Housekeeping Items

- Welcome to L.A. Care Provider Continuing Education (PCE) Program's Live Webinar!
- The Live Webinar is being recorded.
- Webinar participants are muted upon entry and exit of webinar.
- ***Webinar attendance will be noted via log in and call in with assigned unique Attendee ID #. Please log in through a computer (instead of cell phone) to Join Meeting / Webinar and please choose the Call In option to call in by telephone with the meeting call in number, meeting number access code and assigned unique attendee ID number. If your name does not appear on our WebEx Final Attendance and Activity Report (only as Caller User #) and no submission of online survey, no CME or CE certificate will be provided.***
- Questions will be managed through the Chat feature and will be answered at the end of the presentation. ***Please keep questions brief and send to All Panelists. One of our Learning and Development Team members and/or webinar host***, will read the questions via Chat when it's time for Q & A session (last 30 minutes of live webinar).
- Please send a message to the Host via Chat if you cannot hear the presenter or see the presentation slides.

L.A. Care PCE Program Friendly Reminders

- ***Partial credits are not allowed at L.A. Care's CME/CE activities for those who log in late (more than 15 minutes late) and/or log off early.***

- PowerPoint Presentation is allotted 60 minutes and last 30 minutes for Q&A session, total of 90-minute webinar, 1.50 CME credits for L.A. Care Providers and other Physicians, 1.50 CE credits for NPs, RNs, LCSWs, LMFTs, LPCCs, LEPs, and other healthcare professionals. Certificate of Attendance will be provided to webinar attendees without credentials.

- **Friendly Reminder,** a survey will pop up on your web browser after the webinar ends. Please do not close your web browser and wait a few seconds, and please complete the survey. ***Please note:*** ***the online survey may appear in another window or tab after the webinar ends.***

- Within two (2) weeks after webinar and upon completion of the online survey, you will receive the PDF CME or CE certificate based on your credential and after verification of your name and attendance duration time of at least 75 minutes for this 90-minute webinar.

- The PDF webinar presentation will be available within 6 weeks after webinar date on lacare.org website located at https://www.lacare.org/providers/provider-central/provider-programs/classes-seminars

- Any questions about L.A. Care Health Plan's Provider Continuing Education (PCE) Program and our CME/CE activities, please email Leilanie Mercurio at lmercurio@lacare.org

Presenter's Bio

Haley Tupper, MD, MS, MPH is a resident general surgery physician at UCLA with a background in international health systems who performs lung cancer research within the UCLA, Kaiser Permanente, and VHA health systems. After residency, she plans to complete a thoracic surgery fellowship.

She is passionate about health system design to reduce disparities in care and improve equitable access. In addition to her US-based research and clinical work, she has worked internationally with the Ministry of Health in Armenia and the public hospital system in Cambodia.

Dr. Tupper participates in a variety of coalitions to improve equitable access to lung cancer screening and care through policy, advocacy and systems-level change. She works with the California Dialogue on Cancer, serving on Cancer Plan Advisory Committee and the health equity and lung cancer screening work groups, the National Lung Cancer Round Table, the American Cancer Society, the Society of Thoracic Surgeon's Lung Cancer Screening taskforce, and the newly-formed LA County Lung Cancer Coalition.

Dr. Tupper's current research in Los Angeles County focuses on addressing system and organization-level inequities in lung cancer screening and care.

Lung Cancer Screening in 2024: **What You Need to Know**

November 14, 2024 Live Webinar, 12:00 pm – 1:30 pm PST, 1.50 CME/CE Credits
Directly Provided CME / CE Activity by L.A. Care Health Plan
Presentation by Haley Tupper, MD, MS, MPH

UCLA

Disclosures

The following CME planners and faculty do not have relevant financial relationships with ineligible companies in the past 24 months:

* Leilanie Mercurio, L.A. Care Provider Continuing Education (PCE) Program Manager, CME Planner.

* Bridget Freeley, Associate Director, State Partnerships, American Cancer Society, CME Planner.

* Haley Tupper, MD, MS, MPH, UCLA Department of Surgery, CME Planner and Faculty.

An ineligible company is any entity whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

Commercial support was not received for this CME/CE activity.

Overview

- 3 Main Takeaways + 3 Practical Requirements
- California: Lung Cancer in Context
- Risk Factors vs. Screening Eligibility
- Why Screen?
- Screening Practicalities
  - Documentation + coding
  - Lung computed tomography (CT) Screening Reporting and Data System – (Lung-RADS®)
  - Eligibility identification
  - Shared decision making: Risks + benefits
- What Happens Next? (Management of Suspicious Screens)

Learning Objectives

At the completion of the activity, learners can:

1) Identify three (3) lung cancer risk factors, in addition to personal smoking history.
2) List current USPSTF lung cancer screening eligibility criteria.
3) Specify four (4) common documentation requirements for lung cancer screening.
4) Summarize the Lung-RADS category threshold that typically requires specialist referral.
5) Identify steps in lung cancer screening and treatment where patients and PCPs could benefit from additional support, such as smoking cessation, shared decision making, and care navigation.

3 Main Takeaways

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1. Lung cancer is a serious health equity issue → Screening save lives

2. Risk factors ≠ eligibility, but smoking duration is paramount

3. Request Lung-RADS reads → Refer at 4 (“Suspicious”)

3 Practical Screening Requirements

1) Eligibility (4 of 4)

- Asymptomatic
- Age: 50-80 (77 for Medicare)
- 20+ pack-years
- Quit ≤15 years ago

2) 1st Screen Documentation Requirements (4 of 4)

- Patient eligibility
- Shared decision making with 1+ decision aid
- Screening rationale + importance of adherence discussion
- Abstinence or tobacco cessation

3) Necessary Codes (CPT & ICD) (3 of 4)

1 of 2 ICD codes required:

- Z87.891: Personal history of nicotine dependence or,
- F17.21: Nicotine dependence, **cigarettes**

2 of 2 CPT codes required:

- G0296: Counseling visit to discuss lung cancer screening need Listed as a permanent telehealth code, payable in facility and non-facility setting
- 71271: Computed tomography, thorax, low dose for lung cancer screening, without contrast material(s)

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US: Lung Cancer in Context

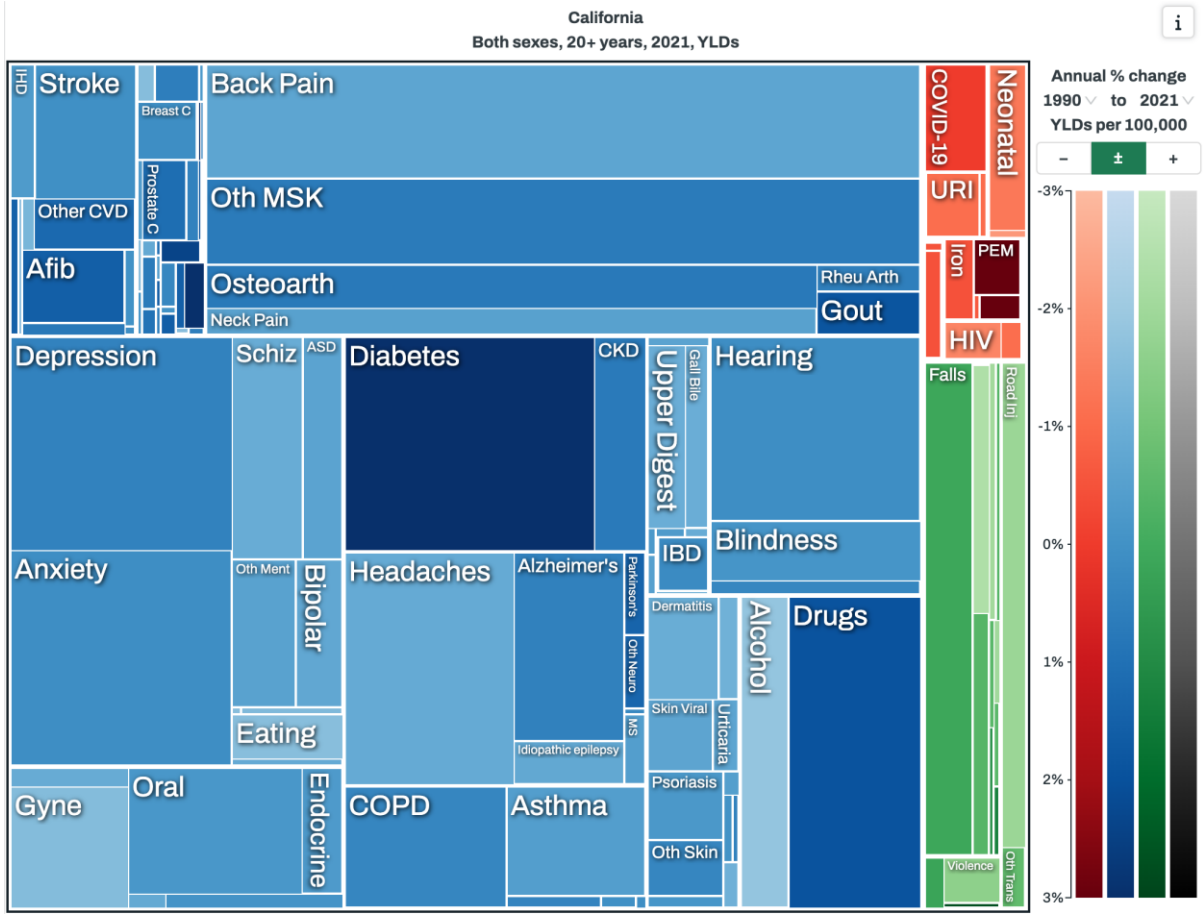
- Despite very low screening rates (~4.5%), lung cancer is the **2nd most common cancer**[2]
- Lung cancer is the #1 cause of cancer deaths[2]
- Lung cancer causes **more deaths** than breast, colorectal and prostate **combined**[1]
- **45.6% of lung cancer diagnosed when metastatic** (vs. 5.9% of breast cancer)[2]

