Lung Cancer Screening in Maine: Eighth Annual Survey Summary

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- St. Joseph Hospital (Bangor)
- St. Mary's Regional Medical Center (Lewiston)

Down East Community Hospital (Machias)

MaineGeneral Medical Center:

- Alfond Center for Health (Augusta)
- Thayer Center for Health (*Waterville*)

MaineHealth:

- Franklin Memorial Hospital (Farmington)
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- Aroostook Medical Center/AR Gould (*Presque Isle*)
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- Eastern Maine Medical Center (Bangor)
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INTRODUCTION

This summary analyzes the findings from the eighth annual Maine Lung Cancer Screening Survey, highlighting the impact of lung cancer throughout the state. With Maine's population of around 1.35 million residents and 3,432 reported cancer deaths in 2020, cancer remains one of the leading causes of death in the state. Annual rates of lung cancer deaths in Maine from 2000-2020 show a steady decline, dropping from a high of 63.5 per 100,000 people in 2002 to 41.0 per 100,000 people in 2020¹ (see Figure 1). Yet, Maine's lung cancer death rates remain significally higher than the U.S. rate of 31.8 per 100,000 (see Figure 1). In 2020, there were 1,404 new cases of lung cancer and 895 deaths related to lung cancer¹. With advances in early detection and treatment of lung cancer, we may continue to see a decline in lung cancer deaths.





United States Preventive Services Task Force

Evidence based guidelines for lung cancer screening have been in place for over a decade. In December 2013, the US Preventive Services Task Force (USPSTF) issued their first recommendation statement on clinical guidelines for lung cancer screening based on evidence and the balance of benefits and harms of the preventive service². Lung cancer screening was given a grade of B, meaning the evidence indicated lung cancer screening low-dose computed tomography (LDCT) shows at least a moderate benefit for people who are eligible. In March 2021, the USPSTF updated their recommendations on clinical

¹ U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2022 submission data (1999-2020): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; <u>www.cdc.gov/cancer/dataviz</u>, released in November 2023.

² ARCHIVED Final Recommendation Statement: Lung Cancer Screening US Preventive Services Taskforce. (2013, December 31, 2013). Lung cancer: Screening. Recommendation: Lung Cancer: Screening | United States Preventive Services Taskforce. Retrieved from https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening-december-2013.

guidelines for lung cancer screening, making significant changes³. Most notably, the minimum age for screening has been lowered from age 55 to 50, and the pack-year⁴ smoking history requirement was reduced from 30 to 20 pack-years. These changes reflect ongoing efforts to enhance the effectiveness and accessibility of lung cancer screening, taking into account evolving evidence and risk factors.

With the initiation of USPSTF's lung cancer screening recommendations in 2013, all Affordable Care Act (ACA) compliant health plans were also mandated to cover lung cancer screening⁵. In most cases, this coverage is required to be 100% covered by the plan. However, it is noted that some services associated with the screening may involve out-of-pocket costs. Under the ACA, cancer screening is considered a preventive service and included under the Act's Minimum Essential Benefits.

| Population | Recommendation | Grade = B |
|---|--|---|
| 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 | The USPSTF recommends 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 | 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. |
| | curative lung surgery. | |

Chart 1. United States Preventive Services Task Force Lung Cancer Recommendations, 2021

METHODOLOGY

Lung cancer screening can be affected by various factors including a person's outlook or readiness, provider practices, and the capacity or limitations of the healthcare system. This survey aims to explore these perceived variables specific to Maine, serving as an opportunity to analyze trends, identify obstacles, and gain insight into the responsibilities of care team members involved in lung cancer screening and navigation. Since 2016, the Maine CDC Comprehensive Cancer Control Program (MCCCP) has conducted an annual survey to determine which facilities in Maine are providing the recommended LDCT lung cancer screening. MCCCP continues to partner with the Maine Lung Cancer Coalition (MLCC) to develop the survey, benefiting from their guidance and expertise in crafting survey questions and establishing connections with facilities.

