.7,62.9)	64.5	(61.5,67.3)	5.7	*(1.4,10.0)	4.6	*(0.5,8.7)
14 to 15_____	49.3	(45.3,53.3)	49.6	(46.6,52.7)	52.9	(49.1,56.8)	3.7	(-2.0,9.3)	3.3	(-1.7,8.3)
16 to 18_____	25.2	(21.8,28.8)	30.0	(26.4,33.8)	31.4	(27.8,35.3)	6.2	*(1.8,10.7)	1.4	(-3.8,6.7)
14 to 18_____	36.3	(33.7,39.0)	39.1	(36.7,41.6)	40.7	(38.0,43.5)	4.4	*(1.0,7.9)	1.6	(-1.8,5.1)
12 to 18_____	42.9	(40.7,45.2)	45.2	(43.3,47.2)	47.8	(45.6,50.0)	4.9	*(2.0,7.7)	2.6	(-0.2,5.3)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-47. Specific intention to perform parental[1] monitoring[2] by knowing what child is doing when he or she is away from home, by age of child

Age of child	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13_____	66.7	(64.0,69.2)	71.5	(68.6,74.3)	72.3	(69.1,75.2)	5.6	*(1.3,9.9)	0.7	(-3.4,4.8)
14 to 15_____	63.2	(59.8,66.6)	64.3	(60.6,67.8)	65.6	(61.8,69.2)	2.3	(-2.2,6.9)	1.3	(-3.2,5.9)
16 to 18_____	49.2	(45.4,53.0)	48.1	(44.6,51.7)	48.9	(44.6,53.2)	-0.3	(-5.1,4.4)	0.7	(-4.8,6.3)
14 to 18_____	55.7	(53.0,58.4)	55.6	(52.7,58.5)	56.1	(53.0,59.2)	0.4	(-2.9,3.7)	0.5	(-3.5,4.5)
12 to 18_____	58.9	(56.9,61.0)	60.3	(58.2,62.4)	60.9	(58.4,63.4)	2.0	(-0.7,4.7)	0.6	(-2.6,3.8)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.
[2]These questions were repeated separately for each sample child.

Table 6-48. Specific intention to perform parental[1] monitoring[2] by personally knowing child's friends well, by age of child

| | Percent of parents reporting strong intentions to personally know child's friends well | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13	58.2	(55.6,60.7)	59.1	(56.3,61.9)	58.7	(55.1,62.2)	0.6	(-3.9,5.0)	-0.4	(-4.9,4.1)
14 to 15	55.2	(51.1,59.1)	52.7	(48.9,56.4)	53.7	(49.5,57.8)	-1.5	(-6.8,3.8)	1.0	(-4.4,6.4)
16 to 18	46.2	(41.9,50.6)	43.6	(39.7,47.5)	44.0	(39.6,48.6)	-2.2	(-7.6,3.2)	0.5	(-5.3,6.3)
14 to 18	50.4	(47.2,53.5)	47.8	(44.9,50.6)	48.2	(45.0,51.4)	-2.2	(-6.0,1.7)	0.4	(-3.6,4.5)
12 to 18	52.7	(50.4,54.9)	51.1	(48.8,53.5)	51.3	(48.8,53.9)	-1.3	(-4.4,1.7)	0.2	(-3.1,3.5)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-49. Specific intention to perform parental[1] monitoring[2] by knowing what child's plans are for the coming day, by age of child

| | Percent of parents reporting strong intentions to know what child's plans are for the coming day | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Age of child	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
12 to 13	61.3	(58.3,64.1)	64.4	(61.5,67.2)	64.7	(61.2,68.0)	3.4	(-1.2,8.0)	0.3	(-3.4,4.0)
14 to 15	54.7	(50.5,58.9)	55.6	(51.7,59.5)	58.0	(54.9,61.1)	3.3	(-2.0,8.6)	2.4	(-2.3,7.1)
16 to 18	44.3	(40.2,48.5)	43.5	(39.5,47.6)	42.1	(37.7,46.7)	-2.2	(-8.0,3.6)	-1.3	(-6.7,4.1)
14 to 18	49.1	(45.7,52.6)	49.1	(46.4,51.8)	49.0	(46.0,52.1)	-0.1	(-4.7,4.5)	-0.1	(-3.6,3.4)
12 to 18	52.7	(50.0,55.4)	53.6	(51.5,55.8)	53.7	(51.3,56.1)	1.0	(-2.6,4.5)	0.1	(-2.8,2.9)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-50. Summary scale of specific intentions to perform parental[1] monitoring[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

	Summary scale of parents reporting strong intentions to perform parental monitoring									
	(-2 to +2)									
	(where higher scores represent stronger promonitoring intentions)									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	1.53	(1.50,1.55)	1.55	(1.52,1.58)	1.58	(1.54,1.61)	0.05	*(0.01,0.09)	0.03	(-0.01,0.07)
14 to 15_____	1.41	(1.36,1.46)	1.45	(1.41,1.49)	1.48	(1.44,1.51)	0.06	*(0.00,0.13)	0.02	(-0.03,0.08)
16 to 18_____	1.08	(1.03,1.13)	1.11	(1.05,1.17)	1.11	(1.05,1.16)	0.03	(-0.04,0.09)	0.00	(-0.08,0.08)
14 to 18_____	1.23	(1.20,1.27)	1.27	(1.23,1.31)	1.27	(1.23,1.30)	0.03	(-0.01,0.07)	0.00	(-0.05,0.05)
12 to 18_____	1.32	(1.29,1.34)	1.35	(1.32,1.38)	1.36	(1.33,1.39)	0.04	*(0.01,0.07)	0.01	(-0.03,0.05)
Youth aged 12 to 18										
Gender										
Males_____	1.27	(1.24,1.31)	1.32	(1.28,1.36)	1.29	(1.25,1.34)	0.02	(-0.03,0.07)	-0.02	(-0.09,0.04)
Females_____	1.37	(1.33,1.40)	1.38	(1.34,1.43)	1.43	(1.39,1.46)	0.06	*(0.01,0.11)	0.04	(-0.01,0.10)
Race/ethnicity										
White_____	1.33	(1.30,1.36)	1.37	(1.34,1.40)	1.35	(1.31,1.38)	0.02	(-0.02,0.06)	-0.02	(-0.06,0.02)
African American__	1.31	(1.24,1.38)	1.33	(1.25,1.42)	1.35	(1.26,1.44)	0.05	(-0.06,0.15)	0.02	(-0.10,0.14)
Hispanic_____	1.28	(1.21,1.35)	1.28	(1.20,1.35)	1.39	(1.31,1.47)	0.11	*(0.02,0.20)	0.11	(0.00,0.23)
Risk score										
Higher risk_____	1.09	(1.04,1.14)	1.13	(1.07,1.19)	1.11	(1.05,1.16)	0.02	(-0.04,0.08)	-0.02	(-0.10,0.05)
Lower risk_____	1.47	(1.44,1.49)	1.49	(1.45,1.52)	1.53	(1.50,1.56)	0.06	*(0.03,0.10)	0.05	*(0.01,0.09)
Sensation seeking										
High_____	1.24	(1.20,1.28)	1.28	(1.24,1.32)	1.25	(1.21,1.29)	0.01	(-0.04,0.06)	-0.03	(-0.09,0.02)
Low_____	1.41	(1.37,1.45)	1.43	(1.40,1.46)	1.49	(1.46,1.53)	0.08	*(0.04,0.13)	0.06	*(0.01,0.11)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-51. Summary measure of general attitudes toward parental[1] monitoring[2], by youth age, gender, race/ethnicity, risk score, and sensation seeking

| | Summary scale of general attitude toward parental monitoring (1 to 7) (where higher score represents stronger promonitoring attitudes) | | | | | | | | | |
| | Average for Waves 1 and 2 (Year 2000) | | Average for Waves 3 and 4 (Year 2001) | | Wave 5 (Jan 2002-June 2002) | | Change from Waves 1 and 2 (2000) to Wave 5 | | Change from Waves 3 and 4 (2001) to Wave 5 | |
Characteristics	Mean	95% CI	Mean	95% CI	Mean	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	6.36	(6.31,6.41)	6.44	(6.41,6.48)	6.44	(6.40,6.48)	0.08	*(0.01,0.14)	-0.01	(-0.06,0.04)
14 to 15	6.17	(6.10,6.24)	6.23	(6.17,6.29)	6.27	(6.21,6.32)	0.10	*(0.01,0.18)	0.04	(-0.04,0.12)
16 to 18	5.93	(5.86,6.00)	6.02	(5.95,6.10)	6.01	(5.93,6.09)	0.08	(-0.02,0.18)	-0.02	(-0.13,0.10)
14 to 18	6.04	(5.99,6.09)	6.12	(6.06,6.17)	6.12	(6.07,6.17)	0.08	*(0.01,0.14)	0.00	(-0.07,0.07)
12 to 18	6.14	(6.10,6.18)	6.21	(6.17,6.26)	6.22	(6.17,6.26)	0.08	*(0.03,0.13)	0.00	(-0.05,0.06)
Youth aged 12 to 18										
Gender										
Males	6.06	(6.00,6.12)	6.14	(6.09,6.20)	6.18	(6.13,6.24)	0.12	*(0.06,0.19)	0.04	(-0.03,0.11)
Females	6.21	(6.16,6.27)	6.29	(6.24,6.34)	6.25	(6.19,6.31)	0.04	(-0.04,0.11)	-0.04	(-0.12,0.03)
Race/ethnicity										
White	6.09	(6.05,6.14)	6.16	(6.11,6.21)	6.17	(6.13,6.22)	0.08	*(0.03,0.13)	0.01	(-0.05,0.08)
African	6.19	(6.07,6.31)	6.31	(6.22,6.40)	6.23	(6.14,6.33)	0.04	(-0.08,0.17)	-0.08	(-0.19,0.03)
Hispanic	6.33	(6.22,6.44)	6.36	(6.25,6.47)	6.41	(6.27,6.55)	0.08	(-0.07,0.24)	0.05	(-0.13,0.24)
Risk score										
Higher risk	5.85	(5.78,5.93)	5.95	(5.87,6.03)	5.94	(5.86,6.03)	0.09	(-0.01,0.19)	-0.01	(-0.11,0.10)
Lower risk	6.32	(6.28,6.35)	6.38	(6.34,6.42)	6.40	(6.36,6.43)	0.08	*(0.03,0.13)	0.02	(-0.04,0.07)
Sensation seeking										
High	6.02	(5.97,6.08)	6.11	(6.04,6.17)	6.12	(6.07,6.18)	0.10	*(0.03,0.17)	0.02	(-0.06,0.10)
Low	6.27	(6.20,6.33)	6.35	(6.30,6.40)	6.33	(6.27,6.38)	0.06	(-0.02,0.14)	-0.02	(-0.09,0.04)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These questions were repeated separately for each sample child.

Table 6-52. Use of marijuana among youth as reported by parents[1,2] and their children, by youth age, gender, race/ethnicity, risk score, and sensation seeking

	Percent of youth who have never used marijuana in the past 12 months									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	**97.9**	**(97.1,98.5)**	**98.9**	**(98.1,99.3)**	**98.6**	**(97.8,99.0)**	**0.7**	**(-0.2,1.5)**	**-0.3**	**(-1.1,0.5)**
	96.7	(95.6,97.6)	97.4	(96.0,98.3)	96.8	(95.6,97.7)	0.1	(-1.2,1.4)	-0.6	(-2.1,1.0)
14 to 15	**90.8**	**(87.8,93.1)**	**90.9**	**(88.3,93.0)**	**91.1**	**(88.3,93.3)**	**0.3**	**(-3.0,3.6)**	**0.2**	**(-3.0,3.4)**
	88.7	(85.4,91.3)	86.2	(83.5,88.6)	86.8	(83.4,89.7)	-1.8	(-5.5,1.9)	0.6	(-2.9,4.1)
16 to 18	**81.0**	**(77.9,83.7)**	**82.1**	**(78.4,85.3)**	**80.7**	**(77.4,83.5)**	**-0.3**	**(-4.0,3.4)**	**-1.5**	**(-6.0,3.0)**
	70.9	(67.2,74.4)	73.2	(69.7,76.4)	73.7	(70.2,77.0)	2.8	(-1.9,7.5)	0.5	(-3.7,4.8)
14 to 18	**85.5**	**(83.6,87.3)**	**86.2**	**(83.7,88.4)**	**85.2**	**(83.1,87.1)**	**-0.3**	**(-2.8,2.1)**	**-1.0**	**(-3.6,1.6)**
	79.0	(76.8,81.1)	79.1	(76.6,81.4)	79.3	(77.0,81.5)	0.3	(-2.4,3.0)	0.2	(-2.6,3.0)
12 to 18	**89.2**	**(87.8,90.4)**	**90.0**	**(88.2,91.5)**	**89.2**	**(87.7,90.5)**	**0.0**	**(-1.7,1.7)**	**-0.8**	**(-2.6,1.1)**
	84.2	(82.5,85.7)	84.5	(82.7,86.2)	84.5	(82.8,86.1)	0.3	(-1.7,2.3)	0.0	(-2.0,2.0)

Table 6-52. Use of marijuana among youth as reported by parents[1,2] and their children, by youth age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent of youth who have never used marijuana in the past 12 months									
	Parent perspective / Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males_____	**83.8**	**(80.3,86.7)**	**84.1**	**(80.5,87.1)**	**83.1**	**(80.2,85.7)**	**-0.7**	**(-4.8,3.5)**	**-1.0**	**(-4.7,2.7)**
	76.5	(72.3,80.2)	78.3	(75.0,81.3)	78.5	(75.0,81.7)	2.1	(-2.3,6.4)	0.2	(-3.9,4.4)
Females_____	**87.3**	**(84.8,89.5)**	**88.5**	**(85.2,91.1)**	**87.4**	**(84.3,89.9)**	**0.0**	**(-3.4,3.4)**	**-1.1**	**(-4.8,2.6)**
	81.6	(78.8,84.2)	79.9	(76.4,83.0)	80.1	(76.9,83.0)	-1.5	(-5.2,2.1)	0.2	(-3.5,3.9)
Race/ethnicity										
White_____	**84.6**	**(82.2,86.6)**	**86.6**	**(83.9,88.9)**	**83.8**	**(81.1,86.2)**	**-0.7**	**(-3.5,2.0)**	**-2.8**	**(-6.0,0.4)**
	77.3	(74.3,80.0)	77.6	(74.3,80.6)	76.7	(73.8,79.4)	-0.5	(-3.9,2.8)	-0.9	(-4.6,2.9)
African American__	**86.6**	**(80.3,91.0)**	**82.6**	**(74.4,88.5)**	**88.0**	**(82.0,92.2)**	**1.4**	**(-6.0,8.8)**	**5.4**	**(-3.4,14.3)**
	82.4	(76.6,87.0)	84.4	(79.2,88.5)	87.6	(82.0,91.7)	5.2	(-1.7,12.1)	3.2	(-3.8,10.1)
Hispanic_____	**88.2**	**(83.4,91.7)**	**87.7**	**(80.6,92.5)**	**87.0**	**(79.1,92.2)**	**-1.2**	**(-8.8,6.4)**	**-0.7**	**(-6.4,5.0)**
	83.2	(77.4,87.7)	80.4	(73.9,85.6)	79.0	(69.8,85.9)	-4.2	(-12.8,4.3)	-1.4	(-8.0,5.1)
Risk score										
Higher risk_____	**75.6**	**(72.4,78.5)**	**77.6**	**(74.0,80.8)**	**75.3**	**(71.5,78.7)**	**-0.3**	**(-4.7,4.1)**	**-2.3**	**(-7.0,2.4)**
	62.8	(59.4,66.1)	64.0	(60.0,67.7)	67.2	(63.3,70.9)	4.4	(-0.3,9.1)	3.3	(-2.1,8.7)
Lower risk_____	**96.2**	**(94.3,97.5)**	**95.1**	**(91.8,97.1)**	**97.5**	**(95.9,98.4)**	**1.2**	**(-0.8,3.2)**	**2.3**	**(-0.5,5.2)**
	96.6	(94.5,97.8)	95.1	(93.0,96.6)	95.0	(92.5,96.7)	-1.6	(-4.3,1.1)	-0.1	(-2.9,2.6)
Sensation seeking										
High_____	**80.9**	**(78.4,83.1)**	**82.7**	**(79.6,85.4)**	**79.4**	**(76.5,82.1)**	**-1.4**	**(-4.5,1.7)**	**-3.2**	**(-6.7,0.2)**
	70.1	(66.9,73.0)	72.5	(69.1,75.8)	71.3	(67.9,74.4)	1.2	(-2.8,5.3)	-1.3	(-5.6,3.0)
Low_____	**92.2**	**(88.9,94.5)**	**92.2**	**(88.6,94.7)**	**93.6**	**(90.9,95.6)**	**1.5**	**(-2.3,5.2)**	**1.4**	**(-2.1,5.0)**
	92.1	(89.2,94.3)	90.1	(87.2,92.3)	91.0	(87.8,93.5)	-1.1	(-4.8,2.6)	1.0	(-2.7,4.6)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-53. Intentions to use marijuana once or twice among youth as reported by parents[1,2] and their children, by youth age, gender, race/ethnicity, risk score, and sensation seeking

	Percent of youth who definitely will not use marijuana even once or twice in the next 12 months									
				Parent perspective Child perspective						
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13_____	**88.0**	**(85.9,89.9)**	**85.9**	**(83.6,88.0)**	**88.3**	**(86.1,90.1)**	**0.3**	**(-2.7,3.2)**	**2.4**	**(-0.6,5.3)**
	88.6	(86.8,90.3)	88.7	(86.8,90.4)	88.9	(86.6,90.9)	0.3	(-2.2,2.7)	0.2	(-2.5,2.9)
14 to 15_____	**76.7**	**(73.4,79.6)**	**76.2**	**(72.8,79.2)**	**75.9**	**(72.0,79.4)**	**-0.8**	**(-5.8,4.2)**	**-0.3**	**(-4.5,3.9)**
	77.1	(73.4,80.4)	72.2	(69.0,75.3)	71.7	(68.4,74.8)	-5.4	*(-9.6,-1.1)	-0.5	(-4.3,3.3)
16 to 18_____	**72.1**	**(68.3,75.6)**	**64.2**	**(59.5,68.6)**	**64.9**	**(61.3,68.4)**	**-7.1**	***(-12.2,-2.1)**	**0.8**	**(-4.5,6.0)**
	61.3	(57.7,64.8)	60.4	(56.1,64.6)	60.7	(57.0,64.2)	-0.7	(-5.5,4.1)	0.2	(-5.1,5.6)
14 to 18_____	**74.2**	**(71.8,76.4)**	**69.7**	**(66.5,72.8)**	**69.7**	**(67.1,72.1)**	**-4.5**	***(-8.1,-1.0)**	**-0.1**	**(-3.6,3.5)**
	68.5	(66.3,70.7)	65.8	(62.7,68.7)	65.4	(62.8,67.9)	-3.1	*(-6.0,-0.2)	-0.4	(-3.8,3.1)
12 to 18_____	**78.2**	**(76.6,79.8)**	**74.5**	**(72.0,76.9)**	**75.2**	**(73.3,77.1)**	**-3.0**	***(-5.5,-0.5)**	**0.7**	**(-2.1,3.5)**
	74.4	(72.6,76.1)	72.6	(70.3,74.7)	72.3	(70.4,74.2)	-2.0	(-4.1,0.0)	-0.2	(-2.7,2.2)

Table 6-53. Intentions to use marijuana once or twice among youth as reported by parents[1,2] and their children, by youth age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent of youth who definitely will not use marijuana even once or twice in the next 12 months									
	Parent perspective Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 13										
Gender										
Males	**87.0**	**(84.0,89.4)**	**84.2**	**(80.6,87.2)**	**86.9**	**(83.2,90.0)**	**0.0**	**(-4.5,4.4)**	**2.7**	**(-1.7,7.2)**
	86.3	(83.7,88.6)	89.7	(87.4,91.7)	87.8	(84.1,90.7)	1.4	(-2.6,5.4)	-2.0	(-5.8,1.8)
Females	**89.1**	**(85.6,91.9)**	**87.7**	**(84.7,90.2)**	**89.6**	**(86.3,92.2)**	**0.5**	**(-3.5,4.5)**	**1.9**	**(-2.2,6.1)**
	91.1	(88.7,93.0)	87.7	(84.4,90.4)	90.1	(86.9,92.7)	-0.9	(-4.3,2.5)	2.5	(-1.4,6.3)
Race/ethnicity										
White	**90.1**	**(87.4,92.3)**	**87.5**	**(84.1,90.3)**	**87.8**	**(85.0,90.2)**	**-2.3**	**(-5.9,1.3)**	**0.3**	**(-3.3,3.9)**
	90.1	(88.0,91.9)	89.4	(86.9,91.4)	90.0	(87.2,92.3)	-0.1	(-3.2,3.0)	0.7	(-2.7,4.1)
African American	**80.4**	**(72.7,86.3)**	**85.9**	**(80.3,90.1)**	**92.6**	**(87.8,95.7)**	**12.3**	***(3.9,20.7)**	**6.7**	***(0.8,12.6)**
	88.5	(83.0,92.5)	92.1	(86.5,95.5)	86.9	(79.0,92.1)	-1.7	(-8.6,5.2)	-5.3	(-11.6,1.1)
Hispanic	**84.9**	**(79.0,89.4)**	**76.4**	**(69.2,82.4)**	**83.5**	**(76.6,88.7)**	**-1.4**	**(-7.7,4.8)**	**7.1**	**(-2.0,16.2)**
	82.0	(75.4,87.1)	84.3	(78.0,89.1)	87.9	(83.3,91.4)	6.0	(-1.1,13.0)	3.6	(-2.8,10.0)
Risk score										
Higher risk	**72.8**	**(64.8,79.6)**	**74.9**	**(65.2,82.6)**	**76.9**	**(67.4,84.3)**	**4.1**	**(-5.3,13.5)**	**2.0**	**(-10.2,14.2)**
	46.3	(38.4,54.4)	58.5	(45.7,70.1)	53.9	(42.8,64.7)	7.6	(-4.2,19.4)	-4.5	(-21.3,12.2)
Lower risk	**89.6**	**(87.3,91.5)**	**86.7**	**(84.2,88.8)**	**89.2**	**(87.1,91.0)**	**-0.4**	**(-3.4,2.7)**	**2.5**	**(-0.3,5.3)**
	93.0	(91.3,94.4)	92.0	(90.2,93.6)	92.3	(90.2,93.9)	-0.8	(-3.0,1.5)	0.2	(-2.5,2.9)
Sensation seeking										
High	**85.0**	**(81.9,87.7)**	**83.8**	**(80.1,86.9)**	**85.0**	**(81.2,88.1)**	**-0.1**	**(-4.9,4.8)**	**1.2**	**(-3.9,6.2)**
	78.5	(75.0,81.6)	78.4	(74.5,81.8)	81.0	(77.1,84.4)	2.5	(-1.8,6.9)	2.6	(-2.4,7.7)
Low	**90.0**	**(87.3,92.2)**	**87.0**	**(84.1,89.5)**	**90.6**	**(88.1,92.6)**	**0.6**	**(-2.6,3.8)**	**3.6**	***(0.4,6.8)**
	96.2	(94.6,97.3)	96.2	(93.9,97.7)	94.7	(92.3,96.4)	-1.5	(-3.9,1.0)	-1.5	(-3.7,0.8)

Table 6-53. Intentions to use marijuana once or twice among youth as reported by parents[1,2] and their children, by youth age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent of youth who definitely will not use marijuana even once or twice in the next 12 months									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	**71.0**	**(67.2,74.5)**	**66.1**	**(61.3,70.6)**	**65.7**	**(61.9,69.3)**	**-5.3**	***(-10.4,-0.3)**	**-0.4**	**(-5.5,4.7)**
	66.9	(62.6,70.9)	64.9	(60.7,69.0)	64.2	(60.3,68.0)	-2.7	(-7.1,1.7)	-0.7	(-6.2,4.8)
Females	**77.6**	**(74.6,80.3)**	**73.7**	**(70.1,76.9)**	**73.9**	**(70.3,77.2)**	**-3.7**	**(-8.3,0.9)**	**0.2**	**(-4.3,4.8)**
	70.1	(66.3,73.7)	66.7	(63.5,69.7)	66.6	(63.3,69.8)	-3.5	(-7.8,0.8)	-0.1	(-3.8,3.7)
Race/ethnicity										
White	**74.2**	**(71.5,76.8)**	**69.8**	**(66.2,73.1)**	**69.8**	**(66.6,72.8)**	**-4.4**	***(-8.4,-0.4)**	**0.1**	**(-3.1,3.3)**
	66.9	(64.1,69.6)	64.6	(61.0,68.0)	63.3	(60.1,66.5)	-3.6	(-7.3,0.1)	-1.3	(-4.9,2.4)
African American	**72.8**	**(66.4,78.3)**	**64.9**	**(56.0,72.9)**	**69.7**	**(63.0,75.7)**	**-3.0**	**(-11.9,5.8)**	**4.8**	**(-6.3,15.9)**
	69.8	(63.8,75.2)	69.0	(61.5,75.6)	67.4	(59.5,74.5)	-2.4	(-10.5,5.8)	-1.6	(-12.6,9.5)
Hispanic	**74.8**	**(69.1,79.7)**	**72.4**	**(65.3,78.6)**	**65.2**	**(57.5,72.1)**	**-9.6**	***(-16.7,-2.5)**	**-7.2**	**(-16.9,2.4)**
	74.3	(68.1,79.7)	68.3	(61.2,74.7)	67.2	(59.4,74.1)	-7.2	(-15.7,1.4)	-1.2	(-10.8,8.4)
Risk score										
Higher risk	**65.1**	**(61.0,68.9)**	**58.8**	**(54.5,63.1)**	**59.4**	**(55.8,62.9)**	**-5.7**	***(-11.1,-0.3)**	**0.5**	**(-4.8,5.9)**
	52.0	(48.1,55.9)	45.2	(40.6,49.9)	51.7	(48.3,55.1)	-0.3	(-5.3,4.8)	6.5	*(0.4,12.7)
Lower risk	**83.9**	**(80.9,86.6)**	**81.2**	**(77.4,84.5)**	**83.0**	**(79.2,86.3)**	**-0.9**	**(-5.3,3.6)**	**1.8**	**(-2.6,6.3)**
	87.9	(85.0,90.4)	86.5	(83.5,89.0)	82.2	(78.9,85.1)	-5.7	*(-9.9,-1.6)	-4.3	(-8.7,0.0)
Sensation seeking										
High	**68.9**	**(65.5,72.1)**	**65.1**	**(61.4,68.6)**	**61.9**	**(58.2,65.5)**	**-7.0**	***(-11.9,-2.2)**	**-3.2**	**(-8.0,1.6)**
	56.8	(53.4,60.1)	55.0	(51.4,58.6)	53.6	(50.0,57.1)	-3.2	(-7.8,1.3)	-1.4	(-6.2,3.3)
Low	**81.7**	**(78.4,84.6)**	**78.0**	**(73.2,82.2)**	**81.2**	**(77.8,84.2)**	**-0.5**	**(-5.0,4.0)**	**3.2**	**(-1.6,8.1)**
	86.0	(82.2,89.1)	83.6	(80.0,86.7)	82.1	(78.5,85.2)	-4.0	(-8.5,0.6)	-1.6	(-5.5,2.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]These parent questions were repeated separately for each sample child.

Table 6-54. Intentions to use marijuana regularly among youth as reported by parents[1,2] and their children, by youth age, gender, race/ethnicity, risk score, and sensation seeking

	Percent of youth who definitely will not use marijuana regularly in the next 12 months									
	Parent perspective Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 12 to 18										
12 to 13	**91.6**	**(89.8,93.1)**	**90.8**	**(89.2,92.2)**	**91.6**	**(89.8,93.2)**	**0.0**	**(-2.2,2.3)**	**0.8**	**(-1.3,3.0)**
	95.2	(94.1,96.2)	94.8	(93.4,95.9)	93.7	(92.0,95.0)	-1.6	(-3.3,0.2)	-1.1	(-3.2,0.9)
14 to 15	**84.2**	**(81.4,86.6)**	**84.2**	**(81.2,86.8)**	**85.0**	**(82.4,87.2)**	**0.8**	**(-2.6,4.2)**	**0.8**	**(-2.6,4.1)**
	89.6	(87.3,91.6)	84.6	(81.7,87.0)	86.4	(83.3,89.0)	-3.2	(-6.8,0.3)	1.8	(-1.6,5.2)
16 to 18	**77.5**	**(74.1,80.6)**	**72.0**	**(67.7,75.9)**	**73.2**	**(69.8,76.3)**	**-4.4**	**(-9.0,0.3)**	**1.2**	**(-3.1,5.5)**
	75.5	(72.1,78.5)	74.6	(70.9,77.9)	75.3	(71.9,78.5)	-0.1	(-4.0,3.7)	0.8	(-3.8,5.3)
14 to 18	**80.6**	**(78.8,82.3)**	**77.7**	**(74.8,80.3)**	**78.3**	**(76.0,80.4)**	**-2.3**	**(-5.3,0.7)**	**0.6**	**(-2.4,3.7)**
	81.9	(79.9,83.8)	79.1	(76.4,81.5)	80.1	(77.8,82.1)	-1.9	(-4.2,0.5)	1.0	(-1.8,3.8)
12 to 18	**83.8**	**(82.4,85.2)**	**81.5**	**(79.4,83.4)**	**82.2**	**(80.3,83.9)**	**-1.7**	**(-3.9,0.6)**	**0.7**	**(-1.7,3.1)**
	85.8	(84.2,87.2)	83.7	(81.8,85.5)	84.1	(82.4,85.6)	-1.7	(-3.5,0.1)	0.4	(-1.7,2.4)

Table 6-54. Intentions to use marijuana regularly among youth as reported by parents[1,2] and their children, by youth age, gender, race/ethnicity, risk score, and sensation seeking (continued)

	Percent of youth who definitely will not use marijuana regularly in the next 12 months									
	Parent perspective									
	Child perspective									
	Average for Waves 1 and 2 (Year 2000)		Average for Waves 3 and 4 (Year 2001)		Wave 5 (Jan 2002-June 2002)		Change from Waves 1 and 2 (2000) to Wave 5		Change from Waves 3 and 4 (2001) to Wave 5	
Characteristics	%	95% CI	%	95% CI	%	95% CI	Est	95% CI	Est	95% CI
Youth aged 14 to 18										
Gender										
Males	**78.7**	**(75.2,81.8)**	**73.7**	**(69.4,77.6)**	**74.0**	**(70.3,77.3)**	**-4.7**	**(-9.6,0.2)**	**0.3**	**(-4.2,4.7)**
	79.7	(76.0,83.1)	77.8	(74.0,81.2)	79.1	(75.8,82.1)	-0.6	(-4.1,2.8)	1.4	(-2.7,5.4)
Females	**82.6**	**(79.9,85.1)**	**81.8**	**(78.5,84.7)**	**82.8**	**(79.8,85.5)**	**0.2**	**(-3.5,3.9)**	**1.0**	**(-3.2,5.2)**
	84.1	(81.0,86.8)	80.5	(77.4,83.3)	81.0	(77.8,83.9)	-3.1	(-6.3,0.1)	0.6	(-3.2,4.3)
Race/ethnicity										
White	**82.1**	**(79.8,84.1)**	**79.8**	**(76.7,82.6)**	**79.4**	**(76.3,82.2)**	**-2.6**	**(-6.3,1.1)**	**-0.3**	**(-3.8,3.1)**
	81.8	(79.1,84.2)	78.9	(75.6,81.8)	78.3	(75.5,80.9)	-3.5	*(-6.4,-0.6)	-0.6	(-4.1,3.0)
African American	**78.1**	**(72.6,82.8)**	**70.0**	**(62.1,76.9)**	**77.1**	**(69.7,83.2)**	**-1.0**	**(-9.8,7.8)**	**7.1**	**(-1.3,15.5)**
	84.8	(79.5,89.0)	81.8	(75.5,86.7)	83.9	(78.7,87.9)	-1.0	(-8.0,6.1)	2.1	(-5.7,9.8)
Hispanic	**76.6**	**(71.4,81.0)**	**75.1**	**(68.1,81.0)**	**72.3**	**(65.4,78.3)**	**-4.3**	**(-12.2,3.7)**	**-2.8**	**(-12.0,6.4)**
	81.2	(75.8,85.7)	78.0	(71.3,83.5)	79.1	(71.0,85.4)	-2.1	(-10.5,6.3)	1.1	(-6.7,8.9)
Risk score										
Higher risk	**71.4**	**(68.1,74.5)**	**70.0**	**(65.8,73.9)**	**68.3**	**(64.8,71.6)**	**-3.2**	**(-8.3,2.0)**	**-1.7**	**(-6.3,2.8)**
	69.4	(65.6,72.9)	65.2	(61.0,69.1)	70.1	(66.5,73.5)	0.8	(-3.9,5.4)	5.0	(-0.7,10.7)
Lower risk	**90.0**	**(87.5,92.0)**	**85.7**	**(82.4,88.5)**	**90.5**	**(87.7,92.7)**	**0.4**	**(-3.0,3.9)**	**4.7**	***(0.8,8.7)**
	96.6	(94.8,97.8)	93.3	(90.9,95.1)	93.5	(90.9,95.4)	-3.1	*(-5.6,-0.6)	0.2	(-2.9,3.2)
Sensation seeking										
High	**76.7**	**(73.9,79.2)**	**75.1**	**(71.7,78.2)**	**72.6**	**(69.2,75.9)**	**-4.0**	**(-8.3,0.2)**	**-2.4**	**(-6.0,1.2)**
	74.3	(71.2,77.2)	72.5	(68.9,75.7)	72.5	(69.2,75.5)	-1.9	(-5.3,1.6)	0.0	(-4.5,4.5)
Low	**85.7**	**(82.5,88.4)**	**82.4**	**(77.8,86.2)**	**86.7**	**(83.5,89.4)**	**1.0**	**(-3.2,5.3)**	**4.4**	**(-0.7,9.4)**
	93.1	(90.8,94.9)	90.1	(87.4,92.3)	90.8	(87.9,93.0)	-2.3	(-5.5,0.8)	0.6	(-2.5,3.8)

[1] All parents and caregivers of youth aged 12 to 18 who live with their children.

[2] These parent questions were repeated separately for each sample child.

Table 6-55. Parental exposure[1] to general anti-drug advertising, by youth and parent characteristics, and by interview round

November 1999 through June 2002

Parents of youth aged 12 to 18 by:	Percent of parents reporting each exposure level by child's age			
	Less than 4 times per month	4-11 times per month	12 or more times per month	Total row percent
Youth demographics				
12 to 18_____	30.7	26.7	42.6	100.0
12 to 13_____	29.9	28.2	41.9	100.0
14 to 18_____	30.1	27.8	42.1	100.0
Gender				
Males_____	30.3	29.4	40.4	100.0
Females_____	30.0	26.1	43.9	100.0
Race/ethnicity				
White_____	32.1	30.2	37.7	100.0
African American_____	23.8	22.7	53.5	100.0
Hispanic_____	27.6	21.8	50.6	100.0
Parent demographics				
Gender				
Males_____	29.9	30.0	40.0	100.0
Females_____	30.2	26.6	43.2	100.0
Race/ethnicity				
White_____	31.9	30.4	37.7	100.0
African American_____	23.2	21.8	54.9	100.0
Hispanic_____	27.1	22.2	50.7	100.0
Education				
Less than college_____	30.8	23.8	45.5	100.0
Some college +_____	29.6	31.3	39.0	100.0
Interview round[2]				
Waves 1-3_____	29.1	27.8	43.1	100.0
Waves 4-5_____	31.6	27.8	40.6	100.0

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

Table 6-56. Parental exposure[1] to specific anti-drug advertising, by youth and parent characteristics, and by interview round

November 1999 through June 2002

Parents of youth aged 12 to 18 by:	Percent of parents reporting each exposure level by child's age				
	Less than 1 time per month	1-3 times per month	4-11 times per month	12 or more times per month	Total row percent
Youth demographics					
12 to 18_____	24.1	32.6	31.6	11.6	100.0
12 to 13_____	22.6	32.9	33.6	10.9	100.0
14 to 18_____	23.1	32.8	33.0	11.1	100.0
Gender					
Males_____	24.4	32.4	32.7	10.5	100.0
Females_____	21.6	33.3	33.4	11.8	100.0
Race/ethnicity					
White_____	23.1	35.0	32.8	9.1	100.0
African American_____	20.7	28.6	35.4	15.3	100.0
Hispanic_____	23.7	27.3	32.1	16.9	100.0
Parent demographics					
Gender					
Males_____	23.2	33.7	33.9	9.1	100.0
Females_____	23.0	32.4	32.5	12.1	100.0
Race/ethnicity					
White_____	23.2	34.8	32.8	9.3	100.0
African American_____	20.2	29.3	35.3	15.1	100.0
Hispanic_____	24.0	26.1	33.4	16.5	100.0
Education					
Less than college_____	21.2	31.3	34.3	13.2	100.0
Some college +_____	24.7	34.1	31.9	9.3	100.0
Interview round [2]					
Waves 1-3_____	28.5	34.6	28.0	8.9	100.0
Waves 4-5_____	15.1	30.2	40.4	14.4	100.0

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

Table 6-57. The relationship between parental exposure[1] to general anti-drug advertising and parents' cognitions about monitoring their children[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of parents (real or hypothetical) | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental cognitions, by age of child								
12 to 13_____	119.66 (116.57,122.74)	113.62 (107.76,119.48)	114.68 (108.40,120.96)	125.56 (119.91,131.22)	6.04 *(0.91,11.16)	0.046	*(0.01,0.08)	11.95 *(4.02,19.87)
14 to 18_____	78.35 (73.87,82.83)	69.49 (61.32,77.66)	77.54 (69.27,85.81)	84.22 (77.77,90.66)	8.86 *(1.67,16.06)	0.058	*(0.02,0.09)	14.73 *(4.92,24.54)
12 to 18_____	90.55 (87.04,94.05)	82.99 (76.42,89.56)	88.00 (81.76,94.25)	96.50 (91.50,101.49)	7.56 *(1.95,13.17)	0.053	*(0.02,0.08)	13.51 *(5.61,21.41)
Parental cognitions, by child characteristics								
Gender								
Males_____	82.92 (78.08,87.76)	73.49 (64.89,82.10)	82.25 (74.09,90.40)	88.43 (80.87,95.98)	9.43 *(2.32,16.54)	0.058	*(0.02,0.09)	14.93 *(4.78,25.08)
Females_____	98.59 (94.24,102.95)	92.77 (85.07,100.47)	94.85 (86.79,102.91)	104.26 (97.37,111.15)	5.83 (-0.90,12.55)	0.046	*(0.01,0.08)	11.49 *(1.76,21.22)
Race/ethnicity								
White_____	86.73 (82.57,90.89)	79.60 (72.74,86.46)	85.83 (78.68,92.97)	91.44 (84.79,98.09)	7.13 *(1.33,12.93)	0.047	*(0.01,0.08)	11.84 *(2.77,20.91)
African American__	96.09 (87.36,104.82)	81.09 (65.76,96.43)	93.31 (75.25,111.38)	105.46 (94.11,116.82)	15.00 *(1.33,28.66)	0.090	*(0.03,0.15)	24.37 *(6.79,41.95)
Hispanic_____	103.88 (95.93,111.84)	101.82 (85.22,118.42)	96.93 (79.74,114.11)	110.47 (97.94,123.01)	2.06 (-12.66,16.79)	0.027	(-0.05,0.11)	8.65 (-11.00,28.31)

Table 6-57. The relationship between parental exposure[1] to general anti-drug advertising and parents' cognitions about monitoring their children[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

	Exposure level of parents (real or hypothetical)							
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Parental cognitions, by parent characteristics								
Gender								
Males_____	76.87 (70.57,83.17)	70.28 (59.08,81.49)	74.90 (64.81,84.98)	81.62 (72.34,90.90)	6.59 (-1.77,14.95)	0.044	(-0.00,0.09)	11.34 (-1.47,24.14)
Females_____	97.79 (93.85,101.74)	89.49 (82.73,96.25)	95.56 (87.16,103.96)	103.96 (98.24,109.68)	8.30 *(1.95,14.66)	0.057	*(0.03,0.09)	14.47 *(6.18,22.76)
Education								
Less than college__	87.38 (82.35,92.41)	83.05 (74.33,91.76)	83.15 (72.81,93.49)	91.84 (85.20,98.48)	4.33 (-3.06,11.72)	0.032	(-0.01,0.07)	8.79 (-1.41,19.00)
Some college +____	93.37 (88.82,97.91)	82.43 (73.79,91.06)	91.73 (83.92,99.55)	100.49 (93.53,107.44)	10.94 *(3.90,17.99)	0.071	*(0.03,0.11)	18.06 *(7.58,28.54)
Interview round[3]								
Waves 1-3_____	89.47 (85.55,93.40)	77.63 (68.76,86.49)	88.77 (80.15,97.39)	94.65 (88.30,101.00)	11.85 *(3.66,20.03)	0.067	*(0.03,0.11)	17.03 *(5.75,28.30)
Waves 4-5_____	92.13 (87.99,96.27)	90.71 (83.90,97.52)	86.83 (79.86,93.80)	99.18 (93.09,105.26)	1.42 (-3.63,6.47)	0.032	(0.00,0.06)	8.47 *(0.63,16.31)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-58. The relationship between parental exposure[1] to specific anti-drug advertising and parents' cognitions about monitoring their children[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

Characteristics	Exposure level of parents (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Parental cognitions, by age of child									
12 to 13_____	119.66	117.52	112.38	122.08	126.02	2.14	0.021	(-0.03,0.07)	8.50
	(116.57,122.74)	(109.10,125.93)	(106.76,118.00)	(116.92,127.25)	(115.05,136.99)	(-5.94,10.22)			(-5.62,22.62)
14 to 18_____	78.35	72.80	77.88	77.88	85.58	5.55	0.031	(-0.02,0.08)	12.78
	(73.87,82.83)	(61.32,84.27)	(72.02,83.74)	(71.63,84.14)	(69.39,101.77)	(-3.45,14.56)			(-4.91,30.48)
12 to 18_____	90.55	86.41	87.85	90.62	97.52	4.14	0.028	(-0.01,0.07)	11.11
	(87.04,94.05)	(77.86,94.96)	(82.94,92.77)	(85.58,95.66)	(85.02,110.02)	(-2.83,11.11)			(-3.03,25.24)
Parental cognitions, by child characteristics									
Gender									
Males_____	82.92	77.40	77.53	86.24	93.45	5.52	0.045	(-0.00,0.09)	16.05
	(78.08,87.76)	(65.96,88.85)	(69.99,85.07)	(78.32,94.17)	(80.48,106.42)	(-3.99,15.02)			*(0.02,32.07)
Females_____	98.59	96.96	98.25	95.29	101.15	1.64	0.006	(-0.05,0.06)	4.19
	(94.24,102.95)	(86.81,107.11)	(91.86,104.65)	(88.69,101.90)	(82.19,120.11)	(-7.53,10.80)			(-16.59,24.97)
Race/ethnicity									
White_____	86.73	83.35	85.94	86.39	98.70	3.38	0.037	(-0.01,0.08)	15.36
	(82.57,90.89)	(73.57,93.13)	(80.40,91.48)	(80.98,91.80)	(82.57,114.84)	(-4.49,11.25)			(-2.24,32.95)
African American__	96.09	71.39	93.84	103.56	103.22	24.7	0.079	(-0.02,0.18)	31.83
	(87.36,104.82)	(49.47,93.31)	(80.04,107.63)	(90.11,117.01)	(77.82,128.61)	*(6.17,43.23)			(-1.13,64.78)
Hispanic_____	103.88	107.74	94.15	100.54	90.13	-3.85	-0.052	(-0.17,0.06)	-17.61
	(95.93,111.84)	(86.98,128.50)	(79.06,109.23)	(87.52,113.56)	(60.99,119.26)	(-22.81,15.10)			(-56.49,21.27)

Table 6-58. The relationship between parental exposure[1] to specific anti-drug advertising and parents' cognitions about monitoring their children[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

| Characteristics | Exposure level of parents (real or hypothetical) | | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C5-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Parental cognitions, by parent characteristics									
Gender									
Males_____	76.87	69.23	72.66	76.76	101.47	7.64	0.088	*(0.04,0.13)	32.24
	(70.57,83.17)	(57.02,81.43)	(64.54,80.78)	(66.79,86.74)	(85.87,117.06)	(-2.04,17.33)			*(15.04,49.44)
Females_____	97.79	94.49	95.72	98.80	95.74	3.3	0.001	(-0.05,0.05)	1.24
	(93.85,101.74)	(84.78,104.20)	(89.32,102.12)	(92.32,105.28)	(80.15,111.32)	(-5.17,11.77)			(-16.20,18.69)
Education									
Less than college__	87.38	83.58	86.63	83.44	87.89	3.8	-0.001	(-0.06,0.05)	4.32
	(82.35,92.41)	(70.48,96.68)	(78.14,95.12)	(75.79,91.09)	(71.83,103.96)	(-7.51,15.11)			(-16.37,25.00)
Some college +____	93.37	89.29	88.69	96.63	105.84	4.08	0.052	(-0.00,0.11)	16.55
	(88.82,97.91)	(80.32,98.26)	(81.79,95.59)	(89.60,103.67)	(87.01,124.67)	(-4.06,12.22)			(-3.51,36.61)
Interview round [3]									
Waves 1-3_____	89.47	87.17	87.71	89.51	97.19	2.31	0.026	(-0.02,0.07)	10.03
	(85.55,93.40)	(78.91,95.42)	(81.11,94.32)	(82.03,96.98)	(81.75,112.63)	(-4.55,9.16)			(-6.14,26.19)
Waves 4-5_____	92.13	85.26	88.04	92.18	98.07	6.87	0.033	(-0.03,0.10)	12.81
	(87.99,96.27)	(70.42,100.09)	(80.44,95.65)	(85.24,99.12)	(78.77,117.36)	(-6.46,20.21)			(-9.84,35.47)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-59. The relationship between parental exposure[1] to general anti-drug advertising and parents' cognitions about talking to their children about drugs[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of parents (real or hypothetical) | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental cognitions, by age of child								
12 to 13	110.21 (105.92,114.50)	100.81 (92.74,108.87)	102.88 (97.67,108.08)	122.62 (116.04,129.20)	9.40 *(2.90,15.90)	0.072	*(0.03,0.12)	21.81 *(11.80,31.82)
14 to 18	96.22 (91.90,100.54)	80.30 (71.86,88.74)	91.29 (84.40,98.17)	112.97 (107.36,118.59)	15.92 *(9.57,22.27)	0.115	*(0.08,0.15)	32.67 *(22.54,42.80)
12 to 18	100.35 (96.88,103.82)	86.57 (80.67,92.48)	94.55 (89.15,99.96)	115.84 (110.77,120.91)	13.78 *(9.03,18.52)	0.102	*(0.07,0.13)	29.26 *(21.77,36.76)
Parental cognitions, by child characteristics								
Gender								
Males	97.45 (93.10,101.79)	82.15 (73.25,91.06)	89.31 (82.40,96.22)	115.39 (110.37,120.41)	15.29 *(8.32,22.27)	0.112	*(0.08,0.14)	33.24 *(24.69,41.79)
Females	103.42 (98.25,108.58)	91.13 (82.55,99.71)	100.78 (93.43,108.13)	116.27 (109.00,123.53)	12.29 *(5.67,18.91)	0.090	*(0.04,0.14)	25.14 *(14.00,36.27)
Race/ethnicity								
White	90.23 (86.45,94.01)	72.17 (65.38,78.96)	89.01 (83.77,94.26)	108.50 (103.13,113.88)	18.06 *(12.86,23.26)	0.131	*(0.09,0.17)	36.33 *(27.29,45.38)
African American	123.68 (112.19,135.17)	115.04 (97.74,132.34)	106.74 (86.51,126.98)	134.06 (121.31,146.82)	8.64 (-6.93,24.21)	0.054	(-0.02,0.13)	19.02 (-0.05,38.10)
Hispanic	124.95 (117.90,132.00)	124.07 (108.37,139.77)	117.21 (104.76,129.65)	132.91 (123.15,142.66)	0.88 (-10.99,12.75)	0.043	(-0.04,0.12)	8.84 (-8.86,26.54)

Table 6-59. The relationship between parental exposure[1] to general anti-drug advertising and parents' cognitions about talking to their children about drugs[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

| | Exposure level of parents (real or hypothetical) | | | | | | | Potential |
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	maximum Campaign effect (C4-C2)
Parental cognitions, by parent characteristics								
Gender								
Males_____	87.12	67.17	79.32	106.84	19.95	0.132	*(0.08,0.18)	39.67
	(81.52,92.71)	(56.36,77.98)	(71.37,87.28)	(98.99,114.69)	*(11.64,28.25)			*(26.28,53.06)
Females_____	107.36	96.51	103.33	120.35	10.85	0.088	*(0.05,0.13)	23.84
	(102.65,112.07)	(88.97,104.05)	(96.33,110.33)	(113.40,127.31)	*(5.16,16.55)			*(14.15,33.53)
Education								
Less than college__	106.55	93.50	102.10	118.55	13.06	0.083	*(0.04,0.13)	25.05
	(101.90,111.20)	(83.94,103.05)	(94.30,109.90)	(111.74,125.35)	*(5.77,20.34)			*(14.62,35.48)
Some college +____	94.69	79.42	89.15	112.98	15.27	0.124	*(0.08,0.16)	33.56
	(89.97,99.42)	(71.30,87.55)	(81.32,96.97)	(106.30,119.66)	*(9.03,21.51)			*(22.89,44.23)
Interview round [3]								
Waves 1-3_____	99.04	85.04	91.24	113.36	14.00	0.103	*(0.06,0.15)	28.32
	(95.16,102.92)	(77.31,92.78)	(83.72,98.76)	(107.28,119.45)	*(7.32,20.68)			*(17.88,38.76)
Waves 4-5_____	102.28	88.78	99.60	119.43	13.50	0.104	*(0.07,0.14)	30.65
	(98.07,106.49)	(81.49,96.07)	(93.31,105.90)	(113.13,125.73)	*(7.63,19.37)			*(22.01,39.29)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-60. The relationship between parental exposure[1] to specific anti-drug advertising and parents' cognitions about talking to their children about drugs[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of parents (real or hypothetical) | | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C5-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Parental cognitions, by age of child									
12 to 13_____	110.21	99.70	105.10	113.73	124.94	10.51	0.077	*(0.03,0.12)	25.24
	(105.92,114.50)	(91.32,108.08)	(98.41,111.79)	(106.96,120.50)	(113.16,136.71)	*(2.74,18.28)			*(12.46,38.02)
14 to 18_____	96.22	89.08	88.33	103.88	116.46	7.14	0.088	*(0.04,0.14)	27.38
	(91.90,100.54)	(78.70,99.47)	(82.57,94.09)	(97.73,110.03)	(102.82,130.10)	(-1.84,16.12)			*(10.33,44.43)
12 to 18_____	100.35	92.31	93.18	106.72	118.96	8.04	0.084	*(0.04,0.12)	26.65
	(96.88,103.82)	(85.23,99.40)	(88.27,98.08)	(101.61,111.83)	(108.24,129.69)	*(1.57,14.51)			*(13.65,39.65)
Parental cognitions, by child characteristics									
Gender									
Males_____	97.45	88.87	88.23	106.20	125.87	8.58	0.104	*(0.05,0.15)	37.01
	(93.10,101.79)	(78.00,99.74)	(80.74,95.72)	(99.32,113.09)	(114.97,136.78)	(-1.39,18.55)			*(21.06,52.95)
Females_____	103.42	96.35	98.16	107.27	112.81	7.07	0.063	*(0.01,0.12)	16.45
	(98.25,108.58)	(86.39,106.32)	(91.49,104.84)	(100.55,113.99)	(95.78,129.84)	(-1.48,15.61)			(-0.80,33.70)
Race/ethnicity									
White_____	90.23	75.75	85.02	100.69	113.07	14.47	0.115	*(0.07,0.16)	37.31
	(86.45,94.01)	(67.87,83.64)	(79.25,90.80)	(95.20,106.18)	(100.16,125.97)	*(7.23,21.72)			*(21.24,53.39)
African American__	123.68	115.44	113.80	127.60	132.41	8.24	0.032	(-0.08,0.14)	16.97
	(112.19,135.17)	(93.69,137.19)	(99.82,127.78)	(112.56,142.65)	(111.39,153.43)	(-11.75,28.24)			(-12.26,46.20)
Hispanic_____	124.95	127.68	112.77	123.65	127.17	-2.73	0.040	(-0.10,0.17)	-0.51
	(117.90,132.00)	(111.97,143.39)	(97.24,128.31)	(114.06,133.23)	(98.62,155.72)	(-16.76,11.30)			(-36.70,35.67)

Table 6-60. The relationship between parental exposure[1] to specific anti-drug advertising and parents' cognitions about talking to their children about drugs[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

	Exposure level of parents (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Parental cognitions, by parent characteristics									
Gender									
Males_____	87.12	74.81	78.92	92.31	116.04	12.31	0.136	*(0.08,0.19)	41.23
	(81.52,92.71)	(64.46,85.15)	(70.76,87.07)	(83.46,101.16)	(99.82,132.26)	*(3.57,21.06)			*(22.30,60.17)
Females_____	107.36	100.55	100.57	115.23	120.29	6.82	0.058	*(0.01,0.10)	19.74
	(102.65,112.07)	(91.60,109.49)	(93.76,107.37)	(108.85,121.60)	(107.79,132.78)	(-1.30,14.93)			*(4.69,34.79)
Education									
Less than college__	106.55	96.63	100.92	109.28	119.39	9.92	0.065	*(0.01,0.12)	22.75
	(101.90,111.20)	(84.66,108.61)	(94.28,107.56)	(102.01,116.54)	(105.53,133.24)	(-1.23,21.06)			*(3.58,41.92)
Some college +____	94.69	88.40	86.08	104.28	118.00	6.30	0.099	*(0.04,0.16)	29.61
	(89.97,99.42)	(78.83,97.96)	(79.27,92.89)	(97.00,111.55)	(102.18,133.83)	(-1.71,14.31)			*(11.72,47.50)
Interview round [3]									
Waves 1-3_____	99.04	94.64	93.08	105.09	120.65	4.40	0.091	*(0.04,0.15)	26.01
	(95.16,102.92)	(87.63,101.65)	(87.20,98.96)	(98.06,112.11)	(105.53,135.77)	(-1.60,10.41)			*(9.71,42.31)
Waves 4-5_____	102.28	88.75	93.32	109.02	116.17	13.53	0.078	*(0.02,0.13)	27.41
	(98.07,106.49)	(75.87,101.64)	(85.82,100.82)	(103.16,114.88)	(101.79,130.54)	*(1.48,25.58)			*(9.18,45.65)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-61. The relationship between parental exposure[1] to general anti-drug advertising and parents' monitoring behavior[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

Characteristics	Exposure level of parents (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental behaviors, by age of child								
12 to 13	1.75 (1.70,1.79)	1.76 (1.68,1.85)	1.74 (1.68,1.80)	1.75 (1.68,1.83)	-0.02 (-0.09,0.05)	-0.007	(-0.06,0.04)	-0.01 (-0.11,0.09)
14 to 18	1.33 (1.28,1.37)	1.29 (1.21,1.37)	1.34 (1.26,1.42)	1.38 (1.31,1.45)	0.04 (-0.04,0.11)	0.041	(-0.01,0.09)	0.08 (-0.02,0.19)
12 to 18	1.45 (1.41,1.49)	1.44 (1.37,1.50)	1.45 (1.39,1.51)	1.49 (1.43,1.55)	0.02 (-0.05,0.08)	0.024	(-0.02,0.07)	0.05 (-0.04,0.14)
Parental behaviors, by child characteristics								
Gender								
Males	1.35 (1.30,1.40)	1.36 (1.27,1.45)	1.37 (1.29,1.46)	1.35 (1.28,1.43)	-0.01 (-0.09,0.07)	0.000	(-0.05,0.05)	0.00 (-0.11,0.11)
Females	1.56 (1.51,1.61)	1.52 (1.43,1.61)	1.54 (1.47,1.62)	1.62 (1.54,1.70)	0.04 (-0.05,0.13)	0.048	(-0.02,0.11)	0.10 (-0.04,0.23)
Race/ethnicity								
White	1.48 (1.43,1.52)	1.46 (1.38,1.54)	1.48 (1.41,1.55)	1.50 (1.44,1.57)	0.02 (-0.04,0.07)	0.020	(-0.02,0.06)	0.04 (-0.04,0.12)
African American	1.34 (1.26,1.42)	1.24 (1.04,1.43)	1.40 (1.24,1.57)	1.41 (1.31,1.51)	0.10 (-0.06,0.27)	0.082	(-0.03,0.19)	0.17 (-0.05,0.40)
Hispanic	1.47 (1.36,1.57)	1.56 (1.33,1.78)	1.32 (1.12,1.51)	1.52 (1.36,1.69)	-0.09 (-0.30,0.12)	-0.014	(-0.14,0.12)	-0.04 (-0.33,0.25)

