Youth Drug Use and the National Youth Anti-Drug Media Campaign

February 2001

Executive Office of the President
Office of National Drug Control Policy

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EXECUTIVE SUMMARY

The Office of National Drug Control Policy (ONDCP) currently is implementing the National Youth Anti-Drug Media Campaign as a key element in pursuing Goal 1 of the National Drug Control Strategy to "educate and enable America's youth to reject illegal drugs as well as alcohol and tobacco." Preceded by test phases of limited scope and impact (January 1998 through the summer of 1999), the fully integrated Media Campaign started in mid-1999, and ONDCP expects to see improvement in anti-drug attitudes that will lead to decreases in youth drug use within 3 years (mid-2002).

This report responds to language contained in HR 106-500, accompanying S.2900, which directed ONDCP to provide information on recent youth drug use trends, specifically the Youth Risk Behavior Survey, and their relation to the National Youth Anti-Drug Media Campaign. ONDCP's response focuses on the following topics, each of which is discussed in separate sections of the report:

- **How the Government tracks youth drug use**. The Government has three primary sources of information with which to track youth drug use: the National Household Survey on Drug Abuse (NHSDA); the Monitoring the Future (MTF) study; and the Youth Risk Behavior Survey (YRBS). NHSDA and MTF are major drug surveys, while YRBS addresses health risk behaviors which include drug use. Two are school-based surveys (MTF and YRBS) and one (NHSDA) is a household-based survey. All three provide nationally representative estimates of youth drug use, and each survey has major strengths and some limitations for monitoring trends in youth drug use.

- **Trends in youth drug use**. Trend data on drug use among high school students from the YRBS provided the impetus for Congress' directive to provide this report. As noted on CDC's fact sheet, the risk behavior trends reported were assessed using **1999 data compared to 1991**. Indeed, as Congress notes, marijuana and cocaine use trends were significantly higher since 1991. However, **the trend in the last 3 YRBS surveys** (spanning a period of 5 calendar years) **is flat for both marijuana and cocaine**. These findings are remarkably consistent with those from the two major drug surveys, NHSDA and MTF, in the overall trends reported for youth drug use, particularly marijuana, over the past 10 years – increasing use starting around 1992, peaking at about 1997, followed by flat or decreasing rates through 1999 and 2000.

- **Different perspectives on the same problem**. Despite the fact that the three surveys provide differing point estimates of the prevalence of use of specific drugs, they all provide valid and reliable information on the same problem – youth drug use. The reasons for the differences in the estimates among the surveys are due to differences in purpose, methodology, and implementation.

- **The National Youth Anti-Drug Media Campaign**. The primary purpose of the Media Campaign is to prevent the initiation of drug use (particularly the entry level drugs marijuana and inhalants) among youth. The fully integrated Media Campaign (Phase III) was launched nationally in mid-1999, following two test phases in 1998. Results from all

three surveys showing flattening or declining youth marijuana use in 1999 (and 2000 in the case of the MTF), suggest that the campaign may be having the desired impact. However, we must await the results of the Media Campaign's independent evaluation (see below), before any definitive conclusion can be drawn regarding the Campaign's contribution to reducing youth drug use.

- **Evaluating youth drug use and the Media Campaign**. The NHSDA, the MTF, and the YRBS report encouraging recent data that the use of marijuana (and some other drugs) are stable or decreasing. These suggest that the Campaign may be having an impact. However, these national surveys provide very little information with which to evaluate the impact of the Media Campaign. This is because they were not designed to evaluate it. They contain no questions about target audience exposure and response to the Media Campaign; consequently, any changes in attitudes and behavior regarding drug use cannot be associated directly with the Media Campaign. ONDCP is measuring the impact of the Media Campaign with a thorough, rigorous, and independent evaluation being conducted for ONDCP by the National Institute on Drug Abuse. The evaluation is a 4-year longitudinal study of parents' and their children's exposure and response to the Media Campaign. ONDCP will be able to assess if any changes in anti-drug attitudes and beliefs or drug using behavior can be attributed to the Media Campaign.

While all three national surveys indicate that youth drug use, particularly marijuana use, has risen since the early 1990s, all three – including the YRBS – also indicate that this trend has leveled off, and even declined, in the past 2 to 3 years. It is exactly during this period of flattening or declining youth drug use that the National Youth Anti-Drug Media Campaign was launched, with full implementation in mid-1999. ONDCP is hopeful that the Media Campaign will contribute significantly to the continued decline of youth drug use. NIDA's independent evaluation – in conjunction with continued monitoring by the NHSDA, MTF, and YRBS – will provide the answer over the next three years as the series of reports is released.

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1. INTRODUCTION

The Office of National Drug Control Policy (ONDCP) currently is implementing the National Youth Anti-Drug Media Campaign as a key element in pursuing Goal 1 of the National Drug Control Strategy to "educate and enable America's youth to reject illegal drugs as well as alcohol and tobacco." Preceded by test phases of limited scope and impact (January 1998 through the summer of 1999), the fully integrated Media Campaign started in mid-1999, and ONDCP expects to see improvement in anti-drug attitudes that will lead to decreases in youth drug use within 3 years (mid-2002).

HR 106-500, accompanying S.2900 contains specific language pertaining to ONDCP's National Youth Anti-Drug Media Campaign, as follows:

NATIONAL MEDIA CAMPAIGN

> *"The Committee has been supportive of the national media campaign and has provided consistent funding for this program. When this program was initially funded by the Congress, it was with the understanding that within 3 years there would be demonstrable behavior changes in America's youth with relation to drug use. To date, the Congress has provided over $500,000,000 for this program and has done so at the expense of many other important law enforcement needs. The Committee is aware of the recent report by the Centers for Disease Control on Youth Risk Behaviors for 1999, a study that uses a sophisticated monitoring system of six areas of priority health-risk behaviors among youth and includes data from 33 States and 16 large cities. The Committee notes that for 1999, there is a significant increasing trend in both marijuana and cocaine use in America's youths. The Committee is concerned that drug use is clearly increasing in spite of the national media campaign, leading some observers to conclude it has not had a noticeable impact on drug use among America's youth. The Committee directs the Office of National Drug Control Policy to provide the Committee with a detailed report, no later than 60 days after enactment, responding to the CDC survey as it relates to drug use and the national media campaign. This report shall include what steps ONDCP is taking to address these latest trends and the issue of why the media campaign does not appear to be changing youth behaviors in relation to marijuana and cocaine."*

This report responds to Congress' direction to ONDCP to provide information on recent youth drug use trends and their relation to the National Youth Anti-Drug Media Campaign. ONDCP's response focuses on the following topics, each of which is discussed in separate sections of the report:

- **How the Government tracks youth drug use**. The Government has three primary sources of information with which to track youth drug use: the National Household Survey on Drug Abuse (NHSDA); the Monitoring the Future (MTF) study; and the Youth Risk Behavior Survey (YRBS). NHSDA and MTF are major drug surveys, while YRBS focuses on health risk behaviors, which include drug use. Two are school-based

surveys (MTF and YRBS) and one (NHSDA) is a household-based survey. All three provide nationally representative estimates of youth drug use.

- **Trends in youth drug use**. Trend data on drug use among high school students from the YRBS provided the impetus for the congressional directive to provide this report. As noted on CDC's fact sheet (see Appendix A), the risk behavior trends reported were assessed using **1999 data compared to 1991**. Indeed, as Congress notes, marijuana and cocaine use trends were significantly higher since 1991. However, **the trend in the last 3 YRBS surveys** (spanning a period of 5 calendar years) **is flat for both marijuana and cocaine**. These findings are remarkably consistent with those from the two major drug surveys, NHSDA and MTF, in the overall trends reported for youth drug use, particularly marijuana, over the past 10 years – increasing use starting around 1992, peaking at about 1997, followed by flat or decreasing rates through 1999 and 2000.

- **Different perspectives on the same problem**. Despite the fact that the three surveys provide differing point estimates of the prevalence of use of specific drugs, they all provide valid and reliable information on the same problem – youth drug use. The reasons for the differences in the estimates among the surveys are due to differences in purpose, methodology, and implementation.

