

Lung Cancer Survival in Minnesota, 2024

FACTS AND FIGURES

The burden of lung cancer in Minnesota is high

Lung cancer is second most diagnosed cancer in both men and women in the state. It is the leading cause of cancer death in both men and women, accounting for nearly one in four cancer deaths.

Lung cancer survival in Minnesota

Summary

- Survival of lung cancer is low compared with other common cancers. Patients have the best chance of surviving their lung cancer when the tumor is diagnosed early, before the tumor has spread. Survival is very low if the cancer is diagnosed only after the tumor has spread to distant parts of the body.
- One reason lung cancer survival is low is because a high percentage of cancers are only detected after the cancer has spread within the lung or to distant parts of the body.
- Lung cancer survival has improved since the 1990s. The survival gains have been attributed to both earlier detection and improved treatment.

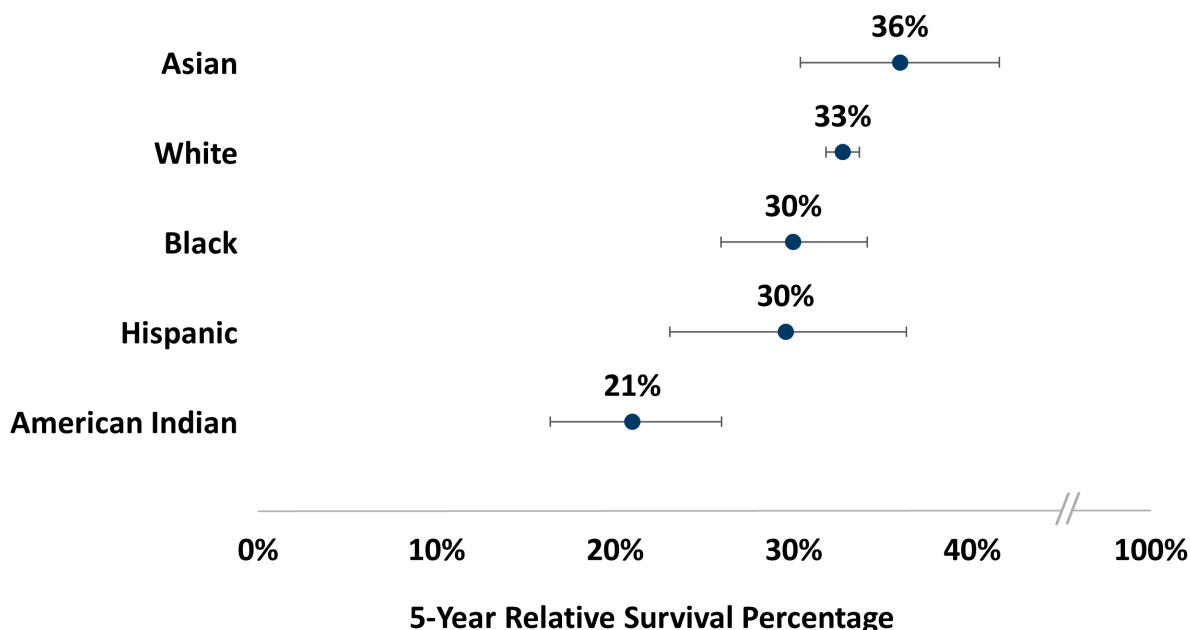
Lung cancer survival is low.

Minnesotans who have lung cancer are about 32% less likely than people who don't have lung cancer to live for at least five years after being diagnosed. Other common cancers in Minnesota have much higher relative survival: breast (93%), prostate (94%) and colorectal cancer (68%).

Lung cancer survival is lowest among American Indians.

Lung cancer five-year relative survival is low for all race groups, but lowest among patients who are American Indian. On average, lung cancer patients who are American Indian have only a 21% chance of surviving their cancer for five or more years. Although relative survival in patients who are Asian appears higher than in patients who are White, Black, or Hispanic, the evidence is not strong enough to draw this conclusion (note the overlapping confidence intervals).

