Lung Cancer Screening Updates 2022

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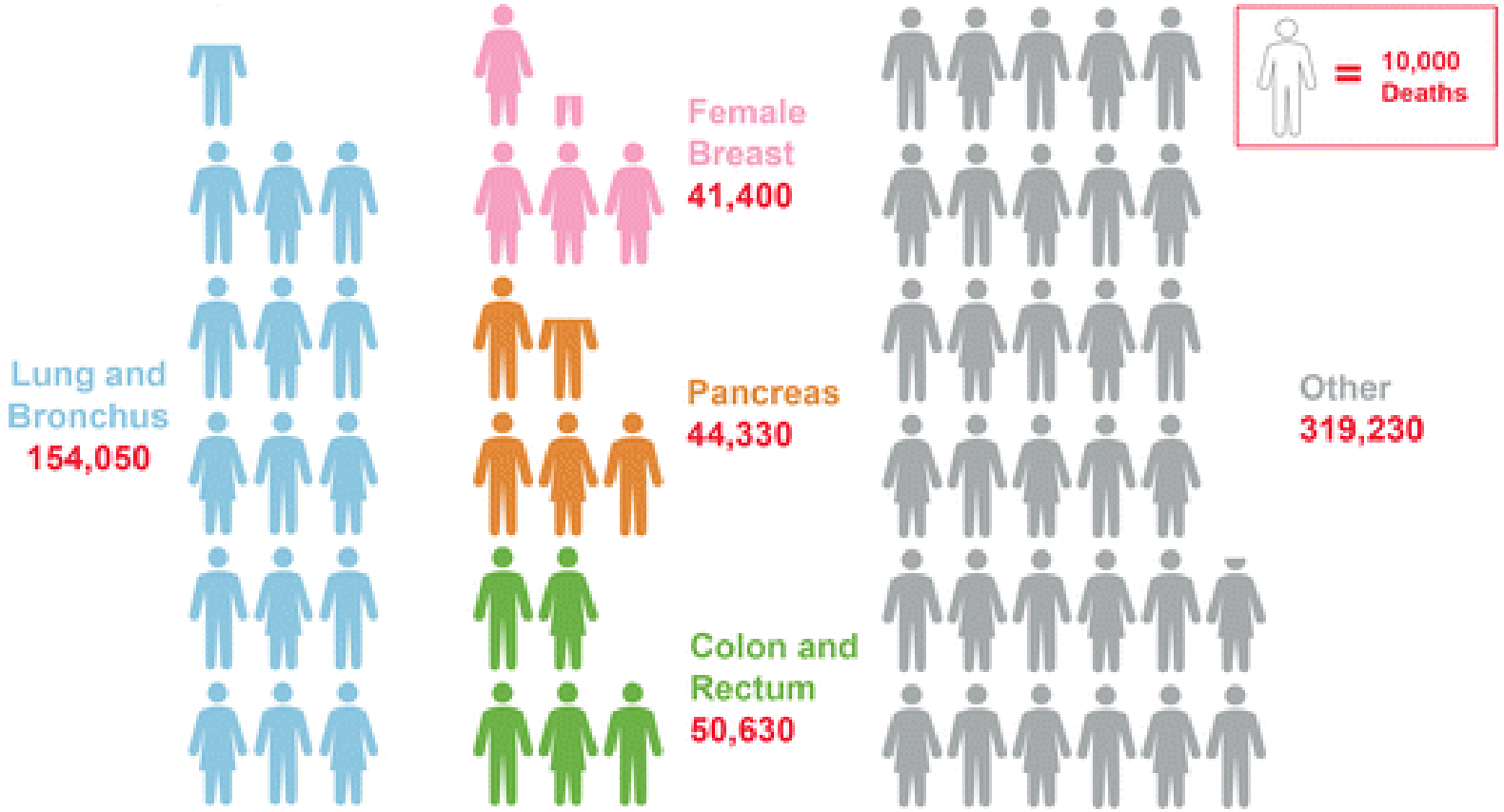
Facts

- Lung Cancer is the #2 leading cause of death in the United States, second only to heart disease
- Lung Cancer is the leading cause of cancer deaths, accounting for nearly a third of all cancer deaths.
- Lung Cancer kills more people every year than breast, colorectal, prostate and pancreatic cancers COMBINED.
- Nearly twice as many women die of lung cancer compared to breast cancer each year

Data and Statistics

- In 2018, the latest year for which incidence data are available, in the United States, 218,520 new cases of lung and bronchus cancer were reported, and 142,080 people died of this cancer.

- For every 100,000 people, 54 new lung and bronchus cancer cases were reported and 35 people died of this cancer



Estimated cancer deaths in the United States in 2018 according to the Surveillance, Epidemiology, and End Results Program

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2021

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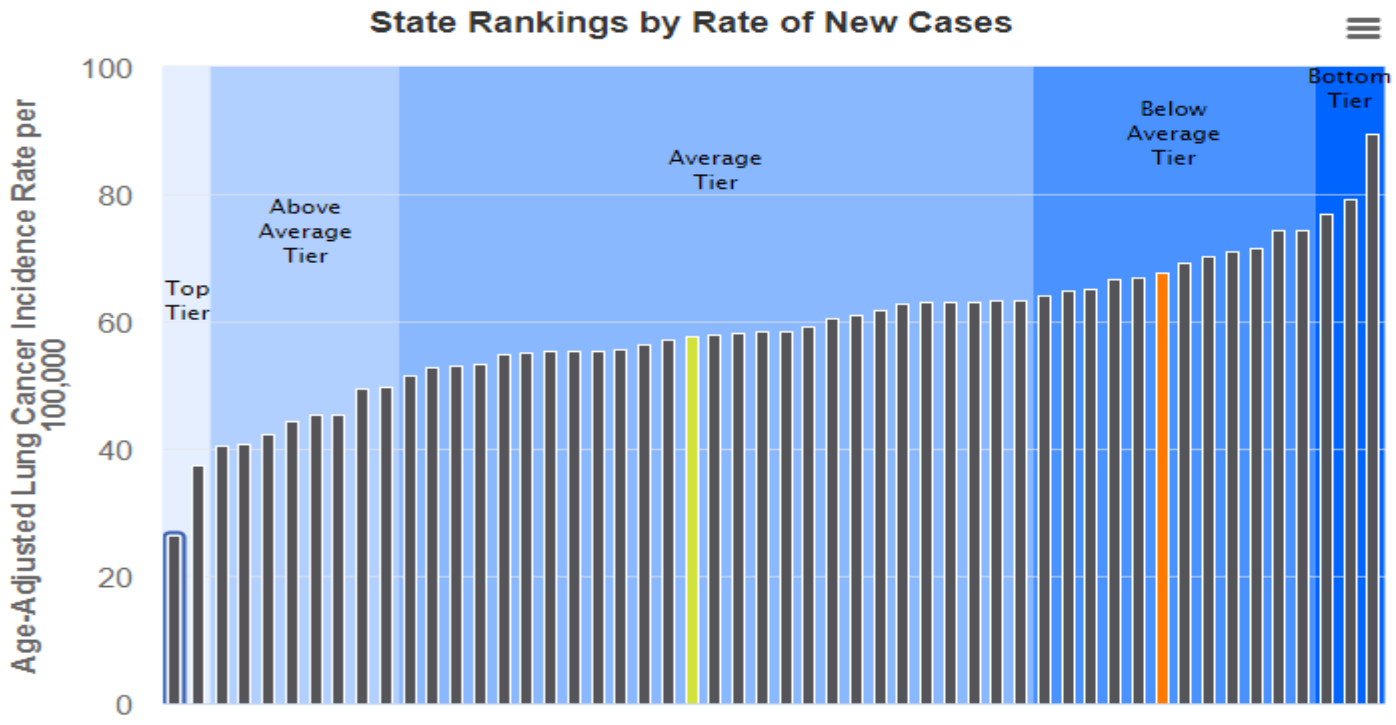
Home | State Data | Key Findings | Disparities | Take Action

New Cases | 5-Year Survival Rate | Stage at Diagnosis



New Cases:

- The rate of new lung cancer cases is **68** and **significantly higher** than the national rate of 58.
- Ohio ranks **42nd** among all states, placing it in the **below average tier**.
- Over the last five years, the rate of new cases **improved** by **7%**.

