Nearly twice as many patients are now eligible for lung cancer screenings – here is what you need to know

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Sponsored by AstraZeneca in partnership with The Lung Ambition Alliance

In March 2021, the US Preventive Services Taskforce (USPSTF) approved highly anticipated revisions to lung cancer screening recommendations. This is the first update since 2013 when the Task Force initially recommended annual low dose computed tomography (LDCT) lung cancer screening exams for high-risk patients.

The new guidelines nearly double the number of Americans eligible for the lung cancer screening. In particularly good news, the most dramatic increases are among populations with the highest lung cancer mortality and/or those at the highest risk for lung cancer at younger ages, that is, female, Black, and Hispanic patients.

Lung Cancer Screening Recommendations Table[1]

Population	Recommendation	Grade
Adults aged 50 to 80 years who have a 20 pack-year[2] smoking history and currently smoke or have quit within the past 15 years	The USPSTF recommends annual screening for lung cancer with 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.	B

1) The USPSTF is comprised of a panel of independent, volunteer clinicians and scientific experts who review evidence to recommend preventive services. The Task Force assigns a letter grade (A, B, C, D, or I) to preventive services to indicate recommendations. Under the Patient Protection and Affordable Care Act (ACA), private payers are required to cover services rated as “A” or “B” at no cost to their beneficiaries.

2) One pack-year is the equivalent of smoking an average of 20 cigarette (1 pack) per day for a year.

How will lung cancer screening guidelines change?

The screening recommendation of annual LDCT exams remains, but who is eligible for those exams expand in two important ways:

- To younger patients; eligibility will begin at age 50, down from age 55.
- To those with a shorter history of smoking, dropping the number of pack years from 30 down to 20.

Taken together, this increases the eligible population by 6.4 million people or by nearly 90%. The new guidelines have a notable impact on both racial minorities and women. Eligibility increased by 107% in Black adults and 112% in Hispanic adults compared to 78% for white adults, as well as 96% in women compared to 80% in men.

2013 versus 2021 Lung Cancer Screening Guidelines

	2013 Guidelines	2021 Guidelines
Eligibility	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	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
Estimated population	8.1 million people in the US	14.5 million people in the US

Lung cancer is the leading cause of cancer death in the US, accounting for nearly 25% of all cancer deaths. This is partially because patients with lung cancer may remain asymptomatic until late stages, reducing access to potentially curative treatment options.

This increase in eligibility has the potential to improve lung cancer mortality. Based on new trial data and modelling studies, these guidelines could reduce lung cancer mortality by 13.0%, and thereby avoiding 503 lung cancer deaths and contribute to 6,918 life-years gained per 100,000 people.

The harsh reality of lung cancer detection today

Expanded eligibility for lung cancer screening is good news. But an increase in eligibility does not necessarily mean an increase in screening volumes. To meaningfully improve early stage detection, leaders must consider the broader context of lung cancer screening.

Lung cancer screening rates remain dramatically low

In high-risk patients receiving LDCT screenings, clinical trials have demonstrated that annual screenings can reduce lung cancer mortality by 20%. Despite this, lung cancer screening rates remain low with only about 14% of eligible patients receiving the recommended screening exam versus 66% for breast cancer screenings and 69% for colorectal cancer screenings.

Why are screening rates so low? Here are a few of the most common reasons Advisory Board researchers hear from provider leaders:

- Patients, and even some referring providers, are unaware of the screening exam, eligibility, and clinical benefits, and/or have concerns about radiation exposure, overdiagnosis and false-positive scans
- Referring providers and screening programs struggle to track accurate smoking history
- Some patients are hesitant to receive the exam due to stigma around smoking and perceive lung cancer as a personal failure
- Due to geographic spread, some patients are unable to access lung cancer screenings
- Some high-risk and often lower income patients may struggle to cover screening costs out-of-pocket, as only private payers and Medicare are required to cover the exam

Health disparities persist in lung cancer

Disparities[3] in lung cancer screening and, subsequently, cancer outcomes persist. Lung cancer mortality is highest among Black men, and five-times higher among the least educated men compared to the highest educated men. Women also have a higher incidence of lung cancer than men.

