

Kentucky Department
for Public Health

Lung Cancer Program 2023 Annual Report

Our mission is to improve the health
and safety of people in Kentucky through
prevention, promotion and protection.



Kentucky Public Health
Prevent. Promote. Protect.

Contents

- Acknowledgements..... 3
- Section 1: Executive Summary 4
- Section 2: National and Kentucky Data..... 5
 - Incidence 5
 - Mortality 8
- Section 3: Program Implementation..... 11
 - Progress..... 11
 - Future Plans 12

Acknowledgements

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Kentucky Department for Public Health (KDPH) employees who contributed to the process and data:

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Additional Contributors to Data:

- Kentucky Lung Cancer Program Advisory Committee
- Kentucky Cancer Registry
- American Lung Association

Kentucky Department for Public Health (KDPH). Lung Cancer Program Annual Report FY23. Frankfort, Kentucky: Cabinet for Health and Family Services, Kentucky Department for Public Health, [2023].



Section 1: Executive Summary

In 2022, Kentucky passed legislation establishing a lung cancer screening program in the Department for Public Health. The legislation, HB 219, had three goals: increase lung cancer screening, reduce morbidity and mortality from lung cancer and reduce healthcare costs associated with the treatment of lung cancer. Additionally, the legislation established an advisory committee composed of stakeholders, advocates and experts in the state to provide guidance and strategic direction for the program, as well as submitting an annual report to the legislature.

Kentucky continued to break new ground in 2023 by passing HB 180, a bill requiring public and private insurance plans in Kentucky to cover biomarker testing. Biomarker testing looks at the genetic profile of patients to determine which medications may be most effective at treating their cancers. Precision treatment of cancers is anticipated to decrease cost of treatment and, most importantly, improve health outcomes and increase survivability of cancers.

The leading risk factor for lung cancer is smoking; Kentucky ranks fourth in the nation for adult smoking with one in five people indicating they currently smoke cigarettes. The second leading cause of lung cancer is radon exposure, which is also particularly high in certain areas of the stateⁱ. Other types of exposures can increase lung cancer risk, including exposure to wildfire smoke and occupational exposure to diesel exhaust and silica dust.

Current guidelines from the United States Preventive Services Task Force recommend annual lung cancer screening for those who are ages 50 to 80, have a 20 pack-year smoking history and either currently smoke or have quit within the past 15 years.ⁱⁱ Studies show that annual lung cancer screening can reduce mortality by 20%.ⁱⁱⁱ

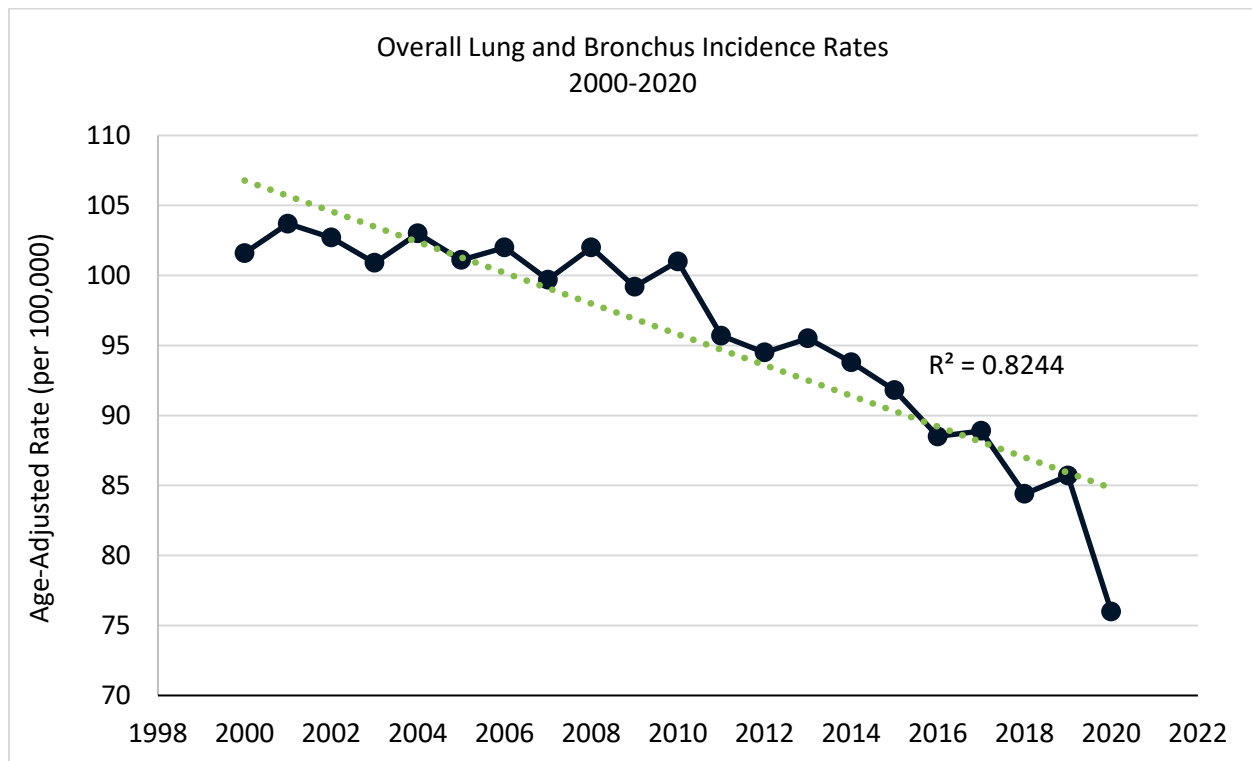
While Kentucky continues to struggle with poor health outcomes and high rates of lung cancer, the drops in adult smoking combined with the increases in lung cancer screening in the state bring hope that we can effectively reduce death due to lung cancer in Kentucky. This report will highlight areas where Kentucky has shown success, such as drops in late-stage diagnosis, decreases in mortality and decreased incidence rates.