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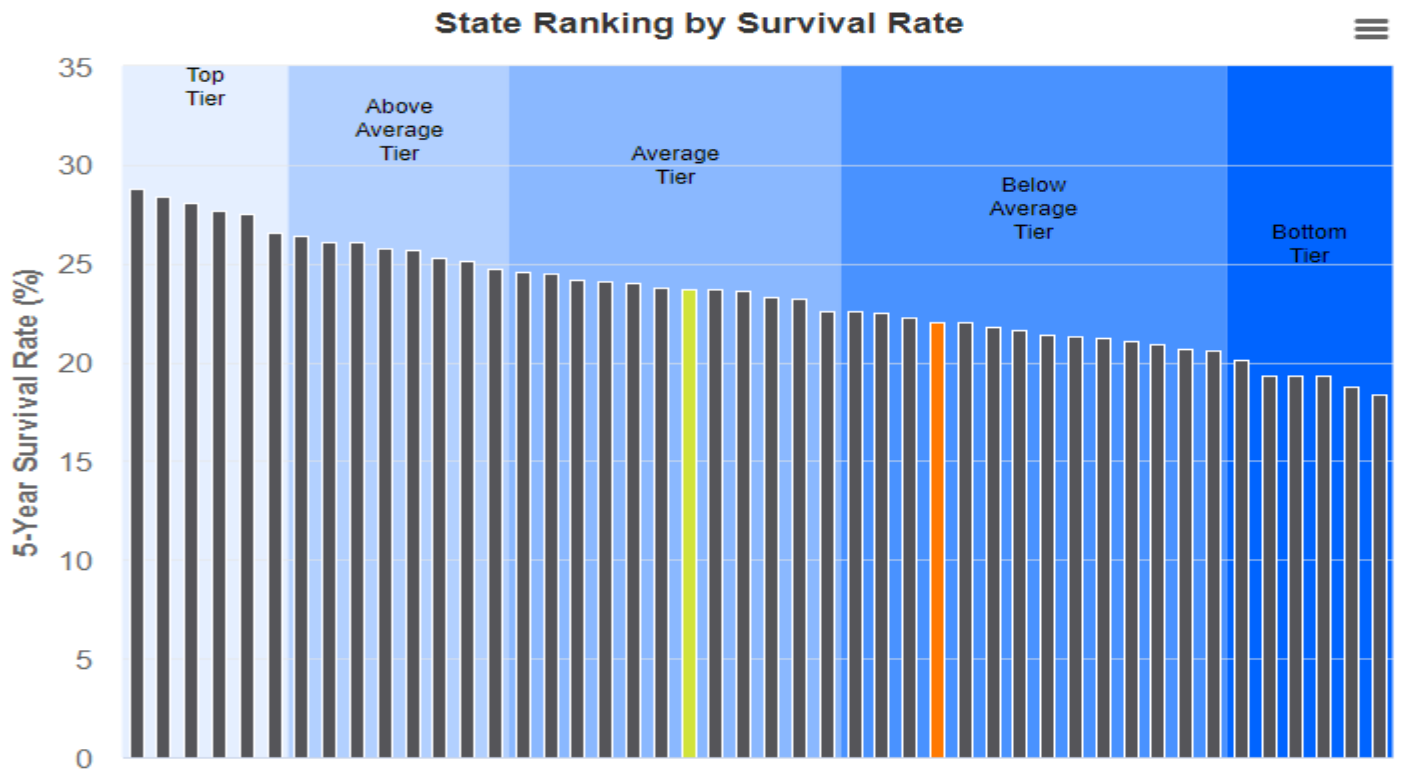
New Cases | 5-Year Survival Rate | Stage at Diagnosis



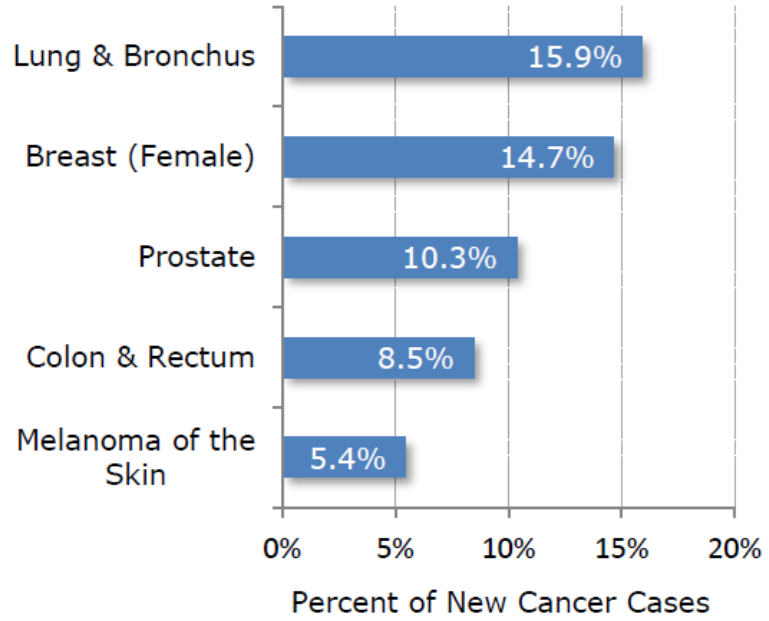
5-Year Survival Rate:

- The percent of people alive five years after being diagnosed with lung cancer (the survival rate) in Ohio is **22%**, which is **significantly lower** than the national rate of 24%.
- It ranks **29th** among the 45 states with survival data, placing it in the **below average tier**.
- The change in the survival rate over the last five years is not available for Ohio.

Licking County Cancer Cases

Leading Cancers

Figure 1. Percentage of Cancer Cases by Site/Type for the Top Five Cancers in Licking County, 2012-2016[1]

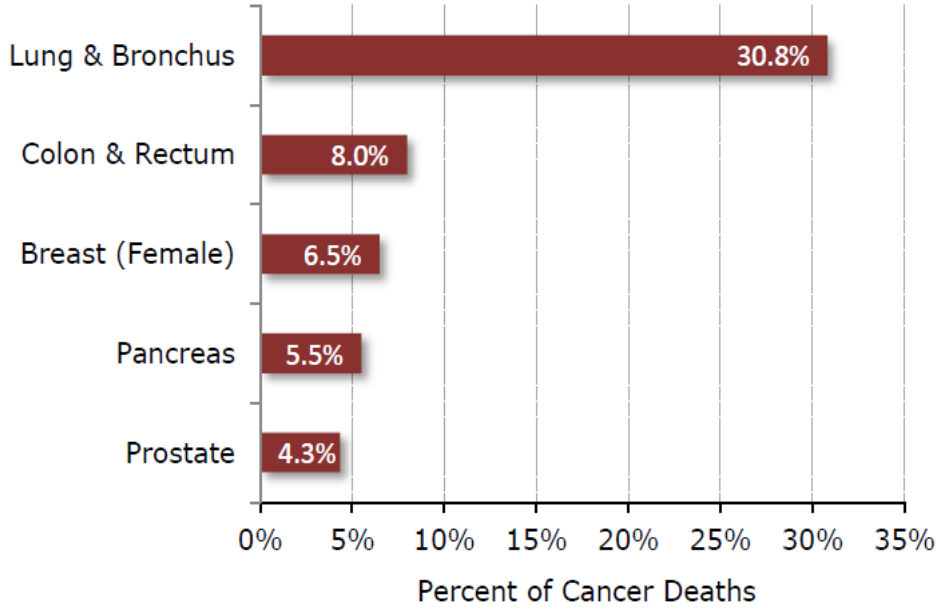


The leading sites/types of cancer incidence in Licking County in 2012-2016 were lung and bronchus, female breast, prostate, colon and rectum, and melanoma of the skin, representing 55 percent of all invasive cancer cases.

[1] Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2019.

Licking County Cancer Deaths

Figure 2. Percentage of Cancer Deaths by Site/Type for the Top Five Cancers in Licking County, 2012-2016[1]



The leading sites/types of cancer mortality in Licking County in 2012-2016 were lung and bronchus, colon and rectum, female breast, pancreas and prostate, representing 55 percent of all cancer deaths.

[1] Source: Bureau of Vital Statistics, Ohio Department of Health, 2019.

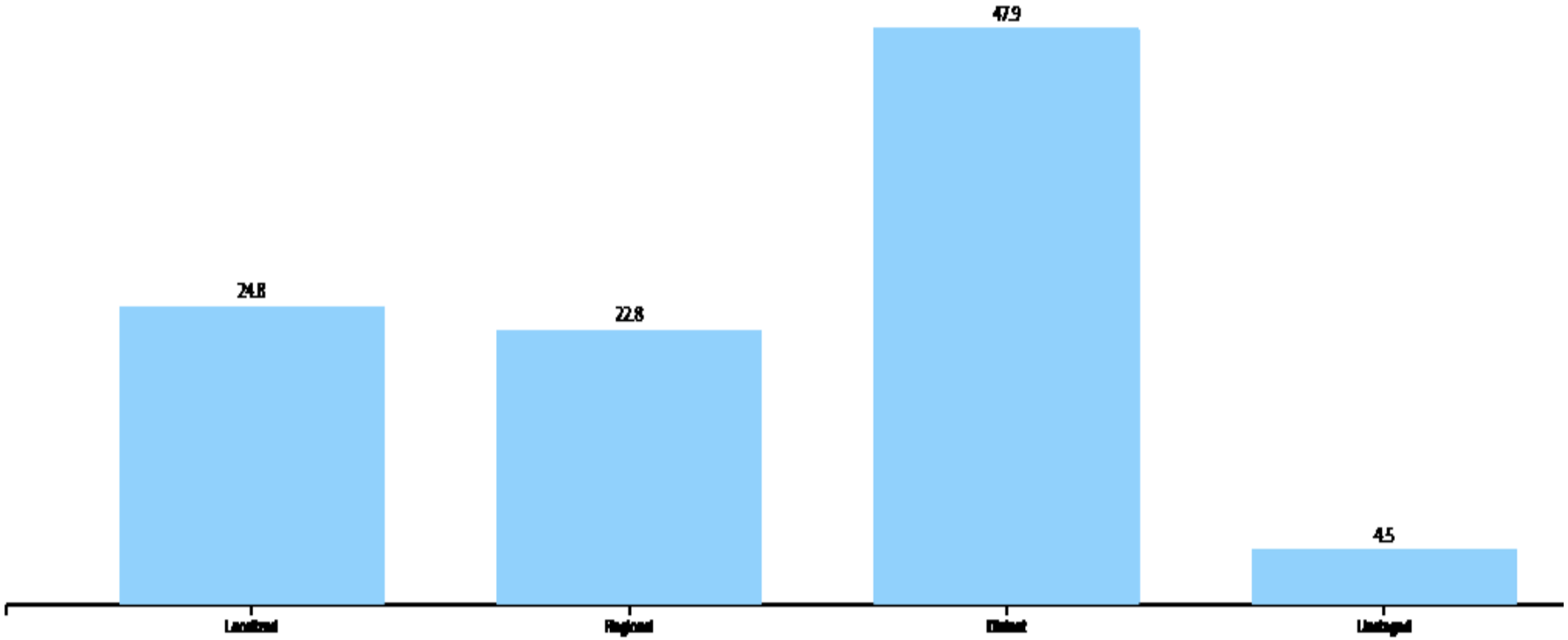
Lung and bronchus cancer was the leading cause of cancer incidence and mortality in Licking County in 2012-2016, accounting for 15.9 percent of cancer cases and 30.8 percent of cancer deaths.

