## INSTITUTEOF

REPORT BRIEF • MAY 2007

# ENDING THE TOBACCO PROBLEM: A BLUEPRINT FOR THE NATION

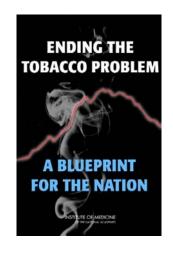
Tobacco use causes 440,000 deaths every year in the United States and second hand smoke claims another 50,000 lives every year. These smoking-related deaths account for more deaths than AIDS, alcohol, cocaine, heroin, homicide, suicide, motor vehicle crashes, and fires combined. Still, today, more than one out of five adults smokes—about 44.5 million people in the U.S. Almost half of them will die prematurely of tobacco-related disease if nothing is done.

On top of the lives lost to tobacco, the financial losses amount to billions of dollars. Lost work productivity as a result of death from tobacco use is more than \$92 million annually. Private and public health care expenditures for smoking-related health conditions are estimated to be \$89 billion per year. The Social Security Administration pays between \$0.6 and \$3.7 billion in survivor insurance to children who have lost a parent to smoking-related death.

Although the downward trend in tobacco use since 1964 has been described as one of the 10 greatest achievements in public health in the 20th century, this rate of progress is unlikely to continue in the coming decade. Current trends suggest that the annual rate of cessation among smokers remains fairly low, that the decline in the initiation rate may have has slowed, and that overall adult prevalence may be flattening out at around 20%. These trends suggest that substantial and sustained efforts will be required to further reduce the prevalence of tobacco use and thereby reduce tobacco-related morbidity and mortality.

One of the largest obstacles to achieving permanent long-term reduction in the popularity of tobacco use is the alarmingly high rate at which teenagers take up smoking—and keep smoking because of the addictiveness of nicotine. Currently, one out of every five high school seniors smokes, and most of them will become adult smokers.

Against these sobering statistics, the American Legacy Foundation has asked the Institute of Medicine (IOM) to conduct a major study of tobacco use in the United States. The resulting report, *Ending the Tobacco Problem: A Blueprint for the Nation*, concludes that substantial and enduring reductions in tobacco use cannot be achieved by simply expecting past successes to continue.



Although the downward trend in tobacco use since 1964 has been described as one of the 10 greatest achievements in public health in the 20th century, this rate of progress is unlikely to continue in the coming decade.



### HE NATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING ATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING THE

After review of the ethical grounding of tobacco control, the committee sets forth its blueprint as a two-pronged strategy. The first prong envisions strengthening traditional tobacco control measures that are currently known to be effective, e.g. support comprehensive state tobacco control programs, increase excise taxes, strengthen smoking restrictions, limit youth access to tobacco products, intensify prevention interventions, and increase smoking cessation interventions.

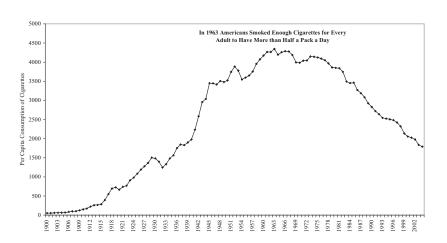
### SUPPORTING COMPREHENSIVE STATE TOBACCO CONTROL PROGRAMS

The committee finds compelling evidence that comprehensive state tobacco control programs can achieve substantial reductions in tobacco use. To effectively reduce tobacco use, states must maintain over time a comprehensive integrated tobacco control strategy. However, large budget cutbacks in many states' tobacco control programs have seriously jeopardized further success. In the committee's view, states should adopt a funding strategy designed to provide stable support for the level of tobacco control funding recommended by the Centers for Disease Control and Prevention (CDC).

