

CDC's Prostate Cancer Activities-2017

CDC's prostate cancer funding supports communication initiatives, applied research and surveillance, and prostate cancer activities in the National Comprehensive Cancer Control Program (NCCCP).¹ Prostate cancer ranges from a non-aggressive, slow-growing disease that may not require treatment to an aggressive, fast-growing disease that does.²⁻³ Prostate cancer requires men to make difficult decisions about screening and treatment. For example, if a man is interested in prostate cancer screening with the prostate-specific antigen (PSA) test, clinical opinions may vary on the potential benefits of early detection compared with the potential for harms such as false positives, overdiagnosis, and overtreatment.⁴⁻⁷ Similarly, if a man is newly diagnosed with localized prostate cancer, comparative data from controlled studies are lacking on optimal treatment.¹⁻³ Much of CDC's surveillance and research activities have focused on learning about prostate cancer screening and treatment practice patterns in the United States (US), and helping to improve knowledge for shared and/or informed decision-making by patients and providers.

Prostate Cancer Surveillance

Through the National Program of Cancer Registries (NPCR), CDC works to monitor trends in prostate cancer incidence; enhance prostate cancer data quality in cancer registries; and, conduct research on the stage of disease at the time of diagnosis, the race and ethnicity of men with prostate cancer, and patterns of care for prostate cancer treatment.⁸

Examples of CDC publications on prostate cancer include:

- The number of prostate cancer cases diagnosed in US was expected to increase from 250,000 cases in 2010 to 350,000 cases in 2020.⁹
- Among all invasive cancers in men in US men in 2013, prostate cancer had the highest incidence rate (101.6 per 100,000 men).¹⁰ By state, incidence rates for prostate cancer ranged from 69 to 131 per 100,000 men.¹⁰ Delay-adjusted incidence rates for prostate cancer declined from 2009 to 2013 (-7.9% average annual percentage change)(AAPC).¹¹
- The 2020 target for the age-standardized death rate for prostate cancer provided in Healthy People 2020 for prostate cancer was achieved in 2010.¹² Prostate cancer death rates declined during 2010 to 2014 (-3.4% AAPC).¹¹ From 2007 to 2020, prostate cancer death rates are predicted to decline a total of 26.4%.¹²
- The five-year relative survival after prostate cancer diagnosis from 2006-2012 was 99% for 29 states in National Program of Cancer Registries.¹⁰
- Studies on prostate cancer patterns of care included: data quality studies; choice of active surveillance; a comparison of Medicare claims to medical record review for prostate cancer; and a description of the type and dose of radiotherapy used for initial treatment of non-metastatic prostate cancer.¹³⁻¹⁶
- A description of prostate cancer deaths and incident cases among American Indian/Alaska Native men.¹⁷

Comprehensive Cancer Control (CCC)

CDC funds activities through the National Comprehensive Cancer Control Program aimed at reducing prostate cancer incidence, morbidity and mortality. The NCCCP provides funding support, guidance, consultation, and technical assistance to programs working to develop, conduct and evaluate prostate cancer prevention and control strategies.

A total of nineteen grantees have developed and implemented specific activities related to prostate cancer in the most recent reporting years of the cooperative agreement (2012-present). These grantees

MORE THAN 60 STATES, TERRITORIES AND TRIBES HAVE A CANCER CONTROL PLAN THAT INCLUDES A FOCUS ON PROSTATE CANCER AND 18 PROGRAMS ARE CONDUCTING WORK IN PROSTATE CANCER.

include: Arizona, Cherokee Nation, District of Columbia, Massachusetts, Michigan, New Mexico, Ohio, Pennsylvania, Puerto Rico, Republic of Palau, South Carolina, South Dakota, South Puget Intertribal Planning Agency, Missouri, Tennessee, Virginia, Washington State, Wisconsin, and Wyoming.