Survival Rates

- More than half of people with lung cancer die within one year of being diagnosed
- Only 16 percent of lung cancer cases are diagnosed at an early stage.
- The five-year survival rate for lung cancer is 56 percent for cases detected when the disease is still localized (within the lungs).
- For distant tumors (spread to other organs) the five-year survival rate is only 5 percent.

U.S. National Institute Of Health, National Cancer Institute. SEER Cancer Statistics Review, 1975–2015.

Stage Distribution (%) of New Cancer Cases, All Ages, All Races and Ethnicities, Both Sexes Lung and Bronchus, United States, 2014-2018



Source - U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2020 submission data (1999-2018): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; https://www.cdc.gov/cancer/dataviz, released in June 2021.

Early versus Late Diagnosis Survival Rates

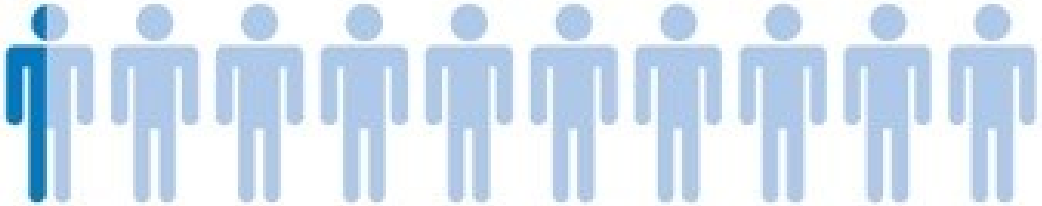
Lung Cancer*

Diagnosed Earlier: Stage 1

More than 6 in 10 survive 5 or more years

Diagnosed Later: Stage 4

Less than 1 in 10 survive 5 or more years

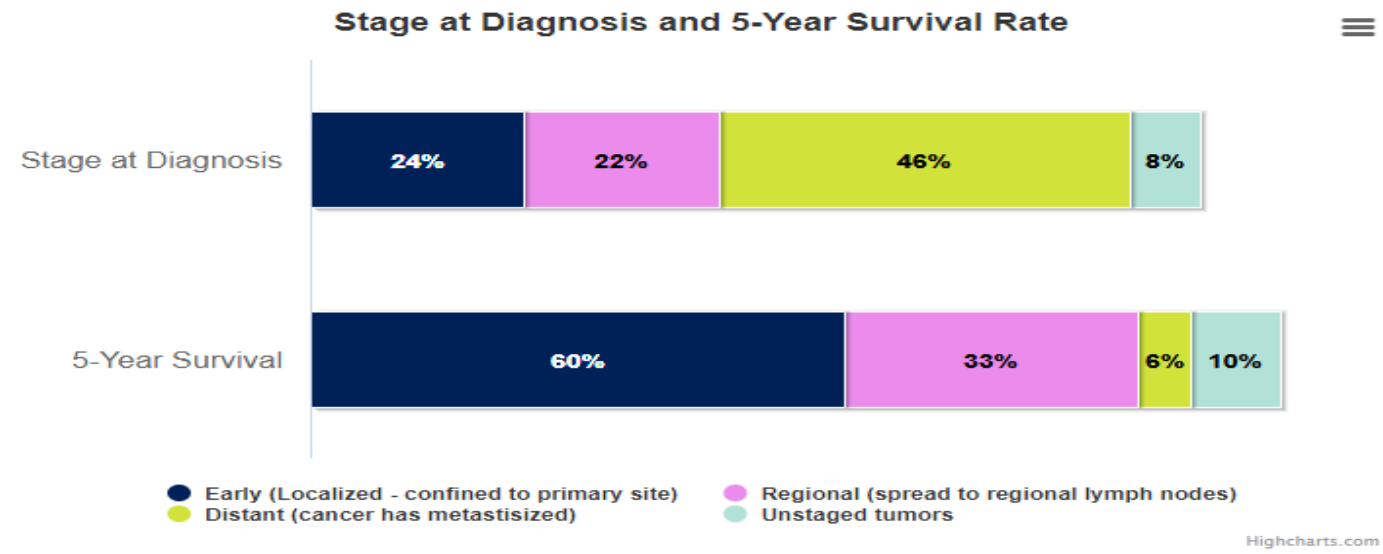


Source = American Cancer Society via National Cancer Institute's SEER database
*Statistics are based on non-small cell lung cancer stages.
Other factors, such as subtypes, can affect an individual's outlook.

New Cases | 5-Year Survival Rate | Stage at Diagnosis

Most lung cancer cases are diagnosed at later stages when the cancer has spread to other organs, treatment options are less likely to be curative, and survival is lower. In general, the earlier that lung cancer is diagnosed, the more likely that treatments will be effective and improve chances of survival.

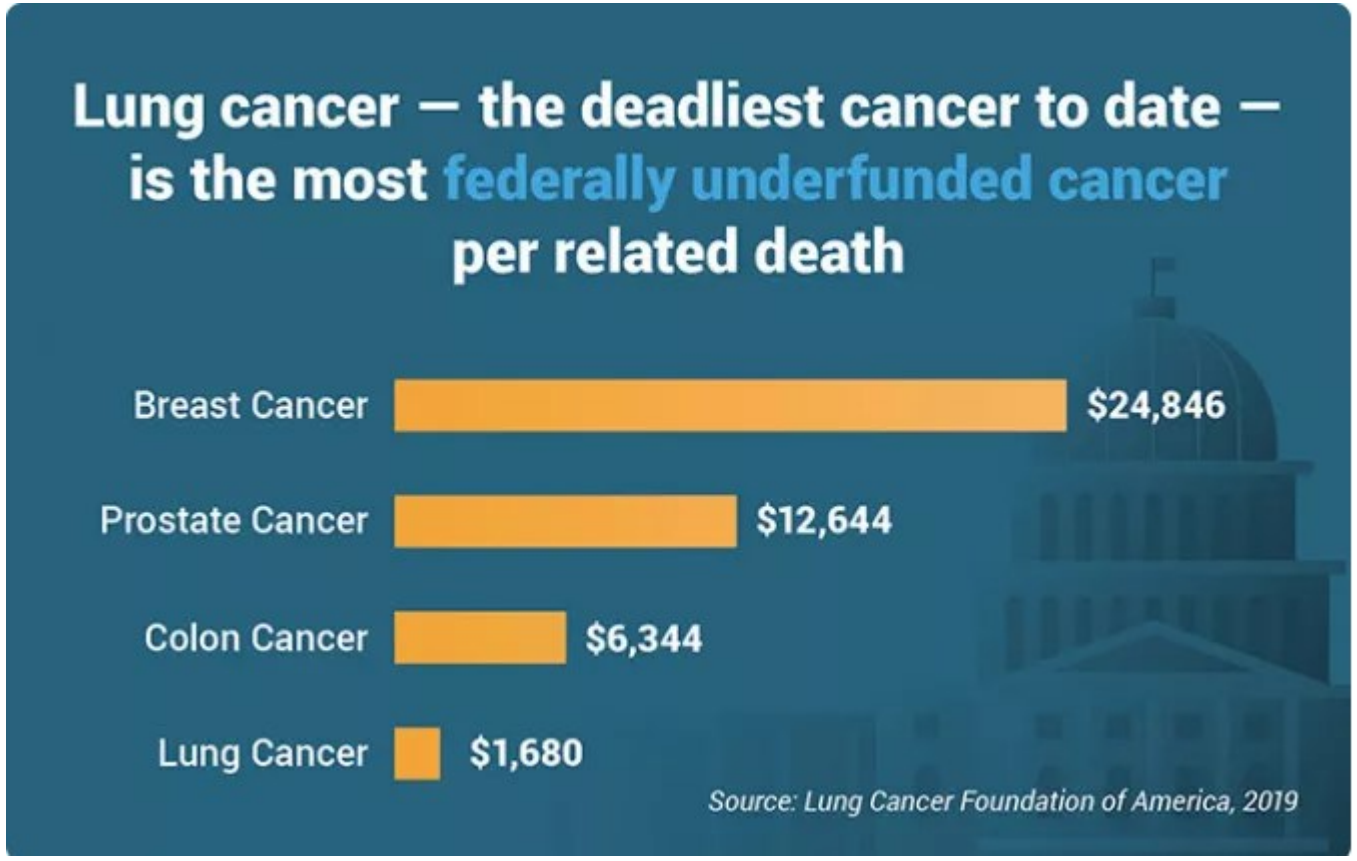
Nationally, only 24% of cases are caught early when the five-year survival rate is much higher (60%). Unfortunately, most cases (46%) are not caught until a late stage when the survival rate is only 6%.



Early Diagnosis:

- **23.6%** of cases are caught at an early stage, which is **significantly lower** than the national rate of 24.5%.
- It ranks **37th** among the 49 states with data on diagnosis at an early stage, placing it in the **average tier**.
- Over the last five years, the early diagnosis rate in Ohio **improved** by **43%**.

Lung Cancer Funding



Why Lung Screening?

- Lung cancer is the leading cause of cancer-related death among men and women
- Worldwide 1.6 million deaths due to lung cancer annually
- United States 234,000 new cases of lung cancer diagnosed yearly
  - 154,000 lung cancer-associated deaths annually
- Clinical outcome for non-small cell lung cancer is directly related to stage at the time of diagnosis
  - Estimated that 75% of patients with lung cancer present with symptoms due to advanced local/metastatic disease no longer amenable to curative surgery
  - 5 year survival rates average 18% for all individuals with lung cancer

Why Lung Screening (cont.)

- Low-dose CT Screening among those at high risk for lung cancer reduces the lung cancer death rate by up to 20%

- Lung Cancer screening is highly cost effective and offering tobacco cessation interventions in combination with screening increases the cost effectiveness by 20% and 45%

What is Screening?

- Screening for cancer means testing for cancer *before* there are any symptoms.

- Screening for some types of cancer has reduced deaths by early detection and treatment. Now there is a test that can reduce death from lung cancer through early detection.

