



# CANCER

U.S. Department of Health & Human Services • Public Health Service

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## PROGRESS REVIEW



In the third session in the second series of assessments of *Healthy People 2010*, ADM John O. Agwunobi, Assistant Secretary for Health, chaired a focus area Progress Review on Cancer. He was assisted by staff of the lead agencies for this *Healthy People 2010* focus area, the Centers for Disease Control and Prevention (CDC), and the National Institutes of Health (NIH). Also participating in the review were representatives of other U.S. Department of Health and Human Services (HHS) offices and agencies. In his introduction to Progress Review participants, ADM Agwunobi noted that considerable progress has been made toward achieving the targets of many focus area objectives. Combined death rates from all cancers declined, as did death rates for the four most common cancers—lung, breast, prostate, and colorectal. Along with this encouraging news, he added that modifiable behaviors, such as tobacco use, poor diet, and sedentary lifestyle, continue to cause approximately half of all deaths each year in the United States—many of which are cancer-related deaths. ADM Agwunobi thanked NIH's National Cancer Institute (NCI) and its Director, John Niederhuber, for setting an example for other HHS agencies in the adoption of a new meeting policy: NCI-sponsored meetings of 20 people or more are now held only in states or municipalities that have adopted smoke-free indoor air laws.

The complete text for the Cancer focus area of *Healthy People 2010* is available online at [www.healthypeople.gov/document/html/volume1/03cancer.htm](http://www.healthypeople.gov/document/html/volume1/03cancer.htm). More recent data used in the Progress Review for this focus area's objectives and their operational definitions can be accessed at [wonder.cdc.gov/data2010](http://wonder.cdc.gov/data2010). For comparison, the report on the first-round Progress Review (held on October 16, 2002) is archived at [www.healthypeople.gov/data/2010prog/focus03/2002fa03.htm](http://www.healthypeople.gov/data/2010prog/focus03/2002fa03.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 National Center for Health Statistics (NCHS)/CDC: [www.cdc.gov/nchs/about/otheract/hpdata2010/focusareas/fa03-cancer2.htm](http://www.cdc.gov/nchs/about/otheract/hpdata2010/focusareas/fa03-cancer2.htm).

### Data Trends

NCHS Director Edward Sondik summarized progress in the focus area in terms of advancement toward or regression from the targets of the 15 *Healthy People 2010* objectives for cancer. Improvement was seen in overall cancer deaths, as well as in deaths from lung, breast, cervical, colorectal, oropharyngeal, and prostate cancer (exceeded its target). However, the estimate of melanoma cancer

deaths moved away from the target. Among the cancer prevention objectives and their subobjectives, those for women ever having a Pap test, for adults taking protective measures against sun exposure and skin cancer risk, and for older adults ever having a colorectal cancer screening by sigmoidoscopy (target met) have shown improvement. The trend for colorectal cancer screening by fecal occult blood tests is

in the wrong direction. Other objectives that showed improvement are those for cancer survival and statewide cancer registries. The remaining objectives that were measurable showed little or no movement in either direction or had no updates since their baseline was established. Dr. Sondik then provided greater detail about trends for selected objectives in the focus area.

**(Obj. 3-1):** The age-adjusted rate per 100,000 standard population of overall cancer deaths decreased from 200.8 in 1999 to 190.1 in 2003. The rate for blacks in 2003 was 233.3; for whites, 188.5; for Hispanics, 126.6; for American Indians/Alaska Natives, 119.3; and for Asians/Pacific Islanders, 113.5. The rate for females was 160.9 in 2003, compared with 233.3 for males.