Cancer Type	5-Year Survival[1]
Lung	26.7%
Breast	91.2%
Colorectal	65.0%
Prostate	97.5%

1. American Lung Association. State of Lung Cancer [Internet]. American Lung Association; 2023 [cited 2024 Oct 7]. Available from: https://www.lung.org/getmedia/186786b6-18c3-46a9-a7e7-810f3ce4deda/SOLC-2023-Print-Report.pdf
2. SEER*Explorer: An interactive website for SEER cancer statistics [Internet]. Surveillance Research Program, National Cancer Institute; 2024 [cited 2024 Nov 1]. Available from: https://seer.cancer.gov/statistics-network/explorer/

California: Lung Cancer in Context

YLDs: Years Lived with Disability

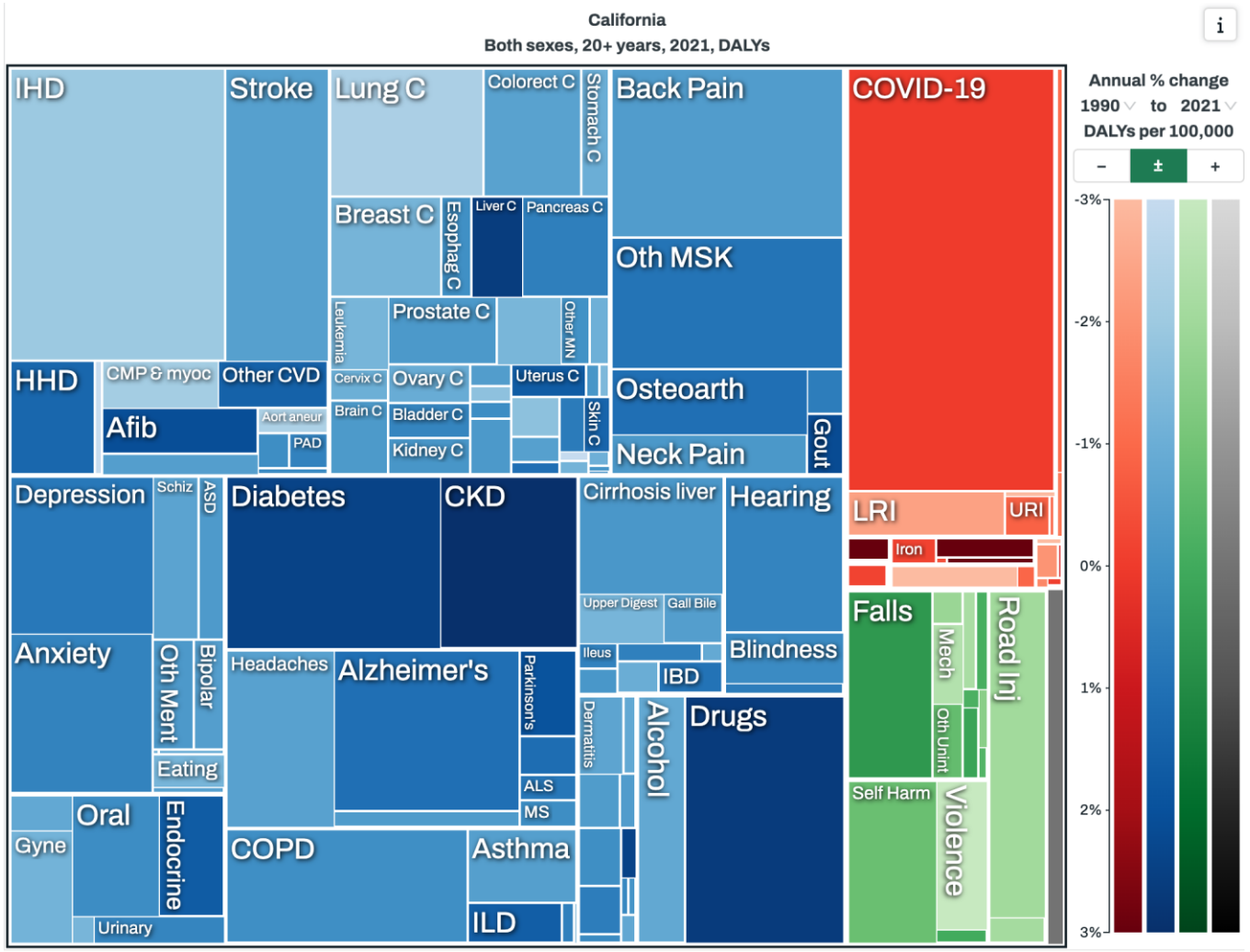


People come to their primary care doctor with a lot of ailments

IHME. GBD Compare [Internet]. Institute for Health Metrics and Evaluation. [cited 2024 Mar 12]. Available from: https://vizhub.healthdata.org/gbd-compare/

California: Lung Cancer in Context

DALYs: Disability Adjusted Life Years



And it is a balance between these ailments + what will kill them (in 15 minutes)