The committee also finds that Master Settlement Agreement payments are not a reliable source of funds in most states. Tobacco excise tax revenues pose a potential funding stream for state tobacco control programs. If one-third of the per capita proceeds from tobacco excise taxes were set aside, this would help states fund programs at the level suggested by CDC. A reasonable target for each state would range from \$15 to \$20 per capita, depending on the state's population, demography, and prevalence of tobacco use.

adopt a funding strategy designed to provide stable support for the level of tobacco control funding recommended by the Centers for Disease Control and Prevention (CDC).

...states should



**FIGURE 1.** Per capita consumption of cigarettes among adults ages 18 years and older from 1900 to 2004.

SOURCES: (American Lung Association 2006; American Lung Association 2004; Capehart 2004).

# HE NATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING HATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING THE MATION. IMPROVING HEALTH. ADVISING THE NATION.

### **INCREASING TOBACCO EXCISE TAXES**

It is well established that an increase in price decreases cigarette use and that raising tobacco excise taxes is one of the most effective policies for reducing use, especially among adolescents. In the United States, the rise in youth smoking in the early 1990s has been attributed to declines in cigarette prices. Furthermore, increases in excise taxes were determined to be effective in preventing tobacco use among adolescents and young adults, according to the June 2006 NIH state-of-the-science panel on tobacco use.

Many states have increased their tobacco excise taxes, but these increases vary widely and there is some evidence of cross-state smuggling. The committee believes that equalizing tobacco excise tax rates across the states would help remedy this problem.

The committee recommends that states with excise tax rates below the level imposed by the top fifth of states should substantially increase their own rates to reduce smuggling and tax evasion. Furthermore, an increase in the federal excise tax would have the dual purposes of reducing consumption and making more funds available for tobacco control programs. The IOM committee recommends that the federal government substantially raise tobacco excise taxes, currently set at 39 cents a pack.

STRENGTHENING SMOKING BANS AND RESTRICTIONS

Smoking restrictions protect non-smokers from health effects of second-hand smoke; help smokers quit, cut down and avoid relapse; and reinforce a non-smoking standard in our society. A 2002 study estimated that a smoke-free policy for all U.S. workplaces would decrease the number of cigarettes smoked by 4.5%. For every eight smokers who die from smoking, one non-smoker dies from secondhand smoke exposure.

The committee recommends that states and localities enact complete bans on smoking in all non-residential indoor locations, including workplaces, malls, restaurants, and bars. Local governments should be allowed to enact bans more restrictive than their state's ban. In recent years, local governments have been shown to be more inclined to adopt comprehensive workplace restrictions that include restaurants and bars, e.g., New York City and Washington, D.C. As of July 2006, 305 municipalities had banned smoking in restaurants, and 222 required smoke-free bars.

The Department of Health and Human Services' (DHHS) Healthy People 2010 aims to reduce the percentage of children regularly exposed to tobacco smoke at home to 6%. Children regularly exposed to environmental tobacco smoke are at a greater risk for a variety of respiratory ailments, including asthma, bronchitis, and pneumonia.

Parents should make homes and vehicles smoke-free zones, and health-care providers should reinforce this message. States and localities should encourage

For every eight smokers who die from smoking, one non-smoker dies from secondhand smoke exposure.

owners of multi-unit apartment buildings and condominium developers to include non-smoking clauses in their leases and sales agreements and enforce them.

### PREVENTING YOUTH FROM USING TOBACCO

A paramount public health aim is to reduce the number of people who use and become addicted to these products, through a focus on children and youth. Most smokers begin before age 18, before they are legally allowed to purchase tobacco products. Therefore, the retail environment should be changed to limit youth access to tobacco. All retail outlets choosing to carry tobacco products should be licensed and monitored, and all states should ban the sale of tobacco products directly to consumers through mail order or internet or other electronic systems.

Parental behaviors are also a major factor in children's smoking behavior. Studies indicate that 12 year olds of parents who smoke are roughly twice as likely to begin smoking between the ages of 13 and 21 as those whose parents do not smoke. When teenagers begin to smoke they lack a full and vivid appreciation of the consequences of smoking and the grip of addiction, and focus on the "pleasures" rather than the negatives. Most smokers actually start smoking and become addicted while they are adolescents, and most addicted adult smokers want to quit.

