

Investment in Tobacco Control

State Highlights 2001



U.S. Department of Health and Human Services

Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
Office on Smoking and Health



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Investment in Tobacco Control State Highlights 2001

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Office on Smoking and Health

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Foreword

We are at a paradoxical point in the history of tobacco control. In the 36 years since the release of the initial report of the Surgeon General's Ad Hoc Committee, which first publicized the adverse consequences of tobacco use, significant reductions have been made in the current and future burden of tobacco-related illness. Unfortunately, nearly one-quarter of all Americans still smoke and the percentage of high school youth who smoke steadily increased through most of the 1990s.

In recent years, however, we have learned a great deal about what it takes to prevent tobacco use among our youth and to assist current smokers who want to quit. Results from community-based interventions and statewide programs have shown that a comprehensive approach to tobacco control is effective in curtailing the epidemic. Data coming out of states that had already implemented comprehensive programs demonstrated that these programs are effective in preventing and reducing tobacco use. This led to the development of CDC's *Best Practices for Comprehensive Tobacco Control Programs*. *Best Practices* provides evidence to support the nine essential elements of a comprehensive program, and includes recommendations regarding the appropriate level of funding for each component based on specific characteristics of each state.

Fortunately, several forces have combined to increase dramatically the funds available for tobacco control at the state level. The states that provided the initial data for the development of *Best Practices* were states that had developed comprehensive programs with funds from dedicated excise tax revenues (California and Massachusetts), and states that individually settled their lawsuits with tobacco companies (Florida, Minnesota, Mississippi and Texas). With the resolution of the remaining 46 states' lawsuits in November 1998 in a \$206 billion settlement agreement, states are in a unique position to make an investment in tobacco control programs now that will have a substantial benefit in the future. In addition, more states are choosing to dedicate some portion of their excise tax revenues to tobacco control, and new funding streams for state-based tobacco control efforts have emerged at the national level—including both public and private sources.

However, the state investments alone are unlikely to eliminate the burden of tobacco use in the United States. *Healthy People 2010*, the national action plan for improving the health of all Americans, sets forth 21 ambitious tobacco-related objectives, including cutting in half the rates of tobacco use among young people and adults. Achieving these objectives will require a significant national commitment to implement a variety of strategies, including social, economic, and regulatory approaches—some of which can only be implemented by the federal government or by the private sector. The expansion of CDC's National Tobacco Control

Program to all 50 states and the program's commitment to further developing the science base for action and rigorously evaluating state-based efforts illustrate the essential roles of federal support. The American Legacy Foundation's nationwide media campaign, upon which states can build and tailor messages specific to their populations, is an example of excellent private sector involvement.

Actively involving all sectors of society, using approaches based on high quality science, is the only way in which we will achieve our public health objectives. We hope this publication will assist you as we work together to develop comprehensive, sustained, and effective tobacco control programs.

A handwritten signature in black ink, reading "Lawrence W. Green". The signature is fluid and cursive, with a large, sweeping initial "L" and a long, horizontal tail.

Lawrence W. Green, DrPH
Acting Director
Office on Smoking and Health
National Center for Chronic Disease
Prevention and Health Promotion
Centers for Disease Control and Prevention

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Jeff Chrismon and John Walsh of TRW, Inc. collected and organized the adult tobacco use data. Ryan Haygood of TRW, Inc. assisted in assembling the youth tobacco use data.

The authors wish to acknowledge the National Association of State Budget Officers and the state budget officers and analysts who verified the tobacco control funding information.

The authors also wish to acknowledge the tobacco control coordinators in each state health department for their important contribution to this project by reviewing the highlights for their individual states.

**Investment in Tobacco
Control
State Highlights 2001**

Executive Summary

Tobacco use is the single most preventable cause of death and disease in the United States. Most people begin using tobacco in early adolescence. Annually, tobacco use causes more than 430,000 deaths in the nation and costs approximately \$50–\$70 billion in medical expenses alone.

Although scientific knowledge regarding the methods for controlling tobacco use will never be perfect, more than enough is known to act now. In fact, if the strategies shown to be effective were fully implemented, the rates of tobacco use among young people and adults could be cut in half by 2010.¹

These strategies are described in the Surgeon General's report on *Reducing Tobacco Use*, CDC's *Best Practices for Comprehensive Tobacco Control Programs*, the Task Force on Community Preventive Services' tobacco-related recommendations, and the Public Health Service guidelines on smoking cessation. The proven strategies in these reports provide a strong foundation for action at the state level. Furthermore, the availability of funds from the settlement of the states' lawsuits against the tobacco industry, state excise tax revenues and general funds, and federal and private sources provide the financial means to take action.

The purpose of this report is to

- analyze current investments in tobacco control at the state level,
- place these investments in the context of health and economic consequences of tobacco use specific to the state, and
- compare current investments with the specific funding ranges contained in *Best Practices*.