Section 2: National and Kentucky Data

Historically Kentucky was first in the nation for adult smoking, with particularly high rates in the southeastern region of the state. As cigarette smoking is the cause of 80% of lung cancer cases, it is no surprise that Kentucky was also first in the nation for lung cancer. Fortunately, cases have fallen as smoking rates have fallen and early detection, as well as advances in medical treatment, have reduced mortality rates. Lung cancer does not have to be a death sentence if caught early.

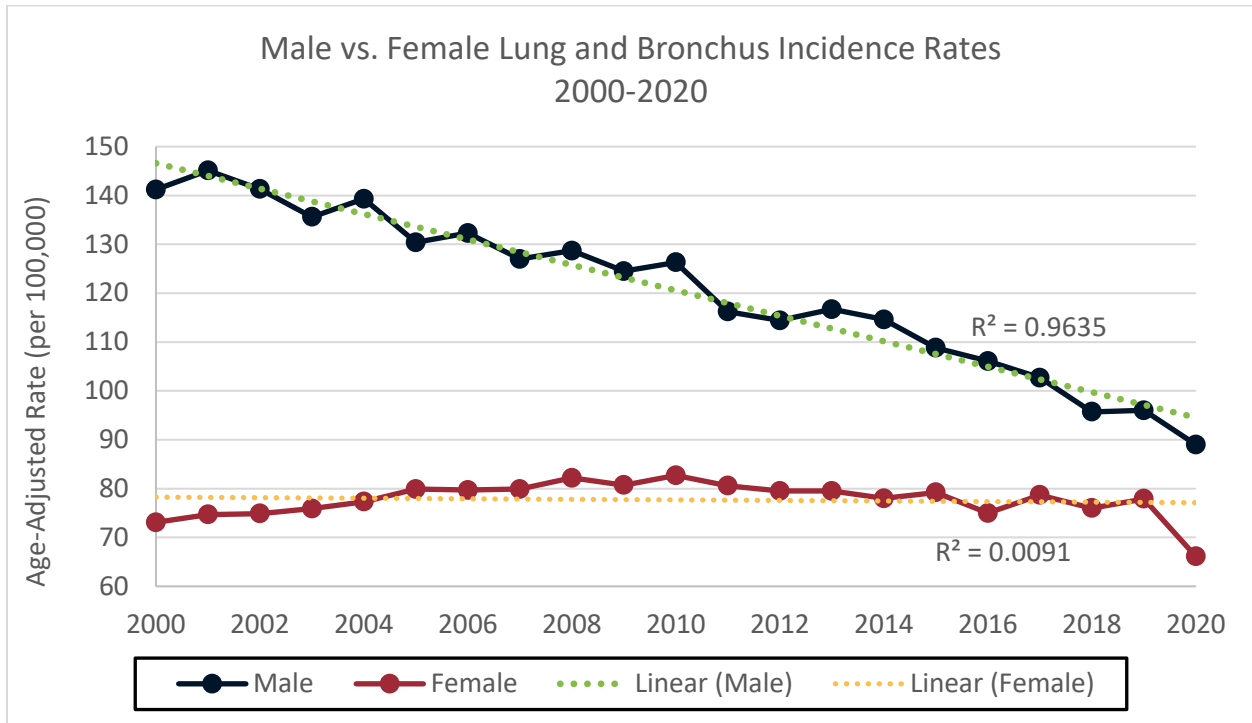
Incidence

Lung cancer is the third most common cancer in Kentucky, behind breast and prostate cancer. In 2020 there were 4,574 diagnosed cases of lung cancer in Kentucky, according to the Kentucky Cancer Registry^{iv}. The incidence of lung cancer has fallen dramatically in the state, to a new low of 75.8 diagnoses per 100,000 people in 2020, as can be seen in the chart below.

