

Lung Cancer Incidence and Mortality in Delaware, 2015-2019

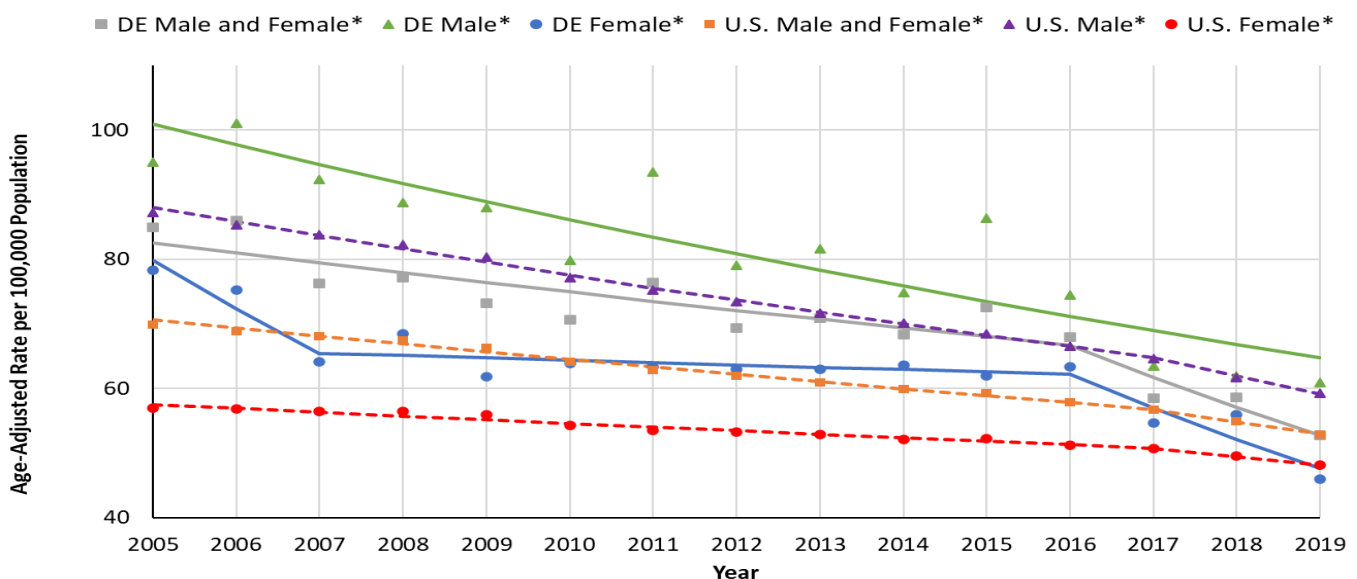
Key Highlights

- Lung cancer is the third most commonly diagnosed cancer in the U.S. and Delaware.^{1,2}
- Delaware ranked 17th highest in the U.S. for age-adjusted lung and bronchus cancer incidence rate.
- Lung cancer is the leading cause of cancer death in the U.S. and in Delaware.
- Delaware's age-adjusted lung and bronchus cancer incidence rate was 61.7 cases per 100,000 population from 2015-2019.
- Delaware ranked 15th highest in the U.S. for age-adjusted lung and bronchus cancer mortality rate.
- Delaware's age-adjusted lung and bronchus cancer mortality rate was 41.0 deaths per 100,000 population from 2015-2019.

Incidence (New Cases)^{1,2}

Lung and bronchus cancer is the third most commonly diagnosed cancer in the U.S. and Delaware. Between 2005 and 2019, incidence rates for both cancers decreased an average of 3.2% in Delaware and an average of 2.0% in the U.S. per year. The decrease was greatest for Delaware between 2016 and 2019 and for the U.S. between 2017 and 2019 with average decreases of 7.5% per year and 3.4% per year, respectively. Between 2005 and 2019, incidence rates for lung and bronchus cancer decreased an average of 3.1% per year among Delaware males and decreased an average of 2.8% per year among U.S. males. The decrease was consistent in Delaware males over this time period, but the incidence rates among U.S. males had a greater decrease from 2017 to 2019 with an average decrease of 4.5% per year. Between 2005 and 2019, incidence rates for lung and bronchus cancer decreased an average of 3.6% per year among Delaware females and decreased an average of 1.3% per year among U.S. females. The decrease was greatest for Delaware females between 2016 and 2019 and for the U.S. between 2017 and 2019 with average decreases of 8.5% per year and 2.6% per year, respectively.