- **The National Youth Anti-Drug Media Campaign**. The primary purpose of the Media Campaign is to prevent the initiation of drug use (particularly the entry level drugs marijuana and inhalants) among youth. It is being implemented in three phases, starting in January of 1998. Phase I was a 12-city pilot program conducted from January through June 1998. Phase II expanded the pilot program to the whole nation, and was conducted from July 1998 through the summer of 1999. Phase III is the fully integrated campaign, incorporating the advertising and non-advertising components. Phases I and II were pilot periods (learning labs focused primarily on informing the planning and development cycle for the fully integrated national media campaign), and were not expected to have a significant impact on youth drug use, as research indicates that behavioral change takes 2 to 3 years to occur. Phases I and II achieved their objectives of increased awareness of anti-drug messages – the first step in changing drug use attitudes and behaviors (ONDCP, 1998; ONDCP, 1999a; ONDCP, 1999b) . It is with the implementation of Phase III, starting in mid-1999, that ONDCP expects to see improvement in anti-drug attitudes that will lead to decreases in youth drug use within 3 years, as noted by Congress. Results from all three national surveys showing flattening or declining youth marijuana use in 1999 (and 2000 in the case of the MTF), suggest that the campaign may be having the desired impact. However, we must await the results of the Media Campaign's independent evaluation (see below), before any definitive conclusion can be drawn regarding the Campaign's contribution to reducing youth drug use.

- **Evaluating youth drug use and the Media Campaign**. The NHSDA, the MTF, and the YRBS provide very little information with which to evaluate the impact of the Media Campaign. This is because they were not designed to evaluate it. They contain no questions about target audience exposure and response to the Media Campaign; consequently, any changes in attitudes and behavior regarding drug use cannot be

associated directly with the Media Campaign. Moreover, Phase III was not implemented until mid-1999. The most recent data for the YRBS and NHSDA is for1999. Only the MTF has reported data for 2000. While the recent data from these surveys showing stable or decreasing use of marijuana (and some other drugs) are encouraging and suggest that the Campaign may be having an impact, these changes cannot be attributed directly to the Media Campaign. ONDCP, on the other hand, is measuring the impact of the Media Campaign with a thorough, rigorous, and independent evaluation. The nationally representative evaluation is being conducted for ONDCP by the National Institute on Drug Abuse (NIDA), which conducts more than 80 percent of the world's research on illegal drugs. The evaluation is a 4-year longitudinal study of parents' and their children's exposure and response to the Media Campaign. A parent and one or more children from the same household will be interviewed up to three times over the course of the study. In this way, ONDCP will be able to assess the extent to which changes in anti-drug attitudes and beliefs or drug using behavior can be attributed to the Media Campaign.

While all three national surveys indicate that youth drug use, particularly marijuana use, has risen since the early 1990s, all three – including the YRBS – also indicate that this trend has leveled off, and even declined, in the past 2 to 3 years. It is exactly during this period of flattening or declining youth drug use that the National Youth Anti-Drug Media Campaign was launched. ONDCP is hopeful that the Media Campaign will contribute significantly to the continued decline of youth drug use. NIDA's independent evaluation – in conjunction with continued monitoring by the NHSDA, MTF, and YRBS – will provide the answer to whether the Media Campaign contributed to improved anti-drug attitudes and reduced drug use.

2. HOW THE GOVERNMENT TRACKS YOUTH DRUG USE

The Federal government collects data on drug use in the general population age 12 and older through the *National Household Survey on Drug Abuse* (NHSDA). This survey includes the population aged 12 to 17 years, which comprises the youth segment. A second major national survey focusing on drug use among 8^{th}, 10^{th}, and 12^{th} grade students, the *Monitoring the Future* study (MTF), tracks youth drug use among those attending school. A third source of data on drug use among youth is the *Youth Risk Behavior Survey* (YRBS), which is a national survey of high school students (grades 9 through 12) focusing on a broad range of health risk behaviors, one of which is the use of alcohol and other drugs. These three surveys are conducted under the auspices of the Department of Health and Human Services (DHHS) on a periodic basis, and each survey has major strengths and some limitations for monitoring trends in youth drug use. These surveys, particularly the NHSDA and the MTF, provide critical input to ONDCP's Performance Measures of Effectiveness (PME) system. The PME system tracks the Nation's progress toward achieving the goals and objectives of the National Drug Control Strategy. The NHSDA and MTF are the sources of data for several measures tracking youth drug use and attitudes.

This section focuses on the three surveys in terms of what each contributes to tracking youth drug use trends. For assessing the impact of the National Youth Anti-Drug Media Campaign, a fourth nationally representative survey, the *National Survey of Parents and Youth* (NSPY), discussed in Section 6, is being implemented.

2.1 National Household Survey on Drug Abuse

The NHSDA, sometimes referred to as the Household Survey, is an annual survey conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA).[1] The NHSDA is a comprehensive survey of drug use and related issues. It has been the primary source of information on the prevalence and incidence of illicit drug, alcohol, and tobacco use since 1971, becoming an annual survey in 1990. Comparable data are available for 1979, 1985, and 1988 before the annual series through 1999. The survey is based on a nationally representative sample of the civilian, noninstitutionalized population of the United States age 12 and older (SAMHSA, 2000).

Data collection is ongoing throughout the calendar year, allowing the measurement of drug use through seasonal and other periodic variations. The size of the survey sample has grown from fewer than 10,000 before 1991 to the newly expanded sample of almost 67,000 in 1999, which included over 25,000 youth (Table 1). Each respondent record is assigned an analysis weight to arrive at nationally representative estimates.

Table 1. Sample sizes of the National Household Survey on Drug Abuse, 1990-99

Year	*Sample Size*	
	Age 12 and older	*Age 12-17*
1990	9,259	2,177
1991	32,594	8,007
1992	28,832	7,254
1993	26,489	6,978
1994	17,809	4,698
1995	17,747	4,595
1996	18,269	4,538
1997	24,505	7,844
1998	25,500	6,778
1999*	66,706	25,357

*The sample size was greatly expanded in 1999 to permit estimation of State-level prevalence rates of drug use and drug dependence.
Source: SAMHSA (1996, 1998, and 1999 summary reports).

The NHSDA covers an extensive array of drug-related areas and asks specific questions pertaining to the following drug classes:

- marijuana
- cocaine
- inhalants
- hallucinogens
- heroin
- nonmedical use of psychotherapeutic drugs, including stimulants, sedatives, tranquilizers, and analgesics
- alcohol, and
- tobacco.

[1] Prior to SAMHSA's authorization, the National Institute on Drug Abuse (NIDA) administered the NHSDA from 1974 through 1991.

The data collection method for this survey uses in-person interviews with sample persons selected from a listing of all household members. Interviewers attempt to conduct interviews in a private place, away from other household members. The interview averages about an hour, using a combination of interviewer-administered and self-administered questions.[2] This procedure allows the respondent to record answers to sensitive questions, such as those on illicit drug use, without the interviewer seeing or reviewing these answers (SAMHSA, 1999).

The NHSDA is designed to estimate drug use in the civilian noninstitutionalized population, which includes more than 98 percent of the U.S. population. Nevertheless, it excludes some important and unique subpopulations who may have very different drug-using patterns, such as:

- active military personnel
- persons living in institutional group quarters, such as prisons and residential drug treatment centers, and
- homeless persons not living in a shelter.

Active military personnel have been shown to have lower rates of illicit drug use compared to the general population, while the other excluded categories have been shown in other surveys to have higher rates of illicit drug use (SAMHSA, 2000). It is important, therefore, to consider the results of other surveys and data systems that collect data on substance abuse to provide a context for interpreting findings from the NHSDA.

2.2 Monitoring the Future

The MTF began in 1975 as a national survey of drug use and related attitudes and beliefs among American high school seniors. In 1991, eighth- and tenth-grade students were added and have been surveyed annually. College students are also surveyed now. The study is conducted by the University of Michigan's Institute for Social Research through a series of grants funded by NIDA (Johnston, O'Malley, and Bachman, 2000).