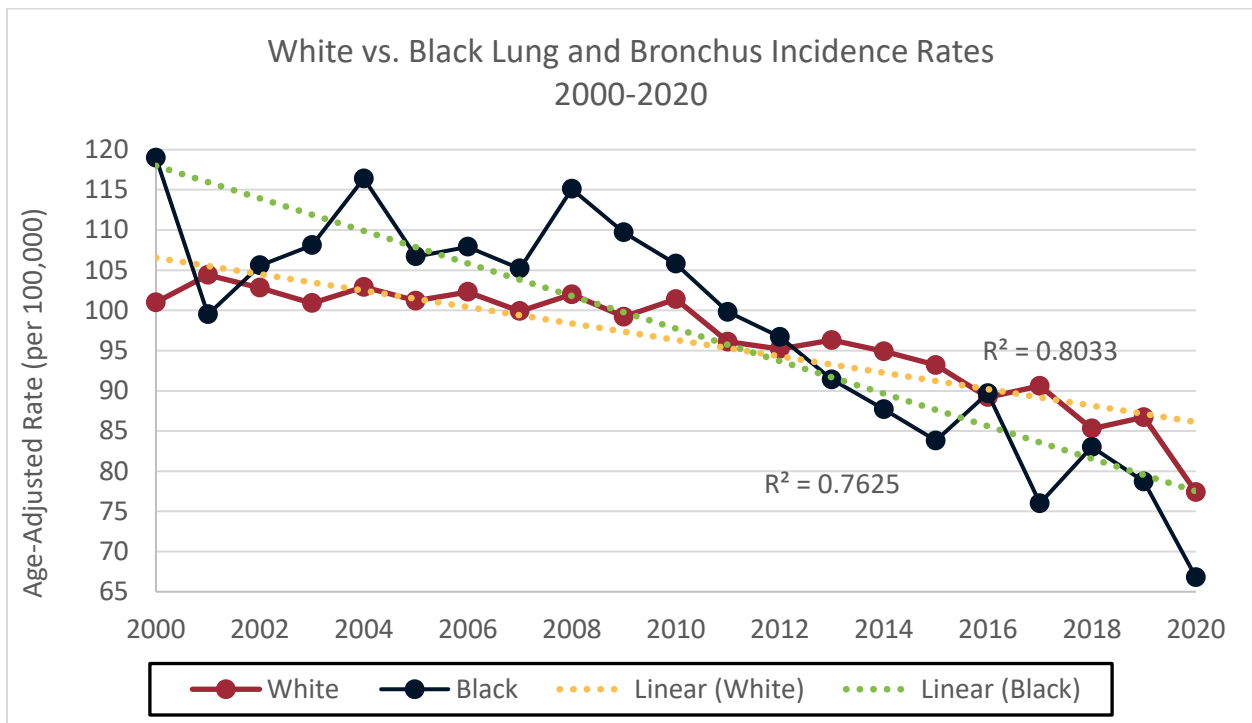


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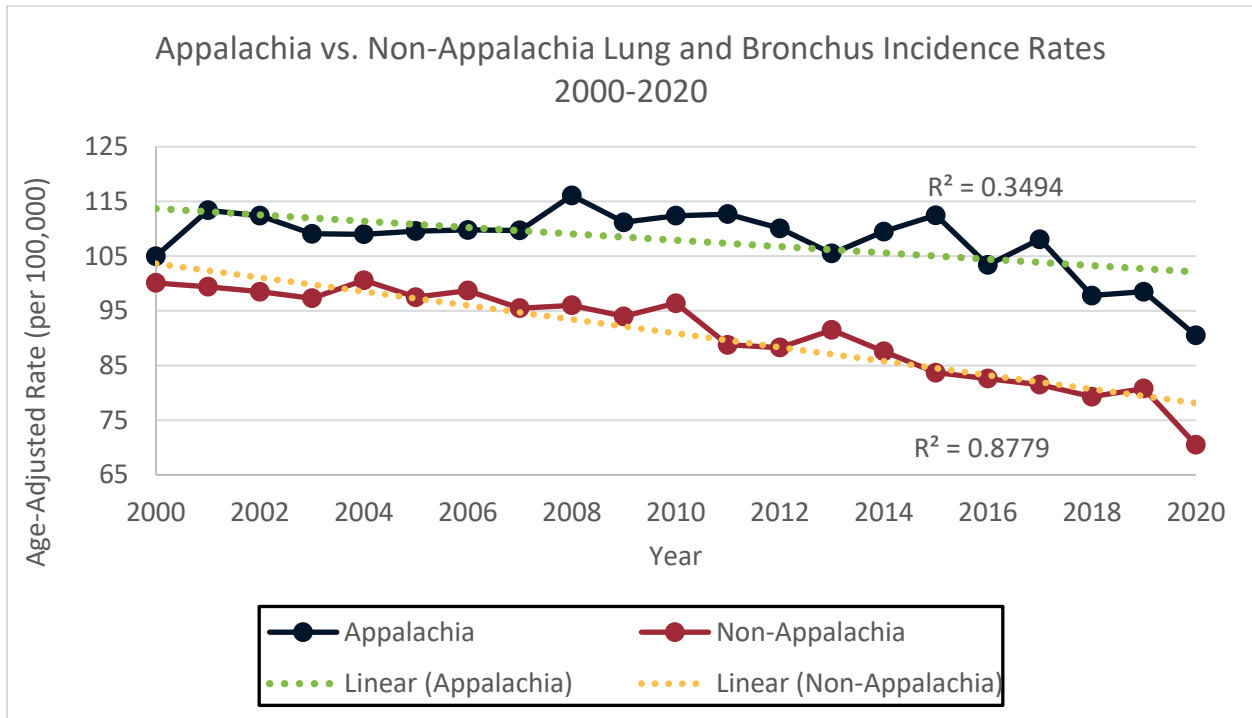
While the gap is narrowing, lung cancer is more prevalent among men than women, likely due to historically higher rates of smoking among men. Notably, incidence of lung cancer has not significantly changed in the past 20 years for women.



