



Substance Abuse

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PROGRESS REVIEW



In the 25th session of the second series of assessments of *Healthy People 2010*, Principal Deputy Assistant Secretary for Health Donald Wright chaired a Progress Review on Substance Abuse. He was assisted by staff of the co-lead Agencies for this *Healthy People 2010* focus area: the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Institutes of Health (NIH). Also participating in the review were representatives from other Agencies and offices within the U.S. Department of Health and Human Services (HHS) and from the National Highway Traffic Safety Administration (NHTSA) of the U.S. Department of Transportation. Dr. Wright noted that, in 2007, an estimated 22.3 million persons in the United States aged 12 years or older were classified as having abused or been dependent on substances subject to addiction during the previous year. He further stated that the ramifications and often disastrous consequences of drug abuse and alcoholism extend widely throughout our society, not only affecting the abusers but also exacting a heavy toll on their families and friends, various businesses, and Government resources.

The complete November 2000 text for the Substance Abuse focus area of *Healthy People 2010* is available online at www.healthypeople.gov/document/html/volume2/26substance.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/fa26toc.htm. For comparison with the current state of the focus area, the report on the first-round Progress Review (held on October 13, 2004) is archived at www.healthypeople.gov/data/2010prog/focus26/2004fa26.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 Centers for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS): www.cdc.gov/nchs/about/otheract/hpdata2010/focusareas/fa26-sa2.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 the Substance Abuse objectives, Richard Klein, Director of the NCHS Health Promotion Statistics Branch, noted that substance abuse cost the United States more than \$346 billion in 2004, of which \$161 billion was attributable to illicit drug use. Drug-induced deaths are increasing, especially those involving methadone and cocaine. Although substance abuse treatment

rates are improving, most people who need treatment do not receive it. Major disparities among population groups exist, especially for American Indians/Alaska Natives. Of the objectives and subobjectives that were retained after the 2005 *Healthy People 2010* Midcourse Review, 4 have met or exceeded their targets, 16 have improved, 15 show little or no change, and 3 are getting worse. Two have only baseline

data, and five are classified as developmental; that is, they lack any supporting data by which to track progress. Mr. Klein then provided a more detailed examination of objectives selected by the focus area workgroup for highlighting at the Progress Review:

(Obj. 26-9c): The proportion of high school seniors who had never consumed alcoholic beverages increased from 19 percent in 1998 to 28 percent in 2007, falling just short of the 2010 target of 29 percent.

(Obj. 26-11a): The proportion of high school seniors who had engaged in binge drinking of alcoholic beverages—that is, consuming 5 or more drinks in a row—during the 2 weeks prior to the time of the survey decreased from 32 percent in 1998 to 26 percent in 2007. The target is 11 percent.

(Obj. 26-6): The proportion of students in grades 9 through 12 who reported that they had ridden during the previous 30 days in a vehicle with a driver who had been drinking alcoholic beverages decreased from 33 percent in 1999 to 29 percent in 2007, surpassing the target of 30 percent.

(Objs. 26-16a-c): Between 1998 and 2007, the proportion of students who disapproved of people who take one or two drinks of an alcoholic beverage nearly every day increased from 77 percent to 80 percent among 8th-grade students, from 75 percent to 77 percent among 10th-grade students, and from 69 percent to 73 percent among 12th-grade students. The target is 83 percent for all three grades.

(Obj. 26-2): The age-adjusted death rate per 100,000 population for cirrhosis decreased from 9.6 per 100,000 standard population in 1999 to 9.0 per 100,000 in 2005. By racial and ethnic group for whom data were available and by gender, the 2005 cirrhosis age-adjusted death rates were as follows: Asian or Pacific Islander—3.6 per 100,000; non-Hispanic black—7.8 per 100,000; non-Hispanic white—8.7 per 100,000; Hispanic—13.9 per 100,000; American Indian or Alaska

Native—22.6 per 100,000; females—5.8 per 100,000; and males—12.4 per 100,000. The target is 3.2 per 100,000 for all groups. An estimated 11.7 percent of all deaths among the American Indian/Alaska Native population are alcohol-related. Geographically, large concentrations of cirrhosis deaths occur in States of the northern plains and in western border States.

(Obj. 26-1a): The rate of alcohol-related motor vehicle crash deaths decreased from 5.3 per 100,000 in 1998 to 4.8 per 100,000 in 2007, which is the target rate. By racial and ethnic group for whom data were available, the rates per 100,000 in 2006 were as follows: Asian or Pacific Islander, 1.8; non-Hispanic white, 4.2; non-Hispanic black, 4.4; Hispanic, 5.2; and American Indian or Alaska Native, 14.5.