Table 6-61. The relationship between parental exposure[1] to general anti-drug advertising and parents' monitoring behavior[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of parents (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental behaviors, by parent characteristics								
Gender								
Males_____	1.38	1.36	1.34	1.43	0.02	0.032	(-0.03,0.10)	0.07
	(1.32,1.44)	(1.24,1.48)	(1.24,1.43)	(1.34,1.51)	(-0.08,0.12)			(-0.07,0.20)
Females_____	1.49	1.48	1.52	1.52	0.01	0.021	(-0.03,0.07)	0.04
	(1.45,1.53)	(1.40,1.55)	(1.44,1.59)	(1.45,1.59)	(-0.05,0.08)			(-0.06,0.15)
Education								
Less than college_____	1.37	1.35	1.32	1.44	0.02	0.043	(-0.01,0.10)	0.09
	(1.32,1.42)	(1.25,1.44)	(1.23,1.41)	(1.37,1.50)	(-0.06,0.10)			(-0.02,0.21)
Some college +_____	1.52	1.52	1.54	1.53	0.00	0.002	(-0.05,0.06)	0.01
	(1.47,1.57)	(1.43,1.62)	(1.47,1.62)	(1.45,1.60)	(-0.08,0.09)			(-0.11,0.12)
Interview round [3]								
Waves 1-3_____	1.43	1.42	1.42	1.48	0.02	0.027	(-0.03,0.08)	0.06
	(1.39,1.48)	(1.34,1.50)	(1.34,1.51)	(1.40,1.55)	(-0.06,0.09)			(-0.05,0.17)
Waves 4-5_____	1.48	1.47	1.49	1.51	0.02	0.020	(-0.04,0.08)	0.04
	(1.43,1.53)	(1.37,1.56)	(1.41,1.57)	(1.43,1.58)	(-0.06,0.09)			(-0.08,0.16)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-62. The relationship between parental exposure[1] to specific anti-drug advertising and parents' monitoring behavior[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
Parental behaviors, by age of child									
12 to 13	1.75 (1.70,1.79)	1.77 (1.68,1.86)	1.71 (1.64,1.78)	1.76 (1.67,1.84)	1.77 (1.64,1.90)	-0.02 (-0.10,0.05)	0.005	(-0.05,0.06)	0.00 (-0.15,0.15)
14 to 18	1.33 (1.28,1.37)	1.31 (1.21,1.41)	1.32 (1.24,1.39)	1.34 (1.27,1.41)	1.39 (1.21,1.56)	0.02 (-0.06,0.10)	0.029	(-0.04,0.10)	0.08 (-0.12,0.27)
12 to 18	1.45 (1.41,1.49)	1.45 (1.38,1.52)	1.43 (1.37,1.49)	1.46 (1.40,1.52)	1.50 (1.37,1.63)	0.00 (-0.06,0.06)	0.019	(-0.03,0.07)	0.05 (-0.10,0.20)
Parental behaviors, by child characteristics									
Gender									
Males	1.35 (1.30,1.40)	1.32 (1.22,1.42)	1.32 (1.23,1.40)	1.35 (1.27,1.44)	1.47 (1.35,1.59)	0.03 (-0.05,0.11)	0.058	(0.00,0.12)	0.15 *(0.00,0.30)
Females	1.56 (1.51,1.61)	1.61 (1.50,1.72)	1.55 (1.48,1.61)	1.57 (1.50,1.64)	1.53 (1.30,1.75)	-0.05 (-0.14,0.05)	-0.028	(-0.12,0.06)	-0.08 (-0.32,0.16)
Race/ethnicity									
White	1.48 (1.43,1.52)	1.46 (1.37,1.55)	1.49 (1.41,1.56)	1.49 (1.43,1.55)	1.55 (1.42,1.69)	0.02 (-0.05,0.09)	0.031	(-0.02,0.09)	0.09 (-0.06,0.25)
African American	1.34 (1.26,1.42)	1.19 (1.02,1.36)	1.30 (1.15,1.44)	1.36 (1.20,1.51)	1.27 (0.99,1.56)	0.15 *(0.01,0.29)	0.033	(-0.10,0.16)	0.08 (-0.25,0.41)
Hispanic	1.47 (1.36,1.57)	1.61 (1.40,1.82)	1.32 (1.17,1.47)	1.45 (1.29,1.61)	1.50 (1.21,1.80)	-0.14 (-0.30,0.01)	-0.027	(-0.15,0.10)	-0.10 (-0.45,0.24)

Table 6-62. The relationship between parental exposure[1] to specific anti-drug advertising and parents' monitoring behavior[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of parents (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Parental behaviors, by parent characteristics									
Gender									
Males_____	1.38	1.32	1.36	1.39	1.59	0.06	0.094	*(0.02,0.16)	0.27
	(1.32,1.44)	(1.21,1.43)	(1.26,1.47)	(1.29,1.49)	(1.43,1.75)	(-0.03,0.16)			*(0.08,0.47)
Females_____	1.49	1.51	1.46	1.50	1.46	-0.02	-0.016	(-0.08,0.05)	-0.05
	(1.45,1.53)	(1.42,1.60)	(1.38,1.54)	(1.43,1.57)	(1.29,1.62)	(-0.10,0.06)			(-0.24,0.13)
Education									
Less than college__	1.37	1.34	1.34	1.35	1.44	0.03	0.037	(-0.03,0.10)	0.10
	(1.32,1.42)	(1.22,1.45)	(1.26,1.43)	(1.28,1.42)	(1.30,1.58)	(-0.06,0.13)			(-0.07,0.27)
Some college +_____	1.52	1.56	1.50	1.55	1.55	-0.04	0.002	(-0.08,0.09)	-0.01
	(1.47,1.57)	(1.46,1.66)	(1.42,1.58)	(1.47,1.63)	(1.34,1.77)	(-0.13,0.06)			(-0.24,0.23)
Interview round [3]									
Waves 1-3_____	1.43	1.42	1.42	1.45	1.46	0.02	0.018	(-0.05,0.08)	0.05
	(1.39,1.48)	(1.34,1.49)	(1.35,1.50)	(1.37,1.53)	(1.30,1.63)	(-0.05,0.09)			(-0.13,0.23)
Waves 4-5_____	1.48	1.50	1.44	1.48	1.56	-0.02	0.021	(-0.04,0.08)	0.06
	(1.43,1.53)	(1.37,1.64)	(1.36,1.53)	(1.41,1.55)	(1.40,1.72)	(-0.14,0.09)			(-0.11,0.23)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-63. The relationship between parental exposure[1] to general anti-drug advertising and parents' talking behavior[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of parents (real or hypothetical) | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental behaviors, by age of child								
12 to 13_____	2.35	2.22	2.34	2.49	0.13	0.150	*(0.08,0.22)	0.27
	(2.31,2.40)	(2.14,2.31)	(2.27,2.41)	(2.42,2.56)	*(0.06,0.21)			*(0.16,0.38)
14 to 18_____	2.32	2.18	2.32	2.44	0.14	0.149	*(0.09,0.20)	0.26
	(2.28,2.36)	(2.10,2.26)	(2.24,2.40)	(2.39,2.49)	*(0.07,0.21)			*(0.16,0.36)
12 to 18_____	2.33	2.19	2.32	2.46	0.14	0.149	*(0.10,0.20)	0.26
	(2.29,2.37)	(2.13,2.26)	(2.26,2.39)	(2.41,2.50)	*(0.08,0.19)			*(0.18,0.35)
Parental behaviors, by child characteristics								
Gender								
Males_____	2.35	2.26	2.31	2.47	0.09	0.129	*(0.07,0.18)	0.21
	(2.31,2.39)	(2.19,2.34)	(2.22,2.40)	(2.41,2.53)	*(0.02,0.16)			*(0.11,0.31)
Females_____	2.30	2.12	2.35	2.44	0.19	0.170	*(0.11,0.23)	0.32
	(2.26,2.35)	(2.03,2.21)	(2.28,2.41)	(2.38,2.50)	*(0.12,0.25)			*(0.21,0.42)
Race/ethnicity								
White_____	2.28	2.12	2.32	2.42	0.17	0.167	*(0.11,0.22)	0.31
	(2.24,2.32)	(2.04,2.19)	(2.26,2.38)	(2.36,2.48)	*(0.11,0.23)			*(0.21,0.40)
African American__	2.42	2.42	2.24	2.53	0.00	0.058	(-0.08,0.19)	0.11
	(2.32,2.52)	(2.29,2.56)	(1.99,2.49)	(2.40,2.66)	(-0.15,0.15)			(-0.10,0.31)
Hispanic_____	2.51	2.39	2.55	2.56	0.12	0.134	*(0.03,0.24)	0.17
	(2.44,2.58)	(2.25,2.54)	(2.41,2.69)	(2.45,2.66)	(0.00,0.24)			(-0.01,0.34)

Table 6-63. The relationship between parental exposure[1] to general anti-drug advertising and parents' talking behavior[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

	Exposure level of parents (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental behaviors, by parent characteristics								
Gender								
Males_____	2.20	2.04	2.19	2.37	0.16	0.162	*(0.10,0.22)	0.33
	(2.15,2.26)	(1.93,2.15)	(2.10,2.27)	(2.30,2.44)	*(0.08,0.25)			*(0.21,0.45)
Females_____	2.40	2.27	2.40	2.50	0.12	0.144	*(0.08,0.21)	0.22
	(2.35,2.44)	(2.20,2.35)	(2.32,2.49)	(2.43,2.56)	*(0.06,0.19)			*(0.12,0.33)
Education								
Less than college__	2.36	2.24	2.34	2.49	0.12	0.146	*(0.08,0.22)	0.25
	(2.31,2.41)	(2.15,2.32)	(2.25,2.43)	(2.42,2.56)	*(0.05,0.20)			*(0.13,0.37)
Some college +____	2.30	2.15	2.31	2.42	0.15	0.153	*(0.10,0.21)	0.27
	(2.25,2.35)	(2.06,2.24)	(2.22,2.39)	(2.36,2.48)	*(0.08,0.23)			*(0.16,0.38)
Interview round [3]								
Waves 1-3_____	2.29	2.16	2.28	2.40	0.14	0.131	*(0.07,0.20)	0.25
	(2.25,2.34)	(2.05,2.26)	(2.19,2.37)	(2.34,2.46)	*(0.05,0.22)			*(0.12,0.37)
Waves 4-5_____	2.38	2.25	2.39	2.53	0.14	0.180	*(0.11,0.25)	0.28
	(2.34,2.43)	(2.16,2.34)	(2.32,2.47)	(2.47,2.59)	*(0.07,0.21)			*(0.18,0.39)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-64. The relationship between parental exposure[1] to specific anti-drug advertising and parents' talking behavior[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
Parental behaviors, by age of child									
12 to 13	2.35 (2.31,2.40)	2.24 (2.15,2.32)	2.33 (2.26,2.40)	2.40 (2.32,2.48)	2.55 (2.43,2.68)	0.12 *(0.04,0.19)	0.164	*(0.09,0.23)	0.32 *(0.17,0.46)
14 to 18	2.32 (2.28,2.36)	2.27 (2.19,2.35)	2.24 (2.18,2.30)	2.42 (2.36,2.48)	2.42 (2.28,2.56)	0.05 (-0.03,0.12)	0.115	*(0.04,0.19)	0.15 (-0.01,0.30)
12 to 18	2.33 (2.29,2.37)	2.26 (2.19,2.33)	2.27 (2.21,2.32)	2.41 (2.36,2.47)	2.46 (2.35,2.57)	0.07 *(0.01,0.13)	0.129	*(0.07,0.18)	0.20 *(0.08,0.31)
Parental behaviors, by child characteristics									
Gender									
Males	2.35 (2.31,2.39)	2.26 (2.17,2.36)	2.31 (2.25,2.38)	2.43 (2.37,2.50)	2.43 (2.27,2.59)	0.09 *(0.01,0.17)	0.126	*(0.04,0.21)	0.17 (-0.02,0.35)
Females	2.30 (2.26,2.35)	2.26 (2.16,2.35)	2.22 (2.14,2.30)	2.39 (2.32,2.45)	2.48 (2.32,2.65)	0.05 (-0.04,0.13)	0.134	*(0.05,0.21)	0.23 *(0.06,0.40)
Race/ethnicity									
White	2.28 (2.24,2.32)	2.13 (2.05,2.21)	2.24 (2.18,2.30)	2.38 (2.32,2.45)	2.35 (2.20,2.51)	0.15 *(0.08,0.22)	0.124	*(0.05,0.19)	0.22 *(0.06,0.38)
African American	2.42 (2.32,2.52)	2.44 (2.28,2.60)	2.30 (2.14,2.47)	2.52 (2.35,2.68)	2.50 (2.20,2.80)	-0.02 (-0.17,0.13)	0.113	(-0.07,0.29)	0.06 (-0.28,0.39)
Hispanic	2.51 (2.44,2.58)	2.60 (2.47,2.73)	2.37 (2.23,2.51)	2.51 (2.39,2.63)	2.74 (2.58,2.90)	-0.09 (-0.20,0.02)	0.153	(0.00,0.30)	0.14 (-0.05,0.34)

Table 6-64. The relationship between parental exposure[1] to specific anti-drug advertising and parents' talking behavior[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of parents (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Parental behaviors, by parent characteristics									
Gender									
Males_____	2.20	2.01	2.17	2.31	2.37	0.19	0.160	*(0.06,0.26)	0.36
	(2.15,2.26)	(1.89,2.14)	(2.08,2.26)	(2.21,2.41)	(2.16,2.59)	*(0.08,0.30)			*(0.11,0.61)
Females_____	2.40	2.38	2.32	2.47	2.50	0.02	0.115	*(0.05,0.18)	0.12
	(2.35,2.44)	(2.29,2.46)	(2.25,2.39)	(2.42,2.53)	(2.37,2.62)	(-0.05,0.09)			(-0.02,0.26)
Education									
Less than college__	2.36	2.29	2.25	2.45	2.43	0.07	0.107	*(0.03,0.18)	0.14
	(2.31,2.41)	(2.20,2.39)	(2.17,2.34)	(2.39,2.52)	(2.28,2.59)	(-0.02,0.15)			(-0.02,0.30)
Some college +____	2.30	2.23	2.27	2.37	2.48	0.07	0.146	*(0.05,0.24)	0.25
	(2.25,2.35)	(2.14,2.32)	(2.20,2.34)	(2.30,2.44)	(2.31,2.65)	(-0.02,0.16)			*(0.03,0.46)
Interview round [3]									
Waves 1-3_____	2.29	2.27	2.26	2.36	2.40	0.02	0.099	*(0.02,0.18)	0.13
	(2.25,2.34)	(2.20,2.34)	(2.19,2.33)	(2.28,2.44)	(2.23,2.56)	(-0.05,0.09)			(-0.04,0.30)
Waves 4-5_____	2.38	2.25	2.27	2.49	2.56	0.13	0.178	*(0.11,0.25)	0.31
	(2.34,2.43)	(2.14,2.35)	(2.19,2.36)	(2.43,2.54)	(2.46,2.66)	*(0.03,0.24)			*(0.16,0.46)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-65. The relationship between parental exposure[1] to general anti-drug advertising and parents' reports of fun activities[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

	Exposure level of parents (real or hypothetical)							
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Parental reports, by age of child								
12 to 13_____	0.74 (0.73,0.76)	0.71 (0.68,0.75)	0.75 (0.73,0.78)	0.75 (0.72,0.78)	0.03 *(0.01,0.06)	0.070	(-0.00,0.14)	0.04 (0.00,0.08)
14 to 18_____	0.58 (0.56,0.60)	0.51 (0.47,0.54)	0.58 (0.55,0.62)	0.61 (0.59,0.64)	0.07 *(0.04,0.10)	0.145	*(0.08,0.21)	0.11 *(0.06,0.15)
12 to 18_____	0.63 (0.61,0.64)	0.57 (0.54,0.60)	0.63 (0.60,0.66)	0.65 (0.63,0.68)	0.06 *(0.03,0.08)	0.121	*(0.07,0.17)	0.09 *(0.05,0.12)
Parental reports, by child characteristics								
Gender								
Males_____	0.60 (0.58,0.62)	0.56 (0.52,0.60)	0.62 (0.58,0.66)	0.62 (0.59,0.65)	0.04 *(0.01,0.07)	0.081	*(0.02,0.14)	0.06 *(0.02,0.10)
Females_____	0.65 (0.63,0.67)	0.58 (0.53,0.62)	0.65 (0.61,0.68)	0.69 (0.66,0.72)	0.08 *(0.04,0.11)	0.161	*(0.09,0.23)	0.11 *(0.06,0.16)
Race/ethnicity								
White_____	0.65 (0.63,0.66)	0.60 (0.56,0.64)	0.64 (0.61,0.67)	0.68 (0.65,0.70)	0.05 *(0.02,0.07)	0.109	*(0.05,0.17)	0.08 *(0.03,0.12)
African American__	0.58 (0.54,0.62)	0.52 (0.45,0.60)	0.61 (0.52,0.69)	0.60 (0.55,0.65)	0.06 (0.00,0.12)	0.110	(0.00,0.22)	0.08 *(0.00,0.16)
Hispanic_____	0.59 (0.56,0.62)	0.48 (0.42,0.55)	0.57 (0.48,0.67)	0.64 (0.59,0.70)	0.10 *(0.04,0.17)	0.220	*(0.11,0.33)	0.16 *(0.08,0.24)

Table 6-65. The relationship between parental exposure[1] to general anti-drug advertising and parents' reports of fun activities[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

	Exposure level of parents (real or hypothetical)							
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Parental reports, by parent characteristics								
Gender								
Males_____	0.64	0.57	0.65	0.66	0.06	0.122	*(0.04,0.20)	0.09
	(0.61,0.66)	(0.52,0.62)	(0.61,0.69)	(0.63,0.69)	*(0.02,0.10)			*(0.03,0.15)
Females_____	0.62	0.57	0.62	0.65	0.06	0.120	*(0.06,0.18)	0.09
	(0.60,0.64)	(0.53,0.60)	(0.59,0.65)	(0.62,0.68)	*(0.03,0.08)			*(0.04,0.13)
Education								
Less than college__	0.58	0.53	0.59	0.60	0.06	0.111	*(0.04,0.18)	0.08
	(0.56,0.60)	(0.49,0.57)	(0.55,0.63)	(0.58,0.63)	*(0.02,0.09)			*(0.03,0.13)
Some college +____	0.67	0.61	0.66	0.70	0.05	0.124	*(0.05,0.20)	0.09
	(0.65,0.69)	(0.57,0.66)	(0.63,0.70)	(0.67,0.73)	*(0.02,0.09)			*(0.03,0.14)
Interview round[3]								
Waves 1-3_____	0.62	0.56	0.64	0.65	0.07	0.135	*(0.07,0.20)	0.10
	(0.61,0.64)	(0.52,0.59)	(0.60,0.68)	(0.62,0.68)	*(0.03,0.10)			*(0.05,0.14)
Waves 4-5_____	0.63	0.59	0.62	0.66	0.04	0.100	*(0.03,0.17)	0.07
	(0.61,0.65)	(0.54,0.64)	(0.59,0.66)	(0.63,0.69)	*(0.01,0.08)			*(0.02,0.12)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-66. The relationship between parental exposure[1] to specific anti-drug advertising and parents' reports of fun activities[2], by both youth and parent characteristics, and by interview round

November 1999 through June 2002

Characteristics	Exposure level of parents (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Parental reports, by age of child									
12 to 13_____	0.74	0.71	0.73	0.76	0.77	0.04	0.096	*(0.01,0.18)	0.06
	(0.73,0.76)	(0.66,0.75)	(0.69,0.76)	(0.73,0.79)	(0.72,0.82)	(0.00,0.08)			(0.00,0.13)
14 to 18_____	0.58	0.49	0.59	0.58	0.70	0.09	0.209	*(0.14,0.28)	0.21
	(0.56,0.60)	(0.44,0.53)	(0.55,0.62)	(0.54,0.61)	(0.64,0.75)	*(0.06,0.13)			*(0.14,0.28)
12 to 18_____	0.63	0.55	0.63	0.63	0.72	0.07	0.175	*(0.12,0.23)	0.16
	(0.61,0.64)	(0.52,0.59)	(0.60,0.65)	(0.60,0.66)	(0.67,0.76)	*(0.05,0.10)			*(0.11,0.22)
Parental reports, by child characteristics									
Gender									
Males_____	0.60	0.49	0.60	0.62	0.71	0.11	0.234	*(0.16,0.31)	0.22
	(0.58,0.62)	(0.45,0.54)	(0.56,0.63)	(0.58,0.65)	(0.65,0.77)	*(0.08,0.15)			*(0.14,0.30)
Females_____	0.65	0.63	0.65	0.64	0.72	0.03	0.104	*(0.01,0.20)	0.10
	(0.63,0.67)	(0.57,0.68)	(0.62,0.69)	(0.61,0.68)	(0.66,0.78)	(-0.02,0.07)			*(0.01,0.18)
Race/ethnicity									
White_____	0.65	0.61	0.64	0.65	0.71	0.03	0.105	*(0.03,0.18)	0.10
	(0.63,0.66)	(0.58,0.65)	(0.61,0.67)	(0.61,0.69)	(0.65,0.77)	(0.00,0.06)			*(0.03,0.17)
African American__	0.58	0.41	0.63	0.57	0.67	0.17	0.254	*(0.10,0.41)	0.26
	(0.54,0.62)	(0.34,0.48)	(0.57,0.70)	(0.52,0.62)	(0.56,0.78)	*(0.11,0.23)			*(0.13,0.39)
Hispanic_____	0.59	0.45	0.55	0.60	0.78	0.14	0.382	*(0.22,0.55)	0.32
	(0.56,0.62)	(0.36,0.55)	(0.48,0.61)	(0.55,0.66)	(0.66,0.89)	*(0.05,0.22)			*(0.17,0.47)

Table 6-66. The relationship between parental exposure[1] to specific anti-drug advertising and parents' reports of fun activities[2], by both youth and parent characteristics, and by interview round (continued)

November 1999 through June 2002

| | Exposure level of parents (real or hypothetical) | | | | | | | | Potential maximum |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Campaign effect (C5-C2)
Parental reports, by parent characteristics									
Gender									
Males_____	0.64	0.61	0.63	0.63	0.74	0.02	0.130	*(0.03,0.23)	0.13
	(0.61,0.66)	(0.56,0.67)	(0.59,0.67)	(0.58,0.68)	(0.67,0.81)	(-0.03,0.07)			*(0.03,0.22)
Females_____	0.62	0.52	0.63	0.63	0.71	0.10	0.197	*(0.12,0.27)	0.18
	(0.60,0.64)	(0.48,0.57)	(0.59,0.66)	(0.60,0.66)	(0.65,0.76)	*(0.06,0.14)			*(0.11,0.25)
Education									
Less than college__	0.58	0.49	0.59	0.59	0.65	0.09	0.168	*(0.08,0.26)	0.16
	(0.56,0.60)	(0.43,0.54)	(0.55,0.63)	(0.56,0.62)	(0.58,0.72)	*(0.05,0.14)			*(0.08,0.25)
Some college +____	0.67	0.62	0.66	0.67	0.78	0.05	0.184	*(0.11,0.26)	0.16
	(0.65,0.69)	(0.57,0.66)	(0.62,0.69)	(0.63,0.71)	(0.73,0.83)	*(0.01,0.09)			*(0.10,0.23)
Interview round [3]									
Waves 1-3_____	0.62	0.58	0.62	0.63	0.74	0.05	0.186	*(0.11,0.27)	0.17
	(0.61,0.64)	(0.54,0.61)	(0.60,0.65)	(0.59,0.67)	(0.68,0.80)	*(0.02,0.08)			*(0.10,0.24)
Waves 4-5_____	0.63	0.52	0.63	0.63	0.67	0.11	0.158	*(0.08,0.24)	0.15
	(0.61,0.65)	(0.46,0.58)	(0.59,0.67)	(0.59,0.66)	(0.60,0.74)	*(0.06,0.16)			*(0.08,0.23)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Measurement of this construct is detailed in Appendix E.

[3]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-67. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' cognitions about monitoring their children[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Actual during period (C1)	Exposure level of parents Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Parental cognitions, by age of child								
12 to 13	121.73 (116.91,126.55)	128.85 (117.82,139.89)	115.62 (106.67,124.56)	125.94 (117.68,134.20)	-7.12 (-16.96,2.72)	-0.011	(-0.08,0.06)	-2.91 (-17.11,11.28)
14 to 18	77.50 (72.11,82.88)	86.45 (72.98,99.93)	83.60 (74.20,93.00)	81.55 (73.01,90.10)	-8.96 (-21.00,3.09)	-0.024	(-0.08,0.03)	-4.90 (-20.47,10.67)
12 to 18	90.76 (86.46,95.06)	99.21 (89.63,108.80)	92.40 (85.08,99.72)	95.77 (88.43,103.10)	-8.45 (-17.55,0.65)	-0.020	(-0.06,0.03)	-3.45 (-15.34,8.45)
Parental cognitions, by child characteristics								
Gender								
Males	83.62 (77.80,89.44)	85.76 (73.30,98.21)	86.61 (77.10,96.12)	91.13 (81.72,100.54)	-2.14 (-14.26,9.99)	0.010	(-0.05,0.07)	5.37 (-11.09,21.84)
Females	98.34 (92.67,104.01)	112.76 (100.03,125.48)	98.97 (89.12,108.81)	100.43 (90.24,110.61)	-14.42 *(-25.28,-3.55)	-0.048	(-0.10,0.00)	-12.33 (-25.85,1.19)
Race/ethnicity								
White	86.41 (81.73,91.09)	95.23 (84.09,106.37)	88.97 (81.00,96.94)	90.62 (81.77,99.48)	-8.82 (-19.25,1.61)	-0.022	(-0.08,0.03)	-4.61 (-19.16,9.94)
African American	92.65 (79.87,105.44)	103.08 (77.84,128.31)	98.78 (74.15,123.41)	93.74 (74.89,112.59)	-10.42 (-35.05,14.20)	-0.049	(-0.16,0.06)	-9.34 (-37.71,19.04)
Hispanic	110.45 (100.03,120.87)	116.32 (93.42,139.22)	119.76 (99.36,140.17)	113.39 (96.79,129.98)	-5.88 (-27.05,15.30)	-0.033	(-0.14,0.08)	-2.93 (-30.56,24.69)

Table 6-67. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' cognitions about monitoring their children[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental cognitions, by parent characteristics								
Gender								
Males_____	77.99	81.91	89.46	84.80	-3.92	-0.007	(-0.09,0.07)	2.89
	(69.60,86.39)	(62.10,101.72)	(75.69,103.23)	(75.28,94.32)	(-21.06,13.22)			(-18.58,24.36)
Females_____	97.41	107.48	94.18	101.10	-10.07	-0.024	(-0.08,0.03)	-6.38
	(92.67,102.16)	(96.02,118.95)	(85.16,103.20)	(91.39,110.81)	(-20.74,0.60)			(-20.21,7.44)
Education								
Less than college__	88.42	102.11	94.88	99.18	-13.69	-0.017	(-0.08,0.04)	-2.93
	(81.07,95.77)	(90.67,113.54)	(83.15,106.61)	(89.40,108.95)	*(-24.87,-2.50)			(-17.17,11.32)
Some college +____	92.72	97.79	90.74	92.90	-5.08	-0.024	(-0.09,0.04)	-4.89
	(87.47,97.96)	(85.11,110.47)	(80.20,101.29)	(82.45,103.36)	(-17.13,6.97)			(-21.79,12.02)
Longitudinal wave(s)[4]								
Wave 1-->4_____	91.88	107.32	88.87	89.22	-15.44	-0.059	(-0.12,0.00)	-18.10
	(85.24,98.52)	(96.46,118.19)	(78.04,99.71)	(74.89,103.56)	*(-24.75,-6.13)			*(-33.52,-2.68)
Wave 2-->5_____	88.08	89.63	92.96	95.03	-1.55	0.011	(-0.07,0.09)	5.40
	(80.39,95.78)	(70.71,108.56)	(78.85,107.07)	(82.73,107.33)	(-19.51,16.41)			(-16.91,27.71)
Wave 3-->5_____	92.42	102.03	94.80	102.84	-9.61	-0.015	(-0.09,0.06)	0.81
	(85.76,99.08)	(85.93,118.12)	(82.06,107.54)	(93.02,112.66)	(-24.16,4.94)			(-17.89,19.52)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-68. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' cognitions about monitoring their children[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Parental cognitions, by age of child								
12 to 13_____	121.73	124.35	120.92	121.40	-2.62	-0.015	(-0.08,0.05)	-2.94
	(116.91,126.55)	(113.87,134.83)	(112.03,129.81)	(112.15,130.65)	(-11.97,6.74)			(-16.17,10.28)
14 to 18_____	77.50	79.43	76.22	75.02	-1.93	-0.017	(-0.08,0.05)	-4.42
	(72.11,82.88)	(67.72,91.14)	(67.01,85.42)	(61.93,88.11)	(-13.65,9.78)			(-23.91,15.08)
12 to 18_____	90.76	92.26	89.45	89.67	-1.49	-0.011	(-0.07,0.05)	-2.59
	(86.46,95.06)	(82.56,101.95)	(81.85,97.04)	(79.37,99.97)	(-11.35,8.36)			(-18.64,13.47)
Parental cognitions, by child characteristics								
Gender								
Males_____	83.62	80.88	81.07	84.91	2.74	0.011	(-0.07,0.09)	4.03
	(77.80,89.44)	(65.19,96.56)	(71.59,90.55)	(71.96,97.85)	(-11.70,17.19)			(-18.17,26.22)
Females_____	98.34	104.78	97.96	94.94	-6.44	-0.034	(-0.10,0.03)	-9.84
	(92.67,104.01)	(93.24,116.32)	(88.13,107.79)	(83.35,106.52)	(-18.22,5.35)			(-27.03,7.35)
Race/ethnicity								
White_____	86.41	84.90	86.87	84.65	1.51	0.001	(-0.06,0.06)	-0.25
	(81.73,91.09)	(73.96,95.84)	(78.15,95.59)	(73.27,96.03)	(-8.21,11.24)			(-17.08,16.59)
African American__	92.65	98.91	92.30	93.69	-6.26	-0.054	(-0.20,0.09)	-5.23
	(79.87,105.44)	(62.38,135.45)	(70.22,114.39)	(76.86,110.51)	(-38.70,26.18)			(-44.39,33.94)
Hispanic_____	110.45	116.10	106.28	106.23	-5.66	-0.011	(-0.17,0.15)	-9.87
	(100.03,120.87)	(98.42,133.78)	(83.21,129.34)	(74.90,137.56)	(-25.72,14.41)			(-49.58,29.84)

Table 6-68. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' cognitions about monitoring their children[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | | | | Potential |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	maximum Campaign effect (C4-C2)
Parental cognitions, by parent characteristics								
Gender								
Males_____	77.99	80.16	76.22	79.63	-2.17	0.002	(-0.09,0.09)	-0.53
	(69.60,86.39)	(62.18,98.14)	(62.05,90.39)	(61.22,98.04)	(-18.98,14.64)			(-25.76,24.70)
Females_____	97.41	98.83	96.64	95.46	-1.42	-0.018	(-0.08,0.05)	-3.37
	(92.67,102.16)	(87.01,110.66)	(87.94,105.35)	(85.13,105.80)	(-12.33,9.49)			(-20.74,14.00)
Education								
Less than college__	88.42	89.95	90.30	77.29	-1.53	-0.049	(-0.14,0.05)	-12.66
	(81.07,95.77)	(69.56,110.34)	(79.32,101.27)	(62.35,92.24)	(-21.04,17.98)			(-39.56,14.24)
Some college +____	92.72	94.10	89.07	100.33	-1.38	0.019	(-0.04,0.08)	6.23
	(87.47,97.96)	(82.59,105.60)	(79.49,98.65)	(91.02,109.63)	(-11.13,8.36)			(-10.30,22.76)
Longitudinal wave(s)[4]								
Wave 1-->4_____	91.88	98.83	87.15	93.31	-6.95	-0.028	(-0.10,0.05)	-5.51
	(85.24,98.52)	(83.29,114.36)	(74.83,99.47)	(82.46,104.17)	(-21.86,7.96)			(-25.98,14.96)
Wave 2-->5_____	88.08	82.68	97.74	78.39	5.40	-0.022	(-0.12,0.08)	-4.29
	(80.39,95.78)	(64.16,101.21)	(83.39,112.08)	(58.74,98.05)	(-12.55,23.35)			(-35.36,26.78)
Wave 3-->5_____	92.42	95.21	84.07	98.62	-2.79	0.016	(-0.08,0.11)	3.42
	(85.76,99.08)	(77.59,112.82)	(73.45,94.68)	(83.92,113.33)	(-20.15,14.57)			(-21.34,28.18)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-69. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' cognitions about talking to their children about drugs[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental cognitions, by age of child								
12 to 13_____	106.86 (101.29,112.42)	102.20 (87.45,116.94)	100.24 (89.89,110.60)	117.82 (107.68,127.96)	4.66 (-8.11,17.43)	0.052	(-0.02,0.12)	15.63 (-3.00,34.25)
14 to 18_____	97.18 (92.17,102.19)	96.88 (85.63,108.13)	90.81 (81.92,99.70)	106.43 (97.96,114.90)	0.30 (-9.73,10.33)	0.041	(-0.02,0.10)	9.55 (-3.94,23.05)
12 to 18_____	100.08 (95.78,104.39)	98.48 (89.50,107.46)	93.40 (85.48,101.32)	110.08 (102.66,117.50)	1.60 (-6.58,9.78)	0.046	(-0.00,0.09)	11.60 *(0.10,23.10)
Parental cognitions, by child characteristics								
Gender								
Males_____	95.29 (89.06,101.52)	95.03 (83.89,106.17)	87.52 (75.76,99.28)	105.29 (94.87,115.71)	0.26 (-10.38,10.90)	0.039	(-0.03,0.11)	10.26 (-5.85,26.37)
Females_____	105.18 (99.66,110.71)	101.98 (90.86,113.09)	100.07 (90.94,109.21)	114.89 (105.40,124.39)	3.21 (-6.22,12.64)	0.051	(-0.00,0.11)	12.92 *(0.17,25.67)
Race/ethnicity								
White_____	88.72 (84.03,93.40)	85.86 (75.15,96.57)	84.35 (75.22,93.47)	101.45 (91.90,111.01)	2.85 (-7.03,12.74)	0.062	*(0.00,0.12)	15.59 *(0.98,30.21)
African American__	120.95 (109.03,132.87)	117.67 (89.97,145.36)	120.38 (105.71,135.05)	124.53 (107.67,141.40)	3.29 (-19.00,25.57)	0.022	(-0.08,0.13)	6.87 (-20.88,34.62)
Hispanic_____	131.20 (119.16,143.24)	143.14 (121.61,164.67)	123.08 (107.02,139.14)	127.42 (110.45,144.38)	-11.94 (-30.56,6.69)	-0.069	(-0.20,0.07)	-15.72 (-41.40,9.96)

Table 6-69. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' cognitions about talking to their children about drugs[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

Characteristics	Exposure level of parents				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental cognitions, by parent characteristics								
Gender								
Males_____	86.14	86.88	80.42	99.07	-0.74	0.040	(-0.03,0.11)	12.20
	(78.46,93.82)	(70.87,102.88)	(67.61,93.22)	(88.40,109.75)	(-14.26,12.78)			(-6.53,30.93)
Females_____	107.34	104.02	101.26	115.43	3.32	0.050	(-0.00,0.10)	11.40
	(102.28,112.40)	(93.78,114.27)	(92.33,110.19)	(105.32,125.53)	(-5.55,12.19)			(-1.16,23.97)
Education								
Less than college__	108.56	108.69	107.45	118.15	-0.13	0.022	(-0.05,0.09)	9.45
	(102.32,114.80)	(93.85,123.53)	(96.06,118.83)	(107.82,128.48)	(-12.57,12.31)			(-7.44,26.35)
Some college +____	93.47	90.98	84.04	103.31	2.49	0.055	(-0.01,0.12)	12.33
	(87.89,99.04)	(80.35,101.61)	(72.56,95.51)	(92.41,114.20)	(-7.89,12.86)			(-3.06,27.71)
Longitudinal wave(s)[4]								
Wave 1-->4_____	100.33	103.91	90.29	105.91	-3.57	0.007	(-0.06,0.08)	2.00
	(93.07,107.59)	(89.79,118.02)	(78.38,102.20)	(93.06,118.76)	(-14.15,7.01)			(-14.94,18.95)
Wave 2-->5_____	101.32	96.36	102.34	111.01	4.96	0.056	(-0.03,0.14)	14.65
	(93.46,109.18)	(80.84,111.88)	(87.39,117.28)	(97.60,124.41)	(-9.93,19.86)			(-3.94,33.23)
Wave 3-->5_____	98.67	96.57	87.21	113.17	2.10	0.064	(-0.01,0.14)	16.60
	(91.09,106.25)	(80.41,112.73)	(71.97,102.45)	(101.95,124.38)	(-11.74,15.95)			(-3.17,36.38)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-70. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' cognitions about talking to their children about drugs[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Exposure level of parents				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Parental cognitions, by age of child								
12 to 13_____	106.86	105.70	107.49	110.84	1.15	0.027	(-0.04,0.09)	5.14
	(101.29,112.42)	(94.54,116.87)	(97.36,117.61)	(99.28,122.40)	(-8.67,10.97)			(-11.03,21.30)
14 to 18_____	97.18	100.91	93.11	98.48	-3.73	0.004	(-0.06,0.07)	-2.43
	(92.17,102.19)	(91.57,110.25)	(84.02,102.20)	(86.95,110.00)	(-13.39,5.94)			(-18.40,13.54)
12 to 18_____	100.08	102.28	97.36	102.38	-2.19	0.012	(-0.04,0.06)	0.11
	(95.78,104.39)	(94.28,110.27)	(90.01,104.72)	(93.56,111.21)	(-10.39,6.01)			(-12.52,12.73)
Parental cognitions, by child characteristics								
Gender								
Males_____	95.29	96.94	91.73	101.32	-1.65	0.015	(-0.05,0.09)	4.38
	(89.06,101.52)	(84.20,109.67)	(81.32,102.15)	(90.10,112.53)	(-13.42,10.13)			(-12.97,21.72)
Females_____	105.18	108.21	103.09	103.56	-3.02	0.008	(-0.05,0.07)	-4.65
	(99.66,110.71)	(97.89,118.52)	(94.25,111.93)	(92.83,114.29)	(-14.08,8.04)			(-20.56,11.27)
Race/ethnicity								
White_____	88.72	93.21	84.96	90.96	-4.49	0.001	(-0.06,0.06)	-2.25
	(84.03,93.40)	(84.93,101.49)	(75.60,94.33)	(80.67,101.26)	(-12.30,3.31)			(-15.74,11.24)
African American__	120.95	122.60	121.17	129.91	-1.65	0.043	(-0.10,0.19)	7.30
	(109.03,132.87)	(96.85,148.36)	(103.81,138.53)	(112.31,147.51)	(-25.16,21.85)			(-22.54,37.15)
Hispanic_____	131.20	122.21	138.85	121.04	8.99	0.017	(-0.16,0.19)	-1.17
	(119.16,143.24)	(99.86,144.57)	(120.85,156.86)	(95.04,147.03)	(-15.65,33.63)			(-37.40,35.05)

Table 6-70. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' cognitions about talking to their children about drugs[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct Campaign effect | | 95% CI of | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	(C1-C2)	Gamma	gamma	(C4-C2)
Parental cognitions, by parent characteristics								
Gender								
Males_____	86.14	92.77	79.68	88.52	-6.63	-0.009	(-0.09,0.07)	-4.25
	(78.46,93.82)	(77.09,108.44)	(63.91,95.46)	(73.32,103.71)	(-21.70,8.45)			(-25.61,17.11)
Females_____	107.34	107.45	106.98	110.38	-0.10	0.027	(-0.04,0.09)	2.93
	(102.28,112.40)	(99.22,115.67)	(98.98,114.98)	(99.67,121.09)	(-8.51,8.31)			(-11.24,17.11)
Education								
Less than college__	108.56	114.11	110.89	102.10	-5.55	-0.040	(-0.13,0.05)	-12.02
	(102.32,114.80)	(99.69,128.54)	(100.14,121.65)	(89.06,115.14)	(-20.10,8.99)			(-32.80,8.77)
Some college +____	93.47	92.83	87.28	102.63	0.63	0.053	(-0.00,0.11)	9.79
	(87.89,99.04)	(83.29,102.37)	(77.54,97.02)	(92.21,113.04)	(-7.89,9.16)			(-4.71,24.30)
Longitudinal wave(s)[4]								
Wave 1-->4_____	100.33	104.96	95.81	100.76	-4.63	-0.028	(-0.11,0.06)	-4.20
	(93.07,107.59)	(91.35,118.58)	(83.89,107.74)	(87.28,114.24)	(-17.33,8.07)			(-24.67,16.28)
Wave 2-->5_____	101.32	100.89	107.95	102.42	0.43	0.028	(-0.08,0.14)	1.53
	(93.46,109.18)	(86.47,115.31)	(94.64,121.26)	(86.17,118.67)	(-15.10,15.97)			(-23.33,26.40)
Wave 3-->5_____	98.67	101.12	89.44	103.90	-2.45	0.034	(-0.05,0.11)	2.77
	(91.09,106.25)	(87.09,115.16)	(75.62,103.26)	(89.57,118.22)	(-15.89,10.98)			(-17.88,23.43)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-71. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' monitoring behavior[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental behaviors, by age of child								
12 to 13_____	1.82 (1.75,1.89)	1.94 (1.82,2.06)	1.82 (1.70,1.94)	1.81 (1.67,1.94)	-0.12 *(-0.22,-0.01)	-0.056	(-0.13,0.02)	-0.13 *(-0.26,0.00)
14 to 18_____	1.34 (1.29,1.39)	1.39 (1.29,1.48)	1.29 (1.20,1.39)	1.37 (1.28,1.47)	-0.04 (-0.13,0.04)	-0.008	(-0.08,0.06)	-0.01 (-0.16,0.13)
12 to 18_____	1.49 (1.45,1.53)	1.55 (1.48,1.63)	1.44 (1.35,1.53)	1.51 (1.44,1.59)	-0.07 (-0.14,0.01)	-0.019	(-0.07,0.04)	-0.04 (-0.15,0.07)
Parental behaviors, by child characteristics								
Gender								
Males_____	1.38 (1.32,1.44)	1.44 (1.33,1.54)	1.35 (1.23,1.48)	1.41 (1.30,1.52)	-0.06 (-0.16,0.04)	-0.013	(-0.09,0.06)	-0.03 (-0.19,0.13)
Females_____	1.60 (1.55,1.66)	1.67 (1.56,1.79)	1.54 (1.43,1.66)	1.62 (1.54,1.71)	-0.07 (-0.16,0.02)	-0.024	(-0.09,0.04)	-0.05 (-0.18,0.07)
Race/ethnicity								
White_____	1.50 (1.45,1.55)	1.58 (1.47,1.69)	1.49 (1.39,1.58)	1.54 (1.45,1.64)	-0.08 (-0.18,0.02)	-0.023	(-0.10,0.05)	-0.04 (-0.19,0.11)
African American__	1.34 (1.23,1.46)	1.33 (1.11,1.55)	1.25 (0.97,1.54)	1.23 (1.01,1.45)	0.01 (-0.22,0.25)	-0.055	(-0.21,0.10)	-0.10 (-0.43,0.23)
Hispanic_____	1.58 (1.46,1.71)	1.69 (1.45,1.94)	1.41 (1.12,1.70)	1.65 (1.48,1.82)	-0.11 (-0.34,0.11)	-0.008	(-0.15,0.13)	-0.05 (-0.35,0.25)

Table 6-71. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' monitoring behavior[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | | | | Potential |
| | Actual during period (C1) | Less than 4 times per month (C2) | 4-11 times per month (C3) | 12 or more times per month (C4) | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | maximum Campaign effect (C4-C2) |
Characteristics								
Parental behaviors, by parent characteristics								
Gender								
Males_____	1.42 (1.35,1.49)	1.53 (1.37,1.69)	1.39 (1.25,1.53)	1.45 (1.36,1.55)	-0.11 (-0.25,0.02)	-0.038	(-0.13,0.05)	-0.08 (-0.26,0.11)
Females_____	1.52 (1.48,1.57)	1.57 (1.47,1.66)	1.47 (1.37,1.57)	1.54 (1.45,1.63)	-0.04 (-0.13,0.05)	-0.008	(-0.07,0.06)	-0.02 (-0.16,0.11)
Education								
Less than college__	1.44 (1.38,1.50)	1.47 (1.33,1.61)	1.37 (1.22,1.52)	1.55 (1.47,1.63)	-0.03 (-0.16,0.10)	0.041	(-0.03,0.12)	0.08 (-0.07,0.24)
Some college +____	1.53 (1.47,1.58)	1.63 (1.53,1.72)	1.48 (1.38,1.59)	1.48 (1.36,1.60)	-0.10 *(-0.19,-0.01)	-0.067	(-0.14,0.01)	-0.15 (-0.30,0.01)
Longitudinal wave(s)[4]								
Wave 1-->4_____	1.46 (1.38,1.54)	1.52 (1.38,1.66)	1.41 (1.27,1.55)	1.56 (1.42,1.71)	-0.06 (-0.19,0.06)	0.028	(-0.06,0.12)	0.04 (-0.15,0.23)
Wave 2-->5_____	1.44 (1.38,1.51)	1.47 (1.33,1.61)	1.42 (1.30,1.55)	1.42 (1.28,1.56)	-0.03 (-0.15,0.10)	-0.021	(-0.12,0.08)	-0.05 (-0.26,0.16)
Wave 3-->5_____	1.55 (1.49,1.62)	1.65 (1.51,1.79)	1.48 (1.34,1.62)	1.56 (1.43,1.68)	-0.10 (-0.23,0.03)	-0.048	(-0.15,0.05)	-0.10 (-0.30,0.11)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-72. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' monitoring behavior[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct Campaign effect | | 95% CI of gamma | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	(C1-C2)	Gamma		(C4-C2)
Parental behaviors, by age of child								
12 to 13_____	1.82 (1.75,1.89)	1.84 (1.69,1.99)	1.75 (1.63,1.87)	1.82 (1.69,1.96)	-0.02 (-0.15,0.11)	-0.013	(-0.11,0.08)	-0.02 (-0.21,0.17)
14 to 18_____	1.34 (1.29,1.39)	1.32 (1.21,1.42)	1.29 (1.21,1.37)	1.33 (1.21,1.45)	0.03 (-0.07,0.13)	0.005	(-0.07,0.08)	0.01 (-0.14,0.17)
12 to 18_____	1.49 (1.45,1.53)	1.47 (1.37,1.56)	1.43 (1.36,1.49)	1.49 (1.39,1.58)	0.02 (-0.07,0.11)	0.008	(-0.06,0.07)	0.02 (-0.11,0.15)
Parental behaviors, by child characteristics								
Gender								
Males_____	1.38 (1.32,1.44)	1.29 (1.17,1.42)	1.33 (1.24,1.42)	1.37 (1.25,1.50)	0.09 (-0.04,0.21)	0.038	(-0.06,0.13)	0.08 (-0.12,0.28)
Females_____	1.60 (1.55,1.66)	1.65 (1.52,1.79)	1.53 (1.44,1.62)	1.61 (1.49,1.73)	-0.05 (-0.17,0.07)	-0.024	(-0.11,0.06)	-0.04 (-0.22,0.14)
Race/ethnicity								
White_____	1.50 (1.45,1.55)	1.52 (1.41,1.62)	1.43 (1.36,1.51)	1.51 (1.41,1.61)	-0.02 (-0.10,0.07)	-0.007	(-0.07,0.06)	-0.01 (-0.14,0.12)
African American__	1.34 (1.23,1.46)	1.32 (1.02,1.61)	1.39 (1.18,1.60)	1.24 (0.94,1.53)	0.03 (-0.25,0.30)	-0.039	(-0.24,0.16)	-0.08 (-0.51,0.34)
Hispanic_____	1.58 (1.46,1.71)	1.41 (1.14,1.68)	1.47 (1.28,1.66)	1.59 (1.40,1.78)	0.17 (-0.07,0.41)	0.084	(-0.06,0.22)	0.18 (-0.13,0.49)

Table 6-72. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' monitoring behavior[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Parental behaviors, by parent characteristics								
Gender								
Males_____	1.42 (1.35,1.49)	1.41 (1.25,1.57)	1.37 (1.22,1.51)	1.45 (1.31,1.59)	0.01 (-0.15,0.17)	0.020	(-0.09,0.13)	0.04 (-0.18,0.27)
Females_____	1.52 (1.48,1.57)	1.50 (1.38,1.61)	1.46 (1.39,1.54)	1.51 (1.39,1.63)	0.03 (-0.08,0.13)	0.003	(-0.08,0.08)	0.01 (-0.16,0.18)
Education								
Less than college__	1.44 (1.38,1.50)	1.38 (1.21,1.56)	1.35 (1.25,1.45)	1.35 (1.23,1.47)	0.05 (-0.10,0.21)	-0.016	(-0.12,0.09)	-0.03 (-0.25,0.18)
Some college +____	1.53 (1.47,1.58)	1.53 (1.43,1.64)	1.49 (1.39,1.59)	1.60 (1.50,1.71)	0.00 (-0.10,0.09)	0.032	(-0.04,0.10)	0.07 (-0.08,0.22)
Longitudinal wave(s)[4]								
Wave 1-->4_____	1.46 (1.38,1.54)	1.41 (1.25,1.58)	1.42 (1.30,1.54)	1.51 (1.39,1.64)	0.05 (-0.11,0.20)	0.046	(-0.06,0.15)	0.10 (-0.11,0.32)
Wave 2-->5_____	1.44 (1.38,1.51)	1.39 (1.24,1.53)	1.50 (1.38,1.62)	1.36 (1.20,1.51)	0.06 (-0.07,0.18)	-0.021	(-0.13,0.09)	-0.03 (-0.24,0.18)
Wave 3-->5_____	1.55 (1.49,1.62)	1.59 (1.42,1.76)	1.37 (1.24,1.49)	1.61 (1.46,1.75)	-0.04 (-0.20,0.13)	0.005	(-0.10,0.11)	0.02 (-0.22,0.25)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-73. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' talking behavior[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Parental behaviors, by age of child								
12 to 13	2.43 (2.37,2.49)	2.33 (2.20,2.46)	2.46 (2.37,2.54)	2.48 (2.36,2.59)	0.10 (-0.01,0.21)	0.080	(-0.02,0.18)	0.15 (-0.02,0.31)
14 to 18	2.38 (2.33,2.44)	2.34 (2.20,2.48)	2.40 (2.32,2.49)	2.45 (2.36,2.54)	0.04 (-0.08,0.16)	0.083	(-0.01,0.18)	0.10 (-0.06,0.27)
12 to 18	2.40 (2.35,2.44)	2.34 (2.24,2.44)	2.42 (2.35,2.49)	2.46 (2.37,2.54)	0.06 (-0.03,0.15)	0.083	*(0.01,0.16)	0.12 (0.00,0.24)
Parental behaviors, by child characteristics								
Gender								
Males	2.40 (2.35,2.46)	2.36 (2.26,2.46)	2.38 (2.28,2.48)	2.46 (2.34,2.58)	0.04 (-0.04,0.13)	0.084	(-0.02,0.19)	0.10 (-0.05,0.26)
Females	2.39 (2.32,2.46)	2.32 (2.16,2.49)	2.46 (2.36,2.56)	2.45 (2.36,2.54)	0.07 (-0.07,0.21)	0.081	(-0.01,0.18)	0.13 (-0.04,0.30)
Race/ethnicity								
White	2.33 (2.27,2.39)	2.23 (2.10,2.35)	2.37 (2.28,2.46)	2.40 (2.30,2.50)	0.10 (-0.01,0.21)	0.103	*(0.02,0.19)	0.17 *(0.02,0.32)
African American	2.52 (2.41,2.62)	2.57 (2.40,2.74)	2.48 (2.27,2.68)	2.58 (2.44,2.71)	-0.05 (-0.19,0.09)	-0.002	(-0.18,0.18)	0.01 (-0.19,0.21)
Hispanic	2.61 (2.52,2.70)	2.66 (2.49,2.83)	2.64 (2.46,2.83)	2.57 (2.42,2.72)	-0.05 (-0.20,0.10)	-0.001	(-0.21,0.21)	-0.09 (-0.32,0.15)

Table 6-73. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' talking behavior[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

	Exposure level of parents				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental behaviors, by parent characteristics								
Gender								
Males_____	2.31	2.22	2.26	2.40	0.09	0.093	(-0.04,0.22)	0.18
	(2.24,2.37)	(1.98,2.46)	(2.13,2.38)	(2.30,2.50)	(-0.13,0.31)			(-0.08,0.44)
Females_____	2.44	2.40	2.52	2.48	0.05	0.081	(-0.01,0.18)	0.09
	(2.39,2.50)	(2.31,2.49)	(2.44,2.59)	(2.38,2.59)	(-0.03,0.12)			(-0.04,0.21)
Education								
Less than college__	2.49	2.45	2.55	2.54	0.03	0.078	(-0.01,0.17)	0.09
	(2.42,2.55)	(2.35,2.56)	(2.46,2.64)	(2.43,2.64)	(-0.04,0.11)			(-0.03,0.20)
Some college +_____	2.32	2.25	2.33	2.39	0.08	0.085	(-0.01,0.18)	0.14
	(2.27,2.38)	(2.10,2.40)	(2.23,2.43)	(2.27,2.50)	(-0.06,0.21)			(-0.04,0.32)
Longitudinal wave(s)[4]								
Wave 1-->4_____	2.36	2.34	2.34	2.36	0.01	0.009	(-0.09,0.11)	0.02
	(2.30,2.42)	(2.22,2.47)	(2.23,2.46)	(2.25,2.48)	(-0.09,0.12)			(-0.15,0.19)
Wave 2-->5_____	2.43	2.39	2.45	2.52	0.03	0.090	(-0.04,0.22)	0.13
	(2.36,2.49)	(2.27,2.51)	(2.34,2.57)	(2.39,2.65)	(-0.08,0.15)			(-0.05,0.31)
Wave 3-->5_____	2.40	2.29	2.45	2.48	0.11	0.149	*(0.02,0.28)	0.19
	(2.32,2.49)	(2.08,2.50)	(2.33,2.57)	(2.36,2.60)	(-0.07,0.29)			(-0.03,0.42)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-74. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' talking behavior[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Parental behaviors, by age of child								
12 to 13_____	2.43	2.38	2.44	2.52	0.05	0.063	(-0.04,0.17)	0.14
	(2.37,2.49)	(2.26,2.50)	(2.34,2.54)	(2.44,2.60)	(-0.06,0.15)			(0.00,0.28)
14 to 18_____	2.38	2.42	2.32	2.40	-0.03	0.010	(-0.06,0.09)	-0.02
	(2.33,2.44)	(2.33,2.50)	(2.23,2.41)	(2.31,2.49)	(-0.10,0.03)			(-0.13,0.09)
12 to 18_____	2.40	2.41	2.36	2.44	-0.01	0.029	(-0.03,0.09)	0.03
	(2.35,2.44)	(2.33,2.48)	(2.28,2.43)	(2.36,2.51)	(-0.07,0.05)			(-0.06,0.12)
Parental behaviors, by child characteristics								
Gender								
Males_____	2.40	2.37	2.38	2.49	0.04	0.087	(-0.00,0.18)	0.12
	(2.35,2.46)	(2.27,2.46)	(2.28,2.47)	(2.39,2.58)	(-0.05,0.13)			(-0.01,0.26)
Females_____	2.39	2.45	2.34	2.38	-0.06	-0.033	(-0.12,0.05)	-0.07
	(2.32,2.46)	(2.36,2.54)	(2.22,2.46)	(2.29,2.47)	(-0.14,0.02)			(-0.19,0.05)
Race/ethnicity								
White_____	2.33	2.36	2.29	2.34	-0.03	-0.005	(-0.06,0.05)	-0.03
	(2.27,2.39)	(2.29,2.43)	(2.20,2.38)	(2.24,2.43)	(-0.09,0.02)			(-0.12,0.07)
African American__	2.52	2.47	2.50	2.70	0.05	0.178	(-0.06,0.42)	0.23
	(2.41,2.62)	(2.24,2.69)	(2.32,2.67)	(2.58,2.82)	(-0.13,0.24)			(-0.03,0.50)
Hispanic_____	2.61	2.60	2.64	2.58	0.01	0.028	(-0.23,0.29)	-0.02
	(2.52,2.70)	(2.41,2.79)	(2.46,2.82)	(2.42,2.75)	(-0.17,0.19)			(-0.30,0.27)