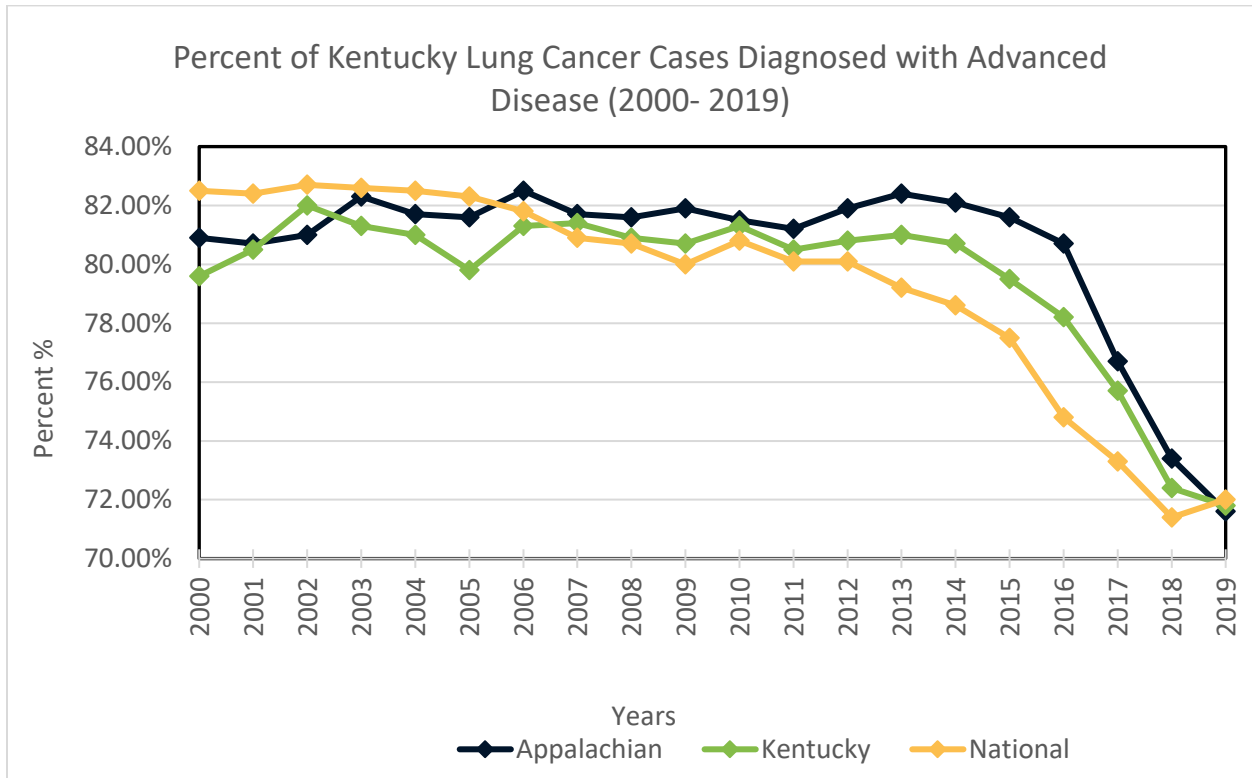
Incidence of lung cancer has fallen at a steeper rate for Black Kentuckians than for their White counterparts. Twenty years ago, the incidence was higher among Black populations, but now the incidence is higher among White populations.



