



Tobacco Use

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PROGRESS REVIEW



In the 24th session of the second series of assessments of *Healthy People 2010*, Principal Deputy Assistant Secretary for Health Donald Wright chaired a Progress Review on Tobacco Use. He was assisted by staff of the lead agency for this *Healthy People 2010* focus area, the Centers for Disease Control and Prevention (CDC). Also participating in the review were representatives from other agencies and offices within the U.S. Department of Health and Human Services (HHS). Dr. Wright framed the public health challenge that tobacco use poses to the United States in the following terms: the cause of an estimated 12 million deaths over the past four decades, including 4.1 million deaths from respiratory disease and 94,000 infant deaths relating to mothers smoking during pregnancy. Despite these risks, approximately 45.3 million U.S. adults smoke cigarettes. Coupled with this health toll is a tremendous economic burden—more than \$96 billion per year in medical expenditures and another \$97 billion per year resulting from lost productivity. Dr. Wright praised CDC's Office on Smoking and Health, the National Cancer Institute (NCI), and the Agency for Healthcare Research and Quality (AHRQ) for being in the forefront of collaborative efforts nationwide to advance a comprehensive, broad-based approach to reducing tobacco use.

The complete November 2000 text for the Tobacco Use focus area of *Healthy People 2010* is available online at www.healthypeople.gov/document/html/volume2/27tobacco.htm. Revisions to the focus area chapter that were made after the January 2005 Midcourse Review are available at www.healthypeople.gov/data/midcourse/html/focusareas/fa27toc.htm. For comparison with the current state of the focus area, the report on the first-round Progress Review (held on May 14, 2003) is archived www.healthypeople.gov/data/2010prog/focus27/2003fa27.htm. The meeting agenda, tabulated data for all focus area objectives, charts, and other materials used in the Progress Review can be found at a companion site maintained by the CDC National Center for Health Statistics (NCHS): www.cdc.gov/nchs/about/otheract/hpdata2010/focusareas/fa27-tobacco2.htm. That site has a link to wonder.cdc.gov/data2010, which provides access to detailed definitions for the objectives in all 28 *Healthy People 2010* focus areas and periodic updates to their data.

Data Trends

In providing an overview of data that relate to Tobacco Use objectives, NCHS Director Edward Sondik stated that smoking is the leading cause of preventable death in the United States, exacting a toll of 438,000 deaths and 8.6 million serious illnesses each year. He noted that one of

the singular and constraining characteristics of the focus area is the rapid turnover of the cohort most susceptible to taking up the smoking habit—adolescents. Most objectives in the focus area are improving or remaining much the same. Of the objectives and subobjectives that were

retained after the 2005 *Healthy People 2010* Midcourse Review, 3 have met or exceeded their targets, 24 are moving toward their targets, 11 are showing little or no change, and 2 are moving away from their targets. Seven are without supporting data at all or none beyond the baseline. Dr. Sondik provided a more detailed examination of objectives selected by the focus area workgroup for highlighting at the Progress Review:

(Obj. 27-1a): The age-adjusted proportion of adults aged 18 and older who smoked cigarettes decreased from 24 percent in 1998 to 21 percent in 2006. A decrease over this period in the age-adjusted proportion of adults who smoked cigarettes held true for all racial and ethnic groups for whom data were available: among American Indians/Alaska Natives, from 35 percent to 27 percent; among non-Hispanic blacks, from 25 percent to 22 percent; among non-Hispanic whites, from 25 percent to 23 percent; among Hispanics, from 19 percent to 15 percent; and among Asians, from 13 percent to 11 percent. The 2010 target is 12 percent for all population groups. In 1965, 51 percent of adult males smoked cigarettes, compared with 34 percent of adult females. Even though the proportion of adult males who smoke remains higher than the proportion of adult females who smoke, the proportion declined more sharply for males than for females between 1965 and about 1985. From a geographic perspective, higher proportions of adult smokers are, in general, to be found in the Appalachian and south central States and in certain western States and Alaska. A similar geographic pattern is seen for lung cancer death rates.