Table 6-74. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' talking behavior[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct Campaign effect | | 95% CI of gamma | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	(C1-C2)	Gamma		(C4-C2)
Parental behaviors, by parent characteristics								
Gender								
Males	2.31	2.37	2.22	2.36	-0.06	-0.011	(-0.11,0.09)	-0.02
	(2.24,2.37)	(2.26,2.48)	(2.10,2.34)	(2.23,2.48)	(-0.17,0.04)			(-0.17,0.14)
Females	2.44	2.42	2.43	2.48	0.02	0.057	(-0.03,0.14)	0.06
	(2.39,2.50)	(2.33,2.52)	(2.35,2.52)	(2.39,2.58)	(-0.05,0.09)			(-0.06,0.18)
Education								
Less than college	2.49	2.55	2.43	2.48	-0.07	-0.022	(-0.12,0.08)	-0.08
	(2.42,2.55)	(2.47,2.64)	(2.31,2.55)	(2.35,2.60)	(-0.14,0.01)			(-0.20,0.05)
Some college +	2.32	2.29	2.30	2.40	0.04	0.063	(-0.02,0.14)	0.11
	(2.27,2.38)	(2.18,2.39)	(2.21,2.40)	(2.31,2.49)	(-0.04,0.12)			(-0.02,0.24)
Longitudinal wave(s)[4]								
Wave 1-->4	2.36	2.42	2.31	2.37	-0.07	-0.032	(-0.12,0.05)	-0.05
	(2.30,2.42)	(2.32,2.53)	(2.21,2.42)	(2.25,2.49)	(-0.15,0.02)			(-0.20,0.09)
Wave 2-->5	2.43	2.37	2.46	2.51	0.06	0.075	(-0.06,0.21)	0.14
	(2.36,2.49)	(2.23,2.50)	(2.35,2.56)	(2.38,2.64)	(-0.06,0.18)			(-0.03,0.32)
Wave 3-->5	2.40	2.43	2.31	2.42	-0.02	0.035	(-0.08,0.15)	-0.01
	(2.32,2.49)	(2.29,2.56)	(2.17,2.45)	(2.30,2.53)	(-0.14,0.09)			(-0.18,0.16)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-75. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' reports of fun activities[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Exposure level of parents				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental reports, by age of child								
12 to 13	0.75	0.75	0.74	0.77	0.00	0.054	(-0.08,0.19)	0.03
	(0.7,0.8)	(0.69,0.80)	(0.69,0.79)	(0.73,0.82)	(-0.05,0.05)			(-0.04,0.10)
14 to 18	0.56	0.50	0.52	0.58	0.06	0.109	*(0.01,0.21)	0.08
	(0.5,0.6)	(0.44,0.56)	(0.47,0.57)	(0.54,0.63)	(0.00,0.11)			*(0.01,0.16)
12 to 18	0.61	0.57	0.58	0.65	0.04	0.098	*(0.02,0.18)	0.07
	(0.6,0.6)	(0.53,0.62)	(0.54,0.63)	(0.61,0.68)	(0.00,0.08)			*(0.01,0.13)
Parental reports, by child characteristics								
Gender								
Males	0.58	0.56	0.56	0.61	0.02	0.064	(-0.04,0.17)	0.05
	(0.55,0.62)	(0.51,0.62)	(0.50,0.61)	(0.56,0.66)	(-0.03,0.07)			(-0.03,0.12)
Females	0.65	0.59	0.61	0.68	0.06	0.134	*(0.02,0.25)	0.09
	(0.62,0.67)	(0.51,0.66)	(0.55,0.67)	(0.63,0.72)	(0.00,0.12)			*(0.01,0.18)
Race/ethnicity								
White	0.64	0.60	0.62	0.65	0.04	0.067	(-0.03,0.16)	0.05
	(0.61,0.67)	(0.54,0.66)	(0.57,0.68)	(0.61,0.69)	(-0.01,0.08)			(-0.02,0.12)
African American	0.55	0.52	0.50	0.59	0.03	0.103	(-0.09,0.29)	0.07
	(0.50,0.61)	(0.40,0.64)	(0.38,0.61)	(0.50,0.68)	(-0.07,0.14)			(-0.07,0.22)
Hispanic	0.59	0.53	0.45	0.68	0.06	0.215	*(0.01,0.42)	0.15
	(0.53,0.66)	(0.40,0.66)	(0.32,0.58)	(0.60,0.75)	(-0.06,0.19)			(0.00,0.30)

Table 6-75. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and parents' reports of fun activities[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

Characteristics	Exposure level of parents				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental reports, by parent characteristics								
Gender								
Males_____	0.62	0.59	0.61	0.63	0.03	0.051	(-0.10,0.20)	0.04
	(0.58,0.66)	(0.50,0.68)	(0.54,0.69)	(0.57,0.68)	(-0.05,0.12)			(-0.07,0.15)
Females_____	0.61	0.57	0.56	0.65	0.04	0.121	*(0.04,0.21)	0.09
	(0.59,0.64)	(0.52,0.62)	(0.52,0.61)	(0.61,0.70)	(0.00,0.09)			*(0.02,0.15)
Education								
Less than college__	0.59	0.57	0.51	0.64	0.02	0.103	*(0.00,0.20)	0.07
	(0.56,0.62)	(0.51,0.63)	(0.44,0.58)	(0.59,0.69)	(-0.03,0.07)			(0.00,0.15)
Some college +____	0.64	0.58	0.63	0.65	0.06	0.095	(-0.00,0.19)	0.07
	(0.61,0.66)	(0.52,0.64)	(0.58,0.68)	(0.60,0.70)	*(0.01,0.11)			(0.00,0.14)
Longitudinal wave(s)[4]								
Wave 1-->4_____	0.66	0.66	0.66	0.66	-0.01	-0.005	(-0.13,0.12)	0.00
	(0.62,0.69)	(0.60,0.72)	(0.61,0.71)	(0.60,0.72)	(-0.06,0.04)			(-0.09,0.08)
Wave 2-->5_____	0.60	0.50	0.55	0.66	0.10	0.214	*(0.08,0.34)	0.16
	(0.56,0.63)	(0.42,0.58)	(0.48,0.63)	(0.59,0.73)	*(0.02,0.17)			*(0.06,0.26)
Wave 3-->5_____	0.60	0.58	0.54	0.62	0.02	0.047	(-0.10,0.20)	0.04
	(0.56,0.63)	(0.50,0.66)	(0.47,0.62)	(0.55,0.68)	(-0.06,0.09)			(-0.07,0.15)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-76. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' reports of fun activities[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Parental reports, by age of child								
12 to 13_____	0.75	0.77	0.70	0.76	-0.03	-0.024	(-0.15,0.11)	-0.02
	(0.72,0.77)	(0.72,0.82)	(0.64,0.76)	(0.71,0.80)	(-0.08,0.02)			(-0.09,0.06)
14 to 18_____	0.56	0.53	0.55	0.57	0.03	0.050	(-0.05,0.15)	0.04
	(0.53,0.59)	(0.48,0.58)	(0.51,0.60)	(0.52,0.61)	(-0.02,0.08)			(-0.04,0.11)
12 to 18_____	0.61	0.60	0.60	0.63	0.02	0.038	(-0.04,0.12)	0.03
	(0.59,0.64)	(0.56,0.64)	(0.56,0.64)	(0.59,0.66)	(-0.03,0.06)			(-0.03,0.09)
Parental reports, by child characteristics								
Gender								
Males_____	0.58	0.53	0.57	0.61	0.05	0.102	(-0.02,0.22)	0.07
	(0.55,0.62)	(0.47,0.60)	(0.52,0.62)	(0.55,0.66)	(-0.01,0.11)			(-0.02,0.16)
Females_____	0.65	0.67	0.62	0.65	-0.02	-0.035	(-0.15,0.08)	-0.02
	(0.62,0.67)	(0.61,0.73)	(0.57,0.67)	(0.60,0.70)	(-0.08,0.03)			(-0.10,0.05)
Race/ethnicity								
White_____	0.64	0.63	0.63	0.62	0.00	-0.013	(-0.13,0.10)	-0.01
	(0.61,0.67)	(0.58,0.69)	(0.58,0.67)	(0.57,0.67)	(-0.05,0.06)			(-0.09,0.07)
African American__	0.55	0.50	0.51	0.59	0.06	0.128	(-0.09,0.35)	0.10
	(0.50,0.61)	(0.36,0.64)	(0.41,0.60)	(0.51,0.68)	(-0.07,0.18)			(-0.07,0.26)
Hispanic_____	0.59	0.61	0.52	0.67	-0.02	0.090	(-0.12,0.29)	0.06
	(0.53,0.66)	(0.48,0.73)	(0.43,0.62)	(0.55,0.78)	(-0.12,0.09)			(-0.08,0.20)

Table 6-76. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and parents' reports of fun activities[3] (at round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct | | | Potential maximum |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	Campaign effect (C1-C2)	Gamma	95% CI of gamma	Campaign effect (C4-C2)
Parental reports, by parent characteristics								
Gender								
Males_____	0.62	0.64	0.62	0.61	-0.02	-0.042	(-0.18,0.10)	-0.03
	(0.58,0.66)	(0.57,0.71)	(0.56,0.68)	(0.54,0.68)	(-0.09,0.05)			(-0.13,0.07)
Females_____	0.61	0.58	0.58	0.64	0.04	0.081	(-0.02,0.19)	0.06
	(0.59,0.64)	(0.52,0.63)	(0.54,0.63)	(0.59,0.68)	(-0.02,0.09)			(-0.02,0.14)
Education								
Less than college__	0.59	0.61	0.53	0.59	-0.02	-0.020	(-0.16,0.12)	-0.02
	(0.56,0.62)	(0.53,0.69)	(0.47,0.59)	(0.54,0.65)	(-0.10,0.05)			(-0.12,0.09)
Some college +_____	0.64	0.59	0.64	0.65	0.05	0.091	(-0.01,0.19)	0.06
	(0.61,0.66)	(0.54,0.64)	(0.60,0.69)	(0.61,0.70)	(0.00,0.09)			(-0.01,0.13)
Longitudinal wave(s)[4]								
Wave 1-->4_____	0.66	0.66	0.62	0.70	-0.01	0.046	(-0.08,0.17)	0.03
	(0.62,0.69)	(0.60,0.73)	(0.56,0.67)	(0.64,0.75)	(-0.07,0.05)			(-0.05,0.12)
Wave 2-->5_____	0.60	0.59	0.60	0.60	0.01	0.014	(-0.14,0.17)	0.01
	(0.56,0.63)	(0.51,0.66)	(0.53,0.67)	(0.52,0.67)	(-0.06,0.08)			(-0.10,0.12)
Wave 3-->5_____	0.60	0.55	0.58	0.59	0.04	0.055	(-0.11,0.22)	0.04
	(0.56,0.63)	(0.46,0.64)	(0.52,0.63)	(0.53,0.66)	(-0.04,0.13)			(-0.08,0.16)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Measurement of this construct is detailed in Appendix E.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-77. The relationship between parental exposure[1] to general anti-drug advertising and youth use of marijuana in the past 12 months, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of youth (real or hypothetical) | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental reports, by age of child								
12 to 13	3.0 (2.4,3.6)	3.0 (2.0,4.5)	1.9 (1.1,3.1)	4.0 (3.0,5.3)	-0.1 (-1.1,1.0)	0.110	(-0.09,0.31)	1.0 (-0.7,2.7)
14 to 18	20.6 (19.0,22.3)	20.3 (18.0,22.9)	20.7 (17.8,23.8)	20.7 (18.2,23.3)	0.3 (-2.0,2.5)	0.007	(-0.06,0.08)	0.3 (-3.0,3.7)
12 to 18	15.4 (14.3,16.6)	15.0 (13.3,16.9)	15.4 (13.3,17.7)	15.7 (13.9,17.7)	0.4 (-1.3,2.1)	0.018	(-0.05,0.08)	0.7 (-1.9,3.3)
Parental reports, by child characteristics								
Gender								
Male	16.2 (14.7,17.9)	15.3 (12.8,18.1)	15.7 (13.2,18.6)	17.6 (14.6,21.1)	0.9 (-1.7,3.6)	0.056	(-0.05,0.16)	2.3 (-2.0,6.7)
Female	14.5 (13.0,16.1)	14.7 (12.3,17.5)	15.0 (12.1,18.4)	13.9 (11.7,16.3)	-0.2 (-2.5,2.1)	-0.024	(-0.12,0.07)	-0.9 (-4.3,2.6)
Race/ethnicity								
White	16.4 (15.0,17.9)	16.7 (14.2,19.5)	16.1 (13.7,18.8)	16.9 (14.2,20.0)	-0.3 (-2.8,2.1)	0.005	(-0.09,0.10)	0.2 (-3.6,4.1)
African American	12.2 (10.2,14.6)	12.7 (9.0,17.8)	12.0 (8.2,17.2)	11.5 (8.9,14.8)	-0.5 (-4.5,3.5)	-0.039	(-0.21,0.13)	-1.2 (-6.6,4.2)
Hispanic	14.5 (11.3,18.4)	9.0 (5.8,13.7)	15.5 (9.0,25.3)	15.8 (11.6,21.2)	5.5 *(1.6,9.4)	0.200	*(0.02,0.38)	6.8 *(0.7,13.0)
Risk score								
Higher risk	34.8 (32.6,37.1)	33.4 (29.9,37.2)	34.6 (30.4,39.0)	35.3 (31.8,38.9)	1.4 (-1.9,4.7)	0.027	(-0.05,0.10)	1.9 (-3.4,7.1)
Lower risk	3.0 (2.4,3.8)	3.2 (2.1,4.8)	2.8 (1.7,4.6)	3.2 (2.3,4.5)	-0.2 (-1.3,0.9)	-0.001	(-0.20,0.20)	0.0 (-1.8,1.8)

Table 6-77. The relationship between parental exposure[1] to general anti-drug advertising and youth use of marijuana in the past 12 months, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Parental reports, by child characteristics								
Sensation seeking								
High_____	23.3	22.1	23.2	23.9	1.2	0.032	(-0.04,0.11)	1.7
	(21.7,25.1)	(19.4,25.1)	(20.2,26.5)	(21.1,26.8)	(-1.4,3.8)			(-2.4,5.8)
Low_____	5.7	6.5	5.1	5.9	-0.8	-0.041	(-0.20,0.11)	-0.7
	(4.7,6.9)	(4.7,9.0)	(3.8,6.9)	(4.3,7.9)	(-2.6,0.9)			(-3.2,1.9)
Parental reports, by parent characteristics								
Gender								
Males_____	14.9	13.7	15.7	15.2	1.3	0.040	(-0.07,0.15)	1.5
	(12.8,17.4)	(10.9,17.0)	(12.9,19.0)	(11.9,19.2)	(-1.6,4.1)			(-2.8,5.8)
Females_____	15.6	15.7	15.2	15.9	-0.1	0.006	(-0.08,0.09)	0.3
	(14.3,17.0)	(13.3,18.5)	(12.5,18.3)	(13.7,18.5)	(-2.2,2.1)			(-3.0,3.5)
Education								
Less than college__	16.3	15.4	17.0	15.8	0.9	0.012	(-0.09,0.12)	0.5
	(14.6,18.1)	(12.3,18.9)	(13.2,21.5)	(13.6,18.2)	(-2.1,3.9)			(-3.6,4.5)
Some college +____	14.6	14.6	14.1	15.8	0.0	0.031	(-0.07,0.13)	1.2
	(13.1,16.2)	(12.1,17.5)	(11.5,17.2)	(13.0,19.1)	(-2.3,2.3)			(-2.9,5.2)
Interview round[2]								
Waves 1-3_____	15.7	14.7	14.7	17.3	1.0	0.066	(-0.03,0.16)	2.6
	(14.3,17.2)	(12.3,17.5)	(12.2,17.5)	(14.8,20.2)	(-1.4,3.4)			(-1.1,6.4)
Waves 4-5_____	14.9	15.4	16.5	13.3	-0.5	-0.055	(-0.15,0.04)	-2.1
	(13.4,16.5)	(12.5,19.0)	(13.8,19.5)	(11.4,15.4)	(-3.1,2.0)			(-5.7,1.4)

[1]All parents and caregivers of youth aged 12 to 18 who live with their children.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-78. The relationship between parental exposure[1] to specific anti-drug advertising and youth use of marijuana in past 12 months, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of parents (real or hypothetical) | | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C5-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Parental reports, by age of child									
12 to 13	3.0 (2.4,3.6)	2.4 (1.4,4.1)	3.2 (2.3,4.4)	2.9 (2.0,4.2)	3.1 (1.8,5.4)	0.5 (-0.7,1.8)	0.059	(-0.13,0.25)	0.7 (-1.4,2.9)
14 to 18	20.6 (19.0,22.3)	20.0 (17.1,23.2)	20.1 (17.4,23.2)	20.4 (18.1,23.0)	23.7 (17.9,30.7)	0.6 (-2.1,3.4)	0.056	(-0.06,0.17)	3.7 (-4.0,11.3)
12 to 18	15.4 (14.3,16.6)	14.6 (12.6,16.9)	15.2 (13.2,17.5)	15.4 (13.6,17.3)	17.6 (13.2,23.1)	0.8 (-1.2,2.7)	0.057	(-0.05,0.17)	3.0 (-2.8,8.8)
Parental reports, by child characteristics									
Gender									
Male	16.2 (14.7,17.9)	15.0 (12.0,18.6)	17.5 (14.8,20.6)	16.1 (13.5,19.1)	17.1 (11.7,24.4)	1.3 (-1.6,4.1)	0.032	(-0.11,0.17)	2.2 (-5.6,9.9)
Female	14.5 (13.0,16.1)	14.2 (11.6,17.4)	12.9 (10.4,15.9)	14.6 (12.1,17.5)	18.1 (12.1,26.2)	0.3 (-2.4,2.9)	0.090	(-0.06,0.24)	3.9 (-3.8,11.5)
Race/ethnicity									
White	16.4 (15.0,17.9)	15.8 (13.4,18.4)	16.1 (13.6,19.0)	15.5 (13.5,17.8)	23.5 (16.6,32.1)	0.6 (-1.7,2.9)	0.118	(-0.01,0.24)	7.7 (-0.3,15.7)
African American	12.2 (10.2,14.6)	13.1 (7.7,21.5)	12.2 (9.3,15.8)	12.5 (8.6,17.8)	11.1 (7.6,15.9)	-0.9 (-6.7,4.9)	-0.050	(-0.24,0.14)	-2.1 (-9.7,5.6)
Hispanic	14.5 (11.3,18.4)	13.6 (8.4,21.3)	14.2 (9.4,21.0)	15.1 (10.3,21.6)	7.9 (5.1,12.1)	0.8 (-4.2,5.8)	-0.147	(-0.33,0.04)	-5.7 (-12.9,1.4)
Risk score									
Higher risk	34.8 (32.6,37.1)	33.5 (28.5,38.9)	34.2 (30.4,38.2)	34.3 (30.2,38.6)	42.4 (32.8,52.5)	1.3 (-3.7,6.3)	0.096	(-0.04,0.23)	8.9 (-3.3,21.1)
Lower risk	3.0 (2.4,3.8)	3.5 (2.3,5.2)	2.5 (1.7,3.8)	2.7 (1.9,3.9)	1.9 (1.2,3.2)	-0.5 (-1.6,0.6)	-0.140	(-0.31,0.03)	-1.5 (-3.3,0.2)

Table 6-78. The relationship between parental exposure[1] to specific anti-drug advertising and youth use of marijuana in past 12 months, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

| | Exposure level of parents (real or hypothetical) | | | | | | | | Potential maximum Campaign effect (C5-C2) |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	
Parental reports, by child characteristics									
Sensation seeking									
High_____	23.3	22.1	23.2	23.1	27.8	1.2	0.075	(-0.04,0.19)	5.7
	(21.7,25.1)	(18.8,25.8)	(20.0,26.7)	(20.3,26.1)	(20.7,36.2)	(-2.0,4.5)			(-2.8,14.2)
Low_____	5.7	5.5	5.7	5.8	7.2	0.2	0.077	(-0.16,0.31)	1.7
	(4.7,6.9)	(3.8,7.9)	(4.1,7.9)	(4.2,7.9)	(3.4,14.8)	(-1.6,2.0)			(-4.0,7.4)
Parental reports, by parent characteristics									
Gender									
Males_____	14.9	13.6	15.8	14.7	13.4	1.3	-0.010	(-0.17,0.15)	-0.2
	(12.8,17.4)	(10.1,18.2)	(12.1,20.3)	(12.0,17.9)	(8.2,21.2)	(-2.1,4.8)			(-7.8,7.5)
Females_____	15.6	15.1	14.9	15.7	19.5	0.5	0.086	(-0.06,0.23)	4.4
	(14.3,17.0)	(12.6,18.0)	(12.5,17.7)	(13.3,18.5)	(13.6,27.2)	(-2.2,3.2)			(-3.5,12.3)
Education									
Less than college__	16.3	16.2	16.5	15.7	15.6	0.1	-0.016	(-0.14,0.10)	-0.6
	(14.6,18.1)	(12.9,20.1)	(13.6,19.9)	(13.5,18.2)	(11.4,20.9)	(-3.2,3.4)			(-6.6,5.4)
Some college +____	14.6	13.1	14.2	15.0	19.7	1.5	0.128	(-0.03,0.29)	6.6
	(13.1,16.2)	(10.7,15.9)	(12.2,16.5)	(12.3,18.2)	(12.5,29.7)	(-0.8,3.7)			(-2.7,15.9)
Interview round[2]									
Waves 1-3_____	15.7	14.7	15.2	15.9	19.2	1.0	0.087	(-0.04,0.21)	4.5
	(14.3,17.2)	(12.5,17.4)	(12.7,18.0)	(13.6,18.4)	(13.6,26.5)	(-1.3,3.2)			(-2.3,11.3)
Waves 4-5_____	14.9	14.4	15.3	14.7	15.0	0.5	0.007	(-0.17,0.19)	0.6
	(13.4,16.5)	(10.8,19.0)	(12.4,18.7)	(12.6,17.0)	(9.6,22.8)	(-3.3,4.3)			(-8.5,9.7)

[1] All parents and caregivers of youth aged 12 to 18 who live with their children.

[2] Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-79. The relationship between parental exposure to general anti-drug advertising and nonusing youths' intentions to not use marijuana, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	88.9	89.9	88.1	87.9	-0.9	-0.066	(-0.16,0.03)	-2.0
	(87.7,90.0)	(88.0,91.5)	(85.6,90.2)	(85.7,89.9)	(-2.6,0.8)			(-4.8,0.8)
14 to 18_____	67.0	66.8	66.7	67.7	0.3	0.014	(-0.05,0.08)	0.9
	(65.1,68.9)	(63.0,70.5)	(62.8,70.3)	(64.7,70.6)	(-2.8,3.3)			(-3.6,5.5)
12 to 18_____	73.5	73.9	72.7	73.7	-0.4	-0.003	(-0.07,0.06)	-0.2
	(72.0,74.9)	(70.8,76.8)	(69.7,75.5)	(71.4,75.9)	(-2.8,2.1)			(-3.9,3.5)
Youth aged 12 to 18								
Gender								
Male_____	73.0	74.2	73.1	72.3	-1.2	-0.033	(-0.12,0.05)	-1.9
	(70.8,75.1)	(70.1,78.0)	(69.2,76.6)	(69.1,75.2)	(-4.5,2.2)			(-7.0,3.1)
Female_____	74.1	73.6	72.2	75.1	0.5	0.027	(-0.06,0.11)	1.5
	(72.2,75.9)	(69.9,77.0)	(68.2,75.9)	(71.6,78.3)	(-2.7,3.7)			(-3.5,6.5)
Race/ethnicity								
White_____	72.8	71.8	72.8	73.0	1.1	0.021	(-0.06,0.10)	1.2
	(71.1,74.5)	(67.9,75.4)	(69.8,75.6)	(69.8,76.0)	(-1.9,4.0)			(-3.4,5.9)
African American__	75.4	74.8	75.1	75.1	0.6	0.005	(-0.14,0.15)	0.3
	(72.0,78.5)	(66.5,81.6)	(65.6,82.7)	(70.8,78.8)	(-5.5,6.7)			(-8.1,8.6)
Hispanic_____	74.9	82.5	69.4	75.6	-7.6	-0.122	(-0.28,0.04)	-6.8
	(71.0,78.4)	(75.8,87.6)	(59.2,78.1)	(70.6,80.0)	*(-13.0,-2.1)			(-15.1,1.4)

Table 6-79. The relationship between parental exposure to general anti-drug advertising and nonusing youths' intentions to not use marijuana, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	49.7	50.4	47.7	51.6	-0.7	0.016	(-0.06,0.09)	1.2
	(47.1,52.2)	(45.7,55.1)	(43.0,52.5)	(47.7,55.5)	(-4.7,3.3)			(-4.7,7.1)
Lower risk_____	89.0	89.4	88.8	88.4	-0.3	-0.031	(-0.13,0.07)	-0.9
	(87.9,90.1)	(86.8,91.5)	(86.4,90.8)	(86.5,90.1)	(-2.2,1.5)			(-3.9,2.0)
Sensation seeking								
High_____	61.1	61.1	60.7	61.4	0.0	0.005	(-0.07,0.08)	0.3
	(59.1,63.0)	(57.0,65.0)	(56.8,64.5)	(58.1,64.6)	(-3.5,3.5)			(-5.0,5.7)
Low_____	88.7	89.6	88.3	88.5	-0.8	-0.038	(-0.17,0.10)	-1.1
	(86.9,90.3)	(85.5,92.6)	(85.0,91.0)	(86.0,90.6)	(-3.8,2.1)			(-5.1,2.9)
Interview round[1]								
Waves 1-3_____	74.0	75.0	74.2	73.1	-1.1	-0.032	(-0.11,0.05)	-1.9
	(72.1,75.8)	(71.2,78.5)	(70.3,77.8)	(70.2,75.9)	(-4.1,2.0)			(-6.6,2.8)
Waves 4-5_____	72.9	72.4	70.3	74.6	0.6	0.036	(-0.04,0.11)	2.2
	(71.4,74.4)	(68.0,76.3)	(67.2,73.3)	(72.0,76.9)	(-2.8,4.0)			(-2.4,6.8)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-80. The relationship between parental exposure to specific anti-drug advertising and nonusing youths' intentions to not use marijuana, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
12 to 13_____	89.0 (87.8,90.0)	90.9 (88.3,92.9)	88.6 (86.8,90.2)	87.7 (85.1,89.9)	89.6 (85.2,92.8)	-1.9 (-4.0,0.2)	-0.042	(-0.17,0.08)	-1.2 (-5.8,3.4)
14 to 18_____	67.1 (65.2,69.0)	69.7 (65.8,73.3)	66.4 (63.4,69.2)	66.4 (63.5,69.3)	67.5 (61.6,72.9)	-2.6 (-6.0,0.9)	-0.024	(-0.10,0.06)	-2.1 (-9.3,5.0)
12 to 18_____	73.6 (72.1,75.0)	76.1 (73.5,78.6)	72.8 (70.5,75.0)	72.6 (70.3,74.7)	74.1 (69.2,78.4)	-2.6 *(-5.0,-0.1)	-0.028	(-0.10,0.05)	-2.0 (-7.8,3.8)
Youth aged 12 to 18									
Gender									
Male_____	73.0 (70.8,75.1)	75.1 (71.1,78.7)	71.9 (68.7,74.9)	71.9 (68.4,75.1)	78.2 (72.8,82.7)	-2.0 (-5.4,1.4)	0.034	(-0.05,0.12)	-3.2 (-8.3,2.0)
Female_____	74.1 (72.2,75.9)	77.3 (73.5,80.8)	73.7 (70.4,76.8)	73.3 (69.4,76.9)	70.5 (62.7,77.2)	-3.2 (-6.7,0.2)	-0.090	(-0.21,0.03)	-4.0 (-9.1,1.0)
Race/ethnicity									
White_____	72.8 (71.1,74.5)	75.8 (72.7,78.7)	72.2 (69.3,74.8)	72.3 (69.6,74.9)	71.1 (64.0,77.2)	-3.0 *(-5.6,-0.3)	-0.057	(-0.14,0.03)	-3.5 (-7.1,0.2)
African American__	75.4 (72.0,78.5)	74.4 (66.7,80.8)	72.8 (66.9,78.0)	73.8 (67.7,79.1)	78.8 (65.6,87.8)	1.0 (-6.0,8.0)	0.069	(-0.13,0.27)	-0.6 (-10.0,8.8)
Hispanic_____	74.9 (71.0,78.4)	78.7 (69.8,85.5)	73.8 (67.3,79.5)	73.4 (67.8,78.4)	78.9 (67.8,86.9)	-3.8 (-10.2,2.6)	0.005	(-0.18,0.19)	-5.3 (-14.4,3.8)

Table 6-80. The relationship between parental exposure to specific anti-drug advertising and nonusing youths' intentions to not use marijuana, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

| | Exposure level of youth (real or hypothetical) | | | | | | | | Potential |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	maximum Campaign effect (C5-C2)
Youth aged 12 to 18									
Risk score									
Higher risk_____	49.7	54.2	48.8	49.2	48.0	-4.5	-0.060	(-0.15,0.03)	-5.0
	(47.1,52.2)	(49.1,59.3)	(45.4,52.2)	(44.1,54.3)	(40.1,56.0)	(-9.5,0.4)			(-12.3,2.3)
Lower risk_____	89.0	89.6	89.1	88.8	91.5	-0.5	0.048	(-0.07,0.16)	-0.8
	(87.9,90.1)	(86.8,91.8)	(87.1,90.8)	(86.9,90.4)	(87.9,94.1)	(-2.7,1.7)			(-4.0,2.5)
Sensation seeking									
High_____	61.1	65.5	60.7	58.7	62.5	-4.5	-0.041	(-0.12,0.04)	-6.8
	(59.1,63.0)	(61.2,69.6)	(57.3,63.9)	(55.6,61.8)	(56.0,68.7)	*(-8.4,-0.5)			*(-12.2,-1.4)
Low_____	88.7	89.1	87.3	89.7	86.6	-0.4	-0.040	(-0.21,0.13)	0.6
	(86.9,90.3)	(86.0,91.6)	(84.3,89.8)	(86.7,92.2)	(78.6,92.0)	(-2.8,2.1)			(-2.9,4.1)
Interview round[1]									
Waves 1-3_____	74.0	75.8	74.0	72.8	74.0	-1.8	-0.029	(-0.12,0.06)	-3.0
	(72.1,75.8)	(72.8,78.5)	(70.9,77.0)	(69.5,75.9)	(68.0,79.2)	(-4.4,0.8)			(-7.1,1.2)
Waves 4-5_____	72.9	76.6	71.0	72.2	74.3	-3.7	-0.026	(-0.14,0.09)	-4.4
	(71.4,74.4)	(71.9,80.7)	(67.7,74.2)	(69.8,74.5)	(66.8,80.6)	(-7.8,0.4)			(-9.1,0.3)

[1]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-81. The relationship between parental exposure to general anti-drug advertising and nonusing youths' personal anti-marijuana beliefs and attitudes[1], by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	119.57	122.91	118.53	116.73	-3.34	-0.027	(-0.06,0.01)	-6.18
	(115.11,124.02)	(115.95,129.87)	(111.35,125.70)	(110.30,123.16)	(-9.03,2.35)			(-15.31,2.95)
14 to 18_____	57.49	57.39	55.35	61.46	0.1	0.015	(-0.02,0.05)	4.07
	(52.49,62.48)	(49.60,65.18)	(46.18,64.52)	(53.46,69.45)	(-6.22,6.41)			(-6.64,14.77)
12 to 18_____	75.57	77.04	72.91	77.69	-1.47	0.001	(-0.03,0.03)	0.65
	(71.32,79.81)	(70.53,83.54)	(65.51,80.30)	(71.54,83.84)	(-6.50,3.57)			(-7.53,8.84)
Youth aged 12 to 18								
Gender								
Male_____	68.91	70.86	67.62	70.59	-1.96	0.001	(-0.04,0.04)	-0.27
	(62.85,74.96)	(60.65,81.07)	(57.22,78.02)	(62.17,79.01)	(-10.03,6.11)			(-12.13,11.59)
Female_____	82.61	83.45	79.19	84.53	-0.84	0.000	(-0.04,0.04)	1.08
	(77.96,87.26)	(75.86,91.04)	(70.00,88.39)	(76.83,92.23)	(-7.96,6.28)			(-10.08,12.24)
Race/ethnicity								
White_____	76.44	76.22	74.41	78.77	0.22	0.005	(-0.03,0.04)	2.55
	(71.57,81.31)	(67.69,84.74)	(66.22,82.61)	(70.15,87.39)	(-6.60,7.05)			(-8.77,13.88)
African American__	71.10	68.37	70.00	71.00	2.73	0.004	(-0.05,0.06)	2.64
	(61.77,80.43)	(54.00,82.73)	(46.98,93.01)	(63.35,78.66)	(-6.52,11.98)			(-11.86,17.14)
Hispanic_____	77.61	92.60	69.15	80.33	-15	-0.029	(-0.10,0.04)	-12.27
	(68.58,86.63)	(79.73,105.48)	(47.26,91.03)	(67.64,93.02)	*(-27.95,-2.05)			(-31.46,6.92)

Table 6-81. The relationship between parental exposure to general anti-drug advertising and nonusing youths' personal anti-marijuana beliefs and attitudes[1], by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	10.74	14.12	6.85	16.82	-3.38	0.016	(-0.03,0.06)	2.70
	(4.03,17.44)	(4.02,24.22)	(-3.81,17.51)	(6.74,26.90)	(-12.37,5.60)			(-11.79,17.19)
Lower risk_____	117.62	120.02	116.81	116.77	-2.4	-0.013	(-0.04,0.02)	-3.25
	(113.80,121.43)	(114.18,125.86)	(109.34,124.27)	(111.30,122.24)	(-6.86,2.05)			(-10.42,3.92)
Sensation seeking								
High_____	39.17	37.85	37.74	42.82	1.32	0.018	(-0.02,0.06)	4.97
	(33.86,44.48)	(27.04,48.66)	(28.58,46.90)	(34.81,50.83)	(-7.06,9.70)			(-7.33,17.27)
Low_____	120.29	124.22	120.28	119.84	-3.93	-0.018	(-0.06,0.02)	-4.39
	(115.15,125.43)	(118.11,130.34)	(111.07,129.48)	(112.87,126.81)	(-10.45,2.58)			(-13.63,4.86)
Interview round[2]								
Waves 1-3_____	76.32	77.75	75.58	76.55	-1.43	-0.005	(-0.04,0.03)	-1.20
	(70.87,81.77)	(69.06,86.43)	(65.77,85.39)	(67.84,85.27)	(-8.54,5.68)			(-12.84,10.45)
Waves 4-5_____	74.46	76.00	68.80	79.35	-1.54	0.010	(-0.02,0.04)	3.35
	(70.29,78.62)	(68.78,83.23)	(60.46,77.15)	(73.38,85.33)	(-7.82,4.74)			(-5.92,12.62)

[1]See Table 5-2 for a full distribution. It is based on a combined index of beliefs and attitudes towards trial and regular marijuana use as described in Appendix E.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-82. The relationship between parental exposure to specific anti-drug advertising and nonusing youths' personal anti-marijuana beliefs and attitudes[1], by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of youth (real or hypothetical) | | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C5-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
12 to 13_____	119.57	125.05	118.83	114.30	115.84	-5.48	-0.037	*(-0.07,-0.00)	-9.21
	(115.11,124.02)	(117.76,132.35)	(112.01,125.65)	(107.08,121.53)	(103.69,127.99)	(-11.34,0.37)			(-22.91,4.48)
14 to 18_____	57.49	59.60	58.85	55.91	67.97	-2.11	0.020	(-0.02,0.06)	8.37
	(52.49,62.48)	(50.19,69.01)	(51.87,65.83)	(49.30,62.51)	(54.10,81.83)	(-10.83,6.61)			(-8.84,25.58)
12 to 18_____	75.57	79.40	75.86	72.51	81.96	-3.83	0.002	(-0.03,0.04)	2.57
	(71.32,79.81)	(72.32,86.48)	(69.87,81.85)	(66.99,78.03)	(71.17,92.75)	(-10.21,2.55)			(-10.92,16.05)
Youth aged 12 to 18									
Gender									
Male_____	68.91	73.42	65.97	66.51	81.68	-4.51	0.018	(-0.03,0.06)	-6.91
	(62.85,74.96)	(63.23,83.60)	(57.57,74.38)	(57.61,75.41)	(65.64,97.72)	(-13.76,4.74)			(-19.85,6.03)
Female_____	82.61	86.41	85.86	78.93	82.21	-3.79	-0.020	(-0.07,0.03)	-7.48
	(77.96,87.26)	(76.09,96.73)	(77.61,94.11)	(70.77,87.09)	(68.06,96.37)	(-13.14,5.55)			(-21.71,6.76)
Race/ethnicity									
White_____	76.44	83.95	74.69	75.98	79.63	-7.51	-0.008	(-0.05,0.03)	-7.98
	(71.57,81.31)	(75.18,92.73)	(67.13,82.25)	(69.69,82.26)	(64.51,94.74)	(-15.12,0.10)			(-17.53,1.57)
African American__	71.10	64.85	76.02	66.70	71.88	6.25	0.005	(-0.08,0.09)	1.85
	(61.77,80.43)	(49.47,80.23)	(61.28,90.76)	(52.67,80.73)	(45.64,98.12)	(-7.92,20.42)			(-16.87,20.57)
Hispanic_____	77.61	78.59	77.78	66.93	98.91	-0.98	0.047	(-0.04,0.13)	-11.66
	(68.58,86.63)	(60.17,97.01)	(65.09,90.48)	(54.36,79.49)	(77.07,120.76)	(-16.68,14.72)			(-34.77,11.45)

Table 6-82. The relationship between parental exposure to specific anti-drug advertising and nonusing youths' personal anti-marijuana beliefs and attitudes[1], by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
Risk score									
Higher risk_____	10.74	17.42	14.49	8.54	22.20	-6.68	0.014	(-0.03,0.06)	-8.88
	(4.03,17.44)	(6.04,28.80)	(5.87,23.10)	(-2.65,19.73)	(5.84,38.56)	(-17.76,4.40)			(-24.79,7.03)
Lower risk_____	117.62	117.97	117.76	116.30	122.00	-0.35	0.009	(-0.03,0.05)	-1.67
	(113.80,121.43)	(109.79,126.14)	(111.38,124.14)	(109.97,122.63)	(112.97,131.02)	(-7.15,6.45)			(-11.56,8.22)
Sensation seeking									
High_____	39.17	45.23	39.89	36.19	44.94	-6.06	-0.004	(-0.05,0.04)	-9.04
	(33.86,44.48)	(34.84,55.62)	(32.23,47.55)	(27.99,44.38)	(30.78,59.10)	(-15.06,2.95)			(-21.29,3.21)
Low_____	120.29	122.20	119.03	118.05	124.26	-1.92	0.012	(-0.03,0.05)	-4.16
	(115.15,125.43)	(113.70,130.71)	(112.12,125.94)	(111.05,125.05)	(112.73,135.80)	(-8.50,4.67)			(-12.88,4.57)
Interview round[2]									
Waves 1-3_____	76.32	77.52	79.69	72.15	79.08	-1.2	-0.004	(-0.05,0.04)	-5.37
	(70.87,81.77)	(67.74,87.30)	(71.94,87.44)	(64.86,79.43)	(63.17,95.00)	(-9.33,6.93)			(-16.34,5.60)
Waves 4-5_____	74.46	82.29	70.41	73.02	86.78	-7.83	0.012	(-0.03,0.05)	-9.27
	(70.29,78.62)	(71.00,93.57)	(62.52,78.30)	(66.74,79.30)	(77.24,96.33)	(-18.67,3.01)			(-21.34,2.80)

[1]See Table 5-2 for a full distribution. It is based on a combined index of beliefs and attitudes towards trial and regular marijuana use as described in Appendix E.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-83. The relationship between parental exposure to general anti-drug advertising and perceived anti-marijuana social norms[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of youth (real or hypothetical) | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13	126.76 (123.32,130.20)	122.87 (117.40,128.34)	123.77 (117.08,130.46)	129.21 (123.95,134.46)	3.89 (-1.28,9.06)	0.026	(-0.01,0.06)	6.34 (-1.23,13.90)
14 to 18	49.64 (44.94,54.34)	52.71 (44.63,60.80)	48.98 (40.71,57.25)	49.07 (41.87,56.26)	-3.07 (-8.97,2.82)	-0.014	(-0.05,0.02)	-3.65 (-13.67,6.38)
12 to 18	72.10 (68.43,75.78)	73.75 (67.54,79.97)	69.77 (63.15,76.38)	72.60 (67.21,77.99)	-1.65 (-6.22,2.92)	-0.005	(-0.03,0.02)	-1.15 (-8.85,6.55)
Youth aged 12 to 18								
Gender								
Male	64.17 (59.11,69.23)	66.09 (57.53,74.64)	59.80 (50.81,68.78)	66.89 (59.22,74.55)	-1.92 (-8.74,4.90)	0.002	(-0.03,0.04)	0.80 (-10.14,11.74)
Female	80.49 (75.58,85.40)	81.71 (73.96,89.46)	81.61 (72.92,90.30)	78.10 (70.08,86.13)	-1.22 (-8.21,5.77)	-0.016	(-0.06,0.02)	-3.61 (-14.83,7.62)
Race/ethnicity								
White	75.15 (70.87,79.42)	76.20 (68.44,83.96)	75.35 (67.64,83.06)	73.99 (66.08,81.89)	-1.05 (-6.74,4.63)	-0.009	(-0.04,0.02)	-2.21 (-12.28,7.86)
African American	56.80 (49.51,64.09)	64.71 (51.37,78.04)	45.38 (29.28,61.48)	58.58 (49.09,68.06)	-7.91 (-21.80,5.98)	-0.019	(-0.09,0.05)	-6.13 (-23.68,11.42)
Hispanic	72.66 (62.05,83.26)	72.16 (55.16,89.16)	67.95 (49.38,86.52)	76.72 (63.62,89.81)	0.5 (-12.30,13.30)	0.011	(-0.06,0.08)	4.56 (-15.08,24.19)

Table 6-83. The relationship between parental exposure to general anti-drug advertising and perceived anti-marijuana social norms[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	3.52	11.47	-0.15	4.01	-7.95	-0.029	(-0.08,0.02)	-7.46
	(-1.61,8.65)	(0.77,22.17)	(-10.44,10.15)	(-4.68,12.69)	(-16.75,0.84)			(-21.63,6.71)
Lower risk_____	116.91	115.43	116.12	117.83	1.48	0.004	(-0.03,0.03)	2.40
	(113.61,120.20)	(109.89,120.96)	(109.32,122.91)	(113.35,122.30)	(-3.01,5.97)			(-4.39,9.19)
Sensation seeking								
High_____	39.29	41.05	36.52	39.55	-1.76	-0.009	(-0.04,0.02)	-1.50
	(34.67,43.91)	(32.43,49.67)	(28.26,44.78)	(32.36,46.75)	(-8.20,4.68)			(-11.49,8.49)
Low_____	112.21	112.67	113.31	112.84	-0.46	0.004	(-0.04,0.05)	0.17
	(107.29,117.14)	(104.75,120.60)	(104.70,121.91)	(105.75,119.94)	(-7.64,6.72)			(-11.00,11.34)
Interview round[2]								
Waves 1-3_____	75.88	79.06	76.64	73.64	-3.19	-0.021	(-0.06,0.01)	-5.43
	(71.15,80.60)	(71.39,86.73)	(67.74,85.54)	(66.20,81.07)	(-9.30,2.93)			(-15.87,5.02)
Waves 4-5_____	66.51	66.01	59.21	71.09	0.5	0.019	(-0.02,0.06)	5.08
	(62.32,70.70)	(57.51,74.50)	(50.99,67.43)	(64.48,77.70)	(-6.97,7.97)			(-5.87,16.03)

[1]Based on a combined index of perceived social expectations and perceived social network behavior as described in Appendix E. See Table 5-3 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-84. The relationship between parental exposure to specific anti-drug advertising and perceived anti-marijuana social norms[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

| Characteristics | Exposure level of youth (real or hypothetical) | | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C5-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
12 to 13	126.76 (123.32,130.20)	133.97 (128.78,139.15)	128.61 (123.01,134.20)	118.64 (111.38,125.90)	128.75 (116.88,140.61)	-7.21 *(-12.65,-1.76)	-0.014	(-0.06,0.03)	-5.22 (-17.72,7.28)
14 to 18	49.64 (44.94,54.34)	52.54 (41.77,63.32)	51.43 (43.86,59.00)	49.59 (42.75,56.42)	46.35 (32.73,59.97)	-2.91 (-11.71,5.90)	-0.015	(-0.06,0.03)	-6.19 (-23.62,11.24)
12 to 18	72.10 (68.43,75.78)	77.18 (69.51,84.84)	73.31 (67.56,79.06)	69.22 (63.44,75.00)	70.44 (58.26,82.63)	-5.07 (-11.50,1.35)	-0.020	(-0.06,0.02)	-6.73 (-21.27,7.81)
Youth aged 12 to 18									
Gender									
Male	64.17 (59.11,69.23)	66.63 (55.41,77.86)	62.15 (54.08,70.22)	63.93 (55.67,72.19)	73.07 (56.59,89.55)	-2.47 (-12.29,7.36)	0.015	(-0.04,0.07)	-2.70 (-15.67,10.27)
Female	80.49 (75.58,85.40)	89.54 (79.79,99.28)	84.60 (76.08,93.12)	74.88 (66.97,82.79)	68.11 (49.85,86.36)	-9.05 (-18.15,0.06)	-0.061	*(-0.12,-0.00)	-14.66 *(-27.23,-2.09)
Race/Ethnicity									
White	75.15 (70.87,79.42)	82.76 (74.32,91.21)	74.15 (66.70,81.60)	75.12 (68.45,81.80)	72.04 (55.04,89.03)	-7.62 (-15.26,0.03)	-0.023	(-0.07,0.03)	-7.64 (-17.93,2.65)
African American	56.80 (49.51,64.09)	59.82 (42.77,76.87)	63.32 (49.82,76.81)	47.62 (35.57,59.67)	42.88 (13.04,72.72)	-3.02 (-20.43,14.39)	-0.061	(-0.16,0.03)	-12.20 (-33.47,9.07)
Hispanic	72.66 (62.05,83.26)	71.53 (50.06,93.00)	70.01 (55.31,84.72)	70.51 (56.92,84.10)	94.88 (71.19,118.57)	1.13 (-14.47,16.72)	0.067	(-0.02,0.15)	-1.02 (-20.14,18.10)

Table 6-84. The relationship between parental exposure to specific anti-drug advertising and perceived anti-marijuana social norms[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
Risk score									
Higher risk_____	3.52	7.99	7.09	3.20	-0.14	-4.47	-0.023	(-0.08,0.04)	-4.79
	(-1.61,8.65)	(-4.63,20.61)	(-2.50,16.67)	(-6.62,13.02)	(-16.14,15.85)	(-16.15,7.20)			(-21.29,11.71)
Lower risk_____	116.91	119.28	119.57	114.67	117.09	-2.38	-0.009	(-0.04,0.02)	-4.62
	(113.61,120.20)	(112.92,125.65)	(114.03,125.11)	(108.62,120.71)	(107.16,127.02)	(-8.26,3.51)			(-13.28,4.04)
Sensation seeking									
High_____	39.29	44.90	41.55	36.65	36.00	-5.61	-0.028	(-0.08,0.02)	-8.24
	(34.67,43.91)	(35.20,54.59)	(33.76,49.34)	(28.81,44.49)	(19.26,52.73)	(-13.74,2.53)			(-20.22,3.73)
Low_____	112.21	115.58	111.60	110.32	108.40	-3.37	-0.016	(-0.06,0.03)	-5.26
	(107.29,117.14)	(104.87,126.29)	(104.55,118.66)	(102.41,118.23)	(93.81,122.99)	(-13.08,6.34)			(-17.36,6.84)
Interview round[2]									
Waves 1-3_____	75.88	79.49	81.11	71.89	68.42	-3.61	-0.040	(-0.09,0.01)	-7.60
	(71.15,80.60)	(72.57,86.41)	(73.85,88.36)	(63.08,80.70)	(52.03,84.80)	(-9.75,2.52)			(-18.03,2.83)
Waves 4-5_____	66.51	73.62	62.22	65.44	73.84	-7.11	0.009	(-0.05,0.07)	-8.18
	(62.32,70.70)	(60.57,86.67)	(53.35,71.10)	(59.75,71.14)	(57.82,89.85)	(-19.04,4.82)			(-21.81,5.45)

[1]Based on a combined index of perceived social expectations and perceived social network behavior as described in Appendix E. See Table 5-3 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-85. The relationship between parental exposure to general anti-drug advertising and self-efficacy to refuse marijuana[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	98.44	99.71	98.14	95.76	-1.27	0.000	(-0.04,0.04)	-3.96
	(94.53,102.36)	(92.38,107.04)	(91.21,105.06)	(89.37,102.14)	(-7.35,4.80)			(-13.39,5.48)
14 to 18_____	88.95	90.60	88.97	89.44	-1.65	-0.022	(-0.06,0.01)	-1.16
	(84.68,93.23)	(83.05,98.15)	(81.73,96.21)	(83.25,95.63)	(-7.65,4.36)			(-10.90,8.58)
12 to 18_____	91.72	93.33	91.52	91.29	-1.62	-0.016	(-0.04,0.01)	-2.04
	(88.30,95.13)	(87.51,99.16)	(85.81,97.23)	(86.35,96.24)	(-6.42,3.19)			(-9.80,5.72)
Youth aged 12 to 18								
Gender								
Male_____	85.66	86.85	85.76	84.24	-1.19	-0.008	(-0.05,0.03)	-2.61
	(80.85,90.48)	(79.15,94.56)	(77.08,94.44)	(76.18,92.31)	(-8.32,5.94)			(-14.04,8.82)
Female_____	98.11	100.06	98.36	98.08	-1.94	-0.027	(-0.07,0.01)	-1.98
	(93.25,102.98)	(92.12,108.00)	(91.24,105.47)	(91.48,104.68)	(-8.17,4.28)			(-12.10,8.15)
Race/ethnicity								
White_____	96.73	97.57	96.03	95.87	-0.84	-0.024	(-0.06,0.01)	-1.70
	(93.48,99.99)	(91.23,103.91)	(90.06,102.01)	(89.50,102.24)	(-6.61,4.94)			(-11.60,8.20)
African American__	83.41	70.33	83.62	86.66	13.08	0.051	(-0.03,0.13)	16.32
	(76.45,90.36)	(50.53,90.14)	(63.44,103.80)	(78.32,94.99)	(-5.07,31.22)			(-6.66,39.31)
Hispanic_____	82.04	100.16	81.38	79.55	-18.12	-0.052	(-0.13,0.03)	-20.61
	(71.88,92.19)	(84.42,115.89)	(61.80,100.96)	(66.32,92.78)	*(-31.78,-4.45)			(-41.69,0.48)

Table 6-85. The relationship between parental exposure to general anti-drug advertising and self-efficacy to refuse marijuana[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

	Exposure level of youth (real or hypothetical)				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	63.65	69.06	62.76	61.87	-5.41	-0.045	*(-0.09,-0.00)	-7.18
	(56.93,70.37)	(58.93,79.18)	(51.20,74.32)	(52.24,71.51)	(-13.39,2.57)			(-20.11,5.75)
Lower risk_____	110.60	110.64	109.88	111.82	-0.04	0.012	(-0.03,0.06)	1.18
	(107.50,113.70)	(104.45,116.84)	(103.02,116.73)	(106.53,117.11)	(-5.32,5.24)			(-7.59,9.94)
Sensation seeking								
High_____	71.78	73.15	73.04	69.91	-1.36	-0.014	(-0.05,0.03)	-3.23
	(66.81,76.76)	(62.87,83.42)	(65.42,80.66)	(62.46,77.36)	(-9.51,6.78)			(-15.66,9.19)
Low_____	116.75	118.08	116.09	118.37	-1.33	-0.015	(-0.07,0.04)	0.29
	(112.44,121.06)	(110.70,125.46)	(108.99,123.19)	(112.45,124.29)	(-7.19,4.53)			(-8.55,9.13)
Interview round[2]								
Waves 1-3_____	85.37	86.50	87.28	83.79	-1.13	-0.018	(-0.07,0.03)	-2.71
	(80.86,89.88)	(78.08,94.93)	(79.01,95.54)	(76.56,91.03)	(-7.99,5.72)			(-13.79,8.37)
Waves 4-5_____	101.12	103.29	98.03	102.25	-2.17	-0.024	(-0.07,0.02)	-1.04
	(97.21,105.03)	(97.06,109.52)	(90.82,105.24)	(96.98,107.52)	(-7.94,3.61)			(-9.09,7.01)

[1]Self-efficacy scale based on 4 questions asking how sure youth are that they can say no to marijuana if they really wanted to: while at a party where most others are using it (C9a); when a very close friend suggests they use it (C9b); when at home alone and feeling sad or bored (C9c); when hanging out at a friend's house whose parents aren't home (C9d). Measurement of this construct is detailed in Appendix E. See Table 5-26 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-86. The relationship between parental exposure to specific anti-drug advertising and self-efficacy to refuse marijuana[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round

November 1999 through June 2002

| | Exposure level of youth (real or hypothetical) | | | | | | | | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	(C5-C2)
Youth aged 12 to 18									
12 to 13_____	98.44	106.62	96.78	95.08	95.97	-8.18	-0.022	(-0.07,0.02)	-10.65
	(94.53,102.36)	(98.61,114.63)	(90.62,102.95)	(86.84,103.32)	(82.68,109.26)	*(-15.36,-1.00)			(-27.00,5.71)
14 to 18_____	88.95	89.32	88.34	89.41	97.08	-0.37	0.002	(-0.05,0.05)	7.76
	(84.68,93.23)	(79.75,98.90)	(82.02,94.65)	(82.33,96.48)	(82.17,111.99)	(-8.68,7.95)			(-9.23,24.75)
12 to 18_____	91.72	94.56	90.73	91.02	96.76	-2.84	-0.005	(-0.04,0.03)	2.20
	(88.30,95.13)	(87.35,101.76)	(85.72,95.75)	(85.33,96.71)	(85.43,108.08)	(-9.15,3.47)			(-10.90,15.30)
Youth aged 12 to 18									
Gender									
Male_____	85.66	87.28	82.39	85.81	96.77	-1.61	0.022	(-0.04,0.08)	-1.47
	(80.85,90.48)	(76.87,97.69)	(74.08,90.71)	(77.99,93.63)	(83.12,110.42)	(-10.77,7.55)			(-13.66,10.72)
Female_____	98.11	103.09	99.16	96.60	96.75	-4.98	-0.038	(-0.10,0.02)	-6.49
	(93.25,102.98)	(94.86,111.32)	(92.37,105.96)	(88.08,105.12)	(77.68,115.82)	(-11.57,1.62)			(-16.08,3.10)
Race/ethnicity									
White_____	96.73	103.00	95.27	95.89	103.61	-6.27	-0.012	(-0.05,0.03)	-7.11
	(93.48,99.99)	(94.38,111.62)	(89.42,101.11)	(89.91,101.87)	(91.90,115.31)	(-13.90,1.37)			(-16.84,2.63)
African American__	83.41	73.85	79.72	84.21	96.27	9.56	0.047	(-0.08,0.18)	10.36
	(76.45,90.36)	(52.87,94.84)	(63.21,96.23)	(71.57,96.86)	(57.90,134.64)	(-9.65,28.76)			(-14.95,35.66)
Hispanic_____	82.04	84.96	83.41	80.29	80.90	-2.92	-0.016	(-0.14,0.10)	-4.66
	(71.88,92.19)	(69.28,100.64)	(65.51,101.30)	(62.37,98.22)	(55.32,106.47)	(-18.12,12.28)			(-27.66,18.33)

Table 6-86. The relationship between parental exposure to specific anti-drug advertising and self-efficacy to refuse marijuana[1] among nonusing youth, by age, gender, race/ethnicity, risk score, sensation seeking, and by interview round (continued)

November 1999 through June 2002

Characteristics	Exposure level of youth (real or hypothetical)					Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C5-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4-11 times per month (C4)	12 or more times per month (C5)				
Youth aged 12 to 18									
Risk score									
Higher risk_____	63.65	61.59	67.07	64.93	65.50	2.05	-0.014	(-0.09,0.06)	3.33
	(56.93,70.37)	(45.76,77.43)	(57.42,76.73)	(53.48,76.38)	(39.59,91.40)	(-11.86,15.97)			(-15.07,21.74)
Lower risk_____	110.60	115.22	108.60	109.30	118.30	-4.62	0.011	(-0.04,0.06)	-5.92
	(107.50,113.70)	(109.37,121.07)	(103.26,113.93)	(103.49,115.11)	(109.51,127.09)	(-9.97,0.73)			(-14.08,2.24)
Sensation seeking									
High_____	71.78	72.97	72.94	70.23	72.27	-1.19	-0.013	(-0.06,0.04)	-2.75
	(66.81,76.76)	(60.52,85.43)	(64.51,81.36)	(62.34,78.12)	(54.91,89.62)	(-12.22,9.84)			(-16.91,11.41)
Low_____	116.75	121.93	112.63	118.11	124.36	-5.18	0.004	(-0.07,0.07)	-3.82
	(112.44,121.06)	(113.87,130.00)	(105.33,119.93)	(111.46,124.76)	(111.42,137.29)	(-12.06,1.69)			(-13.85,6.20)
Interview round[2]									
Waves 1-3_____	85.37	85.36	85.06	84.12	91.56	0.01	0.024	(-0.04,0.09)	-1.24
	(80.86,89.88)	(77.13,93.60)	(78.03,92.09)	(75.98,92.27)	(75.67,107.45)	(-7.33,7.34)			(-11.89,9.41)
Waves 4-5_____	101.12	108.68	98.79	100.78	105.46	-7.56	-0.035	(-0.10,0.03)	-7.90
	(97.21,105.03)	(97.66,119.71)	(91.91,105.67)	(94.00,107.56)	(94.67,116.25)	(-17.60,2.48)			(-19.49,3.69)