Incidence of lung cancer is significantly different between Appalachian regions and non-Appalachian regions, with rates of lung cancer higher in the Appalachian regions of the state. The rate of decrease in incidence has been steeper among non-Appalachian populations.

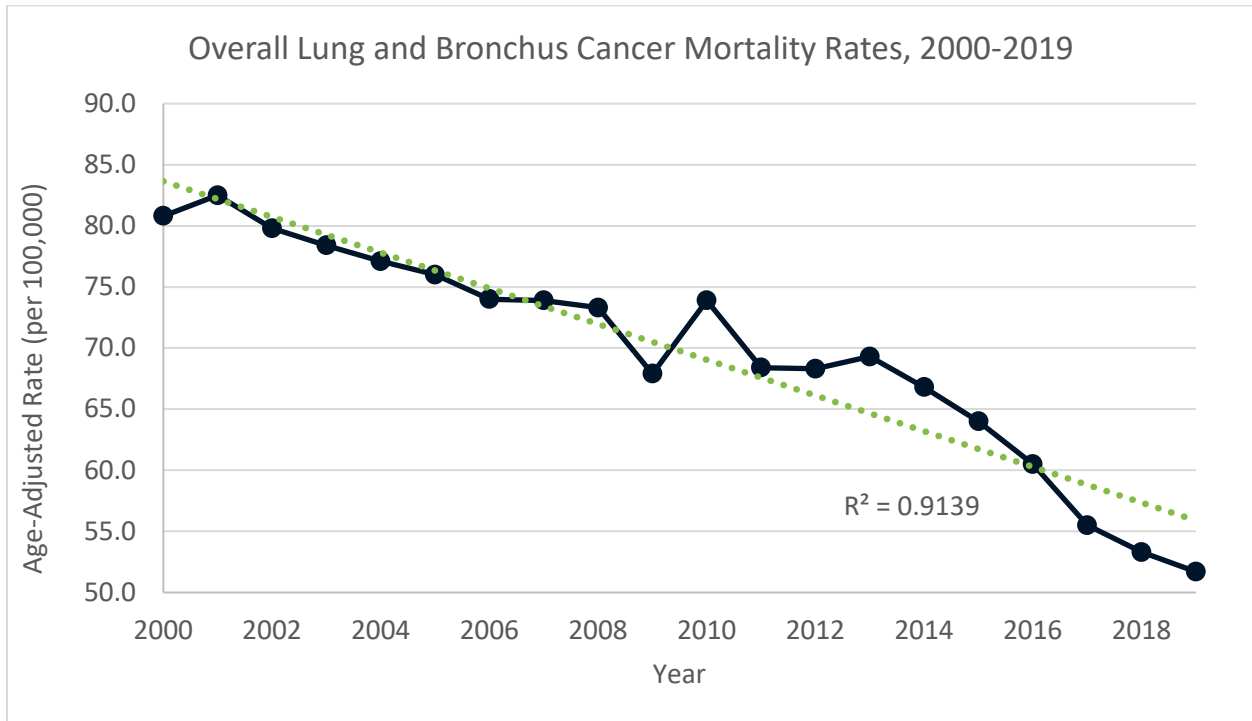


Finding cancer at an advanced stage (Stage 3 or 4) reduces the chances of successful treatment and increases risk for early mortality. Starting in 2010 the percentage of lung cancer cases diagnosed with advanced disease started dropping, meaning cases were found at earlier stages. The chart below shows the improvement across Kentucky and a faster decline in areas of highest risk, Appalachian Kentucky. In fact, the rate of decline in Kentucky was twice as rapid as the national rate, and three times as rapid in Appalachia.