Each survey has collected core information from the facilities such as demographic information, number of individuals screened, priority populations, and barriers to care. Through collaboration with MLCC, questions have been added and removed each year to refine the survey content. (Refer to Appendix A for the 2024 survey tool.) This year's survey focused on six main areas: 1) priority populations, 2) screening protocols, 3) the volume of baseline screenings, follow-up scans, and diagnostic scans for lung

³ US Preventive Services Taskforce. (2021). Lung cancer: Screening. Recommendation: Lung Cancer: Screening | United States Preventive Services Taskforce. <u>www.uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening</u>. released in March 2021. ⁴National Cancer Institute. (2024, April 25). *NCI Dictionary of Cancer Terms*. Retrieved from <u>www.cancer.gov/publications/dictionaries/cancer-terms/def/pack-year</u>

⁵ American Lung Association. (2021, March 9). *Lung Cancer Screening: Coverage in health insurance plans*. Retrieved April 26, 2024, from www.lung.org/getmedia/3229a1fe-b419-40e3-bb93-58acf60496e5/lung-cancer-screening-coverage.pdf

cancer conducted in 2023, 4) shared decision-making, 5) tobacco referrals, and 6) barriers to accessing care.

On January 30, 2024, the eighth annual Lung Cancer Screening Survey was emailed to 36 imaging centers across Maine. Prior to distribution, the availability of imaging services at each facility was confirmed by phone, and any necessary updates to contact information were made. While some facilities provided imaging services, not all offered lung cancer screening in 2023. However, they were encouraged to participate in the survey and address key questions to identify barriers that could potentially be addressed through staff education, policy, systems, environmental changes, and/or access to relevant supportive resources. All imaging facilities were provided technical assistance and gentle reminders to encourage their participation before the survey closed on March 15, 2024.

SURVEY FINDINGS

Facilities Providing Lung Cancer Screening

Of the 36 facilities contacted, 32 participated in the survey, representing an 88.9% response – a notable 28% increase from last year. Two of these respondents reported combining data from two of their sites. Throughout this summary, the information presented will be drawn from these 32 responses unless otherwise noted. These screening sites cover 14 of Maine's 16 counties, reaching towns from Caribou to York. There were 29 facilities that offered lung cancer screening during 2023, with 15 accredited by organizations such as the American College of Radiology or the GO2 Foundation for Lung Cancer. Ten were unaccredited, and four were unsure of their accreditation status.

Facilities were asked about the types of priority population data they collect to assist in addressing disparities. They were given the option to select one or more answers, if applicable (see Figure 2).





In response, 19 facilities reported collecting data on uninsured or underinsured patients, 18 on race and sexual orientation and/or gender identity, and 15 on veteran status. Only three facilities indicated collecting information on incarcerated or institutionalized individuals, while two reported collecting data on those medically underserved. Ten facilities gathered data on non-English speakers, but none captured information on low literacy. Nine facilities explained that electronic medical record (EMR) limitations or staffing capacity prevented them from collecting data on priority populations, while three were unsure as to why they couldn't collect these data.

A new question pertaining to the availability of lung cancer screening appointments outside of normal business hours (e.g., before 8:00am, after 5:00pm, weekends, and/or holidays) was added to this year's survey. While 13 facilities reported that they did not currently offer this option, 16 facilities responded that they do.

Screening Data

Each year, some facilities have been unable to provide data on baseline, follow-up screenings, and/or positive screenings, while others have not been able to break down their data by sex. Therefore, any of the following data are **only estimates** and may not add up properly due to missing data.

During 2023, there were 27 facilities (out of 32) that reported a total of 9,130 baseline screenings spanning 14 counties (see Figure 3). Among these, 22 facilities provided sex-specific data, indicating that 3,316 males and 2,928 females were screened for lung cancer. Additionally, 24 facilities reported that 9,216 individuals participated in follow-up screenings, 4,421 of which were male and 3,954 were female. There were 19 facilities that collectively reported 264 lung cancer diagnoses. This reflects an increase of 57 percent compared to the 150 reported diagnosis in 2022. Lastly, 12 facilities were able to provide a breakdown of diagnoses by sex, among these, 121 were male and 100 were female.



Figure 3. Approximate Number of Baseline Lung Cancer Screenings by County, Maine, 2023

Lung Cancer Screening and COVID-19

Since the onset of the COVID-19 pandemic, lung cancer screening has been affected by various factors. With the introduction of expanded guidelines from the USPSTF and the adoption of hybrid care strategies, there has been an increase in lung cancer screening rates (see Figure 4). The updated USPSTF screening guidelines offer potential benefits for improving survival rates by detecting lung cancer earlier when treatments are more likely to be effective. This could lead to ongoing reductions in late-stage lung cancer cases in the future, ultimately decreasing both the number of people affected and the number of lives lost to the disease. Figure 4 provides visual data spanning five years of the lung cancer screening survey to illustrate trends in screening before, during, and after the peak of the COVID-19 pandemic.





