

Prostate Cancer in Alameda County

Background

Prostate cancer occurs when cells in the prostate begin to grow out of control. These cells may or may not spread to other areas of the body.¹ Prostate cancer is the second-most common cancer in men in the United States, after all skin cancers combined. An estimated 13% of American men develop prostate cancer during their lifetime, and 2% to 3% of men die from prostate cancer.²

Risk Factors

Although risk factors such as age, family history, and race/ethnicity are not modifiable, getting regular physical activity and having a diet high in certain vegetables and fruits can reduce the risk of prostate cancer.³

Age

All men are at risk for getting prostate cancer, but the most common risk factor is older age. Prostate cancer is rare in men who are younger than 40 years. The risk rises rapidly after age 50, and about 60% of cases are found in men older than 65 years.⁴

Family History

Having a family history of prostate cancer also increases one's risk of getting prostate cancer. Men with a first-degree family member (father, son, or brother) with prostate cancer are more likely to get prostate cancer. Men with three or more first-degree relatives or two close relatives on the same side of the family who have had prostate cancer may have a type of prostate cancer caused by gene mutations that are inherited, rather than acquired.⁵

Race/Ethnicity

African Americans are at increased risk of prostate cancer compared with other men. They tend to get prostate cancer at younger ages, to have more advanced disease when it is found, and to have a more severe type of prostate cancer than other men. African American men are over two times more likely to die from prostate cancer than White men.⁶

Symptoms

Symptoms of prostate cancer include difficulty starting urination, weak or interrupted flow of urine, frequent urination, especially at night, difficulty emptying the bladder completely, pain or burning during urination, blood in the urine or semen, pain in the back, hips, or pelvis that does not go away, and painful ejaculation. A man with worrisome symptoms should see his doctor right away. However, note that these symptoms may also be caused by conditions other than prostate cancer such as prostatitis (inflammation of the prostate) and enlarged prostate (also called BPH, or benign prostatic hyperplasia).⁷ Finally, it is important to know that early prostate cancer usually causes no symptoms.

Detection, Screening, and Diagnosis

Prostate cancer can be detected from a digital rectal exam (DRE) or from a blood test for elevated prostate specific antigen (PSA). Although an elevated PSA level can be caused by prostate cancer, it can also be caused by other conditions

that affect the prostate, such as certain medical procedures or medications, or an enlarged or inflamed prostate. If the DRE or the PSA test is abnormal, a prostate biopsy is required to say for certain that cancer is present.⁸

Cancer screening (looking for cancer before it causes symptoms) mainly uses PSA blood tests. The purpose of screening is to find cancers that have a high risk for spreading if not treated, and to treat them early before they spread. Due to a relatively high percentage of false positives, a high PSA value is not conclusive, rather it indicates a need for consultation with a physician and may suggest the need for a biopsy.^{9,10}

Screening for prostate cancer has become somewhat controversial because of concerns over potential complications from biopsy procedures and because of the possible risks of treatment that may outweigh the benefits for those men whose cancer will not have shown any symptoms during their lifetime. Men at average or high risk of having prostate cancer should discuss the topic of screening with their doctor. The United States Preventative Services Taskforce (USPSTF) now has a “C” grade for PSA testing for men ages 55 to 69 years, which means that patients should discuss it with their doctors.

Cancer experts are concerned that decreased prostate cancer screening will result in increases in diagnosis at later stages of disease, especially for African American men. In any case, more community outreach, targeted screening, and follow up are needed to ensure vigilance and an appropriate level of response to any observed increases in levels of advanced disease.