This information can be used by decision makers who must make tough decisions regarding the allocation of resources for tobacco control programs amid many competing demands.

Data presented in this report demonstrate the significant but widely varied burden of tobacco use at the state level. This dramatic variation will require each state to develop its own unique response to this public health problem. However, certain characteristics of effective tobacco control programs at the state level have been identified. The programs that have been successful have taken a comprehensive approach which combines community intervention, countermarketing, policy and regulation, and evaluation and surveillance. The programs that have been in place the longest have already demonstrated decreases in consumption, decreases in smoking prevalence among both youth and adults, and in one state, a more rapid decline in lung cancer rates than that seen in the nation as a whole. The experiences of these programs have been used to establish programmatic and funding recommendations for consideration by policymakers as they make decisions regarding the allocation of resources for tobacco control in their states.

The state settlement agreements with the tobacco industry provide a major opportunity for funding tobacco control programs, and 36 states have invested \$654.9 million from the settlement agreements in fiscal year 2001 for tobacco use prevention and control programs. Excise taxes are also an important source of funds for tobacco control in 8 states, which have appropriated \$218.4 million

for this purpose. In addition, 9 states have appropriated \$9.9 million from their general revenue to support tobacco use prevention and control programs. In total, state investment for tobacco control activities in fiscal year 2001 is \$883.2 million.

Federal and private sources of funds for state-based tobacco control activities (including CDC's National Tobacco Control Program and the American Legacy Foundation) also play an important role in many states. In five states and the District of Columbia, federal and private funds are the only funds being invested in tobacco control. In at least 20 states, they make up 50% or more of the funds being invested.

For the country as a whole, the combined resources available in fiscal year 2001 to fund tobacco use prevention and control programs totals almost \$1 billion, representing \$3.38 per capita. While this figure is impressive, it is less than one sixth of the amount spent by the tobacco industry on promoting its products each year.

While this report focuses on the allocation of resources to tobacco control, simply investing the funds is not sufficient to achieve the ambitious *Healthy People 2010* tobacco objectives. It is essential to implement comprehensive, sustainable, and accountable tobacco control programs.

Investment in Tobacco Control: State Highlights 2001

Introduction

Although the scientific knowledge regarding the methods for controlling tobacco use will never be perfect, more than enough is known to act now. In fact, if the strategies shown to be effective were fully implemented, the rates of tobacco use among young people and adults could be cut in half by 2010.¹ In the recent Surgeon General's report, *Reducing Tobacco Use*, U.S. Surgeon General David Satcher noted that "Our lack of greater progress in tobacco control is more the result of our failure to implement proven strategies than it is the lack of knowledge about what to do." The report provides a complete analysis of five major approaches to reducing tobacco use: educational, clinical, regulatory, economic, and comprehensive. In reference to comprehensive programs, the report concluded that "the synergy created by the interaction of various program components in a comprehensive approach is believed to be responsible for increased success in reducing tobacco use." Within the framework of comprehensive approaches, the report also found that statewide programs have produced encouraging evidence of effectiveness, especially in reducing per capita consumption of tobacco products. The Institute of Medicine (IOM) conducted its own independent analysis of whether state tobacco control programs can reduce smoking and save lives, and concluded that they can.²

The conclusions of both the Surgeon General and the IOM reports are consistent: comprehensive statewide tobacco control programs work. The specific strategies that are recommended are contained in CDC's *Best Practices for Comprehensive Tobacco Control Programs*,³ the Task Force on Community Preventive Services' tobacco-related recommendations,⁴ and the Public Health Service guidelines on smoking cessation.⁵ The proven strategies in these reports provide a strong foundation for action at the state level. Furthermore, the availability of funds from the settlement of the states' lawsuits against the tobacco industry, state excise tax revenues and general funds, and federal and private sources provides the financial means to take action.

The purpose of this report is to

- analyze current investments in tobacco control at the state level,
- place these investments in the context of health and economic consequences of tobacco use specific to the state, and
- compare current investments with the specific funding ranges contained in *Best Practices*.

This information can be used by decision makers who must make tough decisions regarding the allocation of resources for tobacco control programs amid many competing demands.

The core resources listed below, or the contacts to obtain them, are available from CDC's Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion. To request copies, call (770) 488-5705 (press 3) or send an e-mail to tobaccoinfo@cdc.gov.

Core Resources for Comprehensive Tobacco Control Program Planning

Fiore MC, Bailey WC, Cohen SJ, et al. *Treating Tobacco Use and Dependence. Clinical Practice Guideline*. Rockville, Maryland: U.S. Department of Health and Human Services, Public Health Service, June 2000.

Centers for Disease Control and Prevention. Strategies for Reducing Exposure to Environmental Tobacco Smoke, Increasing Tobacco-Use Cessation, and Reducing Initiation in Communities and Health-Care Systems: A Report on Recommendations of the Task Force on Community Preventive Services. *Morbidity and Mortality Weekly Report* 2000;49(RR-12).

Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs—August 1999*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, August 1999.

Institute of Medicine and National Research Council. *State Programs Can Reduce Tobacco Use*. Washington, D.C.: National Academy Press, 2000.

U.S. Department of Health and Human Services. *Reducing Tobacco Use: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2000.

The Health Consequences of Tobacco Use⁶

Tobacco use is the single most preventable cause of death and disease in our society. Annually, this country's history of tobacco use causes more than 430,000 deaths. Recent and current tobacco use will continue to account for additional hundreds of thousands of deaths in the United States every year for much of the first half of this century. Tobacco use is addictive. More than 47 million adults in the United States smoke cigarettes, and nearly 70% of them want to quit, but only 2.5% are able to quit permanently each year. Most smokers start smoking as adolescents. Each day more than 6,000 U.S. youths under the age of 18 years try their first cigarette, and more than 3,000 become daily smokers. Tobacco use among children and adolescents remains alarmingly high, and if current rates of smoking persist, an estimated five million of today's children in the United States will eventually die from smoking-attributable diseases. Tobacco use among young people remains one of our most critical public health priorities.

Tobacco use is expensive. The direct medical costs associated with tobacco use are \$50–\$73 billion each year in the United States. These costs will continue at this level or increase into the second quarter of this century if smoking rates are not reduced.

State-Specific Burden of Tobacco Use

This report brings together state-based data on the prevalence of tobacco use among youth and adults and the health impacts and costs of tobacco use. Although much of this information has been published elsewhere, the state-specific two-page format has been developed to facilitate comparisons with relevant budgetary and economic information. In addition to the two-page highlights, the data are summarized in tables and maps to present a national picture.

Although the data presented come from a variety of sources, state-specific data are comparable within each topic area. This allows comparisons among states to be made and highlights the great variations that exist between states for almost every tobacco-related indicator. Smoking prevalence rates in adults for 1999 varied more than twofold, ranging from 13.9% in Utah to 31.5% in Nevada. Utah is the only state that has achieved the *Healthy People 2000* objective of reducing smoking

prevalence to less than 15%. In addition to Nevada, the states with the highest current smoking prevalence among adults were Kentucky (29.7%) and Ohio (27.6%). Along with Utah, the states with the lowest adult prevalence rates were Hawaii (18.6%), California (18.7%), Massachusetts (19.4%), and Minnesota (19.5%).⁷

Rates of tobacco use among youth also vary dramatically between states. Data from the National Youth Tobacco Survey indicate that 28.5% of high school students and 9.2% of middle school students were current smokers in 1999, and 34.8% of high school students and 12.8% of middle school students had used some form of tobacco (cigarettes, smokeless, cigars, pipes, bidis, or kreteks) in the past month.⁸ State-specific data came from the state school-based Youth Tobacco Survey⁸ and state school-based Youth Risk Behavior Survey⁹ and were not available for all states. Among the 30 states with data available for youth in grades 6–8, current smoking rates ranged from 6.7% in California to 21.5% in Kentucky. The rates for any use of tobacco among this age group were also lowest in California (10%) and highest in Kentucky (28.3%). Forty-three states had data available for youth in grades 9–12. Current smoking among these high school students ranged from 11.9% in Utah to 43.6% in South Dakota, more than a threefold difference.

Information on the average annual deaths related to smoking, average annual years of life lost, and medical costs related to smoking have not been updated since the release of *State Tobacco Control Highlights—1999*.¹⁰ However, because recovering Medicaid expenditures resulting from tobacco use was the primary objective of the states' lawsuits against the tobacco industry, information regarding smoking-attributable Medicaid expenditures has been added.

Death rates from lung cancer are among the clearest indicators of the burden of tobacco use and vary significantly among the states. Kentucky has the highest rate at 53.2 per 100,000 population, which is more than three times as high as Utah, at 14.5 per 100,000.¹¹ Nevada has the highest rate of all smoking-related deaths, at 469 per 100,000 population, which is more than twice as high as its neighbor, Utah, at 188 per 100,000.¹⁰

As these statistics indicate, the magnitude of the problem is enormous. It is now more urgent than ever to build the capacity to implement evidence-based strategies to prevent and reduce smoking.

The Characteristics of Effective Comprehensive Tobacco Control Programs

The Surgeon General's report *Reducing Tobacco Use* is the first such report to move beyond a discussion of the health consequences and burden of tobacco use to provide an in-depth review of the effectiveness of tobacco intervention strategies. The evidence reviewed in the report shows that comprehensive state tobacco control programs are effective in reducing tobacco use in part because they bring about a shift in social norms and reduce the broad cultural acceptability of tobacco use. Comprehensive approaches combine community interventions, countermarketing, policy and regulation, and evaluation and surveillance activities.

The goal of a comprehensive tobacco control program is to reduce disease, disability, and death related to tobacco use by (1) promoting quitting among adult and youth smokers, (2) preventing young people from ever starting to smoke, (3) implementing public health policies to protect people from secondhand smoke, and (4) identifying and eliminating the disparities related to tobacco use and its effects on different population groups.