The 2010 target is 158.6 per 100,000. **(Obj. 3-2):** The age-adjusted rate per 100,000 of lung cancer deaths was 54.1 in 2003. Among blacks, the rate was 60.8 in 2003; for whites, the rate was 54.5 in 2003. Deaths from lung cancer decreased greatly from the early 1990s for men as a group and for blacks. Among females, the rate increased from the early 1980s to 41.3 in 2003. The 2003 lung cancer death rates for American Indian/Alaska Native, Asian/Pacific Islander, and Hispanic groups have improved and are lower than the 2010 target of 43.3 per 100,000. **(Obj. 3-3):** The age-adjusted rate per 100,000 breast cancer deaths among females was 25.3 in 2003. The rates among both black and white females have decreased since the mid-1980s, but the decrease has been more marked among white females. The rate among black females remained stable from the mid-1980s to 2003. The rate among Hispanic females decreased to 16.1 in 2003, which is better than the target of 21.3 per 100,000. Breast cancer death rates in 2003 among American Indian/Alaska Native females (14.0) and Asian/Pacific Islander females (12.6) were also less than the target. **(Obj. 3-5):** The age-adjusted rate per 100,000 of deaths from colorectal cancer was 19.1 in 2003. The rate among whites decreased year-by-year from 1960 to 18.6 in 2003. Among blacks, the rate

increased from 1960 to 1990, then decreased to 26.4 in 2003. The 2003 death rates from colorectal cancer among Hispanics (13.4), Asians/Pacific Islanders (12.1), and American Indians/Alaska Natives (11.8) were all less than the target of 13.7 per 100,000.

**(Obj. 3-9b):** The age-adjusted proportion of adults aged 18 years and older who took protective measures (e.g., use of sunscreens) against sun exposure to reduce the risk of skin cancer increased from 59 percent in 2000 to 71 percent in 2005. The target is 85 percent.

**(Obj. 3-11b):** The age-adjusted proportion of females aged 18 years and older who had received a Pap test in the previous 3 years to screen for cervical cancer was 78 percent in 2005, a decrease from 79 percent in 1998. Among Hispanics, a notable increase was apparent in the age-adjusted proportion from about 52 percent in 1987 to 74 percent in 2005. The target is 90 percent. **(Obj. 3-12a):** The age-adjusted proportion of adults aged 50 years and older who had received a fecal occult blood test (FOBT) within the previous 2 years to screen for colorectal cancer was 17 percent in 2005, a decrease from 24 percent in 2000. The target is 33 percent. **(Obj. 3-12b):** The age-adjusted proportion of adults aged 50 years and older who had ever received an endoscopy to screen for colorectal cancer reached the target of 50 percent in 2005, a marked increase from 37 percent in 1998. **(Obj. 3-13):** The age-adjusted proportion of adult females aged 40 years and older who had received a mammogram in the previous 2 years to screen for breast cancer was 67 percent in 2005. The rising trend in the proportion of females using this screening service that was apparent in the late 1980s and early 1990s appears to have leveled off in the 2000s and has given little indication of resuming. Among racial and ethnic groups for whom data were available, the proportions in 2005 that had received mammograms in the previous 2 years were as follows: American Indians/Alaska Natives, 67 percent; non-Hispanic whites, 68 percent; non-

Hispanic blacks, 65 percent; Hispanics, 59 percent; and Asians, 54 percent. For all of the four cancer screening methods highlighted here—Pap tests, FOBT, endoscopy,

and mammograms—a higher family income level was, in general, associated with greater use of such services.

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## **Key Challenges and Current Strategies**

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In presentations that followed the data overview, the principal themes were introduced by representatives of the two co-lead agencies, Ralph Coates of the CDC National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) and Jon Kerner of NIH/NCI. Joining them were NCCDPHP Director Janet Collins and NCI Director Niederhuber. These agency representatives set the stage for discussions among Progress Review participants, identified a number of barriers to achieving the objectives, and discussed activities under way to meet these challenges, including the following:

### *Challenges*

- In 2003, more than 1,340,000 cases of cancer were diagnosed in the United States, and about 556,000 deaths from cancer occurred.
- Age is a primary risk factor for most cancers. Approximately 56.5 percent of all cancers are diagnosed among people aged 65 years and older.
- The overwhelming majority of cancer objectives for which racial and ethnic disparities are measurable demonstrated an increase in disparities during the first half of the decade. As noted in the 2004–2005 President’s Cancer Panel Report, the inability to disseminate the full range of evidence-based cancer services to reach all segments of the U.S. population might have had the unintended effect of contributing to the increase in disparities. Also, certain geographic disparities in the use of cancer screening tests continue to persist.
- More than 182,000 women were diagnosed with breast cancer in 2002, and more than 41,000

women died from the disease in that year.

