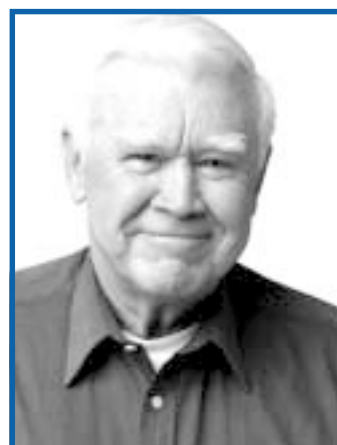
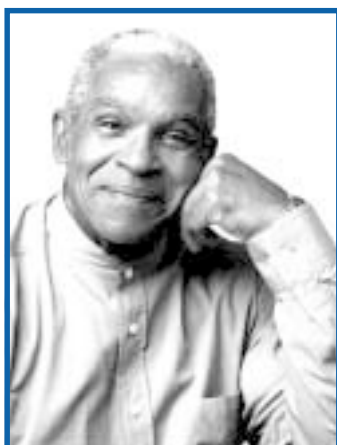


# Prostate Cancer: The Public Health Perspective 2001



*“We must move toward the development of health messages that reflect the best medical knowledge available to date on prostate cancer to meet the information needs of primary care clinicians and of the public.”*

*David Satcher, MD, PhD  
Surgeon General*

## The Burden of Prostate Cancer

Prostate cancer is the most commonly diagnosed form of cancer, other than skin cancer, among men in the United States and is second only to lung cancer as a cause of cancer-related death among men. The American Cancer Society estimates that 198,100 new cases of prostate cancer will be diagnosed and that 31,500 men will die of the disease in 2001.

Age, race, ethnicity, and family history are factors that affect the risk for prostate cancer. About 80% of all men with clinically diagnosed prostate cancer are aged 65 years or older. Because prostate cancer usually occurs at an age when conditions such as heart disease and stroke cause death, many men die *with* prostate cancer rather than *of* it. Fewer than 10% of men with prostate cancer die of the disease within 5 years of diagnosis.

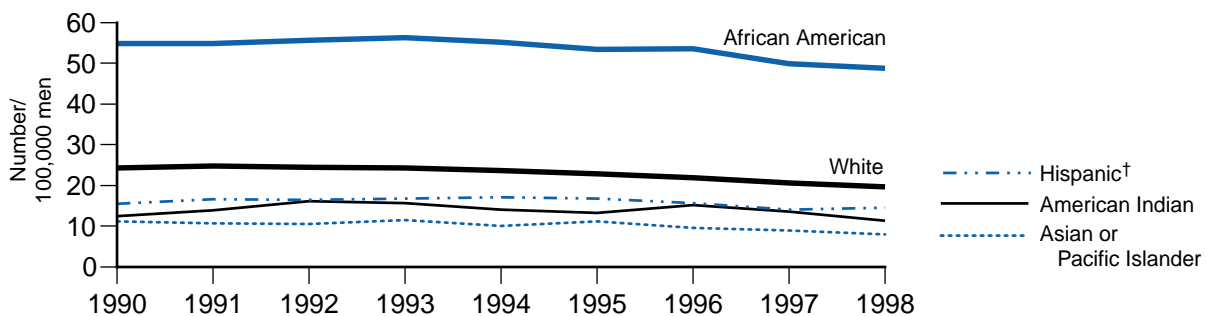
African American men develop prostate cancer at a higher rate than men in any other racial or ethnic

### Primary Prevention

Researchers are investigating numerous factors that might reduce or increase a man's risk for developing prostate cancer. There is no general agreement about which factors truly affect risk. Investigators are studying factors such as the use of herbal supplements, vitamin E, or selenium; certain infectious diseases; men's hormonal characteristics; and diets high in fat or low in fruits and vegetables.

group, but the reasons for the increased rate remain unknown. They also are far more likely than other men to die of this disease: 48.7 of every 100,000 African American men die of prostate cancer compared with 19.6 of every 100,000 white men, 14.5 of every 100,000 Hispanic men, 11.3 of every 100,000 American Indian men, and 8.0 of every 100,000 Asian/Pacific Islander men.

Prostate Cancer (Invasive) Death Rates,\* by Race and Ethnicity, United States, 1990–1998



\*Rates are age-adjusted to 1970 U.S. population.

†Includes Hispanics of any race.

Source: CDC, National Center for Health Statistics.

## The Challenge of Early Detection

### Screening Methods

Two methods for detecting prostate cancer are commonly used by clinicians:

**Digital rectal examination (DRE)** has been used for years as a screening test, but its ability to detect prostate cancer is limited. Tumors often form in areas of the prostate that cannot be reached by a DRE. Clinicians also can have difficulty distinguishing between benign abnormalities and prostate cancer.

The **prostate-specific antigen (PSA) measurement** is a blood test that many clinicians use. PSA is an

enzyme measured in the blood that can rise naturally as men age or if prostate abnormalities are present. However, the PSA test cannot distinguish prostate cancer from benign growth or other conditions, such as prostatitis (inflammation of the prostate). PSA testing also fails to detect some prostate cancers.

### The Controversy Over Early Detection and Treatment

Effective measures to prevent prostate cancer have not been determined. Many physicians recommend screening to their patients, and in recent years a

substantial proportion of men in the United States have been screened for prostate cancer with PSA, DRE, or both. Although screening detects some prostate cancers early in their growth, it is not yet known whether it saves lives or whether treatment reduces disability and death from this disease.

Further, there are concerns that for some men, screening and treatment may do more harm than

good. Current medical tests cannot tell which prostate cancers will grow slowly. Slower growing cancers might not require treatments (surgery or radiation), which commonly cause impotence and incontinence. Thus, the harms of treatment can outweigh the benefits. In addition, it is unclear how well treatment works for faster growing prostate cancers. Studies now under way will tell us more about the effectiveness of screening and treatment.