Examples of NCCCP activities include:

- Multiple programs: Support the ongoing development of cancer burden documents for prostate cancer; burden reports are advanced and include incidence and mortality rates by race, and age; and GIS cancer maps. Prepare and disseminate annual Cancer Burden Fact Sheets and infographics for prostate cancer to educate citizens about the cancer burden and to support informed decision making for early detection among their peers. Results are promoted in several avenues including peer-reviewed papers. Several programs also support guidelines-consistent informed-decision making for prostate cancer screening by using provider adherence cards; convene Prostate Work Groups to increase awareness among at-risk men and educating about informed decision-making; engage and educate community health workers and patient navigators on informed-decision making; and conduct media campaigns and using social media to promote informed-decision making. In addition, several programs provide funding and implementation of prostate survivorship questions on the BRFSS survey.
- **DC:** Participated in “My Brother’s Keeper” (MBK) intervention. MBK is aimed at increasing prostate cancer informed decision making for screening among underserved men. Created Prostate Cancer Grand Rounds twitter chats that will be marketed to the Georgetown-Howard Universities Center for Clinical and Translational Science (GHUCCTS) membership of primary and specialty care providers and clinical researchers.
- Massachusetts: Developed shared decision making videos and discussion guides, and conducted online surveys of primary care providers on their current prostate cancer screening practices, which will serve as baseline data for future evaluation efforts. The provider champion has presented the new prostate cancer screening guidelines to various stakeholders, and has agreed to continue the clinical workgroup to support implementation of the screening guidelines and any future revisions.
- **Michigan:** Developed and maintains a booklet for providers on post-treatment symptom management materials.
- **Missouri:** Worked with the state’s Heart Disease and Stroke Program to add information to prostate education material regarding high blood pressure and partner with the Heart Disease and Stroke Program to disseminate information.
- **South Carolina:** Facilitated the recruitment, training and support of African American men who will serve as advocates to increase prostate cancer education, appropriate screening, and treatment among their peers.
- **South Puget Intertribal Planning Agency:** Created a general Native Men's "Prostate Wellness Book", which provides basic information on the prostate, general prostate wellness issues, signs and symptoms related to prostate cancer as well as sign and symptoms related to aging including symptoms related to enlarged prostate, and the latest evidence-based recommendations on prostate cancer screening. Over 300 books have been distributed to Native men at community events.
- **Washington:** Develop a speakers' bureau to assist with education through the Washington State Prostate Cancer Coalition. Gather and post additional resources to the websites to create a communications hub for men dealing with cancer issues. The Washington State Prostate Cancer Coalition Website also includes information on prostate cancer support groups around the state.

Applied Research and Analysis

CDC supports or conducts research on prostate cancer across a wide spectrum of public health topics, ranging from early detection with prostate-specific antigen screening to prostate cancer survivorship. Examples of current topics of special interest include: analysis of surveillance data to assess the impact of US Preventive Services Task Force recommendations on prostate cancer screening and shared decision making; development and evaluation of a decision aid to promote active surveillance management for men with low grade, local stage prostate cancer; follow-up of needs of long-term prostate cancer survivors and their spouses; analyses of National Cancer Institute

Surveillance Epidemiology and End Results (SEER) cancer registry data linked with Medicare claims for prostate cancer to evaluate if racial disparities are present in the types of initial treatment received by prostate cancer patients.

Examples of research supported or led by CDC include:

- Studies of prostate cancer incidence and survival by demographic and tumor characteristics to assess prostate cancer burden and identify racial disparities.¹⁸⁻²⁰
- Analyses of trends in prostate cancer screening, stage-specific prostate cancer incidence to assess the impact of US Preventive Task Force Recommendations for prostate cancer screening.²¹⁻²³
- Studies of shared decision-making use in clinical settings and its associations with prostate cancer screening.²⁴⁻²⁷
- Since African American patients are at high risk for prostate cancer, studies of prostate cancer screening practices by African-American and non-African-American US primary care physicians, including details on shared decision making practices and the amount of time spent with male patients in prostate cancer screening discussions.²⁸⁻³²
- Studies on the perceptions and attitudes of men towards active surveillance and to determine the information that men need to consider active surveillance as an acceptable option for care following a diagnosis of low-risk localized prostate cancer.³³⁻³⁴
- Studies on how men make decisions about prostate cancer treatment for newly diagnosed men and their spouses and subsequent quality of life and satisfaction with care.³⁵⁻³⁹
- Studies of patient beliefs, coping mechanisms, and use of complementary and alternative therapies.⁴⁰⁻⁴¹
- Studies to characterize patterns of care for American Indian/Alaska Native men with elevated PSA in order to improve care processes and health outcomes for this population.⁴²⁻⁴³
- Studies to assess associations between smoking status, and free, total and percent free prostate specific antigen in order to better understand how smoking affects PSA levels.⁴⁴
- Studies of the economic costs of prostate cancer, including estimates of years of potential life lost by prostate cancer deaths, willingness to pay for prostate cancer treatment among patients, and an analysis of published prostate cancer-related cost-utility studies.⁴⁵⁻⁴⁸ For prostate cancer, the median incremental cost-effectiveness ratios (ICERs) (in 2014 U.S. dollars) were \$34,000 overall, \$120,000 for primary prevention, \$85,500 for secondary prevention, and \$29,000 for tertiary prevention.⁴⁸
- Collaborating with ACPM to develop materials that will promote and enhance informed decision making:
Year 1 activities