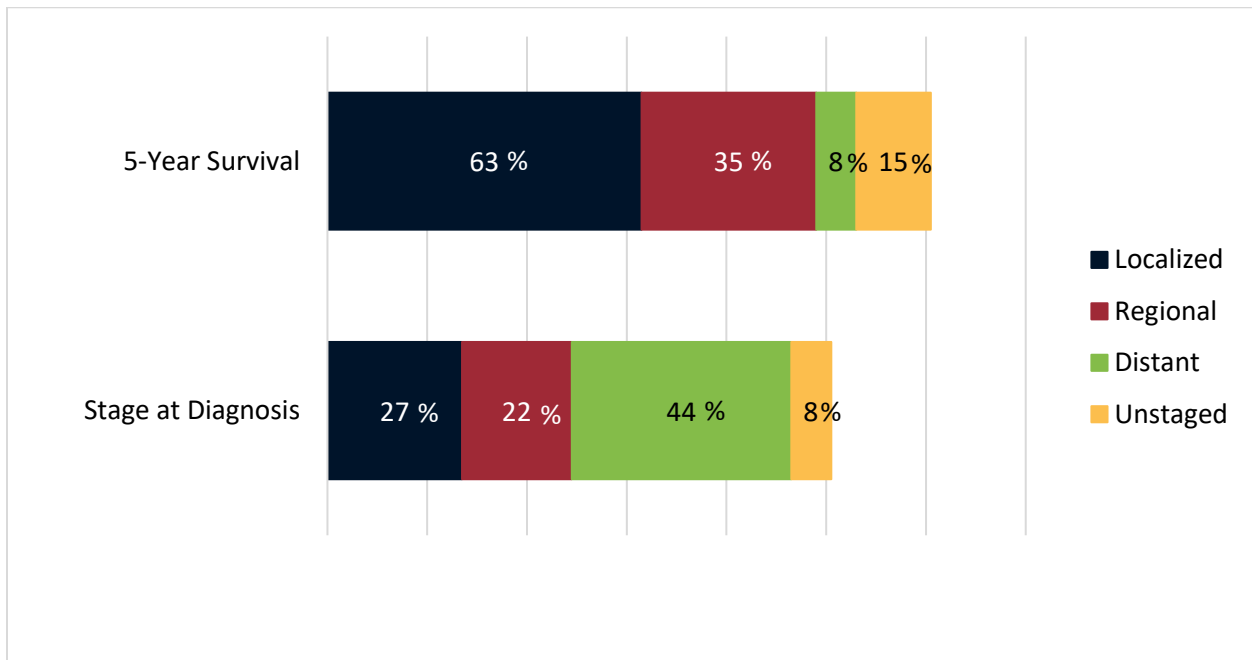


Mortality

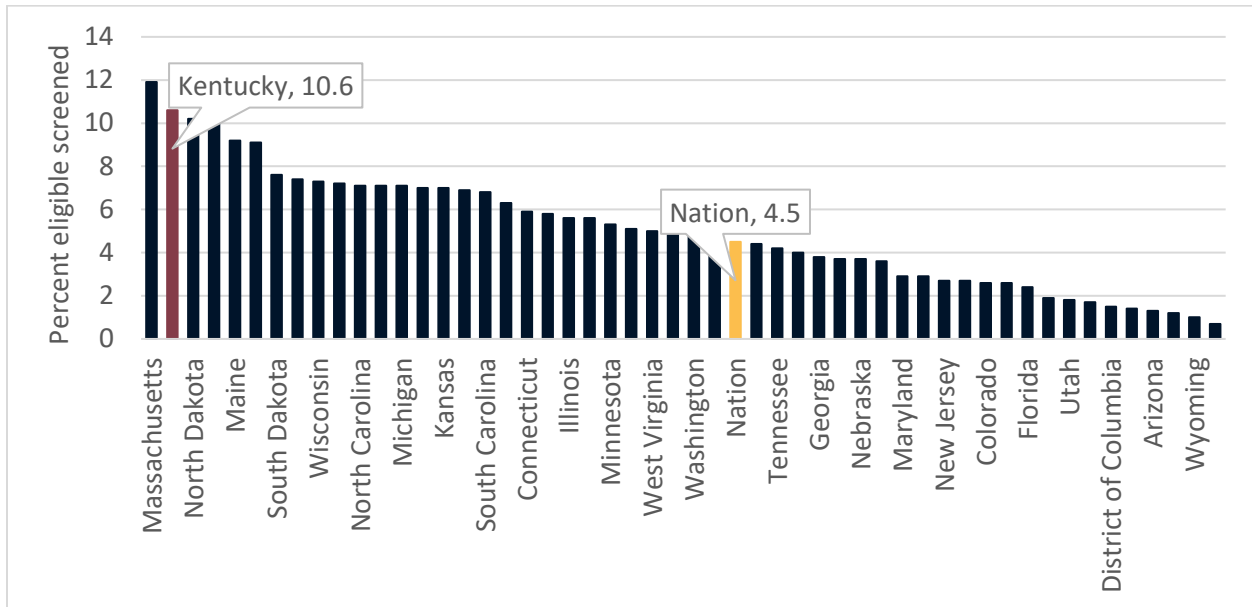
Lung cancer is the leading cause of cancer mortality in Kentucky, with a rate of 50.1 deaths per 100,000 people. Through tireless efforts of health care professionals, screening initiatives, advocacy organizations, falling smoking rates and the advocacy of patients themselves, the mortality rate for lung cancer has fallen consistently over the past twenty years.