Prostate Cancer Screening Among African American Men

Given the higher rates of aggressive prostate cancer in African American men than in the general population, PSA-based screening may be of greater benefit to African American men than the general population.¹⁴ The USPSTF believes that a reasonable approach for clinicians is to inform African American men about their increased risk of developing and dying of prostate cancer as well as the potential benefits and harms of screening so they can make an informed, personal decision about whether to be screened. The USPSTF does not recommend screening for prostate cancer in men, including African American men, older than 70 years.¹⁵

The USPSTF strongly encourages research on screening for and treatment of prostate cancer in African American men. Studies are needed to confirm that African American men who undergo screening receive similar or greater reductions in prostate cancer mortality compared with men in the general population, as well as to explore the optimal screening frequency and whether beginning screening before age 55 years provides additional benefits in African American men.¹⁶

Studies are also needed to better understand how to reduce harm and maximize benefits of screening, diagnostic follow-up, and treatment (including active surveillance) in African American men.¹⁷ It is also important that research and quality improvement activities focus on eliminating disparities in access to high-quality care for men with prostate cancer.

Treatment

Prostate cancers are most often treated by urologists, radiation oncologists, and medical oncologists. There are various methods of preventing the spread (metastasis) of prostate cancer to bones and other organs, including hormone therapy, chemotherapy, drugs, and radiation.¹¹ A vaccine has been shown to increase life expectancy for men who have metastatic disease that has failed to respond to hormonal and other therapies.

The most common treatment options for men with screen-detected, localized prostate cancer are active surveillance first

(regular tests to check on the cancer and any changes), followed by hormonal therapy, chemotherapy, and finally surgery and radiation. In extreme cases, surgical removal of the prostate gland (radical prostatectomy) may be required.

If prostate cancer spreads to other parts of the body, it often goes to the bones and can cause pain, fractures, or high blood calcium levels; this can be dangerous and life threatening.¹² Preventing or slowing the spread of cancer to the bones is a major treatment goal and if cancer has already reached the bones, controlling or relieving pain and other complications is an important part of treatment.¹³

Prostate Cancer Incidence and Mortality in Alameda County

The table below shows prostate cancer incidence rates in Alameda County and California. African American rates in both Alameda County and California are 1.6 to 2.6 times those of other racial/ethnic groups. The rate for Asian/Pacific Islanders is statistically significantly higher in Alameda County than in the state. For all other races/ethnicities, and for all races as a whole, the Alameda County and state rates are not statistically significantly different.

Age-Adjusted Prostate Cancer Incidence Rate, 2013-2015

	Alameda County			California		
	Rate	95% Lower Confidence Limit	95% Upper Confidence Limit	Rate	95% Lower Confidence Limit	95% Upper Confidence Limit
All Races	88.3	84.5	92.2	88.2	87.5	89.0
African American/Black	144.2	130.6	158.9	134.4	130.4	138.5
White	86.8	81.4	92.6	89.3	88.3	90.3
Hispanic/Latino	80.1	69.6	91.6	78.2	76.6	79.9
Asian/Pacific Islander	55.5	49.8	61.7	47.6	46.1	49.1