Shared Decision-Making as Part of Lung Cancer Screening

Shared decision-making (SDM) with a healthcare provider is considered an essential part of any cancer screening. The Centers for Medicare and Medicaid Services (CMS) require a shared decision-making visit for lung cancer screening before the beneficiary's first scan, and eligibility criteria must be met for reimbursement. Due to this, many facilities require a SDM visit for any patients they screen for lung cancer regardless of insurance coverage. Among the 29 facilities currently providing lung cancer screening, 93% (27) confirm patient eligibility prior to screening.

There were 22 facilities in 2023 who reported that SDM visits typically occur with the patient's primary care provider (PCP). However, nine of those facilities also stated that patients could meet with a lung cancer nurse navigator, who collaborates with the patient's PCP through a lung cancer screening program. Furthermore, five facilities mentioned offering SDM visits directly through their screening facility, either in person or virtually, prior to scheduling the patient. One respondent indicated that the SDM visit occurs at a specialty office, such as pulmonology, thoracic surgery, or oncology, while one other respondent was uncertain about where the SDM visit takes place.

After asking about SDM, facilities were further questioned about their utilization of decision support tools to assist patients in making informed choices regarding lung cancer screening. Twenty-three facilities reported using printed materials, 12 mentioned posters, 10 have online decision aids, seven employ patient portal communications, and six utilize educational videos. Two facilities refer to using public service announcements (PSAs), two stated that they do not use any decision aids, and two others were unsure about the tools their facility may use.

When asked about the most helpful patient education and counseling resources to explain the benefits and risks of lung cancer screening, facilities cited printed materials, posters, verbal explanations, and PSAs. Some facilities also noted that straightforward educational literature and videos, as well as materials emphasizing that screening entails more than just lung examination, but rather highlighting it as a comprehensive chest check, resonated most with patients.

Screening and Tobacco Referral

Tobacco treatment is an important aspect of the lung cancer screening process and is part of the SDM visit. Counseling on the importance of tobacco treatment, if a current smoker, and providing information about tobacco interventions for the patient, if appropriate. Of the 29 facilities providing lung cancer screening, 20 reported having a screening protocol that includes a referral to tobacco treatment services. Regarding referrals to tobacco treatment services, nine facilities stated that the referral is typically made by the patient's PCP office, while 11 facilities mentioned referring directly to the <u>Maine QuitLink</u> or other available services. Four facilities stated that they do not refer to services, and five were unsure about their referral process.

Screening Follow-ups

Each of the 29 facilities were asked about their strategies for coordinating appropriate follow-up for patients who had received a LDCT screening. Of these, 25 said they had strategies in place, while two stated they did not, and two others were uncertain. Regarding the responsibility for coordinating follow-up, participants could select multiple options. Among the responses, 24 mentioned using dedicated staff (e.g., PCPs, medical assistants, or nurse navigators), 13 used commercial software EMRs (such as LungView), 11 utilized automated electronic patient reminder systems, nine relied on dedicated lung cancer screening data registries, and three were unsure.

Following this, facilities were asked to provide further insight into who held the primary responsibility for follow-up with both normal and abnormal LDCT scan results.

For normal results: 20 indicated that the referring physician or physician's office had primary responsibility, eight mentioned screening facility staff members (such as physicians, nurses, or medical assistants), and one responded with uncertainty.

For abnormal results: 18 indicated that the referring physician or physician's office had primary responsibility, six mentioned screening facility staff members (such as physicians, nurses, or medical assistants), and four reported a combination of responsibility between the referring office and facility staff. Only one respondent expressed uncertainty.

Reported Barriers to Providing Lung Cancer Screening Services

While many facilities are seeing some reduction in barriers, they haven't completely disappeared, and challenges remain in key areas. The survey focused on issues like insurance coverage, staff capacity, data

tracking tools, patient and provider knowledge or interest in screening, and transportation. The efforts of the MLCC and Maine's Impact Cancer Network have helped to reduce the barriers to lung cancer screening, but there's still room for improvement. (See Figure 5).



Figure 5. Reported Barriers to Lung Cancer Screening, 2023

Although there are slight decreases in the perceived barriers regarding both "lack of provider knowledge or interest" and "lack of patient knowledge or interest" in screening compared to last year's survey, some facilities still see these as moderate or considerable obstacles. Additionally, challenges related to staff capacity and ineffective data tracking tools have been highlighted, with four facilities rating staff capacity as the primary definite barrier. Lack of insurance coverage (or underinsured) and transportation barriers are also considered noteworthy challenges for many facilities.