Lung cancer five-year lung cancer relative survival by race¹



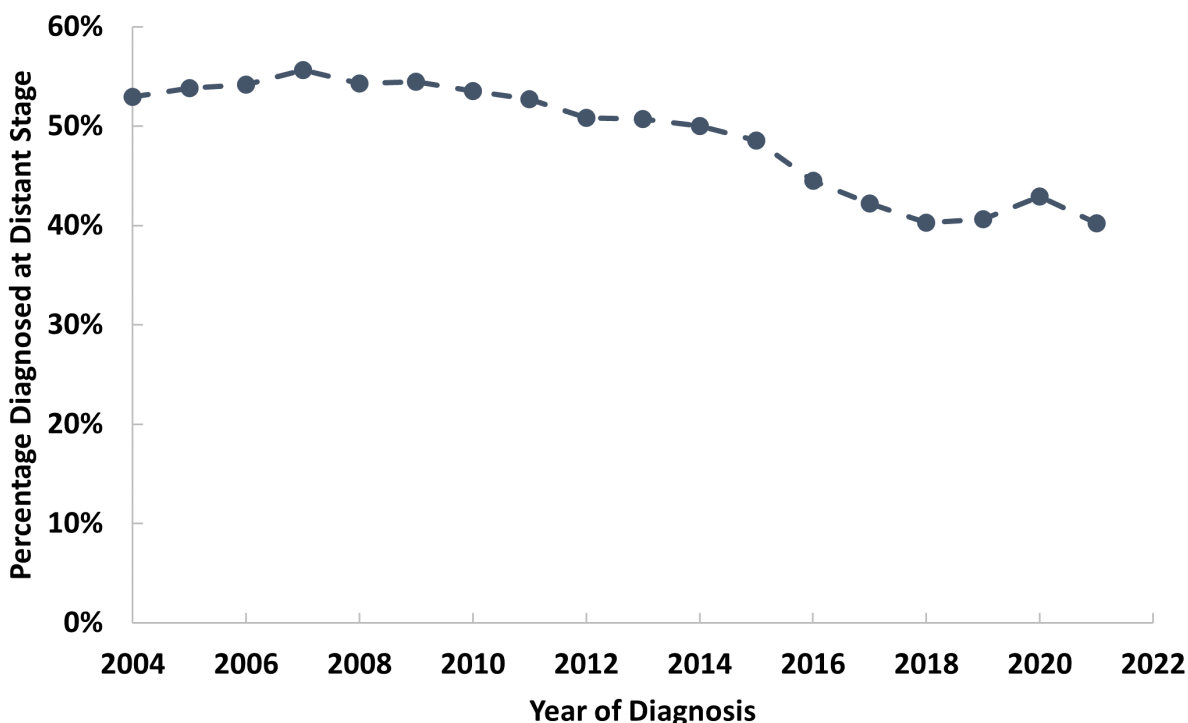
Lung cancer survival is highest when diagnosed early.

Lung cancer five-year relative survival is 67% when the tumor is diagnosed at the local stage but drops to 41% if diagnosed only after the tumor has spread in the lung (regional stage), and only 11% if the cancer has metastasized (distant stage). One reason overall five-year lung cancer survival is so low (32%) is that two of every three lung cancers are diagnosed at a late stage (regional, 22%; distant, 45%). Relative survival is higher in females than males at all stages.

Lung cancer five-year relative survival by SEER Summary Stage^{1,2}

SEER Summary Stage	Males and females	Males	Females
All malignant cancers	32%	28%	36%
Localized	67%	64%	70%
Regional	41%	38%	43%
Distant	11%	9%	13%
Unknown-Unstaged	21%	14%	27%

The percentage of lung cancers diagnosed at distant stage has decreased in recent years.