[1]Self-efficacy scale based on 4 questions asking how sure youth are that they can say no to marijuana if they really wanted to: while at a party where most others are using it (C9a); when a very close friend suggests they use it (C9b); when at home alone and feeling sad or bored (C9c); when hanging out at a friend's house whose parents aren't home (C9d). Measurement of this construct is detailed in Appendix E.
See Table 5-26 for distribution.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-87. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and subsequent youth initiation of marijuana use (by round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth marijuana use, by youth age								
12 to 13	3.6 (2.7,4.7)	3.6 (1.8,7.0)	3.1 (1.7,5.6)	3.4 (2.0,5.7)	0.0 (-2.4,2.3)	-0.095	(-0.38,0.19)	-0.2 (-3.3,3.0)
14 to 18	17.0 (15.0,19.2)	18.7 (13.5,25.4)	14.3 (12.0,16.9)	19.0 (15.1,23.5)	-1.7 (-6.6,3.2)	-0.003	(-0.11,0.10)	0.3 (-6.7,7.3)
12 to 18	12.4 (11.0,14.0)	13.6 (9.9,18.3)	10.8 (9.0,12.9)	13.4 (10.9,16.3)	-1.1 (-4.6,2.3)	-0.019	(-0.12,0.08)	-0.2 (-5.0,4.6)
Youth marijuana use, by youth characteristics								
Gender								
Males	13.2 (11.4,15.3)	12.6 (8.8,17.7)	9.6 (7.0,13.1)	16.0 (12.0,21.0)	0.6 (-3.2,4.4)	0.035	(-0.10,0.17)	3.4 (-3.0,9.7)
Females	11.6 (9.8,13.7)	14.5 (9.4,21.7)	12.2 (9.2,15.8)	10.8 (8.0,14.4)	-2.9 (-8.2,2.5)	-0.074	(-0.22,0.07)	-3.7 (-10.1,2.7)
Race/ethnicity								
White	12.5 (10.9,14.2)	12.1 (7.9,18.1)	11.4 (9.4,13.7)	15.1 (11.7,19.4)	0.4 (-4.1,4.8)	0.012	(-0.11,0.13)	3.0 (-3.4,9.5)
African American	11.4 (7.7,16.6)	19.0 (9.1,35.4)	12.3 (6.0,23.8)	6.7 (4.2,10.5)	-7.5 (-18.6,3.5)	-0.235	(-0.52,0.05)	-12.3 (-26.2,1.7)
Hispanic	13.7 (10.4,17.9)	15.6 (10.2,23.1)	6.4 (3.5,11.5)	14.9 (9.9,21.7)	-2.0 (-8.6,4.7)	0.055	(-0.17,0.27)	-0.8 (-10.1,8.6)

Table 6-87. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and subsequent youth initiation of marijuana use (by round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Percent of youth reporting each exposure level | | | | Direct Campaign effect | | 95% CI of gamma | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	(C1-C2)	Gamma		(C4-C2)
Youth marijuana use, by parent characteristics								
Gender								
Males_____	30.8 (27.4,34.4)	30.8 (23.5,39.2)	26.6 (21.8,32.1)	33.3 (27.2,40.0)	0.0 (-6.8,6.8)	0.020	(-0.10,0.14)	2.5 (-7.1,12.0)
Females_____	3.9 (2.9,5.1)	5.8 (3.1,10.7)	3.0 (2.0,4.5)	4.0 (2.6,6.0)	-2.0 (-5.3,1.4)	-0.147	(-0.41,0.12)	-1.9 (-5.9,2.1)
Education								
Less than college_____	18.4 (16.3,20.7)	19.6 (13.9,27.0)	16.3 (13.1,20.2)	20.0 (15.9,25.0)	-1.3 (-6.9,4.4)	0.004	(-0.12,0.12)	0.4 (-7.5,8.3)
Some college +_____	6.0 (4.8,7.6)	7.3 (4.2,12.5)	4.4 (2.6,7.3)	6.1 (4.1,9.0)	-1.3 (-4.8,2.1)	-0.095	(-0.28,0.09)	-1.2 (-5.4,2.9)
Longitudinal wave(s)[3]								
Wave 1-->4_____	13.6 (11.5,16.0)	13.1 (8.9,19.0)	12.0 (9.3,15.4)	14.9 (10.7,20.4)	0.4 (-3.6,4.5)	0.031	(-0.11,0.18)	1.8 (-4.6,8.2)
Wave 2-->5_____	13.4 (10.9,16.5)	16.7 (9.9,26.7)	11.3 (7.9,16.0)	13.9 (9.8,19.2)	-3.3 (-10.5,4.0)	-0.054	(-0.25,0.14)	-2.8 (-12.7,7.0)
Wave 3-->5_____	10.4 (8.4,12.8)	10.9 (6.8,17.1)	9.3 (6.8,12.6)	11.3 (7.6,16.4)	-0.5 (-5.0,4.1)	-0.020	(-0.16,0.12)	0.4 (-6.3,7.1)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-88. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and subsequent youth initiation of marijuana use (by round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Percent of youth reporting each exposure level | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth marijuana use, by youth age								
12 to 13_____	3.6	2.2	3.4	5.4	1.4	0.244	*(0.03,0.45)	3.3
	(2.7,4.7)	(1.3,3.7)	(2.0,5.7)	(3.0,9.8)	*(0.3,2.4)			*(0.1,6.4)
14 to 18_____	17.0	16.4	16.5	18.9	0.6	0.022	(-0.09,0.13)	2.5
	(15.0,19.2)	(12.9,20.8)	(13.6,19.9)	(14.5,24.3)	(-3.1,4.3)			(-3.7,8.7)
12 to 18_____	12.4	11.8	12.1	14.1	0.6	0.018	(-0.09,0.12)	2.3
	(11.0,14.0)	(9.3,14.9)	(10.0,14.6)	(10.8,18.1)	(-2.0,3.3)			(-2.3,6.8)
Youth marijuana use, by youth characteristics								
Gender								
Males_____	13.2	11.2	12.8	16.0	2.0	0.060	(-0.10,0.22)	4.8
	(11.4,15.3)	(8.2,15.1)	(10.1,15.9)	(11.3,22.2)	(-0.9,4.9)			(-1.9,11.5)
Females_____	11.6	12.4	11.5	12.0	-0.8	-0.029	(-0.17,0.11)	-0.4
	(9.8,13.7)	(8.0,18.7)	(8.7,15.1)	(9.3,15.4)	(-5.6,4.0)			(-6.5,5.7)
Race/ethnicity								
White_____	12.5	13.5	12.3	13.2	-1.0	-0.013	(-0.14,0.11)	-0.3
	(10.9,14.2)	(10.3,17.5)	(9.9,15.1)	(9.9,17.4)	(-4.5,2.5)			(-5.7,5.1)
African American__	11.4	8.4	9.1	16.1	3.0	0.068	(-0.24,0.37)	7.7
	(7.7,16.6)	(4.0,16.8)	(4.9,16.1)	(7.1,32.4)	(-3.0,8.9)			(-5.6,20.9)
Hispanic_____	13.7	9.2	16.0	15.2	4.5	0.072	(-0.17,0.31)	5.9
	(10.4,17.9)	(4.9,16.8)	(10.1,24.5)	(7.0,29.8)	(-0.9,9.8)			(-6.3,18.1)

Table 6-88. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and subsequent youth initiation of marijuana use (by round 2[2]) by both youth and parent characteristics, and by longitudinal wave(s) (continued)

November 1999 through June 2002

Characteristics	Percent of youth reporting each exposure level				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth marijuana use, by parent								
Gender								
Males_____	30.8	29.3	32.3	32.8	1.5	0.002	(-0.13,0.14)	3.5
	(27.4,34.4)	(22.5,37.1)	(26.4,38.8)	(24.5,42.3)	(-5.4,8.4)			(-7.8,14.8)
Females_____	3.9	3.1	2.8	4.7	0.8	0.145	(-0.06,0.35)	1.6
	(2.9,5.1)	(2.0,4.7)	(1.9,4.1)	(3.0,7.1)	(-0.5,2.1)			(-0.8,4.0)
Education								
Less than college__	18.4	18.2	17.1	19.9	0.2	-0.026	(-0.14,0.09)	1.7
	(16.3,20.7)	(13.9,23.4)	(13.9,20.9)	(15.1,25.8)	(-4.2,4.5)			(-5.3,8.7)
Some college +____	6.0	4.5	7.1	7.3	1.6	0.145	(-0.03,0.32)	2.9
	(4.8,7.6)	(2.7,7.3)	(4.7,10.6)	(4.4,12.0)	(-0.6,3.7)			(-1.5,7.2)
Longitudinal wave(s)[3]								
Wave 1-->4_____	13.6	14.6	14.4	9.2	-1.0	-0.120	(-0.29,0.05)	-5.3
	(11.5,16.0)	(9.4,21.9)	(11.6,17.7)	(6.9,12.3)	(-6.3,4.4)			(-12.0,1.3)
Wave 2-->5_____	13.4	10.1	12.1	21.0	3.4	0.185	(-0.02,0.39)	10.9
	(10.9,16.5)	(6.6,15.2)	(8.2,17.7)	(13.5,31.2)	(-1.4,8.1)			*(0.8,21.1)
Wave 3-->5_____	10.4	10.8	10.3	11.1	-0.4	-0.033	(-0.20,0.14)	0.3
	(8.4,12.8)	(6.7,17.0)	(7.5,13.9)	(7.5,16.2)	(-5.2,4.3)			(-5.5,6.1)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-89. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and nonusing youths' intentions to not use marijuana
(at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	89.4	88.7	89.1	90.2	0.7	0.095	(-0.08,0.27)	1.5
	(87.4,91.1)	(84.4,91.9)	(85.0,92.2)	(86.5,93.0)	(-2.8,4.2)			(-3.4,6.4)
14 to 18_____	73.4	72.9	74.6	69.0	0.4	-0.041	(-0.14,0.06)	-3.9
	(71.2,75.4)	(67.1,78.1)	(69.9,78.8)	(64.8,72.9)	(-4.5,5.4)			(-10.6,2.8)
12 to 18_____	78.8	78.3	79.1	76.6	0.5	-0.010	(-0.10,0.08)	-1.6
	(77.3,80.2)	(74.3,81.8)	(75.3,82.5)	(73.7,79.4)	(-2.7,3.8)			(-6.2,3.0)
Youth aged 12 to 18								
Gender								
Male_____	77.7	77.8	79.1	74.3	-0.1	-0.022	(-0.13,0.09)	-3.5
	(75.3,79.9)	(72.7,82.2)	(72.9,84.3)	(69.5,78.6)	(-4.1,3.9)			(-10.1,3.0)
Female_____	80.0	78.7	79.2	79.0	1.3	0.003	(-0.13,0.13)	0.3
	(78.0,81.8)	(72.5,83.9)	(75.0,82.8)	(74.4,82.9)	(-4.2,6.7)			(-7.0,7.6)
Race/ethnicity								
White_____	77.9	78.1	77.6	74.2	-0.2	-0.031	(-0.14,0.08)	-3.8
	(75.7,79.9)	(72.6,82.7)	(72.3,82.2)	(69.9,78.2)	(-4.8,4.4)			(-10.4,2.7)
African American____	80.7	78.2	82.9	78.5	2.5	0.031	(-0.22,0.29)	0.3
	(76.0,84.7)	(65.4,87.2)	(72.9,89.8)	(68.5,85.9)	(-7.4,12.5)			(-13.6,14.1)
Hispanic_____	80.5	78.3	81.6	82.4	2.2	0.027	(-0.20,0.25)	4.1
	(77.2,83.5)	(68.6,85.6)	(69.8,89.5)	(77.1,86.7)	(-5.7,10.1)			(-6.6,14.8)

Table 6-89. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and nonusing youths' intentions to not use marijuana
(at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct Campaign effect | | | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	(C1-C2)	Gamma	95% CI of gamma	(C4-C2)
Youth aged 12 to 18								
Risk score								
Higher risk_____	58.9	60.4	59.5	51.2	-1.5	-0.086	(-0.21,0.04)	-9.2
	(55.7,62.1)	(52.4,68.0)	(51.1,67.3)	(45.1,57.2)	(-8.1,5.1)			(-18.8,0.3)
Lower risk_____	87.9	86.3	88.8	87.5	1.6	0.045	(-0.10,0.20)	1.2
	(86.4,89.3)	(81.6,90.0)	(86.2,90.9)	(84.5,90.0)	(-2.4,5.5)			(-4.1,6.4)
Sensation seeking								
High_____	68.4	66.8	68.2	62.6	1.6	-0.025	(-0.13,0.08)	-4.1
	(66.1,70.6)	(60.2,72.8)	(62.7,73.3)	(58.5,66.6)	(-4.1,7.3)			(-11.8,3.5)
Low_____	89.6	90.0	91.6	89.4	-0.3	-0.037	(-0.21,0.14)	-0.6
	(87.7,91.3)	(84.7,93.6)	(87.7,94.3)	(86.0,92.1)	(-4.4,3.7)			(-5.8,4.6)
Longitudinal wave(s)[3]								
Wave 1-->4_____	78.9	81.0	79.7	74.7	-2.1	-0.107	(-0.25,0.03)	-6.2
	(76.3,81.2)	(75.6,85.4)	(75.2,83.5)	(68.1,80.4)	(-6.4,2.2)			(-13.9,1.4)
Wave 2-->5_____	78.5	75.1	79.6	76.1	3.3	0.029	(-0.11,0.17)	1.0
	(75.9,80.8)	(67.6,81.4)	(74.2,84.0)	(70.8,80.7)	(-3.1,9.7)			(-7.9,9.9)
Wave 3-->5_____	79.1	79.2	78.3	79.2	-0.1	0.022	(-0.13,0.17)	0.0
	(76.1,81.8)	(71.9,85.0)	(70.2,84.6)	(73.8,83.8)	(-5.8,5.6)			(-8.2,8.2)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-90. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and nonusing youths' intentions to not use marijuana (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	89.4 (87.4,91.1)	89.7 (83.7,93.7)	88.5 (84.5,91.6)	88.2 (84.1,91.4)	-0.3 (-4.7,4.1)	-0.046	(-0.23,0.14)	-1.5 (-7.0,4.1)
14 to 18_____	73.4 (71.2,75.4)	70.3 (65.0,75.1)	73.6 (69.6,77.3)	73.6 (68.4,78.2)	3.1 (-1.4,7.5)	0.055	(-0.05,0.16)	3.3 (-4.0,10.6)
12 to 18_____	78.8 (77.3,80.2)	76.7 (72.3,80.6)	78.6 (75.9,81.0)	78.9 (75.1,82.2)	2.1 (-1.6,5.9)	0.049	(-0.05,0.15)	2.2 (-3.5,7.9)
Youth aged 12 to 18								
Gender								
Male_____	77.7 (75.3,79.9)	73.6 (67.3,79.0)	78.7 (75.3,81.7)	77.8 (72.4,82.3)	4.1 (-0.9,9.1)	0.066	(-0.06,0.19)	4.2 (-3.2,11.5)
Female_____	80.0 (78.0,81.8)	80.1 (73.0,85.7)	78.5 (74.8,81.8)	80.1 (75.9,83.6)	-0.1 (-5.9,5.6)	0.028	(-0.12,0.17)	0.0 (-8.0,7.9)
Race/ethnicity								
White_____	77.9 (75.7,79.9)	74.1 (68.3,79.1)	78.0 (74.7,81.0)	79.1 (75.1,82.6)	3.8 (-0.9,8.5)	0.055	(-0.06,0.17)	5.0 (-1.7,11.7)
African American__	80.7 (76.0,84.7)	79.8 (71.5,86.2)	82.6 (75.8,87.8)	75.4 (59.9,86.3)	0.9 (-5.9,7.7)	0.036	(-0.23,0.30)	-4.4 (-18.6,9.8)
Hispanic_____	80.5 (77.2,83.5)	83.5 (73.4,90.3)	73.9 (63.8,82.0)	82.4 (71.5,89.7)	-3.0 (-10.8,4.8)	0.059	(-0.15,0.27)	-1.1 (-13.4,11.3)

Table 6-90. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and nonusing youths' intentions to not use marijuana
(at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct | | | Potential maximum |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	Campaign effect (C1-C2)	Gamma	95% CI of gamma	Campaign effect (C4-C2)
Youth aged 12 to 18								
Risk score								
Higher risk_____	58.9	50.8	59.5	62.0	8.1	0.123	(-0.01,0.25)	11.2
	(55.7,62.1)	(43.5,58.0)	(52.6,66.1)	(53.5,69.9)	*(1.4,14.8)			*(0.4,22.1)
Lower risk_____	87.9	88.7	87.4	87.1	-0.8	-0.052	(-0.20,0.10)	-1.6
	(86.4,89.3)	(84.9,91.7)	(84.6,89.7)	(83.9,89.8)	(-3.8,2.2)			(-6.2,3.1)
Sensation seeking								
High_____	68.4	63.5	69.7	68.8	4.9	0.073	(-0.04,0.19)	5.3
	(66.1,70.6)	(56.9,69.6)	(65.7,73.3)	(63.0,74.0)	(-0.7,10.5)			(-3.1,13.7)
Low_____	89.6	90.7	87.2	90.0	-1.1	-0.032	(-0.19,0.13)	-0.8
	(87.7,91.3)	(85.8,94.1)	(83.5,90.2)	(85.4,93.2)	(-4.9,2.8)			(-6.2,4.7)
Longitudinal wave(s)[3]								
Wave 1-->4_____	78.9	76.7	77.1	83.0	2.2	0.146	(-0.01,0.30)	6.3
	(76.3,81.2)	(70.5,81.9)	(73.0,80.8)	(78.2,86.9)	(-3.0,7.4)			(-0.9,13.4)
Wave 2-->5_____	78.5	79.0	79.0	74.3	-0.6	-0.071	(-0.24,0.10)	-4.8
	(75.9,80.8)	(72.5,84.3)	(73.6,83.6)	(65.9,81.2)	(-5.9,4.8)			(-15.3,5.8)
Wave 3-->5_____	79.1	74.3	79.4	79.9	4.8	0.084	(-0.07,0.24)	5.6
	(76.1,81.8)	(65.3,81.7)	(75.2,83.1)	(74.4,84.4)	(-2.4,11.9)			(-3.6,14.7)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-91. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and nonusing youths' personal anti-marijuana beliefs and attitudes[3] (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	121.61	115.89	130.33	119.35	5.72	0.018	(-0.06,0.09)	3.46
	(116.11,127.10)	(102.99,128.79)	(121.26,139.41)	(109.03,129.67)	(-5.90,17.33)			(-13.63,20.55)
14 to 18_____	74.16	76.41	79.84	69.28	-2.25	-0.019	(-0.08,0.04)	-7.13
	(68.63,79.70)	(62.39,90.44)	(65.60,94.09)	(59.24,79.31)	(-15.04,10.54)			(-25.25,10.99)
12 to 18_____	89.90	89.49	95.25	86.85	0.42	-0.006	(-0.05,0.04)	-2.64
	(85.03,94.78)	(79.21,99.77)	(84.21,106.30)	(79.27,94.43)	(-8.31,9.14)			(-15.09,9.82)
Youth aged 12 to 18								
Gender								
Male_____	84.38	82.10	91.10	77.83	2.28	-0.009	(-0.07,0.05)	-4.28
	(77.07,91.69)	(68.66,95.55)	(74.15,108.06)	(66.55,89.10)	(-9.08,13.63)			(-20.59,12.03)
Female_____	95.74	96.88	99.86	95.99	-1.14	-0.002	(-0.07,0.06)	-0.89
	(90.57,100.91)	(82.74,111.01)	(88.44,111.27)	(85.93,106.04)	(-14.32,12.05)			(-19.24,17.46)
Race/ethnicity								
White_____	92.52	90.04	97.60	86.81	2.48	-0.003	(-0.06,0.06)	-3.23
	(86.61,98.44)	(77.03,103.05)	(84.17,111.04)	(76.26,97.35)	(-8.74,13.70)			(-21.12,14.66)
African American__	80.69	92.43	90.09	75.62	-11.74	-0.051	(-0.16,0.06)	-16.81
	(67.48,93.90)	(65.19,119.67)	(63.15,117.03)	(58.27,92.97)	(-36.82,13.35)			(-48.06,14.44)
Hispanic_____	88.53	85.73	87.53	93.60	2.80	0.015	(-0.08,0.11)	7.88
	(78.92,98.14)	(64.31,107.14)	(63.84,111.21)	(76.67,110.54)	(-17.52,23.13)			(-18.51,34.26)

Table 6-91. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and nonusing youths' personal anti-marijuana beliefs and attitudes[3] (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	31.25	36.96	25.35	25.80	-5.70	-0.033	(-0.11,0.04)	-11.16
	(21.90,40.61)	(16.42,57.50)	(4.36,46.34)	(10.13,41.48)	(-23.67,12.26)			(-36.97,14.66)
Lower risk_____	117.68	113.33	130.55	114.59	4.35	0.013	(-0.05,0.07)	1.26
	(112.85,122.52)	(101.84,124.82)	(122.81,138.28)	(107.51,121.68)	(-5.18,13.88)			(-12.66,15.19)
Sensation seeking								
High_____	56.79	55.77	57.14	47.40	1.03	-0.020	(-0.08,0.04)	-8.37
	(50.27,63.32)	(42.11,69.43)	(41.17,73.11)	(35.91,58.88)	(-11.32,13.37)			(-26.97,10.23)
Low_____	125.27	124.15	138.48	125.21	1.12	-0.001	(-0.06,0.06)	1.06
	(120.09,130.45)	(113.73,134.57)	(126.53,150.43)	(117.19,133.23)	(-7.86,10.11)			(-11.92,14.04)
Longitudinal wave(s)[4]								
Wave 1-->4_____	88.14	92.26	86.01	77.80	-4.11	-0.042	(-0.11,0.02)	-14.45
	(81.65,94.63)	(78.31,106.21)	(74.86,97.16)	(62.52,93.09)	(-15.92,7.69)			(-33.74,4.84)
Wave 2-->5_____	88.91	85.95	104.86	83.81	2.96	0.006	(-0.07,0.08)	-2.14
	(81.12,96.70)	(67.99,103.91)	(86.68,123.04)	(72.65,94.97)	(-13.11,19.03)			(-23.91,19.63)
Wave 3-->5_____	92.48	90.77	93.58	99.34	1.72	0.014	(-0.06,0.09)	8.57
	(84.44,100.52)	(71.93,109.60)	(72.99,114.17)	(88.98,109.69)	(-15.34,18.77)			(-13.83,30.97)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Based on a combined index of beliefs and attitudes towards trial and regular marijuana use, as described in Appendix E. See Table 5-2 for distribution.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-92. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and nonusing youths' personal anti-marijuana beliefs and attitudes[3] (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Exposure level of parents				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	121.61	125.20	118.23	119.49	-3.60	-0.021	(-0.10,0.05)	-5.71
	(116.11,127.10)	(113.65,136.75)	(108.46,128.00)	(107.33,131.65)	(-13.74,6.55)			(-22.48,11.06)
14 to 18_____	74.16	76.00	77.52	71.63	-1.84	-0.005	(-0.06,0.05)	-4.37
	(68.63,79.70)	(61.99,90.02)	(68.77,86.26)	(61.40,81.87)	(-13.29,9.61)			(-22.29,13.54)
12 to 18_____	89.90	91.95	90.62	88.40	-2.04	-0.006	(-0.05,0.04)	-3.55
	(85.03,94.78)	(80.69,103.20)	(83.69,97.55)	(80.04,96.76)	(-11.08,6.99)			(-17.44,10.34)
Youth aged 12 to 18								
Gender								
Male_____	84.38	89.86	84.00	84.03	-5.48	-0.016	(-0.08,0.05)	-5.83
	(77.07,91.69)	(75.30,104.42)	(73.59,94.41)	(71.23,96.84)	(-17.52,6.56)			(-24.30,12.65)
Female_____	95.74	94.38	97.04	93.21	1.36	0.007	(-0.06,0.08)	-1.17
	(90.57,100.91)	(77.59,111.16)	(87.55,106.54)	(84.04,102.37)	(-14.37,17.10)			(-21.19,18.86)
Race/ethnicity								
White_____	92.52	90.88	92.16	92.41	1.64	-0.002	(-0.05,0.05)	1.53
	(86.61,98.44)	(77.64,104.12)	(83.62,100.70)	(81.55,103.27)	(-9.13,12.42)			(-15.12,18.18)
African American__	80.69	86.70	94.05	75.03	-6.01	-0.001	(-0.11,0.11)	-11.67
	(67.48,93.90)	(58.01,115.40)	(77.90,110.20)	(58.25,91.81)	(-30.48,18.45)			(-41.00,17.66)
Hispanic_____	88.53	103.94	74.08	89.28	-15.41	-0.010	(-0.16,0.14)	-14.66
	(78.92,98.14)	(73.79,134.09)	(54.01,94.16)	(60.03,118.53)	(-43.89,13.07)			(-59.79,30.47)

Table 6-92. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and nonusing youths' personal anti-marijuana beliefs and attitudes[3] (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

Characteristics	Exposure level of parents				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
Risk score								
Higher risk_____	31.25	33.51	38.75	30.37	-2.25	0.004	(-0.08,0.09)	-3.14
	(21.90,40.61)	(13.21,53.81)	(24.66,52.84)	(10.63,50.12)	(-17.73,13.22)			(-29.22,22.94)
Lower risk_____	117.68	120.67	114.94	117.93	-2.98	-0.015	(-0.07,0.04)	-2.73
	(112.85,122.52)	(110.48,130.85)	(107.83,122.05)	(109.49,126.38)	(-11.19,5.22)			(-16.66,11.20)
Sensation seeking								
High_____	56.79	59.79	57.00	58.16	-3.00	0.002	(-0.06,0.06)	-1.63
	(50.27,63.32)	(42.53,77.05)	(48.18,65.82)	(46.04,70.28)	(-17.00,11.01)			(-21.34,18.09)
Low_____	125.27	127.42	124.43	122.39	-2.15	-0.035	(-0.10,0.03)	-5.03
	(120.09,130.45)	(116.07,138.77)	(116.08,132.78)	(110.41,134.37)	(-12.09,7.79)			(-21.20,11.14)
Longitudinal wave(s)[4]								
Wave 1-->4_____	88.14	83.54	82.12	97.33	4.60	0.055	(-0.01,0.12)	13.79
	(81.65,94.63)	(69.02,98.07)	(70.76,93.48)	(85.79,108.87)	(-8.43,17.64)			(-4.78,32.36)
Wave 2-->5_____	88.91	93.89	88.79	80.43	-4.98	-0.037	(-0.12,0.04)	-13.47
	(81.12,96.70)	(76.47,111.31)	(76.23,101.35)	(63.07,97.79)	(-21.45,11.48)			(-39.23,12.29)
Wave 3-->5_____	92.48	98.14	99.42	88.40	-5.66	-0.029	(-0.12,0.06)	-9.74
	(84.44,100.52)	(76.90,119.38)	(88.15,110.68)	(76.13,100.66)	(-23.46,12.14)			(-33.16,13.67)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Based on a combined index of beliefs and attitudes towards trial and regular marijuana use, as described in Appendix E. See Table 5-2 for distribution.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-93. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and perceived anti-marijuana social norms[3] among nonusing youth (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	124.96 (120.40,129.51)	119.37 (108.28,130.45)	129.88 (120.32,139.44)	124.72 (114.54,134.91)	5.59 (-4.63,15.81)	0.031	(-0.04,0.11)	5.36 (-10.24,20.96)
14 to 18_____	62.89 (56.49,69.28)	72.31 (59.42,85.19)	70.55 (56.45,84.65)	55.11 (43.83,66.40)	-9.42 (-20.86,2.02)	-0.055	*(-0.10,-0.01)	-17.19 *(-33.85,-0.54)
12 to 18_____	83.48 (78.75,88.21)	87.89 (78.43,97.36)	88.66 (77.48,99.83)	79.54 (71.09,87.99)	-4.41 (-12.69,3.86)	-0.026	(-0.07,0.02)	-8.35 (-21.45,4.74)
Youth aged 12 to 18								
Gender								
Male_____	76.19 (69.91,82.47)	75.31 (61.75,88.87)	80.96 (65.20,96.73)	71.24 (59.48,83.00)	0.88 (-11.60,13.37)	-0.020	(-0.08,0.04)	-4.07 (-22.59,14.46)
Female_____	91.16 (84.97,97.34)	100.42 (87.93,112.91)	97.19 (85.49,108.89)	87.94 (75.63,100.26)	-9.26 (-20.48,1.96)	-0.030	(-0.09,0.03)	-12.48 (-30.72,5.77)
Race/ethnicity								
White_____	88.65 (82.81,94.48)	92.56 (79.51,105.61)	92.72 (79.29,106.15)	82.96 (71.31,94.60)	-3.91 (-15.13,7.31)	-0.030	(-0.08,0.02)	-9.60 (-28.08,8.88)
African American__	66.05 (53.85,78.25)	85.22 (59.23,111.21)	75.99 (55.74,96.25)	51.85 (33.55,70.16)	-19.17 (-42.68,4.34)	-0.113	*(-0.22,-0.00)	-33.36 *(-63.77,-2.96)
Hispanic_____	74.62 (66.03,83.20)	59.80 (37.49,82.10)	79.68 (56.11,103.25)	88.35 (73.32,103.37)	14.82 (-4.47,34.11)	0.104	*(0.01,0.20)	28.55 *(4.54,52.56)

Table 6-93. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and perceived anti-marijuana social norms[3] among nonusing youth (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct Campaign effect | | | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	(C1-C2)	Gamma	95% CI of gamma	(C4-C2)
Youth aged 12 to 18								
Risk score								
Higher risk_____	14.93	26.98	16.65	2.26	-12.05	-0.074	*(-0.15,-0.00)	-24.71
	(6.67,23.18)	(5.65,48.31)	(-2.44,35.74)	(-14.83,19.36)	(-31.88,7.78)			(-52.60,3.17)
Lower risk_____	115.77	114.74	125.84	113.17	1.03	-0.014	(-0.06,0.04)	-1.57
	(111.56,119.98)	(106.05,123.42)	(117.27,134.41)	(105.55,120.78)	(-6.30,8.37)			(-13.02,9.88)
Sensation seeking								
High_____	49.73	54.44	54.98	37.83	-4.71	-0.044	(-0.10,0.01)	-16.61
	(43.11,56.34)	(39.91,68.97)	(40.47,69.50)	(26.07,49.58)	(-16.86,7.43)			(-35.87,2.64)
Low_____	119.20	121.65	127.32	118.10	-2.45	-0.011	(-0.07,0.05)	-3.54
	(113.46,124.93)	(110.78,132.51)	(114.52,140.12)	(108.38,127.83)	(-11.72,6.83)			(-17.90,10.82)
Longitudinal wave(s)[4]								
Wave 1-->4_____	82.42	86.89	82.09	73.77	-4.47	-0.028	(-0.10,0.04)	-13.12
	(75.70,89.15)	(71.22,102.56)	(71.14,93.03)	(56.14,91.41)	(-17.73,8.79)			(-35.92,9.68)
Wave 2-->5_____	81.95	91.49	90.83	77.74	-9.54	-0.049	(-0.12,0.02)	-13.75
	(73.94,89.95)	(75.07,107.91)	(74.26,107.40)	(66.78,88.70)	(-23.84,4.75)			(-32.56,5.06)
Wave 3-->5_____	85.98	85.21	92.25	87.36	0.76	-0.003	(-0.08,0.07)	2.15
	(77.06,94.89)	(63.95,106.48)	(71.62,112.88)	(75.28,99.44)	(-17.30,18.82)			(-22.38,26.68)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Based on a combined index of perceived social expectations and perceived social network behavior as described in Appendix E. See Table 5-3 for distribution.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-94. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and perceived anti-marijuana social norms[3] among nonusing youth (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

Characteristics	Exposure level of parents				Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	Potential maximum Campaign effect (C4-C2)
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	124.96	123.71	125.14	123.52	1.25	0.011	(-0.08,0.10)	-0.19
	(120.40,129.51)	(109.77,137.64)	(116.42,133.86)	(112.39,134.64)	(-11.25,13.75)			(-19.22,18.84)
14 to 18_____	62.89	61.48	69.31	57.09	1.41	-0.015	(-0.06,0.04)	-4.39
	(56.49,69.28)	(47.95,75.01)	(59.61,79.01)	(47.10,67.08)	(-9.54,12.36)			(-20.85,12.07)
12 to 18_____	83.48	81.64	87.27	80.36	1.84	0.000	(-0.05,0.05)	-1.28
	(78.75,88.21)	(70.41,92.88)	(79.98,94.57)	(71.41,89.32)	(-7.18,10.86)			(-15.70,13.14)
Youth aged 12 to 18								
Gender								
Male_____	76.19	74.60	81.97	72.90	1.59	0.000	(-0.06,0.07)	-1.71
	(69.91,82.47)	(61.52,87.68)	(72.00,91.94)	(59.82,85.97)	(-10.09,13.27)			(-19.98,16.57)
Female_____	91.16	89.45	92.43	88.59	1.71	-0.002	(-0.08,0.07)	-0.86
	(84.97,97.34)	(71.28,107.63)	(82.16,102.69)	(78.31,98.87)	(-14.20,17.62)			(-22.72,20.99)
Race/ethnicity								
White_____	88.65	87.55	90.90	83.27	1.09	-0.018	(-0.08,0.04)	-4.28
	(82.81,94.48)	(73.62,101.49)	(81.72,100.08)	(73.21,93.33)	(-10.35,12.53)			(-22.52,13.95)
African American__	66.05	74.61	85.37	54.17	-8.57	-0.051	(-0.17,0.07)	-20.44
	(53.85,78.25)	(46.12,103.11)	(67.29,103.44)	(32.30,76.05)	(-35.22,18.09)			(-56.20,15.31)
Hispanic_____	74.62	56.76	60.74	95.50	17.86	0.159	*(0.05,0.27)	38.75
	(66.03,83.20)	(33.76,79.75)	(39.95,81.52)	(66.57,124.43)	(-4.02,39.75)			*(1.96,75.53)

Table 6-94. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and perceived anti-marijuana social norms[3] among nonusing
youth (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct Campaign effect | | | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	(C1-C2)	Gamma	95% CI of gamma	(C4-C2)
Youth aged 12 to 18								
Risk score								
Higher risk_____	14.93	14.85	25.12	14.93	0.07	0.011	(-0.06,0.09)	0.08
	(6.67,23.18)	(-4.38,34.08)	(11.34,38.90)	(-2.12,31.98)	(-16.16,16.30)			(-23.06,23.21)
Lower risk_____	115.77	113.52	117.21	113.97	2.25	0.002	(-0.05,0.06)	0.45
	(111.56,119.98)	(103.74,123.29)	(110.61,123.80)	(106.05,121.89)	(-5.46,9.97)			(-12.72,13.62)
Sensation seeking								
High_____	49.73	48.31	54.18	45.67	1.42	-0.004	(-0.07,0.06)	-2.64
	(43.11,56.34)	(31.93,64.69)	(43.37,64.98)	(33.13,58.20)	(-12.36,15.19)			(-22.67,17.39)
Low_____	119.20	117.38	121.97	119.22	1.82	0.015	(-0.05,0.08)	1.84
	(113.46,124.93)	(103.93,130.84)	(113.35,130.59)	(107.60,130.84)	(-9.03,12.66)			(-14.42,18.10)
Longitudinal wave(s)[4]								
Wave 1-->4_____	82.42	76.66	77.08	91.25	5.77	0.065	(-0.01,0.14)	14.59
	(75.70,89.15)	(60.99,92.32)	(65.70,88.46)	(81.28,101.22)	(-7.58,19.11)			(-4.02,33.21)
Wave 2-->5_____	81.95	78.96	83.83	72.75	2.99	-0.029	(-0.11,0.05)	-6.21
	(73.94,89.95)	(61.81,96.11)	(70.38,97.28)	(55.95,89.54)	(-11.79,17.76)			(-31.00,18.58)
Wave 3-->5_____	85.98	89.15	98.98	78.00	-3.17	-0.034	(-0.13,0.06)	-11.15
	(77.06,94.89)	(66.71,111.58)	(87.75,110.21)	(64.79,91.20)	(-23.34,17.00)			(-36.42,14.12)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Based on a combined index of perceived social expectations and perceived social network behavior as described in Appendix E. See Table 5-3 for distribution.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-95. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and self-efficacy to refuse marijuana[3] among nonusing
youth (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	111.44	123.69	110.33	107.48	-12.24	-0.061	(-0.14,0.01)	-16.20
	(106.45,116.43)	(113.72,133.65)	(99.66,120.99)	(98.47,116.50)	*(-21.49,-3.00)			*(-28.81,-3.60)
14 to 18_____	107.81	111.10	112.25	98.93	-3.29	-0.059	(-0.14,0.02)	-12.16
	(103.28,112.33)	(96.22,125.97)	(103.79,120.72)	(86.42,111.45)	(-16.86,10.27)			(-31.60,7.27)
12 to 18_____	109.01	115.27	111.67	101.93	-6.26	-0.059	(-0.12,0.00)	-13.33
	(105.29,112.73)	(104.96,125.58)	(104.14,119.19)	(92.62,111.25)	(-16.12,3.60)			(-27.41,0.75)
Youth aged 12 to 18								
Gender								
Male_____	104.57	112.55	111.04	92.92	-7.98	-0.057	(-0.13,0.02)	-19.63
	(99.41,109.72)	(103.56,121.54)	(101.90,120.19)	(78.22,107.62)	(-16.85,0.90)			*(-37.66,-1.60)
Female_____	113.72	118.05	112.36	111.06	-4.32	-0.062	(-0.16,0.04)	-6.99
	(109.40,118.05)	(101.00,135.09)	(102.49,122.23)	(102.07,120.05)	(-20.78,12.14)			(-27.11,13.13)
Race/ethnicity								
White_____	112.07	113.96	112.10	105.40	-1.89	-0.049	(-0.13,0.03)	-8.56
	(107.52,116.62)	(99.43,128.49)	(102.36,121.84)	(93.69,117.11)	(-15.72,11.94)			(-27.51,10.38)
African American__	111.85	123.94	126.76	92.56	-12.08	-0.076	(-0.24,0.09)	-31.38
	(102.64,121.07)	(107.43,140.44)	(107.49,146.03)	(66.63,118.49)	(-28.83,4.66)			(-63.92,1.16)
Hispanic_____	95.29	114.31	96.96	93.15	-19.02	-0.095	(-0.25,0.06)	-21.16
	(85.24,105.34)	(94.80,133.82)	(78.77,115.15)	(77.31,108.99)	(-39.89,1.85)			(-49.90,7.58)

Table 6-95. The relationship between parental exposure[1] to general anti-drug advertising (at round 1[2]) and self-efficacy to refuse marijuana[3] among nonusing

youth (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | | | | Potential |
Characteristics	Actual during period (C1)	Less than 4 times per month (C2)	4-11 times per month (C3)	12 or more times per month (C4)	Direct Campaign effect (C1-C2)	Gamma	95% CI of gamma	maximum Campaign effect (C4-C2)
Youth aged 12 to 18								
Risk score								
Higher risk_____	84.84	87.19	89.42	64.28	-2.35	-0.057	(-0.14,0.03)	-22.91
	(76.93,92.75)	(70.29,104.09)	(75.61,103.22)	(42.74,85.81)	(-17.62,12.91)			(-51.24,5.41)
Lower risk_____	121.02	127.70	123.96	118.98	-6.68	-0.082	(-0.16,0.00)	-8.72
	(117.50,124.55)	(115.53,139.87)	(116.77,131.14)	(112.31,125.64)	(-18.13,4.78)			(-22.84,5.39)
Sensation seeking								
High_____	93.18	92.91	96.13	78.61	0.27	-0.036	(-0.12,0.04)	-14.30
	(87.86,98.51)	(74.29,111.53)	(86.34,105.91)	(63.27,93.95)	(-17.32,17.87)			(-39.30,10.69)
Low_____	126.30	137.71	130.97	123.69	-11.41	-0.114	*(-0.22,-0.01)	-14.02
	(121.93,130.66)	(131.01,144.41)	(122.14,139.81)	(116.03,131.35)	*(-17.70,-5.13)			*(-24.52,-3.52)
Longitudinal wave(s)[4]								
Wave 1-->4_____	106.79	117.47	105.39	92.92	-10.68	-0.075	(-0.17,0.02)	-24.56
	(100.56,113.02)	(106.60,128.35)	(93.25,117.53)	(73.90,111.93)	(-21.85,0.48)			*(-46.32,-2.79)
Wave 2-->5_____	107.43	104.36	114.23	104.53	3.06	-0.040	(-0.16,0.08)	0.17
	(101.18,113.67)	(82.62,126.11)	(101.79,126.67)	(89.59,119.48)	(-18.06,24.18)			(-28.29,28.63)
Wave 3-->5_____	112.60	124.03	114.59	108.36	-11.43	-0.061	(-0.15,0.03)	-15.67
	(106.19,119.01)	(112.17,135.90)	(102.61,126.57)	(95.14,121.58)	*(-21.64,-1.22)			(-31.86,0.51)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Self-efficacy scale based on 4 questions asking how sure youth are that they can say no to marijuana if they really wanted to: while at a party where most others are using it (C9a); when a very close friend suggests they use it (C9b); when at home alone and feeling sad or bored (C9c); when hanging out at a friend's house whose parents aren't home (C9d). Measurement of this construct is detailed in Appendix E. See Table 5-26 for distribution.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Table 6-96. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and self-efficacy to refuse marijuana[3] among nonusing
youth (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s)

November 1999 through June 2002

| Characteristics | Exposure level of parents | | | | Direct Campaign effect (C1-C2) | Gamma | 95% CI of gamma | Potential maximum Campaign effect (C4-C2) |
	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)				
Youth aged 12 to 18								
12 to 13_____	111.44 (106.45,116.43)	116.52 (106.52,126.52)	115.61 (106.87,124.36)	103.83 (88.16,119.50)	-5.08 (-14.50,4.33)	-0.058	(-0.16,0.05)	-12.69 (-31.18,5.79)
14 to 18_____	107.81 (103.28,112.33)	104.91 (91.98,117.83)	108.37 (100.65,116.09)	102.27 (90.66,113.89)	2.90 (-7.91,13.71)	0.004	(-0.07,0.08)	-2.63 (-19.85,14.59)
12 to 18_____	109.01 (105.29,112.73)	108.67 (98.90,118.44)	110.70 (105.02,116.38)	102.82 (92.69,112.95)	0.34 (-7.98,8.66)	-0.012	(-0.07,0.05)	-5.85 (-19.06,7.35)
Youth aged 12 to 18								
Gender								
Male_____	104.57 (99.41,109.72)	103.99 (91.00,116.98)	104.47 (95.76,113.19)	96.80 (82.91,110.69)	0.58 (-10.65,11.81)	-0.021	(-0.10,0.06)	-7.19 (-24.94,10.57)
Female_____	113.72 (109.40,118.05)	113.96 (102.47,125.46)	116.75 (110.33,123.18)	109.44 (98.68,120.20)	-0.24 (-10.73,10.25)	-0.004	(-0.09,0.08)	-4.52 (-20.24,11.21)
Race/ethnicity								
White_____	112.07 (107.52,116.62)	107.56 (95.44,119.69)	115.02 (109.37,120.66)	106.60 (95.57,117.63)	4.51 (-5.19,14.20)	0.002	(-0.07,0.08)	-0.97 (-16.20,14.27)
African American__	111.85 (102.64,121.07)	124.60 (106.81,142.39)	112.57 (96.20,128.94)	96.11 (68.27,123.96)	-12.74 (-30.32,4.83)	-0.117	(-0.29,0.06)	-28.48 (-61.56,4.59)
Hispanic_____	95.29 (85.24,105.34)	93.32 (65.10,121.54)	83.63 (63.57,103.68)	99.18 (65.63,132.73)	1.97 (-24.66,28.60)	0.059	(-0.11,0.23)	5.85 (-35.74,47.44)

Table 6-96. The relationship between parental exposure[1] to specific anti-drug advertising (at round 1[2]) and self-efficacy to refuse marijuana[3] among nonusing youth (at round 2[2]), by age, gender, race/ethnicity, risk score, sensation seeking, and by longitudinal wave(s) (continued)

November 1999 through June 2002

| | Exposure level of parents | | | | Direct Campaign effect | | | Potential maximum Campaign effect |
Characteristics	Actual during period (C1)	Less than 1 time per month (C2)	1-3 times per month (C3)	4 or more times per month (C4)	(C1-C2)	Gamma	95% CI of gamma	(C4-C2)
Youth aged 12 to 18								
Risk score								
Higher risk_____	84.84	76.83	90.18	71.55	8.01	-0.013	(-0.11,0.08)	-5.28
	(76.93,92.75)	(56.22,97.44)	(77.36,103.00)	(48.75,94.35)	(-10.06,26.08)			(-35.24,24.68)
Lower risk_____	121.02	124.40	120.30	119.69	-3.38	-0.019	(-0.09,0.05)	-4.72
	(117.50,124.55)	(116.53,132.28)	(113.99,126.61)	(112.43,126.94)	(-10.19,3.43)			(-15.88,6.45)
Sensation seeking								
High_____	93.18	88.09	96.86	83.55	5.09	-0.014	(-0.08,0.06)	-4.55
	(87.86,98.51)	(75.07,101.12)	(88.54,105.17)	(70.16,96.94)	(-5.61,15.78)			(-22.45,13.36)
Low_____	126.30	131.90	124.57	125.33	-5.61	-0.018	(-0.11,0.07)	-6.58
	(121.93,130.66)	(123.38,140.42)	(116.84,132.30)	(113.86,136.79)	(-13.90,2.69)			(-20.24,7.09)
Longitudinal wave(s)[4]								
Wave 1-->4_____	106.79	106.46	103.24	112.22	0.33	0.046	(-0.05,0.14)	5.76
	(100.56,113.02)	(92.47,120.44)	(94.14,112.35)	(100.79,123.64)	(-11.67,12.33)			(-10.25,21.77)
Wave 2-->5_____	107.43	114.53	108.38	87.36	-7.11	-0.109	*(-0.21,-0.01)	-27.17
	(101.18,113.67)	(102.08,126.98)	(97.68,119.08)	(65.83,108.89)	(-18.99,4.78)			*(-51.51,-2.84)
Wave 3-->5_____	112.60	104.97	119.09	110.77	7.63	0.032	(-0.08,0.15)	5.80
	(106.19,119.01)	(84.28,125.67)	(110.70,127.48)	(99.93,121.62)	(-9.80,25.06)			(-16.10,27.70)

[1]Limited to parents of youth who had never used marijuana at Round 1 and who were aged 12-18 at Round 2.

[2]Round 1 consists of Waves 1, 2 and 3. Round 2 consists of Waves 4 and 5. Wave 4 is a followup of Wave 1, and Wave 5 is a followup of Waves 2 and 3.

[3]Self-efficacy scale based on 4 questions asking how sure youth are that they can say no to marijuana if they really wanted to: while at a party where most others are using it (C9a); when a very close friend suggests they use it (C9b); when at home alone and feeling sad or bored (C9c); when hanging out at a friend's house whose parents aren't home (C9d). Measurement of this construct is detailed in Appendix E. See Table 5-26 for distribution.

[4]Respondents fall into one of three longitudinal waves: (a) those interviewed first at Wave 1 and second at Wave 4, (b) those interviewed first at Wave 2 and second at Wave 5, and (c) those interviewed first at Wave 3 and second at Wave 5.

NOTE: Direct campaign effects are estimated by comparing mean outcomes observed (C1) to projections of what those means would have been in the absence of the Media Campaign (C2).

Appendix A

Sample Design, Development of Weights, Confidence Intervals and Data Suppression, and Geography

This appendix provides a detailed discussion of the same points discussed in Chapter 2 of this report. The appendix is separated into four main sections along the lines suggested by the title.

A.1   Sample Design

The youth and their parents were found by door-to-door screening of a scientifically selected sample of about 34,700 dwelling units for Wave 1, 23,000 dwelling units for Wave 2, and 23,300 for Wave 3. These dwelling units were spread across about 1,300 neighborhoods in 90 primary sampling units (PSUs) for Wave 1 and about 800 neighborhoods, each in the same primary sampling units for Waves 2 and 3. The sample was selected in such a manner as to provide an efficient and nearly unbiased cross-section of America's youth and their parents. All types of residential housing were included in the sample. Youth living in institutions, group homes, and dormitories were excluded.

For subsequent followup waves (i.e., Waves 4 and 5) there has been no new selection of dwelling units or of youth. However, an original sampled parent could be replaced by a newly selected parent if the original selected parent were no longer eligible.

The sampling was arranged to get adequate numbers of youth in each of three targeted age ranges: 9 to 11, 12 to 13, and 14 to 18. These age ranges were judged to be important analytically for evaluating the impact of the Media Campaign. Within households with multiple eligible youth, up to two youth were selected during the three initial recruitment waves.

Parents were defined to include natural parents, adoptive parents, and foster parents who lived in the same household as the sample youth. Stepparents were also usually treated the same as parents unless they had lived with the child for less than 6 months. When there were no parents present, an adult caregiver was usually identified and interviewed in the same manner as actual parents. No absentee parents were selected. During the three initial recruitment waves, when more than one parent or caregiver was present, one was randomly selected. No preference was given to selecting mothers over fathers. Parents or caregivers of both genders were selected at equal rates. This was done to be able to measure the impact of the Media Campaign separately on mothers and fathers. During the subsequent followup waves, the most knowledgeable parent was selected if the original sample parent was no longer eligible (e.g., no longer living with child at least two nights a week, or mentally or physically disabled). When there were two sample youth who were not siblings living in the same household, a parent figure was selected for each.

The following discussion about sample selection is divided into two major subsections. The first describes the selection of the screening sample and the second describes the selection of youth and parents. As indicated earlier, all of the major sampling activities occurred during Waves 1 through 3 (i.e., the three initial recruitment waves). The sample for Wave 4 was a subset of youth and parents selected for Wave 1 that included all Wave 1 respondents plus a small subsample of Wave 1 nonrespondents (see Section A.1.3 for details). Similarly, the sample for Wave 5 included all respondents at Waves 2 and 3 plus a small number of nonrespondents (see Section A.1.4 for details).

A.1.1   Selection of Screening Sample (Waves 1 through 3)

The screening sample was selected using a dual-frame, multistage design. One frame was of housing built by late 1991 as listed by Westat in a sample of areas using field personnel and maps. This frame was called the area frame. The second frame consisted of building permits issued for new housing between January 1990 and December 1998. The dual-frame approach was used to improve survey reliability. By sampling new construction from permits, it was possible to spread the sample out more evenly, which resulted in improved reliability (Judkins, Cadell, and Sczerba, 2000). Housing units built in 1990 and 1991 had two chances of selection since they appeared in both frames. To correct for this duplication, the screening questionnaire in Waves 1 through 3 included a question on the age of the housing unit. Any housing units in the area frame built after April 1, 1990, were ineligible for the survey. Housing units built in the first 3 months of 1990 were kept under the assumption that there was some lag between the issuance of a permit and the construction of the building. Housing units built after 1998 had no chance of selection in either frame. Also, a housing unit had no chance of selection if built during the 1990s in jurisdictions where no permit was required. Finally, modular housing built during the 1990s was inadvertently omitted from the permit sample. These three factors implied a household coverage rate of about 98 percent.

New mobile homes placed on sites between 1991 and 2000 had a chance of selection through the missed mobile home procedure. This worked as follows. In a sample of segments (as defined below), interviewers were instructed to canvas the segment on their first visit for mobile homes and to compare what they found with what was found when the segment was first listed in 1991. In this sample of segments, any new mobile homes found were added to the sample. If there were more than nine new mobile homes in a segment (as might be the case with a new mobile home park), a subsample was drawn and appropriately weighted.

A.1.1.1   Selection of the Area Screening Sample (Waves 1 through 3)

The area screening sample was selected in three stages. The first stage consisted of selecting a sample of PSUs. The PSUs were generally metropolitan areas and groups of nonmetropolitan counties. The second stage consisted of segments. Each segment was a block or group of contiguous blocks with a minimum housing unit count in 1990 of about 60. The third stage consisted of individual dwelling units.

PSU Selection

The PSUs were stratified by region, metropolitan status, per capita income, percentage minority population, and PSU size. The National Survey of Parents and Youth (NSPY) PSUs were drawn as a subset of Westat's 1991 master sample. This master sample comprised 100 PSUs. Of these, 90 were selected and retained for NSPY. One reason for using a subset of these 100 instead of selecting a fresh set of 90 PSUs was that Westat had experienced interviewers in these PSUs. In addition, it was possible to use area listings from a prior survey, thereby reducing the area sampling costs.

The following paragraphs describe how the 100-PSU master sample was drawn and how it was subsampled for NSPY use. The PSUs in the underlying frame were constructed using 1990 Decennial Census information based on the following general criteria:

- Each PSU consisted of a single county, a group of counties, or a metropolitan statistical area (MSA).

- The PSUs were geographically contiguous, mutually exclusive, and covered the United States.

- Nonmetropolitan PSUs did not cross state boundaries.

- Each PSU had at least 15,000 total population as of 1990.

- Each PSU was designed to be as easily traversable by an interviewer or lister as possible given population density, minimum size constraints, and natural topography.

This constructed frame included 1,404 PSUs, with no PSU having a 1990 population larger than 5,400,000 (the New York, Chicago, and Los Angeles PMSAs were divided into three, two, and two PSUs, respectively). From this constructed frame, 100 PSUs were selected in 1991 for the master sample.

The 100-PSU master sample was selected using probability-proportionate-to-size (PPS) sampling with 1990 population as a measure of size. Twenty-four PSUs with populations greater than 2,100,000 were certainty selections (selected with probability 1). The remaining 1,380 PSUs were assigned to 38 strata for PSU selection. These strata were defined to satisfy the following criteria:

- Each stratum represented a 1990 population of roughly 4 to 5 million persons.

- The 38 strata were nested within eight primary strata defined by census region (Northeast, South, Midwest, and West) and PSU metropolitan/nonmetropolitan status.

- The strata within each primary stratum were constructed to be heterogeneous in PSU population size (for metropolitan primary strata), per capita income, and percentage minority population.

Using the Durbin-Brewer method (Durbin, 1967), 76 PSUs were sampled from the 38 strata (two PSUs per stratum) with probability proportionate to their 1990 population.

The NSPY PSU sample was a random subsample of 90 PSUs from the 100-PSU master sample. The noncertainty strata were grouped into superstrata. One stratum was then selected from each superstratum. Within the selected stratum, one of the two sample PSUs was randomly deselected. In order to eliminate 10 PSUs, 10 superstrata were formed, each with the same number of strata. The superstrata were formed from the 38 noncertainty strata and two pairs of small certainty PSUs. This

yielded an even four strata per superstratum. Each superstratum contained eight sample PSUs, each of which represented a population of approximately 2.1 million people. One PSU was dropped from each superstratum for a total of 10 eliminated PSUs, as required.

In forming the superstrata, there was some grouping of strata across regions because not every region had a number of strata that was a multiple of four and higher priority was given to avoiding grouping across metropolitan status. This approach was expected to increase the variance of regional estimates. To counteract this increased variance, a special set of weights was built for regional analyses. For this special set of weights (developed solely for cross-sectional analyses of Waves 1 through 3 data), the probabilities of retention associated with the superstrata were ignored and, instead, the PSUs in each region were weighted by metropolitan status up to the total population reported in those areas in 1990. This approach reduced variance for regional statistics but increased bias and variances for other statistics. Therefore, the regional weights were used only for regional analyses in Waves 1 through 3.

Area Segment Selection

NSPY segments consisted of groups of neighboring blocks with a minimum count of 60 dwelling units in the 1990 Census. By using blocks instead of larger units of geography, such as tracts or official block groups, the size of the listing task was reduced. However, some blocks had very small and even zero populations. These were collapsed to meet the minimum requirement of 60 dwelling units. A total of 1,180 such segments were selected for Wave 1. The sample segment counts were smaller for Waves 2 and 3 with 689 segments selected for Wave 2 and 694 segments for Wave 3. For the Wave 2 and 3 segments, all dwelling units were screened for date of construction. On average, approximately 27 dwelling units per segment were sampled in Wave 1 with a slightly larger average of 29 dwelling units per segment in Waves 2 and 3. The large minimum size of 60 dwelling units was designed to avoid selecting adjacent neighbors for the sample. This had the advantage of reducing contamination of interviews by prior interviews in neighboring houses, as well as reducing design effects.

The segments for Wave 1 were a subset of segments originally selected and listed for another survey in late 1991. (The listing process consisted of sending field workers out to every segment. Using a map of the segment, the field worker prepared a list of dwelling units within the segment.) In addition to saving the cost of a new listing of 1,180 segments, the use of these old listings had the advantage of eliminating most housing built during the 1990s. This might have been a drawback for another survey, but the NSPY had a separate sample of building permits to cover 1990s construction. Any dwelling units built in the 1990s in area segments had to be screened out, so using an old list actually made the total data collection more efficient. The segments for Waves 2 and 3 were from the same 1991 frame but were listed in a separate process in the fall of 1999.

