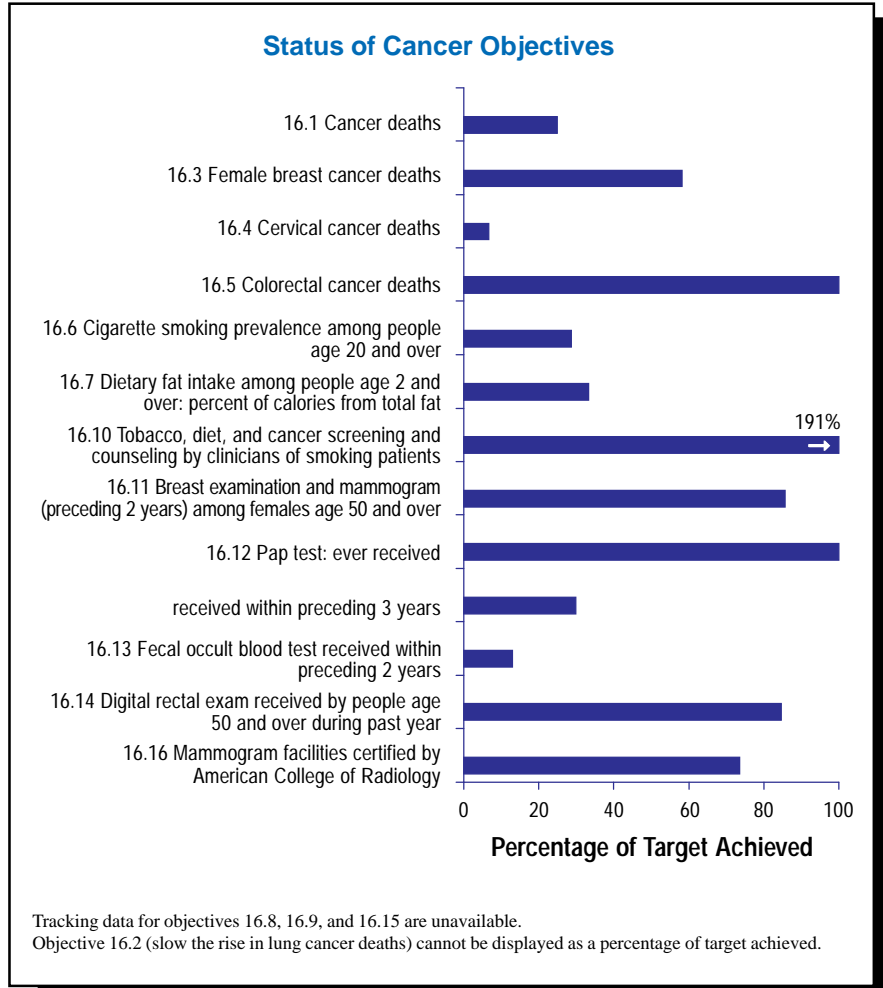


16

Cancer



Lead Agency: *National Institutes of Health*

CANCER

Cancer is a leading cause of morbidity and mortality in the United States. While deaths from stroke and heart disease have continued to decline over the past 25 years, the burden and consequences of cancer have increased. If current trends continue, cancer may become the leading cause of death early in the next century.

Although overall cancer incidence and mortality have grown considerably over the past two decades, the trends in this long-term disease process vary according to many different factors. A large portion of the increased number of cancer cases are related to growth in the population base as well as the disproportionate growth in the number of older adults. Racial and ethnic groups also exhibit differences, with the black population at relatively high cancer risk. The 5-year relative survival rate for those diagnosed during 1983-89 was 53.0 for the total population; for blacks this rate was 39.4 percent.

Different types of cancer have had different rates of success in terms of early detection, treatment, or prognosis. Relatively few cancers are responsible for the majority of new diagnoses. For males, prostate, lung, colorectal, bladder, and non-Hodgkin's lymphoma are responsible for most new cancer cases. For females, the leading five cancers are lung, breast, colorectal, ovarian, and uterine. These five cancer sites account for about two-thirds of all new cases in both males and females.

