



Preventing and Controlling Cancer

The Nation's Second Leading Cause of Death

2008



“Our work in cancer prevention and control presents an extraordinary challenge across the continuum—preventing disease onset, reducing risk factors, advancing early detection and treatment, improving access to quality care, enhancing the quality of life for cancer survivors, and eliminating health disparities. By forging effective partnerships with those in the cancer community and beyond, we are making a real difference in reducing the burden of cancer and promoting our nation’s health.”

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The Burden of Cancer

Every year, cancer claims the lives of more than half a million Americans. Cancer is the second leading cause of death in the United States, exceeded only by heart disease. According to *United States Cancer Statistics: 2004 Incidence and Mortality*, which tracks cancer incidence for about 98% of the U.S. population and mortality for the entire country, more than 553,000 Americans died of cancer, and over 1.34 million had a diagnosis of cancer in 2004.

The financial costs of cancer are overwhelming. According to the National Institutes of Health (NIH), in 2007, cancers will cost the United States an estimated \$219 billion, including \$130 billion for lost productivity and \$89 billion in direct medical costs.

Racial and Ethnic Differences

Cancer does not affect all races equally. African Americans are more likely to die of cancer than people of any other racial or ethnic group. In 2004, the age-adjusted death rate per 100,000 people for all types of cancer combined was 228 for African Americans, 184 for white Americans, 128 for American Indians/Alaska Natives, 123 for Hispanic Americans, and 111 for Asians/Pacific Islanders.

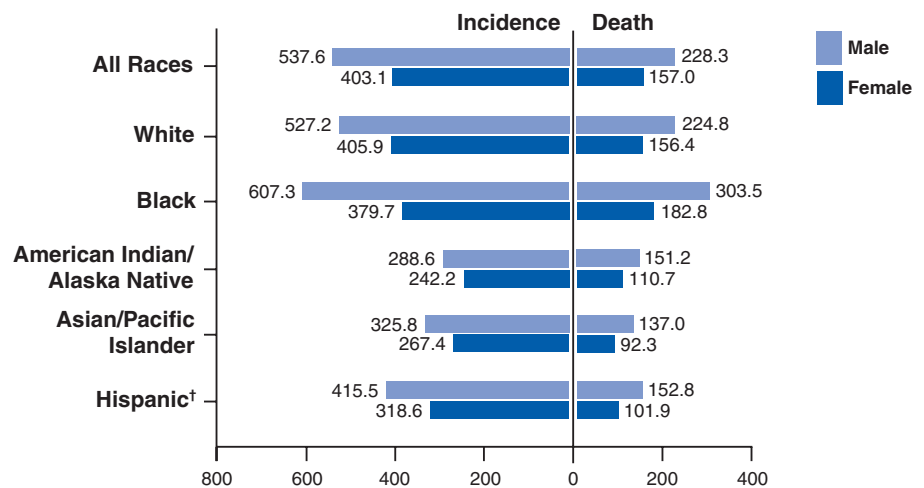
Effective Cancer Prevention Measures

The number of new cancer cases can be reduced, and many cancer deaths can be prevented. A person's cancer

risk can be significantly reduced by adopting a healthy lifestyle, avoiding tobacco use, increasing physical activity, achieving optimal weight, improving nutrition, and avoiding sun exposure.

Making cancer screening, information, and referral services available and accessible to all Americans can lower the high rates of cancer and cancer deaths. Screening tests for breast, cervical, and colorectal cancers decrease deaths from these diseases by finding them early, often as treatable precancerous conditions.

Cancer Incidence and Death Rates* for All Cancer Sites Combined, by Race/Ethnicity and Sex, United States, 2004



* Rates are age-adjusted to the 2000 U.S. standard population. Incidence rates are for 98% of the U.S. population; death rates are for 100% of the population.

† Hispanics may be of any race.

Source: *United States Cancer Statistics: 2004 Incidence and Mortality*.

CDC's Leadership in Detecting, Preventing, and Controlling Cancer

CDC is committed to ensuring that all people, especially those at greater risk for health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life. With agency-wide health protection goals that support healthy people in healthy places across all life stages, CDC is setting the agenda to enable people to enjoy a healthy life by delaying death and the onset of illness and disability by accelerating improvements in public health.