MTF addresses the prevalence and frequency of drug use among American middle school and high school students, specifically 8^{th}, 10^{th}, and 12^{th} graders, and trends in use by those students. The study also monitors a number of factors that help explain the changes observed in drug use, such as attitudes and beliefs about use of the various drugs, perceptions of drug availability, peer norms, use by friends, and exposure to use. Data on eleven separate classes of drugs have been collected over the years to maximize comparability with categories used in the NHSDA, as follows:

- marijuana
- inhalants
- hallucinogens
- cocaine

[2] These were administered through a paper-and-pencil interview (PAPI) method through 1998. In 1999, the method was changed to a computer-assisted interview, with a supplemental sample using the PAPI method to allow comparability with earlier trend data.

- heroin
- opiates other than heroin
- stimulants
- sedatives
- tranquilizers
- alcohol, and
- tobacco.

Questions also are asked on subclasses of these drugs, and as other drugs appeared on the American scene, new questions were added, including those on crystal methamphetamine ("ice"), anabolic steroids, and MDMA[3]. Well over 100 questions in the survey questionnaire are devoted to drug-specific items.

Separate nationally representative samples for 8th, 10th, and 12th graders are drawn, with approximately 13,000 to 19,000 students representing each grade in any given year (Table 2). Data are collected during the spring of each year, with questionnaires typically administered in sample classrooms during a normal class period.

Table 2. Sample sizes of the Monitoring the Future surveys, 1990-2000

Year	*8th Grade*	*10th Grade*	*12th Grade*
1990	—	—	15,676
1991	17,844	14,996	15,483
1992	19,015	14,997	16,251
1993	18,820	15,516	16,763
1994	17,708	16,080	15,929
1995	17,929	17,285	15,876
1996	18,368	15,873	14,824
1997	19,066	15,778	15,963
1998	18,667	15,419	15,780
1999	17,287	13,885	14,056
2000	17,311	14,576	13,286

Source: Johnston, et al., 2000 (Table 3-1) and MTF 2000 press release.

MTF estimates drug use among the population in school, thereby excluding absentees and school dropouts. Youth who drop out of school before graduation are estimated by the Census Bureau to be between 15 and 20 percent of each age cohort nationally. There is evidence to suggest that these subpopulations, particularly dropouts, have higher rates of drug use than the in-school youth population.

2.3 Youth Risk Behavior Survey

The YRBS is conducted by the Centers for Disease Control and Prevention (CDC) every two years on a nationally representative sample of high school students.[4] It is representative of students in grades 9-12 in public and private schools in the 50 states and the District of

[3] 3,4 methylenedioxymethamphetamine, also known as ecstasy.

[4] In addition to the national YRBS, 33 States and 16 cities also conducted their own local YRBS in 1999.

Columbia[5] (CDC, 2000). The YRBS focuses on measuring six priority health-risk behavior categories, including:

- behaviors that contribute to unintentional and intentional injuries
- tobacco use
- alcohol and other drug use
- sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases
- unhealthy dietary behaviors, and
- physical inactivity.

Since the focus of YRBS is not primarily drug use, the survey has a limited number of items that permit measurement of drug use patterns. In the 1999 YRBS, 15 percent of the survey questions were about drug use -- there were 13 questions relating to drug use out of a total of 87 questions in the survey. In 1999, these included questions on marijuana, cocaine, inhalants, heroin, and methamphetamines. The subset of drug use-related questions also has changed since 1990. Thus, the ability to assess trends from YRBS is restricted to lifetime and current use of marijuana, lifetime and current use of cocaine, and lifetime steroid use.

Data collection occurs in the spring (February to May in 1999). YRBS was first conducted in 1990 and then on every odd-numbered year since 1991. The size of the survey sample has ranged between about 11,000 and 16,000 (Table 3). In 1999, the sample included 15,349 students in 144 schools. An analysis weight is applied to each student record to adjust for nonresponse and for varying probabilities of selection.

Table 3. Sample sizes of the Youth Risk Behavior Surveys, 1991, 1993, 1995, 1997, and 1999

Year	*Grades 9-12*
1990	11,631
1991	12,272
1993	16,296
1995	10,904
1997	16,262
1999	15,349

Sources: NIDA and CDC, 1991; CDC1992, Kann et al. 1995; Kann et al. 1996; CDC 1998, and CDC2000.

The data collection procedures conducted in the sampled classrooms during a regular class period are designed to protect students' privacy by allowing for anonymous and voluntary participation. Local parental permission procedures are followed before survey administration. Students complete the self-administered questionnaire and record their responses to multiple-choice questions on a computer-scannable answer sheet (CDC, 2000).

[5] The 1990 national YRBS included Puerto Rico and the Virgin Islands, but all subsequent surveys are representative of the 50 states and the District of Columbia only. In 1992, the YRBS questionnaire was administered to a household-based sample of youth in conjunction with the National Health Interview Survey – results are not included in this report because the resulting rates are not directly comparable to the school-based YRBS.

Two limitations are noted in interpreting YRBS results (CDC, 2000). First, these data are not representative of all persons in this age group, since they apply only to youth who attend regular high school.[6] Thus, it excludes absentees, dropouts, and any other subpopulations that do not attend school. Second, although the survey questions have been shown to have good test-retest reliability (Brener, Collins, Kann, Warren, and Williams, 1995), the extent of underreporting or overreporting of behaviors cannot be determined.

2.4 Comparison of three surveys

Overall, the three surveys that collect data on drug use are nationally representative of the population segments they target; nevertheless they each have major methodological differences (see Section 4 for a more thorough discussion of these differences). Appendix B provides a summarized comparison of the three surveys along several methodological dimensions. Both the NHSDA and MTF focus primarily on drug use and related factors, whereas the YRBS focuses on a wide range of health risk behaviors, including drug use. Both the NHSDA and MTF are annual surveys, whereas the YRBS is conducted every two years. Of the three surveys, only the NHSDA includes school dropouts and absentees. Since each survey provides scientific information on youth drug use, it is important to use all three in tracking trends while keeping in mind their respective strengths and limitations.

3. TRENDS IN YOUTH DRUG USE

Consistent data on marijuana and cocaine use among youth have been collected from 1990 through 1999 or 2000, for all three sources described above – annually for the Household Survey and Monitoring the Future seniors (since 1991 for 8th and 10th graders), and biennially for YRBS. YRBS does not permit trend data for the full range of drugs of abuse, so only marijuana and cocaine use are examined in this section. However, cocaine use information collected by all three surveys show very low reported prevalence and large standard errors. Thus, cocaine trends are unstable and are reviewed here in less detail than marijuana trends.[7]

The youth drug use trends examined here are placed in the context of the national Media Campaign. As noted in the Introduction (Section 1), the fully integrated National Youth Anti-Drug Media Campaign started in 1999, and this is indicated on all the trend charts. The Media Campaign is discussed in greater detail in Section 5.

3.1 National Household Survey on Drug Abuse

In 1990, 4.4 percent of the youth segment (12-17 year olds) of the Household Survey reported using marijuana in the past month. By 1992, the rate had declined to 3.4 percent, the lowest

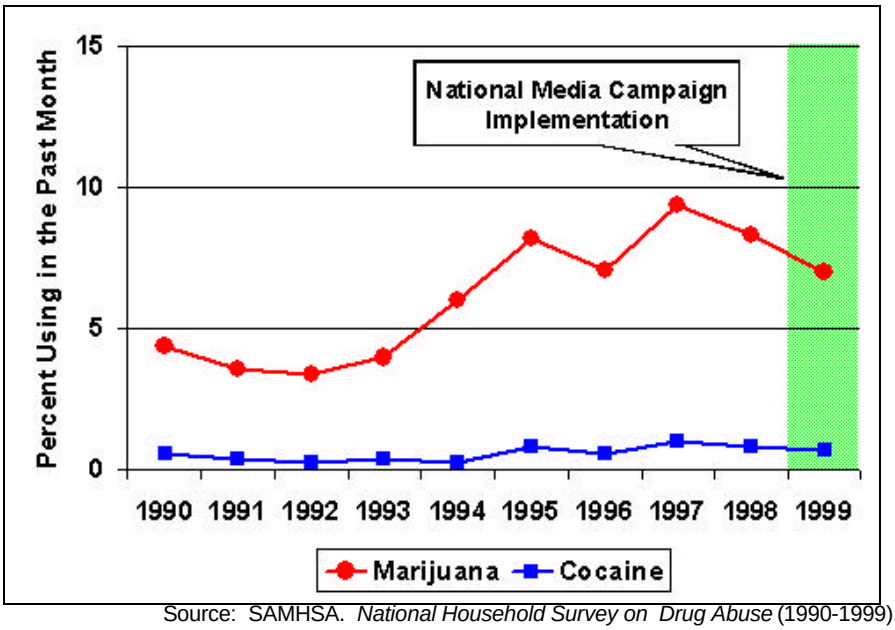
[6] In 1998, CDC conducted a separate survey of alternative high school students – students who are at high risk for failing or dropping out of regular high school or who have been expelled from regular high school because of illegal activity or behavioral problems – and found substantially higher rates of drug use and other risk behaviors (Grunbaum, Kann, Kinchen, et al. 1999).