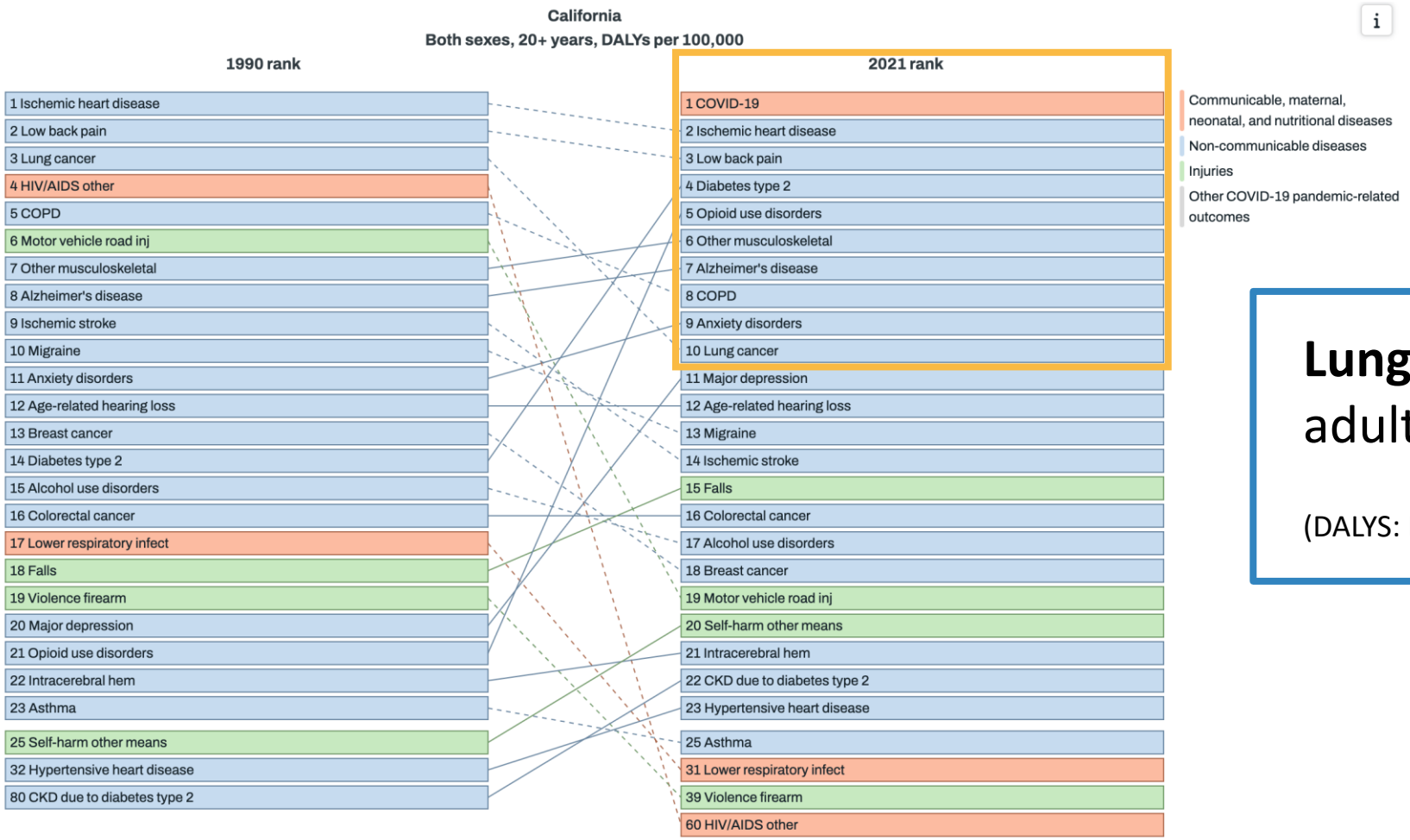
PCPs need 26.7 hours per day to provide guideline-based care[1]

*14.1 hours for preventive care

1. Porter J, Boyd C, Skandari MR, Laiteerapong N. Revisiting the Time Needed to Provide Adult Primary Care. J GEN INTERN MED [Internet]. 2022 Jul 1 [cited 2022 Sep 7]; Available from: https://link.springer.com/10.1007/s11606-022-07707-x

IHME. GBD Compare [Internet]. Institute for Health Metrics and Evaluation. [cited 2024 Mar 12]. Available from: https://vizhub.healthdata.org/gbd-compare/

California: Lung Cancer in Context



Lung Cancer: #10 cause of adult disability + death in CA

(DALYS: Disability-Adjusted Life Years)

IHME. GBD Compare [Internet]. Institute for Health Metrics and Evaluation. [cited 2024 Mar 12]. Available from: https://vizhub.healthdata.org/gbd-compare/

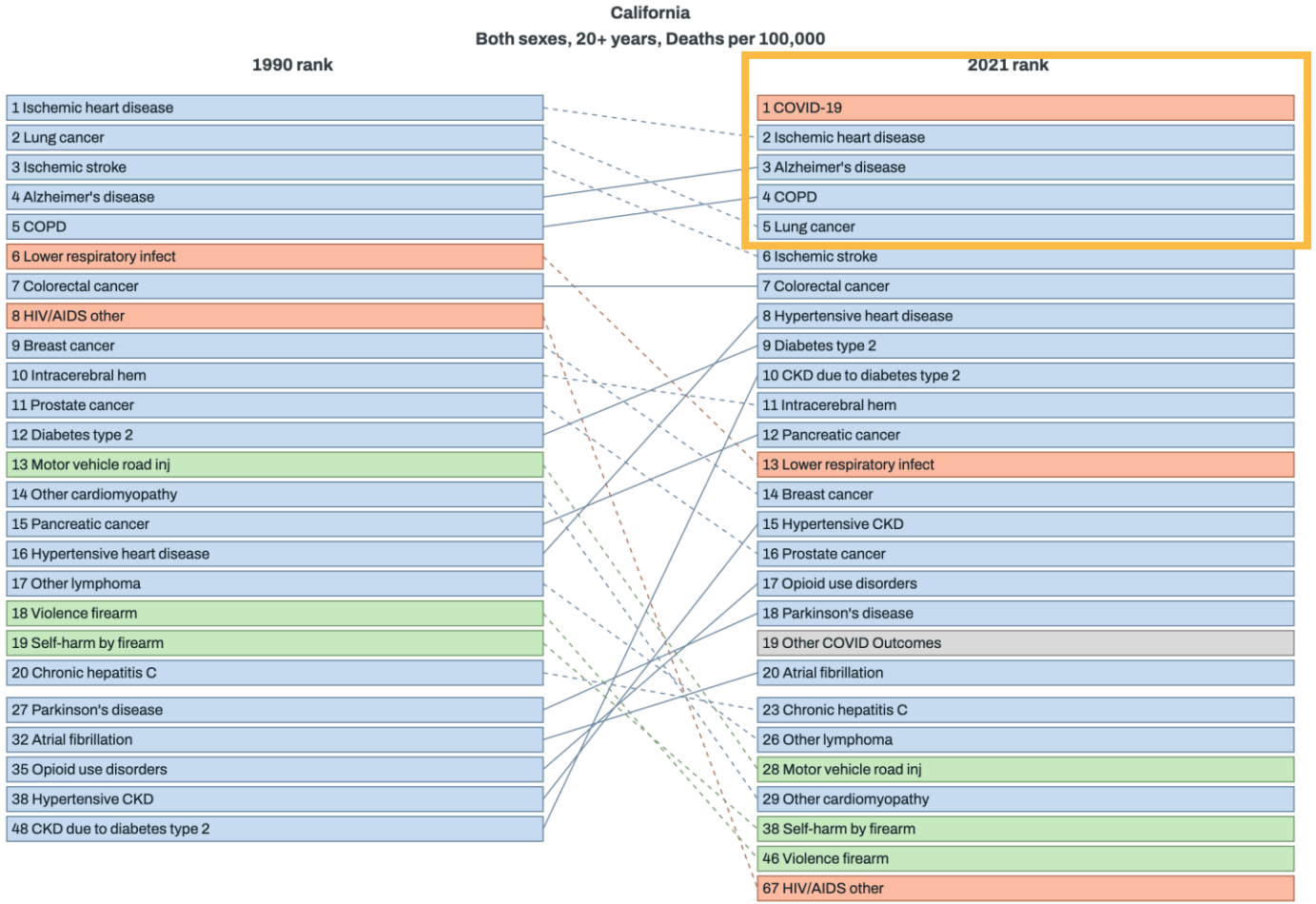
California: Lung Cancer in Context

Lung cancer is the #5 cause of death in CA[1]

- HIV/AIDS example of effective disease management!
- Breast cancer shows improvement with early diagnosis (#9 → #14)

CA has the 2nd highest number of new lung cancer cases and deaths annually

- 70% of Los Angeles' lung cancer diagnoses are late-stage[2]
- 1 in 4 Californians do not receive any lung cancer treatment[3]
- Every other Californian diagnosed with lung cancer will die from it[2]



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2. State Cancer Profiles [Internet]. 2020 [cited 2022 Aug 1]. Available from: https://statecancerprofiles.cancer.gov/incidencerates/index.php?stateFIPS=06&areatype=county&cancer=047&stage=211&race=00&sex=0&age=001&type=incd
3. American Lung Association. California [Internet]. 2021. Available from: https://www.lung.org/research/state-of-lung-cancer/states/california

Lung Cancer: Risk Factors vs. Eligibility

UCLA

Toxic Exposures

- First-hand smoke
- Second-hand smoke
- Air pollution
- Radon
- Asbestos/other carcinogens

