A Snapshot of Prostate Cancer

Incidence and Mortality Rate Trends

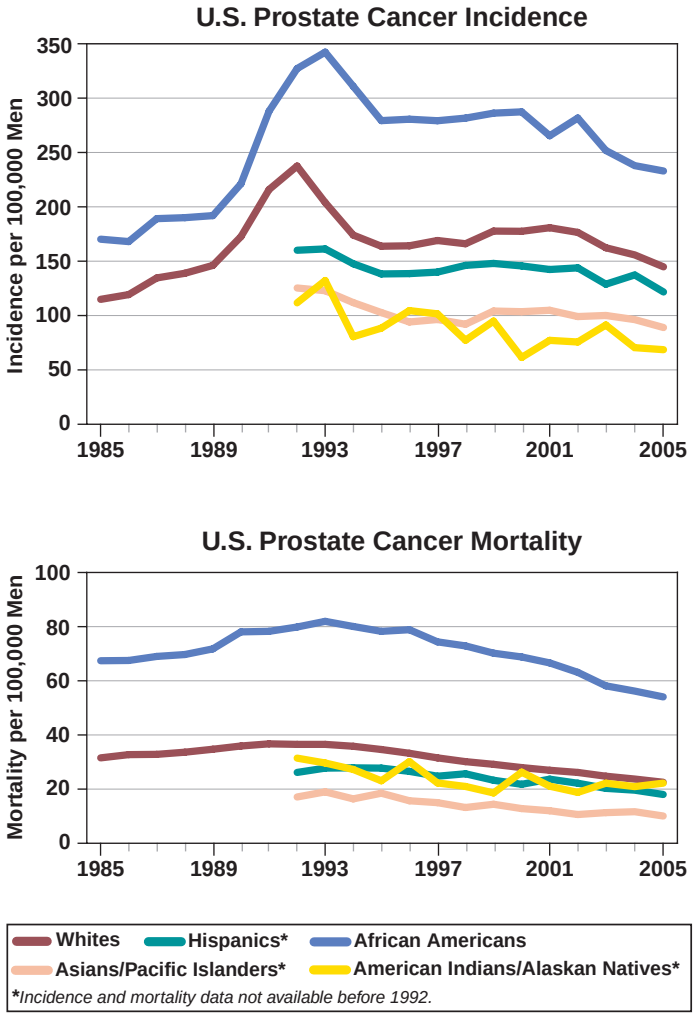
Prostate cancer is the most common cancer, excluding skin cancer, and the second leading cause of cancer-related death in men in the United States. African American men have higher incidence and at least double the mortality rates compared with men of other racial and ethnic groups.

Prostate cancer incidence rates rose dramatically in the late 1980s. This increase reflects improvements in detection and diagnosis through widespread use of prostate-specific antigen (PSA) testing, which received initial U.S. Food and Drug Administration approval in 1986. Since the early 1990s, prostate cancer incidence has been declining. Mortality rates for prostate cancer have also declined since the early 1990s.

It is estimated that approximately $8 billion[1] is spent on prostate cancer treatment each year in the United States.

Source for incidence and mortality data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at http://seer.cancer.gov/.

[1]Cancer Trends Progress Report (http://progressreport.cancer.gov), in 2004 dollars, based on methods described in *Medical Care* 2002 Aug; 40 (8 Suppl): IV-104–17.

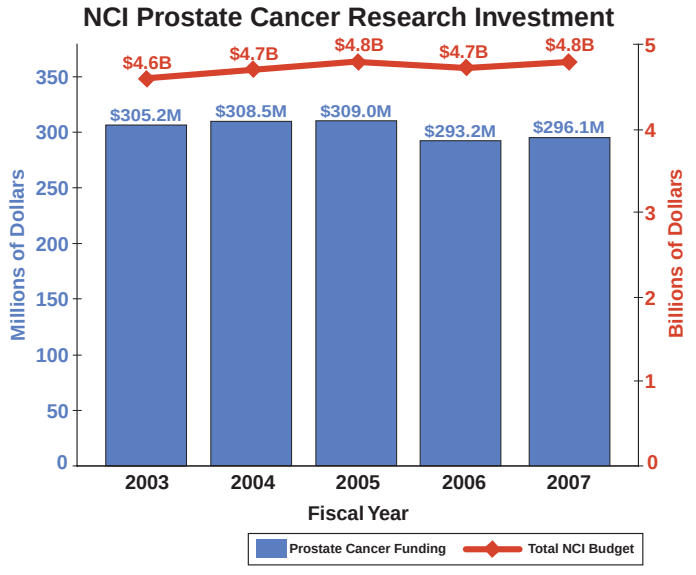


Trends in NCI Funding for Prostate Cancer Research

The National Cancer Institute's (NCI's) investment[2] in prostate cancer research has decreased from $305.2 million in fiscal year 2003 to $296.1 million in fiscal year 2007.