The committee recommends that school boards require all middle schools and high schools to adopt evidence-based smoking prevention programs and implement them with fidelity, coordinating these programs with public activities and/or annual mass media programming. State funding for these programs should be supplemented with funding provided by the U.S. Department of Education under the Safe and Drug-Free School Act or by an independent body administering funds collected from the tobacco industry through excise taxes, court orders or litigation agreements.

that 12 year olds of parents who roughly twice as likely to begin smoking between the ages of 13 and 21 as those

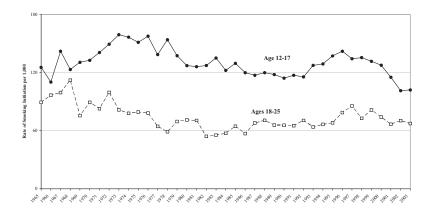
Studies indicate

smoke are

whose

smoke.

parents do not



**FIGURE 2.** Smoking initiation rates among adolescents and young adults, 1965 to 2003. SOURCE: (SAMHSA 2005).

HE NATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING HATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING THE MATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING THE NATION.

In recent years, antismoking media campaigns have primarily been implemented at the state level. However, in 2000, the American Legacy Foundation launched the United States' first comprehensive national antismoking media campaign since the Fairness Doctrine era. Modeled closely after a successful program in Florida, the campaign featured trendy teenagers in its "truth" ads.

The committee concludes that a national, youth-oriented media campaign should be a permanent component of the nation's strategy to reduce tobacco. State and community tobacco control programs should supplement this national media campaign with coordinated youth prevention activities.

### **HELPING SMOKERS QUIT**

People who want to quit smoking can get help. Safe, effective, and accessible cessation programs, including medications, are available. Interventions may be behavioral or pharmacological. They can be administered by a health care provider or other volunteers or be self-guided through print, telephone, or Internet communications, or over-the-counter treatments.

An example of such cessation programs is a quitline, a telephone helpline offering treatment for addiction and behavior change. Quitlines have been shown to increase abstinence by as much as 30 to 50%. DHHS established a national quitline network in 2004 increasing funding to states with existing quitlines, offering grant money for the creation of quitlines in states not yet providing the service, and making available cessation counselors in states without quitlines. That network is an important cessation tool that should be maintained with adequate funding.

The committee also recommends that all insurance, managed care, and employee benefit plans, including Medicaid and Medicare, cover reimbursement for effective tobacco cessation programs as a lifetime benefit.

### **ENCOURAGING COMMUNITY ACTION**

The Surgeon General's Report on Reducing Tobacco Use called the emergence of statewide coalitions the most important advance in comprehensive programs and concluded that comprehensive state programs, such as those in California and Massachusetts, provide evidence that such programs reduce smoking.

The committee recommends that state tobacco control programs, the Centers for Disease Control (CDC), philanthropic foundations, and voluntary organizations should continue to support efforts of community coalitions advocating for tobacco use prevention and cessation, smoke-free environments, and other policies and programs for reducing tobacco use, while sustaining their own valuable tobacco control activities as the same time.

Quitlines have been shown to increase abstinence by as much as 30 to 50%.

### NATION. IMPROVING HEALTH. ADVISING THE NATION.

### STRONGER FEDERAL REGULATION

Although the steps outlined so far are necessary in the short run to decrease smoking prevalence, the nation should be prepared to do more over the long run. The second prong of the committee's blueprint envisions a much more substantial federal presence in antismoking efforts.

Ultimately, for long-lasting changes in tobacco use, Congress and other policy-makers will need to change the legal structure of tobacco policy. The first step is to enable and encourage state and local innovation, but that might not be enough. Congress should also confer upon the FDA or another regulatory agency broad regulatory authority over the manufacture, distribution, marketing and use of tobacco products.