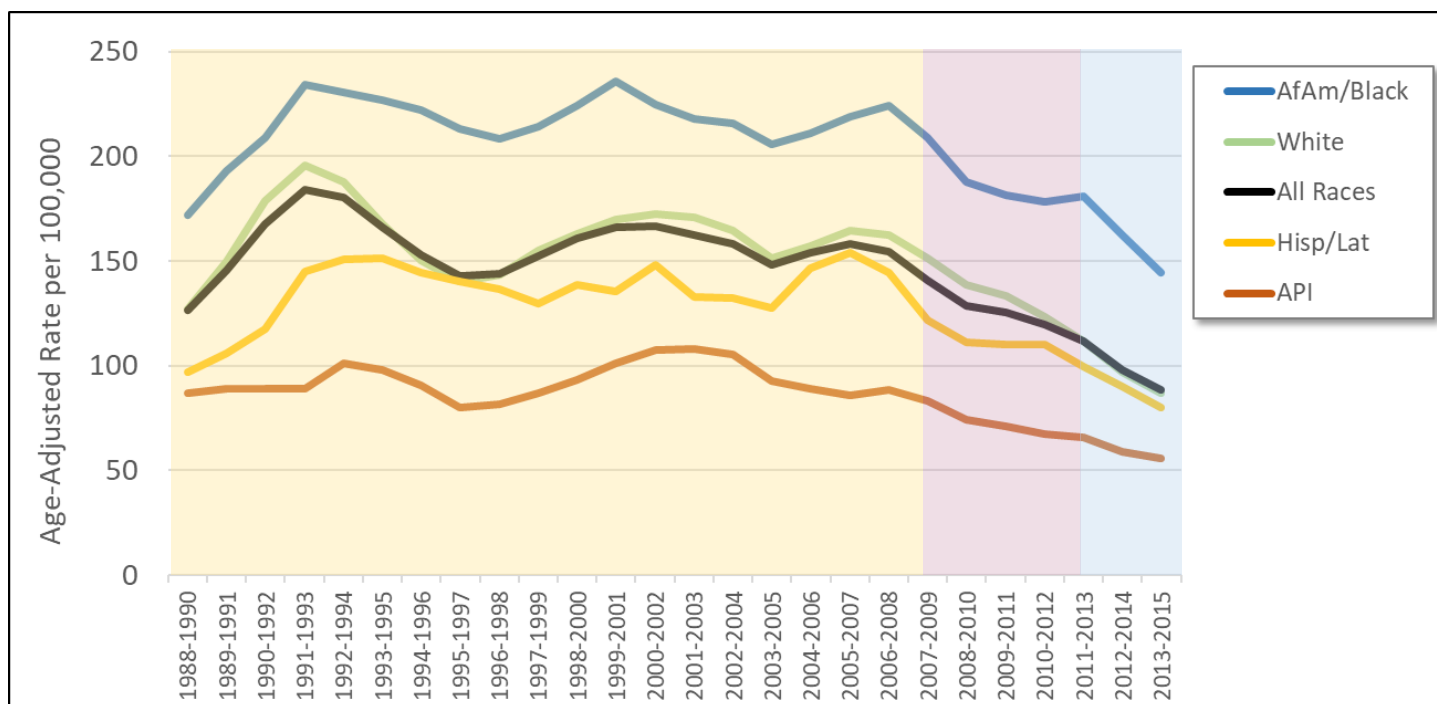
Source: California Cancer Registry.
Note: 95% confidence limits represent the upper and lower bounds of a 0.95 probability of containing the rate. They can be used to detect significance in differences between rates.

The graph on the next page shows trends in prostate cancer incidence over time and in relation to changes in guidelines for PSA-based prostate cancer screening. For all racial/ethnic groups combined, there was a decline in the prostate cancer incidence rate from 2000-2002 onward, with the most significant decline occurring between 2006-2008 and 2013-2015 (a decrease of 4.8% per year). What clearly stands out here is the relative burden of disease among African American men, whose incidence rates were consistently above those of other groups.

It should be noted, however, that cancer incidence rates reflect not only a diagnosis of new cases but also the amount of screening being conducted. Thus when screening guidelines changed to discourage PSA testing, the measured incidence of cancer declined.

The Alameda County Public Health Department Office of Urban Male Health is working with the UCSF Helen Diller Comprehensive Cancer Center to address this racial/ethnic disparity. An important strategy will be to train a group of “community cancer care coaches” (C4), who will promote screening and early detection, as well as other follow-up and assistance navigating the health care system.

Measured Prostate Cancer Incidence by Race/Ethnicity, Alameda County



Source: California Cancer Registry.

The US Preventive Services Task Force (USPSTF) ratings include ‘A’ and ‘B’ (offer the service), ‘C’ (offer for selected patients), ‘D’ (discourage), and ‘I’ (current evidence insufficient to weigh benefits versus harms).

Colors of the prostate cancer incidence graph

Yellow—1986-2008: PSA testing was approved by the US Food and Drug Administration.