(Objs. 27-2a-e): The proportion of adolescents in high school (grades 9 through 12) who had used any tobacco product during the previous month decreased from 40 percent in 1999 to 26 percent in 2007. The target is 21 percent. With respect to specific tobacco products, the pattern of use by adolescents in high school was as follows: cigarettes—used by 35 percent

in 1999, compared with 20 percent in 2007 (target: 16 percent); spit tobacco—used by 8 percent in 1999, the same as in 2007 (target: 1 percent); cigars—used by 18 percent in 1999, compared with 14 percent in 2007 (target: 8 percent); and bidis—used by 4 percent in 2000, compared with 3 percent in 2006 (target: 2 percent). In general, the proportion of high school students who smoked cigarettes increased each year during the early 1990s, plateaued during the late 1990s, and began to decline in about 1999. The downward trend ended in about 2003 and the proportion of students who smoke cigarettes has remained much the same in the years since.

(Objs. 27-14a, 27-15): In 2007, 4 States had a rate of illegal tobacco sales to minors of 5 percent or less, compared with no States in 1998. The target is 51 (50 States and the District of Columbia). The number of States that suspend or revoke State retail licenses for violations of laws prohibiting the sale of tobacco to minors increased from 22 in 1998 to 24 in 2007. The target is 51 (50 States and the District of Columbia).

(Objs. 27-16a, b): In 2000, 28 percent of adolescents in grades 6 to 12 recalled being exposed to tobacco advertising and promotions on the Internet, a proportion that increased to 38 percent in 2006. The target is 25 percent. The proportion of that age group that recalled being exposed to tobacco advertising and promotions in magazines and newspapers was 74 percent in 2000, a proportion that decreased to 58 percent in 2006, surpassing the target of 67 percent.

(Objs. 27-17a-c): The proportion of adolescents who disapprove of smoking increased from 1998 to 2007 as follows: among 8th-graders, from 80 percent to 87 percent; among 10th-graders, from 75 percent to 85 percent; and among 12th-graders, from 69 percent to 81 percent. The target is 95 percent for all three grades.

(Obj. 27-5): The age-adjusted proportion of adults aged 18 years and older who had made attempts to

quit smoking increased from 45 percent in 1998 to 47 percent in 2006. The target is 80 percent. In 2006, only 4 percent of the age-adjusted total of adults in the age group were abstinent at the time of the survey, that is, could be judged successful in their attempts. This proportion had varied little since 1998.

(Obj. 27-9): In 1998, 20 percent of children aged 6 years and younger lived in a household where someone smoked inside the home at least 4 days per week, compared with 8 percent in 2005. Reductions over this time period in exposure of young children to indoor smoking were reported for racial and ethnic groups and family income groups as follows: among non-Hispanic blacks, from 27 percent to 12 percent; among non-Hispanic whites, from 22 percent to 9 percent; among Hispanics, from 11 percent to 4 percent; among the poor, from 32 percent to 15 percent; among the near poor, from 26 percent to 12 percent; and among those in a middle- or high-income household, from 13 percent to 5 percent. The target for all groups is 6 percent.

(Obj. 27-10): Measured exposure to environmental tobacco smoke of nonsmokers aged 4 years and older (age-adjusted) decreased from 84 percent in

the period 1988–1994 to 44 percent in 2003–2006. Among three racial and ethnic groups for whom data were available, measured reductions in such exposure occurred as follows: among non-Hispanic blacks, from 93 percent to 62 percent; among non-Hispanic whites, from 84 percent to 43 percent; and among Mexican Americans, from 74 percent to 34 percent. The target is 56 percent.

(Obj. 27-11): The proportion of middle, junior high, and senior high schools that was smoke-free and tobacco-free increased from 37 percent in 1994 to 64 percent in 2006. The target is 100 percent.