Tobacco manufacturers should be required to disclose all chemical compounds found in both their product and the product's smoke, whether added or occurring naturally, by quantity; to disclose to the public the content and delivery of nicotine based on standards established by the FDA or other regulatory agency; and to disclose to the public research on their product, as well as behavioral aspects of its use.

Furthermore, tobacco packages can be an effective channel for health communications. The currently mandated federal health warnings are inadequate and should be strengthened to promote greater understanding of the health risks of tobacco use and to discourage consumption. Congress should strengthen the federally mandated warning labels for tobacco products and should delegate authority to the FDA to update and revise these warning on a regular basis.

Congress should also restrict advertising and promotion by tobacco manufacturers. Scientific evidence has show the link between exposure to tobacco advertising and tobacco consumption. Therefore, Congress and state legislatures should enact legislation limiting visually displayed tobacco advertising in all venues, including mass media and at the point-of-sale, to a text-only, black-and-white format. In addition, Congress and state legislatures should prohibit tobacco companies from targeting youth under 18 for any purpose, including dissemination of messages about smoking or to survey youth opinions, attitudes, and behaviors of any kind.

Effective measures of restricting the commercial distribution of tobacco products to youth are only the beginning. The retail environment should be redesigned to effectuate the public health goals of discouraging tobacco use and reducing the numbers of people with tobacco-related disease. To achieve this transformation of the retail environment, Congress and state legislatures should enact legislation regulating the retail point of sale of tobacco products. State governments should develop, and, if feasible, implement and evaluate legal mechanisms for restructuring retail tobacco sales and restricting the number of tobacco outlets. Congress should empower FDA to restrict retail outlets in order to limit access and facilitate regulation of the retail environment, and thereby protect the public health.

Ultimately, for long-lasting changes in tobacco use, Congress and other policymakers will need to change the legal structure of tobacco policy.

THE NATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING NATION. IMPROVING HEALTH. ADVISING THE NATION. IMPROVING HEALTH. ADVISING THE NATION IMPROVING HEALTH. ADVISING THE NATION

### **NEW FRONTIERS IN TOBACCO CONTROL**

The federal government should establish the necessary capacity for long-term tobacco policy development, by building on the proposed changes in the regulatory landscape. Carrying out such a proposal offers a reasonable prospect of substantially curtailing and eliminating the public health burden of tobacco use.

Weakening the addictiveness of tobacco products over time is another strategy for reducing tobacco use. It would likely take over 10 to 15 years, with decrements of 10 to 15% of nicotine content per step. This would reduce the level of nicotine intake and hopefully reduce dependence. It would result in a different type of product than currently available commercial low-yield cigarettes, which contain as much nicotine as do high-yield cigarettes.

The goal of reducing nicotine addiction would be to reduce the likelihood of progression from occasional to regular smoking by adolescents and young adults and make it easier for addicted smokers to quit. Simultaneously, nicotine medications should be made readily and inexpensively available.

### **CONCLUSION**

Aggressive policy initiatives are necessary to sustain decades of progress in reducing tobacco use in the United States. The public and private sectors must work together to strengthen and implement tobacco control measures that have been proven to be effective and Congress should empower the state and federal governments to deploy a whole new set of tools in the fight against smoking and other forms of tobacco use. Taking these steps would put the nation on an irreversible course toward ending the tobacco problem in the United States.

Aggressive
policy initiatives
are necessary to
sustain decades
of progress in
reducing
tobacco use in
the United
States.

### FOR MORE INFORMATION...

Copies of *Ending the Tobacco Problem: A Blueprint for the Nation*, are available from the National Academies Press, 500 Fifth Street, N.W., Lockbox 285, Washington, DC 20055; (800) 624-6242 or (202) 334-3313 (in the Washington metropolitan area); Internet, http://www.nap.edu. The full text of this report is available at http://www.nap.edu.