The five-year survival rate for those diagnosed with localized lung cancer is 63%.^{vi} For those with distant lung cancer, meaning there has been significant metastasis, the survival rate falls dramatically to 8%. Unfortunately, more lung cancers are caught at the distant stage compared to localized or regional, which have better outcomes.



Kentucky may have high rates of lung cancer, but we also have comparatively high rates of lung cancer screening among eligible populations. The national rate for lung cancer screening is 4.5% of eligible people whereas Kentucky has able to screen 10.6% of our eligible population.



Section 3: Program Implementation

The Lung Cancer Screening Program in the Chronic Disease and Prevention Branch of the Division of Prevention and Quality Improvement has spent its first year building capacity, including establishing the Advisory Committee, contracting for strategic planning and evaluation planning services and developing a program structure. As the program develops and grows, it is anticipated that the program will be able to achieve even greater progress in increasing screening rates and decreasing lung cancer mortality.

Progress

Essential to the success of the Lung Cancer Screening Program is the Advisory Committee, composed of stakeholders, advocates and lung cancer survivors. The core membership is defined by the statute establishing the program, but the committee has the ability to add additional members as determined upon need.

Position	Name
Member of House of Representatives	Rep. Kim Moser
Member of Senate	Sen. Don Douglas
Deputy Commissioner of Dept. for Public Health	Dr. Connie White
Commissioner of Dept. of Insurance	Sharon P. Clark
Commissioner of the Dept. for Medicaid Services	Lisa Lee
At-large member appointed by the Governor (1)	Dr. Anthony Weaver
At-large member appointed by the Governor (2)	Scott Kindred
American Cancer Society Representative appointed by Governor from nominees	Dr. Timothy Mullett
Director of Kentucky Cancer Program West	Connie Sorrell
Director of Kentucky Cancer Program East	Mindy Rogers
Director of Kentucky Cancer Registry	Dr. Eric Durbin
Director of American Lung Association - Kentucky	Shannon Baker
Chair of Kentucky African Americans Against Cancer	Virginia Bradford
Director of KY Cancer Consortium	Elaine Russell
Nominated by committee	Dr. Michael Gieske
Nominated by committee	Jack Hillard
Nominated by committee	Dr. Jennifer Redmond Knight
Nominated by committee	Angela Criswell

Since the program was established in July 2022, the Advisory Committee has met six times. In those meetings the committee has voted and approved a charter, nominated and approved the addition of four more members to the Committee and voted on two co-chairs, Dr. Timothy Mullett and Dr. Michael Gieske.

As smoking cessation is such an important component of lung cancer risk reduction and improving outcomes for those diagnosed with the disease, the program has implemented a new protocol with the state’s tobacco cessation quitline, Quit Now Kentucky, to promote screening. Quit Now Kentucky provides all Kentuckians with access to phone, text and email support when quitting any tobacco product, as well as nicotine replacement therapy to certain populations, such as those without health insurance and those with Medicare. As of April 2023, the quitline has also provided information to eligible callers about lung cancer screening. Approximately half of callers to the quitline each month are eligible for screening, based upon information gathered during intake. As of August 2023, 503 quitline callers have been provided this additional information about lung cancer screening.