Screening Eligibility:
Asymptomatic
Age: 50-80 years (CMS: 50-77)
Smoking:
- ≥20 pack-years
- Quit ≤15 years

Other Pulmonary Oxidative/Inflammatory Stress

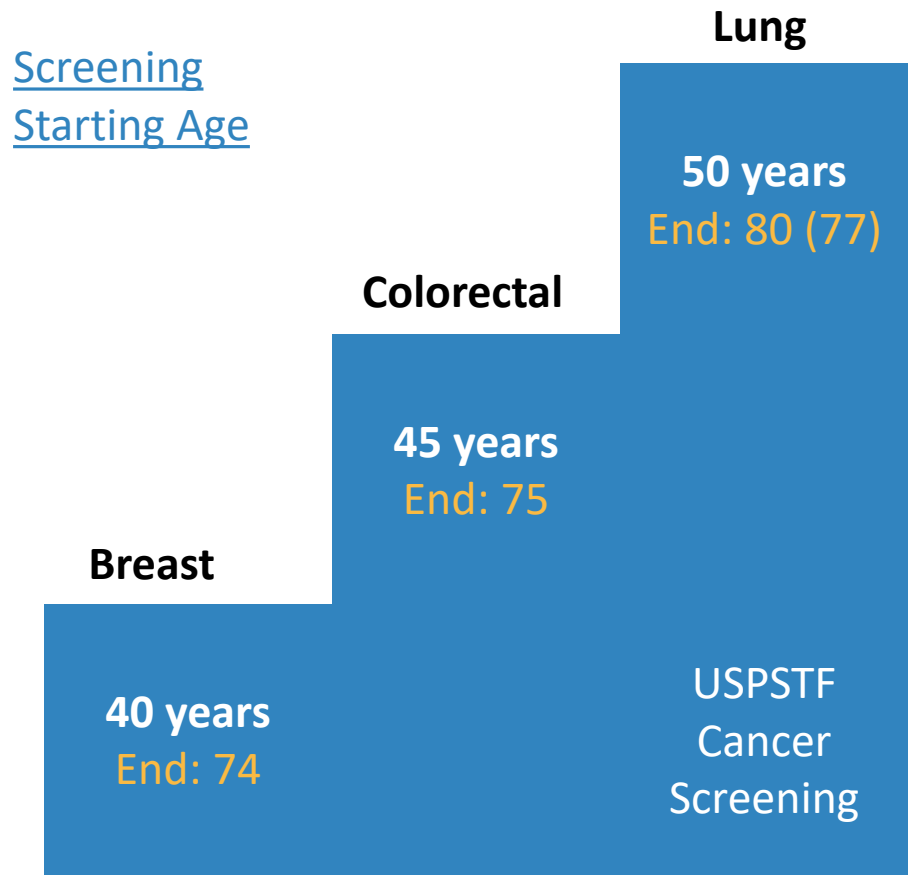
- COPD
- Prior chest radiation

Genetic Predisposition

- Family history (incl. targetable mutations EGFR, KRAS, etc.)

Screening Eligibility Criteria

- Asymptomatic
- Age: 50-80 (77 for CMS)
- Personal Smoking History:
  - 20+ pack-years
  - Quit within 15 years (???)[1]



1. Landy R, Cheung LC, Young CD, Chaturvedi AK, Katki HA. Absolute lung cancer risk increases among individuals with >15 quit-years: Analyses to inform the update of the American Cancer Society lung cancer screening guidelines. Cancer. 2024 Jan;130(2):201–15.

Smoking History & Duration Are Paramount

UCLA

Pack-Years = Intensity x Duration

Smoking duration is a far more important predictor of lung cancer, CAD and COPD than intensity or composite (pack-years)[1]

Seminal Studies:

- 1950: 95% of individuals diagnosed with lung cancer had smoked >20 years[2]
- 1978: Bronchial carcinoma incidence: (Cigarettes/day)[2] * (Years smoking)[4-5] (cit – 3)
- 2006: Lung Cancer Risk: (↓ intensity) * (↑ duration) > > (↑ intensity)*(↓ duration)[4]

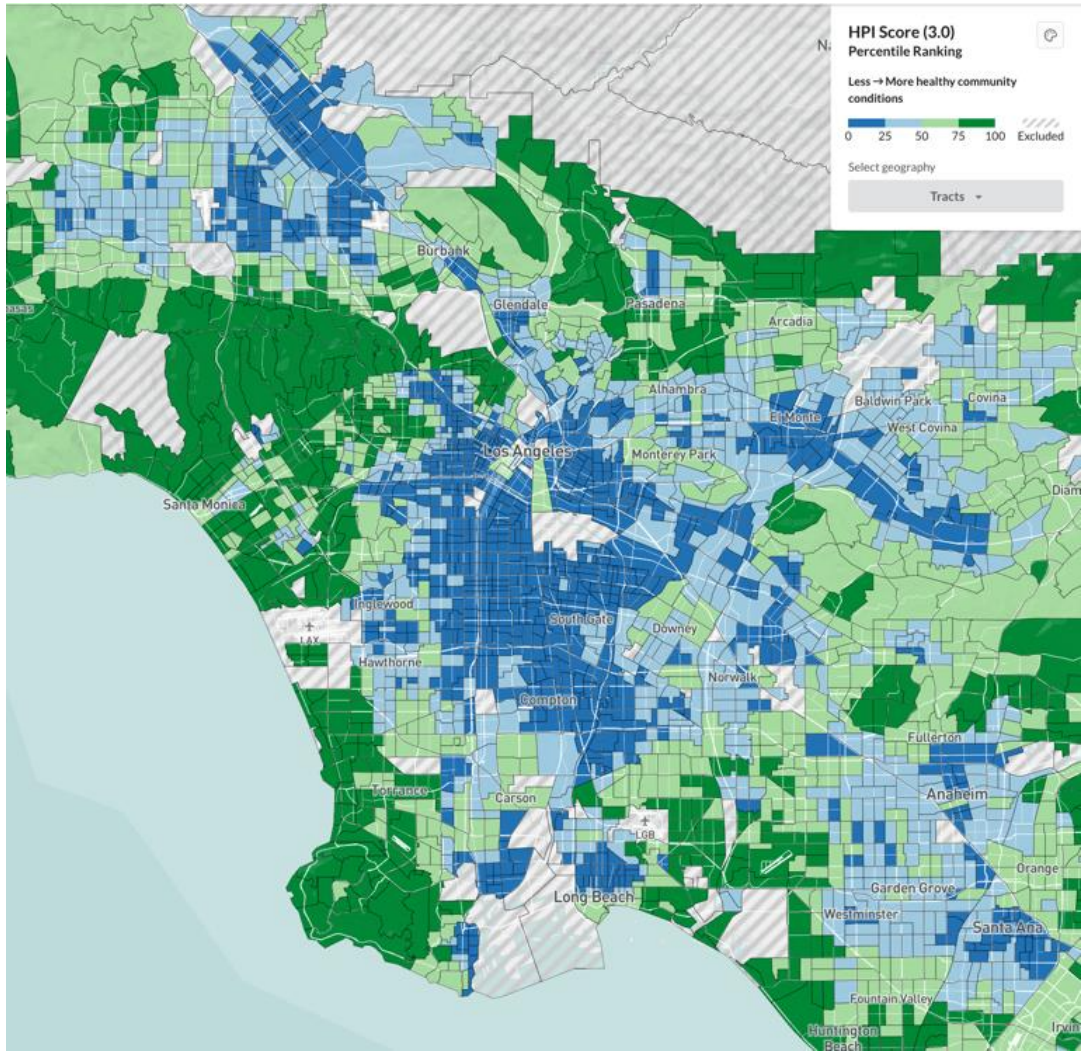
1. Pleasants RA, Rivera MP, Tilley SL, Bhatt SP. Both Duration and Pack-Years of Tobacco Smoking Should Be Used for Clinical Practice and Research. Annals ATS. 2020 Jul;17(7):804–6.
2. Doll R & Hill AB. Smoking and carcinoma of the lung; preliminary report. BMJ. 1950;2:739-748.
3. Doll R & Peto R. Cigarette smoking and bronchial carcinoma: dose and time relationships among regular smokers and lifelong non-smokers. J Epidemiol Community Health. 1978; 32: 303-313.
4. Lubin JH & Caporaso NE. Cigarette smoking and lung cancer: modeling total exposure and intensity. Cancer Epidemiol Biomarkers Prev 2006; 15: 517-523.