[7] The Media Campaign targets entry-level drug use – primarily marijuana and inhalant use. Cocaine is not commonly considered an entry-level drug, as is evidenced by the low prevalence of use measured by all three surveys.

recorded rate since 1979. The mid-1990s was marked by increasing rates, which peaked at 9.4 percent in 1997.[8] The latest reported rate, observed in 1999, is 7.0 percent[9] significantly lower than the peak of two years earlier (Figure 1).

During the period 1990 to 1999, current cocaine use in the 12-17 age group began at 0.6 percent in 1990 and ended at 0.7 in 1999. The range of fluctuation in the intervening period was between 0.3 percent and 1.0 percent. It must be noted that current use of cocaine is extremely rare in this population and that the very low reported levels do not lend themselves well to trend analysis. Therefore, the cocaine use data among youth from NHSDA must be interpreted with caution.

Figure 1. Current marijuana and cocaine use among youth (ages 12-17), 1990 to 1999



Source: SAMHSA. *National Household Survey on Drug Abuse* (1990-1999).

3.2 Monitoring the Future

The general pattern of drug use as measured by the MTF is one of increasing use rates as students go on to higher grades. This progression is clearly shown in the marijuana and cocaine trends described below, with 12th graders reporting the highest rates of use, 8th graders reporting the lowest rates, and 10th graders reporting intermediate rates.

Current marijuana use among middle school and high school students as measured by the MTF is shown in Figure 2. Among 12th graders, the lowest observed rate of current use was in 1992, with 11.9 percent reporting use of marijuana in the past month.[10] A steady increase was observed until 1997, when the highest rate for the decade was reported at 23.7 percent. In the

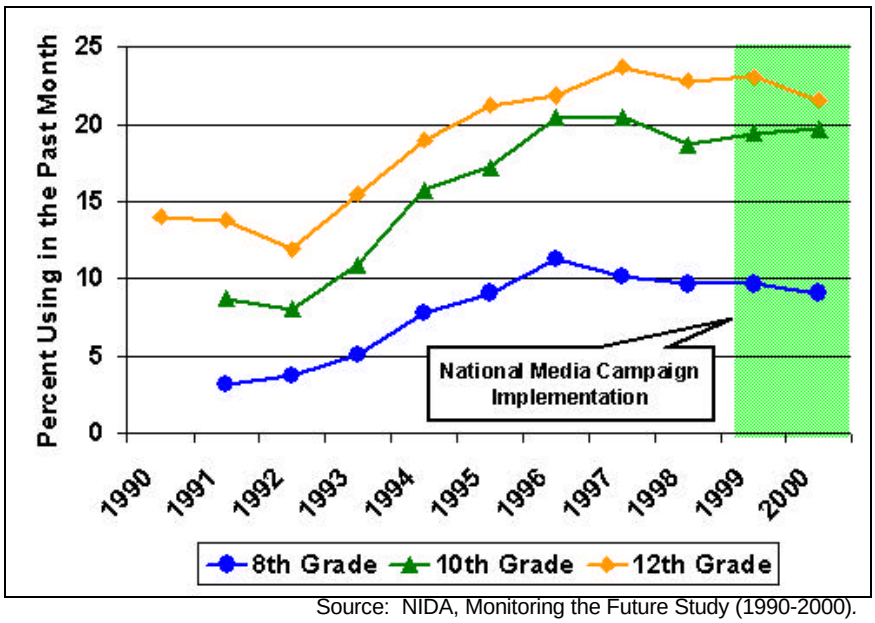
[8] The highest recorded rate of current marijuana use in this age group was in 1979, when 14.2 percent reported using marijuana in the past month.

[9] Based on the comparable PAPI method.

[10] This also is the lowest recorded rate since MTF began surveying high school seniors in 1975. The peak rate of current marijuana use in this subgroup was in 1978 (37.1 percent).

three years since then, the rate has remained relatively flat. The trends for 8th and 10th graders begin in 1991. Among 10th graders, the pattern is much the same as for 12th graders, except that the levels of reported use are notably lower – the lowest rate was reported in 1992 (8.1 percent), increasing steadily to a peak in 1997 of 20.5 percent, and remaining relatively unchanged in the last 3 years. The same increasing trend in the early 1990s is found among 8th graders, albeit at a much lower rate, from 3.2 percent in 1991 to a peak 11.3 percent in 1996, followed by a period of no further growth in the last 4 years.

Figure 2. Current Marijuana Use among 8th, 10th, and 12th Graders, 1990-2000

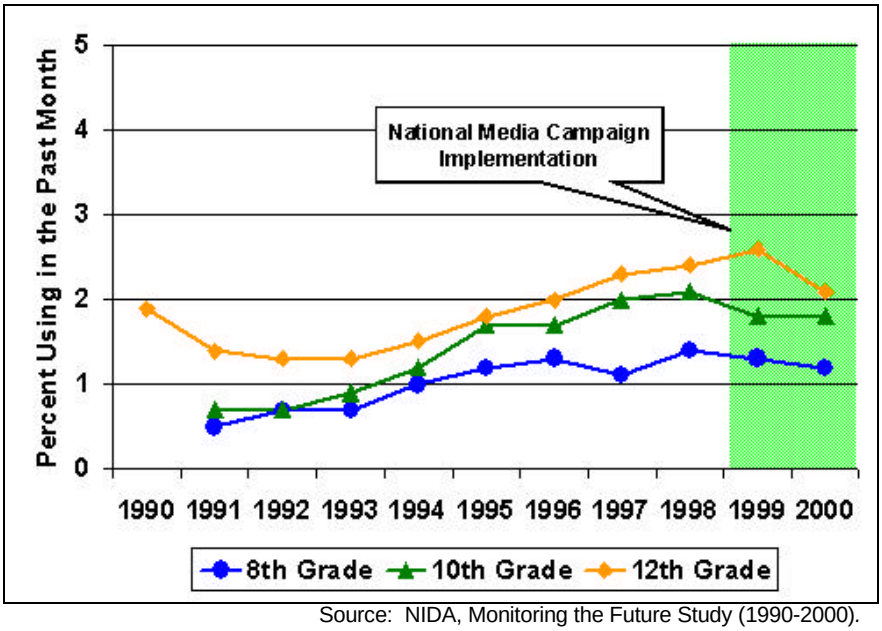


Source: NIDA, Monitoring the Future Study (1990-2000).

Current cocaine use among seniors was at its lowest recorded level in 26 years in 1992 and 1993 when 1.3 percent reported using in the past month. Since then, this rate has crept up, peaking at 2.6 percent in 1999[11] and, in the most recent 2000 survey, was reported at 2.1 percent (Figure 3). Among 10th graders, the lowest rates also were reported in 1992 and 1993 at 0.7 percent, increasing gradually to a peak of 2.1 percent in 1998 and flattening out to 1.8 percent in 1999 and 2000. Current cocaine use among 8th graders shows a narrower range of fluctuation and lower rates overall, with a flat trend in the second half of the decade. As with NHSDA, cocaine use rates should be used with caution because of the low prevalence of cocaine use in this population.

[11] In the 26-year history of MTF senior surveys, the highest cocaine use rate was recorded in 1985 at the peak of the cocaine epidemic, when 6.7 percent of 12th graders reported use in the past month.