To assist states in achieving these goals, CDC recommends that states establish tobacco use prevention and control programs that are comprehensive, sustainable, and accountable. The early models of effective statewide tobacco control programs in California, Massachusetts, Arizona, Oregon, Maine, Mississippi, and Florida demonstrated the level of investments needed to produce statewide changes in tobacco use. Data from the planning and implementation of programs in these states were used to develop the programmatic and funding guidelines in *Best Practices*. The guidelines address nine components of comprehensive tobacco control programs:

- Community programs to reduce tobacco use,
- Chronic disease programs to reduce the burden of tobacco-related diseases,
- School programs,
- Enforcement,
- Statewide programs,
- Countermarketing,
- Cessation programs,
- Surveillance and evaluation, and
- Administration and management.

More information regarding each component, the evidence supporting it, and the optimal funding ranges are included in the Appendix. However, in summary, the approximate annual costs to implement all of the recommended program components have been estimated to range from \$7 to \$20 per capita in smaller states (population less than 3 million), \$6 to \$17 per capita in medium-sized states (population 3–7 million), and \$5 to \$16 per capita in larger states (population more than 7 million).

The evidence supporting *Best Practices* was of two types. The educational and social components were based primarily upon published, evidence-based guidelines. Other program categories relied mainly on evidence from the large-scale and sustained efforts of two states (California and Massachusetts) that have funded comprehensive tobacco control programs using excise tax revenues. The experience of two states demonstrates that while increasing the price of cigarettes by increasing the excise tax does have the effect of reducing cigarette consumption, the effect increases over time when these funds are used to support effective tobacco use prevention programs.

California's tobacco control program began in January 1989, when the excise tax was increased from \$0.10 to \$0.35 per pack of cigarettes. Initially, consumption decreased rapidly. If price were the only factor contributing to these declines, the initial drop would have been followed by a pattern of slow decline, such as was experienced by the rest of the country. However, as a result of the implementation of a tobacco control program, tobacco use in California declined throughout the 1990s at a rate two or three times faster than that in the rest of the country.¹³ Between 1988 and 1999, per capita cigarette use in California declined by almost 50%, while in the rest of the country it declined by only about 20%. Between 1995 and 1999, the prevalence of cigarette use among youth dropped by 43% in California.¹²

By virtue of its duration and intensity, the California program also has the distinction of being the first program to demonstrate a reduction in tobacco-related deaths. From 1988 to 1997, the incidence of lung cancer in California declined significantly compared with the stable rates in other parts of the United States included in the Surveillance, Epidemiology, and End Results cancer registry maintained by the National Cancer Institute.¹³ Even more striking is the finding that while

lung cancer rates among women were increasing significantly from 1988 to 1997 in other parts of the United States, they decreased significantly among women in California. Additionally, a recent report in the *New England Journal of Medicine* concluded that the California Tobacco Control Program was associated with 33,000 fewer deaths from heart disease between 1989 and 1997.¹⁴ Consistent with these declines in tobacco-related deaths, the California Department of Health Services has estimated that for every \$1 spent on the program between 1990 and 1998, an estimated \$3.62 in direct medical costs has been avoided.¹² These examples are the ultimate evidence of success—of what can be accomplished when adequate resources are committed to comprehensive, sustained tobacco control programs.

While California has been in the forefront of tobacco control efforts in the United States, these kinds of promising results are not confined to California. Data from the Massachusetts tobacco control program were also key in developing the recommendations in *Best Practices*. After the implementation of the program in Massachusetts in 1993, per capita cigarette consumption rates through 1999 declined more consistently than the rates in California.¹⁵ Massachusetts has also seen more rapid declines than states without tobacco control programs in the overall prevalence of tobacco use among adults.^{15,16} More recently, rates of smoking among Massachusetts youth have declined sharply, with current smoking dropping 70% among 6th graders from 1996 to 1999.¹⁷ According to national vital statistics data, rates of smoking during pregnancy also declined more rapidly during the 1990s in Massachusetts than in any other state.¹⁶ In addition, states such as Arizona, which has had a comprehensive program since 1996, are seeing results. Arizona's comprehensive program, which places an especially heavy emphasis on community-based efforts, produced a decline in adult smoking prevalence of more than one-fifth from 1996 to 1999.¹⁸ Significant reductions were seen in both males and females, in young adults, and in Hispanic populations.

CDC is working closely with a number of additional states to monitor the results of their efforts—some of which are innovations on the model recommended in *Best Practices*. For example, Florida has implemented an intensive program, which incorporates many of the recommended program components, but is focused almost exclusively on youth. In a comprehensive effort of five integrated components—education, countermarketing, community partnerships, enforcement, and evaluation—Florida achieved dramatic reductions in youth smoking rates between the 1998 baseline and the 2000 follow-up. Current cigarette use declined by 40% among middle school students, and by 18% among high school students.¹⁹ Even more impressive, evaluation efforts in Florida suggest that the declines in youth smoking have been largest in those counties in which community partnerships have demonstrated the highest levels of activity. Unfortunately, smoking rates among adults have not been declining. Thus, Florida is not seeing the full population impact that could result from a program that includes efforts to reach all age groups.