A fixed whole number of segments was allocated to each PSU based on the projected count of 9- to 18-year-olds in 1999 for the stratum that the PSU represented. From the earlier survey, there was a total of 2,065 segments available. These segments had been selected in a systematic PPS fashion,[1] where the measure of size counted African American and Hispanic households more heavily than other households. This approach resulted in an oversample of segments with strong concentrations of minority population. This oversample was not desired for NSPY. Since just 1,180 of the 2,065 segments were required, the segments were subsampled with probabilities such that overall probability of selection became proportional to total households without any special emphasis on minority

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[1] A systematic PPS selection is one where the frame is systematically sorted and then an unequal probability sample is drawn with PPS. The systematic sorting induces a set of joint probabilities of selection that minimizes the total variance.

households. This was done by using a measure of size (MOS) that was proportional to the ratio of desired overall probability to the original probability:

$$SEGMOS = \frac{1990 \;\; households \;\; in \;\; segment}{old \;\; MOS \;\; for \;\; original \;\; survey}.$$

Dwelling Unit Selection in Area Segments

As mentioned above, the 1,180 segments for Wave 1 had been listed by contractor staff in late 1991 and early 1992. These lists of housing addresses were keyed. From the keyed files, a systematic PPS sample was drawn with a fixed national target of 30,993 dwelling units. (When combined with the permit sample of 3,407 newly built dwelling units, the total initial sample size was 34,400.) The measure of size was defined as the weight for the segment so that the final dwelling unit sample would be closer to an equi-probability sample (i.e., a sample in which every dwelling unit had the same chance of selection). These 30,993 dwelling units were split into two release groups by segment, with about 590 segments in each release group. For Wave 2, the 689 segments were supplemented with 2,875 new construction dwelling units for a total of 23,000 dwelling units. All of the Wave 2 segments were listed in the fall of 1999. For Wave 3, the 694 segments were supplemented with a permit sample of 3,052 for a total of 23,300 units.

For a subsample of the sample dwelling units, there was a quality control check on the original 1991/1992 listing. For all single-family housing, the interviewer checked for hidden apartments (such as converted basements, garages, and attics) that might have been missed by the lister. Any detected hidden apartments were added to the sample. Also, in a subsample of multifamily housing structures, the interviewer checked for missed apartments. Using these procedures, 192 missed dwelling units were added to the sample. Also, as mentioned above, there was a check for new mobile homes. This procedure added 99 sample mobile homes to the sample. Thus the combined sample from area segments was 31,284 dwelling units. Because the Waves 2 and 3 segments were listed in the fall of 1999, this process was not employed for these waves.

Selection of the Permit Screening Sample

A separate building permit sample was drawn for the three initial waves of NSPY to prevent problems caused by outdated information on block sizes. The data collection procedures for selecting the area segment involved sampling with PPS using 1990 Census data. PPS sampling with 1990 data strongly reduced between-segment variation to the extent that there was a strong correlation between total population in 1990 and eligible population in 1999. New construction would weaken that correlation. To avoid the potentially high between-segment variance caused by a weakened correlation, only pre-1990 census housing from the area segments were interviewed. This was accomplished by asking the occupants when their dwelling unit was constructed and then terminating the screening process if the unit was built after April 1, 1990. A separate sample of postcensus housing was drawn from a frame of building permits. This procedure was introduced at the U.S. Census Bureau in the 1960s and continues to be used for all major household surveys conducted by it. It is used at Westat for large surveys conducted late in a decade.

Permit sampling was possible because most localities required that a permit be obtained before building a residential structure and because the U.S. Census Bureau conducted a regular census of permit activity. This census of local governments has been conducted every month for active offices

and annually for less active offices. A benefit of the census has been that it could be used to select specific offices and months from which to draw an efficient sample of permits for national estimates.

The stages of permit sampling were similar to those in the area frame, but there were five instead of three. First, only permits issued within the 90 sample PSUs were selected. Next, a sample of building permit offices (BPOs) was selected. These were the local county and city offices that issue building permits and keep records about them. At the third stage, a sample of segments was selected, where a segment was defined to be the set of permits issued by an office within a specific time frame. At the fourth stage, individual permits were selected. After selection of the permits, a lister visited all the building sites for the selected permits to list all the housing units that were found there. After listing of housing units within sample segments, the final sample of dwelling units was selected.

The total dwelling unit sample size from the permit frame was set so that the proportion of the total sample selected through the permit frame would roughly equal the proportion of the total national housing stock that was built between April 1, 1990, and the end of 1998. Statistics from the U.S. Census Bureau indicated that about 10 percent of the housing stock as of the end of 1998 met this criterion. The dwelling unit sample size from the permit frame for Wave 1 was 3,407, equal to about 10 percent of the total initial sample. In Wave 2 the dwelling unit sample from the permit frame was 2,875 units compared to 20,125 area sample dwelling units for Wave 2. Because the permit frame covered housing units that were issued permits through the end of 1998, there was no coverage of new housing units that were permitted and built in 1999 or in 2000. The Wave 3 permit sample was 3,052 units while the area sample for Wave 3 consisted of 20,248 units. For Wave 3, there was no coverage of new housing units that were permitted and built in 1999, 2000, and the first half of 2001.

A.1.2   Selection of Youth and Parents (Waves 1 through 3)

Household screening and subsampling were used to identify eligible households and to oversample those with specific compositions to satisfy precision requirements for the three youth age ranges. In households selected as a result of subsampling, one youth was selected from each age range represented, but no more than a total of two youth were selected. The parents and caregivers for the sample youth were than identified and one was randomly selected. The practice of sampling up to two youth when any are selected had the effect of concentrating the youth interviews in a smaller number of households than would be expected if sampling were conducted independently for each age range. This meant that youth in the less rare age domains were sampled at a higher rate if they happen to have a sibling in a rarer age domain. Similar procedures have been used successfully on other surveys. This approach was particularly advantageous for NSPY because the precision requirements for parents were specified in terms of the youth age domains. A mother with children in two or three of the age ranges would be counted toward the parent precision targets for each range in which one of her children was selected. Thus, concentrating the youth selections in a smaller set of households generated a more efficient parent sample. This approach also increased the amount of directly collected sibling data. On the negative side, it increased design effects slightly for older youth, but this had been anticipated and was counteracted by using a slightly larger nominal sample size for this age range.

To carry out this sampling efficiently, it was convenient to divide eligible households into three strata based on the combination of ages represented by the youth in the household. Because youth aged 12 to 13 were the rarest age domain, households containing such youth were always selected. They are thus placed into a stratum by themselves. Youth aged 9 to 11 were the next rarest domain.

Households that contained a 9- to 11-year-old but no 12- or 13-year-olds were subsampled at Wave 1 and thus constituted a second stratum. For Waves 2 and 3, there were no subsampling within either stratum. Finally, 14- to 18-year-olds represented the most common age domain and were most sharply subsampled so that they constituted a third stratum. Thus, the following strata were used:

- Households containing at least one youth aged 12 to 13;

- Households containing at least one youth aged 9 to 11 but no youth aged 12 to 13; and

- Households containing at least one youth aged 14 to 18 but no youth aged 9 to 13.

Table A-A.1 shows estimates of the youth population by stratum from Wave 1 of NSPY. These estimates were prepared using final Wave 1 NSPY youth weights. They were broadly consistent with earlier estimates obtained from the Current Population Survey (CPS). The retention rates represent the percentage of the screened households of the given type that were retained in Wave 1. The retention rates for Waves 2 and 3 were modified slightly, as can be seen in Tables A-A.2 and A-A.3, respectively.

Table A-A.1. Youth by household stratum: NSPY Wave 1

| Household composition | Retention rate (%) | Households | Youth by age domain | | | |
			9-11	12-13	14-18	Total 9-18
At least one 12- to 13-yr.-old	100%	7,770,932	3,217,415	7,778,731	3,816,436	14,812,582
At least one 9- to 11-yr.-old but no 12- to 13-yr.-olds	70%	8,449,930	9,309,863	0	3,075,451	12,385,315
At least one 14- to 18-yr.-old but no 9- to 13 -yr.-olds	45%	9,545,207	0	0	12,223,950	12,223,950
Total		25,766,069	12,527,278	7,778,731	19,115,837	39,421,846

Table A-A.2. Youth by household stratum: NSPY Wave 2

| Household composition | Retention rate (%) | Households | Youth by age domain | | | |
			9-11	12-13	14-18	Total 9-18
At least one 9- to 13-yr.-old	55	16,032,452	12,600,343	7,993,378	7,270,029	27,863,751
At least one 14- to 18-yr.-old but no 9- to 13 -yr.-olds	45	9,344,405	0	0	12,067,622	12,067,622
Total		25,376,856	12,600,344	7,993,378	19,337,651	39,931,373

Table A-A.3. Youth by household stratum: NSPY Wave 3

Household composition	Retention rate (%)	Households	Youth by age domain			
			9-11	12-13	14-18	Total 9-18
At least one 9- to 13-yr.-old	55	16,163,113	12,825,995	8,055,046	8,425,940	29,306,981
At least one 14- to 18-yr.-old but no 9- to 13 -yr.-olds	45	9,738,613	0	0	10,991,740	10,991,740
Total		25,901,726	12,825,995	8,055,046	19,417,680	40,298,721

The mechanics of sample selection then worked as follows. When DUs were selected from the area and permit segments, they were randomly assigned to one of three sampling rules:

A.   Interview if the household belongs to stratum A;

AB.   Interview if the household belongs to stratum A or B; and

ABC.   Interview if the household belongs to stratum A, B, or C.

For sampling rule A, the interviewer was instructed to induct the household into the sample only if it contained a youth aged 12 or 13. For sampling rule AB, the interviewer inducted the household into the sample if it contained one or more youth aged 9 to 13. For sampling rule ABC, the interviewer inducted the household into the sample if there were any youth aged 9 to 18. The interviewer used a hard-copy screening questionnaire and simple focused questions to determine the presence of youth in the specified age ranges.

Eligibility rates have been estimated based on the results from the three initial recruitment waves. Tables A-B-1 through A-B-3 show the eligibility rates for households assigned to the different screener groups. These rates are lower than were predicted based on CPS tabulations (also shown in Tables A-B-1 through A-B-3). This is consistent with the significant undercoverage in all three recruitment waves—on the order of 30 percent undercoverage. The reasons for the undercoverage are not known.

Table A-B-1. Wave 1 eligibility rates

Screener group	Screener sample (%)	Wave 1 age eligibility rate (%)	CPS predictions of eligibility rates (%)
A	30.1	05.6	07.5
AB	24.9	10.8	15.2
ABC	45.0	19.9	24.4
Total	100.0	12.2	17.0

Table A-B-2. Wave 2 eligibility rates

Screener group	Screener sample (%)	Wave 2 age eligibility rate (%)	CPS predictions of eligibility rates (%)
A-AB	55.1	10.9	15.7
ABC	44.9	17.0	24.9
Total	100.0	13.6	19.8

Table A-B-3. Wave 3 eligibility rates

Screener group	Screener sample (%)	Wave 3 age eligibility rate (%)	CPS predictions of eligibility rates (%)
A-AB	56.1	10.1	15.8
ABC	44.9	16.0	25.4
Total	100.0	13.3	20.1

For Waves 2 and 3, stratum B was sampled at the same rate as stratum A. The reason for this was to increase the sample size for youth aged 9 to 11. There was some concomitant increase in the sample size for youth aged 14 to 18. Operationally, this was accomplished by reassigning all households in screener group A to screener group AB. A larger sample size was desired for youth aged 9 to 11 at Waves 2 and 3 because of the decision to conduct followup interviews. Since there would be no new sample after Wave 3, the only way to achieve an oversample of 12- to 13-year-olds after Wave 3 was to oversample the 9- to 11-year-olds at Waves 2 and 3.

For the followup waves, the sample became older because the 9-year-olds were not replenished. Several plans for replenishing the sample of 9-year-olds were considered but they ran into serious operational problems. The most serious problem was that about 37 percent of 8-year-olds have older siblings. To give a chance of selection to these 8-year-olds when they turn 9, a third youth would have to be sampled in many households. That would have resulted in a serious change in existing data structures. There were also lesser problems with sampling and tracking 8-year-olds who did not have older siblings. Given the low level of attention that the Media Campaign was paying to 9- to 11-year-olds, it did not seem worth the high cost to maintain a large sample of children aged 9 to 11 past Wave 3.

Household screening was also used to eliminate multiple chances of selection for DUs built after the 1990 decennial census. As discussed earlier, most of these units had two chances of selection—once in the area segment sample and once in the permit segment sample. This was true for all immobile units built after the census in permit-issuing jurisdictions in Waves 2 and 3. For Wave 1, it was true only for immobile units built after the census but before the listing in late 1991. To determine these extra chances of selection, the screener included questions on the year the DU was built.

The only chance of selection for mobile homes was through the area frame because the permit frame did not cover these DUs. Therefore, the screener instructed the interviewer to skip the year-built question for mobile homes. This procedure was efficient for all but Wave 1. The 1991 listings used for these waves included all trailer sites occupied in 1991 but missed all new trailer parks and all isolated mobile homes parked in new locations. To provide coverage of these mobile homes, interviewers recanvassed a subsample of the segments for mobile homes. Any segment from which the first listed DU was selected was marked for the special canvass. Any mobile homes were compared with the old listing sheets to see whether they were enumerated. All previously unenumerated mobile homes were added to the sample in these segments for Wave 1. This procedure yielded a sample of 99 missed mobile homes for Wave 1.

Another activity that took place during the screening process for Wave 1 was called the missed DU procedure. At every single-family home, the interviewer asked whether there was a separate apartment in the basement, garage, or elsewhere. If such an apartment was found, the interviewer checked the original listing of the segment to determine whether the apartment was listed. If missed by the lister, the apartment was automatically added to the screening sample. A similar procedure was

carried out in a sample of multifamily housing structures. If the first listed unit in the building was selected for the screening sample, the interviewer conducted a thorough recanvass of the structure to identify units missed by the lister. Any previously unlisted apartments were added to the screening sample. At Wave 1, this procedure generated a sample of 192 missed DUs.

The missed mobile home and missed DU procedures were not used for Waves 2 and 3. The listings used for those waves were prepared in mid-1999, making them fairly fresh for interviewing in late 2000 and early 2001. Because of the screening and sampling procedures, all stick and modular housing built after 1998 were excluded from the sampling frame. In addition, all mobile homes placed after the listing period in mid-1999 had no chance of selection.

A.1.2.1 Youth and Parent Selection (Waves 1 through 3)

The procedure for Waves 1 through 3 was to prepare a list of eligible youth in each sample household and sample one youth within each nonempty age range, subject to a maximum of two sample youth per household. In a household with youth in all three of the age ranges, one youth from the 12-to-13 range was selected. A random decision was then made to either select a second youth from the 9-to-11 range or from the 14-to-18 range. Within an age range, all youth had the same probability of selection. At least one and no more than two youth were selected for every sample household. The interviewers then determined the relationship of all adults in the household to each sample youth and the relationship between the two sample youth if two were selected. If two sample youth were siblings (whole, half, or step), the computer selected one adult from the set of adults in the household who were classified as a parent or caregiver of either youth. If two nonsiblings (such as cousins) were selected, one adult was selected from each set of associated parents and caregivers. All of these procedures were accomplished with the aid of a CAPI questionnaire.

During Waves 1 through 3, a random parent instead of the most knowledgeable or cooperative parent was selected for several reasons. Most importantly, parent statistics were to be prepared in addition to youth statistics. Because the most knowledgeable and cooperative parent in two-parent households is often the mother, a nonrandom selection would have resulted in a sample consisting mostly of mothers with very little data on fathers. To be able to measure the penetration of the Media Campaign with fathers as well as mothers, random selection of parents was used for Waves 1 through 3.

Parents were defined as biological, adoptive, step, or foster parents sharing a roof with a youth. Caregivers were defined as persons serving in loco parentis for youth who did not live with their parents. Some distinctions were made between these categories for sampling purposes. Stepparents were considered parents for sampling purposes only if they had lived with their stepchild for at least 6 months. In addition, the exact nature of the relationship between the adult and the youth were recorded for analytic purposes. Henceforth, in this discussion, the term parent will be used to refer to both parents and caregivers unless otherwise specified.

In multifamily households, all youth within an age range were given an equal chance of selection. If two selected youth were cousins or are not related at all (as in the case of a live-in nanny with her own children), a separate parent was selected for each family with a sample youth.

For youth with divorced or separated parents, priority was given to the household where the youth spent the majority of the year. Only these households were eligible for selection. The only parent figure eligible for selection was the natural/adoptive parent with whom the youth spent most of the

year and any stepparent present in that household. It was possible to select the stepparent without selecting the natural/adoptive parent.

In the case of youth living with adults who were not their parents (under the strict definition of parents given above), special rules for sampling caregivers were implemented. For youth who were not emancipated2 but lived with adults other than their parents, one or more primary caregivers who lived in the same DU as the youth were identified . These caregivers may or may not have been the youth's legal guardians.3 If there were more than one resident primary caregiver, one was randomly selected for the parent interview.

For emancipated youth living separately from their parents, a caregiver was generally not required. However, when there was an adult present who might be a caregiver (such as a grandmother), it was determined whether that adult was a caregiver and, if so, an attempt was made to recruit him or her for a parent interview.

Youth under age 19 who were serving in parental roles (e.g., an older sibling in a pair of orphans or a teenage stepmother) were considered ineligible for the youth selection but eligible for the parent selection.

As mentioned above, youth residing in group quarters were not sampled during the recruitment phase; youth living in boarding schools and college dormitories were, therefore, excluded from the scope of the survey. This exclusion was made because it was felt that dormitory residents could not be easily interviewed at their parents' homes and that their experiences were so different from the majority of youth that they would have to be analyzed separately. During screening, the interviewer specifically asked respondents not to count these youth as household members. Despite the exclusion of dormitory residents, youth who live at home or in private apartments while attending college were sampled. It was decided that a broader exclusion of college students was not necessary for analytic purposes and would render the remaining sample of 18-year-olds unrepresentative of the universe that most data users would expect to find. This special exclusion of dormitory residents did pose some special challenges to the weighting process as described in Section A.2.3. To poststratify the sample, it was necessary to estimate the dormitory population from the 1990 decennial census and then to carry that estimate forward, in order to subtract it from more current CPS estimates of the entire noninstitutional population aged 9 to 18.

One complication of the dormitory exclusion concerned the length of the field period. For example, Wave 2 started in July 2000. To maintain a stable sampling universe throughout the interviewing period, youth who were currently living in boarding schools and dormitories or who were expected to be in those living arrangements by the end of the wave were excluded. Note that this had the effect of excluding from the spring wave high school seniors who were planning to live in dormitories in the fall. Note that this applied only in the initial recruitment wave. In the subsequent followup waves, such youth were excluded only if they lived in a dormitory or boarding school at the time of initial screening (not any time during data collection).

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2 The criteria for identifying emancipated youth vary by state but generally involve age and marital status.

3 If the caregiver was not the legal guardian, a parent interview was conducted with the caregiver and the legal guardian was contacted for permission to interview the youth.

Table A-C.1 shows the counts of interviewed youth at Wave 1 by age and by household stratum. Within households completing the household roster, person-level response rates were high. Tables A-C.2 and A-C.3 summarize the corresponding results for Waves 2 and 3. For example, in Wave 1, extended interviews were obtained for 88 percent of sampled parents and 90 percent of sampled youth in households that completed the roster. Appendix B provides additional details on the calculation of response rates.

Table A-C.1. Rostered households and completed parent and youth interviews by household stratum for NSPY Wave 1

Household composition	Rostered households	Parents	Youth per age domain			
			9-11	12-13	14-18	Total 9-18
At least one 12- to 13-yr.-old	1,191	1054	320	1,050	366	1,736
At least one 9- to 11-yr.-old but no 12- to 13-yr.-olds	826	726	769	0	231	1,000
At least one 14- to 18-yr.-old but no 9- to 13 -yr.-olds	584	504	0	0	563	563
Total	2,601	2,284	1,089	1,050	1,160	3,299

Table A-C.2. Rostered households and completed parent and youth interviews by household stratum for NSPY Wave 2

Household composition	Rostered households	Parents	Youth per age domain			
			9-11	12-13	14-18	Total 9-18
At least one 9- to 13-yr.-old	1,498	1,322	923	658	429	2,010
At least one 14- to 18-yr.-old but no 9- to 13 -yr.-olds	368	310	0	0	352	352
Total	1,866	1,632	923	658	781	2,362

Table A-C.3. Rostered households and completed parent and youth interviews by household stratum for NSPY Wave 3

Household composition	Rostered households	Parents	Youth per age domain			
			9-11	12-13	14-18	Total 9-18
At least one 9- to 13-yr.-old	1,607	1,422	977	725	462	2,164
At least one 14- to 18-yr.-old but no 9- to 13 -yr.-olds	368	258	0	0	294	294
Total	1,929	1,680	977	725	756	2,458

A.1.3 Selection of Followup Sample for Wave 4

Under the NSPY sample design, subsamples of youth and parents selected for the initial recruitment waves (i.e., Waves 1 through 3) will be retained for followup in subsequent data collection waves. No new samples will be selected for any of the followup waves. For Wave 4, the first followup of Wave 1, all youth and parents in households that completed the screener roster in Wave 1 were included in the

followup sample if the household contained at least one Wave 1 respondent (either youth or parent). Note that under the selection criterion employed for Wave 4, a small number of youth and parents, that is, those parents and youth who were selected but who did not complete a Wave 1 interview were refielded in Wave 4. The "extra" youth and parents that were obtained in Wave 4 were used only for cross-sectional analyses at Wave 4. Appendix B provides details on response rates.

A.1.4 Selection of Followup Sample for Wave 5

For Wave 5, the first followup of Waves 2 and 3, all youth and parents in households that completed the screener roster in Waves 2 and 3 were included in the followup sample if the household contained at least one respondent from the prior wave (either youth or parent). Under this selection criterion, a small number of youth and parents who were selected but did not complete a Wave 2 or 3 interview were refielded in Wave 5. The "extra" youth and parents that were obtained in Wave 5 were used only for cross-sectional analyses at Wave 5. Appendix B provides details on response rates.

A.2 Development of Weights

An analysis weight was calculated for each completed interview. Different weights were prepared for different types of analyses. For Waves 1 through 3, there were six sets of final weights in all, three for national analyses and three for regional analyses. There were national weights for youth, for parents, and for youth-parent dyads. These repeated for regional analyses. For Waves 4 and 5, separate regional weights were not prepared. Instead, in addition to national cross-sectional weights, longitudinal weights were created.. These weights were used to reflect selection probabilities and to compensate for nonresponse and undercoverage. The adjustments for undercoverage involved a process called raking. In the raking process, the weights were adjusted in such a manner that the sums of weights for important domains agreed with those from independent more reliable sources. The final weight for a respondent, including nonresponse adjustments and raking, can be viewed as the number of population members that each respondent represented. Details about the weighting process are given in the following sections.

A.2.1 Baseweights

Baseweights are used to reflect a person's probability of selection into the sample. The baseweight is defined to be the reciprocal of the probability of selection. Thus, people with small probabilities of selection get large baseweights and those with large probabilities get small baseweights. If there were no nonresponse or undercoverage, these baseweights would yield unbiased estimates of population parameters such as the percent of youth who engage in a particular behavior.

Calculation of the baseweights was done by considering the probability of selection at each stage of sampling: PSU, segment, dwelling unit, and person. The calculation of these probabilities at each stage was fairly straightforward. However, since the person selection could be carried out only in households where the screener was completed, the person-level baseweight also reflected an adjustment for household nonresponse and, in the case of the parent weights, an adjustment for household undercoverage.

For Waves 1 through 3, the baseweight for a dwelling unit is generally

$$BW_{DUi} = \frac{1}{\text{Pr\{PSU\} Pr\{segment | PSU\} Pr\{DU | segment\}}}.$$

For permit segments, there were also some adjustments for failure to find the permits for a particular segment and for the lack of coverage of new housing in jurisdictions where building permits were not required. These adjustments were based on statistics from the Census Bureau's reports on construction starts. Also, in Wave 2, the BPO weights were trimmed to avoid inflating the variances.

These dwelling unit-level baseweights were then adjusted for screener nonresponse as discussed in Section A.2.3 below. After adjustment for screener nonresponse, the adjusted weight was further adjusted for screener-based subsampling. Dwelling units in Wave 1 had been preassigned to three screening groups: A, AB, and ABC. However, for Waves 2 and 3 dwelling units were assigned only to screening groups AB and ABC. Dwelling units in the A screening group were retained in sample only if there was a youth aged 12 to 13 present in the dwelling unit. Dwelling units in the AB screening group were retained in sample only if there was a youth aged 9 to 13 present. Dwelling units in the ABC screening group were retained in sample only if there was a youth aged 9 to 18 present. These rules were developed as a means to efficiently oversample dwelling units containing youth aged 12 to 13 and (to a lesser extent) those containing youth aged 9 to 11. Based on these screening rules, all dwelling units in all waves with youth aged 12 to 13 were retained with certainty so no adjustment was required to their weights. Also in Waves 2 and 3, those dwelling units with a youth aged 9 to 11 present, but no youth aged 12 to 13, were retained with certainty so again no adjustment was required to their weights. However, in Waves 2 and 3, those dwelling units with a youth aged 9 to 11 present, but no youth aged 12 to 13, had a probability of retention of 0.7, so their weights were adjusted upward by a factor of 1.4286. Similarly, those dwelling units with a youth aged 14 to 18 present, but none aged 9 to 13, had a probability of retention of just 0.45, so their weights were adjusted upward by a factor of 2.2222.

After this stage in the calculation, different paths were taken for the calculation of youth and parent baseweights. However, from this point on, the procedures for Waves 1 through 3 were the same. The youth path is described first.

There were three age classes for youth sampling purposes: 9 to 11, 12 to 13, and 14 to 18. If there were youth present in all three age ranges, the first step in youth subsampling was to select two out the three age ranges. The 12-to-13 range was always selected with certainty. One of the other two was selected with equal probability. So the first component in the youth probability of selection for youth aged 9 to 11, or 14 to 18 in such households was a factor of 0.5. Next, within each sample age range, one youth was selected from however many were present. For example, if there were 4 youth present in an age range, the probability of selection within the range was 0.25. The two factors were multiplied together to create a youth within-household probability of selection. The youth baseweight was then calculated as the adjusted baseweight for the household divided by the within-household probability of selection for the youth.

The parental probability of selection was more complex. In simple nuclear families, the probability of selection for a parent was simply 1.0 for single-parent households and 0.5 for two-parent households, but a variety of other living arrangements were encountered. Some households contained nephews and nieces of the householder where the householder or his/her spouse was reported as the caregiver for the nephew or niece, but not both were so reported. Sometimes, one or two parents of the nephew

or niece were present. Sometimes a grandparent was considered the caregiver of the nephew or niece. Other households contain couples who was not married but each had their own children. Some households contain boarders, housekeepers, or nannies who had their own children present.

When one youth was selected, a random parent/caregiver was selected from the set of parents and caregivers for that youth. When two siblings were selected, a random parent/caregiver was selected from the set of parents and caregivers identified for either sibling. When two youth were selected who were not siblings, one parent/caregiver was selected from the "pool" of parents and caregivers for each. If these pools overlapped, it might still be the case that just one parent figure was selected; thus, the parent's probabilities of selection depended on their relationship to the youth in the household. While the relationship of every adult in the household was established to the sample children, this information was not collected about nonsample children. These relationship data were imputed using the available data about household composition. Each parent and caregiver's probability of selection was then computed over all possible youth samples from the household.

Given the complexity of the parent/caregiver concept for NSPY, it was realized that no post-stratification or raking to independent estimates of parents would be possible. In order to correct for undercoverage despite the lack of ability to perform such adjustment, the decision was made to rake the household weights prior to applying the within-household probabilities of selection for parents. This raking is discussed below in Section A.2.4.

For Waves 4 and 5, the starting point for the weighting process was the set of sampling weights derived for the corresponding initial wave. Because no new youth were selected in Waves 4 or 5, the weights from the initial wave were used as the base weights for youth in the followup wave. These weights were nonresponse adjusted and then raked to the youth population totals at the followup wave. For originally selected parents, weights from the initial wave were also used as the base weights for the followup wave. It was possible to select a new parent if the originally selected parent was no longer eligible, for example, in the case of a divorce. In this case the newly selected parent was treated as a substitute for the originally selected parent.

A new feature in Waves 4 and 5 was the construction of longitudinal weights. Youth and dyads who were eligible in the initial wave and were still eligible in the followup wave were given longitudinal weights that were based on the initial weights. There was no new raking on the longitudinal weights since these weights were intended to estimate the longitudinal attributes of the population at the initial wave. However, these weights were nonresponse adjusted using the same methods as the cross-sectional weights. Three sets of longitudinal weights were constructed: one for analysis of Wave 1-4 respondents, one for analysis of Wave 2-5 respondents, and the third for analysis of Wave 3-5 respondents. The longitudinal weights were used to derive the "counterfactual projection (CFP)" weights used to analyze survey responses across various exposure groups (see Appendix C for details).

A.2.2   Nonresponse Adjustments

In general, it was hoped that there were groups of households where the decision to respond to a survey was unrelated to substantive characteristics of interest such as substance abuse. Complex modeling techniques were employed to find groups of households with different response rates. The variables that were available to define such groups were mostly from the 1990 Decennial Census and described the block groups containing the households. Within a group, the weighted response rate was calculated. The baseweight was then divided by the group response rate to obtain the nonresponse-

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adjusted weight for a household. Households in groups with low response rates received large upward adjustments in their weights. Intuitively, this meant that those hard-to-reach households that were interviewed despite being hard to reach ended up receiving larger weights than households that were easy to reach. If the groups were formed well, this procedure could eliminate nonresponse bias. If too many groups were formed, however, the resulting increased variation in weights could reduce sampling precision.

The goal was to develop procedures that would form enough but not too many nonresponse adjustment groups. To this end, special data mining software was used to form the groups. A set of about 60 household characteristics was used in conjunction with the special software. Some examples of the characteristics used include local percentages of persons in certain age groups, persons of certain race and ethnicity, homeowners versus renters, persons in mobile homes, U.S. citizens versus noncitizens, and persons with incomes below the poverty level.

This type of adjustment was done separately for the doorstep and roster phases of the screener, for youth nonresponse, for parent nonresponse, and for dyad nonresponse.

A.2.2.1   Screener Nonresponse Adjustment

This adjustment was done in two phases and applied only to Waves 1 through 3. The first phase was to adjust for doorstep nonresponse where it was never determined whether eligible youth were present at the address. The second phase was to adjust for roster nonresponse where it was known that the household did contain eligible youth, but it was not possible to prepare a household roster and select a sample of youth and parents.

In the doorstep phase, a dwelling unit was considered to be a respondent if information about the presence of children had been collected from either the occupants of the household or from their neighbors. In addition, if the dwelling unit was selected in an area segment and was not a mobile home, information on the age of the structure was required in order to be considered a complete doorstep screener. As mentioned in Appendix B, the screener response rate was 95.1 percent for Wave 1, 95.7 percent for Wave 2, and 95.5 percent for Wave 3. The adjustment factors for screener nonresponse varied from 1.0 to 1.7 for both Waves 1 and 2 and the factors varied from 1.0 to 1.6 for Wave 3.

In the roster phase, an eligible household was considered to be a respondent if an adult resident of the household had been found who was willing to provide a roster of the occupants of the household, their ages, and their relationships to the sample children. If any of this information was withheld, it was impossible to select the youth and parent sample so the household was classified as a nonrespondent. As mentioned in Appendix B, the roster response rate was 74.4 percent for Wave 1, 74.6 percent for Wave 2, and 75.3 percent for Wave 3. The adjustment factors for roster nonresponse varied from 1.1 to 1.6 for both Waves 1 and 2, but the factors varied from 1.1 to 1.7 for Wave 3.

A.2.2.2   Youth

Youth who answered D13 or any subsequent question were considered respondents. This was the last question on general ad exposure prior to prompting their recall with a display of several real advertisements. Nonrespondents included those whose parents refused consent or otherwise failed to provide consent, those who refused personal assent, and those who were just never reached to do the

interview for any reason. Among those who did not complete the questionnaire, a difference was drawn between those who were physically or mentally incapable of completing the interview and those who simply chose not to. The first group was considered to be ineligible sample youth rather than nonresponding sample youth. The distinction matters only in that the weight of ineligible youth was not redistributed to responding youth through the nonresponse adjustment. Included in the category of ineligible youth were those who could not communicate in English or Spanish. Since the television and radio components of the Media Campaign were only in these languages, it seemed appropriate to classify those who cannot communicate in either language as ineligible for the evaluation. Also included in the ineligible youth category were young people who stepped into parental roles for other youth aged 9 to 18. This might occur by reason of marrying an older person with such youth or by reason of caring for younger siblings.

The set of the same 60 household characteristics used for doorstep and roster nonresponse adjustment, as well as additional characteristics on household composition, were used in conjunction with special adjustment software to develop an appropriate set of response cells for all sampled eligible youth. The additional characteristics included items such as whether both of the youth's parents were in the household, whether the youth was an only child, the total number of youth living in the household, and whether there was a nonrelative living in the household. All of these variables were obtained from the household roster. The resulting set of nonresponse adjustment cells was then used to adjust the weights of the respondents at the youth level. As mentioned in Appendix B, the youth response rate was 90.3 percent for Wave 1, 91.9 percent for Wave 2, 90.2 percent for Wave 3, 93.5 percent for Wave 4, and 93.6 percent for Wave 5. The adjustment factors for youth nonresponse varied from 1.0 to 1.5 for Wave 1, from 1.1 to 1.7 to for Wave 2, from 1.0 to 1.6 for Wave 3, from 1.0 to 1.4 for Wave 4, and from 1.0 to 1.3 for Wave 5.

Note that for Waves 4 and 5, both cross-sectional and longitudinal weights were derived for analysis. The two sets of weights differ slightly because for cross-sectional analysis, a respondent was defined to be a sampled youth who completed the followup interview, whether or not the initial interview was completed; whereas for longitudinal analysis, a respondent was defined to be a youth who completed both initial and followup interviews. In Wave 4, about 94 percent of the eligible youth who completed the Wave 1 interview were longitudinal responders. For longitudinal youth nonresponse adjustment, the adjustment factors ranged from 1.0 to 1.6. In Wave 5, about 94 percent of the eligible youth who completed the Wave 2 or Wave 3 interview were longitudinal responders. For longitudinal youth nonresponse adjustment, the adjustment factors ranged from 1.0 to 1.5.

A.2.2.3   Parent

The parent nonresponse adjustment procedure was very similar to that for youth. Parents had to complete question F4 or a later question in order for the questionnaire to be considered complete. Parents who were too ill to complete the questionnaire, physically or mentally impaired, or could only communicate in a language other than English or Spanish were considered ineligible in Waves 1 through 3. Parents who were no longer living with the sampled youth or who were physically or mentally disabled were considered to be ineligible for the followup waves. As mentioned in Appendix B, the parent response rate was 88.1 percent for Wave 1, 88.2 percent for Wave 2, 87.5 percent for Wave 3, 90.4 percent for Wave 4, and 91.1 percent for Wave 5. The adjustment factors for parent nonresponse varied from 1.0 to 1.5 for Wave 1, from 1.0 to 1.7 for Wave 2, from 1.1 to 1.7 for Wave 3, from 1.0 to 1.5 for Wave 4, and from 1.0 to 1.8 for Wave 5.

A.2.2.4   Youth-Parent Dyads

Respondents for this analysis were defined as youth who responded and whose parents also responded to the survey. Therefore, both the youth and the parent had to be eligible and have completed their respective surveys to count as a respondent. Nonrespondents included all eligible nonresponding youth, but also included any youth who may have responded but whose parent did not. Youth who were not eligible for the youth weights were also not eligible for dyad analysis. Youth who did not have a corresponding sampled parent interviewed (such as emancipated youth or married youth) were considered ineligible for this set of weights. Also, youth who were eligible and completed an interview but whose parents were ineligible were considered ineligible for the Youth-Parent dyad weights.

The same characteristics used for youth nonresponse adjustment were used for dyad nonresponse adjustment. Again, the special adjustment software was implemented to define appropriate nonresponse adjustment cells, and weighting adjustments were computed using that set of cells. The dyad response rate was 85.7 percent for Wave 1, 86.4 percent for Wave 2, 85.7 percent for Wave 3, 89.6 percent for Wave 4, and 85.0 percent for Wave 5. The adjustment factors for dyad nonresponse varied from 1.1 to 1.6 for Wave 1, from 1.1 to 1.5 for Wave 2, from 1.1 to 1.6 for Wave 3, from 1.0 to 1.5 for Wave 4, and from 1.1 to 1.6 for Wave 5.

In addition to cross-sectional weights, longitudinal dyad weights were also developed for Waves 4 and 5. Among eligible responding dyads in Wave 1, 91.4 percent were longitudinal responders (i.e., also responded in Wave 4). Among the eligible responding dyads in Waves 2 and 3, 88.8 percent were longitudinal responders (i.e., also responded in Wave 5). For longitudinal nonresponse adjustment, the factors ranged from 1.0 to 1.4 for Wave 4 and from 1.0 to 1.6 for Wave 5.

A.2.3   Raking

Raking is a commonly used procedure in which survey estimates are controlled to marginal population totals. In theory, the estimates should differ from the population values only as a result of sampling error. In practice, other error sources such as residual nonresponse and coverage errors may also have an important effect on the accuracy of the estimates. The goal of raking is to reduce biases due to undercoverage and nonresponse, and to reduce the sampling error of the estimates. Raking may be thought of as an iterative form of poststratification, in which the weights are successively ratio-adjusted to multiple sets of control totals until the resulting weights converge to the control totals in each dimension. The sample sizes of the marginal distributions are the important determinants of the stability of the raking procedure, not the cells formed by a complete cross-classification of the variables. This permits the use of more auxiliary variables or control totals than in poststratification. For this reason we chose to rake the household, youth, and dyad weights rather than poststratify them. However, when sample sizes permitted, some raking dimensions were defined by crossing two variables to preserve the correlation structure in the data.

The parent weights were not raked because no control totals exist for parents as defined by the NSPY. However, estimates of total households with youth between the ages of 9 and 18 were available from the January 2000 CPS for Wave 1. For Wave 2, the October 2000 CPS data were available. Wave 3 used the average of March 2001 and April 2001 CPS data. For Wave 3, this average centered the control totals in the middle of the data collection period. For Waves 4 and 5, a regression line was fit

to a year of CPS data to estimate the required control totals. Marginal household control totals were obtained from the CPS for the following four raking dimensions:

- Household Race/Ethnicity (non-Hispanic-white + other non-Hispanic, non-Hispanic-Black, Hispanic) by Presence of Male Age 28 or Older in the Household (Yes/No);

- Youth Age Group Composition of Household (any age 12 to 13 present, age 9 to 11 present but no age 12 to 13, age 14 to 18 present but no age 9 to 13);

- Household Race/Ethnicity (non-Hispanic-white, non-Hispanic-Black, other non-Hispanic, Hispanic); and

- Census Region (Northeast, Midwest, South, West).

After the household doorstep and roster nonresponse adjustments, the household weights were raked to the first three sets of control totals to produce the household weights that were used in creating national parent baseweights. The household weights were raked again on all four dimensions for use in creating regional parent baseweights. Note that for Waves 4 and 5, separate regional weights were not required. Thus, for the two followup waves, the household weights were raked to all four sets of control totals in a single step.

For youth, estimates of the total age 9 to 18 civilian population were also obtained from the January 2000 CPS and October 2000 CPS for Wave 1 and Wave 2, respectively. As with the household totals, the youth totals for Wave 3 were based on the average of March 2001 and April 2001 CPS data. From these control totals the civilian noninstitutional group quarters population was excluded, as estimated from the 1990 Census Public Use Micro-data System (PUMS) files. Marginal control totals were obtained for the categories defined by the three raking dimensions:

- Gender (male, female) x Age Group (ages 9 to 11, 12 to 13, and 14 to 18);

- Race/Ethnicity (non-Hispanic-white, non-Hispanic-Black, other non-Hispanic, Hispanic) x Age Group (ages 9 to 11, 12 to 13, and 14 to 18); and

- Census Region (Northeast, Midwest, South, West) x Age Group (ages 9 to 11, 12 to 13, and 14 to 18).

After the youth and youth-dyad nonresponse adjustments, both sets of weights were raked to the first two sets of control totals to produce the final national youth and youth-dyad weights for use in analysis. Both sets of nonresponse-adjusted weights were raked again on all three dimensions to create regional weights for use in making regional estimates. Note that for Waves 4 and 5, separate regional weights were not required. Thus, for the two followup waves, the youth and youth-dyad weights were raked to all four sets of control totals in a single step.

Coverage rates are given in Table A-D for youth by age, race, and gender. The coverage rate was calculated as the ratio of the sum of the weights before raking to the corresponding control total. Coverage rates were not computed for Waves 4 and 5, because the followup samples were subsets of the initial samples.

Table A-D. Coverage rates

Subgroup	Wave 1 Coverage rate	Wave 2 Coverage rate	Wave 3 Coverage rate
Male	0.71	0.68	0.65
Female	0.68	0.69	0.65
Race/Ethnicity:			
Non-Hispanic white, other non-Hispanic	0.69	0.69	0.65
Non-Hispanic Black	0.69	0.67	0.63
Hispanic	0.74	0.66	0.62
Age Group			
9 to 11	0.70	0.69	0.70
12 to 13	0.74	0.71	0.75
14 to 18	0.67	0.67	0.57

A.3   Confidence Intervals and Data Suppression

Confidence intervals have been provided for every statistic in the detailed tables. These intervals indicate the margin for error due to sampling. If the same general sampling procedures were repeated independently a large number of times, and a statistic of interest and its confidence interval were recalculated for each of those independent replications, the true population average would be contained within 95 percent of the calculated confidence intervals.

The confidence intervals reflect the effects of sampling and of the adjustments that were made to the weights. They do not generally reflect measurement variance in the questionnaires. The intervals were based on variance estimation techniques using replication. In brief, subsamples of the sample were drawn and put through the same estimation techniques. The adjusted variation among the subsamples provides an estimate of the variance of the total sample. Details on how confidence intervals were calculated from variance estimates follow.

Some estimates were suppressed. This was done when the reliability of a statistic was poor. This was measured in terms of the sample size and the width of the confidence interval. Estimated proportions near 0 percent and 100 percent based on very small samples were more likely to be suppressed than other estimates. The exact criteria for this suppression also follow.

A.3.1   Confidence Intervals

Variances were estimated for NSPY using a replication approach. This replication method was developed specially for NSPY. It uses 100 replicates to measure the variance in the full sample estimates. This method reflects the variance due to selecting PSUs and the variance due to sampling segments, dwelling units, and persons within PSUs. Moreover, it reflects the finite population correction factors at both the PSU and segment levels. Full technical documentation of this method can be obtained from Westat (Rizzo, 2000).

After each of the 100 replicates was drawn, the full set of adjustment procedures was applied to each replicate. This meant that each set of replicate weights was adjusted for nonresponse and was raked to Current Population Survey (CPS) control totals. By doing this, the replicate weights reflected all of the adjustments used to create the full sample weights.

Once the variance estimates were obtained, they were translated into confidence intervals using approximations similar to those that have been developed on the National Household Survey on Substance Abuse (NHSDA). For means of continuous variables, the confidence intervals were formed by assuming that the sample statistic had a t-distribution with 100 degrees of freedom. The assumption of 100 degrees of freedom came from the 100 replicates. In the NHSDA, it was assumed that the sample statistic had a normal distribution. That was equivalent to assuming a t-distribution with an infinite number of degrees of freedom. The 100 degrees of freedom was expected to be slightly more conservative. The standard error was multiplied by 1.98 instead of 1.96 to form a 95 percent confidence interval. The formula is

$$\text{lower bound} = \bar{x} - 1.98\sqrt{\text{var}(\bar{x})} \quad \text{and upper bound} = \bar{x} + 1.98\sqrt{\text{var}(\bar{x})}.$$

For proportions, it is assumed that a logistic transform of the estimated proportion has a normal distribution. This results in confidence limits that are strictly between 0 and 1, a useful property for estimated proportions. The formula for estimated proportions strictly between 0 and 1 is

$$\text{lower bound} = \frac{1}{1 + \exp\left\{-\left[\log\left(\frac{\hat{p}}{1-\hat{p}}\right) - 1.98\frac{\sqrt{\text{var}(\hat{p})}}{\hat{p}(1-\hat{p})}\right]\right\}} \quad \text{and}$$

$$\text{upper bound} = \frac{1}{1 + \exp\left\{-\left[\log\left(\frac{\hat{p}}{1-\hat{p}}\right) + 1.98\frac{\sqrt{\text{var}(\hat{p})}}{\hat{p}(1-\hat{p})}\right]\right\}}.$$

For example, if the estimated proportion is 0.5 percent with a standard error of 0.4 percent, rather than calculating the standard t-approximation of -0.3 percent to +1.3 percent, the logistic formula yields a confidence interval of 0.1 percent to 2.4 percent.

Estimated proportions of 0 and 1 pose special difficulties for variance estimation and calculation of confidence intervals. The calculated variance estimate of zero is not meaningful for such estimated proportion, because the best confidence intervals are not collapsed at the point estimates. The approximation used for a confidence interval around an estimated zero proportion is

$$\text{lower bound} = 0 \text{ and upper bound} = \frac{2F_{2,n}^{-1}(1-a/2)}{n + 2F_{2,n}^{-1}(1-a/2)},$$

where $F_{2,n}^{-1}(1-a/2)$ is the 1-$a/2$ quantile of an F distribution with 2 and n degrees of freedom (Korn and Graubard, 1999), where n refers to the effective sample size defined to be the actual sample size divided by the average design effect (as suggested by D. Judkins and P. Zador). For these confidence intervals the average design effect was estimated to be 2.

For an estimated proportion of 1, the confidence interval is calculated as

$$\text{lower bound} = \frac{nF_{n,2}^{-1}(a/2)}{2 + nF_{n,2}^{-1}(a/2)}.$$

As examples, if a domain has a sample size of 500, then the upper confidence limit on an estimate of 0 percent will be 1.5 percent and the lower confidence limit on an estimate of 100 percent will be 98.5 percent.

For differences of proportions where one or more of the estimates was 0 or 1 a slight modification of the above formula was needed. The approximation used for a confidence interval around an estimated zero proportion is

$$\text{lower bound} = \frac{-2F_{2,n}^{-1}(1-a/2)}{n+2F_{2,n}^{-1}(1-a/2)} \text{ and upper bound} = \frac{2F_{2,n}^{-1}(1-a/2)}{n+2F_{2,n}^{-1}(1-a/2)},$$

where $F_{2,n}^{-1}(1-a/2)$ is the 1-$a/2$ quantile of an F distribution with 2 and n degrees of freedom, and n was estimated as the harmonic average of the two sample sizes. For a difference of proportions where the only estimate was zero, the standard error for the nonzero estimate was used to impute the standard error for the zero estimate, adjusting for sample size.

A.3.2 Suppression

There were several suppression criteria. All were developed with the aim of preventing overanalysis of statistics that contain little true information. For example, if a domain had a sample size of only two youth, and the estimated proportion of them who thought a certain way on some subject was 50 percent, then the confidence interval would range from 5.7 percent to 94.3 percent, which was too wide to be of any use.

Any estimate based on an effective sample size of 30 or less was suppressed. The effective sample size for a statistic was calculated as the simple random sample size of the same domain that would have generated a standard error of the same size.

Estimated proportions between 0 and .5 were suppressed if

$$\frac{\sqrt{\text{var}(\hat{p})}}{\hat{p}\log(1/\hat{p})} > 0.225$$

and estimated proportions between 0.5 and 1.0 were suppressed if

$$\frac{\sqrt{\text{var}(\hat{p})}}{(1-\hat{p})\log(1/(1-\hat{p}))} > 0.225.$$

Note that these rules meant that larger effective sample sizes are required to avoid suppression as the estimated proportion approaches 0 or 1. Estimated proportions of 0 or 1 were suppressed if the effective sample size for the domain was 140 or less. This corresponds to confidence limits of (0.000-0.026) on 0 and (0.974-1.000) on 1.

A.3.3   Average Design Effects and Effective Sample Sizes

A design effect is defined as the ratio of the achieved variance to the hypothetical variance that would have been achieved if a simple random sample of the same size had been used. An effective sample size is defined to be the nominal sample size divided by the design effect. Design effects were calculated for a number of statistics. They varied considerably from statistic to statistic, partially reflecting true differences in design effects but also reflecting substantial measurement noise. Table A-E shows the average design effects and corresponding effective sample sizes for statistics about youth, parents, and dyads.

Table A-E. Design effects and effective sample sizes

Youth age domain	Youth		Parents		Dyads	
	Design effect	Effective sample size	Design effect	Effective sample size	Design effect	Effective sample size
Wave 1:						
9 to 11	1.25	870	1.37	757	1.44	714
12 to 13	1.22	870	1.37	734	1.39	722
14 to 15	1.47	376	Na	Na	1.58	331
16 to 18	1.27	481	Na	Na	1.32	430
14 to 18	1.27	916	1.4	772	1.55	704
Wave 1 Total	1.46	2,268	1.66	1,882	2.27	1,374
Wave 2:						
9 to 11	1.27	727	1.38	634	1.38	626
12 to 13	1.26	522	1.28	483	1.31	469
14 to 15	1.49	264	Na	Na	1.49	250
16 to 18	1.46	265	Na	Na	1.58	227
14 to 18	1.49	524	1.50	484	1.69	443
Wave 2 Total	1.49	1,585	1.73	943	2.25	982
Wave 3:						
9 to 11	1.21	808	1.53	607	1.3	707
12 to 13	1.29	562	1.47	464	1.2	569
14 to 15	1.49	252	Na	Na	1.4	256
16 to 18	1.46	260	Na	Na	1.4	248
14 to 18	1.49	507	1.68	418	1.5	470
Wave 3 Total	1.64	1,499	1.82	923	2.0	1,153
Wave 4:						
9 to 11	Na	Na	Na	Na	Na	Na
12 to 13	1.18	636	1.62	384	1.35	473
14 to 15	1.21	759	Na	Na	1.87	406
16 to 18	1.29	550	Na	Na	1.95	282
14 to 18	1.43	1,309	1.46	784	2.24	584
Wave 4 Total	1.45	1,945	1.68	905	2.18	894
Wave 5:						
9 to 11	Na	Na	Na	Na	Na	Na
12 to 13	1.18	1,026	2.12	536	1.39	838
14 to 15	1.16	870	Na	Na	1.47	659
16 to 18	1.27	672	Na	Na	1.36	590
14 to 18	.71	2,624	1.65	946	1.62	1,092
Wave 5 Total	.99	4,080	1.68	1,715	2.71	1,430

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APPENDIX B

DATA COLLECTION METHODOLOGY AND RESPONSE RATES

Two types of data were collected and analyzed for the Evaluation: quantitative survey data collected in a screener and three extended interviews (parent, teen, and child), and media buy data (i.e., Gross Rating Point (GRP) information).

This appendix describes the data collection methodology used during the initial recruitment phase (Waves 1 through 3) and the followup phase (Waves 4 and 5) of the Evaluation. Topics include survey design, questionnaire design, pilot testing, interviewer recruitment and training, media activities, procedures used during data collection, data editing and cleaning, and response rates.

B.1   Survey Design

The major evaluation component of the Phase III Evaluation is the conduct of the National Survey of Parents and Youth (NSPY), which is a longitudinal study, consisting of seven data collection waves, each lasting approximately six months. The NSPY is a nationally representative survey being conducted in 90 locations across the United States. Figure B-1 is a graphical depiction of the initial recruitment and followup plan of the NSPY.

The initial recruitment phase (Waves 1 through 3) consisted of three cross-sectional surveys, lasting approximately 6 months each. During recruitment, approximately 81,000 households were screened for the presence of children in the age ranges of interest. Only about one in every eight households was determined was eligible to participate (12%).

The followup phase (Waves 4 through 7) began with the Wave 4 data collection. Parents and youth recruited during the first three recruitment waves are being tracked and recontacted two additional times during the followup. Wave 1 participants are followed up in Waves 4 and 6. Wave 2 and Wave 3 participants are followed up in Waves 5 and 7. The followup period can range from 6 to 24 months, depending on the wave and the dates of interview.

Figure B-1. NSPY initial recruitment and followup plan

NSPY INITIAL RECRUITMENT AND FOLLOWUP PLAN

Dates	Wave
11/99-5/00	1
7/00-12/00	2
1/01-6/01	3
7/01-12/01	4
1/02-6/02	5
7/02-12/02	6
1/03-6/03	7
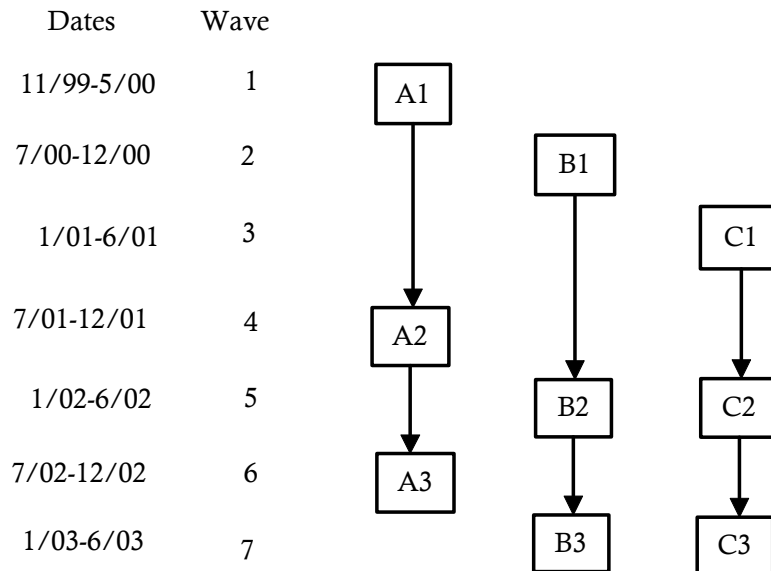
B.2 Questionnaire Design

In preparation for the Evaluation of Phase III of the National Youth Anti-Drug Media Campaign, the National Institute on Drug Abuse (NIDA) convened an expert panel to assist in the development of data collection questionnaires. This group, which included specialists in adolescent drug use prevention and parenting behaviors, met and generated draft survey questionnaires for children (aged 9 to 11), teens (aged 12 to 18), and parents for the NSPY. NIDA shared these Phase III prototypes with Westat at the beginning of the contract period.

Westat formed a questionnaire development team whose members included evaluation experts from Westat, the Annenberg School for Communication at the University of Pennsylvania, and the National Development and Research Institutes (NDRI). This team reviewed the Phase III prototypes as well as the survey questionnaires used in the Phase II Media Campaign Evaluation, and other surveys, including Monitoring the Future (MTF), Community Action for Successful Youth, National Household Education Survey (NHES), and the National Household Survey on Drug Abuse (NHSDA).

To facilitate the development of the questionnaires, the team developed a behavioral change model for the Evaluation and mapped each question back to this model, as well as to the communication objectives that had been established for the Media Campaign.

Question domains for parents included the following:

- Media consumption;

- Past discussions with child about drug attitudes and avoidance strategies;

- Past child monitoring behaviors;

- Self-efficacy of discussing drugs with child and of monitoring the child's actions;

- Belief that the child is at risk for drug use;

- Belief that drug use has bad consequences;

- Exposure to the Media Campaign's advertising;

- Parent's own current and past use of tobacco, alcohol, and drugs; and

- Demographic information.

Youth question domains included the following:

- Exposure propensity to media;

- Youth's own current and past use of tobacco, alcohol, marijuana, and inhalants;

- Past discussions with and communication of anti-drug messages from parents and friends;

- Expectations of others about respondent's drug use;

- Knowledge and beliefs about the positive and negative consequences of drug use;

- Exposure to the Media Campaign's advertising;

- Family and peer factors;

- Personal factors; and

- Demographic information.

During Waves 1 and 2, virtually the same set of questions was asked of respondents. However, during Wave 3, some new questions were added. They included a question on Campaign brand recognition in the Teen and Parent questionnaires; questions about Ecstasy use in the Teen questionnaire (have used and when last used); questions about doing fun things with parents in the Teen and Child questionnaires; and a question about parents' perception of the efficacy of drug talk in the Parent questionnaire.

To make room for these questions, some questions were deleted. They included questions about reading magazines or seeing TV shows from the Teen and Parent questionnaires, questions about communicating rules for alcohol and smoking from the Teen and Child questionnaires, and a question about perceived consequences of inhalant use from the Child questionnaire.

In Wave 4, the questionnaires for parents, teens, and children were essentially the same as during Wave 3, except for some additional questions on Ecstasy in the Teen questionnaire. Additional Ecstasy questions included intentions to use, perceived expectations of use by peers, and attitudes of use including approval/disapproval of use and perceived harm of use.

In Wave 5, a question about Campaign banner ads on the Internet was added to both the Teen and Parent questionnaires. In the Parent questionnaire, the branding question was rephrased to ask about

the correct parent brand and one of two "ringer" brands, mirroring the format of the teen branding question. Other additions to the parent questionnaire included a question about the presence and number of youth in the household in the age categories of interest; a question on parental perceptions of harm from trial of marijuana, inhalants and Ecstasy; and a question on the likelihood of youth use of inhalants and Ecstasy.