(Objs. 26-24 & -25): In 2007, 41 States and the District of Columbia had administrative license revocation laws for persons who drive under the influence of intoxicants, the same number as in 1998. The target is for all 50 States and the District of Columbia to have such laws. In 2007, 50 States and the District of Columbia had legal requirements for maximum blood alcohol concentration levels of 0.08 percent for motor vehicle drivers aged 21 years and older. That is the target number and represents a large increase from the 15 States that had such requirements in 1998.

(Obj. 26-9b): Among adolescents aged 12 to 17 years, the average age at first use of marijuana among those who had used marijuana for the first time during the preceding 12 months increased from 15.0 years in 2002 to 15.3 years in 2007. A target is in the process of being revised.

(Obj. 26-10b): The proportion of adolescents aged 12 to 17 years who had used marijuana during the 30 days preceding the survey decreased from 8.2 percent in 2002 to 6.7 percent in 2007. The target is 0.7 percent.

(Obj. 26-16d-f): Between 1998 and 2007, the proportion of students who disapproved of trying marijuana or hashish once or twice increased from 69 percent to 79 percent among 8th-grade students, from 56 percent to 64 percent among 10th-grade students, and from 52 percent to 59 percent among 12th-grade students. The target is 72 percent for all grades.

(Obj. 26-3): The age-adjusted rate of drug-induced deaths increased from 6.8 per 100,000 in 1999 to 11.3 per 100,000 in 2005. By racial and ethnic group for whom data were available, age-adjusted rates of drug-induced deaths per 100,000 in 2005 were as follows: Asian or Pacific Islander, 1.9; Hispanic, 6.8; non-Hispanic black, 11.4; American Indian or Alaska Native, 11.9; and non-Hispanic white, 12.8. The target for all groups is 1.2 per 100,000. Between 1999 and 2005, a 63 percent increase occurred in the number of deaths from cocaine use, and a 468 percent increase occurred in the number of deaths from use of methadone. Particularly high rates of drug-induced deaths occur in the geographic regions of the Appalachians and the Ozarks, in the southwestern and northern plains States, and in Alaska.

(Objs. 26-18a, -18b): In 2007, 18 percent of persons aged 12 years and older who needed treatment for illicit drug use had received specialty treatment for abuse or dependence during the previous year, the same proportion as in 2002. The target is 24 percent. In 2007, 10 percent of persons aged 12 years and older who needed treatment for alcohol and/or illicit drug use had received specialty treatment for abuse or dependence during the previous year, the same proportion as in 2002. The target is 16 percent.

(Obj. 26-20): Substance abuse treatment facilities for injection drug use reported 237,945 admissions in 2006, compared with 215,560 in 1997. The target is a 19 percent improvement from the 1997 baseline, or 256,680 admissions.

(Obj. 26-21): In 2007, 8.1 percent of persons aged 12 years and older who needed specialty treatment for alcohol abuse or dependence had received such treatment during the previous year. The target is 11.9 percent.

Key Challenges and Current Strategies

Representatives from SAMHSA and NIH made presentations on the principal themes of the Progress Review. The representatives included RADM Eric Broderick, Acting Administrator of SAMHSA; Wilson Compton, Director of the Division of Epidemiology, Services, and Prevention Research of the NIH National Institute on Drug Abuse (NIDA); and Vivian Faden, Deputy Director of the Division of Epidemiology and Prevention of the NIH National Institute on Alcohol Abuse and Alcoholism (NIAAA). 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

- Alcohol has a wide range of effects on the human body depending on the age of the individual and the level and duration of exposure to alcohol, as well as on individual factors including genetics, and a broad range of environmental factors. At the early end of the spectrum, the embryo and fetus are particularly vulnerable to the adverse effects of alcohol. Although most women do not drink during pregnancy, reaching the approximately 20 percent of women who still do has proved challenging.
- Underage drinking remains a behavior deeply embedded in the culture and one that it is still viewed by many as a rite of passage. The highest

prevalence of alcohol dependence occurs in persons aged 18 to 24 years, some of whom age out of harmful drinking, while others progress to chronic relapsing dependence. Midlife is the time during which the cumulative effects of chronic heavy drinking manifest as damage to cells, tissues, and organs such as the liver, heart, brain, and pancreas. At any age, the existence of other substance abuse and/or mental disorders may complicate the course and treatment of alcohol use disorders.

