

# Prostate Cancer

# Facts

FROM THE DIVISION OF CANCER PREVENTION AND CONTROL

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The Centers for Disease Control and Prevention (CDC) provides the public, physicians, and policy makers with data on the burden of prostate cancer and the information they need to make informed decisions about the potential risks and benefits of prostate cancer screening and follow-up.

## The Burden of Prostate Cancer



Prostate cancer is the most common form of cancer (other than some forms of skin cancer) and the second leading cause of cancer deaths among men in the United States, after lung cancer.<sup>1</sup> About 62% of all clinically diagnosed prostate cancers occur in men over age 65.<sup>1</sup>

In 2004 (the most recent year for which data are available), 189,075 new cases of prostate cancer were diagnosed in the United States, and 29,002 men died of the cancer.\*<sup>1</sup>

As compared to white men, African American men experience higher

rates of prostate cancer, while the disease occurs less frequently among Asian/Pacific Islander and American Indian/Alaska Native men.<sup>1</sup> In addition, Hispanic men are at greater risk than non-Hispanics.

The incidence of prostate cancer in the United States significantly decreased in the early 1990s but has remained level since 1995.<sup>2</sup>

Deaths from prostate cancer have declined significantly since the early 1990s.<sup>2</sup>

*\* Incidence counts cover approximately 98% of the U.S. population. Death counts cover 100% of the U.S. population. Use caution in comparing incidence and death counts.*

## Screening

### Tests

The two most common tests used by physicians to detect prostate cancer are the digital rectal examination (DRE) and the prostate-specific antigen (PSA) test. For the DRE, the doctor inserts a gloved and lubricated finger into the rectum. This allows the doctor to feel the back portion of the prostate (where most prostate cancers begin) for size and irregularities. The PSA test is a blood test that measures

## Risk Factors

Prostate cancer risk factors include:

- Age. The older a man is, the greater his risk for getting prostate cancer.<sup>3</sup>
- Family history. A man with a father, brother, or son who has had prostate cancer is two to three times more likely to develop the disease himself.<sup>3</sup>
- Race. Prostate cancer is more common in some racial and ethnic groups than in others, but medical experts do not know why.<sup>3</sup>

Researchers are trying to determine the causes of prostate cancer and whether it can be prevented. They do not yet agree on the factors that can influence a man's risk of developing the disease, either positively or negatively. Some of the factors under study include:<sup>3,4,5,6</sup>

- Vitamins and herbal supplements.
- Lycopene (an antioxidant abundant in red tomatoes and processed tomato products).
- Diets high in animal fat or low in fruits and vegetables.
- Vitamin E and selenium.
- Men's hormone levels.
- Environmental agents (pesticide residue on foods and industrial and occupational exposures).
- Physical inactivity.
- Overweight and obesity.

prostate-specific antigen, an enzyme produced only by the prostate. The doctor may use this test to see if the PSA level is within normal limits and to check for any changes in PSA levels compared to previous PSA tests.

### Recommendations

There is good evidence that PSA screening can detect early-stage prostate cancer.<sup>7</sup> Evidence is mixed about whether early detection improves health outcomes. The benefits of prostate cancer screening include potentially finding and treating prostate cancer early, when treatment may be more effective. The potential risks of prostate cancer screening include anxiety and follow-up procedures based on test results that sometimes are false-positive, as well as the complications that may result from treating prostate cancers that, if left untreated, might not have affected the man's health.

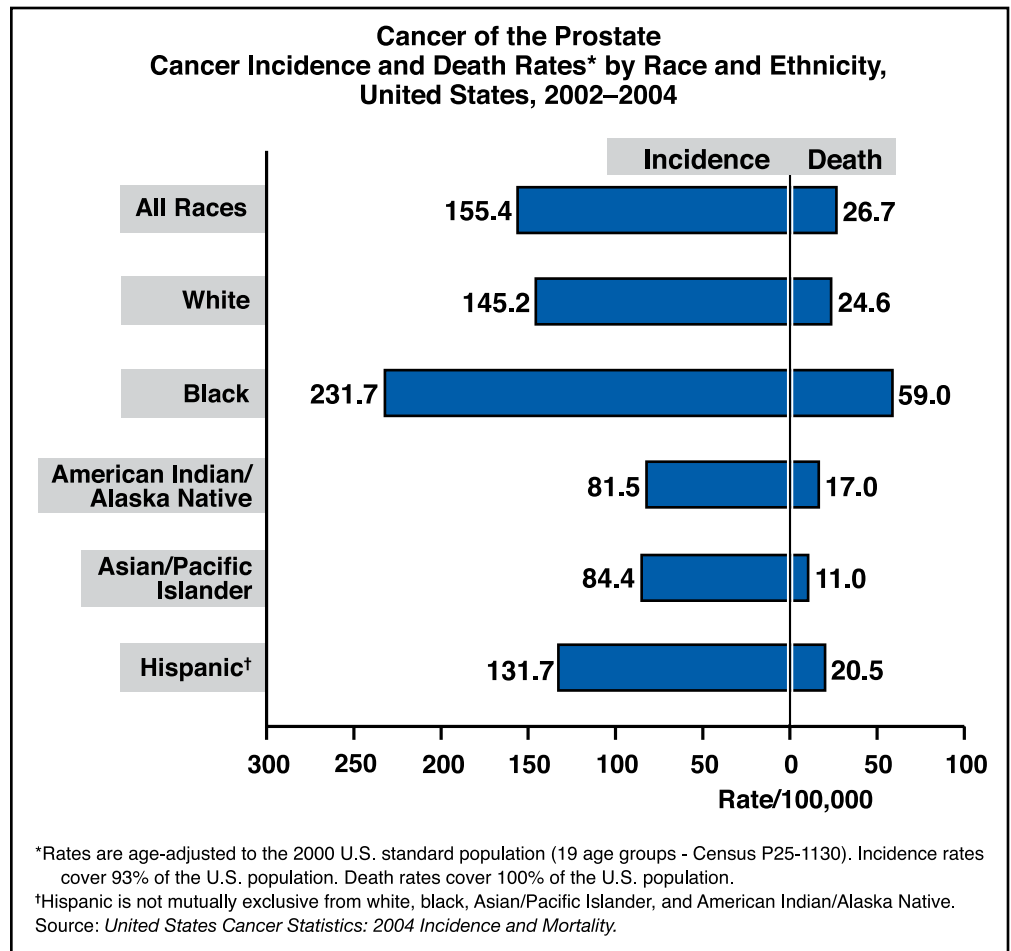
CDC and other federal agencies follow the prostate cancer screening guidelines set forth by the U.S. Preventive Services Task Force ([www.ahcpr.gov/clinic/uspstf/uspSprca.htm](http://www.ahcpr.gov/clinic/uspstf/uspSprca.htm)), led by the Agency for Healthcare Research and Quality ([www.ahrq.gov](http://www.ahrq.gov)), which state that there is insufficient evidence to recommend for or against routine screening for prostate cancer using PSA or DRE.