The questionnaires for Waves 1 through 5 can be found on the NIDA web site: http://www.nida.nih.gov/DESPR/Westat/index.html. During Waves 1 through 3, a brief, hard copy household screening questionnaire was used to determine a sampled household's eligibility. All other data were collected using a laptop computer and a combination of computer-assisted interview technologies. Computer-assisted personal interview (CAPI) involved having the interviewer read the questions to the respondent and record the answers in the computer. In Waves 1 through 3, CAPI was used to enumerate the household and select a parent/caregiver and one or two youth. In Waves 4 and 5, CAPI was used to determine respondent eligibility and to select a new parent, if appropriate. CAPI was also used for the nonsensitive questions in the extended interview (parent, teen, and child) questionnaires in all waves. For collection of sensitive data in the extended interview questionnaires, audio computer-assisted self-interview (ACASI) technology was employed. This allowed respondents to self-administer the survey in total privacy. They listened to the question on headphones and recorded their own responses by touching the computer screen. These technologies were used based on the theory that providing respondents with a methodology that improved privacy and confidentiality would make reporting of potentially embarrassing, stigmatizing, or illegal behaviors (such as drug use) less threatening, and enhance response validity and response rates.

On average in Waves 1 and 2, it took 6 minutes to enumerate and select household members for interview, and 34 minutes for children (aged 9 to 11), 44 minutes for teens (aged 12 to 18), and 52 minutes for parents to complete their respective extended survey questionnaires. The above noted changes to the Wave 3 questionnaires resulted in the following timings: 6 minutes to enumerate and select household members; and approximately 31 minutes for children, 41 minutes for teens, and 55 minutes for parents to complete their respective extended questionnaires. In Wave 4, it took 6 minutes on average to complete the computerized screener. Timings for the extended instruments were approximately 35 minutes for children, 44 minutes for teens, and 54 minutes for parents. In Wave 5, it took 4 minutes on average to complete the computerized screener. Timings for the extended instruments were approximately 32 minutes for children, 39 minutes for teens, and 56 minutes for parents.

B.3   Pilot Test

Once the Office of Management and Budget (OMB) clearance was obtained, Westat conducted a pilot test in Baltimore, Maryland, prior to Wave 1. Approximately 300 households were screened to obtain about 20 household interviews using the NSPY questionnaires. The purpose of the pilot was to test the adequacy of questionnaire skip patterns, question wording and flow, and test the application of the ACASI portion of the questionnaire as well as the adequacy of the advance materials and interviewing procedures. A debriefing was held at the end of the pilot data collection. From that, some questions needed to be dropped from each of the extended interview questionnaires to keep within the OMB respondent burden estimates. Procedures and advance materials were updated as appropriate.

Westat conducted a second pilot test prior to Wave 4 to test its Followup screening instruments. The participating households in the first Baltimore pilot test were recontacted and screened for Followup

status. The purpose of the pilot was to test the adequacy of the screening instruments, skip patterns, question wordings and flow, as well as advance materials and interviewing procedures. An interviewer debriefing was held at the end of this pilot data collection as well. From that debriefing, some minor changes were made in Followup screening questions and procedures.

B.4 Interviewer Recruitment and Training

The NSPY initial data collection design was based on hiring one primary interviewer in each of 90 primary sampling units (PSUs) and hiring approximately 35 more interviewers to supplement efforts in larger PSUs, PSUs geographically clustered, and in PSUs where primary interviewers quit during the field period. Twenty-nine additional interviewers were hired to supplement the data collection effort later in Wave 1. No additional interviewers were needed to staff Wave 2. Subsequent interviewer attrition required that 26 additional interviewers be hired to supplement the data collection effort in Wave 3. In Wave 4, 28 interviewers were fielded at the beginning of the Wave and three more were hired and trained during the wave. For Wave 5, 26 interviewers continued on the survey from Wave 4 and 23 interviewers were recruited and trained. All of the 23 interviewers had previously worked on the survey in prior waves.

Initially, interviewers were recruited from Westat's pool of experienced interviewers. Additional candidates were recruited through local organizations and classified newspaper advertisements placed in various PSUs as needed. These candidates were screened for communications skills and availability. Spanish language interviewer candidates were screened by bilingual project staff for their ability to communicate effectively in both Spanish and English. Approximately 12 percent of the total interviewers hired were bilingual. Most English and bilingual candidates had prior experience relevant for data collection.

Over the waves, all interviewers participated in an 8 to 10 day training session. The training program, which was staffed by qualified project staff and field supervisors, was designed to ensure consistency in data collection through the use of lectures, with a heavy focus on practice sessions. Trainees new to Westat attended an additional half-day training on general interview techniques. Bilingual trainees also attended an additional half-day training that concentrated on reviewing bilingual scripts and materials.

B.5 Media Activities

Because this is an evaluation of a media campaign, activities such as media buying, ad creation, and broadcast levels play key roles in the questionnaires as well. Because the Media Campaign is dynamic over time, the media-specific questions in the questionnaires must also change appropriately.

In the Evaluation's Child, Teen, and Parent questionnaires, some questions are asked about the respondent's media usage patterns, including television, radio, and magazines. All NSPY questionnaires contain a section of questions devoted to how the respondent receives anti-drug messages. In these questions, selected television and radio Media Campaign ads that have been broadcast during the prior 2 calendar months are played for the respondent. Questions are then asked about the respondent's recall of prior exposure (viewing or listening) to the ad, and his/her assessment of the ad's message and impact. The set of television and radio ads that are played for respondents are

changed monthly, with a set protocol being used to determine which ads are played during each month and for which respondents.

Each month Ogilvy, the Campaign media buy contractor, produces an updated copy rotation schedule. This schedule outlines, by month, each ad that is slated for broadcast, its target audience (parents or youth), and racial or ethnic group (general market, African American, or Hispanic). Included are each ad's planned broadcast dates and the Media Campaign behavioral platform that the ad addresses. As ads are produced, Ogilvy forwards them to Westat for digitizing; a process that puts the ads into an electronic format that can then be incorporated into the computerized laptop questionnaires.

Using the current copy rotation schedule, Westat determines those television and radio ads that will need to be played to respondents over the next 2 months. A CD containing those ads is then produced and sent to the field interviewing staff. A look-up table is also developed for each interview month and transmitted to the field staff. It provides the specifications for ad selection and randomization for each respondent that month.

During Waves 1 and 2, questions were asked about viewership of specific television shows and readership of specific magazines from which Ogilvy purchased advertising time or space. The specifics of these media buys were determined based on the Gross Rating Points (GRPs) that the television shows, radio program or magazine were expected to earn. Ogilvy sent updated information on those television shows and magazines for which ad time or space has been purchased to Westat every 3 months, and appropriate updates were transmitted to the field interviewers' laptop questionnaires. (Questions on specific television shows and specific magazine readership were dropped from questionnaires after Wave 2.)

Ogilvy also provides data regarding the planned GRP levels for the previous quarter, by target audience (parents or youth), creative ad execution, media (television, radio, print, and out of home), and week/month. GRPs refer to the percentage of the target population that is estimated to be watching a particular TV show, listening to a specific radio program, or reading a certain magazine, and are therefore exposed to the advertising messages provided. These GRPs are based on data from that media's audience ratings company (Nielsen Media Research for television, Arbitron Research and RADAR for radio and MRI for print). Knowing the reach and frequency objectives for the Media Campaign's messages, the media buyers then purchase a mix of media whose GRPs, when aggregated, should achieve the desired intensity of Media Campaign message exposure. This information is used by the Evaluation's analysts to look for correlation between recalled exposure to ads by respondents and the ads' reach and frequency levels.

B.6   Initial and Followup Data Collection

NSPY thus far has had two rounds of data collection: Round 1 (Waves 1 through 3) and Round 2 (Waves 4 and 5). This section discusses five topics central to the NSPY data collection effort. They include the procedure used to determine whether the household was eligible to participate in the survey, the rules adopted for collection of information from neighbors pertaining to household eligibility determination, how household members were subsampled for inclusion as survey respondents, steps taken to assure respondent confidentiality, and the procedures used to validate Waves 1 through 5 interviews.

B.6.1   Determining Household/Respondent Eligibility

During Waves 1 through 3, interviewers were required to make up to five in-person attempts to contact a household. A household was considered eligible if two criteria were met. First, the household must contain children of a specified age group (age groups included households with children aged 9 through 13, 12 and 13, or 9 through 18). Second, the housing unit must have been built before April 1, 1990, be a mobile home, or be selected through the permit sample (see Appendix A). All eligibility information was collected hard copy and then entered into an electronic file on laptop computers.

To be included in the Wave 4 and Wave 5 followup sample, a household must have had at least one selected person (parent, teen, or child) complete his or her extended interview in Round 1 (i.e., in Wave 1 for the Wave 4 followup and in Waves 2 or 3 for the Wave 5 followup). If no one who was selected completed an interview in Round 1, then the household was not included in Round 2 (followup waves).

Prior to Round 2, efforts were made to verify the location of Round 1 adult respondents. Location information (i.e., address and telephone number) about respondents was sent to a national database company for tracking purposes. Updated location information from this source was sent to Westat's Telephone Research Center and telephone interviewers placed calls to these households to verify the identity of respondents.

At Followup, interviewers were allowed to screen households both by telephone and in-person. Interviewers were required to make up to five telephone attempts to contact a household. If the telephone attempts were not successful, up to 5 in-person attempts were then made. Most first attempts were made by telephone, however first attempts at contact were made in-person if the selected parent had refused to complete his or her initial interview or if the interviewer did not have a telephone number to call.

A youth who had been selected at Round 1 was considered eligible for the Round 2 survey if the youth was 9 to 18 years old at the time of the Round 2 interview and was not living in a group quarters situation (that is was not living away from home at school or in an institution). A parent or caregiver who had been selected at Round 1 was considered eligible for the Round 2 survey if he or she was still living with an eligible sampled youth at least two nights a week and was not physically or mentally disabled. A new parent was chosen for interview if either of these two conditions was not met.

B.6.2   Use of Neighbor Reports to Determine Eligibility

Through most of the initial data collection waves, interviewers were instructed to visit the sampled household three times to try to determine eligibility, prior to obtaining eligibility information from a neighbor. This procedure was changed for a short period of time during Waves 1 through 3 to allow interviewers to determine eligibility information from neighbors after one attempt to contact the household. Because a neighbor might be less able to accurately know the exact ages of children, two questions about children were asked. First, the neighbor was asked whether any children aged 9 to 18 lived in the household. If yes, a followup question was asked to determine whether children of the specified age for the particular household (see categories above) lived in the household. In addition, the neighbor was asked if sampled housing units in area segments were built after April 1, 1990.

Finally the neighbor was asked what times members of the sampled household would be likely to be at home. If answers to both of the age questions were no, the household was considered ineligible. If the answer to either or both age questions was yes and if the housing unit was built before April 1, 1990, or if the housing unit was drawn from the permit sample, the interviewer continued to try to contact the sampled household. Remaining attempts were made to contact the sampled household to obtain an interview at times suggested by the neighbor.

Neighbor reports to determine eligibility were not applicable to the Round 2 survey waves.

B.6.3   Selection of Respondents

During Waves 1 through 3, the interviewer conducted a household enumeration with a household member 18 years of age or older, once a household was determined to be eligible. All members of the household, excluding children/students who were currently away from home, living at a boarding school or college, were enumerated. At this point, up to two eligible youth were randomly selected. Once the youth were selected, the relationship of every other person to the selected youth was obtained. One or two parents or primary caregivers were then selected based on a predetermined algorithm. (Two parents or primary caregivers were chosen only in the unusual situation where the selected youth were not siblings.) If two parents for a selected child resided in the household, the algorithm selected the male or female parent on a random basis. If one of the parents was a stepparent or foster parent, that parent must have lived with the child in the household for a least 6 months to be eligible for selection. If no parents lived in the household, the algorithm selected a primary caregiver. Once all respondents were selected, information on the race and ethnicity for each selected person was obtained.

As mentioned earlier, youth were considered eligible for the Round 2 survey if they were 9 to 18 years old at the time of Round 2 and were not living in group quarters. New youth were never selected as replacements for ineligible ones. New parents/caregivers, however, could be selected in Round 2 if the Round 1 parent/caregiver was ineligible for the survey at Round 2.

For all waves, all respondent selection information was entered into a laptop by the interviewer using a CAPI approach.

B.6.4   Guaranteeing Confidentiality

An important part of the survey methodology was to obtain honest answers to very sensitive data. To meet this end, several procedures were implemented. First, a Certificate of Confidentiality was obtained for the study. Under the certificate, the Federal Government pledged that the evaluation team cannot be compelled by any person or court of law to release a respondent's name or to link a respondent's name with any answers he/she gives. Interviewers showed a copy of the certificate to respondents prior to the interview. They also guaranteed that all respondent names and other identifying information would be destroyed at the end of the study and would not appear in any publications resulting from the study. Teen and child assent forms were appropriately worded for each age group to make sure that the youth understood that the answers they gave would be kept private and would not be connected with their names.

Second, the extended interviews were administered in a CAPI and ACASI format. Sensitive questions were in ACASI format, which meant that respondents used the computer themselves to answer

questions by touching the screen and used headphones to hear the questions. The extended interview was programmed so that the interviewer was unable to go back into the interview and look at answers the respondent provided in the ACASI section.

Third, interviewers were instructed to, if possible, seat the respondent in a chair that was against the wall or a piece of furniture so that no other person could stand or pass behind the respondent. This procedure hindered third parties from being able to observe the respondent's answers during the ACASI part of the interview. The interviewer also requested that parents not be present in the room while the questionnaire was being conducted with the youth. If the parent insisted on being present in the room, the interviewer asked the parent not to stand directly behind the child during the ACASI portion of the interview.

B.6.5   Validation of Interviews

During Wave 1, 10 percent of parents interviewed were selected for validation. Approximately 75 percent were contacted by telephone and attempts to contact the remainder were made by mail. When interviewers were suspected of falsifying data, all of their worked cases were redone by different interviewers. In a few instances, interviewers were terminated for falsifying data.

During Wave 2, approximately 13 percent of parents interviewed and 2 percent of the ineligible households were selected for validation. Approximately 58 percent were contacted by telephone, and attempts to contact the remainder were made by mail. No invalid cases were found during Wave 2.

During Wave 3, approximately 18 percent of the parents interviewed and 5 percent of the ineligible households were selected for validation. Approximately 76 percent were contacted by telephone and attempts to contact the remainder were made by mail. When an interviewer was suspected of falsifying data, all of his or her worked cases were redone by different interviewers. In one instance, an interviewer was terminated for falsifying data.

During Wave 4, approximately 13 percent of the parents interviewed and 44 percent of the ineligible households were selected for validation. Approximately 86 percent were contacted by telephone and attempts to contact the remainder were made by mail. No invalid cases were found for interviewers completing Wave 4 work, however two interviews completed during Wave 1 were identified as questionable during Wave 4 when an interviewer revisited the households.

During Wave 5, approximately 10 percent of the parents interviewed and 15 percent of the ineligible households were selected for validation. About 88 percent were contacted by telephone and attempts to contact the remainder were made by mail. No invalid cases were found for interviewers completing Wave 5 work; however some cases were found where an interviewer did not follow proper screening procedures in the previous wave. Additional information was obtained from these households and weighting factors were adjusted for the affected parents.

B.7   Data Editing and Cleaning

SAS programs were developed to perform edit checks on the screener and extended interview data. All interview skip patterns were checked to ensure that data did not exist for data items that should have been skipped and that data values were missing only when a data item had been properly skipped. Checks were also performed to confirm that all reported ages and dates were in a logical

sequence between birth and the date of interview. Additional edit checks were executed to ensure that questions were asked regarding the appropriate groups of ads, given the demographic characteristics of the respondent. After the SAS edits were reviewed and the appropriate updates were applied, frequencies were produced for all variables at the dwelling unit level, the sampled person level, and the parent/youth dyad level. These frequencies were reviewed by experienced data specialists who identified outliers, unexpected missing data, and data inconsistencies. When a potential problem was identified, the data manager located the corresponding records within the database and evaluated the data to determine if any items needed to be updated.

Data updates were recorded by the data specialists and were carried out through a SAS update program that updated the appropriated data items and kept a transaction record of all updates.

B.8 Response Rates

B.8.1 Wave 1

There were 34,691 sampled addresses to be contacted and screened in NSPY Wave 1. Of those sampled addresses, 4,649 (13.4%) were discovered to be either vacant or nonresidences (such as businesses or other institutions). That left 30,042 occupied residential addresses to be contacted and screened for study eligibility.

Of those occupied addresses, answers to the screening questions were obtained for 28,567 (95.1%). Roughly 1 in 8 screened addresses (12.2%) had children in the required age ranges and were eligible to participate in NSPY.

In the 3,497 eligible households, data collection staff were able to enumerate household members for 2,602 (74.4%) households, so that a parent/caregiver and one or more youth could be selected for interview. Once selected, 2,284 (88.1%) of NSPY parents/caregivers completed an interview. Interviews were completed with 3,299 (90.3%) of selected NSPY children and teens.

The cumulative response rate (screener response rate x roster response rate x interview response rate) was 63.9 percent for youth and 62.3 percent for parents.

B.8.2 Wave 2

There were 23,000 sampled addresses to be contacted and screened in NSPY Wave 2. Of those sampled addresses, 2,405 (10.5%) were discovered to be either vacant or nonresidences (such as businesses or other institutions). That left 20,595 occupied residential addresses to be contacted and screened for study eligibility.

Of those occupied addresses, answers to the eligibility screening questions were obtained for 19,701 (95.7%). Roughly 1 in 8 screened addresses (12.7%) had children in the required age ranges and were eligible to participate in NSPY.

In the 2,502 eligible households, data collection staff were able to enumerate household members for 1,866 (74.6%) households, so that a parent/caregiver and one or more youth could be selected for interview. Once selected, 1,632 (88.2%) of NSPY parents/caregivers completed an interview. Interviews were completed with 2,362 (91.9%) of selected NSPY children and teens.

The cumulative response rate (screener response rate x roster response rate x interview response rate) was 65.6 percent for youth and 62.9 percent for parents.

B.8.3   Wave 3

There were 23,300 sampled addresses to be contacted and screened in NSPY Wave 3. Of those sampled addresses, 2,272 (9.8%) were discovered to be either vacant or nonresidences (such as businesses or other institutions). That left 21,028 occupied residential addresses to be contacted and screened for study eligibility.

Of those occupied addresses, answers to the screening questions were obtained for 20,085 (95.5%). Roughly 1 in 8 screened addresses (12.8%) had children in the required age ranges and were eligible to participate in NSPY.

In the 2,566 eligible households, data collection staff were able to enumerate household members for 1,931 (75.3%) households, so that a parent/caregiver and one or more youth could be selected for interview. Once selected, 1,680 (87.5%) of NSPY parents/caregivers completed an interview. Interviews were completed with 2,458 (91.2%) of selected NSPY children and teens.

The cumulative response rate (screener response rate x roster response rate x interview response rate) was 65.5 percent for youth and 62.9 percent for parents.

B.8.4   Wave 4

Four separate response rates were calculated for Wave 4. These include:

- A followup cross-sectional response rate;

- A cumulative cross-sectional response rate;

- A followup longitudinal response rate; and

- A cumulative longitudinal response rate.

Under the NSPY sample design, subsamples of youth and parents selected during Wave 1 were retained for followup in Wave 4. For the cross-sectional survey, youth and parents in households that completed a screener roster in Wave 1 were included in the followup sample if the household contained at least one Wave 1 sample person (either parent or youth) who completed an interview. As a result, under the selection criterion employed for Wave 4, a small number of youth and parents sampled at Wave 1 who did not complete a Wave 1 interview were refielded in Wave 4. These "extra" youth and parents were used only for the cross-sectional analysis and, therefore, were accounted for in the cross-sectional response rate. For the longitudinal analysis, a youth and parent must have completed an interview in Wave 1 and in Wave 4 to be included as a respondent in the calculation of the longitudinal response rate.

B.8.4.1   Cross-Sectional Response Rates

Followup Cross-Sectional Response Rate (FCRR)

The FCRR represents the percentage of parents and youth that were successfully located and interviewed during Wave 4 of the sample fielded in Wave 4. It is defined as:

$$FCRR = \frac{\text{\# Households Completing Eligibility Screening}}{\text{\# Households Fielded}} \; X \; \frac{\text{\#Respondents Completing Interview}}{\text{\# Respondents Eligible to Participate}}$$

There were 2,602 households that completed the household enumeration (roster) screening at Wave 1. Based on data collected during Wave 1, 2,450 (94.2%) of these households contained at least one respondent from Wave 1 (either a youth or a parent) and thus were eligible for refielding at Wave 4. The further exclusion of households that contained only youth who were expected to be age 19 or older at the beginning of the Wave 4 data collection resulted in the refielding of 2,304 households in Wave 4.

Followup telephone or inperson eligibility screening was attempted for the 2,304 households that were refielded in Wave 4. Of these, eligibility was determined for 1,999 (86.8%) of the households. For the remaining 305 households, eligibility could not be determined for various reasons (e.g., the household moved out of the interviewing area or was not locatable, the household could not be contacted for some other reason, or the household refused to complete the eligibility screener).

The 1,999 successfully screened households contained 2,744 Wave 1 youth, of which 96 (3.5%) youth were determined to be ineligible for the Wave 4 survey (e.g., were 19 years or older, were institutionalized or living in group quarters, or were deceased). Of the 2,648 eligible youth in the screened households, 2,477 (93,5%) completed the Wave 4 interview. Corresponding to the 2,648 youth, 1,939 parents were identified and 1,752 (90.4%) of them completed the Wave 4 interview.

Thus, the followup cross-sectional response rate for Wave 4 youth is 81.2 percent (86.8% x 93.5%); and the followup cross-sectional response rate for Wave 4 parents is 78.5 percent (86.8% x 90.4%).

Cumulative Cross-Sectional Response Rate (CCRR)

The CCRR is the combination of the Wave 1 and Wave 4 survey response rates. It is defined as the product of the five following rates:

■   The percentage of households at Wave 1 where eligibility was determined;

■   The percentage of eligible households at Wave 1 where the household roster was completed;

■   The percentage of Wave 1 households that were refielded (i.e., contained at least one respondent at Wave 1) at Wave 4;

■   The percentage of households at Wave 4 where eligibility screening was determined; and

■   The percentage of youth/parents who completed the Wave 4 interview.

Thus, the cumulative cross-sectional response rate for Wave 4 is 54.1 percent (95.1% x 74.4% x 94.2% x 86.8% x 93.5%) for youth and 52.2 percent (95.1% x 74.4% x 94.2% x 86.8% x 90.4%) for parents.

B.8.4.2 Longitudinal Response Rates

Followup Longitudinal Response Rate (FLRR)

The FLRR represents the percentage of parents and youth who were successfully located and interviewed in Wave 4, who were also successfully interviewed in Wave 1. It is defined as:

$$FLRR = \frac{\text{\# Respondents where Eligibility Determined}}{\text{\# Respondents Interviewed in Wave 1}} \quad \mathbf{X} \quad \frac{\text{\# Respondents Completing Interview}}{\text{\# Respondents Eligible to Participate}}$$

Of the 3,072 youth completing the Wave 1 who were refielded in Wave 4, eligibility status was determined for 2,685 (87.4%) youth. Of those youth, 96 were determined during Wave 4 screening to be ineligible for the Wave 4 survey (e.g., were 19 years or older, were institutionalized or living in group quarters, or were deceased). Among the 2,589 eligible youth, 2,434 (94.0%) completed the Wave 4 interview. Similarly, of the 2,158 parents completing the Wave 1 interview that were refielded in Wave 4, eligibility status was determined for 1,885 (87.3%) parents. Of those parents, 93 were determined during screening to be ineligible for the Wave 4 survey. Among the 1,792 eligible parents, 1,644 (91.7%) completed the Wave 4 questionnaire.

Thus, the followup longitudinal response rate for Wave 4 youth is 82.2 percent (87.4% x 94.0%); and the followup longitudinal response rate for Wave 4 parents is 80.1 percent (87.3% x 91.7%).

Cumulative Longitudinal Response Rate (CLRR)

The CLRR is the combination of the Wave 1 and Wave 4 response rates based on a subset of respondents, i.e., those respondents who were interviewed in both Wave 1 and Wave 4. It is defined as the product of the three following rates:

- The cumulative Wave 1 response rate;

- The percentage of youth/parents at Wave 4 for whom eligibility was determined; and

- The percentage of eligible youth/parents who completed the Wave 4 interview.

Thus the cumulative longitudinal response rate for Wave 4 is 52.7 percent (64.1% x 87.4% x 94.0%) for youth and 50.1 percent (62.5% x 87.3% x 91.7%) for parents.

B.8.5 Wave 5

Four separate response rates were calculated for Wave 5. These include:

- A followup cross-sectional response rate;

- A cumulative cross-sectional response rate;

- A followup longitudinal response rate; and

- A cumulative longitudinal response rate.

Under the NSPY sample design, subsamples of youth and parents selected during Waves 2 or 3 were retained for followup in Wave 5. For the cross-sectional survey, youth and parents in households that completed a screener roster in Waves 2 or 3 were included in the followup sample if the household contained at least one sample person (either parent or youth) who completed an initial interview. As a result, under the selection criterion employed for Wave 5, a small number of youth and parents sampled at Waves 2 or 3 who did not complete an initial interview were refielded in Wave 5. These "extra" youth and parents were used only for the cross-sectional analysis and, therefore, were accounted for in the cross-sectional response rate. For the longitudinal analysis, a youth and parent must have completed an initial interview in Waves 2 or 3 and a followup interview in Wave 5 to be included as a respondent in the calculation of the longitudinal response rate.

B.8.5.1   Cross-Sectional Response Rates

Followup Cross-Sectional Response Rate (FCRR)

The FCRR represents the percentage of parents and youth that were successfully located and interviewed during Wave 5 of the sample fielded in Wave 5. It is defined as:te (FCRR)

$$\text{FCRR} = \frac{\text{\# Households Completing Eligibility Screening}}{\text{\# Households Fielded}} \quad X \quad \frac{\text{\#Respondents Completing Interview}}{\text{\# Respondents Eligible to Participate}}$$

There were 3,797 households that completed the household enumeration (roster) screening at Waves 2 and 3. Based on data collected during Waves 2 and 3, 3,526 (92.9%) of these households contained at least one respondent from the initial wave (either a youth or a parent) and thus were eligible for refielding at Wave 5. The further exclusion of households that contained only youth who were expected to be age 19 or older at the beginning of the Wave 5 data collection resulted in the refielding of 3,452 households in Wave 5.

Followup telephone or inperson eligibility screening was attempted for the 3,452 households that were refielded in Wave 5. Of these, eligibility was determined for 3,238 (93.8%) of the households. For the remaining 214 households, eligibility could not be determined for various reasons (e.g., the household moved out of the interviewing area or was not locatable, the household could not be contacted for some other reason, or the household refused to complete the eligibility screener).

The 3,238 successfully screened households contained 4,422 youth selected in Waves 2 and 3, of which 105 (2.4%) youth were determined to be ineligible for the Wave 5 survey (e.g., were 19 years or older, were institutionalized or living in group quarters, or were deceased). Of the 4,317 eligible youth in the screened households, 4,040 (93.6%) completed the Wave 5 interview. Corresponding to the 4,317 eligible youth, 3,162 parents were identified and 2,882 (91.1%) of them completed the Wave 5 interview.

Thus, the followup cross-sectional response rate for Wave 5 youth is 87.8 percent (93.8% x 93.6%); and the followup cross-sectional response rate for Wave 5 parents is 85.5 percent (93.8% x 91.1%).

Cumulative Cross-Sectional Response Rate (CCRR)

The CCRR is the combination of the initial (Waves 2 and 3) and followup (Wave 5) survey response rates. It is defined as the product of the five following rates:

- The percentage of households at Waves 2 and 3 where eligibility was determined;

- The percentage of eligible households at Waves 2 and 3 where the household roster was completed;

- The percentage of households in Waves 2 and 3 that were refielded (i.e., contained at least one respondent at the initial wave) at Wave 5;

- The percentage of households at Wave 5 where eligibility screening was determined; and

- The percentage of youth/parents who completed the Wave 5 interview.

Thus, the cumulative cross-sectional response rate for Wave 5 is 58.4 percent (95.6% x 74.9% x 92.9% x 93.8% x 93.6%) for youth and 56.8 percent (95.6% x 74.9% x 92.9% x 93.8% x 91.1%) for parents.

B.8.5.2 Longitudinal Response Rates

Followup Longitudinal Response Rate (FLRR)

The FLRR represents the percentage of parents and youth that were successfully located and interviewed in Wave 5, who were also successfully interviewed in Waves 2 or 3. It is defined as:

$$\text{FLRR} = \frac{\text{\# Respondents where Eligibility Determined}}{\text{\# Respondents Interviewed in Waves 2 and 3}} \mathbf{X} \frac{\text{\# Respondents Completing Interview}}{\text{\# Respondents Eligible to Participate}}.$$

Of the 4,618 youth completing the initial interview at Waves 2 or 3 who were refielded in Wave 5, eligibility status was determined for 4,366 (94.5%) youth. Of those youth, 88 were determined during Wave 5 screening to be ineligible for the Wave 5 survey (e.g., were 19 years or older, were institutionalized or living in group quarters, or were deceased). Among the 4,278 eligible youth, 4,021 (94.0%) completed the Wave 5 interview. Similarly, of the 3,208 parents completing the Wave 2 or 3 interview that were refielded in Wave 5, eligibility status was determined for 2,826 (88.1%) parents. Of those parents, 122 were determined during screening to be ineligible for the Wave 5 survey. Among the 2,704 eligible parents, 2,700 (99.9%) completed the Wave 5 questionnaire.

Thus, the followup longitudinal response rate for Wave 5 youth is 88.9 percent (94.5% x 94.0%); and the followup longitudinal response rate for Wave 5 parents is 88.0 percent (88.1% x 99.9%).

Cumulative Longitudinal Response Rate (CLRR)

The CLRR is the combination of the initial (Waves 2 and 3) and followup (Wave 5) response rates based on a subset of respondents, i.e., those respondents who were interviewed in both initial and followup waves. It is defined as the product of the three following rates:

■ The cumulative Wave 2 and 3 response rate;

■ The percentage of youth/parents at Wave 5 for whom eligibility was determined; and

■ The percentage of eligible youth/parents who completed the Wave 5 interview.

Thus the cumulative longitudinal response rate for Wave 5 is 58.2 percent (65.5% x 94.5% x 94.0%) for youth and 55.0 percent (62.5% x 88.1% x 99.9%) for parents.

Appendix C
Methodology for Confounder Control

C.1   Introduction

In this report, there has been considerable focus on changes in exposure and outcomes over time. If positive change occurs, then one wonders what might have led to the change. The level of exposure informs us about the activity level of the Campaign. It becomes more plausible to attribute some of the credit for any positive changes in outcomes to the Campaign if high exposure levels are attained and sustained. Most importantly, if people with higher exposure doses have better responses, it becomes plausible to believe that the treatment caused the response to be different from what it would have been in the absence of the Campaign. In the case when exposure and outcomes are measured simultaneously, the method provides important support for an inference of Campaign effect if one can assume that no other variable accounts for the observed association of exposure and outcome, and that the association is not the result of the outcome causing the exposure rather than vice-versa. This type of analysis is sometimes called a study of the dose-response relationship, analogous to a drug study comparing a 40 mg dose to a 20 mg dose.

Section C.2 discusses the strengths and weaknesses of the dose-response approach. Section C.3 provides more detailed information about the procedures used to implement it. Section C.4 provides detailed technical information on how effects were estimated. Section C.5 provides detailed technical information on how confidence intervals were formed on the effect estimates and how hypothesis testing was conducted.

C.2   Strengths and Weaknesses of the Dose-Response Approach

Interpretation of change over time in outcomes relies on the assumption that other factors (everything other than the Campaign) affecting drug-related cognitions and use held steady during the time period. However, it was beyond the scope of this evaluation to determine whether forces external to the Campaign did hold steady. These external forces might include such things as drug prices, drug availability, content of popular media, content of political speech and debate, celebrity actions, and seasonal variations. Consequently, the required assumption of constancy in all other societal forces is a strong assumption. Furthermore, data collection started after the start of the national phase (Phase II) of the Campaign. So even if one were to accept the strong assumption about other forces holding steady, change in outcomes would reflect only the incremental effect of additional exposure beyond any effect that could have been initially achieved. Given these caveats, it is clear a positive trend, while desirable, is insufficient for evaluating the effectiveness of the Campaign. Similarly, a negative trend does not negate the possibility that campaign effects existed, but countervailing effects from other causes were stronger.

In this report, we discuss trends over time but the principal analytic approach taken was to study the dose-response relationship, where the dose is a unit of exposure to anti-drug advertising, and the response is the simultaneously observed cognitive variables about drug use or parenting practices. This approach is common in the epidemiology of chronic conditions brought on by environmental factors such as coal dust, primary smoking, second-hand smoke, indoor radon gas, and so on. The underlying theory in those disciplines is that if a substance is toxic, then a large dose of it should be at least as toxic as a small dose. If this expected relationship does not hold, the toxicity of the material has not been demonstrated. In the application of this theory to our evaluation of the Media Campaign, the underlying theory is that if advertising is effective, a large dose of consumed advertising should be at least as effective as a small dose. If this relationship does not hold, then Evaluation generally cannot conclude that the effectiveness of the advertising has been demonstrated.

In dose-response analysis, one must assume that the variation in doses is random after controlling for known factors. In randomized experiments such as clinical trials, random assignment within groups of substantive interest is used to ensure that doses are randomly given. However, since Media Campaign doses are not randomly assigned, but are instead self-chosen by choices in media consumption and filtered through subject's recall, the Evaluation must instead assume that all sources of systematic (nonrandom) variation in doses have been measured.

This is a strong assumption, but as part of the questionnaire design and acquisition of geographic information, the Evaluation team considered a wide range of background variables that might affect dose reception. However, there is always the risk that the questionnaires might not have measured all the predisposing variables. The questionnaires for Waves 1 through 3 can be found on the NIDA web site: http://www.nida.nih.gov/DESPR/Westat/index.html. Researchers can scan the list of questions that were asked and think about what might have been left out. Leaving important predisposing variables out of the analysis means that false effects can emerge from the dose-response study. The Evaluation team tried to include as many variables as seemed to be plausible predisposing variables, but limitations on the length of each interview meant information could not be recorded about every plausible predisposing variable.

Even among the set of data collected, some of the data items were not allowed into the "pool of admissible predisposing factors." This was necessary because some of the variables that were measured had an unclear temporal order with the outcomes. Some may be consequences of exposure to Campaign messages. Controlling on such "mediating" variables would be to underestimate Campaign effects. For example, if watching Campaign ads leads youth to change their beliefs about the consequences of marijuana use, and these belief changes lead, in turn, to changes in intentions to abstain from marijuana use (as would occur under the theoretical model described in Chapter 2), then it would be a serious mistake to allow marijuana beliefs into the pool of admissible predisposing factors, even though it is true that beliefs are predisposing factors in developing intentions about marijuana abstention.

Because the data for the first three waves were collected in a single session with each respondent, the internal causal ordering of data was often ambiguous. At this point in the process, human judgment was required to decide which variables were potential mediating variables and which were predisposing variables that were not subject to influence by exposure to the Campaign. There were some variables for which valid arguments were advanced both for classification as a mediator and for classification only as a confounder. Resolving such conflicts was difficult and of the utmost importance, because each decision potentially affects the evaluation findings. The Evaluation team

recognized that other researchers may disagree with these choices. A few of the decisions were extraordinarily difficult to make and are discussed in detail below.

At this point, it was decided as a matter of evaluative protocol not to experiment with alternate decisions. The decisions made for the second semiannual report are still those used for this fifth semi-annual report. Section C.3 presents an expanded discussion of each decision.

C.3   Admissible Confounder Selection

This section presents the set of variables that the evaluation team admitted into analysis as youth confounders, the set accepted as parent confounders, and concludes with a list of confounders considered as potential moderators. The presentation commences with a brief discussion of the concept of confounding and moderating variables and of the analytic difficulties that arise because some variables may play both roles.

C.3.1   Confounders and Mediators

A large number of cognitive and behavioral variables were obtained on each subject at a single point in time. It is impossible to say with any certainty the order in which these cognitions and behaviors manifested themselves in each subject. Nonetheless, in order to make causal inferences, it is necessary to make some assumptions about this ordering. Figure C-A defines different types of variables schematically.

Figure C-A. Types of variables
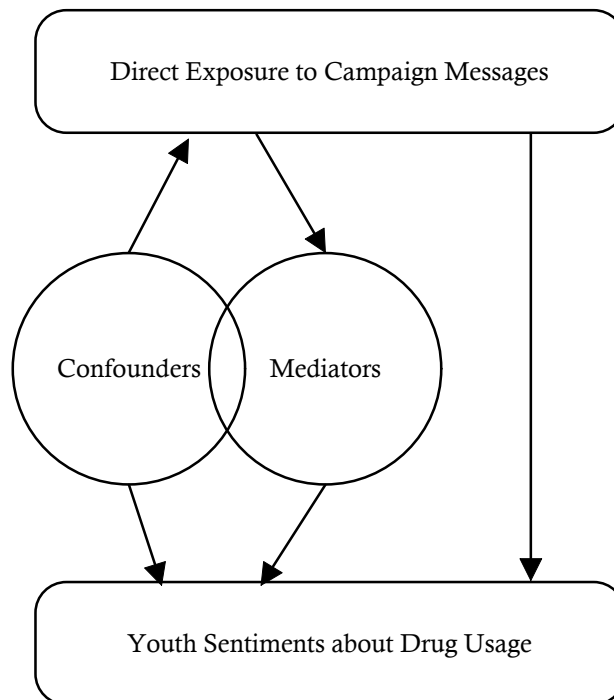
A confounder is a variable that leads to variation both in exposure and in outcomes but is itself not caused by exposure or outcomes. This is illustrated in Figure C-A by the directions of the line—confounders cause variation in exposure and cause variation in anti-drug sentiments. In order to avoid false claims of Campaign effects as well as false claims of counterproductive Campaign effects, it is essential to remove the (confounding) effects of the confounder from the study of the dose-response relationship. Examples are given in the prior section of how this works.

A mediating variable is one that is associated with both exposure and an outcome, as is the case with a confounding variable, but a mediating variable is a result of exposure rather than a cause of exposure. This is illustrated in Figure C-A by the direction of the arrow connecting Mediators and Exposure. In other words, the mediating variable is causally posterior to exposure rather than causally prior to exposure. In order to prevent errors of omission where we do not identify a Campaign effect, it is vitally important that nothing be done to remove the (mediating) effects of the mediator from the study of the dose-response relationship.

Unfortunately, some variables play both confounding and mediating roles. This is illustrated in Figure C-A by the overlap of the circles for confounders and mediators. For variables in this overlap area, we have conflicting imperatives. We must both remove and not remove their effects. As an example of a variable in that overlap, consider the role of cigarette smoking. Cigarette smoking makes it easier to try marijuana and could be related to choices of TV and radio programs and hours of viewing—so it is a confounding variable. At the same time, there may be kids who stopped smoking or were prevented from smoking because of generalized effects of exposure to the Campaign as discussed in Chapter 2.

Thus, it is also a mediating variable. We included items as confounders only when we could be confident that they were not mediators. In the case of cigarette smoking, the issue was resolved by including smoking initiation if it occurred more than 1 year before the date of the interview.

Decisions about which variables would be regarded as potential confounders and which as mediating were made after discussion by a committee of the evaluation team prior to any examination of the data. The committee did not use any of the data about the relationships among the potential confounders/mediators, exposure, and outcomes in making these decisions. Thus the decisions were made blinded to any possible effects on either finding or not finding any effects of the Media Campaign.

C.3.2 Admissible Pool of Youth Confounders

The following variables were judged by the committee to properly belong in the pool of admissible potential confounders for youth. The included variables can be divided into two broad groups. The first group, listed immediately below, include confounders that directly measure the respondent youth's personal demographics, attitudes, family environment, and behaviors. Discussion of particular exclusion and inclusion decisions follow the list.

1. Age
2. Gender
3. Race ethnicity
4. Neighborhood characteristics from the census
5. Urban, suburban, or rural nature of neighborhood
6. School enrollment status in the previous year

7. Whether school was in session in the last 30 days
8. Number of missed schooldays due to illness in the previous 30 days
9. Number of days the youth cut school in the previous 30 days
10. School grade level
11. Academic performance
12. Participation in extra-curricular activities[1]
13. Respondent's primary post-secondary plan
14. Hours of TV consumption on weekdays
15. Hours of TV consumption on weekends
16. Hours of radio consumption on weekdays
17. Hours of radio consumption on weekends
18. Internet use
19. Magazine reading habits
20. Language of TV viewing
21. Language of radio programs heard
22. Availability of cable or satellite TV in the household
23. Consumption of specific cable channels targeted by the Media Campaign
24. Personal assessment of family fighting
25. Personal assessment of feelings of family togetherness
26. Degree of parental supervision
27. Respondent's perception of parental knowledge of his or her activities
28. Respondent's perception of parental knowledge of his or her plans
29. Degree of enjoyment of time spent with his or her family
30. Youth rating of the importance of religion in their lives
31. Attendance of religious services
32. Personal antisocial behavior
33. Association with antisocial peers
34. Youth close friends' drug use
35. Personal tobacco use of a long-standing nature
36. Personal alcohol use of a long-standing nature
37. Sensation seeking tendencies.

All of the above reflect youth reports about themselves, their friends, and their families. Some of these variables might be possible outcomes of drug use, and it could be argued that if the Campaign had reduced drug use these were posterior to the Campaign not prior to it. However, all of the analyses reported in Chapter 5 focus on youth who had not yet used drugs, thus the concern is reduced. For example, the Campaign might potentially reduce drug use and that might decrease family tension and increase a feeling of togetherness. Controlling for family togetherness might reduce that apparent dose response effect of the Campaign. However, given that only nonusing youth are studied in Chapter 5, family togetherness is appropriately seen as a confounder. Still some of these variables, contrary to the Evaluation team's considered judgment, might be causally posterior to either exposure or outcomes and thus not be true confounding variables.

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[1] It has been argued that some of the Campaign advertising in early 2001 may have encouraged youth to join extra-curricular activities and thus, that this variable should be treated as a mediator rather than a confounder. This seemed of much less plausibility than a concern that such activities might both affect access to advertising as well as patterns of drug beliefs and use. The committee assumed that participation in extracurricular activities was largely a function of opportunity, physical fitness, other personal traits, accidents of friendship, and parental memories about extracurricular activities.

Youth attendance of anti-drug programs (in or out of school) were excluded as confounders. There was some risk that youth reports of attendance at such programs might reflect access to Campaign advertising or other outreach efforts, particularly since substantial advertising buys were made on Channel One, an in-school network.

The second broad category included as admissible potential confounders for the youth analysis covers information on parental characteristics and perceptions. These included:

1. Parental age
2. Parental gender
3. Parental marital status
4. Parent has a child aged 9 to 11
5. Parent has a child aged 12 to 13
6. Parent has a child aged 14 to 18
7. Parental income
8. Parental educational attainment
9. Parental religiosity
10. Sharing of parental responsibilities
11. Parental use of the Internet
12. Parental consumption of newspapers
13. Parental consumption of magazines
14. Parental consumption of TV
15. Parental radio consumption
16. Parental consumption of specific cable channels targeted by the Media Campaign
17. The primary language in which the parent watches TV
18. Parental assessment of family togetherness
19. Parental enjoyment of time spent with children
20. Parent's perception of fights with children
21. Parent-child participation in fun indoor activities
22. Parent-child participation in fun outdoor activities
23. Parent's reports on the respondent youth's grade level
24. Parent's report on child's academic performance
25. Parent's report on the time their child spends with friends
26. Parental alcohol use
27. Parental tobacco use
28. Parental prior or current use of hard drugs
29. Parental prior or current use of marijuana
30. Parental prior or current use of inhalants

As with the youth variables, some of these variables have an ambiguous causal order with respect to outcomes and exposure. The fact that all the youth in the associational analysis are nonusers of marijuana strongly mitigates these concerns, but it is possible that youth viewing of advertising aimed at their parents may have influenced family functioning in some way such as decreasing youth resistance to parental monitoring activities. On balance, however, it was thought that it was far more likely that parental monitoring and family functioning would shape youth cognitions about marijuana use. Parent-child talk was not controlled for because of concerns that some of this talk may have been initiated by the youth after viewing Media Campaign ads and thus be causally posterior to exposure.

Note that many of these parental attributes may be causally prior to *parental* exposure to Media Campaign advertising, but that this is irrelevant for study of the association of youth cognitions with direct *youth* exposure. More complex analyses will be undertaken in the final report to try to determine whether there is a causal relationship between parental exposure and youth outcomes.

C.3.3 Admissible Pool of Parent Confounders

The committee judged that the following variables properly belong to the pool of admissible potential confounders:

1. Race ethnicity
2. Parent gender
3. Parent age
4. Parental income
5. Parental marital status
6. Parental religiosity
7. Parent has a child aged 9 to 11
8. Parent has a child aged 12 to 13
9. Parent has a child aged 14 to 18
10. Neighborhood characteristics
11. Urbanity
12. Parental use of the internet
13. Parental consumption of newspapers
14. Parental consumption of magazines
15. Parental consumption of TV
16. Parental radio consumption
17. Parental consumption of specific cable channels targeted by the Media Campaign
18. The primary language in which parents watch TV
19. Parental alcohol use
20. Parental tobacco use
21. Parental prior or current use of hard drugs
22. Parental prior or current use of marijuana
23. Parental prior or current use of inhalants
24. Availability of cable or satellite TV in the household

Parental perceptions of family togetherness were excluded since it was felt that it is too close to some of the outcome measures such as parent-child talk. It was felt that, if the Media Campaign is effective in increasing parent-child conversation and activity (as it was meant to), these could actually change parental perceptions of family togetherness.

C.3.4 Confounders as Moderators

A moderator is a characteristic or predisposition that makes respondents more or less susceptible to the Media Campaign. Moderators may cause the effects of the Media Campaign to be different in

different subgroups of the population. In this case, there are interactions of Campaign effects with preexisting factors (the moderators). In this report the moderators that are examined for youth are:

- Age of youth
- Gender of youth
- Race of youth
- Hispanic ethnicity of youth
- Urbanity of home neighborhood
- Natural sensation-seeking tendencies of youth

For parents, the moderators examined in this report are:

- Age of youth
- Gender of youth
- Race of youth
- Hispanic ethnicity of youth
- Urbanity of home neighborhood
- Gender of responding parent
- Education of responding parent

C.4   Summarization of Confounders

There were too many variables in the pool of admissible potential confounders to remove the effects of each individually. Instead, the information was summarized from the pool that tested as relevant. The summarization method is called propensity scoring. The method was introduced by Rosenbaum and Rubin (1983) and is widely used to analyze observational studies (D'Agostino, 1998). It can handle a large number of confounding variables. It is not necessary to develop complex models for all outcome variables, which is an advantage of this method over some of the alternative adjustment methods available. Exposure is conceptualized as a chance event. The probability distribution of exposure varies across people, (i.e., one person may have a high probability of achieving high exposure while others may have only moderate or low chance of doing the same). However, it is assumed that everyone has some chance of achieving every value of exposure. This rules out the existence of subgroups that are constrained to a sub-range of the possible values of exposure.

The following discussion starts with a general overview of propensity scoring followed by an examination of the propensity scoring's "balance"—the extent to which the counterfactual projections of population means for the confounding variables vary across exposure levels. The remainder of Section C.4 looks first at the impact of the counterfactual projections on effective sample sizes. It then presents the four cross-sectional models that were fitted on the combined data from Waves 1, 2, 3, 4, and 5—one each for the youth general exposure index, the youth recall aided exposure index, the parent general exposure index, and the parent recall aided exposure index, followed by the four stable exposure models and the four delayed effects effect models.

C.4.1   Propensity Scoring

Within the group of individuals who have the same exposure propensity, associations between outcome and exposure are free of confounding. This is as if exposure had been randomly assigned to individuals as in a designed experiment. An individual's exposure propensity is estimated as his or her

propensity score. Since there are two primary measures of exposure used in this report, two propensity scores were estimated, one for each measure of exposure. An individual's propensity is estimated in terms of confounding variables by complex statistical methods.

Propensity scoring frees the regression modeling process from its usual limitation of reliance on a small number of covariates and simplistic functional forms (e.g., linear main effects only). Rather, a complex model with interactions and higher-order terms can be fit at the propensity scoring stage without concern about overparameterization, since the goal is simply to obtain the best estimated probability of group assignment (in this case to exposure level) from the observed covariates. When subsequently included in the regression model, the propensity score carries all the information from the complex covariate model in a single variable, consuming only one degree of freedom. It also avoids the potentially adverse effects of multicolinearity on the stability of the estimates, regardless of the degree of correlation that exists among the covariates. Finally, propensity score technology can accommodate reasonable numbers of missing observations in the covariates, so fewer cases are lost in analytic procedures requiring complete cases for inclusion.

Despite these advances over traditional regression models, propensity scores have limitations. Like traditional methods for removing group nonequivalence, propensity score methods can adjust only for confounding covariates that are observed and measured. This is always a limitation of nonrandomized studies compared with randomized studies, where the randomization tends to balance the distribution of all covariates, observed and unobserved. However, tests can be devised to determine the robustness of the conclusions to potential influences of unobserved covariates. Such sensitivity analyses suppose that a relevant but unobserved covariate has been left out of the propensity score model. By explicating how this hypothetical unmeasured covariate is related to treatment assignment and outcome, one can estimate how the treatment effect that adjusts for it might change if such a covariate were available for adjustment. Moreover, propensity scores appear to be more robust to certain types of specification error than standard methods. In a simulation to investigate the relative influence of specification error in propensity scores versus regression models, Drake (1993) found that propensity scores are as vulnerable as standard methods to bias from omitted variables, but less vulnerable to bias from variables that are included but in the wrong functional form (e.g., linear rather than quadratic). A second limitation of propensity score methods—that they require reasonably large samples to support the subclassification—will not be a factor here because reasonably large samples are available. Additional concerns have been raised about the effectiveness of propensity scores for multivariate matching, but they are not being proposed for that purpose here.

Standard propensity score methods assume that there are only two levels of exposure. However, in the set up, exposure is a three- or four-level variable. For this more complex problem, the method suggested by Joffe and Rosenbaum (1990) was used. With this method, an ordinal logit model is fit for each index. The structure of this model is

$$\ln\left(\frac{\sum_{j \leq k} p_{ij}}{1 - \sum_{j \leq k} p_{ij}}\right) = a_k + X_i \boldsymbol{b} \ .$$

Here p_{ij} is the propensity of the i-th subject for exposure level j, X_i denotes the vector of confounder scores for the same subject, $\boldsymbol{a}_k$ is a threshold parameter for the k-th exposure level, and $\boldsymbol{b}$ is a vector of slope parameters with one component for every confounder retained in the model. The point of the

modeling exercise is to identify which of the admissible potential confounders are actually predictive of exposure and then to estimate the vector of slope parameters for those predictors. To fit this model, a stepwise variable selection procedure in SAS was used on the set of potential confounders. (The sampling weights were ignored in fitting the model.)

Once the models had been fit, the next step was to use the model to remove the effects of the confounding variables from the causal analysis. This was done by following a suggestion by Imbens (2000) with some innovations. The basic suggestion of Imbens was to use the estimated propensities to calculate the expected response across the entire sample, which would be expected in the counterfactual event that everyone in the sample had received the same exposure level. This could be achieved with the estimator

$$\hat{y}_{Ck} = \sum_i \frac{d_{ik} y_i}{\hat{p}_{ik}},$$

where d_{ik} is an indicator variable for the i-th case having exposure level k, i.e.,

$$d_{ik} = \begin{cases} 1 & \text{if the } i\text{-th individual has observed exposure at level } k \\ 0 & \text{else} \end{cases}$$

and $\hat{p}_{ik}$ is the estimated propensity the i-th individual has for exposure level k. Note that, for each i, $\sum_k \hat{p}_{ik} = 1$ for every i.

One innovation for this report was to project the expected response to the entire eligible population by using the sampling weights. This is important in this study given the differential probabilities of selection for youth and parents, depending on family composition. As noted in Appendix A, youth aged 14 to 18 had a higher probability of selection if they had siblings in the 12 to 13 or 9 to 11 brackets, all youth had a lower probability of selection if they had a sibling in the same age bracket, and married parents had lower probabilities of selection than single parents. Also, there is variation in the probability of response to the survey that is reflected in the sampling weights. Using the sampling weights, the counterfactual estimator of response on variable y to exposure k would be

$$\hat{Y}_{Ck} = \sum_i \frac{d_{ik} y_i w_i}{\hat{p}_{ik}},$$

where w_i is the sampling weight for the i-th respondent, adjusted for nonresponse and poststratified to population controls. However, it was found that this estimator was unstable and did not balance the covariates very well. Much better results were obtained by smoothing and calibrating the propensities that were estimated by the ordinal logit regression model. The smoothing and calibration was done as follows.

First, the observations were ordered according to the value of $X_i \hat{b}$ obtained from the fitted ordinal logit model. The ordered observations were then split into five approximately equal sized groups.

Within each group, smoothed and calibrated propensities $\hat{p}$ were calculated according to the formula:

$$\widetilde{p}_{ik} = \frac{\sum\limits_{j \in G_i} d_{jk} w_j}{\sum\limits_{j \in G_i} w_j} \;,\; \text{where } G_i \; for \; i \in \{1,2,3,4,5\} \text{ denotes the group to which observation } i \text{ belongs.}$$

These propensities are smoothed in the sense that there are only five distinct values for each exposure level instead of having a different value for every study subject as is the case with the propensities estimated by the ordinal logit model. These propensities are calibrated in the sense that when they are used to estimate the size of the total population based only on the sample that received a particular exposure level, they yield the same population estimate as is yielded by the total sample. This property is useful in terms of reducing the variance on comparisons of outcomes between exposure levels. The calibration property can be expressed mathematically as

$$\sum_i \frac{d_{ik} w_i}{\widetilde{p}_{ik}} = \sum_i w_i \; \forall \; k \;.$$

Using these smoothed and calibrated propensities and the sampling weights, the counterfactual projection of the average population response on attribute y to exposure level k is

$$\widetilde{Y}_{Ck} = \sum_i \frac{d_{ik} y_i w_i}{\widetilde{p}_{ik}} \;.$$

C.4.2 Assessment of Balance

Because propensity scoring is designed to remove the effects of confounding variables from the association between outcomes and exposures, the counterfactual projections of population means for the confounding variables should not vary across the exposure levels. This property is referred to as balance. If a confounder has been successfully balanced, then it will have the same counterfactual projection across all exposure levels. Mathematically, this condition of balance is expressed as

$$\sum_i \frac{d_{ik} x_{ji} w_i}{\widetilde{p}_{ik}} = \sum_i x_{ji} w_i \quad \forall \, j \, \text{and} \, \forall \, k \; .$$

For Wave 5 a new approach to testing balance was developed. For all variables in the final model; some variables that were not in the final model but were considered important; as well as for subgroups of race, gender, and age WesVar was used to test linear trends and overall differences in the means of the variables across exposure levels for both general and specific exposure. After initial tests of balance the models were rerun to incorporate variables which were considered to be out of balance. This required an extensive testing effort but the final models were in balance for all variables deemed correlated with the outcomes.

C.4.3 Impact of Counterfactual Projections on Effective Sample Sizes

For the youth general exposure example, the design effects due to the variation in propensities are given in Table C-A. They were calculated using the standard Kish approximation. The true effective

samples sizes will be smaller because of larger design effects due to variation in the W_i and due to clustering, but this table gives an impression of how much the counterfactual projection reduces effective sample sizes. The counterfactual projections did not considerably increase variances for the groups with medium or high exposure. The increase in variance for the low-exposure group indicated that confounders were identified that successfully predicted who would have low exposure. The result for correcting for self-selection is a 34 percent reduction in the effective sample size or a 25 percent increase in variances. This was judged to be a good exchange between variance and potential bias.

Table C-A. Design effects and sample sizes by exposure level

Exposure level	Nominal sample size	Design effect	Effective sample size
1	970	1.34	724
2	1,018	1.02	1,001
3	2,218	1.08	2,055

C.4.4   Detailed Models of Exposure

In this section, models are presented that were fitted on the combined data from Waves 1, 2, 3, 4, and 5. Four cross-sectional models were fitted, one for each type of parent exposure index and one for each type of youth exposure index. The variables that were included as potential confounders for each analysis depend on whether the analysis was for parents or for youth. The detailed list of the potential confounders is given in section 3.2 for parents and section 3.1 for youth.

NIDA approved the delayed effects analysis as the longitudinal analysis. The delayed effects analysis used only the Initial Round (Wave 1, 2 and 3) exposure data. To meet the requirements of the longitudinal analysis, new propensity models had to be fit. The delayed effects model for youth was identical to the cross-sectional model in the possible confounders, while the delayed effects model for parents added initial Round outcomes to the confounder pool. The delayed effects model for youth *would* have added Initial Wave outcomes to the confounder pool, except these were not measured on 9- to 11-year-olds in Wave 1. In all, there were four longitudinal propensity models: youth delayed effects general exposure, youth delayed effects specific exposure, parent delayed effects general exposure, and parent delayed effects specific exposure.

These reduced models were originally fit using the stepwise ordinal logit procedure in SAS. No weights were used in the model fitting. A level of 0.05 was set for variables to enter the model. Next the balance tests were run as described in section C.4.2 above. Then variables significantly out of balance and correlated with any outcome was added to the model as well as interactions for age, race, and gender. This produced more complicated models than had been fit in previous waves. While models did have some overfitting, the improvement in balance was considered to be worth the price of overfit in the models. The parameters for the models are now too numerous to present (i.e., hundreds per model) but a list of the first order terms in each model is given below.