Pros and Cons of Screening

- **Potential benefits of lung cancer screening:**

  Early detection (early stage) ⇨ potential curative surgical resection ⇨ increased survival (decreased morbidity and mortality)

  ? increased smoking cessation rates

- **Potential 'harms' of lung cancer screening:**

  Consequences of evaluating normal findings:

  High risk procedures ⇨ (biopsy, surgery) for likely benign nodules

  Incidental findings ⇨ asymptomatic emphysema, coronary artery disease, thyroid nodules

  Radiation exposure (though we use 'low dose' radiation chest CTs for screening)

  Patient 'distress' ⇨ presence of nodules (likely benign) may cause anxiety related to fear of having lung cancer

Risk Factors

- Tobacco smoking (linked to 80% of lung cancer deaths)
- Contact with Radon
- Contact with Asbestos or other cancer causing agents
- Personal History of cancer
- Family History of Cancer
- History of COPD or pulmonary fibrosis

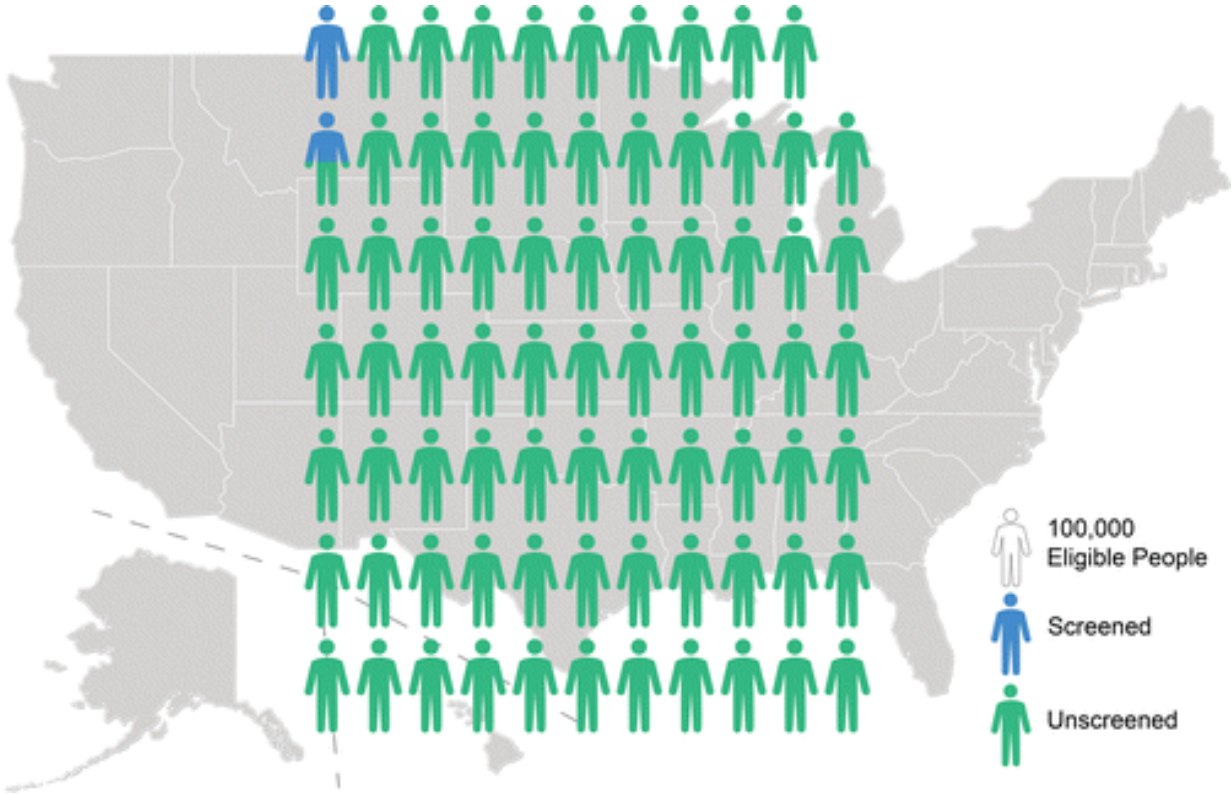
Radon

- Radon is a naturally occurring, invisible, odorless gas that is harmlessly dispersed in outdoor air. But when it is trapped in buildings, it can be harmful at elevated levels.

- Radon is the number one cause of lung cancer among non-smokers, according to the Environmental Protection Agency.

- Historically, **Licking County has the highest radon levels in the state**. Radon test results show nearly three out of four homes in Licking County have radon levels above the EPA action level of 4.0 picoCuries/liter (4 pCi/l) of air, according to the county health department.

- Ohio ranks **47th** among all states at or above the action level recommended by EPA., placing it in the bottom tier.



Lung cancer screening rate in the United States in 2016. A 2018 analysis reported that of an estimated 7.6 million eligible smokers, 141,260 underwent screening in 2016

Lung Cancer Screening Uptake in the U.S.

'Lung Cancer Screening with Low-Dose Computed Tomography in the United States – 2010 to 2015' (JAMA Oncology, 2017)

- According to 2010 National Health Interview Survey (NHIS), **only 2-4%** of high-risk smokers received LDCT for cancer screening in the previous year
- This study examined whether the 2013 USPSTF recommendation for screening had made a meaningful difference

Cancer STATS & FACTS for Ohio
LUNG & BRONCHUS CANCER

November 2020

Who Gets Lung & Bronchus Cancer?

More than **10,000** Ohioans will be diagnosed with lung and bronchus cancer in 2020.

Lung and bronchus cancer is diagnosed in **both men and women** in Ohio.

5,156 | 4,586

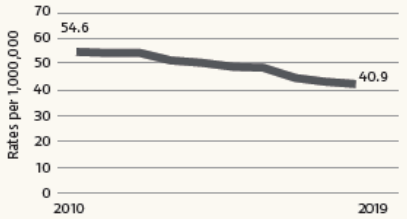
The incidence rate is 36% higher among **men**.

Lung & Bronchus Cancer Deaths

Lung and bronchus cancer is the **#1** cause of cancer-related death.

In the past **10** years, an average of **7,000** people in Ohio have died each year from lung and bronchus cancer.

Lung and bronchus cancer death rates have **decreased 25%** in Ohio from 2010 to 2019.



Finding Lung & Bronchus Cancer Early is Important

About, **44%** of lung and bronchus cancer cases in Ohio were diagnosed at the latest (distant) stage in 2017.

56% of people diagnosed with **local stage** lung and bronchus cancer that has not spread **SURVIVE 5 YEARS.**

5% of people diagnosed with **distant stage** lung and bronchus cancer that has spread to other parts of the body **SURVIVE 5 YEARS.**

More Screening is Needed

The U.S. Preventive Services Task Force (USPSTF) recommends annual screening for lung cancer with low-dose computed tomography (CT) in adults aged **55-80 years** who have a 30 pack-year smoking history* and:

- Currently smoke, or
- Have quit within the past **15 years**.

*USPSTF is proposing annual screening in adults ages **50-80 years** who have a **20 pack-year** smoking history. A pack year is the number of packs of cigarettes smoked per day times the number of years smoked.

Only 1 out of 8 adults who met screening criteria reported a lung cancer screening exam in the past 12 months.

Cancer reports are available on the Cancer Data and Statistics webpage.

Sources: Ohio Cancer Incidence Surveillance System (2017) and Bureau of Vital Statistics (2010-2019), Ohio Department of Health; American Cancer Society; U.S. Preventive Services Task Force.

Ohio Department of Health

Poor Uptake – WHY?

Knowledge of, Attitudes Toward, and Use of Low-Dose

Computed Tomography for Lung Cancer Screening Among Physicians' (*Cancer, Aug 2016*)