The American Cancer Society estimates there will be 1,600 new lung cancer cases and 840 lung cancer deaths in Maine during 2024. The rates of late-stage lung cancer in Maine have been steadily declining since 2012 (see Figure 6). The USPSTF's 2021 expanded lung cancer screening guidelines opens this service up to more individuals essentially doubling the number of people now eligible.⁶ This could improve survival rates by finding lung cancer earlier when treatment may be more successful and may lead to continued declines in late-stage lung cancer in the future, decreasing both morbidity and mortality in Maine.

⁶ Potter AL, Bajaj SS, Yang CJ. *The 2021 USPSTF lung cancer screening guidelines: a new frontier*. The Lancet, 2021; 9(7):689-691. Available at: <u>https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(21)00210-1/fulltext?rss=yes</u>



Figure 6. Annual Rates of Late-Stage Lung Cancer Diagnoses in Maine, 2011-2021

The information provided in this summary reflects the responses from 29 screening facilities providing LDCT lung cancer screening in Maine during 2023, and highlights the strides made in Maine's lung cancer screening programs. Despite facing challenges such as insurance coverage and gaps in awareness, these facilities have played a pivotal role in both the accessibility and effectiveness of lung cancer screening services statewide. Overcoming these challenges requires collaboration involving not only the screening facilities, but also a diverse array of stakeholders, including medical professionals, patients, cancer coalition members, and other partners. By promoting shared decision-making and integrating comprehensive support services, collaboration may aid in lessening disparities in accessing quality care, thus increasing screening rates and reducing the burden of lung cancer in Maine.

Lung Cancer Screening Survey – 2024

The Maine CDC Comprehensive Cancer Control Program (MCCCP) in collaboration with the Maine Lung Cancer Coalition (MLCC) has been collecting information from lung cancer screening facilities in Maine since 2016. The information is used to monitor emerging practices, barriers, and the extent of availability of lung cancer screening across the state.

This survey is asking for information about screening for lung cancer at your facility during the calendar year 2023.

If your facility did provide lung cancer screening during 2023, having your screening data readily available before you begin may help to expedite the survey. If your facility is <u>not</u> currently providing lung cancer screening, we would still appreciate your responses to a few of the questions (the survey will skip over the screening questions if done electronically).

The MCCCP continues to collaborate with the MLCC to reduce the number of surveys and questions asked of lung cancer screening facilities. All information from the survey will be shared with both organizations, but identifiable information will not be shared or distributed outside of these two groups.

GENERAL INFORMATION

| 1. Contact Information | | |
|------------------------|--|--|
| Your Name: | | |
| Job Title: | | |
| Email: | | |
| Phone: | | |

2. Are you reporting for more than one facility?

- □ Yes
- □ No

3. Facility Information

 Name of facility ______

 Address: ______

 City/town: ______

 County ______

4. How long has your facility been providing lung cancer screening?

- 1 year
- □ 2-4 years
- □ 5-9 years
- □ 10+ years
- Unknown
- □ None of the above

5. Did this facility provide lung cancer screening during 2023? (If you are reporting on multiple sites, please complete the additional facility information pages before proceeding.)

- Yes
- □ No (Please skip to question number 23 on page 8.)

6. Does this facility offer lung cancer screening appointments outside of standard business hours?

(e.g., before 8:00am, after 5:00pm, weekends, etc.)

- 🗆 No
- □ Yes (please specify)

7. Does your facility utilize a Patient Navigator of some other designated staff person to coordinate and manage LDCT screening activities? (*e.g.*, determination of screening eligibility, shared decision-making counseling, scheduling, and follow up?)

- □ Yes, <12 hours per week
- □ Yes, 24-32 hours per week
- □ Yes, 40+ hours per week
- □ No (If your answer is "No," please skip to question ___.)
- □ Unknown Please skip to question ___.)
- □ Other: _____

SCREENING DATA

Please provide the data from your facility for the questions below to the best of your ability (even if this means making a good faith estimate).

8. How many <u>baseline</u> screening LDCTs were performed at your facility in 2023? (NOTE: do not include 6-month follow-up LDCTs performed in response to an abnormal finding on a screening CT.)

Total _____

Males _____

Females _____

9. How many annual <u>follow-up</u> screening LDCTs were performed in 2023 at your facility? (NOTE: do not include 6-month follow-up LDCTs performed in response to an abnormal finding on a screening CT.)