With fiscal year 2008 funding of \$284 million for cancer prevention and control activities, CDC is a leader in this area. CDC's Division of Cancer Prevention and Control (DCPC)

works with national organizations, state health agencies, and other key groups to develop, implement, and promote effective cancer prevention and control practices.

CDC's comprehensive and collaborative approach to addressing the nation's cancer burden includes the following:

- **Monitoring.** CDC helps states, territories, and tribes and tribal organizations collect data on cancer incidence and deaths, cancer risk factors, and the use of cancer screening tests. Public health professionals use these data to identify and track cancer trends, strengthen cancer prevention and control activities, and prioritize use of resources.

- **Conducting research and evaluation.** CDC conducts studies and supports research, often in collaboration with academic partners, to develop and promote the application of sound science to reduce the burden of cancer and eliminate health disparities. This research uses many different areas of expertise (e.g., behavioral science, economics, epidemiology, health services, medicine, and statistics) to address the public health research needs of our programs, health care providers, people affected by cancer, and the larger cancer control community.
- **Building capacity and partnerships.** CDC works with many partners to translate research into public health programs, practices, and services. CDC helps states, U.S. territories, and tribes and tribal organizations apply scientific advances to the development of strong cancer control programs for the people who most need them.
- **Educating.** CDC develops communication campaigns and materials for teaching health professionals, policy makers, the media, and the public about the importance of cancer prevention and control.

CDC's Cancer Programs

The **National Breast and Cervical Cancer Early Detection Program** (NBCCEDP) provides clinical breast exams, mammograms, pelvic exams, and Pap tests to women in need, such as those who are uninsured, have low incomes, or have health insurance that does not pay for screening services. In addition, the program provides diagnostic follow-up for abnormal screening results and referrals to treatment if cancer is diagnosed.

In 2008, the NBCCEDP appropriation of \$182 million funds all 50 states, the District of Columbia, 5 U.S. territories, and 12 American Indian/Alaska Native tribes or tribal groups to provide clinical screening and diagnostic services to medically underserved women. Since its inception in 1991, the NBCCEDP has provided more than 7.2 million breast and cervical cancer screening and diagnostic exams to more than 3 million women.

The **National Comprehensive Cancer Control Program** (NCCCP) is an integrated and coordinated approach to reducing cancer incidence, morbidity, and mortality through prevention, early detection, treatment, rehabilitation, and palliation. In 2008, the NCCCP appropriation of \$16 million funds all 50 states, the District of Columbia, 7 U.S. territories, and 7 tribes or tribal groups to establish coalitions, assess the burden of cancer, determine priorities, and develop and implement comprehensive cancer control (CCC) programs. Since 1998, the number of programs participating in the NCCCP has grown from 6 to 65, and grantees have released 56 CCC plans.

The **National Program of Cancer Registries** (NPCR) collects data on cancer occurrence; the type, extent, and location of cancers; and the type of initial treatment. In 2008, the NPCR appropriation of \$46 million supports central cancer registries in 45 states, the District of Columbia, Puerto Rico, and the U.S. Pacific Island jurisdictions. In addition, CDC collaborates with the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program to publish annual cancer incidence and death data in the *United States Cancer Statistics: Incidence and Mortality* reports.

Ongoing Initiatives

Colorectal cancer prevention and control. CDC and its partners promote colorectal cancer screening by supporting education and research programs. CDC is funding a 3-year demonstration program at the community level to learn how best to implement colorectal cancer screening for low-income adults. CDC's multiyear *Screen for Life: National Colorectal Cancer Action Campaign* educates Americans about the importance of regular screening beginning at age 50. Campaign materials include fact sheets, brochures, posters, and public service announcements (PSAs). In 2007, the campaign created and distributed PSAs featuring actor Jimmy Smits (in English and Spanish) and journalist Katie Couric.

Prostate cancer control. CDC provides the public, doctors, and policy makers with information they need to make informed decisions about the potential risks and benefits of prostate cancer screening and to improve quality of life after diagnosis. CDC produces three versions of *Prostate Cancer Screening: A Decision Guide*—one for all English-speaking men, another for African American men, and the third in Spanish for Hispanic men. CDC also developed a slide presentation for primary care physicians called *Screening for Prostate Cancer: Sharing the Decision*.