Mammography can detect breast cancer at its earliest, most treatable stage at an average 1.7 years before the woman can feel the lump herself. A 2002 report from the International Agency for Research on Cancer and a 2003 report from the Institute of Medicine (IOM) indicate that physical inactivity and overweight contribute to increased risk for breast cancer, as well as for colorectal cancer.

- Tobacco use is a major and preventable cause of lung cancer. Approximately 90 percent of lung cancer deaths in men and almost 80 percent of lung cancer deaths in women in the United States are caused by smoking. An NIH state-of-the-science panel meeting in July 2006 found that effective tobacco cessation interventions are available and could double or triple rates of quitting, but not enough smokers request or are being offered these interventions.
- Prostate cancer is second only to lung cancer as a cause of cancer-related death among men in the United States. An estimated \$8 billion is spent on prostate cancer treatment each year. While the incidence of diagnosed prostate cancer has been increasing since about 1995, the age-adjusted rate of deaths from prostate cancer decreased to 26.5 per 100,000 in 2003, surpassing the *Healthy People 2010* target of 28.2 per 100,000. The reasons for the decline in the death rate are not completely understood because no known modifiable prostate cancer risk factors exist, and it is unknown whether the potential benefits of screening outweigh the harms.

- In general, cancer survivors are at greater risk for recurrence and for developing second cancers because of a variety of influences operating alone or together—the effects of treatment, continued lifestyle behaviors, underlying genetics, and risk factors that contributed to the first cancer.

#### *Strategies and Opportunities*

- In 2003, IOM estimated that even modest efforts to implement fully what is known about prevention and screening could result in a 29 percent reduction in U.S. deaths from cancer.
- NCI's Cancer Intervention and Surveillance Modeling Network (CISNET) is a cooperative agreement that encourages modeling to better understand the impact of interventions (screening, treatment, and primary prevention) on population-based cancer trends in the United States. Originally funded in two rounds earlier this decade, CISNET was refunded in fiscal year 2005 to provide a total of 15 grants in breast, prostate, colorectal, and lung cancer. NCI provided supplemental funding for several CISNET grantees to develop models to inform the best approaches to achieving *Healthy People 2010* mortality reduction objectives for breast, colorectal, and lung cancer.
- The CDC-funded National Program of Cancer Registries (NPCR) collects data on the occurrence of cancer; the type, extent, and location of the cancer; and the kind of initial treatment. With these data, public health professionals are better able to address the nation's cancer burden. The NPCR supports cancer registries in 45 states, the District of Columbia, and 3 U.S. Territories. To help disseminate data collected by the registries, the NPCR and NCI's Surveillance, Epidemiology, and End Results Program collaborate to publish annual cancer incidence and death data in the *United States Cancer Statistics: Incidence and Mortality* reports.
- From a variety of sources—NCI, CDC, the Agency for Healthcare Research and Quality, the Substance Abuse and Mental Health Services Administration, the American Cancer Society, and the American College of Surgeons Commission on Cancer—information about evidence-based tools is brought together in the Cancer Control PLANET (Plan, Link, Act, Network with Evidence-based Tools) World Wide Web portal. These tools can help public health officials assess the cancer and/or risk factor burden in a given geographic area, identify potential partner organizations and research experts, understand current research findings, access information about individual evidence-based programs and download the products of this research, and find state cancer plans as well as guidelines for planning and evaluation. The portal is at **[cancercontrolplanet.cancer.gov](http://cancercontrolplanet.cancer.gov)**.
- In 1998, CDC initiated a new national program to support Comprehensive Cancer Control (CCC) coalitions to develop and implement plans for cancer risk reduction, early detection, better treatment, and improved survival at the state and local levels. Supported by CDC, the American Cancer Society, NCI, C-Change, the American College of Surgeons, the Lance Armstrong Foundation, and the Intercultural Cancer Council, these CCC coalitions are now active in all 50 states, the District of Columbia, 6 Tribes, and 6 U.S. Territories.
- The U.S. Preventive Services Task Force (USPSTF) conducts systematic reviews of research evidence on the effectiveness of cancer screening, chemoprevention, and provider counseling services and makes recommendations for clinical practitioners. The USPSTF periodically issues new guidelines and updates earlier guidelines on the basis of these evidence reviews. The most current set of guidelines can be found at **[www.ahrq.gov/clinic/uspstfix.htm](http://www.ahrq.gov/clinic/uspstfix.htm)**.