American Lung Association
State of Lung Cancer
2021

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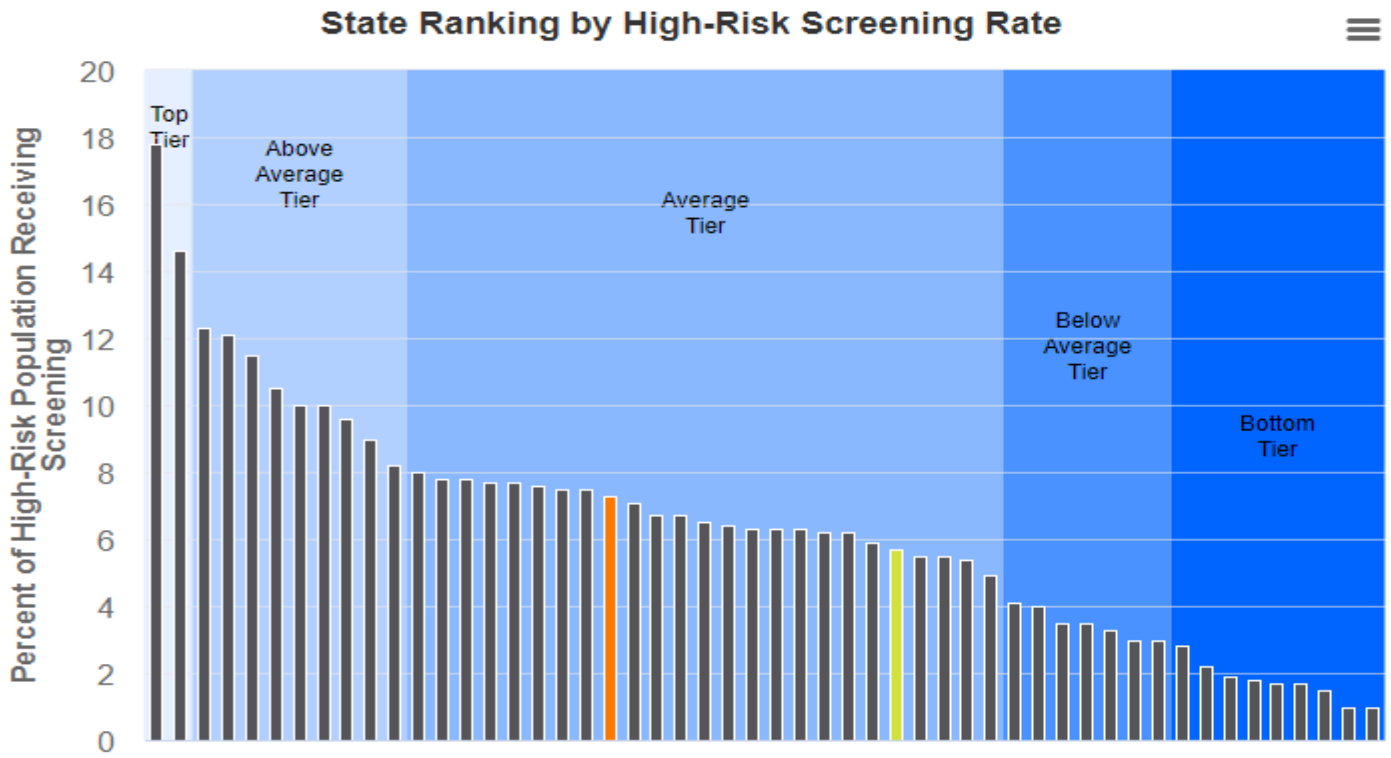
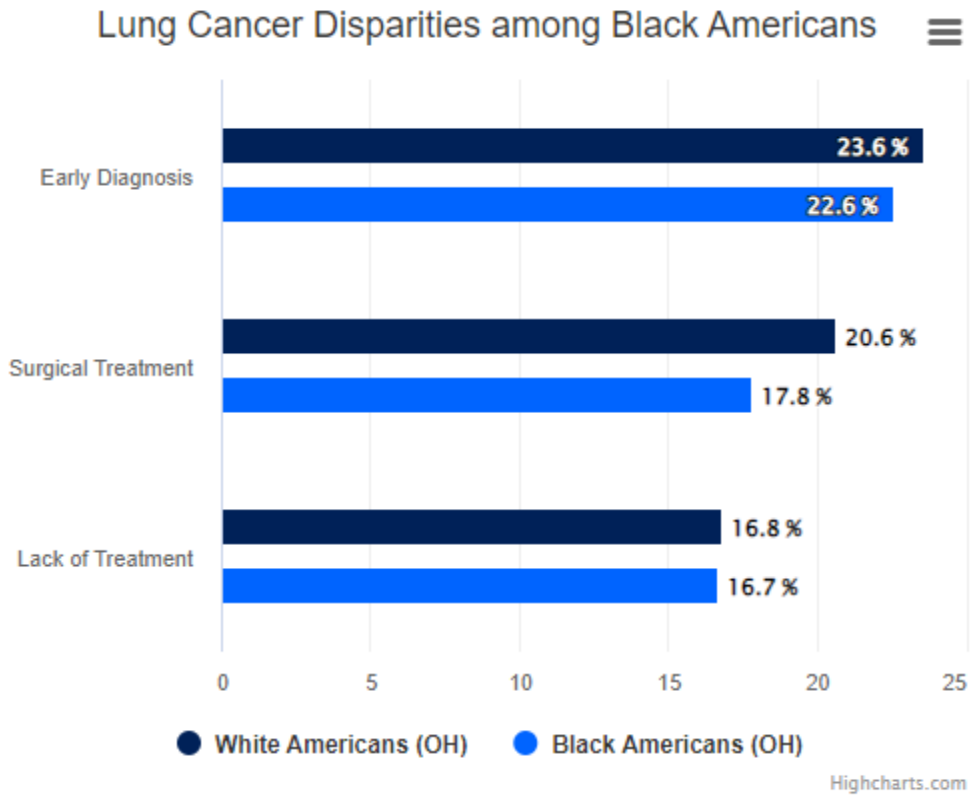


Screening for High Risk:

- In Ohio, **7%** of those at high risk were screened, which was **significantly higher** than the national rate of 6%.
- It ranks **20th** among all states, placing it in the **average tier**.

Racial Ethnic Disparities

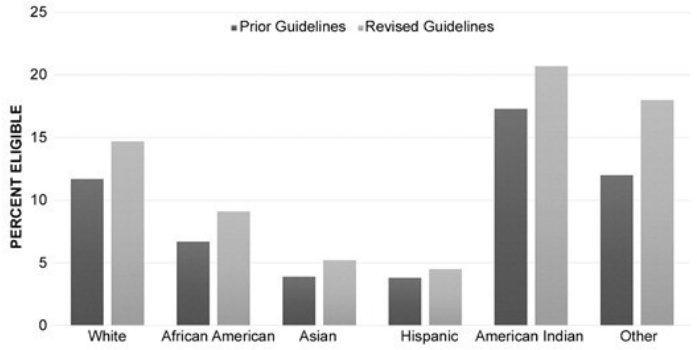


Black Americans:

- The rate of new lung cancer cases is 72 per 100,000 population among Black Americans in Ohio, significantly higher than the rate of 60 among Black Americans nationally, and significantly higher than the rate of 68 among whites in Ohio.
- The five-year survival rate is 22% among Black Americans in Ohio, not significantly different than the rate of 21% among Black Americans nationally, and not significantly different than the rate of 22% among whites in Ohio.
- 23% of lung cancer cases are diagnosed at an early stage among Black Americans in Ohio, significantly higher than the rate of 21% among Black Americans nationally, and not significantly different than the rate of 24% among whites in Ohio.
- 18% of Black Americans with lung cancer in Ohio underwent surgery, significantly higher than the rate of 17% among Black Americans nationally, and significantly lower than the rate of 21% among whites in Ohio.

Racial Ethnic Disparities in Lung Screening Eligibility

Racial and Ethnic Disparities in Lung Cancer Screening Eligibility

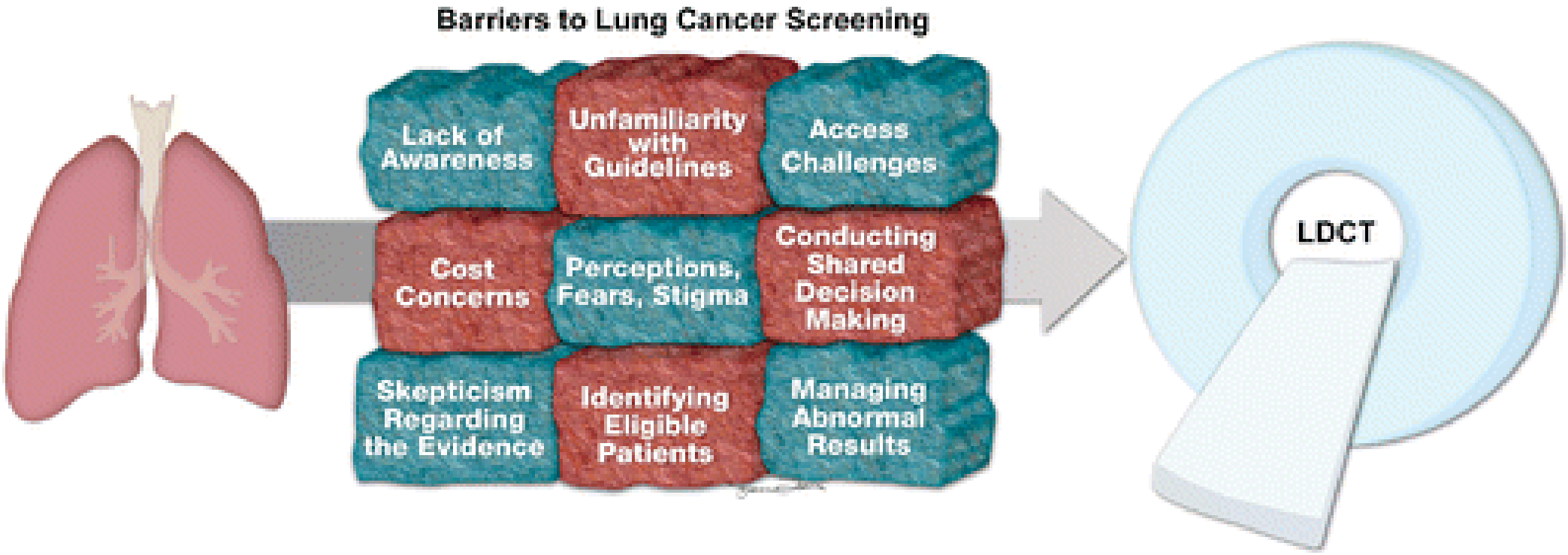


Bar graph shows proportion of survey participants eligible for LCS, stratified according to race and ethnicity under previous and revised U.S. Preventive Services Task Force guidelines.

- Using cross-sectional survey data from the United States, African American participants (adjusted odds ratio [OR] = 0.39) and Hispanic participants (adjusted OR = 0.15) were less likely to be eligible for lung cancer screening (LCS).
- Higher percentages of all racial and ethnic groups were eligible for LCS under the newly adopted LCS guidelines.
- Among participants eligible for LCS, there were no differences between White participants and African American participants (adjusted OR = 1.17; *P* = .66) and between White participants and Hispanic participants (adjusted OR = 1.05; *P* = .93) in their likelihood to report LCS use.

Narayan AK and Chowdhry DN et al. Published Online: September 21, 2021
https://doi.org/10.1148/radiol.2021204691

Radiology


Barriers to Lung Cancer Screening
Lack of Awareness
Unfamiliarity with Guidelines
Access Challenges
Cost Concerns
Perceptions, Fears, Stigma
Conducting Shared Decision Making
Skepticism Regarding the Evidence
Identifying Eligible Patients
Managing Abnormal Results
LDCT

Barriers to LCS

Patients:

- Unawareness of screening programs
- Fear of cancer diagnosis
- Cost concerns
- Access to screening/imaging sites

Physicians/providers:

- Unfamiliarity with screening guidelines/insurance coverage
- Insufficient time/knowledge to conduct shared-decision making
- Lack of guidance for managing lung cancer screening results
- Skepticism about benefits of screening
- Concerns over ‘false positive’ rates

Who is eligible for Lung Cancer Screening?