Current evidence is insufficient to determine whether the potential benefits of prostate cancer screening outweigh its potential risks in men younger than 75 years of age. The USPSTF recommends against screening for prostate cancer in men aged 75 years or older.<sup>7</sup>

Given the uncertainty about the benefits of screening, CDC supports informed decision making, which occurs when a man understands the nature and risks of prostate cancer; understands the risks and benefits of, and alternatives to screening; participates in decision making at a level he desires; and makes a decision consistent with his preferences and values, or defers the decision to a later time.

### Accomplishments

Through the National Comprehensive Cancer Control Program, CDC has supported the development of



Comprehensive Cancer Control plans in all 50 states and in several tribes and U.S. Associated Pacific Islands and territories. Many of these plans include activities to control the burden of prostate cancer.

Publications developed by CDC include *Prostate Cancer Screening: A Decision Guide*, which presents a balanced approach to the pros and cons of prostate cancer screening and enables men, their families, and physicians to make a decision that is right for them.

CDC also created decision guides specifically for African American men and Hispanic men. *Prostate Cancer Screening: A Decision Guide for African Americans* and *La detección del cáncer de próstata: Una guía para hispanos en los Estados Unidos* help men make informed decisions about screening by providing information about the prostate gland, prostate cancer, and prostate cancer screening.

These guides encourage men to decide whether screening is the right choice for them, and can be viewed or ordered online at [www.cdc.gov/cancer/prostate/](http://www.cdc.gov/cancer/prostate/).

Also available is a web-based slide presentation, *Screening for Prostate Cancer: Sharing the Decision*, designed to give primary care physicians information about the potential benefits and risks of prostate cancer screening

and to explain how clinicians can help each man make the best choice.

To expand its series of educational materials about prostate cancer screening, CDC developed a CD-ROM that fostered dialogue between patients and physicians, and helped men aged 50 years or older make informed decisions about prostate cancer screening. It featured interactive tools, various medical and public health perspectives on prostate cancer screening, and different conclusions patients might reach about screening after weighing all of the issues. A limited number of CD-ROMs were produced and distributed while supplies lasted. At this time, there are no plans to reproduce the CD-ROM.

These and other public health efforts that address prostate cancer support CDC's overarching goal of healthy people in every stage of life. They also address the U.S. Department of Health and Human Services' Healthy People 2010 goal of reducing the prostate cancer death rate by 10%.

### Ongoing Work

CDC's prostate cancer activities for fiscal year 2008 include:

- Conducting research and developing materials that explore how best to communicate about informed decision making related to prostate cancer screening.
- Enhancing prostate cancer data in cancer registries, especially information about the stage of disease at the time of diagnosis, quality of care, and the race and ethnicity of men with prostate cancer.
- Sponsoring research on whether screening for prostate cancer reduces deaths caused by the disease, and on men's and health care providers' knowledge and awareness of prostate cancer screening.
- Monitoring the prostate cancer activities identified in local Comprehensive Cancer Control plans. More information about these plans is available at [www.cdc.gov/cancer/ncccp](http://www.cdc.gov/cancer/ncccp).
- Participating in various prostate cancer conferences, workshops, and seminars to continue collaboration with colleagues and other partners.

These activities will further efforts to develop appropriate public health strategies for prostate cancer, increase sharing of screening-related information between providers and their patients, and advance CDC's overarching goal of helping older adults live better, longer.

### Future Directions

CDC will continue to support intramural and extramural awareness about prostate cancer and research efforts to:



- Expand research about prostate cancer screening and treatment options, especially those focused on developing appropriate interventions to help men make informed decisions about screening.
- Disseminate CDC's materials about informed decision making nationwide.
- Disseminate data on the burden of prostate cancer.

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