Figure 3. Current Cocaine Use among 8th, 10th, and 12th Graders, 1990-2000



Source: NIDA, Monitoring the Future Study (1990-2000).

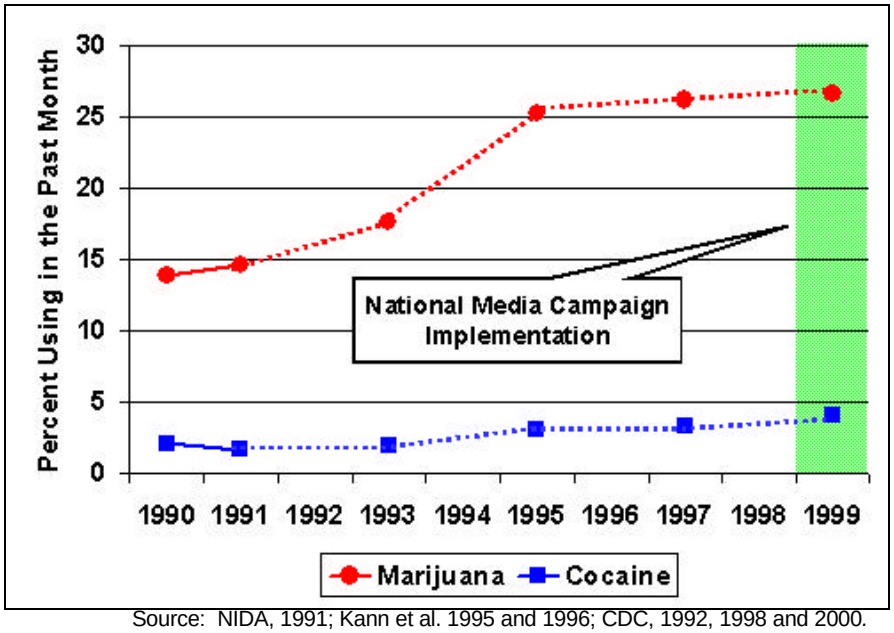
3.3 Youth Risk Behavior Survey

Trend data on drug use among high school students (grades 9 through 12) from the YRBS, reproduced as Appendix A, provided the impetus for the congressional directive to provide this report. As noted on CDC's fact sheet, the risk behavior trends reported were assessed using 1999 data **compared to 1991**. Indeed, marijuana and cocaine use trends were significantly higher since 1991. However, the trend in the last 3 YRBS surveys (spanning a period of 5 calendar years) is **flat** for both marijuana and cocaine.

Current marijuana use was first measured in 1990 at 13.9 percent and rose to 25.3 percent in 1995, 26.2 percent in 1997, and 26.7 percent in 1999. Based on standard errors of the point estimates published by CDC, the rates observed in the last three surveys -- 1995, 1997, and 1999 – are not significantly different. In effect, current marijuana use has been unchanged in the last 5 years, with about one in four high school students reporting use in the past month.

Current cocaine use was reported by 2.1 percent of high school students in 1990. The lowest measured rate was 1.7 percent in 1991, followed by a gradual increase to 4.0 percent, or one in 25, in 1999. As with the other two surveys, cocaine use rates as measured in a school survey must be used with caution.

Figure 4. Current Marijuana and Cocaine Use among High School Students, 1990, 1991, 1993, 1995, 1997, and 1999

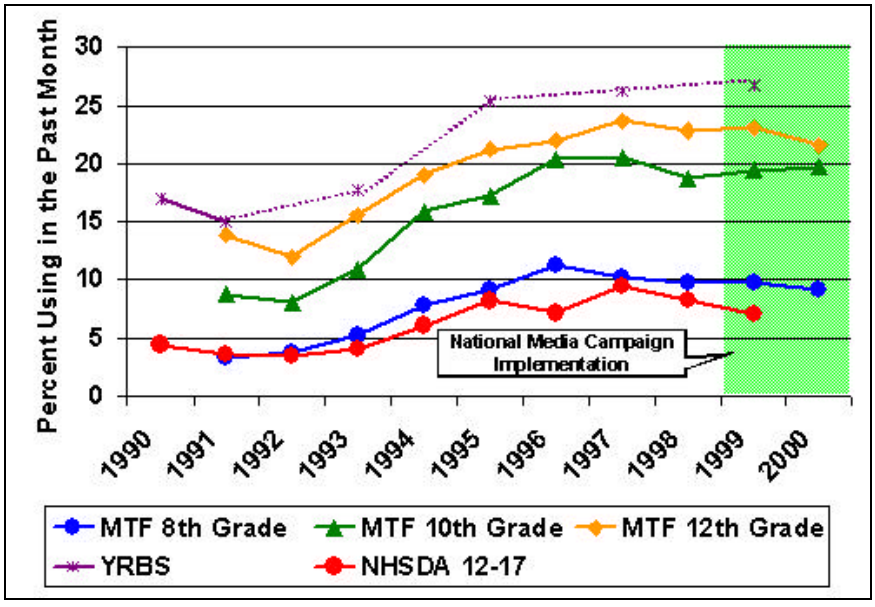


Source: NIDA, 1991; Kann et al. 1995 and 1996; CDC, 1992, 1998 and 2000.

4. DIFFERENT PERSPECTIVES ON THE SAME PROBLEM

The three measurements of youth drug use trends described earlier vary somewhat in the estimated levels of use, but generally are consistent in trends. Focusing on the more stable rates of current marijuana use, it is clear, regardless of data source, that from the lowest measured rates of use recorded in 1991 and 1992, a steady increase was observed through the mid-1990s, peaking in 1996 and 1997, and then flattening out toward the end of the decade (Figure 5).

Figure 5. Trends in Current Marijuana Use from Three Surveys, 1990-2000



Sources: CDC, NIDA, and SAMHSA.

The-school-based surveys – MTF and YRBS -- yield higher estimates than the household-based NHSDA. Between the two in-school surveys, YRBS reports higher estimates than MTF. However, comparing grade-specific rates reported in YRBS and MTF, while accounting for standard errors, showed that marijuana use rates in 1999 for 12th graders in YRBS and MTF were not significantly different.[12]

It is also important to note that the youth segment of the NHSDA is not directly comparable to the in-school populations. This is clearly illustrated in a comparison of MTF and a disaggregation of NHSDA into dropouts aged 16-18 and NHSDA seniors (typically in the age range 17-19), which showed that in 1991, 11.6 percent of NHSDA seniors reported current marijuana use compared to 21.0 percent of NHSDA dropouts, and 13.8 percent of MTF seniors (Johnston, O'Malley, and Bachman, 2000:374). Thus, when the slice of NHSDA "youth" most comparable to in-school seniors is selected, their reported rate is only slightly lower than MTF, whereas for the year in question (1991), the overall youth (12-17 year olds) prevalence of current marijuana use reported by NHSDA was 3.6 percent.

4.1 Methodological Studies

As noted earlier (Section 2), there are differences in coverage and methodology between the surveys that can help account for the variations in point estimates. In a comparison of NHSDA and MTF findings, SAMHSA noted methodological differences between the two surveys, particularly in the setting of the survey, in questionnaire items, in sample sizes, and in response rates (Gfroerer, Wright, and Kopstein, 1997).

More recently, the Department of Health and Human Services (DHHS) commissioned a series of five papers[13] to examine substance abuse data from the three surveys -- NHSDA, MTF, and YRBS. Among the key findings are:

- Each survey could be considered an exemplar for the type of study being conducted; however, since each survey is designed in a very different way for a very different purpose, comparability on the few areas of overlap are difficult or impossible. (Cowan, 2000)
- The comparative rates of use of alcohol, cigarettes, and marijuana were similar in all three surveys, producing nearly identical pictures of male and female substance use and similar race/ethnic profiles; however the estimated rates were consistently different. (Fowler, 2000)
- Differences in the methods of administration of the survey are critical because they relate to respondents' perceptions of anonymity, and YRBS is thought to have a higher level of anonymity than MTF, with NHSDA likely to have lower perceptions of anonymity than the school-based surveys. (Sudman, 2000)

[12] Based on calculations using published YRBS standard errors for 1999, the 95% confidence intervals of the YRBS estimates for lifetime and current marijuana use among the 12th grade sample overlapped with MTF estimates for the same grade.