Figure 1. Age-Adjusted Lung and Bronchus 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

Notes: The lines are modeled trend lines, whereas the points are the actual observed rates

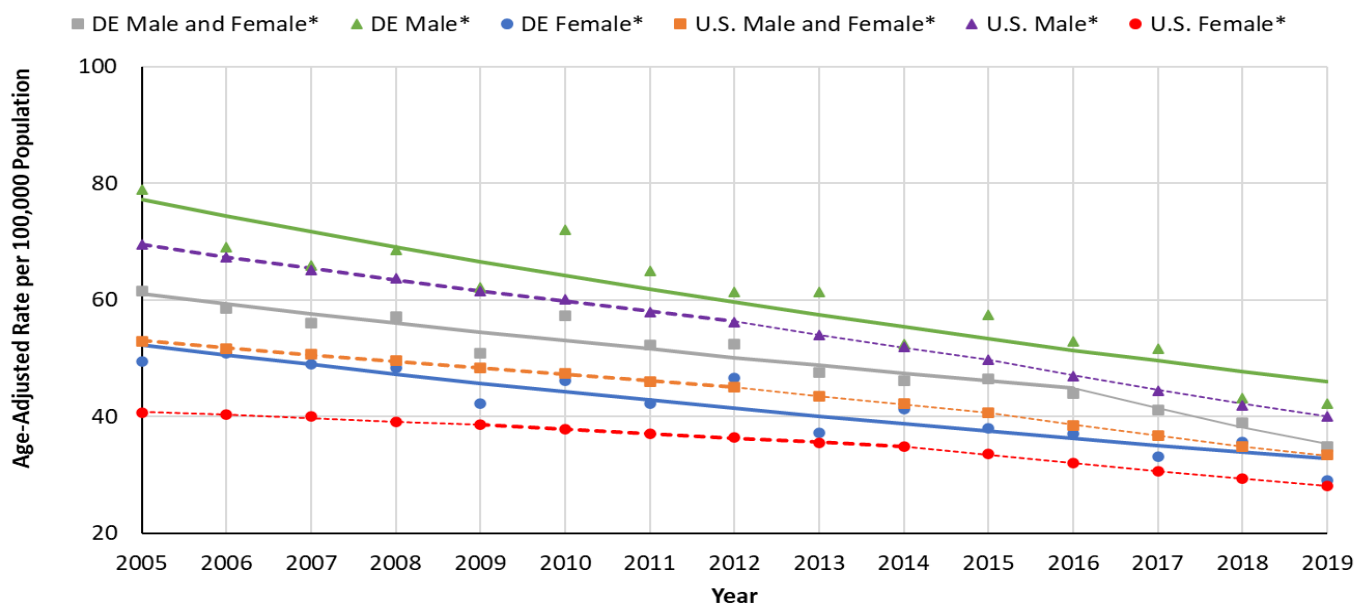
*Significance in the trend line

Rates are per 100,000 of population age-adjusted to the 2000 U.S. standard population.

Mortality (Deaths)^{3,4}

Lung and bronchus cancer is the most common cause of cancer death in the U.S. and in Delaware. Between 2005 and 2019, mortality rates for lung and bronchus cancer decreased an average of 3.8% in Delaware and an average of 3.3% in the U.S. per year. The decrease was greatest for Delaware between 2016 and 2019 and for the U.S. between 2015 and 2019 with average decreases of 7.7% per year and 4.9% per year, respectively. Between 2005 and 2019, mortality rates for lung and bronchus cancer decreased an average of 3.6% per year among Delaware males and decreased an average of 3.9% per year among U.S. males. The decrease was consistent in Delaware males over this time period, but the mortality rates among U.S. males had a greater decrease from 2015 to 2019 with an average decrease of 5.3% per year. Between 2005 and 2019, mortality rates for lung and bronchus cancer decreased an average of 3.3% per year among Delaware females and decreased an average of 2.6% per year among U.S. females. The decrease was consistent in Delaware females over this time period, but the mortality rates among U.S. females had the greatest decrease from 2014 to 2019 with an average decrease of 4.2% per year.

Figure 2. Age-Adjusted Lung and Bronchus 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)

Notes: The lines are modeled trend lines, whereas the points are the actual observed rates

*Significance in the trend line

Rates are per 100,000 of population age-adjusted to the 2000 U.S. standard population.

