HOW TO START A LUNG CANCER SCREENING PROGRAM:
Finding Lung Cancer Early Saves Lives

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Delivering Excellence in Responsible Screening

MOFFITT CANCER CENTER

2025 FLASCO EARLY LUNG CANCER SUMMIT
January 24-25, 2025

Moffitt Cancer Center Overview

Mission:
Moffitt is dedicated to one lifesaving mission: to contribute to the prevention and cure of cancer.

National Cancer Institute-designated:
Moffitt is one of only 51 Comprehensive Cancer Centers, a distinction that recognizes scientific excellence, multidisciplinary research, and robust training and education.

Team:
With more than 7,500 team members, Moffitt provides comprehensive treatment for over 60 cancer types and is home of Florida's largest clinical research unit with more than 450 clinical trials

Impact:
Serving ~70,000 patients annually, Moffitt has an economic impact in the state of $2.4 billion.

Disclosures: None

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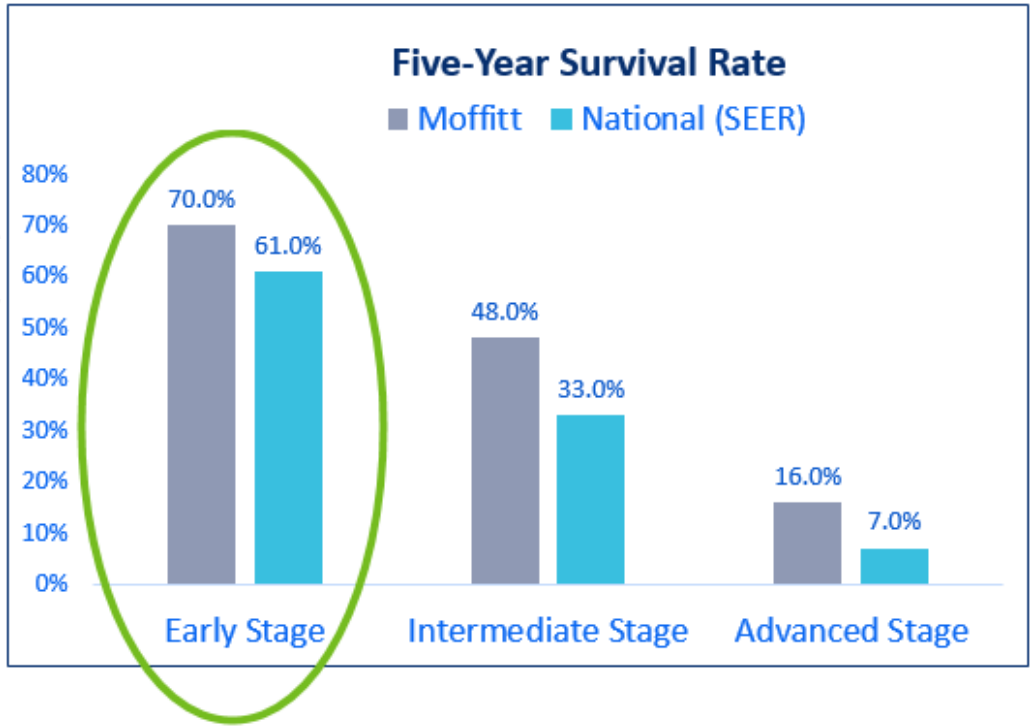
LEARNING OBJECTIVES

At the conclusion of this activity, participants will be able to:

1. Appreciate the rationale for lung screening and why a screening program is important.
2. Understand the basics of how to organize your screening program.
3. Realize the challenges in recruiting high-risk people to undergo screening.
4. Recognize ways to expand your program with educational outreach and community involvement.
5. Grasp the importance of having a plan to follow-up on positive lung screens.

Lung Cancer: The Deadly Problem

- 236,000 new lung cancer cases yearly—130,000 will die from the disease (~1 person every 4 minutes).
- Yearly deaths equals next 3 cancers combined. (pancreas 50.5k, breast 43.7k, prostate 34.7k)
- 1 of every 16 people will get lung cancer.
- Never smokers with lung cancer: 25% ♀ & 10% ♂
- Only 24% are diagnosed early when survivals are highest.



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Why is Lung Screening Important?

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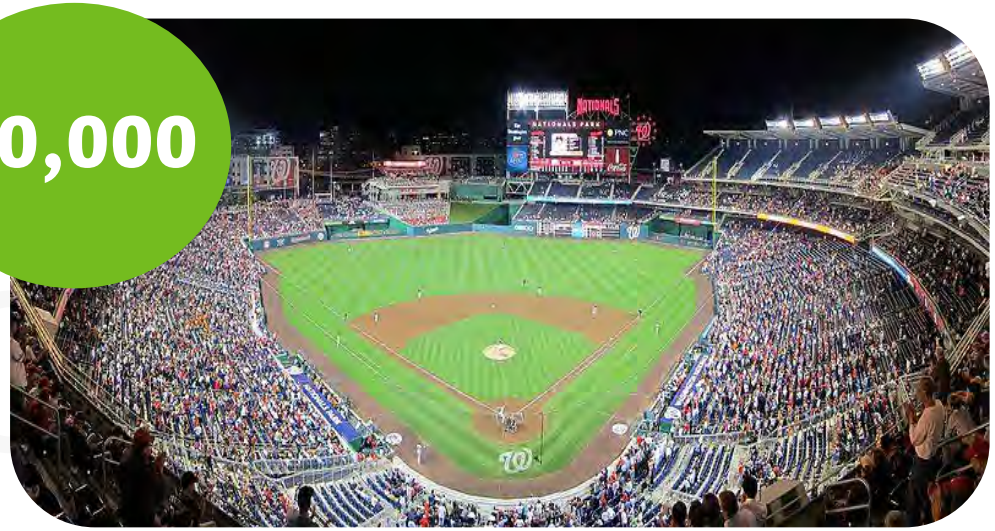
LOW DOSE SCREENING CHEST CT SCANS (LDCT):