Source: NCI Office of Budget and Finance (http://obf.cancer.gov/)

[2]The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health, see http://www.nih.gov/about/

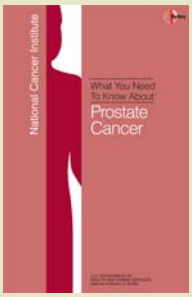


Developed by NCI's Office of Science Planning and Assessment (OSPA) with assistance from SAIC. Snapshots can be found online at: http://planning.cancer.gov/disease/snapshots.shtml.

Examples of NCI Activities Relevant to Prostate Cancer

- Eleven prostate cancer-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. http://spores.nci.nih.gov/current/prostate/prostate.html
- The **International Prostate Screening Trials Evaluation Group (IPSTEG)** is conducting randomized prostate cancer screening trials in the United States and several European countries. http://prevention.cancer.gov/programs-resources/groups/ed/programs/ipsteg
- The **Selenium and Vitamin E Cancer Prevention Trial (SELECT)** is determining whether prostate cancer can be prevented by dietary supplements. http://www.cancer.gov/clinicaltrials/digestpage/SELECT
- NCI investigators are collaborating with scientists from the American Cancer Society (ACS) to study the role of insulin resistance and chronic inflammation in prostate cancer in men participating in ACS' **Cancer Prevention Study (CPS)-II LifeLink Cohort**. http://dceg.cancer.gov/hreb/research/prostate
- Specimens from the **Prostate Cancer Prevention Trial (PCPT)** are now available to all prostate cancer researchers. http://www.cancer.gov/pcpt
- The NCI intramural **Genitourinary Malignancies Faculty** brings together staff from National Institutes of Health branches and laboratories to develop better methods for prevention, diagnosis, and treatment of genitourinary malignancies. http://ccr.cancer.gov/faculties/faculty.asp?facid=131
- The **Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial (PLCO)**, a large-scale clinical trial, is determining whether specific cancer-screening tests are reducing deaths from these cancers. http://dcp.cancer.gov/programs-resources/groups/ed/programs/plco
- The **Cancer Genetic Markers of Susceptibility (CGEMS)** program is identifying genetic changes that increase a person's risk of developing prostate or breast cancer. Scientists are using DNA from five large studies of prostate cancer and five large studies of breast cancer to "scan" the genome for common genetic differences between patients who have these cancers and those who do not have cancer. http://cgems.cancer.gov/index.asp
- The **Prostate Cancer Home Page** provides up-to-date information on prostate cancer treatment, prevention, genetics, causes, screening, testing, and other topics. http://www.cancer.gov/prostate

What You Need to Know About™ Prostate Cancer



This booklet discusses possible causes, screening, symptoms, diagnosis, and treatment. It also has information to help patients cope with prostate cancer.

Risk factors for prostate cancer include: age, race, family history, certain changes in the prostate, and diet.

http://www.cancer.gov/cancertopics/wyntk/prostate/page1

Information specialists can also answer questions about cancer at 1-800-4-CANCER

Selected Advances in Prostate Cancer Research

- Researchers identified two regions in the q24 band of chromosome 8 with genetic variants that occur more frequently in men with prostate cancer. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_102307/page4
- A family-based intervention that includes home visits by nurses and telephone sessions helps prostate cancer patients and their spouses better manage the effects of the disease and maintain their quality of life. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_112007/page12#e
- The lower PSA readings in men with a higher body-mass index and the link between obesity and more aggressive prostate cancer could be due to hemodilution (more dilute blood). The higher blood volume in heavier men could reduce PSA scores by diluting PSA protein concentration. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_120407/page4
- Researchers identified molecular differences in the prostate tumor immunobiology of African American and European American men. http://www.ncbi.nlm.nih.gov/pubmed/18245496