

Prostate Cancer Incidence and Mortality in Delaware, 2015-2019

Key Highlights

- Prostate cancer is the most commonly diagnosed cancer among males in the U.S. and Delaware.^{1,2}
- Delaware ranked 10th highest in the U.S. for prostate cancer incidence in the period 2015 to 2019.^{1,2}
- Delaware ranked 47th in the U.S. for prostate cancer mortality in the period 2015 to 2019.^{3,4}
- From 2015 to 2019, 4,057 prostate cancer cases were diagnosed.¹
- In 2020, 33.2% of Delaware males age 40 and older reported having a prostate-specific antigen (PSA) in the past two years.⁵

Incidence (New Cases)^{1,2}

Prostate is the most commonly diagnosed cancer among males in the U.S. and Delaware. Prostate cancer comprises 26% of all male cancer cases in Delaware. From 2015 to 2019, there were 4,057 cases of prostate cancer diagnosed in Delaware. The age-adjusted prostate cancer incidence rate for this time period was 125.9 cases per 100,000 population.

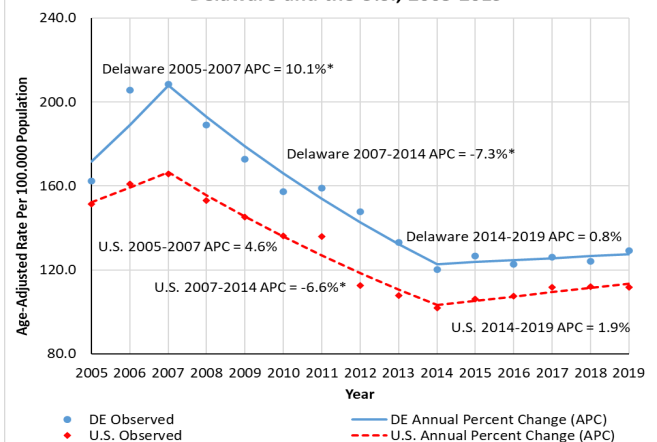
Prostate cancer incidence rates in Delaware increased an average of 10.1% per year between 2005 and 2007 and decreased an average of 7.3% per year between 2007 and 2014. U.S. prostate cancer incidence rates remained stable between 2005 and 2007 and decreased an average of 6.6% per year between 2007 and 2014. For both Delaware and the U.S., prostate cancer incidence rates remained stable between 2014 and 2019.

Mortality (Deaths)^{3,4}

Prostate cancer is the second most common cause of cancer death among males in the U.S. in Delaware. In the period 2015-2019, there were 467 deaths among males (8% of all male cancer deaths) from prostate cancer in Delaware. Delaware ranked 47th in the U.S. for cancer mortality. The age-adjusted prostate cancer incidence rate for this time period was 17.0 deaths per 100,000 population.

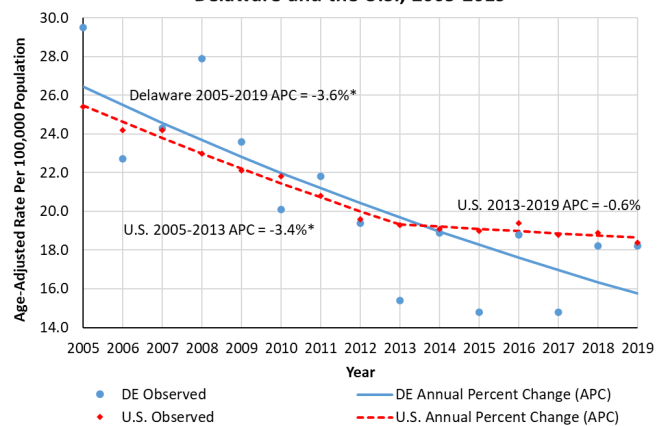
Prostate cancer mortality rates in Delaware decreased an average of 3.6% per year between 2005 and 2019. U.S. prostate cancer mortality rates decreased an average of 3.4% per year between 2005 and 2013 and remained stable between 2013 and 2019.

Figure 1. Age-Adjusted Prostate Cancer Incidence Rate Trend, Delaware and the U.S., 2005-2019



Source (DE): Delaware Department of Health and Social Services, Division of Public Health, Delaware Cancer Registry, 2005-2019
Source (U.S.): National Program of Cancer Registries and Surveillance, Epidemiology, and End Results Program SEER*Stat Database: U.S. Cancer Statistics 2001–2019 Public Use Research Database, 2021 submission
Rates are per 100,000 of population age-adjusted to the 2000 U.S. standard population.