Oregon has also initiated a comprehensive program that is showing some promising results. The decline in smoking prevalence among adults in Oregon has been consistent with a 20% decline in per capita consumption from 1996 to 2000.²⁰ Data from the Behavioral Risk Factor Surveillance System indicate that the prevalence of smoking among adults aged 18 years and older in Oregon declined from 23.4% in 1996 to 20.2% in 2000.²⁰ Prevalence of smoking among pregnant women dropped 18%, from 17.7% in 1996 to 14.5% in 1999.²⁰ Smoking among youth has also declined 41% among 8th graders, and 21% among 11th graders.²⁰ These reductions have been achieved with funding that is less than the *Best Practices* minimum. In the planning of their programs,

Oregon took full advantage of the lessons learned by the California, Massachusetts, and Arizona programs. In several program areas, such as school-based programs and countermarketing, Oregon appears to be operating more efficiently than the earlier programs. Analyses suggest that with a higher level of funding even more impressive declines in tobacco use rates could be achieved (for example, with current resources only 30% of schools are being funded).

Investment in Tobacco Control

Evidence indicates that the rate of progress toward meeting state and national public health objectives for reducing tobacco use will be related to the level of investment in evidence-based strategies implemented in comprehensive tobacco control efforts.^{1,2} To assess the current status of this type of investment, this report summarizes fiscal year 2001 state appropriations for tobacco control, including appropriations of settlement funds, cigarette excise tax revenues, and other general revenue funds that specifically support tobacco use prevention and control programs. The report also includes state funding from federal or national grants. Appropriations from tobacco settlement funds for tobacco farmers, tobacco-dependent communities, research, and general health services are not included. The level of these investments is then compared with the funding recommended by *Best Practices* for each state.

State investment in tobacco control

The allocation of funds resulting from the settlement of state lawsuits with the tobacco industry represents the largest share of fiscal year 2001 tobacco control funding. Thirty-six states have invested \$654.9 million from the settlement agreement with the tobacco industry specifically for tobacco use prevention and control purposes. This includes tobacco use prevention and control programs in Mississippi and Minnesota, which are funded from tobacco settlement awards but are managed by private, non-profit entities established through court consent decrees.

Among these 36 states, the four states that have their own settlement agreements with the tobacco industry (Florida, Mississippi, Texas, and Minnesota) will spend some portion of their settlement dollars on tobacco control and use prevention. Each of these four has set specific spending levels for fiscal year 2001, ranging from \$10 million to \$44 million. In all but Texas, these states have invested more than \$1 per capita of settlement funds for tobacco control and use prevention (ranging from \$2.77 per capita in Florida to \$7.73 per capita in Mississippi).

Of the 46 states participating in the Master Settlement Agreement, 32 have appropriated some portion of their settlement dollars for tobacco control and use prevention in fiscal year 2001. The specific appropriations range from \$460,000 to \$234,000,000, or from \$0.10 to \$20.69 per capita. Twenty-five of the 32 states have appropriated at least \$1 per capita of settlement funds for tobacco control and use prevention, with 20 states appropriating between \$1 and \$5 per capita, two states appropriating between \$5 and \$10 per capita, and three states (Maine, Ohio, and Vermont) appropriating more than \$10 per capita.

While settlement payments were based in part on state Medicaid expenditures related to smoking, allocation of settlement funds does not appear to be related to the state-specific per capita Medicaid expenditures ($r=0.18$, not significant).

In addition to settlement agreement funds, excise tax revenues are also an important source of funds for tobacco control efforts in eight states. Between them, the states of Alaska, Arizona, California, Maryland, Massachusetts, Michigan, Oregon, and Utah have appropriated \$218.4 million from the

states' tobacco excise tax revenue, ranging from \$200,000 to \$115 million. Of these eight states, three (Alaska, Maryland, and Massachusetts) have also appropriated some portion of the state's settlement dollars for tobacco use prevention and control activities. Because tobacco excise tax revenues have become an important sources of funding for tobacco control, this report provides state-specific information on the cigarette tax per pack, which ranges from 2.5 cents per pack in Virginia to \$1.11 in New York. Forty-five states have an excise tax on smokeless tobacco, but most states tax these products at a much lower rate than cigarettes.²¹

Finally, nine states have appropriated \$9.9 million from their general revenue to support tobacco use prevention and control programs. To summarize the analysis of state investment in tobacco control for fiscal year 2001, 45 states have invested \$883.2 million to support tobacco use prevention and control programs from settlement funds, state excise tax revenues, or general revenues.