Total _____ Males _____ Females

10. How many screening LDCTs resulted in a lung cancer diagnosis at your facility in 2023?

Total _____

Males_____

Females _____

REPORTING LUNG CANCER SCREENING

10. Is your healthcare system accredited for LDCT screening?

- □ Yes, by the American College of Radiology
- □ Yes, by the GO2 Foundation for Lung Cancer (Screening Center of Excellence)
- □ No
- Unknown
- □ Other (please specify)

11. Does your healthcare system submit data to the American College of Radiology Lung Cancer Screening Registry?

- Yes
- □ No
- Unknown

12. Does your healthcare system face any barriers surrounding lung cancer screening data submission?

- □ Staffing Limitations
- EMR Limitations
- □ Time Limitations
- Unknown
- None
- □ Other (please specify)

SHARED DECISION-MAKING

Please answer the following questions about your facility's protocols for shared decision-making.

13. Where does the shared decision-making (SDM) visit take place?

- □ At primary care office prior to scheduling scan
- □ At our screening site prior to scheduling scan
- □ At our screening site on the same day as the scan
- □ Other (please specify)

14. Which healthcare provider has primary responsibility for conducting the shared decision-making visit with the patient?

- □ Primary care provider
- □ Another clinician (such as a specialty office)
- □ Clinician or other staff member affiliated with the LDCT screening program (Nurse Practitioner, Patient Navigator, etc.)
- □ Other (please specify)

15. Does your health system provide any type of "decision aid" or decision support tool (e.g., written material, software, or web-based program) to patients to help them decide about LDCT screening?

- Printed Materials
- Posters
- Educational Videos
- Patient Portal Communications
- Online Decision Aid
- Public Service Announcement(s)
- □ Unknown (If your answer is "Unknown," please skip to question ___.)
- □ None of the above (Please skip to question ___.)
- □ Other (please specify)

16. Which patient education and counseling resources would be most useful to help patients understand the benefits and risks of lung cancer screening?

17. Is screening eligibility determined before the patient is screened for lung cancer?

- Yes
- □ No
- Unknown

SCREENING AND TOBACCO REFERRAL

Please answer the following questions about lung cancer screening and follow-up at your facility.

18. If people who use tobacco are screened for lung cancer, does the screening protocol include a referral to tobacco treatment services?

- □ Yes, through their primary care office
- □ Yes, through our screening facility
- □ No (If your answer is "No," please skip to question ___.)
- □ Unknown (If your answer is "Unknown," please skip to question ___.)
- □ Other:

19. Is there a standardized process or care pathway for coordinating appropriate follow-up for patients who have received LDCT screening?

- Yes
- □ No
- Unknown

20. How is appropriate follow-up care coordinated for patients who have received LDCT screening?

(Please select all that apply)

- Designated staff person (e.g., nurse, medical assistant, patient navigator)
- □ Commercial software program (e.g., LungView) or electronic health record (EHR) tool (e.g., Epic Radiant)
- Dedicated lung cancer screening data registry
- □ Automated (electronic) patient reminder system
- Unknown
- □ None of the above
- □ Other (please specify)

21. Who has primary responsibility for coordinating appropriate follow-up for patients with <u>normal</u> LDCT scan results?

- □ Referring physician (e.g., primary care physician)
- □ Facility staff person (e.g., physician, nurse, medical assistant, patient navigator)
- Unknown
- □ Other (please specify):

22. Who has primary responsibility for coordinating appropriate follow-up for patients with <u>abnormal</u> LDCT scan results?

- □ Referring physician (e.g., primary care physician)
- □ Facility staff person (e.g., physician, nurse, medical assistant, patient navigator)
- Unknown
- □ Other (please specify)

PRIORITY POPULATIONS

23. Does your electronic medical record capture any of the following priority population information?

- □ Uninsured or underinsured
- □ Incarcerated or institutionalized
- Medically underserved
- Race
- □ Sexual orientation or gender identity
- Low literacy
- □ Non-English speaking
- Veteran status
- □ Our facility does not currently collect data on any priority populations

24. What are the barriers to collecting priority population information at your facility?

FINAL QUESTIONS

There are barriers to lung cancer screening that may preclude your facility from being able to provide lung cancer screening. On the other hand, if your facility is providing lung cancer screening, there can still be barriers that make the work challenging. Whichever category your facility falls into, please provide answers to the following topics on barriers to lung cancer screening from your facility's perspective.

What are the greatest barriers to lung cancer screening, and the degree to which each is a barrier?



25. Lack of insurance coverage for patients

30. Lack of transportation for patients



32. Is there anything you would like to add?

Thank you for participating in the survey!