C.4.4.1   Cross-Sectional Model for the Youth General Exposure Index

The cross-sectional stepwise ordinal logit model found 44 significant variables in modeling youth general or specific exposure. Another 44 variables were entered into the model in order to achieve balance. The model also included interactions of age, gender, and race. The first order variables are presented below in Table C-B.

Table C-B. Cross-sectional model for youth general exposure index among youth aged 12 to 18 who had never tried marijuana

Significant Variables from Stepwise

Youth was aged between 16 and 18

Youth's gender

Youth was Hispanic

Neighborhood is classified as a city in a nonurban area (lower population and density)

Youth current or last school grade

Youth participation in extracurricular activities

Youth plans to graduate from 2-year college

Time youth spends watching TV on an average weekday

Time youth spends watching TV on weekends

Time youth spends listening to Radio on weekends

Youth use of the Internet

Youth reading of magazines

Language of Radio programs heard by youth

Household has cable or satellite TV service

Youth consumption of specific cable channels targeted by the Media Campaign

Youth fought or argued with a parent in the last 30 days

Youth perception of parental awareness of youth activities and plans

Youth scale for anti-social behavior

Youth association with antisocial peers

Youth's close friends use illicit drugs

Youth score on sensation seeking tendencies (median split)

Youth's last completed school year

Youth watched a music channel in the last 30 days

Parent has never been married

Parent has child aged 9 to 11

Parental reading of newspapers

Time parents spend watching TV per week

Parental report of youth's school age span

Parent watched African American or Hispanic TV in last 30 days

Parent's report of highest grade taught in youth's school

Parent's report of lowest grade taught in youth's school

Wave of data collection

Percent of persons in the neighborhood who are urban and live inside urbanized areas

Percent Asian and Pacific Islander

Percent Cuban American

Percent of persons who are institutionalized

Percent of persons who live in noninstitutional group quarters

Percent of persons who are foreign-born noncitizens

Percent of persons who have BA plus

Employed civilians 16 and over, male and female

Unemployed persons 16 and over, male and female

Persons employed in mining

Households with income about $75,000 per year

HUs in large structures with 50 or more HUs

Variables Added for Balance

Youth's age

Parents are currently separated

Youth was not white, black, or Hispanic

Parental educational attainment

Percent of persons in the neighborhood who are age 9-18

Percent of persons under age 18

Percent of persons age 16-64

Percent of persons 65 and older

Percent of persons who are urban but live outside urbanized areas

Percent of persons who live on farms

Percent of persons who are rural but do not live on farms

Percent White

Percent Black

Percent American Indian, Eskimo and Aleut

Percent of other race

Percent Hispanic

Percent Mexican American

Percent Puerto Rican

Percent other Hispanic

Percent of households with children under age 18 that are headed by female household with no husband present

Percent of households that are nonfamily households

Percent of households where English language is spoken primarily

Percent of households that are linguistically isolated Spanish-speaking households

Percent of households that are linguistically isolated Asian and Pacific Islander speaking households

Percent of households that are other linguistically isolated households

Percent of persons who are foreign born naturalized citizens

Percent of persons in same house as in 1985

Percent of persons who are high school dropouts

Percent of persons 16-64 who are in the military

Percent of persons 16+ working in manufacturing

Percent of persons 16+ with farming, forestry and fishing occupations

Percent of persons with public assistance income

Percent of persons below poverty in 1989 (among those determined)

Percent of persons under age 18 below poverty in 1989 (among those determined)

Percent of housing that is vacant

Percent of housing that is vacant for seasonal, recreational or occasional use

Percent of occupied housing that is renter-occupied

Persons per room

Percent of housing that are mobile homes and trailers

Percent of housing that are detached single-family structures

Percent of housing built 1985 to census

Persons per vehicle

Percent of housing occupied by renters with no cash rent

Percent of housing without complete plumbing facilities

C.4.4.2   Cross-Sectional Model for the Youth Recall-Aided Exposure Index

The cross-sectional stepwise model for the youth general or recall-aided exposure index found 44 significant variables. Another 46 variables were added to achieve balance. Interactions with age, gender, and race were also added. The first order variables are presented in Table C-C.

C.4.4.3   Cross-Sectional Model for the Parent General Exposure Index

There were 31 significant variables in the stepwise model for parental general or specific exposure. An additional 41 variables were added to achieve balance. Also, interactions with age, gender, and race were added. The first order terms are tabulated in Table C-D.

C.4.4.4   Cross-Sectional Model for the Parent Recall-Aided Exposure Index

There were 31 significant variables in the stepwise model for parental general or specific exposure. An additional 41 variables were added to achieve balance. Also, interactions with age, gender, and race were added. The first order terms are tabulated in Table C-E.

C.4.4.5   Delayed Effects Model for the Youth General Exposure Index

The delayed effects stepwise ordinal logit model found 50 significant variables in modeling youth general and specific exposure. The balancing added another 78 variables which are presented below in Table C-F.

C.4.4.6   Delayed Effects Model for the Youth Recall-Aided Exposure Index

The delayed effects model for the youth general and recall-aided exposure index found 50 significant variables using stepwise regression. However, tests of balance indicted that another 49 variables needed to be added to the model. These variables are presented in Table C-G.

C.4.4.7   Delayed Effects Model for the Parent General Exposure Index

There were 24 significant variables in the stepwise delayed effects model for parental general and specific exposure. Sixty three more variables were added to achieve balance. These variables are tabulated in Table C-H.

C.4.4.8   Delayed Effects Model for the Parent Recall-Aided Exposure Index

There were 24 significant variables in the stepwise delayed effects model for parental general and specific exposure. Fifty more variables were added to achieve balance. These variables are tabulated in Table C-I.

Table C-C. Cross-sectional model for youth specific exposure index among youth aged 12 to 18 who had never tried marijuana

Significant Variables from Stepwise

Youth was aged between 16 and 18	Youth fought or argued with a parent in the last 30 days	Parent's report of lowest grade taught in youth's school
Youth's gender	Youth perception of parental awareness of youth activities and plans	Wave of data collection
Youth was Hispanic		Percent of persons in the neighborhood who are urban and live inside urbanized areas
Neighborhood is classified as a city in a nonurban area (lower population and density)	Youth scale for anti-social behavior	Percent Asian and Pacific Islander
Youth current or last school grade	Youth association with antisocial peers	Percent Cuban American
Youth participation in extracurricular activities	Youth's close friends use illicit drugs	Percent of persons who are institutionalized
Youth plans to graduate from 2-year college	Youth score on sensation seeking tendencies (median split)	Percent of persons who live in noninstitutional group quarters
Time youth spends watching TV on an average weekday	Youth's last completed school year	Percent of persons who are foreign-born noncitizens
Time youth spends watching TV on weekends	Youth watched a music channel in the last 30 days	Percent of persons who have BA plus
Time youth spends listening to Radio on weekends	Parent has never been married	Employed civilians 16 and over, male and female
Youth use of the Internet	Parent has child aged 9 to 11	Unemployed persons 16 and over, male and female
Youth reading of magazines	Parental reading of newspapers	Persons employed in mining
Language of Radio programs heard by youth	Time parents spend watching TV per week	Households with income about $75,000 per year
Household has cable or satellite TV service	Parental report of youth's school age span	HUs in large structures with 50 or more HUs
Youth consumption of specific cable channels targeted by the Media Campaign	Parent watched African American or Hispanic TV in last 30 days	
	Parent's report of highest grade taught in youth's school	

Variables Added for Balance

Youth's age	Percent Puerto Rican	Percent of persons 16+ with farming, forestry and fishing occupations
Parent's report of youth's grades	Percent other Hispanic	Percent of persons with public assistance income
Youth watched a sports channel in the last 30 days	Percent of households with children under age 18 that are headed by female household with no husband present	Percent of persons below poverty in 1989 (among those determined)
Youth average grade in school	Percent of households that are nonfamily households	Percent of persons under age 18 below poverty in 1989 (among those determined)
Parent's perception of fights with children	Percent of households where English language is spoken primarily	
Youth perception of parental knowledge of youth activities	Percent of households that are linguistically isolated Spanish-speaking households	Percent of housing that is vacant
Percent of persons in the neighborhood who are age 9-18	Percent of households that are linguistically isolated Asian and Pacific Islander speaking households	Percent of housing that is vacant for seasonal, recreational or occasional use
Percent of persons under age 18		Percent of occupied housing that is renter-occupied
Percent of persons age 16-64	Percent of households that are other linguistically isolated households	Persons per room
Percent of persons 65 and older	Percent of persons who are foreign born naturalized citizens	Percent of housing that are mobile homes and trailers
8) Percent of persons who are urban but live outside urbanized areas.	Percent of persons in same house as in 1985	Percent of housing that are detached single-family structures
Percent of persons who live on farms	Percent of persons who are high school dropouts	Percent of housing built 1985 to census
Percent of persons who are rural but do not live on farms	Percent of persons 16-64 who are in the military	Persons per vehicle
Percent White		Percent of housing occupied by renters with no cash rent
Percent Black	Percent of persons 16+ working in manufacturing	
Percent American Indian, Eskimo and Aleut		Percent of housing without complete plumbing facilities
Percent of other race		
Percent Hispanic		
Percent Mexican American		

Table C-D. Cross-sectional model for parent general exposure index among all parents of youth aged 9 to 18

Significant Variables from Stepwise	
Parent's gender	Percent of persons age 9-18
Parents are living together but not married	Percent of persons who are rural but do not live on farms
Parent is widowed	Percent Black
Parent has never been married	Percent Cuban American
Influence of religion on parents	Percent of persons who are foreign -born noncitizens
Neighborhood is classified as a city in a nonurban area (lower population and density)	Percent of persons who are high school dropouts
	Percent of persons who have BA plus
Parental use of the internet	Percent of persons 16+ in the labor force who are unemployed
Parental reading of newspapers	
Parental reading of magazines	Percent of persons 16+ working in manufacturing
Time parents spend watching TV per week	Percent of persons 16+ with farming, forestry and fishing occupations
Time parents spend listening to radio per week	
Parental viewing of BET and Spanish-language cable channels in the past 30 days	Percent of households with income above $75,000 per year
Language of parental TV viewing	Percent of persons with public assistance income
Parental smoking behavior	Percent of housing that is vacant for seasonal, recreational or occasional use
Parental educational attainment	
Wave of data collection	Percent of housing that are detached single-family structures
Parent has ever used marijuana	

Variables Added after Tests of Balance	
Youth was Hispanic	Percent of households that are linguistically isolated Spanish-speaking households
Parent's report of youth's grades	
Age of associated child	Percent of households that are linguistically isolated Asian and Pacific Islander speaking households
Percent of persons under age 18	
Percent of persons age 16-64	Percent of households that are other linguistically isolated households
Percent of persons 65 and older	
Percent of persons who are urban and live inside urbanized areas	Percent of persons who are foreign born naturalized citizens
Percent of persons who are urban but live outside urbanized areas	Percent of persons in same house as in 1985
	Percent of persons 16-64 who are in the military
Percent of persons who live on farms	Percent of persons 16+ who are employed (military and civilian)
Percent White	
Percent American Indian, Eskimo and Aleut	Percent of persons 16+ employed in mining
Percent Asian and Pacific Islander	Percent of persons below poverty in 1989 (among those determined)
Percent of other race	
Percent Hispanic	Percent of persons under age 18 below poverty in 1989 (among those determined)
Percent Mexican American (base=total pop, not just Hispanics)	
	Percent of housing that is vacant
Percent Puerto Rican	Percent of occupied housing that is renter-occupied
Percent other Hispanic	Persons per room
Percent of households with children under age 18 that are headed by female household with no husband present	Percent of housing that are mobile homes and trailers
	Percent of housing that are in large structures with 50 or more HUs
Percent of households that are nonfamily households	
Percent of persons who are institutionalized	Percent of housing built 1985 to census
Percent of persons who live in noninstitutional group quarters	Persons per vehicle
	Percent of housing occupied by renters with no cash rent
Percent of households where English language is spoken primarily	Percent of housing without complete plumbing facilities

Table C-E. Cross-sectional model for parent specific exposure index among all parents of youth aged 9 to 18

Significant from Stepwise	
Parent's gender	Percent of persons age 9-18
Parents are living together but not married	Percent of persons who are rural but do not live on farms
Parent is widowed	Percent Black
Parent has never been married	Percent Cuban American
Influence of religion on parents	Percent of persons who are foreign-born noncitizens
Neighborhood is classified as a city in a nonurban area (lower population and density)	Percent of persons who are high school dropouts
	Percent of persons who have BA plus
Parental use of the internet	Percent of persons 16+ in the labor force who are unemployed
Parental reading of newspapers	
Parental reading of magazines	Percent of persons 16+ working in manufacturing
Time parents spend watching TV per week	Percent of persons 16+ with farming, forestry and fishing occupations
Time parents spend listening to radio per week	
Parental viewing of BET and Spanish-language cable channels in the past 30 days	Percent of households with income above $75,000 per year
Language of parental TV viewing	Percent of persons with public assistance income
Parental smoking behavior	Percent of housing that is vacant for seasonal, recreational or occasional use
Parental educational attainment	
Wave of data collection	Percent of housing that are detached single-family structures
Parent has ever used marijuana	

Added After Tests of Balance	
Youth was Hispanic	Percent of households that are linguistically isolated Spanish-speaking households
Parent's report of youth's grades	
Age of associated child	Percent of households that are linguistically isolated Asian and Pacific Islander speaking households
Percent of persons under age 18	
Percent of persons age 16-64	Percent of households that are other linguistically isolated households
Percent of persons 65 and older	
Percent of persons who are urban and live inside urbanized areas	Percent of persons who are foreign born naturalized citizens
	Percent of persons in same house as in 1985
Percent of persons who are urban but live outside urbanized areas	Percent of persons 16-64 who are in the military
Percent of persons who live on farms	Percent of persons 16+ who are employed (military and civilian)
Percent White	
Percent American Indian, Eskimo and Aleut	Percent of persons 16+ employed in mining
Percent Asian and Pacific Islander	Percent of persons below poverty in 1989 (among those determined)
Percent of other race	
Percent Hispanic	Percent of persons under age 18 below poverty in 1989 (among those determined)
Percent Mexican American (base=total pop, not just Hispanics)	
	Percent of housing that is vacant
Percent Puerto Rican	Percent of occupied housing that is renter-occupied
Percent other Hispanic	Persons per room
Percent of households with children under age 18 that are headed by female household with no husband present	Percent of housing that are mobile homes and trailers
	Percent of housing that are in large structures with 50 or more HUs
Percent of households that are nonfamily households	Percent of housing built 1985 to census
Percent of persons who are institutionalized	Persons per vehicle
Percent of persons who live in noninstitutional group quarters	Percent of housing occupied by renters with no cash rent
Percent of households where English language is spoken primarily	Percent of housing without complete plumbing facilities

Table C-F. Delayed effects model for youth general exposure index among youth aged 12 to 18 at followup who had never tried marijuana at the initial wave

Variables Significant from Stepwise	
Talk to friends about drugs	Any use of inhalants
Consumption of specific cable channels targeted by the Media Campaign –from old list, picked up as detailed entries, below	Original wave
	If the race ethnicity white and non-Hispanic or not
Hours of TV consumption on weekends	If Hispanic or not
Talk to parents about drugs	Parent's report on child's academic performance
Internet use	Parental income
Magazine reading habits	Availability of cable or satellite TV in the household
Sensation seeking tendencies.	Parental prior or current use of inhalants
Parent likely to punish if found out using drugs	Parent claim to have previously seen the dummy ad
Attending drug education classes/programs	Parents have never been married
Degree of parental supervision (tfrnhang .098, tpardoes.069, tparplan .083))	Whether school was in session in the last 30 days
Degree of enjoyment of time spent with his or her family	Parent has a child aged 9 to 11
Hours of TV consumption on weekdays	Personal alcohol use of a long-standing nature
Youth claim to have previously seen the dummy ad	Percent of persons who are urban and live inside urbanized areas.
Time w/friends no adults around (.098)	Percent of persons who are high school dropouts
Visiting drug web sites	Percent Cuban American
Parental educational attainment	Percent of persons 16+ who are employed (military and civilian)
Number of days the youth cut school in the previous 30 days	Percent of persons 16-64 who are in the military
Parent's report of highest grade taught in youth's school	Percent of persons 16+ employed in mining
Youth's age at original wave	Percent of persons 16+ in the labor force who are unemployed
School grade level	Percent of persons who live in noninstitutional group quarters
Association with antisocial peers	Percent of persons who have BA plus
Watched African American or Hispanic TV	Percent of persons who are institutionalized
Parental alcohol use	Percent of persons with public assistance income
Youth's gender	
Personal assessment of family fighting (.077)	
Urban, suburban, or rural nature of neighborhood	

Table C-F. Delayed effects model for youth general exposure index among youth aged 12 to 18 at followup who had never tried marijuana at the initial wave (continued)

Variables Added for Balance	
If non-Hispanic and non-white, non-black or not	Percent White
Personal tobacco use of a long-standing nature	Percent Black
Parental use of the Internet	Percent American Indian, Eskimo and Aleut
Respondent's perception of parental knowledge of his or her plans	Percent Asian and Pacific Islander
	Percent of other race
Baseline intentions to use MJ	Percent Hispanic
CPS region	Percent Mexican American (base=total pop, not just Hispanics)
School enrollment status in the previous year	
Parents reports of talking	Percent Puerto Rican
Hard to talk to parents about drugs	Percent other Hispanic
Friends who use illicit drugs (-.052)	Percent of households with children under age 18 that are headed by female household with no husband present
Time w/friends no adults around (.098)	
Parental consumption of specific cable channels targeted by the Media Campaign	
	Percent of households that are nonfamily households
Youth close friends' drug use	Percent of households where English language is spoken primarily
Parental radio consumption	
Friends mj once in last year (.102) is this part of antisocial?	Percent of households that are linguistically isolated Spanish-speaking households
School grade level	Percent of households that are linguistically isolated Asian and Pacific Islander speaking households
Parental consumption of magazines	
Parent likely to punish if found out using drugs	Percent of households that are other linguistically isolated households
The primary language in which parents watch TV	
parents are divorced	Percent of persons who are foreign born naturalized citizens
Parent's report of lowest grade taught in youth's school	
Parents report of attending a meeting	Percent of persons who are foreign -born noncitizens
Any use of cigarettes	Percent of persons in same house as in 1985
Personal assessment of family fighting (.077)	Percent of persons 16+ working in manufacturing
Friends used nearly every month (.039)	Percent of persons 16+ with farming, forestry and fishing occupations
Respondent's perception of parental knowledge of his or her activities	
	Percent of households with income above $75,000 per year
Hours of radio consumption on weekends	
Hours of radio consumption on weekdays	Percent of persons below poverty in 1989 (among those determined)
Sensation seeking tendencies.	
Risk score	Percent of persons under age 18 below poverty in 1989 (among those determined)
Parents reports of monitoring	
Parent likely to know if using drugs	Percent of housing that is vacant
Watched African American or Hispanic TV	Percent of housing that is vacant for seasonal, recreational or occasional use
Participation in extracurricular activities	
Parents report of child's grades	Percent of occupied housing that is renter-occupied
Last completed school year (.197)	Persons per room
Respondent home-schooled or school does n	Percent of housing that are mobile homes and trailers
Percent of persons age 9-18	Percent of housing that are in large structures with 50 or more HUs
Percent of persons under age 18	
Percent of persons age 16-64	Percent of housing that are detached single-family structures
Percent of persons 65 and older	
Percent of persons who are urban but live outside urbanized areas.	Percent of housing built 1985 to census
	Persons per vehicle
Percent of persons who live on farms	Percent of housing occupied by renters with no cash rent
Percent of persons who are rural but do not live on farms	Percent of housing without complete plumbing facilities

Table C-G. Delayed effects model for youth specific exposure index among youth aged 12 to 18 at followup who had never tried marijuana at the initial wave

Variables Significant from Stepwise	
Talk to friends about drugs	Urban, suburban, or rural nature of neighborhood
Consumption of specific cable channels targeted by the media campaign –from old list, picked up as detailed entries, below	Any use of inhalants
	Original wave
Hours of tv consumption on weekends	If the race ethnicity white and non-Hispanic or not
Talk to parents about drugs	If Hispanic or not
Internet use	Parent's report on child's academic performance
Magazine reading habits	Parental income
Sensation seeking tendencies	Availability of cable or satellite tv in the household
Parent likely to punish if found out using drugs	Parental prior or current use of inhalants
Attending drug education classes/programs	Parent claim to have previously seen the dummy ad
Degree of parental supervision (tfrnhang 098, tpardoes069, tparplan 083))	Parents have never been married
Degree of enjoyment of time spent with his or her family	Whether school was in session in the last 30 days
Hours of tv consumption on weekdays	Parent has a child aged 9 to 11
Youth claim to have previously seen the dummy ad	Personal alcohol use of a long-standing nature
Time w/friends no adults around (098)	Percent of persons who are urban and live inside urbanized areas
Visiting drug web sites	Percent of persons who are high school dropouts
Parental educational attainment	Percent Cuban American
Number of days the youth cut school in the previous 30 days	Percent of persons 16+ who are employed (military and civilian)
Parent's report of highest grade taught in youth's school	Percent of persons 16-64 who are in the military
Youth's age at original wave	Percent of persons 16+ employed in mining
School grade level	Percent of persons 16+ in the labor force who are unemployed
Association with antisocial peers	Percent of persons who live in noninstitutional group quarters
Watched African American or Hispanic tv	Percent of persons who have BA plus
Parental alcohol use	Percent of persons who are institutionalized
Youth's gender	Percent of persons with public assistance income
Personal assessment of family fighting (077)	

Table C-G. Delayed effects model for youth specific exposure index among youth aged 12 to 18 at followup who had never tried marijuana at the initial wave (continued)

Variables Added for Balance	
Risk score	Percent of housing that are detached single-family structures
Parental consumption of newspapers	Percent of housing built 1985 to census
Parent likely to know if using drugs	Persons per vehicle
Watched African American or Hispanic tv	Percent of housing occupied by renters with no cash rent
Participation in extracurricular activities	Percent of housing without complete plumbing facilities
Parents report of child's grades	parental prior or current use of marijuana
Last completed school year (197)	school enrollment status in the previous year
Respondent home-schooled or school does n	Number of missed schooldays due to illness in the previous 30 days
Percent of persons age 9-18	Visiting drug web sites
Percent of persons under age 18	Language of radio programs heard
Percent of persons age 16-64	Parents report of likelihood of disciplining
Percent of persons 65 and older	Parent-child participation in fun indoor activities
Percent of persons who are urban but live outside urbanized areas	Parents report of child's grades
Percent of persons who live on farms	Parents living as married
Percent of persons who are rural but do not live on farms	Parents separated
Percent white	Hours of radio consumption on weekdays
Percent black	Parents report of writing letter
Percent American Indian, Eskimo and Aleut	Language of tv viewing
Percent Asian and pacific islander	Parental alcohol use
Percent of other race	Watched a Latino/Hispanic channel
Percent Hispanic	If non-Hispanic and non-white, non-black or not
Percent Mexican American (base=total pop, not just Hispanics)	Personal tobacco use of a long-standing nature
Percent Puerto Rican	Parental use of the internet
Percent other Hispanic	Respondent's perception of parental knowledge of his or her plans
Percent of households with children under age 18 that are headed by female household with no husband present	Baseline intentions to use mj
Percent of households that are nonfamily households	CPS region
Percent of households where English language is spoken primarily	School enrollment status in the previous year
Percent of households that are linguistically isolated Spanish-speaking households	Parents reports of talking
	Hard to talk to parents about drugs
	Friends who use illicit drugs (-052)
Percent of households that are linguistically isolated Asian and pacific islander speaking households	Time w/friends no adults around (098)
Percent of households that are other linguistically isolated households	Parental consumption of specific cable channels targeted by the media campaign
	Youth close friends' drug use
Percent of persons who are foreign born naturalized citizens	Parental radio consumption
Percent of persons who are foreign -born noncitizens	Friends mj once in last year (102) is this part of antisocial?
Percent of persons in same house as in 1985	school grade level
Percent of persons 16+ working in manufacturing	Parental consumption of magazines
Percent of persons 16+ with farming, forestry and fishing occupations	Parent likely to punish if found out using drugs
	The primary language in which parents watch tv
Percent of households with income above $75,000 per year	Parents are divorced
Percent of persons below poverty in 1989 (among those determined)	Parent's report of lowest grade taught in youth's school
	Parents report of attending a meeting
Percent of persons under age 18 below poverty in 1989 (among those determined)	Any use of cigarettes
	Personal assessment of family fighting (077)
Percent of housing that is vacant	Friends used nearly every month (039)
Percent of housing that is vacant for seasonal, recreational or occasional use	Respondent's perception of parental knowledge of his or her activities
Percent of occupied housing that is renter-occupied	Hours of radio consumption on weekends
Persons per room	Hours of radio consumption on weekdays
Percent of housing that are mobile homes and trailers	Sensation seeking tendencies
Percent of housing that are in large structures with 50 or more HUs	

Table C-H. Delayed effects model for parent general exposure index among all parents of youth aged 12 to 18

Variables Significant from Stepwise	
Parental consumption of specific cable channels targeted by the Media Campaign	Parental educational attainment
Parental consumption of TV	If Hispanic
Baseline talking cognitions	Original wave
Parental consumption of magazines	Percent of persons who are urban and live inside urbanized areas
Parental radio consumption	Percent Black
Parents reports of talking	Percent Asian and Pacific Islander
Parental consumption of newspapers	Percent of other race
Parent widowed	Percent Cuban American
Parents report of child's grades	Percent of households with income above $75,000 per year
Baseline fun activities	
Parents separated	Percent of persons below poverty in 1989 (among those determined)
Parent has a child aged 12 to 13	
Parent has a child aged 9 to 11	Percent of housing that are in large structures with 50 or more HUs

Variables Added for Balance	
Parental income	If non-Hispanic and non-white non-black or not
Watched African American or Hispanic TV	Parental tobacco use
Parent is widowed	The primary language in which the parent watches TV
Parent has never married	Parent's report of lowest grade taught in youth's school
If white and non-Hispanic or not	Parent's report of highest grade taught in youth's school
If Black and non-Hispanic or not	Parental alcohol use
Availability of cable or satellite TV in the household	Baseline monitoring behavior
Own behavior influences child	Parents married
Parent's perception of fights with children	Watched Hispanic TV
Baseline youth marijuana use	Parental prior or current use of inhalants
Neighborhood is classified as rural area	Parental religiosity
Parental use of the internet	Parental prior or current use of marijuana
Parent age	Risk score
Parental prior or current use of hard drugs	Baseline monitoring cognitions
Percent White	Risk score
Percent Mexican American (base=total pop, not just Hispanics)	Own behavior influences child
	Sensation seeking tendencies
Percent Puerto Rican	CPS region
Percent of households with children under age 18 that are headed by female household with no husband present	Sharing of parental responsibilities
	Percent of persons who live on farms
Percent of households that are linguistically isolated Asian and Pacific Islander speaking households	Percent American Indian, Eskimo and Aleut
	Percent Hispanic
Percent of persons 16+ in the labor force who are unemployed	Percent of households where English language is spoken primarily
Percent of persons with public assistance income	Percent of households that are linguistically isolated Spanish-speaking households
Percent of persons under age 18 below poverty in 1989 (among those determined)	Percent of persons who are foreign born naturalized citizens
Percent of housing that is vacant for seasonal, recreational or occasional use	Percent of persons who are foreign -born noncitizens
Percent of occupied housing that is renter-occupied	Percent of persons in same house as in 1985
Percent of housing that are in large structures with 50 or more HUs	Percent of persons who are high school dropouts
	Percent of persons who have BA plus
Percent of housing that are detached single-family structures	Percent of persons 16+ who are employed (military and civilian)
Percent of housing built 1985 to census	Percent of persons 16+ with farming, forestry and fishing occupations
Percent of housing occupied by renters with no cash rent	
Parent claim to have previously seen the dummy ad	Percent of housing that is vacant
Youth claim to have previously seen the dummy ad	Persons per room
	Persons per vehicle

Table C-I. Delayed effects model for parent specific exposure index among all parents of youth aged 12 to 18 at followup wave

Variables Significant from Stepwise	
Parental consumption of specific cable channels targeted by the Media Campaign	Parental educational attainment
Parental consumption of TV	If Hispanic
Baseline Talking cognitions	Original wave
Parental consumption of magazines	7) Percent of persons who are urban and live inside urbanized areas
Parental radio consumption	Percent Black
Parents reports of talking	Percent Asian and Pacific Islander
Parental consumption of newspapers	Percent of other race
Parent widowed	Percent Cuban American
Parents report of child's grades	Percent of households with income above $75,000 per year
Baseline fun activities	Percent of persons below poverty in 1989 (among those determined)
Parents separated	Percent of housing that are in large structures with 50 or more HUs
Parent has a child aged 12 to 13	
Parent has a child aged 9 to 11	

Variables Added for Balance	
Youth age	Parental religiosity
Neighborhood is Suburban	Parental prior or current use of marijuana
Neighborhood is in a Town in a Rural Area	Risk score
Parental radio consumption	Baseline monitoring cognitions
Parental assessment of family togetherness	Risk score
Neighborhood is Metropolitan	Own behavior influences child
Youth's race ethnicity	Sensation seeking tendencies.
Youth's gender	CPS region
Percent of households that are nonfamily households	Sharing of parental responsibilities
Percent of persons who are institutionalized	Percent of persons who live on farms
Percent of households that are other linguistically isolated households	Percent American Indian, Eskimo and Aleut
Percent of persons age 16-64	Percent Hispanic
Percent of persons 65 and older	Percent of households where English language is spoken primarily
Percent of persons who are urban but live outside urbanized areas.	Percent of households that are linguistically isolated Spanish-speaking households
Parent claims to have previously seen the dummy ad	Percent of persons who are foreign born naturalized citizens
Youth claims to have previously seen the dummy ad	Percent of persons who are foreign -born noncitizens
If non-Hispanic and non-white non-black or not	Percent of persons in same house as in 1985
Parental tobacco use	Percent of persons who are high school dropouts
The primary language in which the parent watches TV	Percent of persons who have BA plus
Parent's report of lowest grade taught in youth's school	Percent of persons 16+ who are employed (military and civilian)
Parent's report of highest grade taught in youth's school	Percent of persons 16+ with farming, forestry and fishing occupations
Parental alcohol use	Percent of housing that is vacant
Baseline monitoring behavior	Persons per room
Parents married	Persons per vehicle
Watched Hispanic TV	
Parental prior or current use of inhalants	

C.5 Testing for Significance of Counterfactual Effects

Several approaches were employed to assess the significance of estimated effects. The actual mean on each outcome for the weighted sample and all of the counterfactual means for each exposure group were displayed with their confidence intervals and were available for visual inspection. The population effect (called the "direct effect") was assessed by comparing the actual mean with the counterfactual mean for the lowest exposure group. This was done by estimating the variance of the direct effect and using that to place a confidence interval on the direct effect. The second approach was to estimate the variance of the maximum effect, the difference between the lowest and highest exposure groups, and use that to place a confidence interval on the maximum effect. The third was to adapt a test the Gamma statistic of significance for monotone relationships. The monotone dose-response test assessed the overall association between exposure and outcome, whereas the direct effect test is an estimate of the average effect in the population, while the maximum effect test provides a hypothetical estimate of the effect if all respondents received the highest does. With all of the approaches, the extra variance introduced by complex sample design, nonresponse adjustment, and counterfactual projection were reflected as fully as possible.

C.5.1 Estimating Variances on Counterfactual Projections

Replicate weights had been prepared for variance estimation of ordinary survey statistics as explained in Appendix A. There are 100 of these replicate weights for every subject. The process of adjusting the standard survey weights for counterfactual projection was partially repeated on each set of replicate weights. As explained in Section C.4.1 of this appendix, there were four major steps in this process. The first was to model exposure. The second was to create a partition of the data set based on the values of $X_i \hat{b}$. The third was to estimate the exposure propensity within each cell of the partition for each of the different exposure levels. The fourth was to apply the inverse of these estimated propensities to the sampling weights. To estimate the variances of the counterfactual projections, only the third and fourth steps were replicated. The first two were not. Ideally, all the steps would have been replicated, but technical issues made this infeasible. As a result, the variance estimates are likely to be a little too small and the confidence intervals a little tighter than they should be.

The reason for this is that confidence intervals do not reflect the uncertainty due to selecting the most important predictors of exposure. Different samples would no doubt have resulted in different choices of which variables to include in the ordinal logit model. However, the extra uncertainty introduced by model selection among the variables considered is probably small. Note that the confidence intervals are also conditioned on the assumptions made about exposure. If there were important covariates that were omitted from the modeling process because they were never asked in the questionnaire, the confidence intervals will not provide the 95 percent coverage promised.

Let w_{itr} be the r-th replicated counterfactual weight for the t-th exposure level for the i-th observation. Let w_{it0} be the full sample counterfactual weight. Note that these weights are equal to zero for the i-th observation unless the i-th observation actually experienced the t-th exposure level. Let $\boldsymbol{d}_{it}$ be an indicator flag for the t-th exposure level for the i-th observation. A unified set of counterfactual weights was then created by stacking these weights according to

$$w'_{ir} = \sum_k \boldsymbol{d}_{ik} w_{ikr} \text{ and } w'_{i0} = \sum_k \boldsymbol{d}_{ik} w_{ik0} .$$

The counterfactual mean for some outcome y on some class c indicated by $\boldsymbol{e}_{ci}$ and exposure level t is then

$$\hat{y}_{ct} = \frac{\sum_i w'_{i0} \boldsymbol{d}_{it} \boldsymbol{e}_{ci} y_i}{\sum_i w'_{i0} \boldsymbol{d}_{it} \boldsymbol{e}_{ci}} \ \text{ with variance estimate } \ \text{var}\,\hat{y}_{ct} = \sum_r b_r \left(\frac{\sum_i w'_{ir} \boldsymbol{d}_{it} \boldsymbol{e}_{ci} y_i}{\sum_i w'_{ir} \boldsymbol{d}_{it} \boldsymbol{e}_{ci}} - \frac{\sum_i w'_{i0} \boldsymbol{d}_{it} \boldsymbol{e}_{ci} y_i}{\sum_i w'_{i0} \boldsymbol{d}_{it} \boldsymbol{e}_{ci}} \right)^2 ,$$

where the b_r are factors chosen to correspond to the replication method.

C.5.2 Confidence Intervals on Direct Effects

The direct effect is defined as the difference between the actual estimate and the counterfactual estimate for the low exposure category. To estimate the variance on this effect, the first step was to estimate the covariance between a counterfactual estimate and an actual estimate as

$$\text{covar}(\hat{y}_{ct}, \hat{y}_c) = \sum_r b_r \left(\frac{\sum_i w'_{ir} \boldsymbol{d}_{it} \boldsymbol{e}_{ci} y_i}{\sum_i w'_{ir} \boldsymbol{d}_{it} \boldsymbol{e}_{ci}} - \frac{\sum_i w'_{i0} \boldsymbol{d}_{it} \boldsymbol{e}_{ci} y_i}{\sum_i w'_{i0} \boldsymbol{d}_{it} \boldsymbol{e}_{ci}} \right) \left(\frac{\sum_i w_{ir} \boldsymbol{d}_{it} \boldsymbol{e}_{ci} y_i}{\sum_i w_{ir} \boldsymbol{d}_{it} \boldsymbol{e}_{ci}} - \frac{\sum_i w_{i0} \boldsymbol{d}_{it} \boldsymbol{e}_{ci} y_i}{\sum_i w_{i0} \boldsymbol{d}_{it} \boldsymbol{e}_{ci}} \right).$$

In the second step, the variance on the direct effect was estimated as

$$\text{var}(\hat{y}_c - \hat{y}_{ct}) = \text{var}(\hat{y}_c) + \text{var}(\hat{y}_{ct}) - 2\text{covar}(\hat{y}_{c,}\hat{y}_{ct}), \text{ where } t = 1.$$

Confidence intervals on maximum effects are calculated using WesVar and a description can be found in Appendix A, section A.3.1.

C.5.4 Testing for a Monotone Dose-Response Relationship

A standard nonparametric estimate for a linear relationship is the Gamma statistic. This test is described in the SAS manual among other places. It is appropriate for testing whether two ordinal variables have a monotone relationship to each other. It does not require that the response (outcome) variable have a normal distribution, as is the case in standard analysis of variance procedures. This is important in this report because the outcomes of interest are generally not normally distributed. In this application, a monotone relationship is a relationship such that as the level of exposure increases, the level of the outcome variable moves in one direction only. There is no requirement that the outcome rise linearly or steadily. It can rise in jerks and pauses, but there can be no reversals. In terms of the cognitive processes, it is assumed that extra exposure to advertising will either have an effect or not have an effect, but that the direction of the effect will never reverse. Although it might be possible to imagine a situation where light exposure is beneficial while heavy exposure actually has the opposite of the desired effect, this does not seem plausible in general.

In the Wave 4 report, two statistics were used in the cross-sectional and delayed effects association tables: the Jonckheere-Terpsta (JT) test of monotonicity for significance testing and the Spearman rank correlation coefficient (*rho*) to represent strength of association or effect size. It was apparent from the reviews that this engendered some confusion, with some readers thinking that the significance level applied to the *rho* value, which it did not. Beginning in Wave 5 the significance testing and effect size statistics were unified by using *gamma* for both purposes. Both the gamma and

the JT are similar in many respects - they are both non-parametric tests that do not make strong distributional assumptions. The choice to report the gamma statistic instead of the JT test is driven primarily by convenience: the gamma measure is more easily interpretable than the JT statistic. Gamma is a symmetric measure whose values range, like *rho*, from -1 to 1. Under statistical independence, the gamma statistic will be 0. For wave 5, other non-parametric tests of association (such as Kendall's Tau) were considered, however, the gamma statistic is preferable when the data contains many tied observations.

SAS has an option to use a weight in calculating the Gamma test. This feature was used. If a subject has a weight of W, using the weight has the same effect on the calculations as if W copies of the subject were included in the database. Since the weights were in the tens of thousands, SAS perceives the sample size as being much larger than it really is and returns inappropriate significance levels. This was corrected by replicating the Gamma.

Let Γ_0 be the value of the Gamma test Z-statistic produced by SAS using the full sample counterfactual weights w'_{i0} and Γ_r be the value of the Gamma test produced by SAS using the *r*-th replicated counterfactual weights w'_{ir} . The variance on the Gamma statistic was calculated as

$$ v = \sum_{r=1}^{100} b_r \left(\Gamma_r - \Gamma_o \right)^2 . $$

The corrected test for significance of Gamma is then given as

$$ \Gamma_C = \frac{\Gamma_0}{\sqrt{v}} . $$

Under the null hypothesis that there is no relationship between exposure and the outcome, the statistic Γ_C has an approximate t-distribution with 100 degrees of freedom. So the alternate hypothesis of a monotone relationship between exposure and outcome is accepted if $\Gamma_C > 1.98$.

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Appendix D

Waves 1 - 5 – NSPY Anti–drug Advertisements Shown to Respondents

Wave 5

Table D-1a. Television advertisements shown to parents

Target Audience	Ad name	Description
General Market	AK-47	Ad shows many of the items that terrorists employ, such as guns, safe houses, and fake passports and informs viewers that, by buying drugs, they may be financing terrorist acts.
	Ananda	A mother describes her teenage daughter, her strengths and her faults, but she knows she doesn't do drugs because she asks her, all the time.
	Gene	A father describes his teenage son, his strengths and his faults, but he knows he doesn't do drugs because he asks him, all the time.
	I Helped (Excuses)	A series of teens admit the violent and criminal activities that they may have helped fund by buying drugs.
	Kid	A teenage boy is dressed to go out with friends. His mother stops him to ask him the monitoring questions: who, what, when, where.
	Loss	A father reflects on how he used to be his son's best friend, but now his son considers him a snoop and a spy. The son is shown in his room alone and the father confirms his love for his son.
	My Hero (AA)	A series of African American young boys and girls address their parents about the necessary actions they need to take to teach them about the dangers of drugs. Parents need to be the grown-up.
	Party	A teenage girl takes a break from dancing to check in with her mother and ask permission to stay longer. Her mother monitors her daughter's activities to keep her away from drugs.
	Sophie	A teenage girl admits the violent and criminal activities that she may have helped fund by buying drugs.
	Thanks	A series of teens thank their parents for monitoring, disciplining, and being there for them during troublesome times.
	Timmy	A teenage boy admits the violent and criminal activities that he may have helped fund by buying drugs.
African American	AK-47	Ad shows many of the items that terrorists employ, such as guns, safe houses, and fake passports and informs viewers that, by buying drugs, they may be financing terrorist acts.
	Gene	A father describes his teenage son, his strengths and his faults, but he knows he doesn't do drugs because he asks him, all the time.
	I Helped (Excuses)	A series of teens admit the violent and criminal activities that they may have helped fund by buying drugs.

Wave 5 (continued)

Table D-1a. Television advertisements shown to parents (continued)

Target Audience	Ad name	Description
African American	My Hero AA	A series of African American young boys and girls address their parents about the necessary actions they need to take to teach them about the dangers of drugs. Parents need to be the grown-up.
Hispanic	Alert (Spanish)	Ad warns parents about the dangers of everyday products that can be used to get high by teens. Parents are encouraged to be curious about what their children are doing, even when there is no reason to suspect drug use.
	Party (Spanish)	An Hispanic teenage girl takes a break from dancing to check in with her mother and ask permission to stay longer. Her mother monitors her daughter's activities to keep her away from drugs.
	Shadow – Brochure (Spanish)	A Hispanic boy is "shadowed" by the presence of drugs in society. His concerned parents turn to the brochure they got about drug abuse for advice about talking to the son.

Wave 5 (continued)

Table D-1b. Radio advertisements played for parents

Target Audience	Ad name	Description
General market	I Know My Kid	A series of parents describe their teenagers, their strengths and faults, but they know their teens don't do drugs because they ask them, all the time.
	My Hero AA	A series of young boys and girls address their parents about the necessary actions they take to teach them about the dangers of drugs. Parents need to be the grown-up.
	Sooner or Later David	Teen is being lectured by parent about the dangers of taking and sharing ecstasy with friends, especially when purchased from a stranger. Talk to youth "sooner" rather than "later."
	Sooner or Later Megan	An angry parent is on the phone with her incoherent daughter after learning that she used ecstasy. Message is for parents to speak with youth "sooner" rather than "later."
	Thanks	A series of teens thank their parents for disciplining and being there for them during troublesome times.
African American	My Hero AA	A series of young African American boys and girls address their parents about the necessary actions they take to teach them about the dangers of drugs. Parents need to be the grown-up.
Hispanic	Alert –Dad (Spanish)	Hispanic male warns parents about the dangers of everyday products that can be used to get high by teens. Parents are encouraged to be curious about what their children are doing, even when there is no reason to suspect drug use.
	Alert-Mom (Spanish)	Hispanic female warns parents about the dangers of everyday products that can be used to get high by teens. Parents are encouraged to be curious about what their children are doing, even when there is no reason to suspect drug use.
	Shadow – Brochure (Spanish)	A Hispanic boy is "shadowed" by the presence of drugs in society. His concerned parents turn to the brochure they got about drug abuse for advice about talking to the son.

Wave 5 (continued)

Table D-1c. Television advertisements shown to youth

Target Audience	Ad name	Description
General Market	AK-47	Ad shows many of the items that terrorists employ, such as guns, safe houses, and fake passports and informs viewers that, by buying drugs, they may be financing terrorist acts.
	Apolo	Olympic speed skater Apolo Anton Ono talks about what it takes to become an Olympic champion and how drugs cannot be part of the process.
	Boxing	African American female boxer discusses feeling free since stopping her past drug use and starting boxing.
	Brothers	Younger brother is shown shadowing his older brother, wanting to emulate him. Older brother is offered a joint, younger brother watches to see what he'll do.
	Chad	Olympic US downhill skier Chad Fleischer is shown skiing. He talks about his healthy lifestyle and how he would not get involved with drugs.
	Hello	Some friends are out having fun at a movie. They get a phone call from a girl who was caught smoking marijuana and is now grounded at home.
	I Helped (Excuses)	A series of teens admit the violent and criminal activities that they may have helped fund by buying drugs.
	Rosey	Olympic giant slalom snowboarder Rosey Fletcher is shown snowboarding. She talks about training, avoiding parties, and drugs so she can enjoy her sport. Snowboarding is her anti-drug.
	Sophie	A teenage girl admits the violent and criminal activities that she may have helped fund by buying drugs.
	Tiki Barber	NFL player Tiki Barber talks about how drugs can keep you from achieving your goals. Football is his anti-drug.
	Timmy	A teenage boy admits the violent and criminal activities that he may have helped fund by buying drugs.
	Vision Warrior	Young man talks about how smoking marijuana led him to use harder drugs.
	Water	A multiethnic group of teens is shown having a fun water fight. An African American boy who was caught smoking marijuana sits at home, alone and bored.
African American	AK-47	Ad shows many of the items that terrorists employ, such as guns, safe houses, and fake passports and informs viewers that, by buying drugs, they may be financing terrorist acts.
	Boxing	African American female boxer discusses feeling free since stopping her past drug use and starting boxing
	I Helped (Excuses)	A series of teens admit the violent and criminal activities that they may have helped fund by buying drugs.
	Tiki Barber	NFL player Tiki Barber talks about how drugs can keep you from achieving your goals. Football is his anti-drug.
	Vision Warrior	Young man talks about how smoking marijuana led him to use harder drugs.
	Water	A multiethnic group of teens is shown having a fun water fight. An African American boy who was caught smoking marijuana sits at home alone and bored

Wave 5 (continued)

Table D-1c. Television advertisements shown to youth (continued)

Target Audience	Ad name	Description
Hispanic	La Musica (Spanish)	Animation of youth walking around city streets, listening to music. Youth encounters negative drug influences but continues listening to the music. Youth states that music is his anti-drug.
	Mi Mundo (Spanish)	In a dream sequence, a teen boy's friends, brother, and grandmother question what happened to him, why he smoked marijuana. Marijuana not only affects you, it affects the way others see you.

Wave 5 (continued)

Table D-1d. Radio advertisements played for youth

Target Audience	Ad name	Description
General Market	Apolo	Olympic speed skater Apolo Anton Ono talks about what it takes to become an Olympic champion and how drugs cannot be part of the process.
	(Two) Brothers	Younger brother brags about his older brother's accomplishments. When the older brother is offered drugs, he realizes he sets the example for his younger brother.
	Chad	Olympic US downhill skier Chad Fleischer talks about his healthy lifestyle and how he would not get involved with drugs. Commitment is his anti-drug.
	Hello	Some friends out having fun at a movie get a phone call from a girl. She was caught smoking marijuana and is now grounded at home. Trust is the anti-drug
	Limericks	Young male recites limerick about dangers of drug use—writing limericks is his anti-drug.
	Rosey	Olympic giant slalom snowboarder Rosey Fletcher talks about training, avoiding parties, and drugs. Snowboarding is her anti-drug.
	The Rant	Ad talks about the lies associated with ecstasy when viewed by nonusers.
	Tiki Barber	NFL player Tiki Barber talks about how drugs can keep you from achieving your goals. Football is his anti-drug.
	Train	Some friends are out on a train having fun and you're at home grounded. Trust is the anti-drug.
African American	(Two) Brothers	Younger brother brags about his older brother's accomplishments. When the older brother is offered drugs, he realizes he sets the example for his younger brother.
	Tiki Barber	NFL player Tiki Barber talks about how drugs can keep you from achieving your goals. Football is his anti-drug.
	Train	Some friends are shown out on a train having fun and you're at home grounded. Trust is the anti-drug.
Hispanic	Alberto	Young male talks about why drugs don't go with making music. Music is the anti-drug for this youth.
	Good Advice (Spanish)	Ad depicts a phone call between a teen girl and boy. She has called to see why he didn't meet her to study. She surmises that his drug use is the problem; he has let her down and she will find another friend with whom to study.
	Jose (Spanish)	Jose is a teen whose anti-drug is music. He sings part of a song called "La Rosa" in the ad.
	What Happened (Spanish)	Ad depicts a phone call between teen boys. One has called to see why the other didn't come to the team's game. He surmises that his friend's drug use is the problem; he has let down the team and is no longer a part of it.

Wave 4

Table D-2a. Television advertisements shown to parents

Target Audience	Ad name	Description
General Market	Derrick Brooks	NFL player Derrick Brooks talks about how parents can keep kids drug free by making time and monitoring them.
	Eddie George	NFL player Eddie George talks about how his mother kept him from using drugs.
	My Hero GM	A series of young boys and girls address their parents about the necessary actions they need to take to teach them about the dangers of drugs. Parents need to be the grown-up.
	Thanks	A series of teens thank their parents for monitoring, disciplining and being there for them during troublesome times.
African American	Derrick Brooks	NFL player Derrick Brooks talks about how parents can keep kids drug free by making time and monitoring them.
	Eddie George	NFL player Eddie George talks about how his mother kept him from using drugs.
	My Hero AA	A series of African American young boys and girls address their parents about the necessary actions they need to take to teach them about the dangers of drugs. Parents need to be the grown-up.
	Thanks	A series of teens thank their parents for monitoring, disciplining and being there for them during troublesome times.
Hispanic	Alert (Spanish)	Ad warns parents about the dangers of everyday products that can be used to get high by teens. Parents are encouraged to be curious about what their children are doing, even when there is no reason to suspect drug use.
	Shadow – Brochure (Spanish)	A Hispanic boy is "shadowed" by the presence of drugs in society. His concerned parents turn to the brochure they got about drug abuse for advice about talking to the son.
	Shadow – Monitoring (Spanish)	A Hispanic girl is "shadowed" by the presence of drugs in society. Her concerned father realizes the importance of monitoring his daughter's activities and friends.

Wave 4 (continued)

Table D-2b. Radio advertisements played for parents

Target Audience	Ad name	Description
General market	My Hero GM	A series of young boys and girls address their parents about the necessary actions they take to teach them about the dangers of drugs. Parents need to be the grown-up.
	Sooner or Later David	Teen is being lectured by parent about the dangers of taking and sharing ecstasy with friends, especially when purchased from a stranger. Talk to youth "sooner" rather than "later."
	Sooner or Later Megan	An angry parent is on the phone with her incoherent daughter after learning that she used ecstasy. Message is for parents to speak with youth "sooner" rather than "later."
	Thanks	A series of teens thank their parents for disciplining and being there for them during troublesome times.
African American	My Hero AA	A series of young African American boys and girls address their parents about the necessary actions they take to teach them about the dangers of drugs. Parents need to be the grown-up.
	Thanks	A series of teens thank their parents for disciplining and being there for them during troublesome times.
Hispanic	Alert –Dad (Spanish)	Hispanic male warns parents about the dangers of everyday products that can be used to get high by teens. Parents are encouraged to be curious about what their children are doing, even when there is no reason to suspect drug use.
	Alert-Mom (Spanish)	Hispanic female warns parents about the dangers of everyday products that can be used to get high by teens. Parents are encouraged to be curious about what their children are doing, even when there is no reason to suspect drug use.
	Shadow – Monitoring (Spanish)	A Hispanic girl is "shadowed" by the presence of drugs in society. Her concerned father realizes the importance of monitoring his daughter's activities and friends.

Wave 4 (continued)

Table D-2c. Television advertisements shown to youth

Target Audience	Ad name	Description
General Market	Being Myself	Animation of young girl in various activities: cheerleading, playing basketball, studying. When offered drugs, she blows them off. Her future is her anti-drug.
	Brain	Graphical depiction of a person's head when using inhalants. Be nice to your brain – don't use inhalants.
	Brothers	Younger brother is shown shadowing his older brother, wanting to emulate him. Older brother is offered a joint, younger brother watches to see what he'll do.
	Derrick Brooks	NFL player Derrick Brooks talks about having self-respect and not using drugs.
	Drawing	Sketch work shows a young artist transforming drug users into foolish characters and nonusers into popular winners. Drawing is the youth's anti-drug.
	Music/Mix Tapes	Animation of youth walking around city streets, listening to music. Youth encounters negative drug influences but continues listening to the music. Youth states that music is his anti-drug.
	Tiki Barber	NFL player Tiki Barber talks about how drugs can keep you from achieving your goals. Football is his anti-drug.
	Vision Warrior	Young man talks about how smoking marijuana led him to use harder drugs.
African American	Derrick Brooks	NFL player Derrick Brooks talks about having self-respect and not using drugs.
	Music/Mix Tapes	Animation of youth walking around city streets, listening to music. Youth encounters negative drug influences but continues listening to the music. Youth states that music is his anti-drug.
	Tiki Barber	Tiki Barber of the NY Giants talks about how drugs can keep you from achieving your goals. Football is his anti-drug.
Hispanic	Drowning (Spanish)	Young girl is shown as drowning in her own room, unable to escape. This is the way your brain feels when you use inhalants.
	La Musica (Spanish)	Animation of youth walking around city streets, listening to music. Youth encounters negative drug influences but continues listening to the music. Youth states that music is his anti-drug.

Wave 4 (continued)

Table D-2d. Radio advertisements played for youth

Target Audience	Ad name	Description
General Market	Basketball	Young male explains why basketball is his anti-drug.
	(Two) Brothers	Younger brother brags about his older brother's accomplishments. When the older brother is offered drugs, he realizes he sets the example for his younger brother.
	Cross Country	Young male explains why cross-country running is his anti-drug.
	Excuses	Excuses you can give for not smoking marijuana are provided.
	Limericks	Young male recites limerick about dangers of drug use – writing limericks is his anti-drug.
	Margot	Female youth has a younger friend with a disability and wants to be her role model. Teaching her about life is more important than taking drugs. Her younger friend is her anti-drug.
	The Rant	Ad talks about the lies associated with ecstasy when viewed by nonusers.
African American	Basketball	Young male explains why basketball is his anti-drug.
Hispanic	Jose (Spanish)	Jose is a teen whose anti-drug is music. He sings part of a song called "La Rosa" in the ad.
	She Did It (Spanish)	Girls talk to popular girl who says no to marijuana and is still popular.

Wave 3

Table D-3a. Television advertisements shown to parents

Target Audience	Ad name	Description
General Market	Clinic	A father and son are shown walking through a clinic – like setting, but finally arrive at a basketball clinic. The ad offers a telephone number to get a book on parent – child activities.
	My Hero	A series of young boys and girls address their parents about the necessary actions they need to take to teach them about the dangers of drugs. Parents need to be the grown-up.
	Needle/Spray Can	Ad relays message to parents about unsuspecting drugs under the sink in the home. Aerosol can is depicted as a syringe. Inhalants are dangerous and deadly. "Communication" is the anti-drug.
	Smoke	Ad opens with two smoke streams and a verbal message about parental interaction with kids. During message, the camera follows the smoke streams to two roasting marshmallows over a campfire. Parents are the anti-drug.
	Thanks	A series of teens thank their parents for disciplining and being there for them during troublesome times.
African American	Clinic	A father and son are shown walking through a clinic – like setting, but finally arrive at a basketball clinic. The ad offers a telephone number to get a book on parent – child activities.
	Deal	Father is imitating a drug dealer to his son on a playground to see how he reacts. The boy refuses the offer in a stern fashion to his father's delight.
	My Hero	A series of African American young boys and girls address their parents about the necessary actions they need to take to teach them about the dangers of drugs. Parents need to be the grown-up.
Hispanic	Mirrors – (Spanish)	A boy wanders through a house of mirrors while his parents search for him. "Your child can be under the illusion that smoking marijuana is harmless." It isn't.
	Needle/Spray Can (Spanish)	Ad relays message to parents about unsuspecting drugs under the sink in the home. Aerosol can is depicted as a syringe. Inhalants are dangerous and deadly. "Communication" is the anti-drug.
	Shadow – Brochure (Spanish)	A Hispanic boy is "shadowed" by the presence of drugs in society. His concerned parents turn to the brochure they got about drug abuse for advice about talking to the son.

Wave 3 (continued)

Table D-3b. Radio advertisements played for parents

Target Audience	Ad name	Description
General market	Basketball	Activities are listed that kids would rather do than drugs. The number one deterrent to drugs is parents and the time spent with their kids.
	Desperate	Ad opens with what sounds like a parent lecturing the son about the dangers of drugs. However, the parent is actually playing a video game with the youth and spending time with him. Phone number and web site is given for information about keeping youths off drugs.
	Happy Birthday Steven	A mother describes what she does (feeding, bathing) to take care of her teenaged son who used inhalants and suffered brain damage.
	Kathy Abel	A woman describes how her son died from sniffing fumes with his friends. Youths and adults need to be informed about the lethal dangers with the seemingly "harmless" fun of inhalant use.
	Keep Trying	A boy describes all the times he was told by his parent to keep trying. He encourages parents to "keep trying" to talk to kids about marijuana.
	My Hero	A series of young boys and girls address their parents about the necessary actions they take to teach them about the dangers of drugs. Parents need to be the grown-up.
	Needle/Spray Can	Message informs parents about the dangers of inhalants in the home. Phone number and web site is given for more information. Communication is the anti-drug.
	Sooner or Later David	Teen is being lectured by parent about the dangers of taking and sharing ecstasy with friends, especially when purchased from a stranger. Talk to youth "sooner" rather than "later."
	Sooner or Later Megan	An angry parent is on the phone with her incoherent daughter after learning that she used ecstasy. Message is for parents to speak with youth "sooner" rather than "later."
	Symptoms	Ad talks about the negative ripple effects that occur in the family when a member is using marijuana. Examples include depression, withdrawal, and hostility.
	Tree Fort	Activities are suggested to do with your kids: rollerblade, play chess, go to movie. Be aware of at-risk hours—between 4 pm and 6 pm is when kids are most likely to try drugs.
African American	Keep Trying	A boy describes all the times he was told by his parent to keep trying. He encourages parents to "keep trying" to talk to kids about marijuana.
	My Hero	A series of young African American boys and girls address their parents about the necessary actions they take to teach them about the dangers of drugs. Parents need to be the grown-up.