- 55-77 years of age
- No symptoms of lung cancer
- Current or former smokers with ≥30pack years
- Former smokers who have quit within ≤15 years
- No prior history of lung cancer

USPSTF Lung Cancer Screening Guideline 2013

CLINICAL GUIDELINE | Annals of Internal Medicine

Screening for Lung Cancer: U.S. Preventive Services Task Force Recommendation Statement

Virginia A. Moyer, MD, MPH, on behalf of the U.S. Preventive Services Task Force*

Description: Update of the 2004 U.S. Preventive Services Task Force (USPSTF) recommendation on screening for lung cancer.

Methods: The USPSTF reviewed the evidence on the efficacy of low-dose computed tomography, chest radiography, and sputum cytologic evaluation for lung cancer screening in asymptomatic persons who are at average or high risk for lung cancer (current or former smokers) and the benefits and harms of these screening tests and of surgical resection of early-stage non–small cell lung cancer. The USPSTF also commissioned modeling studies to provide information about the optimum age at which to begin and end screening, the optimum screening interval, and the relative benefits and harms of different screening strategies.

Population: This recommendation applies to asymptomatic adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years.

Recommendation: The USPSTF recommends annual screening for lung cancer with low-dose computed tomography in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery. (B recommendation)

Ann Intern Med. 2014;160:330-338. www.annals.org

For author affiliation, see end of text.

* For a list of the members of the USPSTF, see the **Appendix** (available at www.annals.org).

This article was published online first at www.annals.org on 31 December 2013.

2013 USPSTF Lung Cancer Screening Guideline

Recommendation Summary

Population	Recommendation	Grade
Adults Aged 55-80, with a History of Smoking	The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.	B

Implications of a USPSTF Grade B Recommendation

Grade “B” grade indicates either:

- *high certainty that the net benefit is moderate or moderate certainty the net benefit is moderate to substantial, and that the particular service should be offered or provided*

Patient Protection and Affordable Health Care Act (PPACA) requires private insurers to cover without a co-pay, all medical exams or procedures that receive a grade “B” or higher from the USPSTF

Does not specify that Medicare provides full national coverage

Fall 2013 CMS received 2 requests for a national coverage decision; finalized NCD February 2015

USPSTF Recommendation Grades

Letter grades are assigned to each recommendation statement. These grades are based on the strength of the evidence and the balance of benefits and harms of a specific preventative service.

Grade	Definition
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.

Source: https://www.uspreventiveservicestaskforce.org/uspstf/about-uspstf/methods-and-processes/grade-definitions

Lung Cancer-Leading Cause of Cancer Death

Population	Modalities	Grade
50 to 80 years 20 pack-year history Currently smoking Quit within the past 15 years	Annual screening with low-dose computed tomography (LDCT) Decreases Lung Cancer Mortality 20% Over diagnosis Rate	**B**

USPSTF Evidence Review for 2021: Conclusion

Screening high-risk persons with LDCT can reduce lung cancer mortality and may reduce all-cause mortality but also causes false-positive results leading to unnecessary tests and invasive procedures, overdiagnosis, incidental findings, short-term increases in distress (from indeterminate results), and, rarely, radiation-induced cancers.

The evidence for benefits comes from two RCTs that enrolled participants who were more likely to benefit than the U.S. screening-eligible population and that were mainly conducted at large academic centers, potentially limiting applicability to community-based practice. *(NNS to prevent 1 lung cancer death: NLST 323 over 6 yrs, NELSON 130 over 10 years)*

Application of lung cancer screening with current nodule management protocols (e.g., Lung-RADS) might improve the balance of benefits and harms *(Using Lung-RADS reduces false-positive results compared with the NLST criteria; using Lung-RADS would have prevented about 23 percent of all invasive procedures for false positives in the NLST)*

Use of risk prediction models might improve the balance of benefits and harms, although there remains considerable uncertainty about how such approaches would perform in actual practice because current evidence does not include prospective clinical utility studies.

USPSTF “Recommendations” March 2021

- Adults age 50-80 years of age
- 20 pack year smoking history (packs/day x number of years smoked = pack years)
- Current smoker or have quit within the last 15 years

**Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.*

April 08, 2021

ACR Urges Top National Insurers to Update Lung Cancer Screening Coverage

Share Recommend Bookmark

The American College of Radiology® (ACR®) collaborated with the GO$_2$ Foundation for Lung Cancer and the Society of Thoracic Surgeons to send a letter to the national private insurers (Aetna, Anthem, Cigna, Health Care Services Corporation, and UnitedHealthcare) requesting that the payers update their lung cancer screening (LCS) coverage policies in accordance with the updated United States Preventive Services Task Force (USPSTF) guidelines as soon as possible.

The April 1 letter urged the insurers to update their LCS coverage policies to reflect the USPSTF grade B recommendation that expands annual lung cancer scr with low-dose CT by lowering the start age to 50, and smoking pack-year eligibility criteria from 30 pack-year to 20-pack year. The previous recommendation i individuals age 55 to 80 with a 30 pack-year smoking history.

The Patient Protection and Affordable Care Act of 2010 requires insurers to cover preventive services with an "A" or "B" rating by the USPSTF at no cost to pati However, payers are given up to one year from the start of the next plan year to update their coverage policies when USPSTF guidelines are changed. Given th the updated USPSTF recommendations could have on the population's lung cancer diagnosis and death rate prevalence, the joint letter requests that the insu update their LDCT lung cancer screening coverage policies immediately to save the largest number of lives possible.

Questions about private insurer coverage of LCS should be directed to Katie Keysor, ACR Senior Director of Economic Policy.

American Academy of Family Practice Guideline Update March 31, 2021

Clinical Preventive Service Recommendation

AAFP

AAFP Updates Recommendation on Lung Cancer Screening

Lung Cancer Screening, Adult

Grade: B recommendation

The AAFP supports the United States Preventive Services Task Force (USPSTF) recommendation for annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.

The AAFP has reviewed the evidence and has determined there is sufficient evidence to support a B recommendation for lung cancer screening in adults at increased risk. However, the AAFP acknowledges that the harms from annual screening with LDCT are not well documented at this time and that there are considerable barriers to screening for lung cancer in the community setting. Future research is needed to determine the harms of annual screening with LDCT including overdiagnosis, unnecessary procedures due to incidental findings, and barriers to care among communities of color. (2021)

2021 USPSTF Lung Cancer Screening Guideline

Implications

Doubles the number of people eligible for lung cancer screening

Many more African American & female smokers will be eligible – data show that:

- African Americans and women tend to smoke fewer cigarettes than white men
- African Americans have a higher risk of lung cancer than white people

"New evidence provides proof that there are real benefits to starting to screen at a younger age and among people with a lighter smoking history," says USPSTF member Michael Barry MD *"We can not only save more lives, we can also help people stay healthy longer."*

"Some really good news from the changes to this recommendation is that it will mean more people are eligible for screening, including notably more African Americans and women," says USPSTF member John Wong MD *"Making screening for lung cancer available to people who have smoked less over time will help doctors support the health—and potentially save the lives—of more of their African American and female patients."*

2021 USPSTF Lung Cancer Screening Guideline

Recommendation Summary

Population	Recommendation	Grade
Adults ages 50 to 80 years who have a 20 pack-year smoking history, currently smoke, or have quit within the past 15 years	The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults ages 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.	B

U.S. Preventive Services TASK FORCE

USPSTF Bulletin

An independent, volunteer panel of national experts in prevention and evidence-based medicine

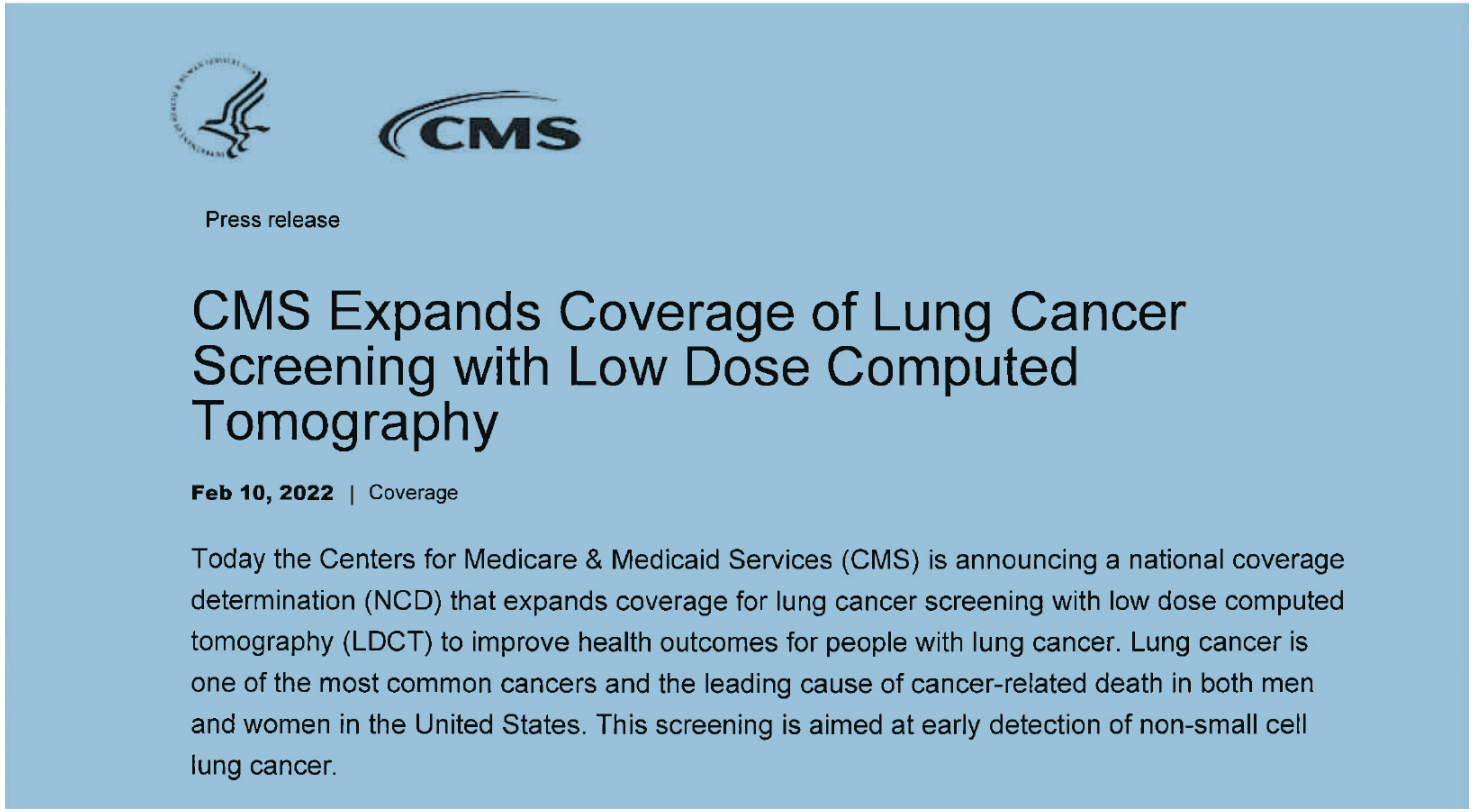
https://www.uspreventiveservicestaskforce.org/uspstf/draft-update-summary/lung-cancer-screening