(Obj. 27-13a-f, i): In 2007, the number of States that had established laws mandating smoke-free air for specific worksites and public places were as follows: private workplaces, 22 (compared with 0 in 1998); public workplaces, 27 (compared with 10 in 1998); restaurants, 21 (compared with 1 in 1998); public transportation, 31 (compared with 16 in 1998); daycare centers, 34 (compared with 20 in 1998); retail stores, 23 (compared with 6 in 1998); and bars, 13 (compared with 0 in 1998). The target for each of these locations is 51 (50 States and the District of Columbia).

Key Challenges and Current Strategies

Representatives from CDC, AHRQ, and NCI made presentations on the principal themes of the Progress Review. They included Janet Collins, Director of the CDC National Center for Chronic Disease Prevention and Health Promotion; CAPT Matthew McKenna, Director of the CDC Office on Smoking and Health; Christine Williams, AHRQ's Director for Strategic Partnerships; Erik Augustson of the NCI Tobacco Control Research Branch; and Cathy Backinger, Chief of the Tobacco Control Research Branch. Their statements, the discussion that ensued, and Progress Review briefing materials prepared by an interagency workgroup identified a number of barriers to achieving

the objectives, as well as activities under way to meet these challenges, including the following:

Barriers

- Each day in the United States, approximately 4,000 young people aged 12 to 17 years start smoking, of whom about 1,140 become daily cigarette smokers. Most people who smoke begin before age 18 and almost 87 percent of all adult smokers started smoking when they were teenagers.
- If current trends continue, more than 6 million people who are now smoking as adolescents will die more than 10 years prematurely due to their

- smoking addiction. Three out of four teenage smokers have tried to quit at least once, but have failed.
- Tobacco dependence is a chronic condition that often requires repeated intervention. Quitting tobacco use is difficult and may require multiple attempts, as users often relapse because of withdrawal symptoms.
 - Smokeless tobacco companies are marketing their products to smokers to use when they cannot smoke.
 - The 2006 report *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General* stated that, on average, children are exposed to more secondhand smoke than nonsmoking adults and are especially vulnerable to the more than 250 toxic or carcinogenic chemicals it contains. Both babies whose mothers smoke while pregnant and babies exposed to secondhand smoke after birth are more likely to die from sudden infant death syndrome (SIDS) than babies who are not exposed. On the basis of scientific evidence, the Surgeon General concluded that there is no risk-free level of exposure to secondhand smoke. Even brief exposures can be harmful.
 - Children exposed to secondhand smoke are at an increased risk for SIDS, acute respiratory infections, ear problems, severe asthma, other respiratory symptoms, and slowed lung growth.
 - According to the National Health and Nutrition Examination Survey conducted during the first half of the current decade, more than 60 percent of children aged 4 to 11 years had detectable levels of cotinine, a biomarker of secondhand smoke exposure, in their blood, compared with 42 percent of nonsmoking adults aged 20 years and older.
 - In 2003, the most recent year of record, the amount of money spent on tobacco industry marketing was more than 22 times the amount spent on tobacco use prevention (\$15.15 billion vs. \$0.67 billion).
 - Exposure to tobacco imagery in movies is causally related to smoking by youth, who are also influenced to start smoking by tobacco advertising and promotions.
 - Anti-tobacco campaigns directed at youth that are sponsored by the tobacco industry are generally not effective and may actually increase youth smoking.

Activities and Outcomes

- People who stop smoking greatly reduce their risk of dying prematurely. In 2006, an estimated 45.7 million adults were former smokers.
- Smoking rates increased rapidly throughout the 1930s, '40s, '50s and '60s, and then started to decrease with the release of the first Surgeon General's report on tobacco in 1964. Per capita cigarette consumption is now at the lowest rate since the Great Depression.
- State tobacco control programs that are comprehensive, sustained, and accountable and that employ evidence-based interventions reduce tobacco use rates and tobacco-related disease and death. If States invested in comprehensive tobacco control and prevention at CDC-recommended levels, there would be an estimated 5 million fewer smokers and hundreds of thousands of premature tobacco-related deaths would be prevented.
- A 2007 Institute of Medicine Report presented a blueprint for action to "reduce smoking so substantially that it is no longer a public health problem for our Nation." The executive summary of the report is available at www.cdc.gov/tobacco/tobacco_control_programs/stateandcommunity/best_practices/00_pdfs/2007/BestPractices_ExecutiveSummary.pdf