Federal and private funding for state-based tobacco control activities

Federal and private sources of funds for state-based tobacco control activities also play an important role in many states. Two of the most significant sources of such funds are CDC's National Tobacco Control Program, which provided \$58.1 million to support programs in all 50 states and the District of Columbia, and the American Legacy Foundation, which awarded \$9 million to 20 states as part of its youth empowerment initiative. In at least five states (Connecticut, North Carolina, North Dakota, Pennsylvania, and Tennessee) and the District of Columbia, federal and private funds are the only funds being invested in tobacco control, and in at least 20 states, federal and private funding makes up 50% or more of the funds being invested.

Total investment in state tobacco control

Combining resources available from state, federal, and national sources, seven states (Arizona, Indiana, Maine, Massachusetts, Mississippi, Ohio, and Vermont) are meeting or exceeding the *Best Practices* lower bound funding recommendations, and Ohio is exceeding the upper bound funding recommendation. However, Ohio's funds have been appropriated to a trust fund and are not expected to be fully expended in this fiscal year. Additionally, Hawaii (at 98%) virtually met the *Best Practices* lower funding recommendations.

On average, the total investments in states from state, federal, and national sources averages about 59% of the lower bound funding estimate in *Best Practices*. In 22 states, combined funding from state, federal, and national sources provide less than 33% of the lower bound funding estimate and in at least 20 states more than half of the total investment is coming from federal and national sources. For the country as a whole, the combined resources available in fiscal year 2001 to fund tobacco use prevention and control programs in states total almost \$1 billion, representing approximately \$3.38 per capita. While this figure is very impressive, it is less than one-sixth of the \$6.7 billion that the tobacco industry spends annually on promoting and advertising its products. In addition, fiscal year 2001 investments in tobacco control efforts show almost no relationship with smoking-related deaths per 100,000 population ($r=0.008$, not significant) or lung cancer deaths per 100,000 ($r=-0.026$, not significant). Several states with high rates of smoking-related and lung cancer deaths have made very small investments in tobacco use prevention and control programs. This is cause for concern because the costs associated with smoking-related diseases will continue to grow unless evidence-based programs are implemented.

The funding data reported have several limitations. First, only funds appropriated specifically for tobacco prevention and control were included. Therefore, the reported amounts exclude appropria-

tions for multiple purposes that include an unspecified amount of funding for tobacco control. However, when such appropriations were identified through legislative sources, total funding amounts were provided in a footnote. Some or all of these appropriations may be used for tobacco control and prevention purposes. Second, actual program expenditures in fiscal year 2001 in states may differ significantly from the amounts appropriated that year because of carryover funding from previous fiscal years, delays in program implementation, and the establishment of trusts or endowment accounts with the funds for use in future years. Third, some data on funding levels from excise tax revenues, state appropriations from sources other than settlement funds, and funding from private sources for Mississippi and Minnesota were based upon staff reports rather than independent analyses. Fourth, some potential sources of funds such as the Public Health and Preventive Services block grants and Substance Abuse and Mental Health Services Administration's block grants were not included in this analysis. Fifth, California and New York totals for state appropriation—settlement only represent the state's share of the Master Settlement Agreement. Finally, this report does not attempt to evaluate which type of programs will be funded or whether the funded programs are consistent with the evidence-based components of *Best Practices*.

Conclusion

This report provides a snapshot of the investments in and results of state-based tobacco control efforts. On both fronts, the data are promising. States that have made early investments in evidence-based comprehensive programs and have sustained them are seeing positive results through decreases in consumption, decreases in smoking prevalence, and in one state, a more rapid decline in lung cancer rates than that seen in the rest of the nation. In addition, most states have committed some resources to tobacco control efforts, and as a result, are providing a laboratory to explore new models for reducing tobacco use. However, the funding levels still fall short of the recommendations provided in *Best Practices*. Furthermore, this report does not evaluate the types of programs for which funds have been allocated, and the investment of resources is necessary but not sufficient to achieve sustained reductions in tobacco use. *Best Practices* provides specific evidence-based recommendations to accompany the funding recommendations. While the type of innovation currently occurring within states plays a critical role in continuing to build the science base about effective state-based programs, there are specific strategies and approaches that have been demonstrated to be effective and should be given high priority for implementation.

In addition, tobacco control efforts must be sustained over time to produce results, and these experiments must be rigorously evaluated to continue building the science base for action. Therefore, CDC encourages states to dedicate at least 10% of their tobacco control funding to surveillance and evaluation. Many of the tobacco-use indicators that were included in this report have been identified as key indicators for evaluating the effectiveness of chronic disease programs by the Council of State and Territorial Epidemiologists, the Association of State and Territorial Chronic Disease Program Directors, and CDC's National Center for Chronic Disease Prevention and Health Promotion. These indicators, which monitor the achievement of primary program goals, include lung cancer mortality rates, adult smoking prevalence, youth smoking rates, smokeless tobacco use among youth, and per capita sales of cigarettes. Exposure to environmental tobacco smoke is another key indicator. A wide range of intermediate indicators of program effectiveness should also be monitored, such as policy changes, changes in social norms, and exposure to statewide and local program efforts. In addition, surveillance should monitor the prevalence of pro-tobacco influences, including advertising, promotions, and events that glamorize tobacco use.