[13] These studies, as yet unpublished, may be obtained from the Office of the Assistant Secretary for Planning and Evaluation, DHHS.

- Survey setting (in-school vs. home-based) and privacy (degree of parental involvement in the survey consent process) contribute to observed differences. (Fendrich and Johnson, 2000)
- While YRBS estimates are higher than MTF across the board, most are not statistically significantly higher; and a number of various survey design and implementation factors may explain many of the differences between the two school-based surveys and NHSDA. (Harrison, 2000)

Comparing results from the three surveys does pose challenges. Data sources may not yield identical estimates, but over time, they show remarkably consistent trends even with known methodological differences. It is important to rely on multiple data sources for answering policy questions, while recognizing the sources' strengths and weaknesses. ONDCP's PME system, whenever possible, makes use of two or more data sources for tracking the same objective.

5. THE NATIONAL YOUTH ANTI-DRUG MEDIA CAMPAIGN

The National Youth Anti-Drug Media Campaign, congressionally mandated under Public Law 105-61, is being implemented in three phases; the first started in January of 1998. Phase I was a 12-city pilot program conducted from January through June 1998. Phase II expanded the pilot program to the whole nation, and was conducted from July 1998 through the summer of 1999. Phase III is the fully integrated campaign, incorporating the advertising and non-advertising components. In addition to advertising, the fully integrated campaign includes community outreach, working with the entertainment and ad media industries to encourage the accurate depiction of the consequences of drug use, outreach to faith-based groups, and working with youth organizations. Phases I and II were pilot periods (learning labs focused primarily on informing the planning and development cycle for the fully integrated national media campaign) and were not expected to have a significant impact on youth drug use as research indicates that behavioral change takes 2 to 3 years to occur. Phases I and II achieved their objectives of increased awareness of anti-drug messages – the first step in changing drug use attitudes and behaviors. It is with the implementation of Phase III, starting in mid-1999, that ONDCP expects to see improvement in anti-drug attitudes that will lead to decreases in youth drug use within 3 years. Results from all three national surveys showing flattening or declining youth marijuana use in 1999 (and 2000 in the case of the MTF), suggest that the campaign may be having the desired impact. However, we must await the results of the Media Campaign's independent evaluation (see below), before any definitive conclusion can be drawn regarding the Campaign's contribution to reducing youth drug use.

5.1 Purpose of the Campaign

The purpose of the National Youth Anti-Drug Media Campaign is to prevent the initiation of drug use among the nation's youth and to stop those youth that have begun to try drugs from continuing their use. The target audiences for the Media Campaign are youth ages 9 to 18 and their parents. The focus of the Campaign is on preventing the use of entry level illicit drugs, specifically marijuana and inhalants among 11 to 13 year olds. Research has shown that few regular users of illicit drugs started their drug careers with cocaine or heroin (Golub and Johnson,

1994; Golub and Johnson, 2001). The Media Campaign's Strategic Plan, however, does foresee the need to address emerging drugs, such as MDMA, as the need arises to prevent their initiation and to stop their use among those who may have begun to use these drugs.

5.2 What the Media Campaign is Doing to Address Recent Trends in Drug Use and Emerging Drugs

The Media Campaign has taken systematic and timely steps to ensure that both its messages and means of reaching youth and parents are effective. While the campaign is specifically designed to reach youth ages 11-13 and their parents, addressing entry-level substances (primarily marijuana and inhalants), Campaign messages also address other illicit drugs, such as MDMA, that are clearly on the rise among youth. While new information from surveys and the Campaign evaluation are constantly being tracked for insights that can lead to improvements, Campaign resources are not sufficient to reach youth of all ages on each specific illicit drug.

Ongoing analysis of national surveys such as the MTF, NHSDA, and YRBS inform the strategic direction of the campaign. While the latest Monitoring the Future survey reveals the good news that youth perception of risk of marijuana has risen, Campaign managers also have learned from the evaluation of Phase III being conducted by NIDA that parents -- especially minority parents -- have low levels of belief that they can make a difference in whether their kids use drugs, in contrast to prevention research that shows parents are the single greatest influence. Therefore more powerful messages to reach parents to build their specific skills and increase their self-efficacy are being designed. Parents will then be better able to communicate with their children about drugs and positively influence their attitudes and intentions toward drug use. This will result in a continuation of the apparent reversal in previously increasing youth drug use rates.

Also, recent data indicate that there is a rise in use of inhalants, thus, the Campaign is increasing its efforts to reach both youth and parents on this topic as part of broad efforts to increase, for youth, the perception of negative consequences, and for parents, that their kids are at risk. These upgraded efforts already have resulted in new advertising now running in national publications such as *Parade*, *Newsweek* and other widely read magazines, as well as through network television and radio. Further, through new efforts with national prevention groups and other federal agencies, these messages will be reinforced through many other credible channels at the community and organizational level thus reaching youth and parents in many effective ways.

The Committee has noted its concern over perceived rising drug use trends. The recent substantial rise in MDMA use among youth and young adults, as reported from multiple studies,[14] is of special concern because of its apparent use as an entry-level drug (a primary focus of the Media Campaign) and its potential for harm. The Campaign is now addressing this problem through a $10 million effort that includes new radio and print advertising, collaboration with the entertainment industry, fresh and appealing website content, and other efforts to refute

[14] For example, according to the 1999 MTF, a significant increase from the previous year in lifetime use of MDMA was noted among 12th graders (from 5.8 percent to 8.0 percent), but not among 8th or 10th graders. In 2000, MTF found a significant increase from the previous year not only among 12th graders (from 8.0 percent to 11.0 percent), but also among 8th graders (from 2.7 percent to 4.3 percent). These findings suggest that MDMA use now is growing among middle school students, a major target population for the Media Campaign.

the widespread and mistaken perception that ecstasy is virtually harmless, and ensure that both youth and parents understand the substantial risk involved.

Also, ongoing studies of message effectiveness, both prior to message dissemination through quantitative copy testing, as well as "in the marketplace" through tracking studies, are revealing message characteristics that are most effective among both youth and parents. Applying these findings will ensure that new advertising on all illicit drugs benefits from the most current research. For example, increased understanding of how best to portray social risk (peer disapproval) has assisted in the development of stronger messages that are more widely accepted by youth and result in better drug refusal skills.

6. EVALUATING YOUTH DRUG USE AND THE MEDIA CAMPAIGN

ONDCP is measuring the impact of the Media Campaign with a thorough, rigorous, and independent evaluation. The nationally representative evaluation is being conducted for ONDCP by NIDA, which conducts more than 80 percent of the world's research on illegal drugs. The evaluation is a 4-year longitudinal study of parents' and their children's exposure and response to the Media Campaign. In this way, ONDCP will be able to assess the extent to which changes in anti-drug attitudes and beliefs or drug using behavior can be attributed to the Media Campaign as opposed to other socio-economic factors.

6.1 The Need for a Separate Evaluation

The existing national surveys of youth drug use – the NHSDA, MTF, and YRBS – provide important information on the use of illicit drugs over time. They have a long history – the NHSDA and the MTF since the 1970s, the YRBS since 1991 – of asking approximately the same questions of comparable populations with (mostly) consistent methodologies. The primary purpose of these surveys, particularly NHSDA and MTF, is to monitor or provide surveillance on a wide range of drug-related attitudes, beliefs, and behaviors over time. They provide policy makers with broad indicators of the success of policy – this is how they are used by ONDCP for the PME. They also are of tremendous value to researchers in exploring specific hypotheses concerning drug use. These surveys will permit the determination of whether drug use behavior and related attitudes and beliefs changed after the launching of Phase III of the Media Campaign in mid-1999. However, they will not be able to answer the critical question of whether these changes were the result of the Media Campaign. These surveys do not ask respondents about their exposure and reactions to the messages of the Media Campaign that can then be linked to their drug-related attitudes and behavior. For these answers, a separate impact evaluation is needed.