Figure 2. Age-Adjusted Prostate Cancer Mortality Rate Trend, Delaware and the U.S., 2005-2019



Source (DE): Delaware Department of Health and Social Services, Division of Public Health, Health Statistics Center, 2005-2019
Source (US): Surveillance, Epidemiology, and End Results (SEER) Program, SEER*Stat Database: Mortality - All COD, Aggregated With State, Total U.S. (1990-2020)
Rates are per 100,000 of population age-adjusted to the 2000 U.S. standard population.

Spotlight on Inequities (Delaware, 2015-2019):

- Non-Hispanic Black males (188.1 cases per 100,000 population) had a significantly higher prostate cancer incidence rate compared to non-Hispanic White males (107.3 cases per 100,000 population) and Hispanic males (102.4 cases per 100,000 population).¹
- Non-Hispanic Black males (32.5 deaths per 100,000 population) had a significantly higher prostate mortality rate compared to Non-Hispanic White males (14.9 deaths per 100,000 population). Rates for Hispanic males could not be calculated due to the small number of deaths.³
- The highest prostate cancer incidence rate was observed among males ages 65 to 74 (725.4 cases per 100,000 population) compared to other age groups: 40 to 64 (159.0 cases per 100,000 population), 75 to 84 (549.3 cases per 100,000 population), and 85+ (319.9 cases per 100,000 population). Rates for males ages 0-39 could not be calculated due to the small number of cases.¹
- The highest prostate cancer mortality rate among males by age group was for those who died at 85+ (364.8 deaths per 100,000 population), followed by those who died at ages 75 to 84 (133.4 deaths per 100,000 population), 65 to 74 (58.1 deaths per 100,000 population), 40 to 64 (4.9 deaths per 100,000 population). Rates could not be calculated for males ages 0-39 due to the small number of deaths.³
- Age was a predictor of receiving a PSA test: Delaware males ages 50-59 were more likely to have received a PSA test within the past two years compared to Delaware males ages 65 and older.⁵
- Having a check-up with a health care practitioner within the past year was a predictor of having a PSA test within the past two years.⁵

Stage at Diagnosis¹

There are three stages of prostate cancer diagnosis: local, regional, and distant. The local stage is when cancer that has not spread. Regional is when the cancer is large and may have spread to surrounding tissues. Distant stage is when the cancer has spread to another body organ. Finding cancer at an earlier stage can prevent its spread to other tissue. This may lead to reduced risk of death from prostate cancer.

Prostate cancer cases diagnosed at the local stage have increased from 50% from 1980 to 1984 to 70% from 2015 to 2019 in Delaware. During the same period, cases diagnosed at the regional stage decreased from 14% to 10% and cases diagnosed at the distant stage decreased from 27% to 7% in Delaware. Almost three quarters of Delaware non-Hispanic White males and non-Hispanic Black males diagnosed with prostate cancer from 2015 to 2019 were diagnosed at the local stage, compared to 65% of Hispanic males.

Early Detection⁵

Screening for prostate cancer is performed by determining the levels of prostate-specific antigen (PSA) in the blood. Because there are specific risk factors such as race/ethnicity and family history associated with the incidence of prostate cancer, recommendations are tiered based on risk category.

- Men who are of average risk should begin screening for prostate cancer at age 45.
- Men who are determined to be high risk should begin screening at age 45. High risk classification includes Blacks and men who have a first degree relative diagnosed with prostate cancer before the age of 65.
- Men who are higher risk should begin screening for prostate cancer at age 40. This category includes men who have more than one first-degree relative who had prostate cancer before the age of 65.

The prevalence of Delaware adult males ages 40 and older receiving a PSA test in the past two years significantly decreased from 57.1% in 2008 to 33.2% in 2020. Males ages 50-59 were more likely to have received a PSA test within the past two years compared to males ages 65 and older. Males whose last check-up was within the past year were more likely to have received a PSA test compared to males whose last check-up was more than one year ago.

Citations

1. Delaware Department of Health and Social Services, Division of Public Health, Delaware Cancer Registry, 2015-2019.
2. National Program of Cancer Registries and Surveillance, Epidemiology, and End Results Program SEER*Stat Database: U.S. Cancer Statistics, 2001–2019, Public Use Research Database, 2021 submission
3. Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Populations - Total U.S. (1969-2020) <Katrina/Rita Adjustment> - Linked To County Attributes - Total U.S., 1969-2020 Counties, National Cancer Institute, Division of Cancer Control and Population Sciences, Surveillance Research Program, released January 2022.
4. Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center, 2015-2019.
5. Delaware Department of Health and Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2020.