Lung Cancer: Risk Factors

HPI: Healthy Places Index

Lung cancer is a health equity issue:

Risk is very unequal



<u>Toxic Pulmonary Exposures</u>

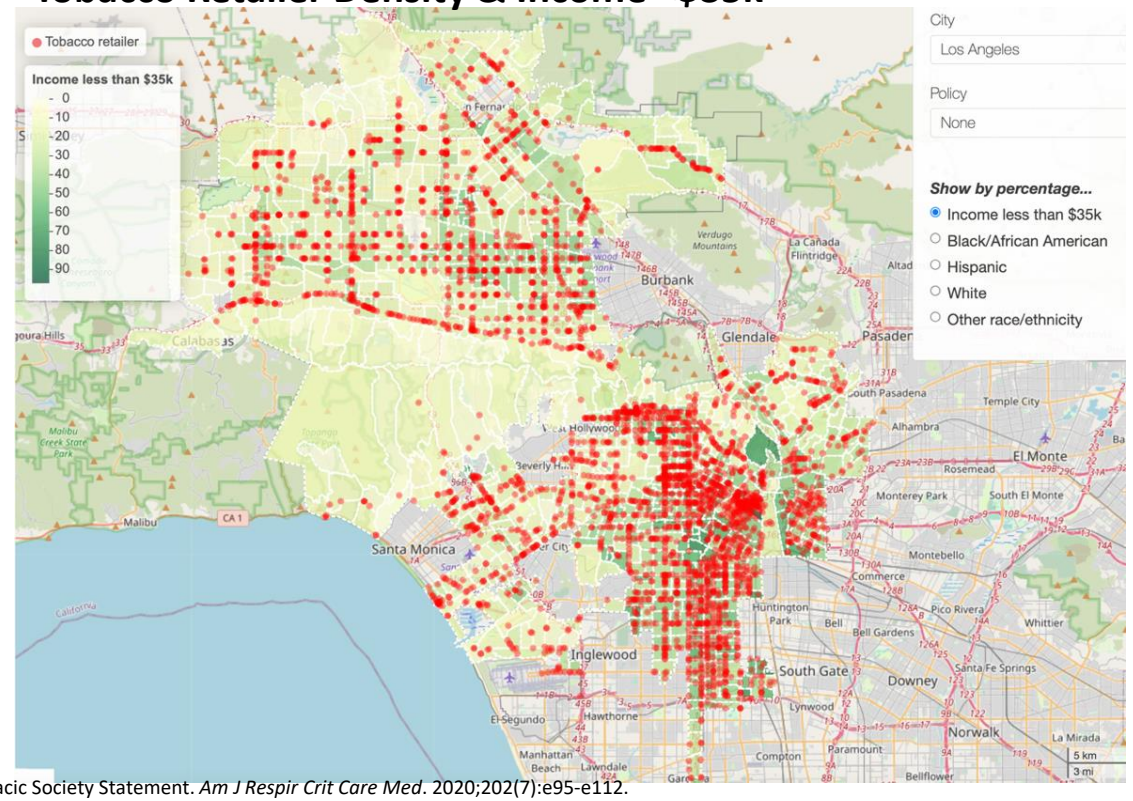
- First-hand smoke
- Second-hand smoke
- Air pollution
- Radon
- Asbestos/other occupational exposures

Lung Cancer: Risk Factors

Tobacco Exposure: 1st + 2nd-Hand Smoke

- 5x more tobacco retailors in lowest-income vs. highest-income census tracts in LA
- Tobacco industry has a long history of targeted advertising in low-income and predominantly-Black neighborhoods in LA[4,5]
- 94% of Angelenos are <10 min walk to tobacco retailer[6]
  - Clustered near schools in low-income areas
- 29.6% of evaluated retailers engaged in underage sales[7]

Tobacco Retailer Density & Income <$35k



1. Cornelius ME, Loretan CG, Wang TW, Jamal A, Homa DM. Tobacco Product Use Among Adults — United States, 2020. 2022;71(11):9.
2. Rivera MP, Katki HA, Tanner NT, et al. Addressing Disparities in Lung Cancer Screening Eligibility and Healthcare Access. An Official American Thoracic Society Statement. *Am J Respir Crit Care Med*. 2020;202(7):e95-e112. doi:10.1164/rccm.202008-3053ST
3. Goding Sauer A, Siegel RL, Jemal A, Fedewa SA. Current Prevalence of Major Cancer Risk Factors and Screening Test Use in the United States: Disparities by Education and Race/Ethnicity. Cancer Epidemiol Biomarkers Prev. 2019 Apr 1;28(4):629–42.
4. ACS-CAN. Big Tobacco Targets People with Limited Incomes [Internet]. 2023 [cited 2024 Feb 15]. Available from: https://www.fightcancer.org/policy-resources/big-tobacco-targets-people-limited-incomes
5. Smiley SL, Cho J, Blackman KCA, Cruz TB, Pentz MA, Samet JM, et al. Retail Marketing of Menthol Cigarettes in Los Angeles, California: a Challenge to Health Equity. Prev Chronic Dis. 2021 Feb 11;18:200144.
6. ASPiRE. Tobacco Swamps Dashboard [Internet]. Tobacco Swamps Dashboard. [cited 2023 Feb 19]. Available from: https://aspirecenter.org/tobacco-swamps/
7. California Tobacco Facts and Figures 2022.
8. American Lung Association. 2024 State of Tobacco Control California Local Grades. 2024.

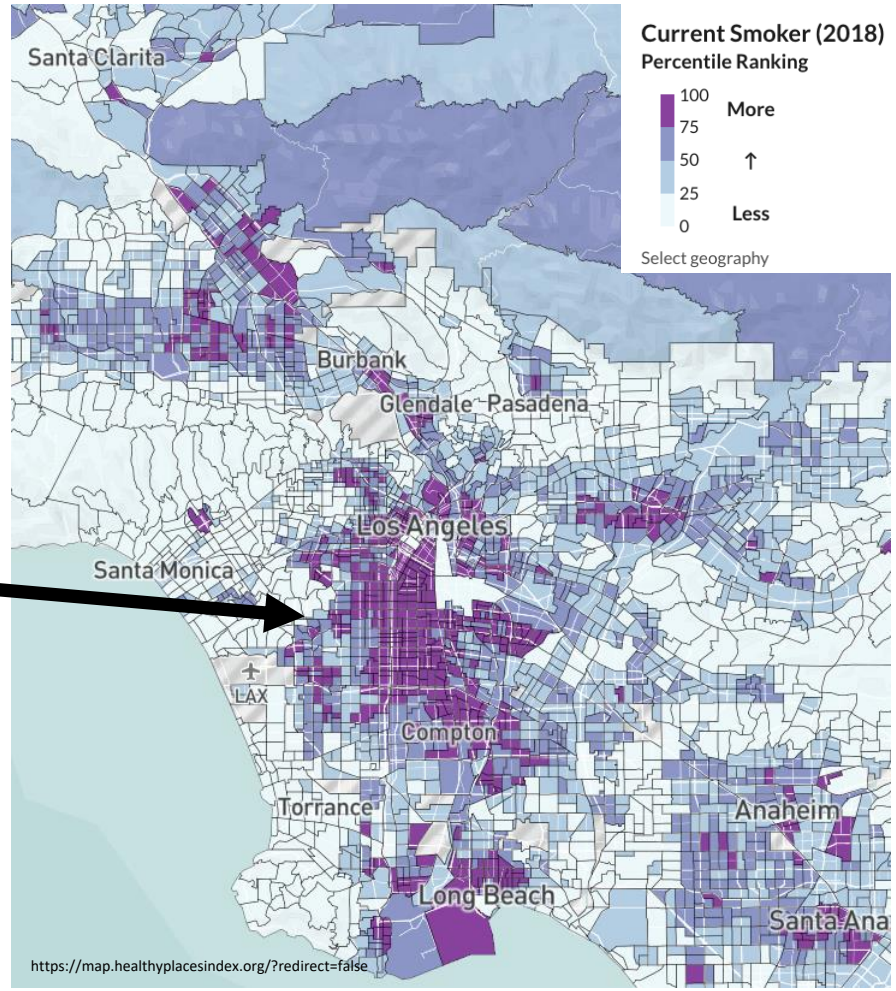
ASPiRE. Tobacco Swamps Dashboard [Internet]. Tobacco Swamps Dashboard. [cited 2023 Feb 19]. Available from: https://aspirecenter.org/tobacco-swamps/