The program has created some educational materials geared toward both patients and healthcare professionals. Posters have been created for patients and will shortly be available on the Department for Public Health website to download and available to order hardcopies. To reach healthcare professionals, full-page ads and editorials have been run in MD Update, a publication that goes to thousands of providers each month.

Lung Cancer Screening is easy

- Covered by most insurance (Medicare 50 - 77)
- Quick and painless
- No needles, IVs or dyes
- Get screened every year to catch cancer early

"Kentucky has achieved notable success in a state with dismal lung cancer incidence, mortality, smoking rates and 5-year survival. We are now #2 in the country for lung cancer screening."

Michael R. Gleske, MD
 Director of Lung Cancer Screening
 St Elizabeth Virtual Health Center

Kentucky Public Health
 Prevent. Promote. Protect.

Lung cancer can be treated if caught early!

You are eligible for screening if:

- 50** You are 50 to 80 years old
- 20** You smoked a pack of cigarettes a day for 20 years
- 15** You currently smoke or quit within the past 15 years

Talk to your patients about lung cancer screening

Lung cancer can be treated if caught early!

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Future Plans

In the fall of 2023, the program engaged a facilitator to create a strategic plan for the Lung Cancer Screening Program. As part of this process, the facilitator is conducting key informant interviews and conducting an in-person session to identify priorities, goals and objectives. The resulting three-year strategic plan will be used to guide activities, contracts and direction for the future.

Any new initiative should be undertaken with evaluation in mind. Because of this important objective, the program has also contracted with a program evaluator to create an evaluation plan as well as key metrics to track over time. This evaluation data will be used to guide future directions of the program, as well as to determine if the program is meeting its purpose of increasing screening, reducing morbidity and mortality and reducing healthcare costs.

Finally, in October 2023 a Health Program Administrator was hired for the Lung Cancer Screening Program. With dedicated staffing the program anticipates making even further progress in reducing the burden of lung cancer.

ⁱ Environmental Public Health Tracking. <https://healthtracking.ky.gov/>.

ⁱⁱ U.S. Preventive Services Task Force. Lung Cancer: Screening. Rockville, MD :U.S. Dept. of Health and Human Services, Agency for Healthcare Research and Quality. Accessed Sept. 9, 2023. Available at: [Recommendation: Lung Cancer: Screening | United States Preventive Services Taskforce \(uspreventiveservicestaskforce.org\)](https://www.uspreventiveservicestaskforce.org/Recommendation/Lung-Cancer-Screening)

ⁱⁱⁱ The National Lung Screening Trial Research Team. Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening. *N Engl J Med* 2011; 365:395-409. DOI: 10.1056/NEJMoa1102873.

^{iv} Kentucky Cancer Registry. [Kentucky Cancer Registry \(uky.edu\)](https://www.ky.gov/health/cancer-registry)

^v Durbin EB, Tucker TC and McDowell JK. Changes over time in disparities in Kentucky's colorectal, female breast, cervical and lung cancer burden. Kentucky Cancer Consortium webinar. May 11, 2023.

^{vi} American Lung Association. State of Lung Cancer, 2023. Available at: [State Data | Kentucky | American Lung Association](https://www.lung.org/state-of-lung-cancer). Accessed Nov. 15, 2023.

Kentucky Lung Cancer Screening Program

Lung Cancer is the #1 cause of cancer death in Kentucky.



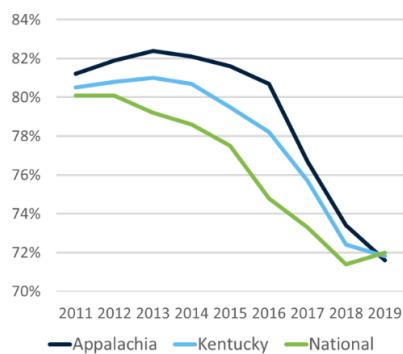
4574 Lung cancer cases in Kentucky (in 2020)

2926 Lung cancer deaths in Kentucky (in 2020)

Kentucky ranks second in the nation for lung cancer screening but only **10.6%** of eligible Kentuckians are screened.



Advanced Lung Cancer Diagnosis Rate



Compared to advanced stage lung cancer rates in the U.S., the diagnosis of advanced stage lung cancer dropped **2X faster in Kentucky overall and 3X faster in Appalachia** due to more screening.

503 Kentuckians informed about lung cancer screening through Quit Now Kentucky, April- August 2023.



Kentucky Department for Public Health
Lung Cancer Screening Program
LungCancer@ky.gov