Wave 3 (continued)

Table D-3b. Radio advertisements played for parents (continued)

Target Audience	Ad name	Description
Hispanic	Happy Birthday Raoul (Spanish)	A mother describes what she does (feeding, bathing) to take care of her teenaged son who used inhalants and suffered brain damage.
	Needle/Spray Can (Spanish)	Message informs parents about the dangers of inhalants in the home. Phone number and web site is given for more information. Communication is the anti-drug.
	Pepperoni (Spanish)	The best way to keep youth younger than 15 from using drugs is by supervising them and being an effective parent.
	Shadow – Brochure (Spanish)	A Hispanic boy is "shadowed" by the presence of drugs in society. His concerned parents turn to the brochure they got about drug abuse for advice about talking to their son.

Wave 3 (continued)

Table D-3c. Television advertisements shown to youth

Target Audience	Ad name	Description
General Market	Dance	Animation of a girl dancing to music on her radio. While dancing, she is offered drugs by two boys. She refuses the offer and states that dancing is her anti-drug.
	DJ	A boy talks about his feelings when he performs as a disk jockey. Asks "what's your anti-drug?"
	Drawing	Sketch work shows an young artist transforming drug users into foolish characters and nonusers into popular winners. Drawing is the youth's anti-drug.
	Football	A football player talks about catching a pass. Asks "what's your anti-drug?"
	Friends	A boy talks about doing everything with his friends and sticking together with them. Asks "what's your anti-drug?"
	Icon	Ad shows a collage of images of various activities. Asks "what's your anti-drug?"
	It's OK to Pass	Group of suburban youths sit in a garage talking and passing a drug to each other. The last youth rejects the drug and passes it on. Her rejection is acceptable to her peers indicating that it's 'ok' to pass.
	Music/Mix Tapes	Animation of youth walking around city streets, listening to music. Youth encounters negative drug influences but continues listening to the music. Youth states that music is his anti-drug.
	Swimming	A girl talks about how much she enjoys swimming. Asks "what's your anti-drug?"
African American	DJ	A boy talks about his feelings when he performs as a disk jockey. Asks "what's your anti-drug?"
	Football	A football player talks about catching a pass. Asks "what's your anti-drug?"
	Friends	A boy talks about doing everything with his friends and sticking together with them. Asks "what's your anti-drug?"
	Music/Mix Tapes	Animation of youth walking around city streets, listening to music. Youth encounters negative drug influences but continues listening to the music. Youth states that music is his anti-drug.
	Swimming	A girl talks about how much she enjoys swimming. Asks "what's your anti-drug?"
	What I Need	A youth is confronted by an older teen selling drugs about "what he needs." The youth rattles off a series of positives that he needs in his life. The last positive need is for the dealer to leave him alone.
Hispanic	Music/Mix Tapes (Spanish)	Animation of youth walking around city streets, listening to music. Youth encounters negative drug influences but continues listening to the music. Youth states that music is his anti-drug.
	Second Trip (Spanish)	Youth are shown skate boarding, climbing, kick boxing, performing in a band. The best kinds of highs come from doing things well, not using drugs.
	You Know How to Say It (Spanish)	A youth is offered vegetables, asked to copy homework, asked to ditch basketball, asked to smoke marijuana. "You know how to say no."

Wave 3 (continued)

Table D-3d. Radio advertisements played for youth

Target Audience	Ad name	Description
General Market	Alberto	Young male talks about why drugs don't go with making music. Music is the anti-drug for this youth.
	Excuses	Excuses you can give for not smoking marijuana are provided.
	Margot	Female youth has a younger friend with a disability and wants to be her role model. Teaching her about life is more important than taking drugs. Her younger friend is her anti-drug.
	Orientation	An orientation to middle school life is presented: pizza, science class, recess, kids who smoke marijuana. Say no to drugs and you won't be treated like a little kid.
	The Rant	Ad talks about the lies associated with ecstasy when viewed by nonusers.
	What to Say Boy	A friend wants you to smoke "that wacky weed." What do you say? "I get high above the rim."
	What to Say Girl	The guy is great, but he wants you to get high. What do you say? "I'd rather go to math camp."
	What's Yours	Girl (boy for Black youth) asks "What's your thing? What do you do instead of drugs?" That's your anti-drug. Talks about posting your anti-drug to "whatsyourantidrug.com" or calling 877-979-6300.
African American	Alberto	Young male talks about why drugs don't go with making music. Music is the anti-drug for this youth.
	What to Say Boy	A friend wants you to smoke "that wacky weed." What do you say? "I get high above the rim."
	What to Say Girl	The guy is great, but he wants you to get high. What do you say? "I'd rather go to math camp."
	What's Yours	Girl (boy for Black youth) asks "What's your thing? What do you do instead of drugs?" That's your anti-drug. Talks about posting your anti-drug to "whatsyourantidrug.com" or calling 877-979-6300.
Hispanic	Jose (Spanish)	Jose is a teen whose anti-drug is music. He sings part of a song called "La Rosa" in the ad.
	She Did It (Spanish)	Girls talk to popular girl who says no to marijuana and is still popular.
	The First Time (Spanish)	Kids talk about saying no to marijuana for the first time.

Wave 2

Table D-4a. Television advertisements shown to parents

Target Audience	Ad name	Description
General Market	Clinic	A father and son are shown walking through a clinic – like setting, but finally arrive at a basketball clinic. The ad offers a telephone number to get a book on parent – child activities.
	Differences – Drugs	Drugs to 6th grader is medicine; drugs to 7th grader is bag of marijuana. "What a difference a year makes."
	Differences – Roach	A roach to a 6th grader is an insect; a roach to 7th grader is part of a marijuana joint. "What a difference a year makes."
	Differences – Pipe	A pipe to a 6th grader is plumbing; a pipe to a 7th grader is a marijuana pipe. "What a difference a year makes."
	Differences – Weed	A weed to 6th grader is a dandelion; weed to 7th grader is marijuana. "What a difference a year makes."
	Instructions – Involved	A girl is shown walking with books, a boy is fixing his bike, a girl is playing with a soccer ball. All have parenting "instructions" visible on their bodies. Wouldn't it be great if kids came with instructions? The instructions advise the parent to stay involved with the child.
	Instructions – Reward	Kids are shown playing with their father, eating ice cream, walking. All have parenting "instructions" visible on their bodies. Wouldn't it be great if kids came with instructions? The instructions advise to reward child, provide positive reinforcement.
	Instructions – Reward	Kids are shown walking, playing with a dog, running through the hose. All have parenting "instructions" visible on their bodies. Wouldn't it be great if kids came with instructions? The instructions advise to reward child and provide positive reinforcement.
African American	Clinic	A father and son are shown walking through a clinic – like setting, but finally arrive at a basketball clinic. The ad offers a telephone number to get a book on parent – child activities.
	Instructions – Involved	A boy is shown on a dock, a girl plays with a soccer ball, a boy looks in a mirror. All have parenting "instructions" visible on their bodies. Wouldn't it be great if kids came with instructions? The instructions advise the parent to stay involved with the child.
	Instructions – Reward	Kids are shown playing with their father, eating ice cream, walking. All have parenting "instructions" visible on their bodies. Wouldn't it be great if kids came with instructions? The instructions advise to reward child, provide positive reinforcement.
	Symptoms	A mother is shown looking depressed, the father is yelling, a young child is curled up in the corner, looking scared. These are the family "symptoms" of teen drug use.

Wave 2 (continued)

Table D-4a. Television advertisements shown to parents (continued)

Target Audience	Ad name	Description
Hispanic	Heroes: Dancing (Spanish)	A mother takes her daughter to dance lessons, then watches her daughter's dance recital when the daughter is older. The mother remains the child's hero throughout her life. "Get close to her. . Support her. . .this will help her stay away from drugs."
	Heroes: Swimming (Spanish)	A father carries his son as a child, then watches his son's swim meet when he's older. The father remains the child's hero throughout his life. "Get involved in his activities. . . This will help him stay away from drugs."
	Mirrors – (Spanish)	A boy wanders through a house of mirrors while his parents search for him. "Your child can be under the illusion that smoking marijuana is harmless." It isn't.

Wave 2 (continued)

Table D-4b. Radio advertisements played for parents

Target Audience	Ad name	Description
General Market	Desperate	Ad opens with what sounds like a parent lecturing the son about the dangers of drugs. However, the parent is actually playing a video game with the youth and spending time with him. Phone number and web site is given for information about keeping youths off drugs.
	Differences – Bag	A bag to a 6th grader is a lunch bag; a bag to a 7th grader is a bag of marijuana. "What a difference a year makes."
	Differences – Clip	A clip to a 6th grader is a paper clip; a clip to a 7th grader is a roach clip. "What a difference a year makes."
	Keep Trying	A boy describes all the times he was told by his parent to keep trying. He encourages parents to "keep trying" to talk to kids about marijuana.
African American	Keep Trying	A boy describes all the times he was told by his parent to keep trying. He encourages parents to "keep trying" to talk to kids about marijuana.
	Symptoms	Ad talks about the negative ripple effects that occur in the family when a member is using marijuana. Examples include depression, withdrawal, and hostility.
Hispanic	Pepperoni (Spanish)	The best way to keep youth younger than 15 from using drugs is by supervising them and being an effective parent.

Wave 2 (continued)

Table D-4c. Television advertisements shown to youth

Target Audience	Ad name	Description
General Market	Brothers	A little brother imitates his big brother. The big brother is offered marijuana, but refuses it because he knows he's a role model.
	Dance	Animation of a girl dancing to music on her radio. While dancing, she is offered drugs by two boys. She refuses the offer and states that dancing is her anti-drug.
	DJ	A boy talks about his feelings when he performs as a disk jockey. Asks "what's your anti-drug?"
	Drugs Kill Dreams	Tennis champions Venus and Serena Williams advise against drug use. "Drugs kill dreams."
	Hockey	A boy plays hockey without protective gear. Smoking marijuana is like playing hockey without the right equipment. You can't get in the game.
	Family	A girl talks about her attachment to her mother. Asks "what's your anti-drug?"
	Football	A football player talks about catching a pass. Asks "what's your anti-drug?"
	Friends	A boy talks about doing everything with his friends and sticking together with them. Asks "what's your anti-drug?"
	How to Say No	Alternative ways (angry, rap, dramatic) to say no to drugs are shown.
	Icon	Ad shows a collage of images of various activities. Asks "what's your anti-drug?"
	Love	A girl talks about the love she feels for her cat. Asks "what's your anti-drug?"
	Mary J. Blige	Singer Mary J. Blige talks about loving and accepting yourself and staying drug free.
	Mother/Daughter	A mother talks about how proud she is of her daughter. The daughter meets her friend in the park to smoke marijuana. "Smoking marijuana won't kill you, but it will kill your mother."
	No Thanks	A boy at a party is offered marijuana. Different ways to say no to drugs are shown.
	Swimming	A girl talks about how much she enjoys swimming. Asks "what's your anti-drug?"
	Tara Lipinski	Important female sports figures in past paved the way for women today to play sports. Figure skating champion Tara Lipinski is featured and counsels against drug use.
	U.S. Women's Soccer Team	The members of the 1999 World Champion U.S. Women's Soccer Team talk about what a great time it is to be a girl. "Don't blow it by getting involved with drugs."
	Vision Warrior	Young man talks about how smoking marijuana led him to use harder drugs.

Wave 2 (continued)

Table D-4c. Television advertisements shown to youth (continued)

Target Audience	Ad name	Description
African American	DJ	A boy talks about his feelings when he performs as a disk jockey. Asks "what's your anti-drug?"
	Drugs Kill Dreams	Tennis champions Venus and Serena Williams advise against drug use. "Drugs kill dreams."
	Family	A girl talks about her attachment to her mother. Asks "what's your anti-drug?"
	Football	A football player talks about catching a pass. Asks "what's your anti-drug?"
	Friends	A boy talks about doing everything with his friends and sticking together with them. Asks "what's your anti-drug?"
	How to Say No	Alternative ways (angry, rap, dramatic) to say no to drugs are shown.
	Love	A girl talks about the love she feels for her cat. Asks "what's your anti-drug?"
	Mary J. Blige	Singer Mary J. Blige talks about loving and accepting yourself and staying drug free.
	Most Teens	Girls are shown jumping rope, boxing, playing basketball, and not using drugs. "I'm too smart to be doing stupid stuff like that."
	Mother/Daughter	A mother talks about how proud she is of her daughter. The daughter meets her friend in the park to smoke marijuana. "Smoking marijuana won't kill you, but it will kill your mother."
	No Skills	Kids are shown making mistakes and unable to play sports well after using drugs.
	No Thanks	A boy at a party is offered marijuana. Different ways to say no to drugs are shown.
	Swimming	A girl talks about how much she enjoys swimming. Asks "what's your anti-drug?"
	Vision Warrior	Young man talks about how smoking marijuana led him to use harder drugs.
Hispanic	Second Trip (Spanish)	Youth are shown skate boarding, climbing, kick boxing, performing in a band. The best kinds of highs come from doing things well, not using drugs.
	You Know How to Say It (Spanish)	A youth is offered vegetables, asked to copy homework, asked to ditch basketball, asked to smoke marijuana. "You know how to say no."

Wave 2 (continued)

Table D-4d. Radio advertisements played for youth

Target Audience	Ad name	Description
General Market	Alberto	Young male talks about why drugs don't go with making music. Music is the anti-drug for this youth.
	Excuses	Excuses you can give for not smoking marijuana are provided.
	Make You Think	Marijuana makes you think you're interesting and attractive, when you're really not.
	Margot	Female youth has a younger friend with a disability and wants to be her role model. Teaching her about life is more important than taking drugs. Her younger friend is her anti-drug.
	Orientation	An orientation to middle school life is presented: pizza, science class, recess, kids who smoke marijuana. Say no to drugs and you won't be treated like a little kid.
	What to Say Boy	A friend wants you to smoke "that wacky weed." What do you say? "I get high above the rim."
	What to Say Girl	The guy is great, but he wants you to get high. What do you say? "I'd rather go to math camp."
	What's Yours	Girl (boy for Black youth) asks "What's your thing? What do you do instead of drugs?" That's your anti-drug. Talks about posting your anti-drug to "whatsyourantidrug.com" or calling 877-979-6300.
African American	Alberto	Young male talks about why drugs don't go with making music. Music is the anti-drug for this youth.
	If Pot Were a Person	Reasons are given why, if pot were a person, you wouldn't like him. He'd make you quit sports, get you in trouble with your parents.
	Mary J. Blige	Singer Mary J. Blige talks about loving and accepting yourself and staying drug free.
	Money	Items are listed that you can buy with your money if you don't buy marijuana.
	What to Say Boy	A friend wants you to smoke "that wacky weed." What do you say? "I get high above the rim."
	What to Say Girl	The guy is great, but he wants you to get high. What do you say? "I'd rather go to math camp."
	What's Yours	Girl (boy for Black youth) asks "What's your thing? What do you do instead of drugs?" That's your anti-drug. Talks about posting your anti-drug to "whatsyourantidrug.com" or calling 877-979-6300.

Wave 2 (continued)

Table D-4d. Radio advertisements played for youth (continued)

Target Audience	Ad name	Description
Hispanic	Boy Meets Girl (Spanish)	A boy who uses drugs meets girl he's interested in. He thinks he's making a good impression, but she thinks he's a loser.
	She Did It (Spanish)	Girls talk to popular girl who says no to marijuana and is still popular.
	The First Time (Spanish)	Kids talk about saying no to marijuana for the first time.
	Typical Story (Spanish)	A boy's friends tell him to try smoking marijuana. He says he doesn't want to smoke. They insist. He says, "I don't need that."
	Weekend (Spanish)	A young man laughs and rambles incoherently when friends ask him about his "incredible" weekend. He thinks his story is great. But they can't understand anything he says.

Wave 1

Table D-5a. Television advertisements shown to parents

Target Audience	Ad name	Description
General Market	Differences – Drugs	Drugs to 6th grader is medicine; drugs to 7th grader is bag of marijuana. "What a difference a year makes."
	Differences – Pipe	A pipe to a 6th grader is plumbing; a pipe to a 7th grader is a marijuana pipe. "What a difference a year makes."
	Differences – Pot	Pot to a 6th grader is a flower pot; pot to a 7th grader is marijuana. "What a difference a year makes."
	Differences – Roach	A roach to a 6th grader is an insect; a roach to 7th grader is part of a marijuana joint. "What a difference a year makes."
	Differences – Weed	A weed to 6th grader is a dandelion; weed to 7th grader is marijuana. "What a difference a year makes."
	Drugs Kill Dreams	Tennis champions Venus and Serena Williams advise against drug use. "Drugs kill dreams."
	Email	A father types an email on his computer while his child plays video game in the background. Spending time with your kids is most effective deterrent to drug use. "Could you send one less email?"
	Funeral	Mortuary employees talk about the realities of planning funerals for young people. The ad captions discuss the risk of death from using inhalants.
	Office	A typical office is shown at 5:00 PM. Be aware of at-risk times—5:00 PM is the time kids are most likely to be offered drugs. Be sure to check in with them.
	Phone	A mother talks on the kitchen phone while child sits in background looking bored. Spending time with your kids is the most effective drug deterrent. "Could you make one less call?"
	Symptoms	A mother is shown looking depressed, the father is yelling, a young child is curled up in the corner, looking scared. These are the family "symptoms" of teen drug use.
	TV	A father watches TV show while his daughter skims a magazine on the couch. Kids who are younger than 15 and using marijuana are more likely to use other drugs. Spending time with your kids is the most effective deterrent to drug use. "Why do we watch so much television?"
	Under Your Nose	Camera pans through house showing everyday items that kids sniff to get high. Parents are unaware of the dangers of sniffing everyday household products.
African American	Drugs Kill Dreams	Tennis champions Venus and Serena Williams advise against drug use. "Drugs kill dreams."
	Office	A typical office is shown at 5:00 PM. Be aware of at-risk times—5:00 PM is the time kids are most likely to be offered drugs. Be sure to check in with them.
	Symptoms	A mother is shown looking depressed, the father is yelling, a young child is curled up in the corner, looking scared. These are the family "symptoms" of teen drug use.

Wave 1 (continued)

Table D-5a. Television advertisements shown to parents (continued)

Target Audience	Ad name	Description
Hispanic	Game Show (Spanish)	A parent-child game show is shown. The mother knows where Mozart was born. But her child knows about marijuana. Parents would be surprised about what their kids know about marijuana.
	Heroes: Dancing (Spanish)	A mother takes her daughter to dance lessons, then watches her daughter's dance recital when the daughter is older. The mother remains the child's hero throughout her life. "Get close to her. . Support her. . .this will help her stay away from drugs."
	Heroes: Swimming (Spanish)	A father carries his son as a child, then watches his son's swim meet when he's older. The father remains the child's hero throughout his life. "Get involved in his activities. . . This will help him stay away from drugs."
	Phone (Spanish)	A mother talks on the kitchen phone while child sits in background looking bored. Spending time with your kids is the most effective drug deterrent. "Could you make one less call?"
	Under Your Nose (Spanish)	Camera pans through house showing everyday items that kids sniff to get high. Parents are unaware of the dangers of sniffing everyday household products.

Wave 1 (continued)

Table D-5b. Radio advertisements played for parents

Target Audience	Ad name	Description
General Market	Basketball	Activities are listed that kids would rather do than drugs. The number one deterrent to drugs is parents and the time spent with their kids.
	Cooking Dinner	Boredom is one reason kids get involved with drugs. Stay involved with your kids.
	Differences – Bag	To a 6th grader, a bag is something that holds your lunch; to a 7th grader, it's something that holds your marijuana. "What a difference a year makes."
	Differences – Grass	To a 6th grader, grass is something you cut; to a 7th grader, it's something you smoke. "What a difference a year makes."
	Happy Birthday Steven	A mother describes what she does (feeding, bathing) to take care of her teenaged son who used inhalants and suffered brain damage.
	Keep Trying	A boy describes all the times he was told by his parent to keep trying. He encourages parents to "keep trying" to talk to kids about marijuana.
	Tree Fort	Activities are suggested to do with your kids: rollerblade, play chess, go to movie. Be aware of at-risk hours—between 4 pm and 6 pm is when kids are most likely to try drugs.
African American	Keep Trying	A boy describes all the times he was told by his parent to keep trying. He encourages parents to "keep trying" to talk to kids about marijuana.
Hispanic	Game Show (Spanish)	A parent-child game show is shown. The mother knows where Mozart was born. But her child knows about marijuana. Parents would be surprised about what their kids know about marijuana.
	Happy Birthday Raoul (Spanish)	A mother describes what she does (feeding, bathing) to take care of her teenaged son who used inhalants and suffered brain damage.
	Pepperoni (Spanish)	The best way to keep youth younger than 15 from using drugs is by supervising them and being an effective parent.

Wave 1 (continued)

Table D-5c. Television advertisements shown to youth

Target Audience	Ad name	Description
General Market	Andy McDonald	Skate boarding champion Andy McDonald talks about getting high from skate boarding, not drugs.
	Brothers	A little brother imitates his big brother. The big brother is offered marijuana, but refuses it because he knows he's a role model.
	Dixie Chicks	The band, the Dixie Chicks, talk about the temptations to use drugs and advise against drug use.
	How to Say No	Alternative ways (angry, rap, dramatic) to say no to drugs are shown.
	Michael Johnson	Michael Johnson, the world's fastest 200m and 400m runner, is featured. "None of this would be possible if I had used drugs."
	No Thanks	A boy at a party is offered marijuana. Different ways to say no to drugs are shown.
	Scatman	Scatman performs in a music video style to convey that "Drugs ain't about nothing."
African American	Drugs Kill Dreams	Tennis champions Venus and Serena Williams advise against drug use. "Drugs kill dreams."
	How to Say No	Alternative ways (angry, rap, dramatic) to say no to drugs are shown.
	Most Teens	Girls are shown jumping rope, boxing, playing basketball, and not using drugs. "I'm too smart to be doing stupid stuff like that."
	Venus and Serena Williams	Tennis champions Venus and Serena Williams advise against drug use. "Drugs kill dreams."
Hispanic	Fast Food (Spanish)	A young boy under the influence of drugs can't answer when asked what he wants at a fast food restaurant. He is ridiculed by others in line and embarrasses himself.
	Natural High (Spanish)	Youth are shown skate boarding, climbing, kick boxing, performing in a band. The best kinds of highs come from doing things well, not using drugs.
	Second Trip (Spanish)	Youth are shown skate boarding, climbing, kick boxing, performing in a band. The best kinds of highs come from doing things well, not using drugs.
	You Know How to Say It (Spanish)	A youth is offered vegetables, asked to copy homework, asked to ditch basketball, asked to smoke marijuana. "You know how to say no."
	Test (Spanish)	A young girl under the influence of drugs doodles on a test and can't answer any of the questions. She disappoints the teacher and herself.

Wave 1 (continued)

Table D-5d. Radio advertisements played for youth

Target Audience	Ad name	Description
General Market	Brother Jeff	The things that older brother Jeff can do are featured. Jeff doesn't get high because he knows his little brother looks up to him.
	Excuses	Excuses you can give for not smoking marijuana are provided.
	Make You Think	Marijuana makes you think you're interesting and attractive, when you're really not.
	Orientation	An orientation to middle school life is presented: pizza, science class, recess, kids who smoke marijuana. Say no to drugs and you won't be treated like a little kid.
	Scatman	Scatman performs in a music video style to convey that "Drugs ain't about nothing."
	Stressed	Girls talk about who is stressed out and who has it the worst. But the girl using drugs is really the one who's doing worst.
	What to Say Boy	A friend wants you to smoke "that wacky weed." What do you say? "I get high above the rim."
	What to Say Girl	The guy is great, but he wants you to get high. What do you say? "I'd rather go to math camp."
African American	If Pot Were a Person	Reasons are given why, if pot were a person, you wouldn't like him. He'd make you quit sports, get you in trouble with your parents.
	Kathy and Jackie	Kathy talks about her best friend Jackie and how, if they got high, they wouldn't have fun together
	Money	Items are listed that you can buy with your money if you don't buy marijuana.
	Steven	An urban youth talks about seeing a drug bust on Thanksgiving, being happy, staying true to himself and drug free.
	What I Don't Do	A rap song is played that conveys the message that I don't do drugs and it will be all right.
	What to Say Boy	A friend wants you to smoke "that wacky weed." What do you say? "I get high above the rim."
	What to Say Girl	The guy is great, but he wants you to get high. What do you say? "I'd rather go to math camp."

Wave 1 (continued)

Table D-5d. Radio advertisements played for youth (continued)

Target Audience	Ad name	Description
Hispanic	Boy Meets Girl (Spanish)	A boy who uses drugs meets girl he's interested in. He thinks he's making a good impression, but she thinks he's a loser.
	Laugh (Spanish)	Boy who is high can't stop laughing long enough to finish the story he's trying to tell.
	She Did It (Spanish)	Girls talk to popular girl who says no to marijuana and is still popular.
	The First Time (Spanish)	Kids talk about saying no to marijuana for the first time.
	Typical Story (Spanish)	A boy's friends tell him to try smoking marijuana. He says he doesn't want to smoke. They insist. He says, "I don't need that."
	Weekend (Spanish)	A young man laughs and rambles incoherently when friends ask him about his "incredible" weekend. He thinks his story is great. But they can't understand anything he says.

Appendix E
Construction of Exposure and Outcome Indices

There are two types of indices used in this report, exposure indices and outcome indices. The general exposure index is documented in Section E.1 and the specific in E.2.[1] Section E.3 covers the process for imputation of ad-level recall. The outcome are explained in Section E.4.

E.1   General Exposure Index

One index is a "general exposure" index (GEI) based on questions D10-D12 of the youth and child questionnaires and on questions F1-F4 of the parent questionnaire. The GEI captures exposure through a very wide variety of channels as can be seen by examining the parent questions in Figure E-1 on page E-2. Note that in each question, the reference period is "in recent months." The questions for youth are completely parallel.

The responses to these questions are combined in a way that is meant to reflect the total number of ad viewings experienced by the respondent. Each possible response was translated into a certain number of viewings over a 1-month period, as shown in Table E-1, assuming that the average person would mostly refer to the last month in trying to interpret "recent months." The four responses were then added together to create a variable running from 0 to a maximum of 180. This continuous scale was split at the values of 4 and 12, as shown in Table E-2. The categories in Table E-2 were chosen to be easy to communicate and also to induce a reasonable distribution of the sample. This was important because too small of a sample in the low exposure group would lead to unacceptably unstable estimates of direct effects.

Table E-1. Coding of general exposure questions

Response Category	New Value
Not at all	0
Less than 1 time a month	0.5
1 to 3 times a month	2
1 to 3 times a week	8
Daily or almost daily	30
More than 1 time a day	45

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[1] Section F.3 of the second semi-annual report consists of a rationale for the construction of two indices rather than a single index. That material is not repeated here.

Table E-2. Cutpoints for GEI

Lower bound in GEI	Upper bound in GEI	New value for categorical version	Recode Label
0	3.999	1	Low: Less than 4 times per month
4	11.999	2	Medium: 4 to less than 12 times per month
12	∞	3	High: 12 or more times per month

Figure E-1. Parent questions on general exposure

The next questions ask about anti-drug commercials or "ads" that are intended to discourage **illicit drug** use.

F1.　In recent months, about how often have you seen such anti-drug ads on TV, or heard them on the radio?

　　　Not at all 1
　　　Less than one time a month 2
　　　1 to 3 times a month 3
　　　1 to 3 times a week 4
　　　Daily or almost daily 5
　　　More than 1 time a day 6

F2.　In recent months, about how often have you seen such anti-drug ads in newspapers or magazines?

　　　Not at all 1
　　　Less than one time a month 2
　　　1 to 3 times a month 3
　　　1 to 3 times a week 4
　　　Daily or almost daily 5
　　　More than 1 time a day 6

F4.　In recent months, about how often have you seen any anti-drug billboards or other public anti-drug ads such as on buses, in malls, or at sports events?

　　　Not at all 1
　　　Less than one time a month 2
　　　1 to 3 times a month 3
　　　1 to 3 times a week 4
　　　Daily or almost daily 5
　　　More than 1 time a day 6

F3.　In recent months, about how often have you seen such anti-drug ads in the movie theaters or on rental videos?

　　　Haven't gone to movies or rented
　　　 videos in recent months 0
　　　Not at all 1
　　　Less than 1 time a month 2
　　　1 to 3 times a month 3
　　　1 to 3 times a week 4
　　　Daily or almost daily 5
　　　More than 1 time a day 6

E.2   Recall Aided-Exposure Index

The second index is a "recall-aided exposure" index (RAEI) based on the specific TV and radio ads available for sampling. For parents, exposures to TV and radio ads are combined. For youth, only TV exposure is used.[2] As discussed in Chapters 2 and 3, a selection of ads projected to be on the air in the two calendar months preceding the month of interview were played for respondents. Ads that were eligible for selection but not actually selected for a particular respondent received imputed responses. The imputation procedures are documented in Section E.3.

After imputation, answers were available to the questions shown in Figure E-2 for every ad that had been on the air in the 60 days preceding the day of interview and that were targeted to the respondent. (This means that for parents, only parent ads were sampled/imputed; for youth, only youth ads were sampled/imputed; for English speakers, only English ads were sampled/imputed; and for Spanish speakers, only Spanish ads were sampled/imputed unless they were bilingual, in which case, ads in both languages were sampled and imputed.)

After imputation, the responses were recoded as shown in Figure E-3. These recoded values were then summed across ads to get a total number of viewings. For parents, responses to these questions on both TV and radio ads were summed together. For youth, only responses to the TV ads were summed. After summation, the resulting scales were broken into the categories shown in Table E-3. Four levels were chosen for this index instead of the three chosen for the general index because there was a large sample in the bottom group; the direct effects are more compelling when the low exposure group has extremely low exposure.

Figure E-2. Specific ad questions

F12a.   Now we will show some ads that might or might not have been playing on television around here. Have you ever seen or heard this ad? (PLAY TV AD.)

Yes 1
No 2   (F13a)
REFUSED ....   (F13a)
DON'T KNOW...   (F13a)

F12b.   In recent months, how many times have you seen or heard this ad?

Not at all... 1   (F13a)
Once.. 2
2 to 4 times 3
5 to 10 times 4
More than 10 times.............................. 5

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[2] See Section 3.1.4 for a discussion of the rationale for this decision at Wave 1. Once the decision had been made at Wave 1, the algorithm for the index was held steady to allow comparisons with Wave 1.

Figure E-3. Recoding of responses to exposure to specific ads

Question: Here is another TV ad. Have you ever seen or heard this ad?	[If yes,] In recent months, how many times have you seen or heard this ad?	Recoded Response
No		0.0
Don't know		0.5
Yes	Not at all	0.0
Yes	Once	1.0
Yes	2 to 4 times	3.0
Yes	5 to 10 times	7.5
Yes	More than 10 times	12.5

Table E-3. Cutpoints for RAEI

Lower bound in RAEI	Upper bound in RAEI	New value for categorical version	Recode Label
0	1.999	0	None
2	7.999	1	One to less than 4 times per month (low)
8	23.999	2	4 to less than 12 times per month (medium)
24	∞ (90 actual upper limit)	3	12 or more times per month (high)

E.3   Ad Imputation Procedures

As explained in Section E.2, only a sample of the on-air ads was actually selected for each respondent. In order to characterize each respondent's total exposure to all ads on the air for the RAEI, it was necessary to impute viewing levels of the nonsample ads. Because different ad sampling rules were used for minorities, and because of the variations in the GRPs of the ads, developing a satisfactory analysis procedure was difficult. Simply summing the recall of the sampled ads would have made minorities appear to have been more heavily exposed because they were shown more ads. Simply averaging the recall of the sampled ads would have made people who were shown ads with low GRP appear to be less heavily exposed than those who were shown ads with high GRP. A weighting approach did not appear feasible because we needed to have a single number for each person to conduct this dose-response analysis. Therefore, imputation appeared to be the simplest and, indeed, the only sensible approach. The imputation does tend to reduce the variation in exposure across people—a fact that is not important for the dose-response relationship. The main concern was to get the best possible ordering of people by exposure. Because we controlled on the general recall of TV and radio ads, we believe the imputation produced a better ordering than simple averages would have done. Two different imputation procedures were used depending on the total number of times that an ad was sampled during a wave. The two procedures were single-cell hotdeck imputation and n-cell hotdeck imputation, each of which is explained below. For Wave 5, the single-cell hotdeck was used for 8 of the TV ads and the n-cell for 18 of the TV ads.

E.3.1   Single-Cell Hotdeck Imputation

This procedure was used whenever the total number of respondents for which an ad was in-scope during a wave was 150 or less. In this situation where there was little information available about the

distribution of viewing in the population, the judgment was made that it was best to select a random respondent among those for whom the ad was sampled and then to transcribe the results from the "donor" to the "beggar." The only restrictions on donor choice were that (1) both interviews had to be conducted at times such that the ad in question had been on the air within the 60 days preceding the interview and (2) both donor and beggar consume the medium in the language of the ad (English or Spanish).

E.3.2   N-Cell Hotdeck Imputation

When there was more information about the distribution of viewing of an ad (sample size more than 150), more complex procedures were used to match donors and beggars. In addition to matching on eligibility for the ad (on air in preceding 60 days and right language), matching was done on the length of time the ad had been on the air (3 categories), whether the respondent's home had cable/satellite service, and the level of general recall of drug-related advertisements on TV and radio. If perfect matching on all three criteria was impossible, the software had an automatic feature that searched for a suitable donor by relaxing the match criteria. The criteria are relaxed according to a predetermined order fixed by the user. In this case, general recall was relaxed first when necessary.

E.3.3   Some Evaluative Information on the N-cell Hotdeck Application

Parametric modeling procedures would have failed on these small sample sizes, in particular given the nonnormality of the recall data. This nonnormality is demonstrated in Table E-4. Kolmogorov-Smirnoff tests were carried out to check how significantly the response distribution differed from the normal distribution. Skew and kurtosis were also calculated and are shown in the table. Clearly, these data are far from normal, so any parametric-based imputation of the ad-level data would be difficult.

Despite this nonnormality, however, it is interesting to use linear modeling as a means to partially demonstrate the process features of the hotdeck. The variables used to match beggars with donors in the n-cell hotdeck were chosen prior to processing of the Wave 1 data. As discussed in Section E.3.2, there were three of these matching variables. Linear models were fit for the ad-level recall data in terms of the three matching variables as a means of confirming that these *a prior* choices for matching variables were reasonable. A separate linear model was fit for each audience and medium (i.e., for each of parent TV, parent radio, youth TV, and youth radio). Interactions were examined. The results are shown in Table E-5.

Table E-4. Non-normality of ad-level recall data

| Audience and Medium | Kolmogorov-Smirnoff Test | | Moments of Ad-level Recall Data | | | |
	Statistic	p value	Mean	Standard Deviation	Skewness	Kurtosis
Parent TV	0.3382	0.0000	2.0026	3.5163	1.9272	5.7102
Parent Radio	0.4005	0.0000	1.1680	2.6081	2.7929	10.7849
Youth TV	0.3194	0.0000	2.2292	3.8177	1.7734	4.8855
Youth Radio	0.4233	0.0000	0.8674	2.3569	3.5381	15.8444

Note : A Normal distribution has a skewness of 0 and kurtosis of 3.

Table E-5. Results of ANOVA analysis for WESDECK imputation procedure

Effect (Degrees of Freedom)	Parent TV Model		Parent Radio Model		Youth TV Model		Youth Radio Model	
	F-Statistic	p value	F-Statistic	p value	F-Statistic	p value	F-Statistic	p value
Availability of cable TV in the household (TCABLETV)(1)	0.0495	0.8239	0.0004	0.9837	4.4984	**0.0343**	1.5482	0.2136
Level of general recall of drug-related advertising on TV and radio (TVRAD)(5)	24.5390	**0.0000**	12.1425	**0.0000**	6.9137	**0.0000**	7.1031	**0.0000**
Length of time advertisement had been on air in the 60 days preceding the interview - 3 levels (AIR60)(2)	7.1532	**0.0008**	3.9412	**0.0197**	13.9294	**0.0002**	8.0582	**0.0003**
TCABLETV*TVRAD (5)	0.4582	0.8075	0.6667	0.6488	1.9909	_0.0782_	0.6579	0.6555
TCABLETV*AIR60 (2)	2.3608	_0.0948_	2.4039	_0.0908_	1.1065	0.2933	0.2748	0.7597
TVRAD*AIR60 (9)	0.6350	0.7847	0.8738	0.5482	1.3894	0.2263	0.6370	0.7830
TCABLETV*TVRAD*AIR60 (6)	2.2240	**0.0235**	2.0710	_0.0539_	2.0056	_0.0922_	1.0962	0.3613

Note : **Boldface** denotes effect is significant at 5 percent level. _Underlined Italics_ denote effects significant at 10 percent level. Note, however, that since the response variable is highly nonnormal as demonstrated above the significance levels of the ANOVA are highly approximate.

The availability of cable or satellite TV service was not as important as initially guessed it would be, but is still relevant for youth TV. Within each audience and medium, the general level of recall of anti-drug advertisements on TV and radio was highly relevant to recall of specific Campaign-sponsored advertisements. It would, of course, have been surprising not to find this relationship. Similarly, the number of recent weeks during which the ad had been played was extremely important. In several cases, some of the interaction terms were also found to be significant.

E.4   Outcome Indices

In order to ameliorate problems caused by multiple comparisons, new outcome indices were created for Wave 3 and retrospectively applied to Waves 1 and 2. These outcome indices continued to be used in Waves 4 and 5. By focusing on a smaller number of outcomes, the expected number of false positive findings is reduced. In addition, if the outcome indices are well-constructed, it is possible that the index will be more sensitive to change or effects than any of the components individually.

For youth, a total of just four outcome indices were produced. For parents, there were two. These indices are different from scales. Scales are functions of several variables that are thought to measure the same latent construct. Indices are more general functions of several variables, designed with a particular objective in mind. Well-known indices in other fields include the gross domestic product (GDP), the Consumer Price Index (CPI), and various quality of life indices comparing cities.

In this case, the indices were created with the specific objective of predicting a primary cognitive or behavioral outcome. For youth, the primary outcome was the intention not to use a drug in the future. For parents, the primary outcome was either talking with their kids about drugs or monitoring their kids closely. More detail is given below on each set of indices.

E.4.1 Youth

For youth, the two primary outcomes were intentions to avoid marijuana use and intentions to avoid inhalant use. Referring back to Figure 2-C, intentions are theorized to be influenced by (1) knowledge, beliefs, and attitudes; (2) perceived social norms, and (3) self-efficacy to avoid drug usage. Questionnaire items that corresponded to each of the influential cognition families were used to form parametric models of the primary outcomes. The concept behind this practice was to let the data inform the Evaluation team about which items within a family really were influential on the primary outcome.

For example, in Table E-6, it can be seen that among the self-efficacy items included in the questionnaire, the most important in terms of influencing intentions to avoid marijuana use are feelings of self-efficacy to refuse marijuana when home alone and sad or bored; when on school property, and when hanging out at a friend's house without parents. Kids who are completely sure that they could refuse marijuana when home alone and sad/bored, or when hanging out at a friends house, were much more likely to have strong intentions to avoid future marijuana use. Conversely, youth who were completely sure that they could refuse offers when on school grounds were less likely to have such strong intentions. Feelings of self-efficacy at parties and at the suggestion of close friends do not appear to be influential on intentions for future use.

Table E-6. Model for intentions to avoid any marijuana use among 12- to 18-year-olds in terms of self-efficacy to refuse offers of marijuana

Quex Item	Description of Variable	Values	Value Label	Coefficient	Standard Error
C9(a)	Certainty of refusing marijuana when at a party where most people are using it	1-3	Somewhat sure, slightly sure, or not at all sure	-0.1805	0.1421
		4	Mostly sure	0.2339	0.1130
		5	Completely sure	-0.0535	0.1166
C9(b)	Certainty of refusing marijuana when a very close friend suggests using it	1-3	Somewhat sure, slightly sure, or not at all sure	-0.0627	0.1530
		4	Mostly sure	-0.1604	0.1110
		5	Completely sure	0.2231	0.1197
C9(c)	Certainty of refusing marijuana when home alone and feeling sad or bored	1-3	Somewhat sure, slightly sure, or not at all sure	-0.6240	0.1402
		4	Mostly sure	-0.0458	0.1221
		5	Completely sure	0.6699	0.1051
C9(d)	Certainty of refusing marijuana when on school property	1-3	Somewhat sure, slightly sure, or not at all sure	0.6551	0.1892
		4	Mostly sure	-0.3183	0.1556
		5	Completely sure	-0.3367	0.1356
C9(e)	Certainty of refusing marijuana when hanging out at a friend's house whose parents aren't home	1-3	Somewhat sure, slightly sure, or not at all sure	-0.8485	0.1527
		4	Mostly sure	-0.1478	0.1118
		5	Completely sure	0.9963	0.1221

The indices for beliefs/attitudes and for social norms were more difficult to construct. For these areas, there were skip patterns in the questionnaires that forced part of the sample to answer questions about trial use and forced the balance to answer questions about regular use. The skip patterns were partly random and partly a function of past marijuana use. As a way to use different questions to create a single index that was meaningfully defined on the entire sample, a complex procedure was used to create each index.

The first step in the process was to model intentions to avoid future use on nonusers in terms of beliefs and attitudes about trial use. This model is shown in Table E-7. The second step was to model intentions to avoid future use on nonusers in terms of beliefs and attitudes about regular use. This model is shown in Table E-8. The third step was to shift and rescale these subindices to that they had a common mean and standard deviation on the population of nonusers. The transformed functions were then applied to the questions about regular use asked of users. (Users were never asked about future trial use.) The end result of this operation was to create an index on the entire dataset that reflects the influence on intentions for avoidance of future use of an amalgam of beliefs and attitudes about both marijuana trial and regular marijuana use.

A parallel process was used for social norms. Table E-9 has the parameter estimates for the subindex for social norms about trial use. Table E-10 provides the parallel estimates for the subindex for social norms about regular use. Table E-11 provides the model for intentions to avoid any marijuana use among 12- to 18-year-olds in terms of self-efficacy to refuse offers of marijuana.

One index was created for youth to summarize personal beliefs about inhalants. (There were no questionnaire items on attitudes, social norms or self-efficacy with respect to inhalants.) As with marijuana, the importance of each component in the index was determined from the parametric model for intentions to avoid inhalant use in terms of the components. The fitted model is shown in Table E-11. Perceptions of trial risk are related to intentions to avoid future use. Approval of others' trial of inhalants is also related to intentions to avoid future use.

Table E-7. Model for intentions to avoid any marijuana use among 12- to 18-year-old non-marijuana users in terms of personal beliefs and attitudes about trial marijuana use

Quex Item	Description of Variable	Values	Value Label	Coefficient	Standard Error
C3a(a)	Trying marijuana would upset parents/caregivers	1-3	Very unlikely, unlikely, or neither likely nor unlikely	0.1524	0.2695
		4	Likely	-0.5901	0.3027
		5	Very likely	0.4377	0.2118
C3a(b)	Trying marijuana would cause legal trouble for youth	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.3179	0.1949
		4	Likely	0.1289	0.2095
		5	Very likely	0.1891	0.2329
C3a(c)	Trying marijuana would cause youth to lose control	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.1752	0.2224
		4	Likely	-0.2441	0.2164
		5	Very likely	0.4193	0.3087
C3a(d)	Trying marijuana would cause youth to use stronger drugs	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.0221	0.2478
		4	Likely	0.3056	0.2823
		5	Very likely	-0.2835	0.3883
C3a(e)	Trying marijuana would cause youth to be more relaxed	1	Very unlikely	0.1361	0.2427
		2	Unlikely	0.0211	0.2468
		3-5	Neither likely nor unlikely, likely, or very likely	-0.1572	0.2036
C3a(f)	Trying marijuana would cause youth to have a good time with friends	1	Very unlikely	0.4546	0.2688
		2	Unlikely	-0.4197	0.2310
		3-5	Neither likely nor unlikely, likely or very likely	-0.0349	0.2180
C3a(g)	Trying marijuana would cause youth to feel better	1	Very unlikely	-0.1994	0.2331
		2	Unlikely	0.1629	0.2189
		3-5	Neither likely nor unlikely, likely, or very likely	0.0365	0.2327
C3a(h)	Trying marijuana would cause youth to be like the coolest kids	1	Very unlikely	0.3274	0.1942
		2	Unlikely	0.2613	0.2122
		3-5	Neither likely nor unlikely, likely, or very likely	-0.5886	0.2038
C4a	Youth perception of trying marijuana in the next year (7-point scale from "extremely bad" to "extremely good")	1		1.4258	0.2460
		2		-0.3259	0.2440
		3		-0.2839	0.3129
		4-7		-0.8160	0.2806
C5a	Youth perception of trying marijuana in the next year (7-point scale from "extremely unenjoyable" to "extremely enjoyable")	1		0.8747	0.2433
		2		0.2961	0.2593
		3		-0.6307	0.2843
		4-7		-0.5402	0.2846

Table E-8. Model for intentions to avoid any marijuana use among 12- to 18-year-old non-marijuana users
in terms of personal beliefs and attitudes about regular marijuana use

Quex Item	Description of Variable	Values	Value Label	Coefficient	Standard Error
C3b(a)	Regular marijuana use would damage youth's brain	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.1549	0.2164
		4	Likely	-0.0435	0.1858
		5	Very likely	0.1984	0.2141
C3b(b)	Regular marijuana use would mess up youth's life	1-3	Very unlikely, unlikely, or neither likely nor unlikely	0.2318	0.2415
		4	Likely	-0.0884	0.1969
		5	Very likely	-0.1434	0.2395
C3b(c)	Regular marijuana use would make youth do worse in school	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.3141	0.2464
		4	Likely	-0.0044	0.1933
		5	Very likely	0.3186	0.2318
C3b(d)	Regular marijuana use would be acting against youth's moral beliefs	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.2912	0.1988
		4	Likely	0.1467	0.1973
		5	Very likely	0.1446	0.2104
C3b(e)	Regular marijuana use would cause youth to lose ambition	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.0250	0.2259
		4	Likely	0.1443	0.1977
		5	Very likely	-0.1193	0.2447
C3b(f)	Regular marijuana use would cause youth to lose friends' respect	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.5111	0.1967
		4	Likely	0.1517	0.1983
		5	Very likely	0.3594	0.2349
C3b(g)	Regular marijuana use would cause youth to have a good time with friends	1	Very unlikely	1.0099	0.2677
		2	Unlikely	-0.6336	0.2172
		3-5	Neither likely nor unlikely, likely or very likely	-0.3762	0.1953
C3b(h)	Regular marijuana use would cause youth to be more creative and imaginative	1-3	Very unlikely, unlikely, or neither likely nor unlikely	-0.1549	0.2437
		4	Likely	0.1546	0.3294
		5	Very likely	0.0004	0.3749
C4b	Youth perception of regular marijuana use in the next year (7-point scale from "extremely bad" to "extremely good")	1		0.9698	0.2370
		2		-0.2337	0.2386
		3		-0.7086	0.2921
		4-7		-0.0275	0.3042
C5b	Youth perception of regular marijuana use in the next year (7-point scale from "extremely unenjoyable" to "extremely enjoyable")	1		0.7496	0.2271
		2		-0.1493	0.2414
		3		-0.2438	0.2936
		4-7		-0.3565	0.2451

Table E-9. Model for intentions to avoid any marijuana use among 12- to 18-year-old non-marijuana users
in terms of perceived social norms about trial marijuana use

Quex Item	Description of Variable	Values	Value Label	Coefficient	Standard Error
C6a	Youth perception of most important people's reaction to youth trying marijuana	1	Strongly disapprove	0.3815	0.2229
		2	Disapprove	-0.4784	0.2455
		3-5	Neither approve nor disapprove, approve or strongly approve	0.0970	0.3381
C7a	Youth perception of close friends' reaction to youth trying marijuana	1	Strongly disapprove	1.0315	0.1786
		2	Disapprove	-0.0991	0.1618
		3-5	Neither approve nor disapprove, approve or strongly approve	-0.9324	0.1681
C8a	Youth perception of parents' reaction to youth trying marijuana	1	Strongly disapprove	0.5658	0.2729
		2	Disapprove	0.0545	0.3315
		3-5	Neither approve nor disapprove, approve or strongly approve	-0.6203	0.4227
C10a	Youth perception of how many friends have tried marijuana	1-2	None or a few	0.3854	0.1918
		3	Some	-0.1872	0.2012
		4-5	Most or all	-0.1982	0.2568
C11	Youth perception of how many kids in same grade or same age have tried marijuana	1-2	None or a few	0.3894	0.1764
		3	Some	-0.1868	0.1607
		4-5	Most or all	-0.2026	0.2039

Table E-10. Model for intentions to avoid any marijuana use among 12- to 18-year-old non-marijuana users
in terms of perceived social norms about regular marijuana use

Quex Item	Description of Variable	Values	Value Label	Coefficient	Standard Error
C6b	Youth perception of most important people's reaction to youth using marijuana regularly	1	Strongly disapprove	0.6495	0.2230
		2	Disapprove	-0.2729	0.2472
		3-5	Neither approve nor disapprove, approve or strongly approve	-0.3765	0.3476
C7b	Youth perception of close friends' reaction to youth using marijuana regularly	1	Strongly disapprove	0.9112	0.1844
		2	Disapprove	-0.0951	0.1722
		3-5	Neither approve nor disapprove, approve or strongly approve	-0.8160	0.1825
C8b	Youth perception of parents' reaction to youth using marijuana regularly	1	Strongly disapprove	-0.0445	0.2371
		2-5	Disapprove, neither approve or disapprove, approve or strongly approve	0.0445	0.2371
C10b	Youth perception of how many friends have used marijuana regularly	1-2	None or a few	0.2339	0.2050
		3	Some	0.0106	0.2192
		4-5	Most or all	-0.2445	0.2814
C12	Youth perception of how many kids in same grade or same age have used marijuana regularly	1-2	None or a few	0.3827	0.1874
		3	Some	-0.1066	0.1726
		4-5	Most or all	-0.2761	0.2353

Table E-11. Model for intentions to avoid any inhalant use among 12- to 18-year-olds in terms of personal anti-inhalant beliefs

Quex Item	Description of Variable	Values	Value Label	Coefficient	Standard Error
C33a(c)	Youth perception of risk of harm when trying inhalants	1-2	No or slight risk	-0.3292	0.1177
		3	Moderate risk	0.0600	0.1066
		4	Great risk	0.2692	0.1249
C33a(d)	Youth perception of risk of harm when using inhalants regularly	1-2	No or slight risk	0.2185	0.1823
		3	Moderate risk	-0.3062	0.1339
		4	Great risk	0.0876	0.1328
C33(c)	Youth approval of others trying inhalants	1	Strongly disapprove	1.3941	0.1511
		2	Disapprove	-0.1367	0.1153
		3-5	Neither approve nor disapprove, approve, or strongly approve	-1.2574	0.1330
C33(d)	Youth approval of others using inhalants regularly	1	Strongly disapprove	0.2942	0.1249
		2	Disapprove	-0.1642	0.1162
		3-5	Neither approve nor disapprove, approve, or strongly approve	-0.1301	0.1412

E.4.2 Parents

Two indices were constructed for parents. One summarized information about cognitive variables surrounding the discussion of drugs with their children. The other summarized information about cognitive variables surrounding monitoring of their children. As for youth, models were constructed for primary outcomes in terms of these cognitive variables in order to summarize only the relevant information. Ordinal logistic regressions were used for the modeling.

For discussions about drugs, the primary outcome variable was a scale based on three types of talking behavior. The scale gives a point for each type: (1) two or more general discussions about drugs, (2) at least conversation on the specific topic of family rules or expectations about drug use, and (3) at least conversation on the specific topic of how to avoid drug use. The scale thus runs from 0 to 3, with 0 reflecting no discussion and 3 reflecting a pattern of discussions consistent with Campaign objectives. The cognitive variables to be summarized are shown in Table E-12, along with their coefficients.

For monitoring their children, the primary outcome variable was a scale based on three types of monitoring behavior. The scale gives a point for each type: (1) always or almost always knowing what their child is doing when he/she is away from home, (2) always or almost always having a pretty good idea about their child's plans for the coming day, and (3) never allowing their child to spend his/her free time in the afternoons hanging out with friends without adult supervision. The scale thus runs from 0 to 3, with 0 reflecting very weak monitoring and 3 reflecting a pattern of monitoring consistent with Campaign objectives. The cognitive variables to be summarized are shown in Table E-13, along with their coefficients.

Table E-12. Model for Parental talking scale in terms of cognitive variables
surrounding discussion of drugs with their children

Quex Item	Description of Variable	Values	Value label	Co-efficient	Standard Error
D2a	Discussing drug use in the next 6 months with my child would be (7-point scale form "extremely bad" to "Extremely good")	1-4		-0.3066	0.0976
		5		-0.1794	0.0757
		6		0.0913	0.0629
		7		0.3947	0.0617
D2b	Discussing drug use in the next 6 months with my child would be (7-point scale form "extremely unpleasant " to "Extremely pleasant")	1-4		-0.2097	0.0581
		5		-0.0588	0.0519
		6		-0.0395	0.0479
		7		0.308	0.051
D2c	Discussing drug use in the next 6 months with my child would be (7-point scale form "extremely unimportant" to "Extremely important")	1-4		-0.516	0.1043
		5		-0.279	0.0823
		6		0.2465	0.0669
		7		0.5484	0.0622
D3a	If my child asked me questions about drug use in general, how sure am I that would be able to talk about illicit drug use with that child?	1-3	Very unsure, unsure, or neither sure nor unsure	-0.1814	0.1046
		4	Sure	0.0868	0.0668
		5	Very Sure	0.0945	0.0659
D3b	If my child asked me questions about me what specific things he/she could do to stay away from drugs, how sure am I that would be able to talk about illicit drug use with that child?	1-3	Very unsure, unsure, or neither sure nor unsure	-0.3382	0.1076
		4	Sure	0.0342	0.0662
		5	Very Sure	0.304	0.0671
D3c	If my child and I had been having conflicts over other things not related to drugs, and our relationship were tense, how sure am I that would be able to talk about illicit drug use with that child?	1-3	Very unsure, unsure, or neither sure nor unsure	-0.1407	0.0482
		4	Sure	0.0714	0.039
		5	Very Sure	0.0693	0.0436
D3d	If my child asked me questions about me about my own past use of drugs, how sure am I that would be able to talk about illicit drug use with that child?	1-3	Very unsure, unsure, or neither sure nor unsure	-0.0591	0.0562
		4	Sure	0.0146	0.0473
		5	Very Sure	0.0445	0.0423

**Table E-13. Model for parental monitoring index
in terms of personal beliefs regarding monitoring kids' behavior and activities**

Quex Item	Description of Variable	Values	Value Label	Coefficient	Standard Error
C6a	Closely monitoring my child's daily activities would be (7-point scale from "extremely bad" to "extremely good")	1-4		-0.8304	0.1135
		5		-0.1358	0.0793
		6		0.1675	0.0705
		7		0.7987	0.0727
C6b	Closely monitoring my child's daily activities would be (7-point scale from "extremely unpleasant" to "extremely pleasant")	1-4		-0.3743	0.0888
		5		-0.0235	0.0656
		6		0.1349	0.0605
		7		0.2628	0.0646
C6c	Closely monitoring my child's daily activities would be (7-point scale from "extremely unimportant" to "extremely important")	1-4		0.0616	0.1536
		5		-0.0482	0.1017
		6		-0.1347	0.0857
		7		0.1213	0.0802
C7a	Closely monitoring my child's daily activities will make it more likely that my child will do well in school	1-3	Strongly disagree, disagree, or neither agree nor disagree	-0.0819	0.0812
		4	Agree	-0.1007	0.0565
		5	Strongly agree	0.1827	0.0617
C7b	Closely monitoring my child's daily activities will make me feel like I am doing my job as a parent	1-3	Strongly disagree, disagree, or neither agree nor disagree	0.1989	0.0931
		4	Agree	-0.1064	0.0589
		5	Strongly agree	-0.0925	0.0664
C7d	Closely monitoring my child's daily activities will make it less likely that my child will try any drug, even once or twice	1-3	Strongly disagree, disagree, or neither agree nor disagree	-0.1213	0.0712
		4	Agree	-0.1000	0.0552
		5	Strongly agree	0.2212	0.0651
C7e	Closely monitoring my child's daily activities will make it less likely that my child will use any drug nearly every month	1-3	Strongly disagree, disagree, or neither agree nor disagree	-0.0375	0.0725
		4	Agree	-0.0870	0.0568
		5	Strongly agree	0.1245	0.0645
C7f	Closely monitoring my child's daily activities will make my child feel I am invading their privacy	1	Strongly disagree	0.3013	0.0614
		2	Disagree	-0.0476	0.0475
		3-5	Neither agree nor disagree, agree or strongly agree	-0.2537	0.0462