Lung Cancer: Risk Factors

Tobacco Exposure: 1st + 2nd-Hand Smoke

- Education and income protect against smoking[1-3]
- Tobacco control policies strength and enforcement varies widely[8]
  - Santa Monica: "A" tobacco control grade
  - Whittier: "F" tobacco control grade
- California has not "conquered" smoking and smoking related-diseases
  - Dark purple = ~20% of adults currently smoke

% adults currently smoking



Dark Purple: ~20% current smoking
Pale Blue: ~8-9% current smoking

1. Cornelius ME, Loretan CG, Wang TW, Jamal A, Homa DM. Tobacco Product Use Among Adults — United States, 2020. 2022;71(11):9.
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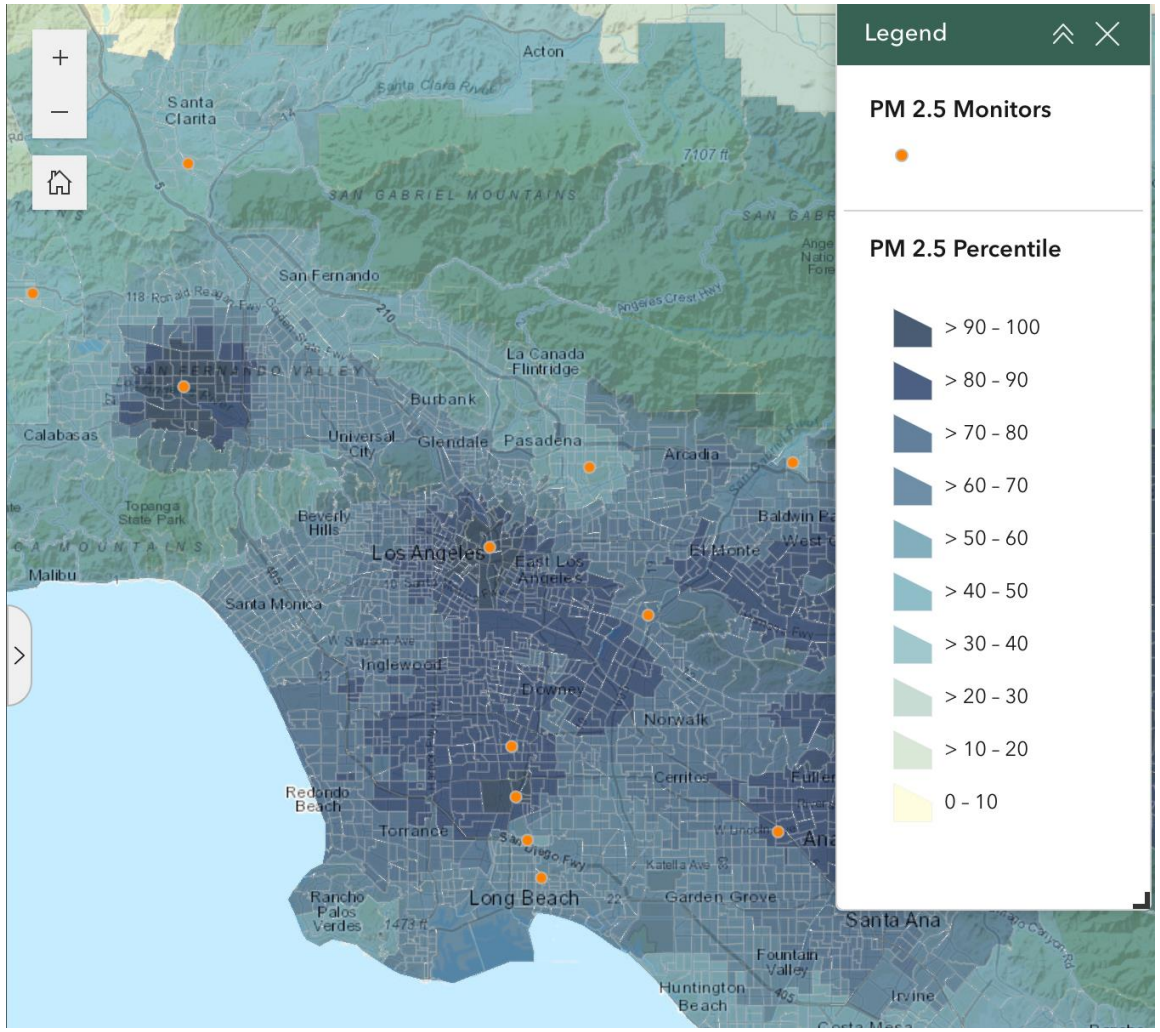
8. American Lung Association. 2024 State of Tobacco Control California Local Grades. 2024.

Lung Cancer: Risk Factors

Air Pollution

- Los Angeles-Long Beach area has the top 10 worst air quality ratings in the US[1]
- **74.7% of the 9.8 million** Angelenos at-risk of developing health conditions from poor air quality **are people of color**[2]