6.2 The National Survey of Parents and Youth

ONDCP recognized at the outset of the Media Campaign that to ensure the independence of the evaluation and preserve its credibility, it should be conducted by an agency other than ONDCP. Therefore, ONDCP in December 1997 entered into an interagency agreement with NIDA to conduct the evaluation of Phase III of the Media Campaign. (Due to time constraints, ONDCP

conducted the evaluations of Phase I and Phase II [see ONDCP, 1998; ONDCP 1999a; ONDCP 1999b].) In September of 1998, as the result of a full and open competition, NIDA awarded the evaluation contract to Westat, a nationally recognized survey contractor. Westat subcontracted with the Annenberg School of Communication of the University of Pennsylvania and the National Development and Research Institute, Inc. Westat and its subcontractors immediately began to design and pilot test the National Survey of Parents and Youth (NSPY), the Media Campaign's evaluation survey.

The NSPY is a nationally representative longitudinal survey of parent and child attitudes, beliefs, and behavior with regard to drugs. The sample design calls for the selection of a parent and up to two children from the same household. These respondents will be interviewed up to three times over the 4-year life of the survey. In this way, the evaluators will be able to assess changes over time in attitudes, beliefs, and behavior among the same cohort of respondents. Over the course of the study, approximately 14,000 parents and 20,000 children will be interviewed. Interviews will be conducted in households throughout the year in six-month waves. A detailed discussion of the study's methodology was published (and submitted to Congress) in 2000 (Hornik, Judkins, Golub, Johnson, and Duncan, 2000). In a recent audit of the Media Campaign, including the evaluation component, the General Accounting Office (GAO) noted, regarding Phase III, that "...the evaluation design appears promising, given its comprehensive scope, methodological sophistication, and use of lessons learned from previous phases." The report further notes that the evaluation design is promising for several reasons: "A theoretically based, better-designed [than Phase I and Phase II] model has been developed. More comprehensive analytical strategies have been enumerated for demonstrating the impact of the campaign. Various statistical procedures have been designed for analyzing both current and long-term effects" (GAO, 2000).

There are four overarching questions that the evaluation is addressing:

- Is the Media Campaign getting its messages to the target populations?
- Are the desired trends in the outcomes (e.g., exposure, attitudes, and behavior) going in the right direction?
- Is the Media Campaign influencing changes in the outcomes?
- What is learned from the overall evaluation that can support ongoing decisionmaking for the Media Campaign?

The first wave of data was collected from November 1999 through June 2000. A report of these baseline data was released (and submitted to Congress) in November 2000 (Hornik, Maklan, Cadell, Judkins, et al., 2000). This report did not draw inferences about the effectiveness of the campaign, since it was the first or baseline data point. Its purpose was to set a baseline for parent and youth cognitive attributes and for parent and youth behavior. The March 2001 report will contain the first preliminary indicators of the direct impact of the fully integrated media campaign on youth attitudes and behavior. Findings from the November 2000 report indicate that parents and youth are seeing the campaign ads and suggest areas in which the Campaign can have an impact. They include:

- General exposure measures across all media suggest that 93% of youth recalled exposure to one or more anti-drug ads each month and 90% of adults recalled exposure to one or more anti-drug ads each month.
- A key finding regarding marijuana, the primary focus of the campaign, is that most 9- to 11-year-old children do not report using marijuana and have strong anti-marijuana attitudes (6.8 on a 1-7 anti-marijuana scale); 12- to 18-year-old non-using teens also are generally negative (6.6 on 1-7 scale) about marijuana use but less consistent in their anti-drug beliefs, suggesting an area for potential improvement.
- About 91 percent of parents report talking with their kids about drugs in the past 6 months, with 77 percent reporting having talked at least twice; however, children report fewer conversations than parents.
- Parents were not strongly convinced that monitoring would affect their children's likelihood of using drugs, with only 52 percent of parents of 12- to 13-year olds agreeing that monitoring would "make it less likely my child will use any drug nearly every month" – again suggesting an area for potential improvement.

The second wave of data collection was conducted from July through December 2000. A report detailing findings from Waves I and II is to be submitted to ONDCP in March 2001 for submittal to Congress and public release. This schedule – six-month data collection waves followed within three months by an evaluation report – is to continue through the life of the evaluation. In this way ONDCP will be able to answer the question "**Is** the Campaign working?" rather than the more typical "**Did** the Campaign work?" Such a schedule of contemporaneous evaluation of a program is quite uncommon among drug prevention programs.

The March 2001 report will be the first report with which we will be able to begin to assess the impact of the Media Campaign in improving anti-drug attitudes and decreasing drug use. However, it is important to remember that this report will represent only the second six-month data point; we will only have one year's worth of data. As ONDCP has stated from the outset, and as recognized by Congress in the original authorization for the Media Campaign, we anticipate that it will take 1-2 years to affect attitudes and 2-3 years to affect drug use behavior. ONDCP is encouraged, however, by the recent trends in youth drug use as measured by the NHSDA, MTF, and YRBS, that the Media Campaign is being implemented in an advantageous time in the Nation's efforts against youth drug use, and that it may be making a significant contribution to the continued decline of this problem.

In conclusion, the two major drug surveys (NHSDA and MTF), along with YRBS, will continue to be used to monitor and assess prevalence of drug use among youth in the long term – for example, as input to the PME system. For the Media Campaign specifically, evaluation data from NSPY concurrently will enable ONDCP to assess whether the Campaign is working and will provide invaluable data for prevention researchers on influencing youth and their parents.

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APPENDIX A: YRBS SUMMARY

CDC Fact Sheet on
Youth Risk Behavior Trends

Fact Sheet:
Youth Risk Behavior Trends

From CDC's 1991, 1993, 1995, 1997 and 1999 Youth Risk Behavior Surveys

Risk Behaviors That Improved,[1] 1991-1999

	1991	1993	1995	1997	1999
Injury-related behaviors					
Never or rarely wore a seat belt	25.9	19.1	21.7	19.3	16.4
Never or rarely wore a bicycle helmet[2]	96.2	92.8	92.8	88.4	85.3
Rode with a drunk driver[3]	39.9	35.3	38.8	36.6	33.1
Carried a gun[4]	NA	7.9	7.6	5.9	4.9
Carried a weapon on school property[4]	NA	11.8	9.8	8.5	6.9
Involved in a physical fight[5]	42.5	41.8	38.7	36.6	35.7
Involved in a physical fight on school property[5]	NA	16.2	15.5	14.8	14.2
Seriously considered suicide[6]	29.0	24.1	24.1	20.5	19.3
Tobacco use					
Current smokeless tobacco use[4]	NA	NA	11.4	9.3	7.8
Sexual behaviors					
Ever had sexual intercourse	54.1	53.0	53.1	48.4	49.9
Had four or more sexual partners	18.7	18.7	17.8	16.0	16.2
Used a condom at last sexual intercourse[7]	46.2	52.8	54.4	56.8	58.0
Had been taught about HIV/AIDS in school	83.3	86.1	86.3	91.5	90.6
Physical activity					
Participated in strengthening exercises[8]	47.8	51.9	50.3	51.4	53.6

Risk Behaviors That Worsened,[1] 1991-1999

	1991	1993	1995	1997	1999
Tobacco use					
Frequent cigarette use[9]	12.7	13.8	16.1	16.7	16.8
Alcohol and other drug use					
Episodic heavy drinking[10]	31.3	30.0	32.6	33.4	31.5
Lifetime marijuana use	31.3	32.8	42.4	47.1	47.2
Current cocaine use[3]	1.7	1.9	3.1	3.3	4.0
Lifetime illegal steroid use	2.7	2.2	3.7	3.1	3.7
Sexual behaviors					
Used birth control pills at last sexual intercourse[7]	20.8	18.4	17.4	16.6	16.2
Physical activity					
Attended physical education class daily	41.6	34.3	25.4	27.4	29.1