The only proven way to find early-stage lung cancer and improve cure rates

14.5 million

people are eligible for screening – *more people than reside in the state of Pennsylvania*

80,000



lives could be saved per year if every eligible person were screened – *more than **twice** the number of people that can be held in the Washington Nationals Stadium*

% Eligible people who are screened for:
Breast: 76%, Colon: 67%, Prostate: 40%, Cervical: 75%

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Screening Chest CT Scans

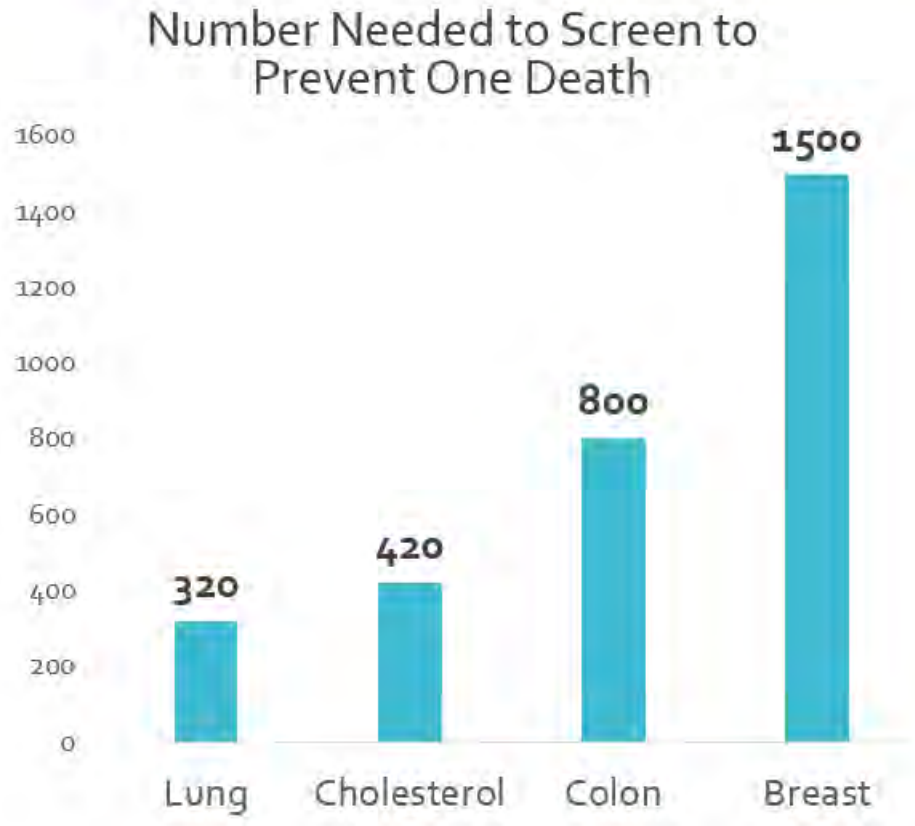
Approximately 14.5 million Americans (4.5% of total population) are candidates for screening and only 16% obtain them (2024 Amer. Lung Association data).

Therefore, for Florida with a population of 23 million, over 1 million are candidates for screening.

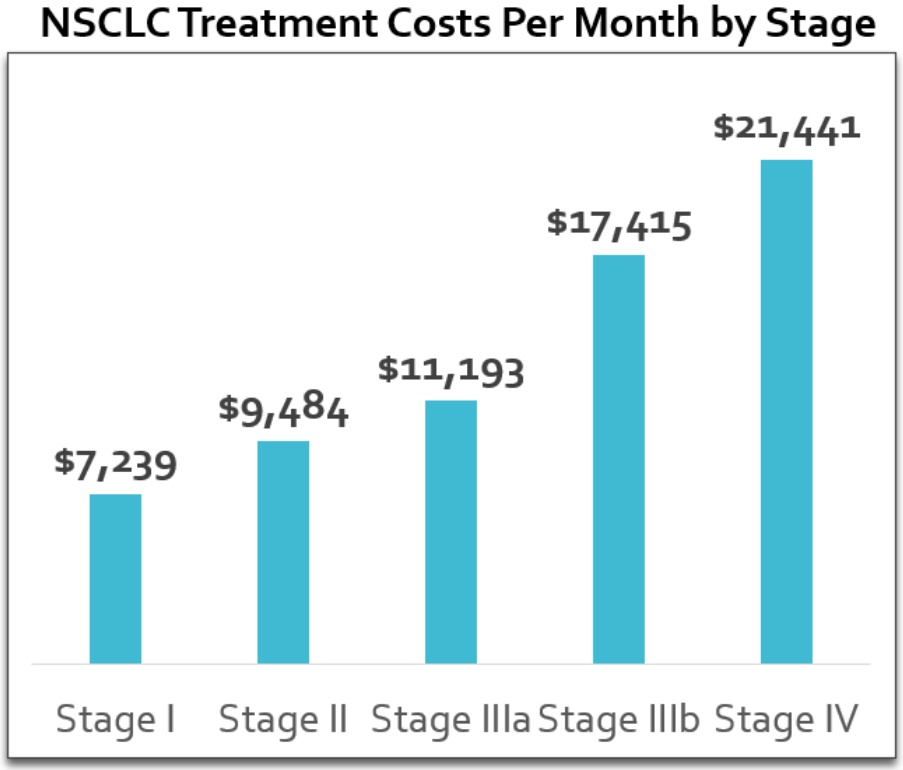
Currently, there are 19,560 new lung cancer cases yearly in Florida and only 23% or 4,500 will be cured.

Low Dose CT Screening for Lung Cancer is Effective

320 people need to be **screened** to prevent one lung cancer death



AND IT IS FAR CHEAPER TO TREAT AN EARLY-STAGE LUNG CANCER FOUND BY SCREENING!



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Lung Screening Program

Understand:

1. A lung cancer screening program ≠ lung CT screening.
2. A screening program will not pay for itself directly.
3. The positive cash flow is from downstream revenue.