- The National Business Group on Health, representing more than 200 large employers, healthcare companies, benefits consultants, and vendors, works with Federal agencies to promote business support for cancer-related clinical preventive services recommended by the USPSTF.
- Recent advances in genomics and proteomics have enabled the discovery of molecular targets suited to a vaccine approach. Clinical trials have shown that these vaccines can stimulate the immune system to attack cancer cells, as was demonstrated in trials in patients with advanced colorectal cancer, renal cell carcinoma, melanoma, and lymphoma. NCI has established a vaccine initiative to bring together a consortium of scientists with expertise in various fields, along with representatives of the biotechnology and pharmaceutical industries.
- CDC and NCI have supported development of “quitlines” in all states and a national quitline (where states have yet to provide this resource) to increase access to comprehensive counseling services for tobacco cessation and, in some instances, medications. This resource provides an easy referral mechanism for healthcare providers’ patients who might have difficulty quitting despite provider support.
- CDC’s National Breast and Cervical Cancer Early Detection Program provides low-income, uninsured, and underserved women access to screening and diagnostic services to detect breast and cervical cancer at the earliest stages. The program provides high-quality services to about 500,000 (13 percent) of the approximately 4 million eligible women.
- Because of advances in the early detection and treatment of cancer, a greater proportion of people are living for extended periods after a diagnosis of cancer. Currently approximately 65 percent of people diagnosed with cancer are expected to live at least 5 years after diagnosis. As of January 2002, there were approximately 10.1 million cancer survivors in the United States.

## **Approaches for Consideration**

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Participants in the review made the following suggestions for public health professionals and policymakers to consider as steps to enable further progress toward achievement of the objectives for Cancer:

- Intensify efforts to identify and remove barriers that prevent the benefits of research on cancer from reaching all populations, particularly those who bear the greatest burden from the disease.
- Expand efforts to disseminate and implement the lessons learned from scientific findings about cancer into public health, primary care, and oncology practice.
- Increase research at all scientific levels, from the cellular to the societal, on the spectrum of differences between population groups that might account in some measure for persistent and growing disparities in cancer health outcomes.
- Aim to achieve an integrated, global approach to the translation into practice of research advances, with a special view to reaching segments of the population that have not greatly benefited in the past. Couple this approach with formal and aggressive studies of diffusion processes and attention to strengthening the collaborative infrastructure at the community level.

- In planning to take *Healthy People* beyond 2010 toward 2020, consider formulating health promotion and disease prevention objectives that more directly address the quality, not just

availability, of cancer diagnostic and treatment services and that provide incentives for the creation of partnerships to help achieve the purposes of the objectives.

**Contacts for information about  
*Healthy People 2010* focus area 3—Cancer:**

- Centers for Disease Control and Prevention—Ralph Coates, ralph.coates@cdc.hhs.gov
- National Institutes of Health—Jon Kerner, jon.kerner@nih.hhs.gov
- Office of Disease Prevention and Health Promotion (coordinator of the Progress Reviews)—Cecilia Penn, cecilia.penn@hhs.gov

[Signed December 15, 2006]

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**ADM John O. Agwunobi, M.D., M.B.A., M.P.H.**  
Assistant Secretary for Health