[1] Significant linear change, $p < .05$.
[2] Among students who rode bicycles during the 12 months preceding the survey.
[3] $\geq$ 1 times during the 30 days preceding the survey.
[4] On $\geq$ 1 of the 30 days preceding the survey.
[5] $\geq$ 1 times during the 12 months preceding the survey.
[6] During the 12 months preceding the survey.
[7] Among currently sexually active students.
[8] On $\geq$ 3 of the 7 days preceding the survey.
[9] On $\geq$ 20 of the 30 days preceding the survey.
[10] Drank $\geq$ 5 drinks of alcohol on at least one occasion on $\geq$ 1 of the 30 days preceding the survey.
NA: data not collected

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Risk Behaviors That Did Not Change or Demonstrated Inconsistent Patterns of Change, 1991-1999

	1991	1993	1995	1997	1999
Injury-related behaviors					
Felt too unsafe to go to school[1]	NA	4.4	4.5	4.0	5.2
Threatened or injured with a weapon on school property[2]	NA	7.3	8.4	7.4	7.7
Attempted suicide[2]	7.3	8.6	8.7	7.7	8.3
Tobacco use					
Lifetime cigarette use[3]	70.1	69.5	71.3	70.2	70.4
Alcohol and other drug use					
Current alcohol use[1]	50.8	48.0	51.6	50.8	50.0
Alcohol use on school property[1]	NA	5.2	6.3	5.6	4.9
Marijuana use on school property[4]	NA	5.6	8.8	7.0	7.2
Sexual behaviors					
Currently sexually active[5]	37.5	37.5	37.9	34.8	36.3
Physical activity					
Participated in vigorous physical activity[6]	NA	65.8	63.7	63.8	64.7
Enrolled in physical education class	48.9	52.1	59.6	48.8	56.1

[1] On ≥ 1 of the 30 days preceding the survey.
[2] ≥ 1 times during the 12 months preceding the survey.
[3] Ever tried cigarette smoking, even 1 or 2 puffs.
[4] ≥ 1 times during the 30 days preceding the survey.
[5] Sexual intercourse during the 3 months preceding the survey.
[6] For at least 20 minutes on ≥ 3 of the 7 days preceding the survey.
NA: data not collected

About the Youth Risk Behavior Survey (YRBS)

The YRBS is a national school-based survey conducted biennially to assess the prevalence of health risk behaviors among high school students. Data from the 1991, 1993, 1995, 1997, and 1999 national YRBS were combined into one data set to examine trends in risk behaviors across time, controlling for grade, sex, and race/ethnicity.

For More Information

For additional information on the YRBS, contact the Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Division of Adolescent and School Health, 4770 Buford Highway, NE, Mailstop K-33, Atlanta, GA 30341-3717; telephone 1-888-231-6405; Internet http://www.cdc.gov/nccdphp/dash/

APPENDIX B: COMPARISON OF SURVEYS

Methodological Issue	NHSDA	MTF	YRBS
Principal focus of the survey	Drug use and related factors	Drug use and related attitudes and beliefs	Health risk behaviors (alcohol and other drug use is one of six categories)
Population represented	General household population, including youth (age 12-17)	Middle and high school students (8^{th}, 10^{th}, and 12^{th} graders)	High school students (Grades 9 through 12)
Frequency of data collection	Annual since 1990	Annual -- 12^{th} graders since 1975, 8^{th} and 10^{th} graders since 1991	Every 2 years since 1991
Calendar period of data collection	Year-round	Spring	February to May
Setting	Home-based	In-school	In-school
Excluded populations	Institutionalized, homeless	Absentees, school drop-outs, all others who are out-of-school	Absentees, school drop-outs, all others who are out-of-school
Approximate sample sizes	5,000 to 8,000 youth (1991-1998); 25,000 (1999)	13,000 to 19,000 for each grade	11,000 to 16,000 for all grades combined
Questionnaire items on specific drugs for the duration of the survey series	Marijuana, cocaine, inhalants, hallucinogens, heroin, nonmedical use of psychotherapeutic drugs, alcohol, tobacco	Marijuana, inhalants, hallucinogens, cocaine, heroin and other opiates, stimulants, sedatives, tranquilizers, alcohol, tobacco, steroids	Marijuana, cocaine, steroids
Agency funding the survey	SAMHSA	NIDA	CDC

APPENDIX C: GLOSSARY OF ACRONYMS

CDC	Centers for Disease Control and Prevention
DHHS	Department of Health and Human Services
GAO	General Accounting Office
HR	House Resolution
MDMA	3,4 methylenedioxymethamphetamine (ecstasy)
MTF	Monitoring the Future study
NHSDA	National Household Survey on Drug Abuse
NIDA	National Institute on Drug Abuse
NSPY	National Survey of Parents and Youth
ONDCP	Office of National Drug Control Policy
PME	Performance Measures of Effectiveness
SAMHSA	Substance Abuse and Mental Health Services Administration
YRBS	Youth Risk Behavior Survey

APPENDIX D: CHART DATA TABLES

Table C-1. Data for Figure 1 (Current marijuana and cocaine use among youth)

Year	*Percent using in the past month*	
	Marijuana	*Cocaine*
1990	4.4	0.6
1991	3.6	0.4
1992	3.4	0.3
1993	4.0	0.4
1994	6.0	0.3
1995	8.2	0.8
1996	7.2	0.6
1997	9.4	1.0
1998	8.3	0.8
1999	7.0	0.7

Source: SAMHSA. *National Household Survey on Drug Abuse* (1990-1999).

Table C-2. Data for Figure 2 (Current marijuana use among 8th, 10th, and 12th graders)

Year	*Percent using marijuana in the past month*		
	8th Graders	*10th Graders*	*12th Graders*
1990	—	—	14.0
1991	3.2	8.7	13.8
1992	3.7	8.1	11.9
1993	5.1	10.9	15.5
1994	7.8	15.8	19.0
1995	9.1	17.2	21.2
1996	11.3	20.4	21.9
1997	10.2	20.5	23.7
1998	9.7	18.7	22.8
1999	9.7	19.4	23.1
2000	9.1	19.7	21.6

Source: NIDA, *Monitoring the Future* study (1990-2000).

Table C-3. Data for Figure 3 (Current cocaine use among 8th, 10th, and 12th graders)

Year	*Percent using cocaine in the past month*		
	8th Graders	*10th Graders*	*12th Graders*
1990	—	—	1.9
1991	0.5	0.7	1.4
1992	0.7	0.7	1.3
1993	0.7	0.9	1.3
1994	1.0	1.2	1.5
1995	1.2	1.7	1.8
1996	1.3	1.7	2.0
1997	1.1	2.0	2.3
1998	1.4	2.1	2.4
1999	1.3	1.8	2.6
2000	1.2	1.8	2.1

Source: NIDA, *Monitoring the Future* study (1990-2000).

Table C-4. Data for Figure 4 (Current marijuana and cocaine use among high school students)

Year	*Percent using in the past month*	
	Marijuana	*Cocaine*
1990	13.9	2.1
1991	14.7	1.7
1992	—	—
1993	17.7	1.9
1994	—	—
1995	25.3	3.1
1996	—	—
1997	26.2	3.3
1998	—	—
1999	26.7	4.0

Source: CDC. *Youth Risk Behavior Survey* (1990, 1991, 1993, 1995, 1997, and1999).

Table C-5. Data for Figure 5 (Trends in current marijuana use from three surveys)

Year	*Percent using marijuana in the past month*				
	NHSDA	*MTF*			*YRBS*
		8th Graders	*10th Graders*	*12th Graders*	
1990	4.4	—	—	14.0	13.9
1991	3.6	3.2	8.7	13.8	14.7
1992	3.4	3.7	8.1	11.9	—
1993	4.0	5.1	10.9	15.5	17.7
1994	6.0	7.8	15.8	19.0	—
1995	8.2	9.1	17.2	21.2	25.3
1996	7.2	11.3	20.4	21.9	—
1997	9.4	10.2	20.5	23.7	26.2
1998	8.3	9.7	18.7	22.8	—
1999	7.0	9.7	19.4	23.1	26.7
2000	—	9.1	19.7	21.6	—

Source: SAMHSA, *National Household Survey on Drug Abuse* (1990-1999); NIDA, *Monitoring the Future* Study (1990-2000); CDC, *Youth Risk Behavior Survey* (1990, 1991, 1993, 1995, 1997, and1999).