Screening disparities can primarily be attributed to eligibility criteria that fails to account for differences in risk related to race, socioeconomic status (SES), or gender. For example, Black Americans, women, and low SES populations were more likely to be ineligible for screening, not meeting minimum age or smoking history criteria, despite demonstrating an overall increased risk for lung cancer.

USPSTF's 2021 recommendation helps address some race and gender disparities. However, these new guidelines will likely have a limited impact on low SES populations due to differences between which insurance providers cover the cost of LDCT screening.

3) Health disparities are defined as the higher burden of illness, injury, disability, or mortality experienced by one population relative to another. These differences are based on unnecessary, avoidable, or unjust socially determined factors including geographic location, race, ethnicity, gender, socioeconomic status (SES), and literacy.

The harsh reality of lung cancer detection today

Insurance coverage doesn't capture critical populations

USPSTF recommendations must be covered by private health plans, and Medicare almost always follows suit. However, Medicaid coverage for preventive services varies from state to state. In fact, only 31 Medicaid fee-for-service programs covered preventive lung cancer screening as of January 2019.

This leaves out two critically important, and often lowest income, populations: those that rely on Medicaid plans and those who are uninsured. This is especially important because belonging to a racial minority, low SES, and poor literacy all increase the likelihood of someone being uninsured. Even more, low SES is correlated with heavier use of cigarettes, making this population particularly important to target for early lung cancer detection.

Put simply, many patients that would benefit most from no-cost LDCT screenings will remain unable to access this potentially life-saving service.

Screening is only one piece of a comprehensive lung cancer detection program

While smoking remains the biggest risk factor for lung cancer, about 12% of diagnoses are in patients with no smoking history according to a recent study. These cases may be identified incidentally, when a pulmonary nodule is detected outside the primary purpose of the scan. In one cancer center, as many as 65% of the nodules referred to the program were detected incidentally versus through screening or presence of symptoms.

As such, we believe a comprehensive lung cancer program should involve two parts: screening and nodule management. To be successful, it is critical that nodule management programs be highly organized with clear and appropriate care pathways for patients with lung nodules to prevent patients from being lost between finding and follow up.

This approach enables programs to both reduce existing barriers to lung cancer screening and address health disparities by identifying patients outside of screening, such as during routine or emergent imaging procedures.

Advisory Board guidance and next steps

01

Improve identification of patients eligible for screening.

- How can you determine how many more patients are eligible in your community based on the updated guidelines?
- Do you have a marketing plan to communicate changes to your target community?

02

Inform providers on early detection pathways.

- Are providers accurately capturing patient smoking history?
- Do providers know where to send patients who meet eligibility criteria?
- How will you educate referring physicians on the updated guidelines?

03

Increase accessibility of screening program.

- What data are you tracking to monitor health equity?
- How will you overcome lung cancer screening disparities in your community? Consider education level, language, socioeconomic status, cultural, and racial barriers.
- Who is responsible for navigating patients through the nodule and screening programs? Do you have enough navigation staff?

04

Hardwire pulmonary nodule management.

- What happens when radiologists identify pulmonary nodules incidentally?
- How are patients and their referring providers (if they have one) notified of the incidental pulmonary nodule (IPN)?
- What guidelines do you follow for IPN referrals and triage?

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The Lung Ambition Alliance, a global coalition with partners across disciplines in over 50 countries, was formed to combat lung cancer through accelerating innovation and driving forward meaningful improvements for people with lung cancer. We do this by advocating for improved approaches in three areas: screening and early diagnosis, accelerated delivery of innovative medicine, and improved quality care.

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US-52810 Expiration Date: 07/09/2022