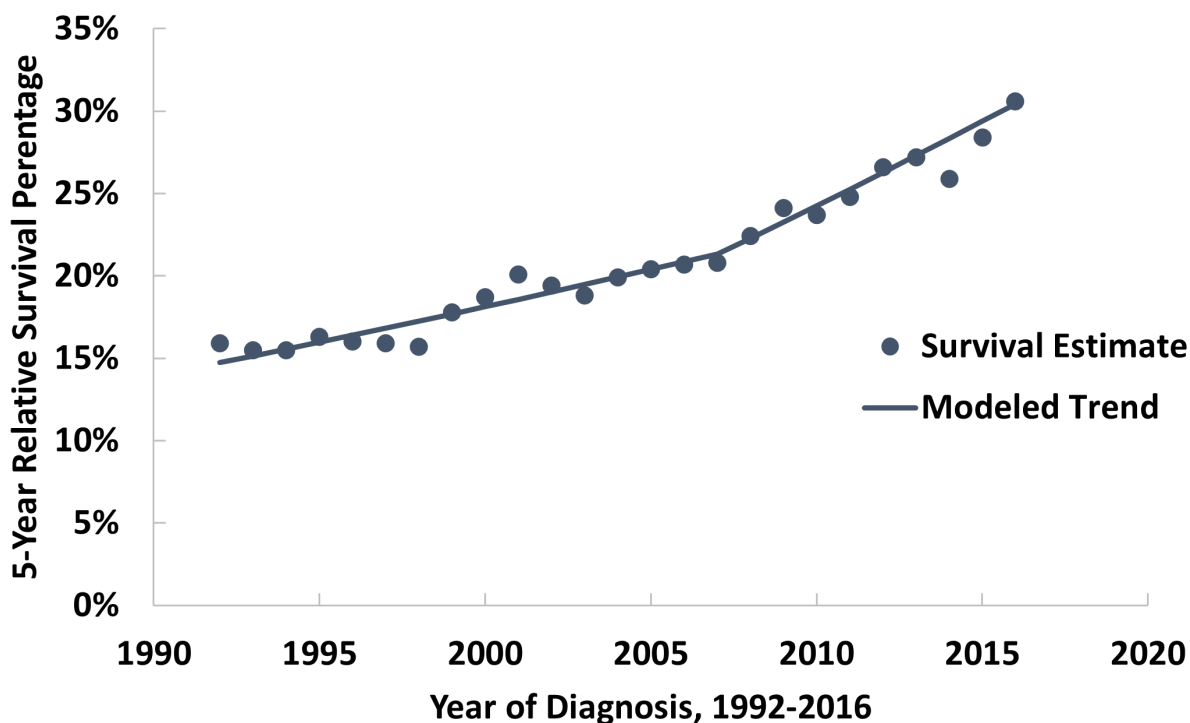


The percentage of lung cancers diagnosed at distant stage decreased from 53 to 40% between 2004 and 2021. Most of the improvement occurred between 2015 and 2018.

Lung cancer survival has improved steadily since the 1990s.

The percentage of patients surviving their distant stage diagnosis for five years nearly doubled from 16% among Minnesotans diagnosed in 1992 to 31% for those diagnosed in 2016, the most recent year with complete five-year survival data.

Lung cancer survival increased slowly through the 1990s and early 2000s. The pace of improvement began to accelerate around 2007. Survival has improved across all diagnosis stages (data not shown, available on request). The survival gains have been attributed to both earlier detection and improved treatment.

Lung cancer five-year relative survival by year of diagnosis.³

Data and sources

1. Minnesota Cancer Reporting System data. Minnesota residents 15 years and older. Age-standardized five-year relative survival estimates for 25,063 Minnesota residents, 15+ years of age, diagnosed with invasive lung cancer 2014 to 2020 and followed for vital status through 2021, complete data method (i.e., using all available data).
2. SEER Summary Stage is the NCI Surveillance, Epidemiology and End Results (SEER) Program staging system, based on cancer spread.
3. Age standardized five-year relative survival trends for Minnesota residents 15 years and older, analyzed as 22 separate cohorts based on diagnosis year (cohort size n= 2,262 to 3,278), with each cohort followed five full years (cohort method, e.g., cases diagnosed in 1992 were followed through 1997, cases diagnosed in 2016 were followed through 2021). Trend was analyzed using National Cancer Institute JPSurv software.

For more information, visit [Cancer Technical Notes \(www.health.state.mn.us/data/mcrs/technicalnotes.html\)](http://www.health.state.mn.us/data/mcrs/technicalnotes.html)

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The collection of Minnesota Cancer data was supported by Cooperative Agreement Number, 1NU58DP007128 from the Centers for Disease Control and Prevention (CDC) The contents of this work are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Minnesota Department of Health
Minnesota Cancer Reporting System
PO Box 64882
St. Paul, MN 55164-0822
651-201-5900
health.mcrcs@state.mn.us
www.health.state.mn.us

December 2024

To obtain this information in a different format, call: 651-201-5900.