Moffitt's Lung Screening Program

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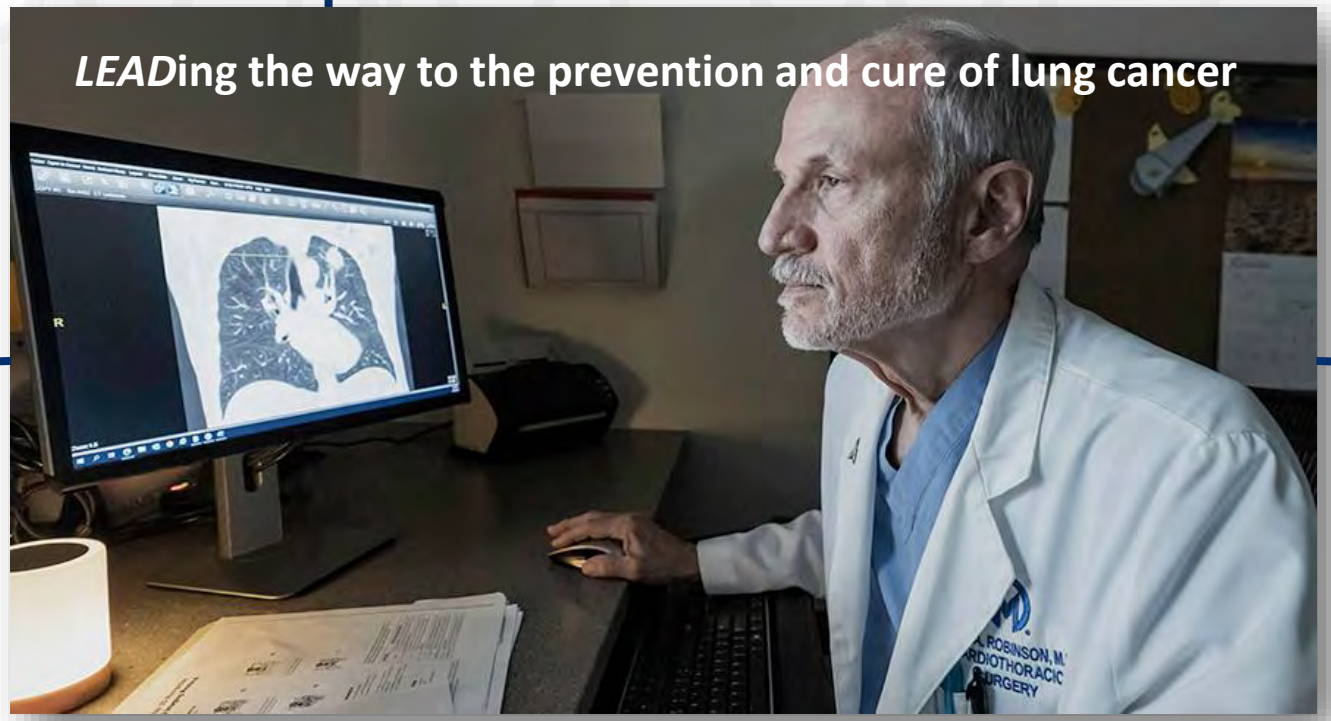
Moffitt's Lung Cancer Early Detection (LEAD) Center

Lung Screening Clinic

Mobile Lung Screening Unit

Lung Nodule Clinic



Surveillance Clinic

Moffitt.org/LungCancerEarlyDetectionCenter

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MCC's Lung Cancer Screening Program Overview

Program Insights

- Developed in 2012 as research protocol
- Currently housed in Thoracic Oncology
- Accredited by the American College of Radiology and GO2 Foundation as a Center of Excellence

Lung Screening Program Steering Committee

- Thoracic Surgery
- Medical Oncology
- Radiology
- Epidemiology
- Tobacco Specialists
- Research
- Physician Liaisons
- Diversity Outreach
- Marketing
- Public Relations

Vision: Provide a comprehensive lung screening program that streamlines patient management and continuity of care from screening to treatment

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Lung Screening Program Key Stakeholders

Medical Director

Lary Robinson, MD
Cardiothoracic Surgeon

Navigator/
Community Outreach

Emily Matthews, BA
Community Relations

Stephanie Wright
Lung Screening Coordinator

Shared Decision Making

Deanna Grubbs, PA-C
Thoracic Oncology APP

Results/
Clinical Coordinator

Bernadette Shields, RN
Thoracic Clinic Manager

MCC's Lung Cancer Screening Program Overview

IDENTIFICATION

- Moffitt Providers
- Community Providers
- Self Referrals

LUNG SCREENING PROGRAM

- Confirm eligibility
- Conduct shared decision-making visit (if needed)
- Provide smoking cessation counseling with Licensed Specialists
- Offer 3 screening sites with weekend and afternoon availability, in addition to Moffitt's Mobile Lung Screening Unit
- Review of findings by Thoracic Radiologist
- Expedite abnormal findings to multidisciplinary tumor board for review
- Coordinate subsequent orders and diagnostic procedures
- Call patient with results and schedule annual exam or schedule patient with abnormal findings to see a thoracic provider
- Provide feedback to referring providers

TREATMENT

- Surgery/ Chemo/ Radiation
- Pulmonology
- Community Providers

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Moffitt's Lung Nodule Clinic

- A clinic dedicated to evaluate and manage patients with pulmonary nodules for diagnosis of possible early stage, potentially-curable lung cancer. Patients DO NOT need a definite lung cancer diagnosis to be seen at Moffitt!
- Target providers for referrals: Internists, family practice, pulmonologists, oncologists, multi-specialty groups (FMC, FCS, etc.)
- Reassure referring providers the Lung Nodule Clinic will take full responsibility for evaluation/follow-up of their patient's nodule.
- Reassure the referring provider that they continue to see the patient for all other health care needs.
- Target patients:
  - Newly discovered indeterminant (no tissue diagnosis) lung nodules.
  - Clinic visit offered within *one week* of initial contact.
  - Follow-up may be handled by virtual visits.