Payor Implications for Extended Coverage

- With the linkage to the Affordable Care Act, private payors are required to cover lung cancer screening using the updated eligibility criteria up to one year from the start of the next plan year to update their coverage policies when USPSTF guidelines are changed, which will take through as early as March 2022 and as late as March 2023

- A formal request to reopen the Medicare National Coverage Decision (NCD) had already been made in a joint letter from the American College of Radiology, the Society of Thoracic Surgeons and the GO2 Foundation for Lung Cancer

2022 Lung Cancer Screening Coverage



Press release

CMS Expands Coverage of Lung Cancer Screening with Low Dose Computed Tomography

Feb 10, 2022 | Coverage

Today the Centers for Medicare & Medicaid Services (CMS) is announcing a national coverage determination (NCD) that expands coverage for lung cancer screening with low dose computed tomography (LDCT) to improve health outcomes for people with lung cancer. Lung cancer is one of the most common cancers and the leading cause of cancer-related death in both men and women in the United States. This screening is aimed at early detection of non-small cell lung cancer.

Contents

National Coverage Analysis (NCA) | Decision Memo

Screening for Lung Cancer with Low Dose Computed Tomography (LDCT)

CAG-00439R

Expand All | Collapse All

Decision Summary

The Centers for Medicare & Medicaid Services (CMS) reconsidered the national coverage determination established at section 210.14 of the Medicare National Coverage Determinations manual and has determined that the evidence is sufficient to expand the eligibility criteria for Medicare beneficiaries receiving low dose computed tomography (LDCT) when the following criteria are met:

Beneficiary eligibility criteria:

- Age 50 – 77 years;
- Asymptomatic (no signs or symptoms of lung cancer);
- Tobacco smoking history of at least 20 pack-years (one pack-year = smoking one pack per day for one year; 1 pack = 20 cigarettes);
- Current smoker or one who has quit smoking within the last 15 years; and
- Receive an order for lung cancer screening with LDCT.

Counseling and Shared Decision-Making Visit

Before the beneficiary's first lung cancer LDCT screening, the beneficiary must receive a counseling and shared decision-making visit that meets all of the following criteria, and is appropriately documented in the beneficiary's medical records:

- Determination of beneficiary eligibility;
- Shared decision-making, including the use of one or more decision aids;
- Counseling on the importance of adherence to annual lung cancer LDCT screening, impact of comorbidities and ability or willingness to undergo diagnosis and treatment; and
- Counseling on the importance of maintaining cigarette smoking abstinence if former smoker; or the importance of smoking cessation if current smoker and, if appropriate, furnishing of information about tobacco cessation interventions.

Summary 2022 Lung Cancer Screening Eligibility Criteria per CMS

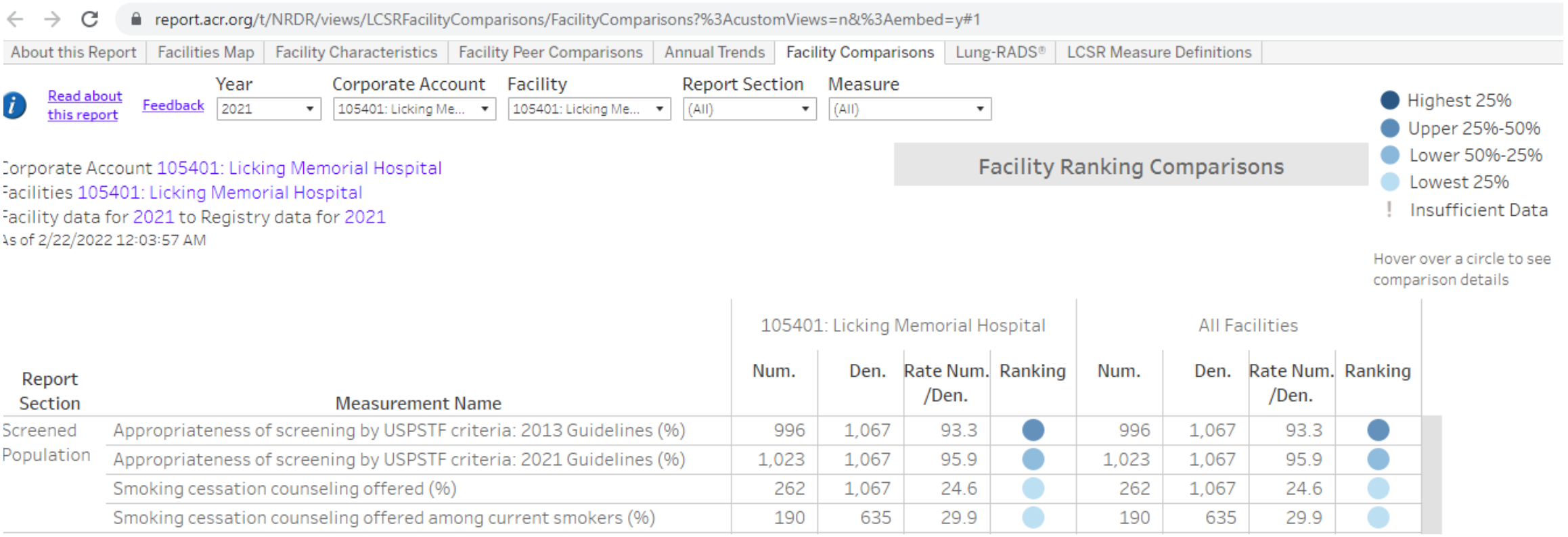
- Age 50-77
- Current smoker or one who has quit within last 15 years
- Asymptomatic (no signs/symptoms of lung cancer)
- Tobacco smoking history (cigarettes only) of at least 20 pack years (One pack-year = smoking one pack per day for one year. One pack = 20 cigarettes)
- Receive an order for lung cancer screening with LDCT
- Shared decision making visit must occur prior to first lung cancer LDCT screening

Racial Ethnic Disparities Persist

- Continued reliance on age and pack year thresholds
- Under new guidelines, 14.7% of whites are eligible for lung cancer screening, compared with 9.1% of African Americans, 4.5% Hispanics and 5.2% of Asian Pacific Islanders
- Need for incorporation of risk models into eligibility guidelines
  - Family history
  - Presence of COPD
  - Social determinants of health (employment, education status, and food insecurity)

Narayan et al, *Radiology 2021 000:1-8*

LCS Licking Memorial Hospital



Report Section	Measurement Name	105401: Licking Memorial Hospital Num.	Den.	Rate Num./Den.	Ranking	All Facilities Num.	Den.	Rate Num./Den.	Ranking
Screened Population	Appropriateness of screening by USPSTF criteria: 2013 Guidelines (%)	996	1,067	93.3		996	1,067	93.3	
	Appropriateness of screening by USPSTF criteria: 2021 Guidelines (%)	1,023	1,067	95.9		1,023	1,067	95.9	
	Smoking cessation counseling offered (%)	262	1,067	24.6		262	1,067	24.6	
	Smoking cessation counseling offered among current smokers (%)	190	635	29.9		190	635	29.9	

Read about this report | Feedback

Year: 2021 | Corporate Account: 105401: Licking Me... | Facility: 105401: Licking Me... | Report Section: (All) | Measure: (All)

Corporate Account 105401: Licking Memorial Hospital
Facilities 105401: Licking Memorial Hospital
Facility data for 2021 to Registry data for 2021
As of 2/22/2022 12:03:57 AM