- In the United States, excessive alcohol consumption is the third leading preventable cause of death. Injuries are the leading cause of death for persons aged 1 to 44 years, and alcohol is a leading contributor. Of the 75,000 deaths annually attributable to alcohol, 40,000 are injury deaths. These often involve young people and account for twice the number of preventable years of life lost as chronic disease alcohol-attributable deaths.
- Research indicates that laws for administrative license revocations (ALR) reduce alcohol-related fatal crashes between 6 and 13 percent. One study estimated that 300–350 lives could be saved each year if the 10 States that have not enacted ALR laws would do so.
- While moderate use of alcohol may confer some health benefits on adults, the challenge is to ensure that this information is not misinterpreted to the point of encouraging overindulgence.
- The Office of National Drug Control Policy estimates that lost productivity due to drug abuse cost the Nation \$98.5 billion in 1998. Productivity losses due to alcohol abuse cost another \$134.2 billion in that year, according to a report issued by NIAAA. On a per capita basis, these productivity losses amount to \$360 and \$468 per U.S. resident (in 1998 dollars).
- Barriers to treatment for illicit drug use include individuals' unreadiness and lack of a perception

of need, the cost of treatment, stigma, the unavailability of support services such as child care or transportation, and the failure of systems to effectively identify individuals and direct them into appropriate treatment. Moreover, there is a general lack of adequate treatment services.

- A substance abuse problem that has become of greater concern in recent years is the use of methamphetamine, a highly addictive and dangerous drug. Research shows that methamphetamine use/abuse has continued to spread across the Nation, and methamphetamine production and supply patterns have been changing. Production in small, clandestine labs in the United States has been decreasing, while an increasing proportion of methamphetamine used in the United States is produced in large labs in Mexico and distributed by Mexican drug trading organizations.
- Since 2000, prescription drugs have played an ever greater role year-by-year as a contributor to the steeply rising curve in the mortality rate from unintentional drug poisoning. Most often, persons who have taken such drugs without having a prescription obtained them from friends or family members, not by theft. Indications are that use of the Internet has increased somewhat as a source of prescription drugs, which are frequently obtained from Eastern Europe and Southeast Asia.
- According to the University of Michigan's 2007 Monitoring the Future Study, the drugs most often abused by 12th-grade students were, in descending order, marijuana/hashish, followed by hydrocodone compounds (Vicodin™ and other brands), amphetamines, sedatives, and tranquilizers (the latter four prescription drugs in nonmedical use).
- According to the U.S. Department of Justice, 35 percent of State prison inmates and 41 percent

of Federal inmates meeting drug abuse or dependence criteria participated in drug abuse education or self-help programs. Of those with drug abuse or dependence, only 15 percent of State prison inmates and 17 percent of Federal inmates received professional drug treatment. A 2005 survey of the total U.S. correctional population (prisoners and those under correctional supervision in the community) estimated the need for drug abuse treatment in this population at about 5,614,000 adults (of whom only about 424,000, or 7.6 percent, received treatment) and about 253,000 juveniles (of whom about 54,500, or 21.5 percent, received treatment).

- Disposal of prescription drugs poses an increasingly common problem that, according to the U.S. Environmental Protection Agency, has led to their increased presence as contaminants in drinking water supplies.

Activities and Outcomes

- SAMHSA's Center for Substance Abuse Treatment is implementing the Targeted Capacity Expansion Campus Screening and Brief Intervention grants, which are promoting screening, brief interventions, and referrals to treatment among college and university students with a high risk of substance abuse disorders. These grants are intended to expand existing campus-based medical services by integrating student health programs with screening and interventions for substance abuse and to motivate students to take appropriate action. SAMHSA has a Web site at www.samhsa.gov/index.aspx.
- SAMHSA's Center for Substance Abuse Prevention, NIAAA, and NIDA recognize the importance of delaying the onset of alcohol and drug use among adolescents. Research supported by NIDA is leading to a common understanding about the age of onset of drug addictive diseases, including alcoholism. There is a growing consensus that these diseases

begin during adolescence and sometimes even during childhood; therefore, early intervention and delaying the onset of alcohol and drug use may prevent many of the social, behavioral, and economic consequences caused by these diseases.

- NIAAA and SAMHSA collaborated with the Office of the U.S. Surgeon General on *The Call To Action To Prevent and Reduce Underage Drinking*. NIAAA also convened a committee of scientific experts who developed a *Pediatrics Supplement* on underage drinking that was circulated to the approximately 65,000 pediatricians in the United States and was made available to others by the publisher of *Pediatrics* free of charge on the Web. NIAAA has a Web site at www.niaaa.nih.gov.
- Among the initiatives that NHTSA is undertaking to increase safety on the highways are promotion of the use of: State traffic safety resource staff to assist prosecutors across the country who handle impaired driving cases; driving while intoxicated(DWI)/Drug Courts, which use close supervision to reduce recidivism; alcohol screening and brief intervention as a routine practice of medical and health care professionals, especially in emergency departments (EDs) and trauma centers, to identify individuals with alcohol misuse and dependency problems; and ignition interlocks, which have been shown to reduce repeat offenses while they are installed on an offender's vehicle. NHTSA is working with the auto industry to develop technologies to detect and take steps against impaired driving. NHTSA's Web site is at www.nhtsa.gov.
- Automotive technology now on the horizon promises to provide motorists with a number of additional safety features, including electronic stability control that would guard against inadvertent lane changes and intelligent cruise control devices that would apply the brakes as necessary to preserve safe driving distances between vehicles in the same lane.