Particulate Matter 2.5 in LA

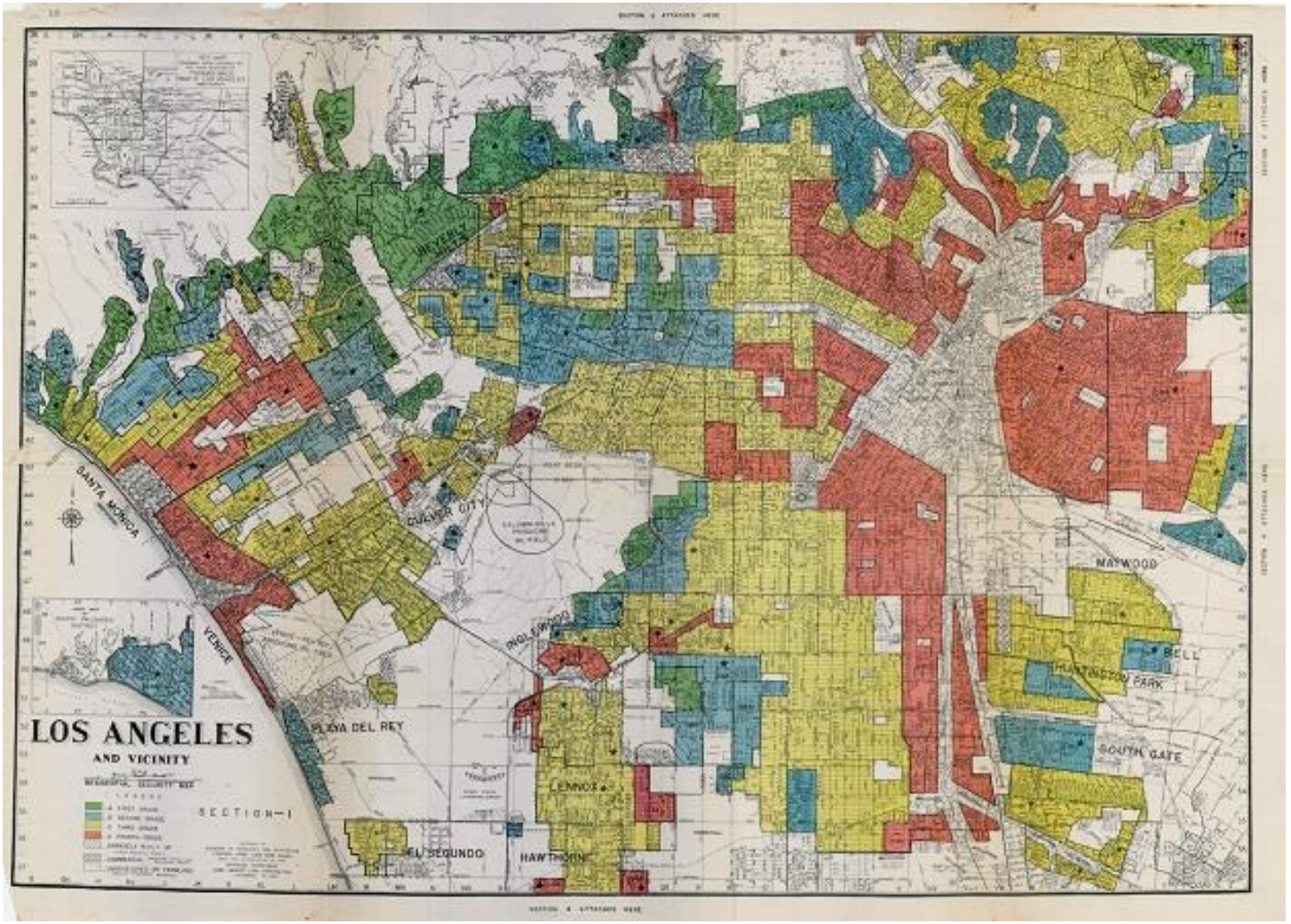


[Internet]. 4.0. OEHHA; (CalEnviroScreen Indicator Maps). Available from: https://experience.arcgis.com/experience/ed5953d89038431dbf4f22ab9abfe40d/page/Indicators/?views=PM2.5

1. American Lung Association. Report Card: California [Internet]. 2023 [cited 2024 Feb 15]. Available from: https://www.lung.org/research/sota/city-rankings/states/california
2. American Lung Association. Health Impact of Air Pollution [Internet]. 2023 [cited 2024 Feb 15]. Available from: https://www.lung.org/research/sota/health-risks#peopleatrisk