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“Big Blue” Hit The Road November 2024

Mobile Lung Screening Team

Bus Driver
CT Radiology Technician
Registration Specialist

Moffitt follows the NCCN criteria for Lung Cancer Screenings:

50 years+
Current or former smoker
20-pack year history

Operations

- Min 6 patients per day, max 15
- Patients must be pre-registered
- Patient arrives 15 minutes early
- Bus Driver greets patient
- Coordinator checks in patient
- Paperwork signed & expectations set
- Patient gets screening & exits the unit
- Results received by phone call within 5 business days

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Moffitt's Mobile Lung Screening Unit

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Strategies to Overcome Program Challenges

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Challenges in the Utilization of Lung Cancer Screening

Program Level

- Lack of organizational buy-in
- Uncertain return on investment
- Requires multidisciplinary collaboration

Provider Level

- Misinformation in the effectiveness of screening
- Limited training in Shared-Decision Making
- Management of results and coordination of care

Community & Patient Level

- Lack of awareness
- Cost and insurance concerns
- Adhering to annual screenings

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Creating Buy-In

Untapped Market:

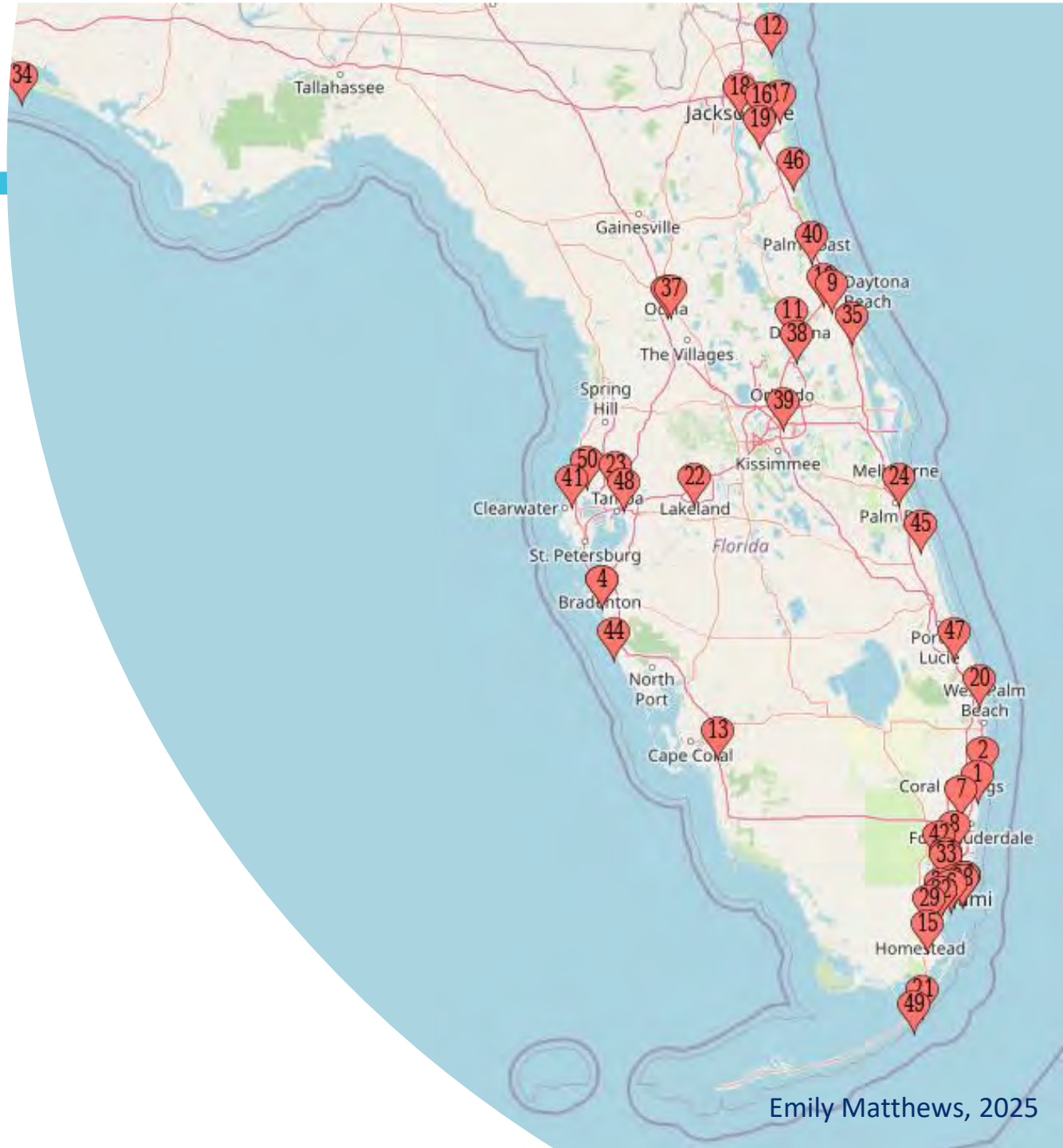
- Only 15.9% of Floridians considered high-risk for developing lung cancer receive annual screening
- The 2021 United States Preventive Service Task Force recommendations expands eligibility to an additional 14.5 million Americans, an increase of 81%.
- Geographical gaps in access to GO2 Center of Excellence screening centers

Down Stream Revenue:

- Down stream revenue associated with diagnostic workup, incidental findings, and treatment costs.