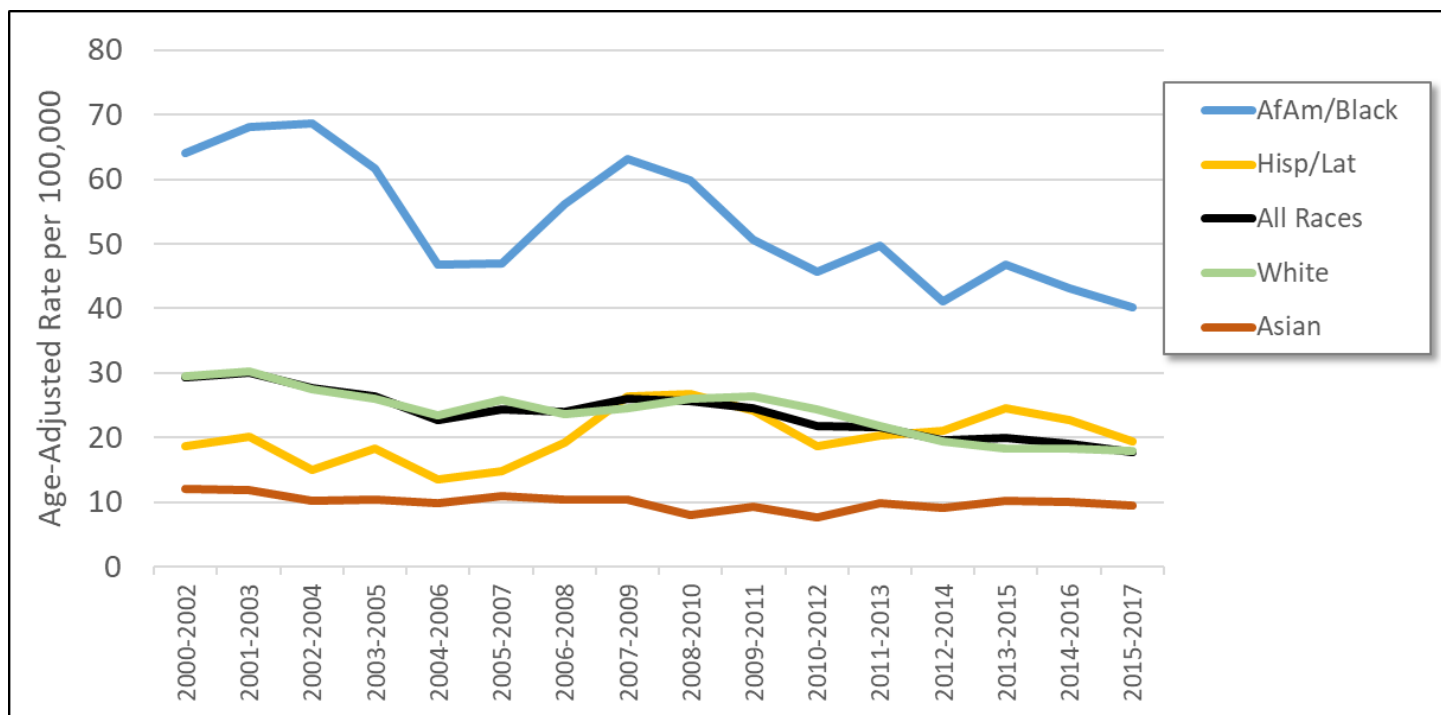
Red—2008-2012: The USPSTF recommended an ‘I’ rating for PSA-based prostate cancer screening for men younger than 75 years, and a ‘D’ rating for men over 75 years.

Blue—2012-2017: The USPSTF changed their recommendation to a ‘D’ rating regardless of age.

2017 guidelines (incidence data not yet available)—In May of 2017, the recommendation changed to a ‘C’ rating for men between the ages of 55 and 69. Made a recommendation against routine PSA-based screening for men ages 70 years and older.

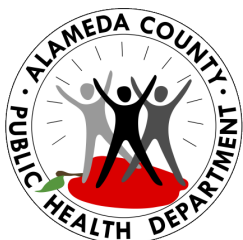
The graph below shows that, similar to prostate cancer incidence, African American males in Alameda County experience a disproportionate burden of mortality due to prostate cancer relative to the other main racial/ethnic groups. While a fairly steady decline in the African American death rate was observed starting in 2000-2002 (3.1% per year), the rate in the latest period was twice that of Whites and Hispanics and four times that of Asians. White males also experienced a significant decrease in prostate cancer mortality since 2000-2002 (3.2% per year).

Prostate Cancer Mortality by Race/Ethnicity, Alameda County



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