Collection of this kind of information documents program-related effects and ensures that programs are accountable. In most cases, decisions regarding the allocation of resources for tobacco control must be made on an annual basis, and the policy makers who make these decisions will expect information regarding the return on their investment. By working to establish tobacco control and prevention programs that are comprehensive, sustained and accountable, the national objectives for reducing tobacco use can be achieved.

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Appendix

CDC Best Practices for Comprehensive Tobacco Control Programs

Executive Summary

Tobacco use is the single most preventable cause of death and disease in our society. Most people begin using tobacco in early adolescence, typically by age 16; almost all first use occurs before high school graduation. Annually, tobacco use causes more than 430,000 deaths and costs the Nation approximately \$50–\$73 billion in medical expenses alone. Data from California and Massachusetts have shown that implementing comprehensive tobacco control programs produces substantial reductions in tobacco use.

The goal of comprehensive tobacco control programs is to reduce disease, disability, and death related to tobacco use by

- Preventing the initiation of tobacco use among young people.
- Promoting quitting among young people and adults.
- Eliminating nonsmokers' exposure to environmental tobacco smoke (ETS).
- Identifying and eliminating the disparities related to tobacco use and its effects among different population groups.

In this guidance document, CDC recommends that States establish tobacco control programs that are comprehensive, sustainable, and accountable. This document draws upon “best practices” determined by evidence-based analyses of comprehensive State tobacco control programs. Evidence supporting the programmatic recommendations in this guidance document are of two types. Recommendations for chronic disease programs to reduce the burden of tobacco-related diseases, school programs, cessation programs, enforcement, and countermarketing program elements are based primarily upon published evidence-based practices. Other program categories rely mainly upon the evidence of the efficacy of the large-scale and sustained efforts of two States (California and Massachusetts) that have been funding comprehensive tobacco prevention and control programs using State tobacco excise taxes.

Based upon this evidence, specific funding ranges and programmatic recommendations are provided. The local analysis of each State's priorities should shape decisions regarding funding allocations for each recommended program component. The funding required for implementing programs will vary depending on state characteristics, such as demographic factors, tobacco use prevalence, and other factors. Although the type of supporting evidence for each of the recommended nine program components differs, evidence supports the implementation of some level of activity in each program area. In general, States typically have selected a funding level around the middle of the recommended ranges. Current allocations range from \$2.50 to over \$10; however, no State is currently implementing all of the recommended program components fully. Approximate annual costs to implement all of the recommended program components have been estimated to range from \$7 to \$20 per capita in smaller States (population under 3 million), \$6 to \$17 per capita in medium-sized States (population 3 to 7 million), and \$5 to \$16 per capita in larger States (population over 7 million).

The best practices address nine components of comprehensive tobacco control programs:

I. Community Programs to Reduce Tobacco Use (Base funding of \$850,000–\$1.2 million per year for State personnel and resources; \$0.70–\$2.00 per capita per year for local governments and organizations).

Local community programs cover a wide range of prevention activities including engaging youth in developing and implementing tobacco control interventions; developing partnerships with local organizations; conducting educational programs for young people, parents, enforcement officials, community and business leaders, health care providers, school personnel, and others; and promoting governmental and voluntary policies to promote clean indoor air, restrict access to tobacco products, provide coverage for treatment, and achieve other policy objectives. In California and Massachusetts, local coalitions and programs have been instrumental in achieving policy and program objectives. Program funding levels range from approximately \$1.00 per capita in California to over \$2.50 per capita in Massachusetts.

II. Chronic Disease Programs to Reduce the Burden of Tobacco-Related Diseases (\$2.8 million–\$4.1 million per year).

Even if current tobacco use stopped, the residual burden of disease among past users would cause disease for decades to come. As part of a comprehensive tobacco control program, communities can focus attention directly on tobacco-related diseases both to prevent them and to detect them early. The following are examples of such disease programs and recommended funding levels:

- Cardiovascular disease prevention (\$500,000 for core capacity and \$1–\$1.5 million for a comprehensive program).
- Asthma prevention (base funding of \$200,000–\$300,000 and \$600,000–\$800,000 to support initiatives at the local level).
- Oral health programs (\$400,000–\$700,000).
- Cancer registries (\$75,000–\$300,000).

III. School Programs (\$500,000–\$750,000 per year for personnel and resources to support individual school districts; \$4–\$6 per student in grades K–12 for annual awards to school districts).