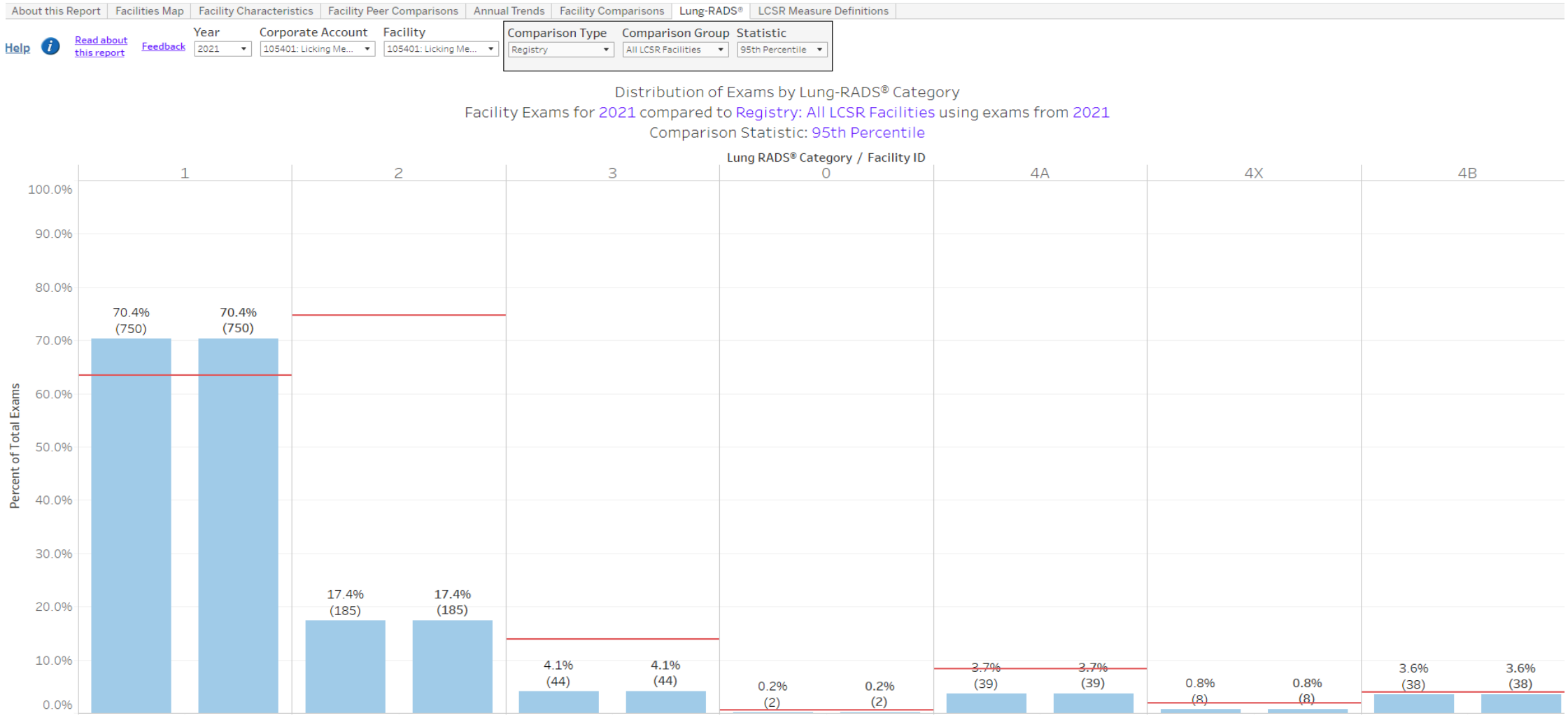
Facility Ranking Comparisons

- Highest 25%
- Upper 25%-50%
- Lower 50%-25%
- Lowest 25%
- ! Insufficient Data

Hover over a circle to see comparison details

Report Section	Measurement Name	105401: Licking Memorial Hospital				All Facilities			
		Num.	Den.	Rate Num./Den.	Ranking	Num.	Den.	Rate Num./Den.	Ranking
	Routine (not Low-Dose) Chest CT - DLP	0	0			0	0		
Results / Outcomes	Abnormal Interpretation Rate (Recall Rate) (%)	129	1,067	12.1		129	1,067	12.1	
	- Recall Rate at baseline exam (%)	50	285	17.5		50	285	17.5	
	- Recall Rate at annual exam (%)	77	773	10.0		77	773	10.0	
	Cancer Detection Rate (CDR) per 1000	14	1,067	13.1		14	1,067	13.1	
	- CDR for prevalent cancers, detected at baseline exam per 1000	6	285	21.1		6	285	21.1	
	- CDR for incident cancers, detected at annual exam per 1000	7	773	9.1		7	773	9.1	
	- CDR with no histology per 1000	14	1,067	13.1		14	1,067	13.1	
	Positive Predictive Value 1 (PPV1) (%)	14	129	10.9		14	129	10.9	
	- PPV1 for lung cancers detected on percutaneous biopsies (%)	4	6	66.7		4	6	66.7	
	- PPV1 for lung cancers detected on bronchoscopies (%)	9	15	60.0		9	15	60.0	
	- PPV1 for surgically detected lung cancers (%)	3	4	75.0	!	3	4	75.0	!
	Positive Predictive Value 2a (PPV2a) (%)	3	83	3.6		3	83	3.6	
	Positive Predictive Value 2b (PPV2b) (%)	11	46	23.9		11	46	23.9	
	Positive Predictive Value 3 (PPV3) (%)	10	16	62.5		10	16	62.5	
	Cancer - Stage 0 (%)	0	15	0.0		0	15	0.0	
	Cancer - Stage 1 (%)	8	15	53.3		8	15	53.3	
	Cancer - Stage 2 (%)	0	15	0.0		0	15	0.0	
	Cancer - Stage 3 (%)	4	15	26.7		4	15	26.7	
	Cancer - Stage 4 (%)	3	15	20.0		3	15	20.0	
	Cancer - Stage Unknown (%)	0	15	0.0		0	15	0.0	

Lung Rads


About this Report
Facilities Map
Facility Characteristics
Facility Peer Comparisons
Annual Trends
Facility Comparisons
Lung-RADS®
LCSR Measure Definitions
Help
Read about this report
Feedback
Year
2021
Corporate Account
105401: Licking Me...
Facility
105401: Licking Me...
Comparison Type
Registry
Comparison Group
All LCSR Facilities
Statistic
95th Percentile
Distribution of Exams by Lung-RADS® Category
Facility Exams for 2021 compared to Registry: All LCSR Facilities using exams from 2021
Comparison Statistic: 95th Percentile
Lung RADS® Category / Facility ID
1
2
3
0
4A
4X
4B
Percent of Total Exams
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
70.4% (750)
70.4% (750)
17.4% (185)
17.4% (185)
4.1% (44)
4.1% (44)
0.2% (2)
0.2% (2)
3.7% (39)
3.7% (39)
0.8% (8)
0.8% (8)
3.6% (38)
3.6% (38)

Best Practices for Communicating About Lung Cancer

Promote patient-provider discussions of lung cancer risk

- Lung cancer risk factors include smoking, secondhand smoke exposure, radon and other environmental exposures such as asbestos, and personal or family history (CDC, n.d.). **Encourage patient-provider discussions of ways to reduce these risks.**

- Familial history of lung or other cancers may increase risk for lung cancer in nonsmokers (Kanwal, Ding and Cao, 2017). **Encourage patient-provider discussions of family history and risk**.

- Having a family history is associated with a higher perceived risk of lung cancer among current or former smokers. This can influence a person's willingness to pursue lung cancer screening (Turner et al., 2021). **Provide information about the link between family history and lung cancer risk.**

- **Radon exposure can increase a person's risk of lung cancer, especially in nonsmokers**. It is estimated that about 20,000-40,000 nonsmokers get lung cancer each year, with 2,900 cases estimated to be associated with radon (CDC, n.d.). **Encourage patient-provider discussions of screening for lung cancer among these individuals.**

Preventing Lung Cancer

- The best way for most people to reduce their risk of lung cancer is to not smoke and also to avoid breathing in other people's smoke.
- Reduce or eliminate radon exposure. Talk to your local Health Department about home testing.
- Avoid exposure to asbestos or other known cancer causing chemicals.
- Follow a healthy diet

American Cancer Society Cancer Estimates 2022

- About 236,740 new cases of lung cancer (117,910 in men and 118,830 in women

- About 130,180 deaths from lung cancer (68,820 in men and 61,360 in women)

    80% are former smokers or have never smoked

Summary

- Despite the early diagnosis rate in Ohio falling into the average tier, the state still has a lot of work to do to make sure that more of those at high risk for lung cancer are screened.

- Ohio falls into the above average tier for percent of patients not receiving any treatment. Some patients do refuse treatment, but issues such as fatalism and stigma can prevent eligible patients from accessing treatment that may save or extend their lives. All patients should work with their doctors to establish a treatment plan and goals.

Key Points

- Early Detection is great, but PREVENTION will always be better (tobacco cessation)
  - LMH “Quit For Your Health” Program
  - 1-800-QUIT-NOW
- New guidelines (age 50-77, 20 pack year smoking history) will expand the screening pool
- Remember, lung cancer screening is ANNUAL (and basically life-long until patient no longer meets criteria)

Lung Cancer Resources

Resource	Description
American Lung Association: Help and Support Resources	A strong support system can positively impact health outcomes. Connect with these resources offered by the American Lung Association, including specific support related to COVID-19.
American College of Radiology	Use the search form to find imagining facilities in your area that are accredited by the American College of Radiology, especially ACR Designated Lung Cancer Screening Centers.
Are You At Risk for Radon?	The CDC released this YouTube video to explain the risks of radon exposure and what people can do to mitigate it.
ASPIRE Network	The Asian American, Native Hawaiian, and Pacific Islander Network to Reach Equity in Tobacco Control and Cancer (ASPIRE) Network aims to build community capacity and facilitate the development of tobacco and cancer policy initiatives among diverse Asian American, Native Hawaiian, and Pacific Islander (AANHPI) communities across the United States. It is funded through the Centers for Disease Control and Prevention's Office on Smoking and Health and the Division of Cancer.

Lung Cancer Resources- cont.

CDC Statistics and Information on American Indian and Alaska Native Populations	Lung cancer is the leading cause of cancer death among American Indian/ Alaska native men and women. Learn more from the CDC about this incidence and possible risk factors.
Comprehensive Cancer Control Webinar Series on Lung Cancer	The American Cancer Society CCC conducted a series of webinars on lung cancer control in 2020. Topics ranged from tobacco cessation to lung cancer screening.
Lung Cancer Atlas	The Lung Cancer Atlas is presented by the National Lung Cancer Roundtable and the American Cancer Society. This atlas offers an interactive geographic view of data pertaining to lung cancer in the USA.
Lung Cancer: A Guide for Patients & Caregivers	Created by Johns Hopkins University, this guide will help patients understand their diagnosis and provide information for patients, family, and loved ones.
National Lung Cancer Roundtable (NLCRT)	The NLCRT is a national coalition of public, private, and voluntary

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