While progress most often is discussed according to its relationship to morbidity or mortality, research over the past few decades has increased substantially our understanding of other dimensions of the disease process. Knowledge has increased, for example, about the relationship between prior exposure and disease manifestation years later and about detection and treatment of cancer in its early stages. The knowledge base has been expanded in such areas as pain management and quality of life.

Major cancer control activities include programs designed to increase the availability and use of breast and cervical cancer screening as well as followup care by health providers for hard-to-reach populations such as low-income, low-education, and older minority women. The 5-A-Day for Better Health Program, a public-private partnership initiative, encourages consumers to eat at least five servings of fruits and vegetables daily in order to reduce the likelihood of developing cancer.

The American Stop Smoking Intervention Study (ASSIST), which began a 5-year intervention phase in 1993, is a collaboration among the National Cancer Institute, the American Cancer Society, and the health departments of 17 States. The purpose of ASSIST is to demonstrate that the widespread application of the best available strategies to prevent and control tobacco use can help accelerate downward trends in smoking rates, particularly among groups whose prevalence rates remain a problem such as adolescents, women, medically underserved people, less educated people, and several minority populations.

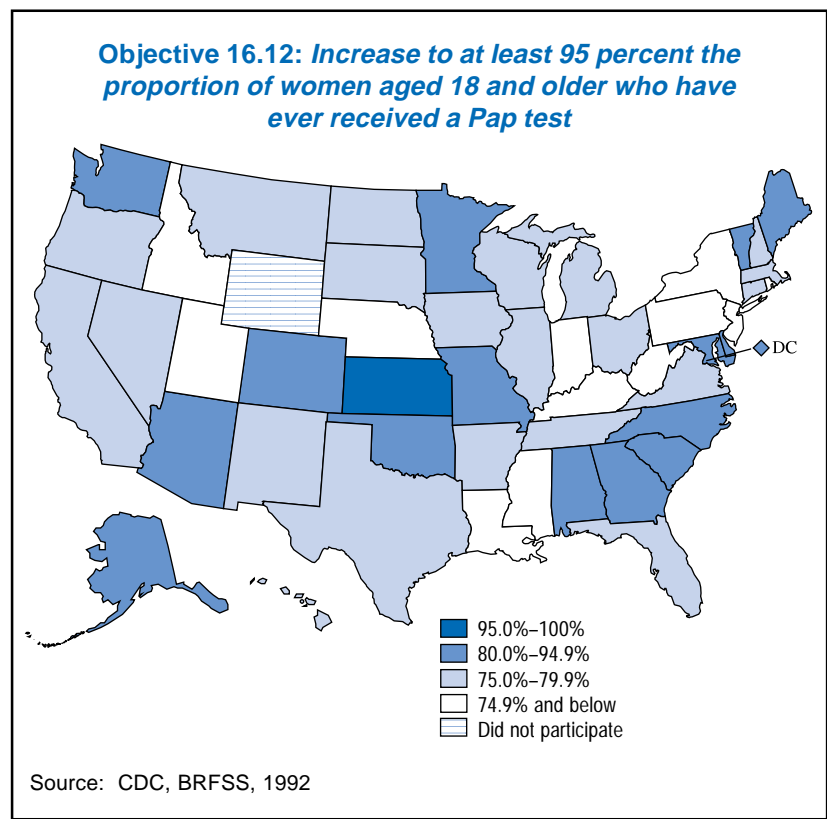
Concern over the accuracy of clinical testing, including Pap smears, led to passage of the Clinical Laboratory Improvement Amendments in 1988. Federal regulations require proficiency testing of the laboratories and doctors' offices performing these tests. The implementation of these regulations currently is in process, with the earliest data on compliance expected in 1995. Product safety regulation and public educational efforts also are ongoing to monitor the relationship between exposure to artificial sources of ultraviolet light and the development of skin cancer.

Review of Progress

The overall rate of cancer mortality was 134 deaths per 100,000 population in 1992—a slight increase since the baseline. Approximately one-third of these deaths are related to tobacco. Lung cancer deaths, at 39.6 per 100,000 population in 1991, have increased since the 1987 baseline rate of 38.5 deaths per 100,000. The prevalence of cigarette smoking, however, has declined for the overall population as well as for most population subgroups. Cigarette smoking by youths has increased over the past few years after declining for many years.