Skin cancer primary prevention and education. CDC conducts monitoring, research, education and interventions for skin cancer. Based on the recommendations of the *Guidelines for School Programs to Prevent Skin Cancer*, CDC worked with education agencies and CCC partners to pilot test strategies to reduce skin cancer risks among students in schools in Colorado, Michigan, and North Carolina. CDC also is working with partners to assess the prevalence of sunburn and sun-protective behaviors by using national surveys such as the Youth Risk Behavior Surveillance System and National Health Interview Survey. CDC currently funds 9 states for skin cancer activities under its CCC program.

Hematologic cancer. CDC funds efforts to improve awareness and understanding of the diagnosis and treatment of hematologic cancers, which are cancers of the blood and bone marrow.

These efforts help the public and people living with hematologic cancers (as well as their friends and families) get resources to better understand these diseases, receive optimal treatment, and find community support networks.

Ovarian cancer. CDC works with academic and medical institutions, state health departments, and advocacy groups to conduct research to improve early detection and treatment of ovarian cancer. Cancer registries in Maryland, California, and New York collaborate with the NPCR to evaluate care and outcomes for patients with ovarian cancer. The NCCCP also funds ovarian cancer projects in California, Florida, Michigan, New York, Pennsylvania, Texas, and West Virginia.

Gynecologic cancer. DCPC is working to increase awareness of gynecologic cancers through a national campaign called Inside Knowledge: Get the Facts about Gynecologic Cancer. The project is a joint effort between CDC and the U.S. Department of Health and Human Services' Office of Women's Health. In 2007, CDC convened an expert panel to make recommendations and created consumer fact sheets on ovarian, cervical, uterine, vaginal, and vulvar cancers.

State Program in Action: Delaware

Since the early 1990s, death rates from cancer have fallen across the United States, including a dramatic decrease in Delaware—from 10% above the national average during 1994–1998 to 3% above the national average during 2000–2004. Despite this progress, the state's disease and death rates from cancer remain higher than the national average. In addition, only 1 in 8 residents has health insurance, and the cost of treating cancer can be devastating for people without insurance. Many people do not get screening tests because they cannot afford treatment if cancer is diagnosed. In 2004, Delaware became the first state to offer free cancer treatment for people who meet eligibility requirements. Delaware also provides free screenings for breast, cervical, and colorectal cancer to eligible residents as part of Screening for Life, a program in the state's Division of Public Health. In 2007, the state added early detection and treatment services for prostate cancer because prostate cancer accounts for 30.2% of all new cancer cases reported in men in Delaware.

Cervical cancer. CDC is working with partners, including the registries funded by NPCR and SEER, to assess the burden of cancers associated with the human papillomavirus (HPV), including cervical, vaginal, vulvar, anal, penile, and oropharyngeal cancers. This project will culminate in a supplement to the journal *Cancer*.

Lung cancer. To prevent and control lung cancer, CDC collects data on diagnoses and deaths in the United States; supports programs in states, U.S. territories, and tribes and tribal groups to prevent and control tobacco use and promote a healthy diet; and implements public health interventions and counter-marketing strategies to reduce smoking.

Cancer survivorship. Because of advances in the detection and treatment of cancer, more people are living longer after a cancer diagnosis, and survivors often face a range of health challenges. CDC works with national, state, and local partners to create and implement successful strategies to help the millions of people who live with, through, and beyond cancer. For example, DCPC and the Lance Armstrong Foundation worked together to develop *A National Action Plan for Cancer Survivorship: Advancing Public Health Strategies*.

Future Directions

To help ensure that people are healthy at every stage of life, CDC is committed to the following actions:

- Collaborating with partners, policy makers, and other individuals and groups working to ease the burden of cancer in the United States and abroad.
- Expanding the use of information technology in cancer surveillance, particularly in cancer registries.
- Improving the cost-effectiveness of the National Breast and Cervical Cancer Early Detection Program.
- Defining the proper role for managing chronic diseases, including cancer, during catastrophic disasters.
- Expanding CDC's role in addressing public health strategies to increase survivorship in underserved populations and improve end-of-life support for cancer patients, their family, their friends, and their caregivers.
- Expand the colorectal cancer screening demonstration project to include additional states, territories, and tribes as funds become available.

For more information or copies of publications referenced in this document, please contact

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