<u>Moffitt's Strategy to Creating Buy-In:</u>

- Demonstrated need for screening program with data and benefits of early-detection
- Involved patients and community in discussions
- Aligned program with Moffitt's goals and values, engaging leadership
- Secured donation and funding from federal, state levels, and community



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Return on Investment

Significant Initial Investment Costs:

- Salary support (nursing, navigator, etc.)
- Imaging infrastructure
- Software
- Marketing

Direct Revenue:

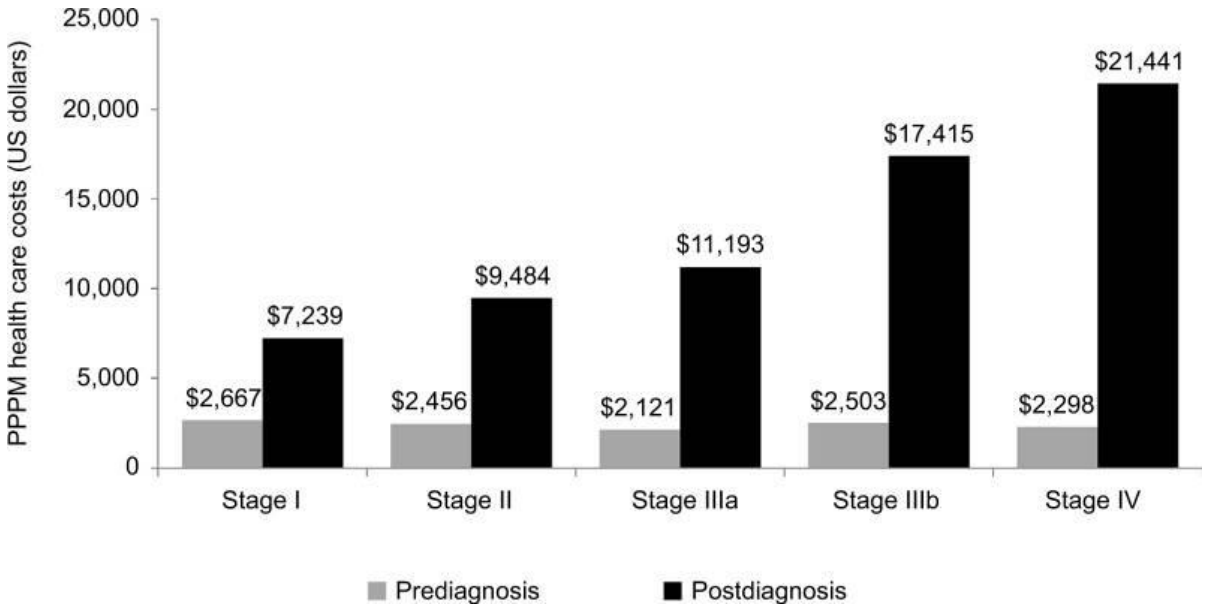
- Reimbursement for LDCT imaging
- Shared Decision-Making Counseling
- Smoking Cessation Counseling

Downstream Revenue—*The Key to Being Revenue Positive:*

- Diagnostic Workup (imaging, PET, biopsy, etc.)
  - >4% of lung screenings will have a Lung-RADS 4
- Treatment (doctor, hospital, pharmacy)
  - 15% of cases requiring workup will result in cancer diagnosis

Treatment Costs by Stage for NSCLC, 2007-2011

Data Source: Optum Health Research Database (n=1,507)



Key Takeaway:

- Diagnostic costs for a single patient is ~$2,400/month
- Treatment costs are significantly higher for patients with Stage IV lung cancer ($21,000/month) compared with Stage I lung cancer ($7,000/month).

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Multidisciplinary Collaboration

Moffitt's Strategy to Multidisciplinary Collaboration:

Lung and Thoracic Tumor Education (LATTE) Program

The program explores ways to develop and promote a formal means for Patient Advocacy whereby patients, providers, and family members are actively involved in the decision-making processes that govern thoracic oncology programs. Through advocacy, support, education and community outreach, the Lung and Thoracic Tumor Education program serves as the collective voice of actively involved individuals who share their personal and professional expertise to contribute to the prevention and cure of lung cancer.

Strategies to Overcome Provider Challenges

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Challenges in the Utilization of Lung Cancer Screening

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Provider Level

- Misinformation in the effectiveness of screening
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- Management of results and coordination of care