## CDC's Activities Targeting Prostate Cancer

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CDC does not recommend prostate cancer screening, but it does recommend that men be provided with up-to-date information about screening, including the potential harms and benefits. Several organizations—including the American Cancer Society, American Urological Association, National Cancer Institute, and U.S. Preventive Services Task Force—recommend offering information about the potential harms and benefits so that men, their physicians, and their families can make informed decisions about screening.

With fiscal year 2001 funding of approximately \$11.1 million\* for prostate cancer activities, CDC uses cancer data to guide prostate cancer prevention and control activities, to build the science base, and to educate the public and health providers about screening and treatment.

### Using Data for Prostate Cancer Prevention and Control

People are becoming more aware of prostate cancer's burden on men, and the demand is growing for data on prostate cancer screening. Accurate population-based data on prostate cancer are needed to develop appropriate public health strategies. Cancer surveillance is the foundation for a national, comprehensive strategy to reduce illness and death. CDC employs a variety of mechanisms and technology to collect and analyze data. Examples include

- **National Program of Cancer Registries (NPCR).** The NPCR supports registries in 45 states, the District of Columbia, and three territories. Collecting better prostate cancer data in these registries—especially data on stage of diagnosis, quality of care, and race and ethnicity—is enabling CDC and the states to design more effective public

health programs to address the disease. For example, the Texas registry is assessing the completeness of prostate cancer reporting so that methods for improving case reporting can be identified and tested. The Kansas registry is evaluating differences in the burden of prostate cancer in rural versus nonrural medically underserved areas.

- **Behavioral Risk Factor Surveillance System (BRFSS).** Six questions on prostate cancer screening have been added to the 2001 BRFSS core questionnaire. These questions are helping determine what proportion of men aged 40 years and older have received prostate cancer screening and whether there is an association between screening, race, a family history of prostate cancer, and age.
- **Geographic Information Systems (GIS).** A computerized system that uses coded maps to analyze and display data geographically, GIS technology can be used to look at prostate cancer incidence, death, and treatment. For example,
  - **New Jersey Department of Health and Human Services, Assessment of Late-Stage Prostate Cancer Incidence.** New Jersey is working to enable health care professionals to analyze and display prostate cancer data by geographic area to better understand prostate cancer staging in their communities.
  - **State University of New York, Geographic Patterns of Prostate Cancer in New York State.** The 97,000 cases of invasive, malignant prostate cancer diagnosed among men in New York State from 1990 through 1998 are being coded to develop an electronic atlas of prostate cancer for the state.

\*This funding includes salaries and expenses as appropriated in the congressional conference report no. 106-1033.

- **University of Kansas Medical Center, Pesticides and Risk for Prostate Cancer.** Researchers are using GIS to compare the distribution of pesticides applied in agricultural activities with the distribution of prostate cancer cases reported to the Kansas registry from 1989 through 1999.

### **Building the Science Base and Educating the Public**

With no scientific consensus on the effectiveness of prostate cancer screening in reducing deaths, state public health agencies face a challenge in determining how best to meet the public's need for and interest in prostate cancer information. CDC is working with key partners to develop and deliver appropriate messages that will enable the public, health providers, and policy makers to make informed decisions regarding prostate cancer screening and follow-up.

To help address this need, CDC invited 100 public health practitioners, researchers, community representatives, and others to the *Future Directions for Public Health Practice and Research in Prostate Cancer* meeting in December 2000. Participants discussed the public health role in better understanding the risk and burden associated with prostate cancer prevention, early detection, treatment, and quality of life for prostate cancer survivors. They offered suggestions about the need for future public health activities, including disease surveillance and monitoring, research, programs and services, and communication. A report summarizing these discussions will be released this year.

Other CDC activities include

- Supporting six grantees (Colorado, Massachusetts, Michigan, North Carolina, Texas, and the Northwest Portland Area Indian Health Board) for comprehensive cancer control efforts that will include activities targeting prostate cancer. Funding is used to establish broad-based coalitions, coordinate surveillance, and develop and disseminate public education programs to reduce cancer risk and help men make informed decisions

about prostate cancer screening. This year, selected comprehensive cancer control programs will receive supplemental funds to expand their work in the area of prostate cancer.

- Collaborating with four managed care organizations (Kaiser Permanente Northwest, Kaiser Permanente Southern California, Kaiser Permanente Northern California, and Henry Ford Health System/Health Alliance Plan) on a case-control study of the effectiveness of PSA and DRE screening in preventing deaths from prostate cancer. Data from medical records will be analyzed to determine whether patients who died of prostate cancer were less likely to have had PSA or DRE screening than patients who did not die of prostate cancer. Data analysis will be completed this year.
- Using formative research, including focus group findings, to develop an educational video for men who are thinking about being screened for prostate cancer. The video seeks to increase men's knowledge of the prostate gland and prostate cancer, provide them with basic facts about prostate cancer screening, encourage them to discuss screening with their health professionals, and educate them so they can make an informed decision about screening.
- Studying physician-patient communication about prostate cancer screening with PSA and DRE among underserved minority men. What patients say they heard or discussed with their physician during their visit will be compared with what the physicians say they disclosed. Results will highlight gaps in physician-patient communication, which will help in developing culturally appropriate interventions to improve men's knowledge about prostate cancer screening.
- Collaborating with the National Cancer Institute on the cancer control portion of the National Health Interview Survey for the year 2000. For the first time, national data are available on the use of PSA testing in a national sample of U.S. men, the communication of risks and benefits of testing, and factors that influence use of the PSA test.

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