School program activities include implementing CDC's *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction*, which call for tobacco-free policies, evidence-based curricula, teacher training, parental involvement, and cessation services; implementing evidence-based curricula identified through CDC's Research to Classroom Project; and linking school-based efforts with local community coalitions and statewide media and educational campaigns. Oregon has developed a new funding model for school programs based upon CDC's guidelines and experience in California and Massachusetts. At an annual funding level of approximately \$1.60 per student, Oregon was able to provide grants to approximately 30% of their school districts. Assuming 100% coverage of school districts using a funding model similar to the Oregon model, \$4–\$6 per student in grades K–12 should be budgeted.

IV. Enforcement (\$150,000–\$300,000 per year for interagency coordination; \$0.43–\$0.80 per capita per year for enforcement programs).

Enforcement of tobacco control policies enhances their efficacy by deterring violators and by sending a message to the public that community leaders believe that these policies are important. The two primary policy areas that require enforcement activity are restrictions on minors' access to tobacco and on smoking in public places. State efforts should be coordinated with Food and Drug Administration (FDA) and Substance Abuse and Mental Health Services Administration (SAMHSA) Federal programs. California and Massachusetts have addressed enforcement issues as part of community program grants. Florida has taken a more centralized approach by using State Alcoholic Beverage Control Officers to conduct compliance checks with locally recruited youth in all regions of the State.

V. Statewide Programs (Approximately \$0.40–\$1 per capita per year).

Statewide projects can increase the capacity of local programs by providing technical assistance on evaluating programs, promoting media advocacy, implementing smokefree policies, and reducing minors' access to tobacco. Supporting organizations that have statewide access to racial, ethnic, and diverse communities can help eliminate the disparities in tobacco use among the State's various population groups. Statewide and regional grants to organizations representing cities, business and professional groups, law enforcement, and youth groups inform their membership about tobacco control issues and encourage their participation in local efforts. Both California and Massachusetts have awarded grants to statewide organizations, businesses, and other partners that total about \$0.40 to \$1.00 per capita per year.

VI. Countermarketing (\$1–\$3 per capita per year).

Countermarketing attempts to counter pro-tobacco influences and increase pro-health messages and influences throughout a State, region, or local community. Countermarketing consists of a wide range of efforts, including paid television, radio, billboard, and print counter-advertising at the State and local level; media advocacy and other public relations techniques using such tactics as press releases, local events, and health promotion activities; and efforts to reduce or replace tobacco industry sponsorship and promotions. Countermarketing activities can promote smoking cessation and decrease the likelihood of initiation. They also can have a powerful influence on public support for tobacco control interventions and set a supportive climate for school and community efforts. Countermarketing campaigns are a primary activity in all States with comprehensive tobacco control programs. With funding levels ranging from less than \$1.00 per capita up to almost \$3.00 per capita, the campaigns in California, Massachusetts, Arizona, and Florida have been trendsetters in content and production quality.

VII. Cessation Programs (\$1 per adult to identify and advise smokers about tobacco use; \$2 per smoker to provide brief counseling; and the cost of a full range of cessation services including pharmaceutical aids, behavioral counseling, and follow up visits (\$137.50 per served smoker covered by private insurance; \$275 per served smoker covered by publicly financed insurance).

Strategies to help people quit smoking can yield significant health and economic benefits. Effective cessation strategies include brief advice by medical providers, counseling, and pharmacotherapy. In addition, system changes (e.g., tobacco-use screening systems, clinician training, and insurance coverage for proven treatments) are critical to the success of cessation interventions. State action should include establishing population-based treatment programs such as telephone cessation helplines; covering treatment of tobacco use under both public and private insurance; and eliminating cost barriers to treatment for underserved populations, particularly the uninsured. No State currently is fully implementing the Agency for Health Care Policy and Research smoking cessation guidelines. Massachusetts and California are implementing the basic recommended elements. The complete recommended program is being implemented in several large health maintenance organizations around the country.

VIII. Surveillance and Evaluation (10% of total annual program costs).

A surveillance and evaluation system monitors program accountability for State policymakers and others responsible for fiscal oversight. Surveillance is the monitoring of tobacco-related behaviors, attitudes, and health outcomes at regular intervals of time. Program evaluation efforts build upon surveillance systems by linking statewide and local program efforts to progress in achieving intermediate and primary outcome objectives. Experience in California, Massachusetts, and other States has demonstrated that the standard public health practice guideline of devoting 10% of program resources to surveillance and evaluation is a sound recommendation. State surveillance efforts should be coordinated with Federal tobacco surveillance programs such as SAMHSA's National Household Survey on Drug Abuse.

IX. Administration and Management (5% of total annual program costs).

An effective tobacco control program requires a strong management structure to facilitate coordination of program components, involvement of multiple State agencies (e.g., health, education, and law enforcement) and levels of local government, and partnership with statewide voluntary health organizations and community groups. In addition, administration and management systems are required to prepare and implement contracts and provide fiscal and program monitoring. Experience in California and Massachusetts has demonstrated that at least 5% of program resources is needed for adequate staffing and management structures.