- The number of States in which the Medicaid program provides coverage for treatment of nicotine dependency rose from 24 in 1998 to 36 in 2002, then to 39 in 2006.
- Significant progress in expanding secondhand smoke protections has continued to occur at the local level. Most of the largest U.S. cities are covered by a local or State law that makes at least some settings smoke-free.
- In contributing to the public health campaign to reduce the proportion of young children who are exposed to secondhand smoke in their homes, the Environmental Protection Agency is carrying out a sustained public education initiative to encourage parents to make their homes smoke-free.
- The U.S. Public Health Service Clinical Practice Guideline *Treating Tobacco Use and Dependence: 2008 Update*, produced by AHRQ, offers clinicians a greater number of effective medications to help achieve smoking cessation. The guideline provides evidence of the effectiveness of each medication relative to the others. The HHS Food and Drug Administration has now approved seven effective first-line smoking cessation medications.
- *Treating Tobacco Use and Dependence: 2008 Update* also provides stronger evidence that counseling is an effective treatment strategy for adults, both clinically and in terms of cost. In addition, combining counseling with medication increases the likelihood of quitting more than either alone. For the first time, counseling for adolescent smokers has been shown to be effective. Counseling by telephone through “quitlines” can significantly expand the reach of effective treatment.
- Launched in November 2004, the HHS initiative “1-800-Quit-Now” provides a single nationwide access number for smoking cessation counseling by telephone, a service that is now available in all States and the District of Columbia. NCI provides access to and maintenance of the call number and CDC has supported the States in expanding their quitline services, which collectively serve about 400,000 smokers per year. The number of calls to 1-800-Quit-Now passed 1 million by the end of 2007.
- The cost of tobacco has a significant impact on use of tobacco by youth, who are much more susceptible than adults to altering their smoking behavior when prices increase. A 10 percent increase in the price of cigarettes leads to a 5 percent reduction in smoking prevalence among youth, a much greater percentage reduction than among adults.
- In media campaigns to prevent initiation of tobacco use and encourage tobacco cessation, ads that show industry manipulation, the effects of secondhand smoke, and those that elicit negative emotions are the most effective strategies for denormalizing smoking and reducing cigarette consumption.

Approaches for Consideration

Participants in the Progress Review made the following suggestions for public health professionals and policymakers to consider as steps to enable further progress toward achieving the objectives for Tobacco Use:

- Increase efforts to bring about resumption of the decline in smoking among youth that stalled in the middle of this decade.
- Support research and evidence-based programs to address disparities in secondhand smoke exposure among ethnically and socioeconomically diverse populations, as well as among children.
- To further reduce secondhand smoke exposure, seek to more fully extend policy protections to include blue collar, service, hospitality, and gaming workers.

- Strengthen the alignment between cessation and secondhand smoke interventions and between chronic disease prevention and secondhand smoke reduction initiatives.
- Expand research to find ways to increase demand for and use of existing smoking cessation services and treatments.
- Target additional research on smoking cessation toward pregnant women, adolescents, people with low socioeconomic status, and those with psychiatric co-morbidities.
- Urge insurers and purchasers to ensure that insurance plans include as covered benefits the kinds of counseling and medication that have been identified as effective in tobacco dependence treatment aimed toward achievement of smoking cessation.
- Encourage clinicians and health care delivery systems to ensure patient access to quitlines and promote quitline use on a broader scale.
- Step up national advocacy of quitlines and seek ways to expand their capacity.
- Direct additional research efforts to the effects on youth of tobacco use policies, such as those regarding taxes, smoke-free laws, and media.
- Devote increased attention to the impact of tobacco industry advertising and marketing.

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[Signed October 27, 2008]

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