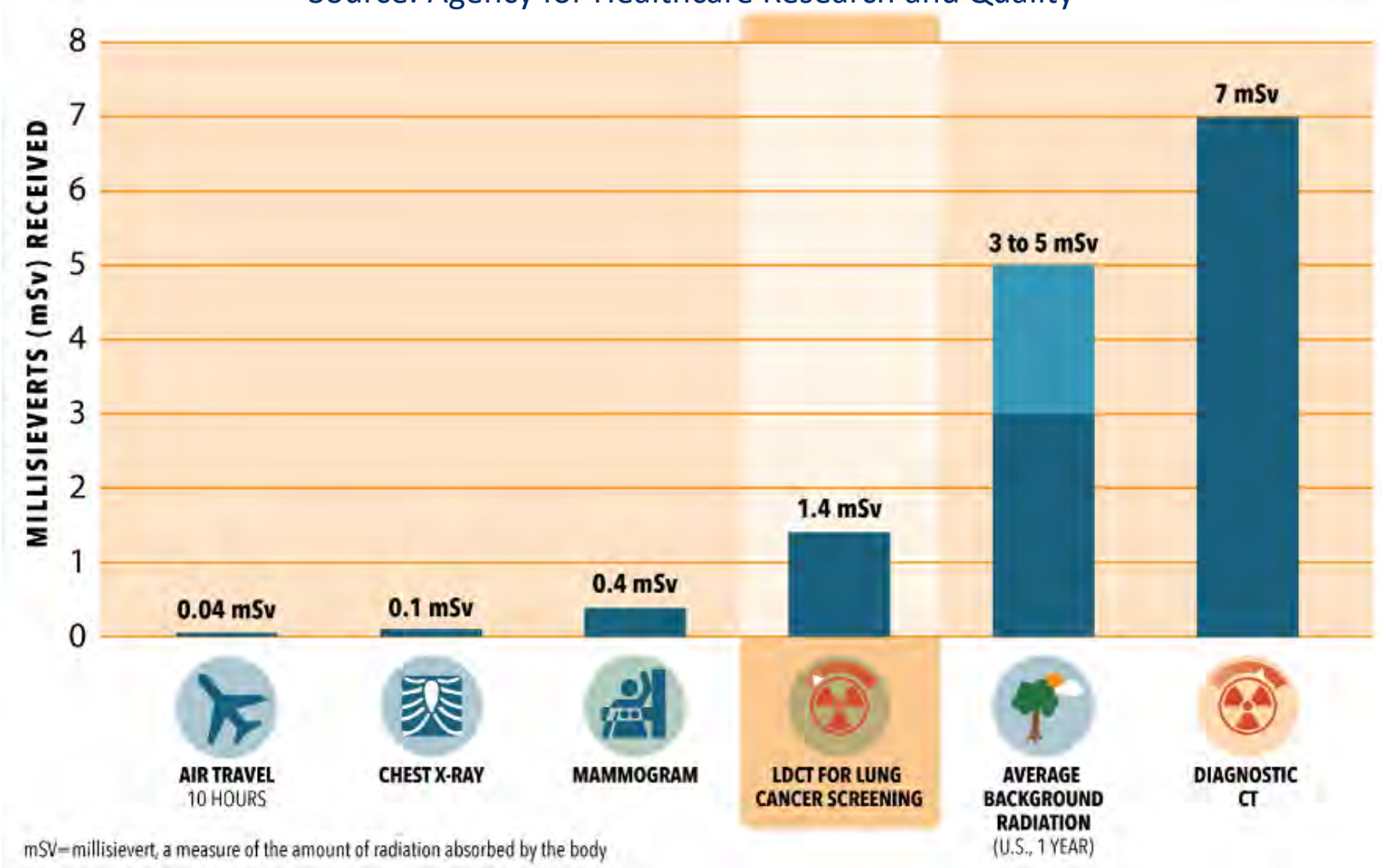
Community & Patient Level

- Lack of awareness
- Cost due to conflicting eligibility criteria
- Adhering to annual screenings

Misinformation in the Effectiveness of Screening

Radiation Exposure

Source: Agency for Healthcare Research and Quality



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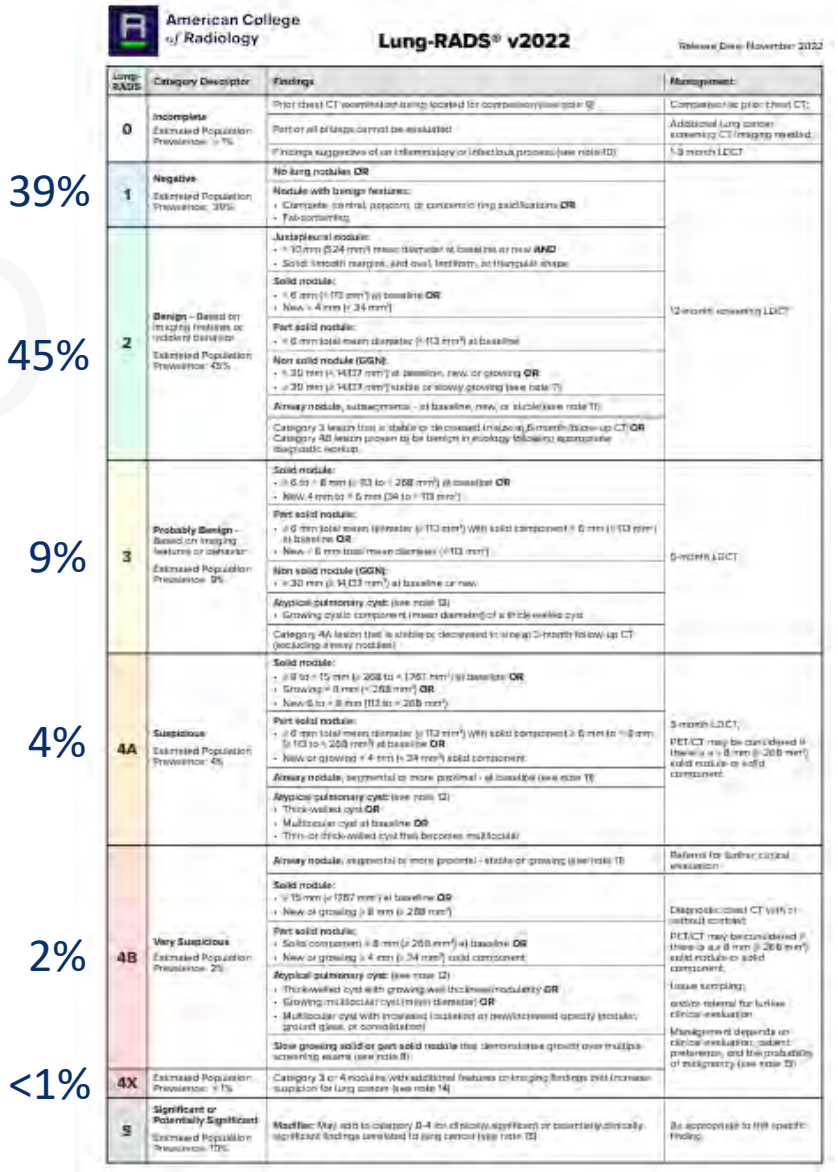
Misinformation in the Effectiveness of Screening

False-Positive Rate

- National Lung Screening Trial 23.3%
- Lung-RADS® 10.4%

To decrease the high false-positive rate of the NLST, the ACR developed Lung-RADS in 2014 to standardize assessment categories, confer probability of cancer, and provide management recommendations.