Stage at Diagnosis¹

Cancer is categorized as either local, regional, or distant stage according to the Surveillance, Epidemiology, and End Results summary staging. The local stage is when the cancer has not spread. The regional stage is when the cancer is large and may have spread to surrounding tissues. The distant stage is when the cancer has spread to another body organ. Finding cancer at an earlier stage can allow for treatment to prevent a cancer to spread to other tissue. This may lead to reduced risk of death from lung and bronchus cancer.

In Delaware, lung and bronchus cancer cases diagnosed at the local stage increased from 19% from 1980-1984 to 28% from 2015-2019 in Delaware. During this same time period, cases diagnosed at the regional stage decreased from 28% to 23% and cases diagnosed at the distant stage stayed the same at 44%. The number of lung and bronchus cancer cases reported at an unknown stage decreased from 10% to 6%. In 2015-2019, almost half (48%) of lung and bronchus cancer cases in non-Hispanic Black Delawareans were diagnosed in the distant stage, compared to 43% of cases in non-Hispanic White Delawareans and 35% in Hispanic Delawareans. Among Delaware males, 45% of lung and bronchus cancer cases were diagnosed at the distant stage, compared to 42% of cases in Delaware females.

Spotlight on Inequities (Delaware, 2015-2019):

- Non-Hispanic White Delawareans had a significantly higher age-adjusted lung and bronchus cancer incidence rate (66.1 cases per 100,000 population), compared to non-Hispanic Black Delawareans (54.9 cases per 100,000 population).
- Non-Hispanic Black Delawareans had a significantly higher age-adjusted lung and bronchus cancer incidence rate (54.9 cases per 100,000 population), compared to Hispanic Delawareans (30.0 cases per 100,000 population).
- Delaware males had a significantly higher age-adjusted lung and bronchus cancer incidence rate (68.8 cases per 100,000 population), compared Delaware females (56.2 cases per 100,000 population).
- Almost half (48%) of lung and bronchus cancer cases in non-Hispanic Black Delawareans were diagnosed in the distant stage, compared to 43% of cases in non-Hispanic White Delawareans and 35% of cases in Hispanic Delawareans.
- Among Delaware males, 45% of lung and bronchus cancer cases were diagnosed at the distant stage, compared to 42% of cancer cases in Delaware women.
- Non-Hispanic White (43.0 deaths per 100,000 population) and non-Hispanic Black (39.8 deaths per 100,000 population) Delawareans had a higher age-adjusted lung and bronchus cancer mortality rate, compared to Hispanic Delawareans (18.8 deaths per 100,000 population).
- Delaware males (49.1 deaths per 100,000 population) had a higher age-adjusted lung and bronchus cancer mortality rate, compared to Delaware females (34.5 deaths per 100,000 population).
- Only about 8% of the Delaware population is eligible for lung cancer screening, and of those who are eligible, only 27.9% had received a computerized tomography (CT or CAT) scan for lung cancer in the past 12 months.
- Almost 70% of Delaware adults who met the eligibility with an annual household income of less than \$50,000 had not been screened for lung cancer.

Early Detection⁵

The United States Preventive Services Task Force (USPSTF) recommends annual screening for lung cancer with low-dose computed tomography in adults:

- Between 50 and 80 years old
- Who smoked a pack of cigarettes per day for 20 or more years, or two packs a day for 10 or more years
- Currently smoke or have quit smoking within the last 15 years.

The Behavioral Risk Factor Survey asked questions in 2020 to determine the prevalence of Delaware adults who were eligible for lung cancer screening and the prevalence of Delaware adults who had had a lung cancer screening.

Approximately 8% of Delaware adults ages 55 to 80 met the USPSTF eligibility criteria for lung cancer screening. Of those who were eligible, only 27.9% reported having a CT or CAT scan for lung cancer screening within the past 12 months. Additionally, another 11.3% of Delaware adults ages 55 to 80 who did not meet the USPSTF eligibility criteria for lung cancer screening reported having a CT or CAT scan within the past 12 months.

Of those Delaware adults who met eligibility criteria but had NOT received a lung cancer screening within the past 12 months:

- 55.5% were ages 55-64
- 65.2% were male
- 96.0% were non-Hispanic White
- 56.2% had a high school degree or less and 30.7% have some college or technical schooling
- 69.9% had an annual household income of less than \$50,000.

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.