Although mortality rates for some types of cancer such as lung and prostate have increased, others have shown improvement. The colorectal and female breast cancer death rates, at 21.9 and 13.2 per 100,000 in 1992, respectively, have declined. The cervical cancer death rate, 2.7 per 100,000 in 1992, also has improved slightly.

The risk reduction and health services objectives in this priority area are focused on cancer prevention and control. Two diet-related objectives seek to decrease fat intake and increase the consumption of fruits, vegetables, and grains. The data show modest improvements in dietary patterns over the course of the decade. With standard nutrition labeling now available on most food items, consumers may be better able to make informed choices about the food they purchase. Baseline data for another objective show that approximately one-third of the population is likely to take actions to limit their exposure to the sun.



Application of appropriate screening tests is linked to improved health outcomes. The proportion of women who have received screening tests such as mammography and Pap smears has improved substantially. However, the most recent data indicate that only one-half of women age 50 and older have received a mammogram within the past 1 to 2 years, and about three-quarters of all women have received a Pap test within the preceding 3 years. Only 30 percent of the population have received fecal occult blood testing within the preceding 2 years, and 33 percent have ever received a proctosigmoidoscopy.

1995 Revisions

Because data show that certain population groups are at increased risk for various types of cancer, new subobjectives have been added to this priority area. In addition to the tracking of cancer mortality for the total population, the death rate now will be monitored for blacks. Special population objectives also were added for lung cancer deaths for females and for black males, and for colorectal cancer deaths for blacks. Breast cancer deaths will be tracked for blacks, and cervical cancer deaths for black and Hispanic females.

For the nutrition-related risk reduction objectives (16.7 and 16.8) the language was modified to include people aged 2 years and older. The text also was revised for objective 16.10 so that counseling by primary care providers includes a discussion of screening tests and risk factors associated with breast, prostate, cervical, and colorectal cancer. In addition, passage of the Mammography Quality Standards Act has led to a change in target for objective 16.16 because all mammography facilities must now fully comply.

Objective 16.11, which seeks to increase the proportion of women who receive clinical breast exams and mammography, has also been modified to include only women aged 50 and older. The U.S. Preventive Services Task Force, the American Academy of Family Physicians, and the American College of Physicians all recommend routine mammograms for women beginning at age 50. For women aged 50–69, clinical trials show a reduction of about one-third in the death rate under regular screening at an interval of 1 to 2 years. The trials to date, however, have not shown definitive results for women aged 40–49. The criterion for a recommendation that asymptomatic women aged 40–49 undergo routine mammography and clinical breast examination for the early detection of breast cancer would be the presence of data from a prospective randomized clinical trial showing a statistically significant reduction in mortality in the group invited to screening. The absence of such evidence, due either to lack of properly conducted studies or evidence of a benefit in well-designed studies with sufficient statistical power, means there can be no recommendation for the procedure, regardless of other factors, such as results from other types of studies. It is still early in the followup of some trials, and more definitive results may be available in several years. Because age is the greatest risk factor, periodic screening would be contraindicated only if a serious comorbidity were present for women aged 70 and over.

Women and health professionals should understand the essential facts about screening, particularly that risks involved with screening are greater for women in their forties, specifically the physical and emotional risks of false positive and false negative results. Mammography can find cancers in women in their forties, but it is not as effective; that is, it misses more cancers than mammography can detect in women 50 and older. Even though cancers are detected early through mammography, such early detection may not change the course of the disease. As stated previously, the trials have not shown a reduction in death rates in those who are screened regularly in their forties. Because the problems are clear and the benefits are as yet unproven, the decision for or against mammography in younger women needs to be discussed between the physician or other professional health care provider and the individual patient, with consideration of the known risk factors for the disease. As research continues on mammography at younger ages, women should discuss with their health care providers what is known about potential for benefit or harm and obtain advice on their individual risk for breast cancer so they can make informed decisions.