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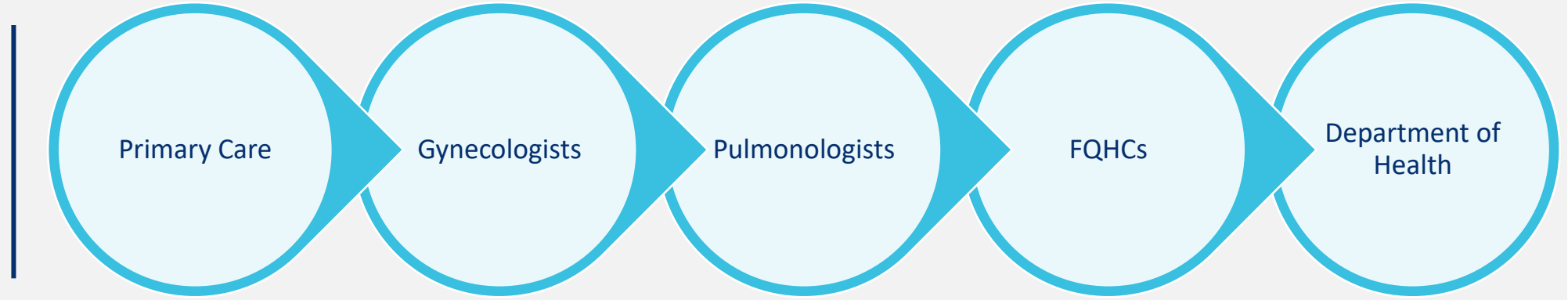
Misinformation in the Effectiveness of Screening

Referring Provider Target Populations



Effective Ways to Reach Referring Providers:

- Hospital Grand Rounds
- Sponsor/present at medical conferences
- Physician liaison-based newsletters and email blasts
- Clinic specific outreach through Lunch and Learns or brief presentations at routine meetings
- Mailed “Lung Screening Toolkits” that contain flyers, direct program contacts, smoking cessation resources, etc.
- Important! Share success stories of patients with early-stage lung cancer detected through screening

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Shared Decision-Making Models

Centralized Model

A "frontend" provider (PCP) **identifies patients** and refers them to LCS Clinic.

The LCS Clinic conducts **shared decision-making** and delivers **screening test.**

The LCS Clinic **communicates results** directly to the patient and schedules appropriate **follow-up.**

Decentralized Model

A "frontend" provider (PCP) **identifies patients,** conducts **shared decision-making** and refers them to LCS Clinic.

The LCS Clinic delivers **screening test.**

A "frontend" provider (PCP) **communicates results** To patient and schedules appropriate **follow-up.**

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Management of Results & Coordination of Care

Need for Support in Management of Abnormal Results

- 68% of PCPs report needing additional information on follow-up recommendations for nodules
- 50% report “don’t know” or “unsure” regarding whether Lung-RADS is important in nodule follow-up

Impact of Mismanaged Abnormal Results

- 40% of PCPs follow guidelines for lung nodule management
- 39% of identified pulmonary nodules are unfollowed due to gaps in coordination of care between radiology and PCP.
- 65 days, on average, is the length of time between an abnormal CT scan to a diagnosis. A 6-week delay in lung cancer treatment results in a 13% reduction in 5-year survival.

Moffitt Solutions for Coordination of Care

- Provide clear communication to referring provider with structured LDCT reports that provide Lung-RADS category and management plan (automatically faxed).
- Incidental findings that can not be managed/treated at Moffitt are communicated to referring provider both written by fax and orally over phone.
- Various vendors provide software that assist in the evaluation and management of incidental findings and lung nodules

Strategies to Overcome Community and Patient Challenges

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Challenges in the Utilization of Lung Cancer Screening

Program Level	• Lack of organizational buy-in • Uncertain return on investment • Requires multidisciplinary collaboration
Provider Level	• Misinformation in the effectiveness of screening • Limited training in Shared-Decision Making • Management of results and coordination of care
Community & Patient Level	• Lack of awareness • Cost due to conflicting eligibility criteria • Adhering to annual screenings

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Lack of Awareness

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Lack of Awareness

Moffitt Marketing and PR Strategies to Increase Awareness in the Community

- Consider community demographics when designing collateral that is racially and linguistically diverse
- Decrease stigma of lung screening by avoiding cigarette graphics
- Maximize search engine exposure to drive self-referrals
- Leverage access to existing patients (posters/flyers in clinic, education material in portal, etc.)
- Utilize social media to broadcast live events, campaigns, and blog posts
- Focus on hope and benefits of lung screening and avoid “scare tactics” such as lung cancer mortality
- Share success stories and patient advocate testimonials
- Leverage attention of November Lung Cancer Awareness Month
- Engage City officials through City Proclamations

Nuanced Eligibility Criteria and Insurance Coverage

United States Preventive Service Task Force

2013 Criteria	2021 Criteria
55-80 years old	50-80 years old
30 pack-year smoking history	20 pack-year smoking history
Smoked within last 15 years	Smoked within last 15 years

Payer Type: Commercial and Medicaid

Payers are given up to one year from the start of the next plan year to update their coverage policies to 2021 USPSTF guidelines.

National Comprehensive Cancer Network

2021 Criteria	2025 Criteria
50 years of age or older	50 years of age or older
20 pack-year smoking history	20 years smoking history
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Payer Type: N/A

Recent change in the NCCN criteria expands eligibility to those with a 20-year smoking history, along with pack-years.

Centers for Medicare & Medicaid Services (CMS)

2013 Criteria	2022 Criteria
55-77 years old	55-77 years old
30 pack-year smoking history	20 pack-year smoking history
Smoked within last 15 years	Smoked within last 15 years

Payer Type: Medicare

There have been no updates to CMS guidelines since February 2022.

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Nuanced Eligibility Criteria and Insurance Coverage