- NIAAA published a report, *A Call to Action: Changing the Culture of Drinking at U.S. Colleges*, that was prepared by a task force of college presidents and research scientists. The report examined the magnitude of drinking problems in colleges and identified scientifically validated programs and policies found to reduce associated problems. A copy was sent to every college president in the United States. More recently, NIAAA has supported scientific research at 15 colleges and universities and the California University system to test additional proposed interventions to reduce college drinking.
- The HHS Agency for Healthcare Research and Quality maintains a Web page at www.ahrq.gov/clinic/uspstf/uspstfdrin.htm that conveys the recommendations of the U.S. Preventive Services Task Force for screening and behavioral counseling interventions to reduce alcohol misuse.
- NIAAA is investing in research on ways to mitigate the effects of prenatal exposure to alcohol, such as the use of nutritional supplements.
- NIAAA is also the lead agency on a broad initiative that conducts new research directed towards understanding the physiological, psychological, and social determinants of underage drinking.
- The Drug Abuse Warning Network (DAWN) monitors drug-related hospital ED visits for the Nation and for selected metropolitan areas. DAWN relies on a national sample of short-term, general, non-Federal hospitals operating 24-hour EDs, with oversampling in selected metropolitan areas. According to DAWN, there were more than 1.7 million drug-related ED visits in 2005. DAWN also measures ED visits for alcohol abuse in combination with illicit drugs for all ages, and visits for alcohol alone in patients under the age of 21.
- As part of NIDA's effort to reach physicians, the agency has established four Centers of Excellence for Physician Information to develop and implement research-based educational materials on drug abuse and addiction for medical students and resident physicians. NIDA's Web site, at www.drugabuse.gov, provides information about drug abuse for both professionals and laymen.
- New medications (buprenorphine products) and a new treatment modality—office-based opioid agonist medical maintenance—will expand substantially options for treating injection drug use in the next several years. Under this new model for treatment of injection drug use, patients access care in physician's offices. This model brings drug abuse treatment into mainstream medicine.
- Over the past few years, NIH has both established and strengthened strong collaborative relationships with a number of Government agencies, including SAMHSA, to build national infrastructures that can facilitate the flow of research into community practice. One example of this is the establishment of NIDA's National Drug Abuse Treatment Clinical Trials Network (CTN), which is now being carried out in 33 States plus Puerto Rico. The CTN, now in its ninth year, was developed to test the effectiveness of new and improved interventions in community-based treatment settings with diverse populations. Another example is the national Criminal Justice—Drug Abuse Treatment Studies cooperative agreement, now entering its sixth year.
- After increasing during the earlier years of the decade, use of anabolic steroids by adolescents (students in grades 8, 10, and 12) decreased from the 1998 baseline levels, according to 2007 data. Data for that year also show a reduction in the use of inhalants by adolescents aged 12 to 17 years.

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 Substance Abuse:

- In addressing substance abuse problems of individuals and population groups, seek to move toward a model of chronic, rather than acute care.
- Direct more collaborative prevention efforts toward long-term heavy drinking, especially among the 18- to 24-year-old population that is most at risk for alcohol abuse. Ensure that outreach efforts aimed at this age group extend to those who are not in college.
- As part of the overall effort to reduce the prevalence of substance abuse, target recently discharged inmates of correctional facilities, with the aim of preventing relapse to drug abuse (and often return to incarceration).
- Couple clinical treatment for substance abusers with recovery support, for example, by providing assistance to reclaim children who may have been placed in foster facilities and in offering guidance to reduce stress levels and avoid reversion to patterns of unlawful behavior.
- Expand cooperative efforts with the HHS Indian Health Service to reduce alcohol and drug abuse disparities between American Indians and Alaska Natives and the general population.
- Encourage the States to enact stronger laws to discourage, reduce, and provide penalties against the operation of motor vehicles by drivers impaired by the use of alcohol or drugs.
- Seek to develop sources of data on the prevalence of drugged driving.
- Find ways to break through the “wall of denial” that obstructs some individuals, particularly in correctional settings, from admitting to and seeking treatment for substance abuse problems.
- Direct outreach efforts toward discouraging parents from sharing prescription medications with their children.
- Explore the effects that increasing alcohol prices may have on alcohol consumption.
- In planning for innovative substance abuse prevention and control activities during the decade of 2020, make sure that the U.S. Department of Labor is enlisted as a collaborator on workplace interventions.

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[Signed December 1, 2008]

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