ACPM hosted a meeting of prostate cancer experts in March 2017. The experts' recommendation was to update the [prostate cancer screening tool](#) developed by Kathryn Taylor, PhD at Georgetown University. Based on the costs to update to a new platform and licensing agreements, efforts have shifted to: 1) consulting with technology experts to determine the appropriate cost for an upgrade to the existing Georgetown tool and 2) developing a paper-based tool that can be used in the interim.

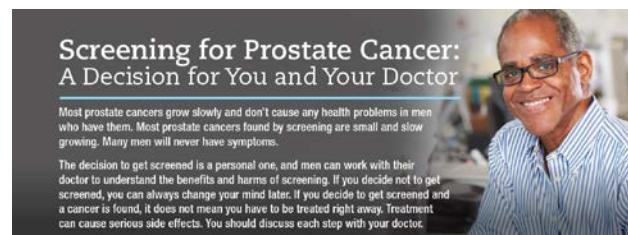
Year 2 activities

ACPM and CDC are working on the content and layout of the paper-based decision support tools before they are shared with the prostate cancer experts for feedback. ACPM will compile feedback and work with the CDC to revise the materials as needed. Once the decision support tools have been finalized, ACPM will pilot test the decision aids with small groups of providers and patients to: (1) obtain feedback and input on usability and (2) response to the content and materials. Additionally, ACPM will conduct an evaluation of the decision support tools consistent with International Patient Decision Aid Standards (IPDAS) criteria for quality on a sample of providers and their patients. The evaluation will employ methodology to assess short-term outcomes, including acceptability of the decision aids for patients and providers, and knowledge related to benefits and harms of screening, decisional conflict related to screening decisions, and comfort with screening decisions.

- A 2016 DocStyles online survey of primary care providers revealed: 1) the majority (61%) of family medicine and internal medicine practitioner respondents (608 of 1003) recommended PSA testing based on individual risk or other factors, rather than routinely screening all men for prostate cancer; ⁴⁹2) the majority of primary care providers reported not using (patient) decision aids for prostate cancer screening, but were interested in learning about and incorporating these tools in their practice.
- U Iowa (SIP) funded to understand why men abandon active surveillance (AS) in the absence of clinical disease progression and to develop a standardized assessment instrument to identify whether a man is more likely to adhere to or abandon AS.
- U Rochester (SIP) funded to develop and test an interactive, multi-media decision aid in the form of an electronic clinical decision dashboard designed to improve the quality of clinical decision making for informing treatment of patients with newly diagnosed, low risk prostate cancer.

Communications and Partnerships

- In 2015, CDC's English language Prostate Cancer Web site received more than 370,737 page views, and the Spanish language site received more than 78,000 page views. CDC also tweets about prostate cancer at least twice per month to more than 80,000 followers
- In 2016, CDC developed an infographic: " Screening for Prostate Cancer: A Decision for You and Your Doctor"⁵⁰
- In 2011, CDC convened a state-of-the science and practice meeting panel on how to improve communication between patients and providers on prostate cancer screening.⁵¹ Key conclusions included: useful and accurate information is often difficult to find; communication about prostate cancer screening is confusing both to the public and the primary care clinical community; prostate cancer needs to be redefined as a lethal disease for a few but a chronic, often inconsequential abnormality for many more; and tools are needed that provide doctors with clinical evidence on screening tests and help them facilitate evidence-based, efficient, sensitive discussions based on patient values.
- In 2010, a prostate cancer screening Decision Aid was developed and translated into education materials for physicians to give patients. Since 2009, CDC has disseminated more than 70,000 of these pads to partners and physicians.



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