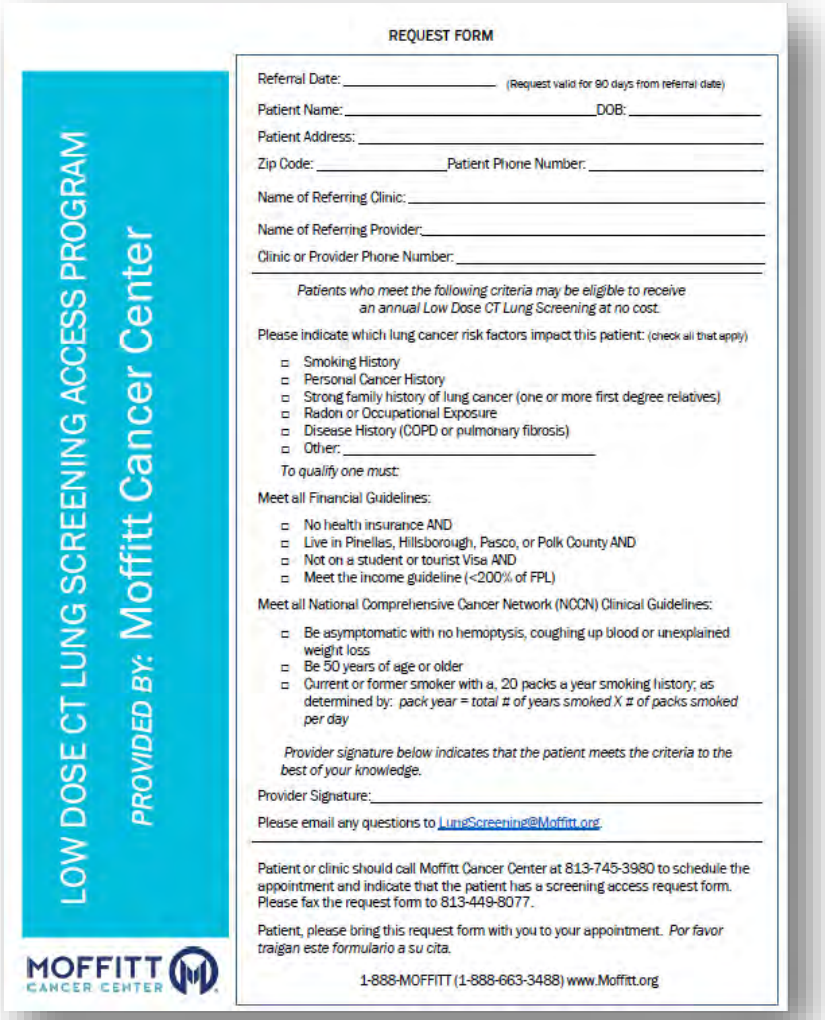
Moffitt Strategies to Increase Access to Newly Eligible and Uninsured Populations:

1. Patient Education & Communication

- Develop standardized workflow to ensure eligibility criteria is reviewed with patients on a case-by-case basis to ensure there is no surprise billing

2. Multiple Payment Options

- Offer a self-pay rate
- Evaluate opportunities to provide discounted or no cost lung screenings through charity care, grant writing, or the development of research protocols



LOW DOSE CT LUNG SCREENING ACCESS PROGRAM

PROVIDED BY: Moffitt Cancer Center

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REQUEST FORM

Referral Date: _____ (Request valid for 90 days from referral date)

Patient Name: _____ DOB: _____

Patient Address: _____

Zip Code: _____ Patient Phone Number: _____

Name of Referring Clinic: _____

Name of Referring Provider: _____

Clinic or Provider Phone Number: _____

Patients who meet the following criteria may be eligible to receive an annual Low Dose CT Lung Screening at no cost.

Please indicate which lung cancer risk factors impact this patient: (check all that apply)

- ☐ Smoking History
- ☐ Personal Cancer History
- ☐ Strong family history of lung cancer (one or more first degree relatives)
- ☐ Radon or Occupational Exposure
- ☐ Disease History (COPD or pulmonary fibrosis)
- ☐ Other: _____

To qualify one must:

Meet all Financial Guidelines:

- ☐ No health insurance AND
- ☐ Live in Pinellas, Hillsborough, Pasco, or Polk County AND
- ☐ Not on a student or tourist Visa AND
- ☐ Meet the income guideline (<200% of FPL)

Meet all National Comprehensive Cancer Network (NCCN) Clinical Guidelines:

- ☐ Be asymptomatic with no hemoptysis, coughing up blood or unexplained weight loss
- ☐ Be 50 years of age or older
- ☐ Current or former smoker with a, 20 packs a year smoking history; as determined by: *pack year = total # of years smoked X # of packs smoked per day*

Provider signature below indicates that the patient meets the criteria to the best of your knowledge.

Provider Signature: _____

Please email any questions to LungScreening@Moffitt.org.

Patient or clinic should call Moffitt Cancer Center at 813-745-3980 to schedule the appointment and indicate that the patient has a screening access request form. Please fax the request form to 813-449-8077.

Patient, please bring this request form with you to your appointment. *Por favor traigan este formulario a su cita.*

1-888-MOFFITT (1-888-663-3488) www.Moffitt.org

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Promotion

- Outreach to Educate the Community about screening. Examples include FB lives, tabling events, proclamations, etc.
- Outreach to Educate the Health Care Providers, such as Lunch and Learns, which are most effective if done by the physician champion.
- Outreach to Local Meetings and the Media to Educate the Community about screening.

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Adhering to Continued Screening

Moffitt Strategies to Increase Adherence to Screening

FY 2024 Retainment Rate	83%

1. **Communication**
   - Provide clear explanation of findings - Results are communicated and explained to the patient in both writing and oral communication, regardless of findings.
     - Orally: Nurse calls patient to provide results. At this time, an appointment may be scheduled with a provider if the patient prefers a detailed review of images.
     - Writing: The detailed lung screening report is automatically uploaded to the patient chart. A letter containing findings and recommended treatment plan is mailed to the patient's home address.

2. **Scheduling**
   - Proactively schedule annual screenings - The order for subsequent screenings is placed at the time of providing results to the patient.

3. **Reminders**
   - Provide multiple channels of communication - All patients receive automatic reminders via the patient portal, call, and text. Patients who were scheduled prior to six months before the date of service will receive an additional call from the coordinator.

What is Next for Moffitt to Move the Needle Forward?

- The Florida Lung Cancer Screening Consortium
- Sponsored by Lary Robinson, MD and Matt Schabath, PhD
- The Florida Lung Cancer Screening Consortium (“Consortium”) is a multi-institutional consortium of public, private, and nonprofit institutions that provide guidelines adherent lung cancer screening in the state of Florida. It is believed that this consortium will be a platform for clinical and research collaborations and will foster workable solutions to long-standing challenges associated with lung cancer screening.
- Several organizations have spearheaded advocacy groups, but we believe that collectively we will be stronger

thank you!

Email: Emily.Matthews@Moffitt.org | Phone: 813-745-5662

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