This study was supported by funds from the American Legacy Foundation. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the organizations or agencies that provided support for the project.

The Institute of Medicine serves as adviser to the nation to improve health. Established in 1970 under the charter of the National Academy of Sciences, the Institute of Medicine provides independent, objective, evidence-based advice to policymakers, health professionals, the private sector, and the public. For more information about the Institute of Medicine, visit the IOM home page at www.iom.edu.

Permission is granted to reproduce this document in its entirety, with no additions or alterations. Copyright ©2007 by the National Academy of Sciences. All rights reserved.

### COMMITTEE ON REDUCING TOBACCO USE: STRATEGIES, BARRIERS, AND CONSEQUENCES

**RICHARD J. BONNIE, L.L.B.** (*Chair*), John S. Battle Professor of Law and Director, Institute of Law, Psychiatry, and Public Policy, University of Virginia School of Law, Charlottesville

**ROBERT B. WALLACE, M.D., M.Sc.** (*Vice Chair*), Irene Ensminger Stecher Professor of Epidemiology and Internal Medicine, Department of Epidemiology, College of Public Health, University of Iowa, Iowa City

**DAVID ABRAMS, Ph.D.,** Director, Office of Behavioral and Social Sciences Research, and Associate Director, NIH Office of the Director, National Institutes of Health, Bethesda, MD

**NEAL BENOWITZ, M.D.,** Professor of Medicine, Psychiatry, and Biopharmaceutical Sciences, University of California, San Francisco

**DIANA BONTÃ, Dr.P.H.,** Vice President, Public Affairs, Southern California Region, Kaiser Permanente, Pasadena, CA **JONATHAN CAULKINS, Ph.D.,** Professor of Operations Research and Public Policy, Qatar Campus and H. John Heinz III School of Public Policy and Management, Carnegie Mellon University, Pittsburgh, PA

BRIAN FLAY, D.Phil., Professor of Public Health, College of Health and Human Sciences, Oregon State University, Corvallis

ROBERTA FERRENCE, Ph.D., Director, Ontario Tobacco Research Unit, Toronto, Ontario

BONNIE HALPERN-FELSHER, Ph.D., Associate Professor, University of California, San Francisco

JEFFREY HARRIS, M.D., Ph.D., Professor of Health Economics, Massachusetts Institute of Technology, Cambridge, MA ROBERT RABIN, J.D., Ph.D., A. Calder Mackay Professor of Law, Stanford Law School, Stanford, CA

MICHAEL SLATER, Ph.D., Social and Behavioral Sciences Distinguished Professor, School of Communication, Ohio State University, Columbus

CAROLINE SPARKS, M.A., Ph.D., Associate Professor of Prevention and Community Health and Deputy Director of the Prevention Research Center, School of Public Health and Health Services, George Washington University, Washington, DC CASS SUNSTEIN, J.D., Karl N. Llewellyn Distinguished Service Professor of Jurisprudence, University of Chicago Law School, IL

### **STUDY STAFF**

KATHLEEN STRATTON, Ph.D., Study Director

AMBER CLOSE, M.F.S., Senior Program Associate

MELISSA FRENCH, M.A., Senior Program Associate (through August 2005)

AMY GELLER, M.P.H., Research Associate (through August 2004)

DAVID GILES, Research Assistant (through January 2007)

REBECCA KLIMAN HUDSON, M.P.H., Research Associate (through August 2004)

SHEYI LAWOYIN, M.P.H., Senior Program Assistant (through October 2005)

RENIE SCHAPIRO, Consultant

KRISTINA VAN DOREN-SHULKIN, Senior Program Assistant

MONIQUE B. WILLIAMS, Ph.D., Program Officer

ROSE MARIE MARTINEZ, Sc.D., Director, Board on Population Health and Public Health Practice

### THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

The nation turns to the National Academies—National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council—for independent, objective advice on issues that affect people's lives worldwide.