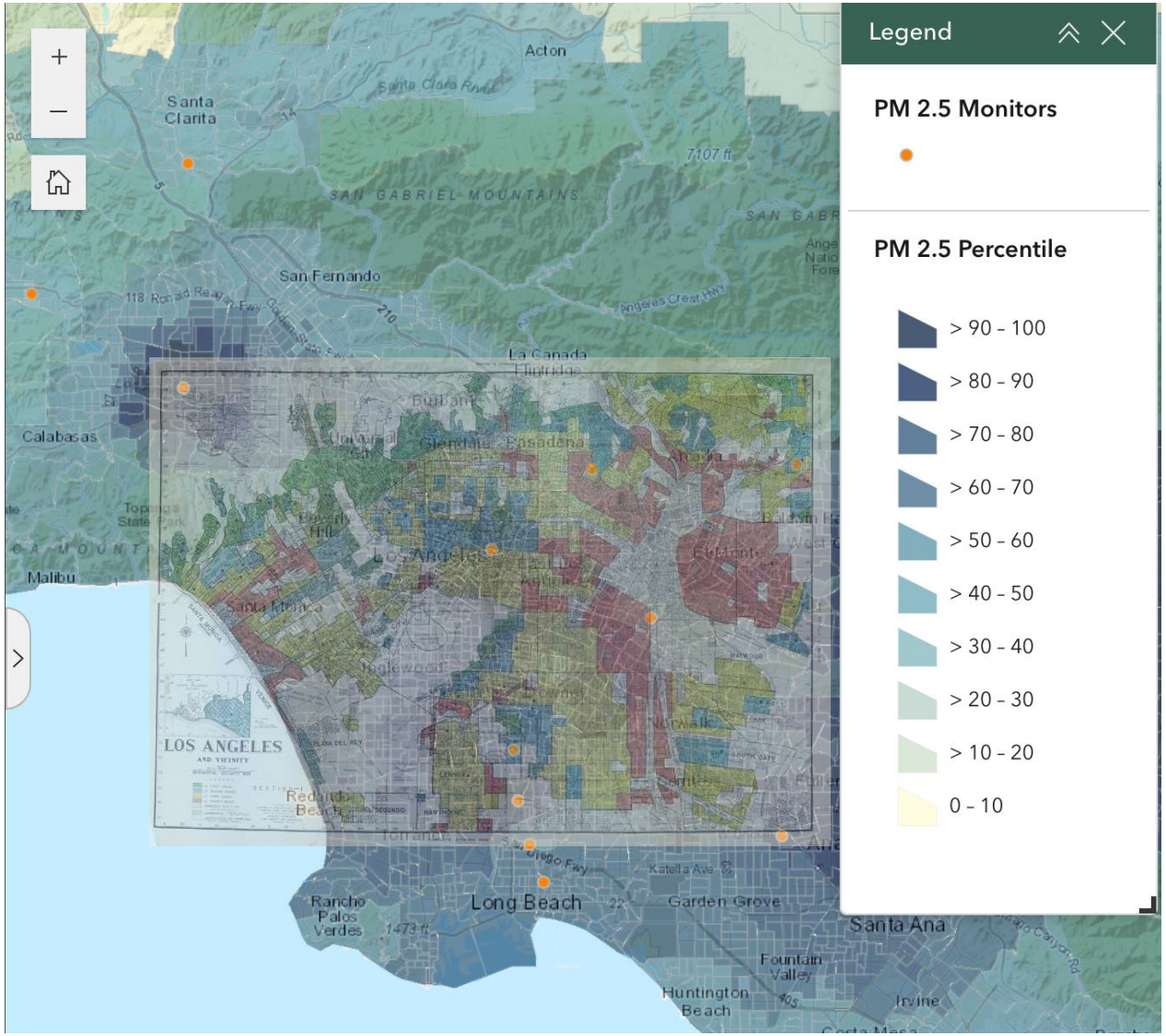
Lung Cancer: Risk Factors

Historic Redlining in Los Angeles

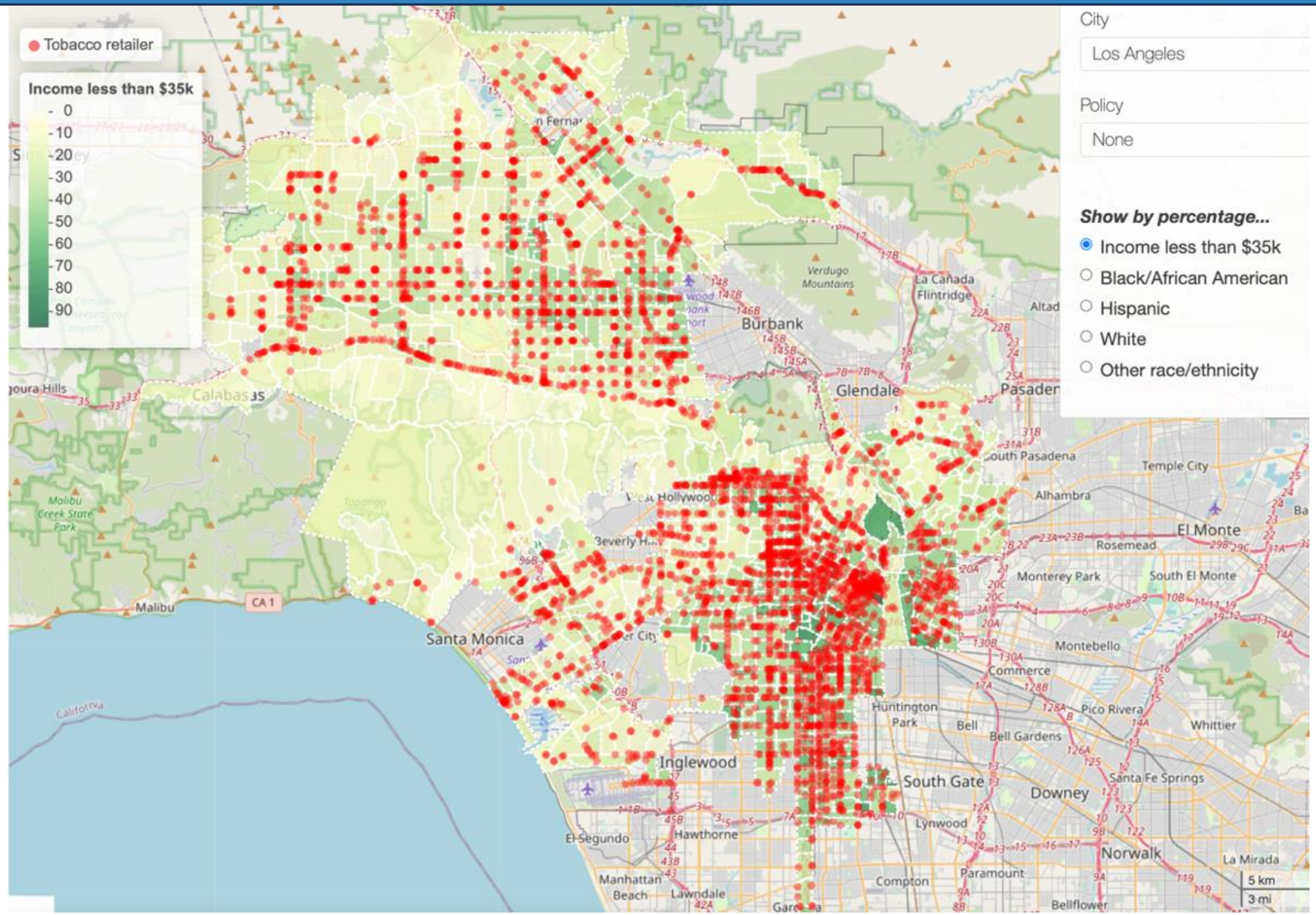


https://storymaps.arcgis.com/stories/a8f5a063fb664d2da64c576bc6b9cd1f

Lung Cancer: Risk Factors



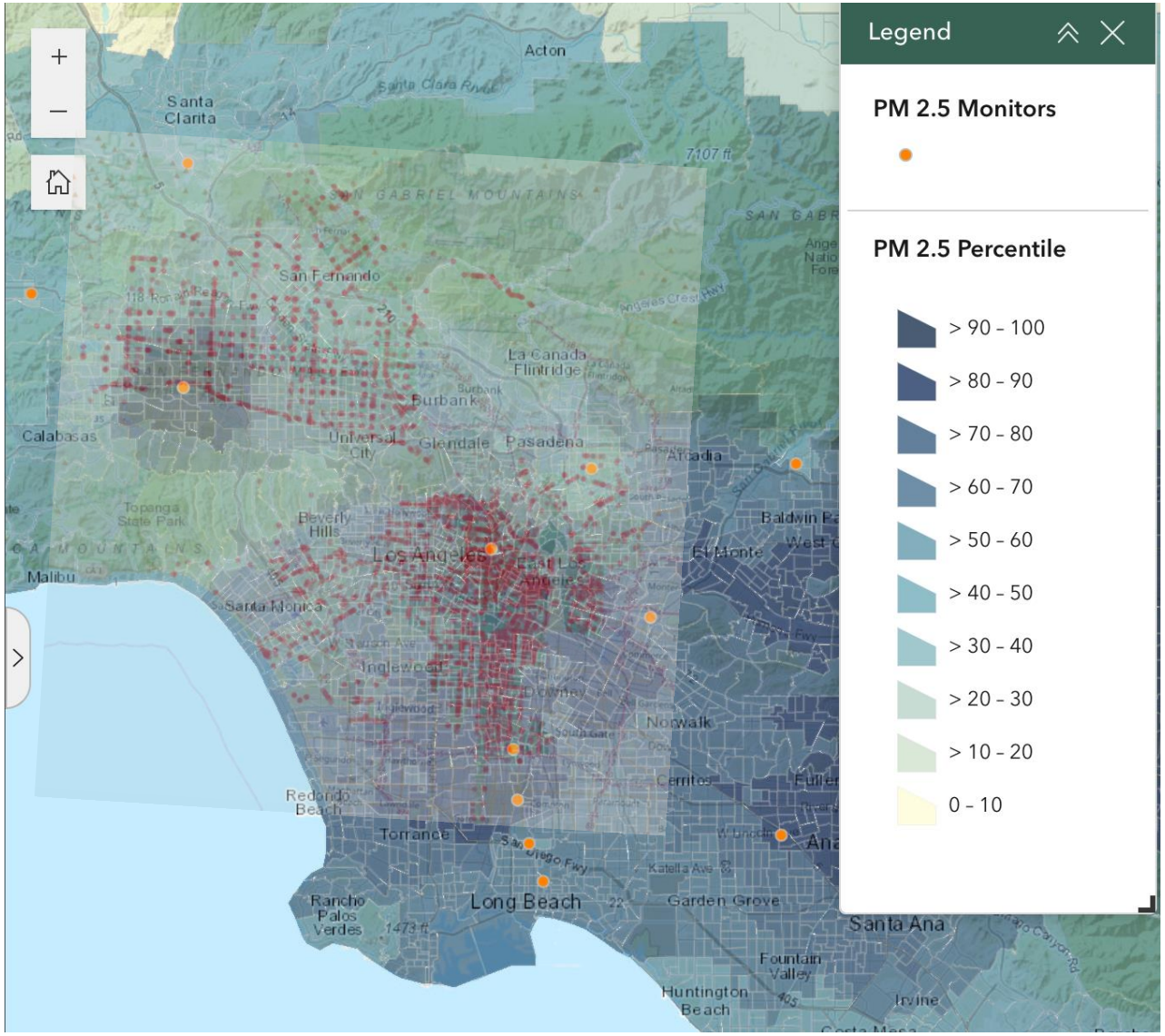
Lung Cancer: Risk Factors



ASPiRE. Tobacco Swamps Dashboard [Internet]. Tobacco Swamps Dashboard. [cited 2023 Feb 19]. Available from: https://aspirecenter.org/tobacco-swamps/

Lung Cancer: Risk Factors

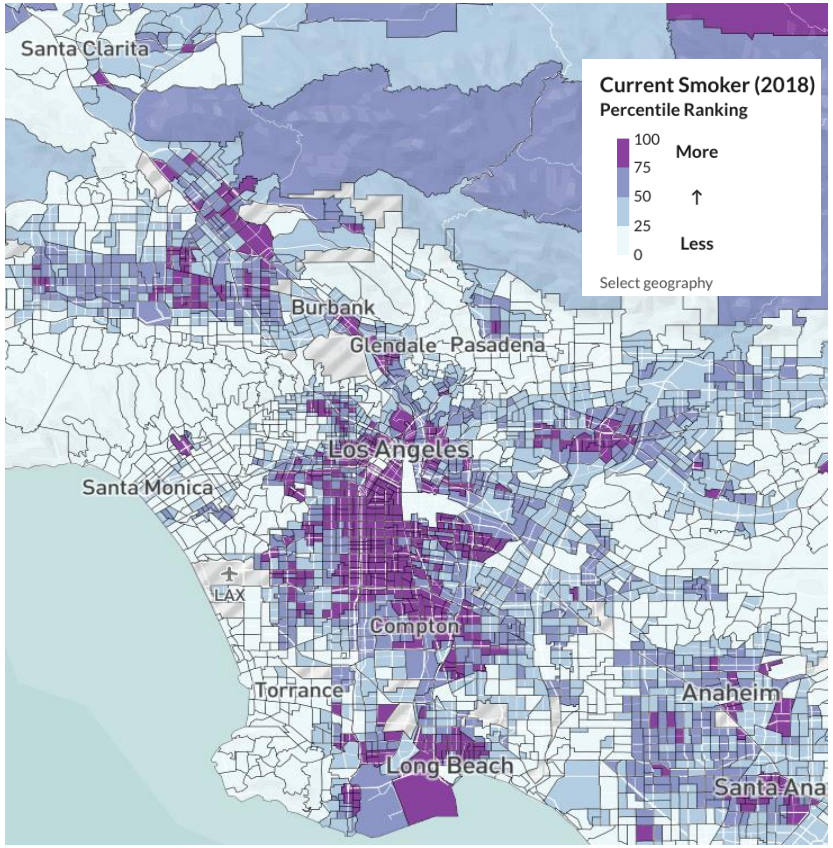
Risk is unequal & **compounded**



Lung Cancer Risk & Screening

UCLA

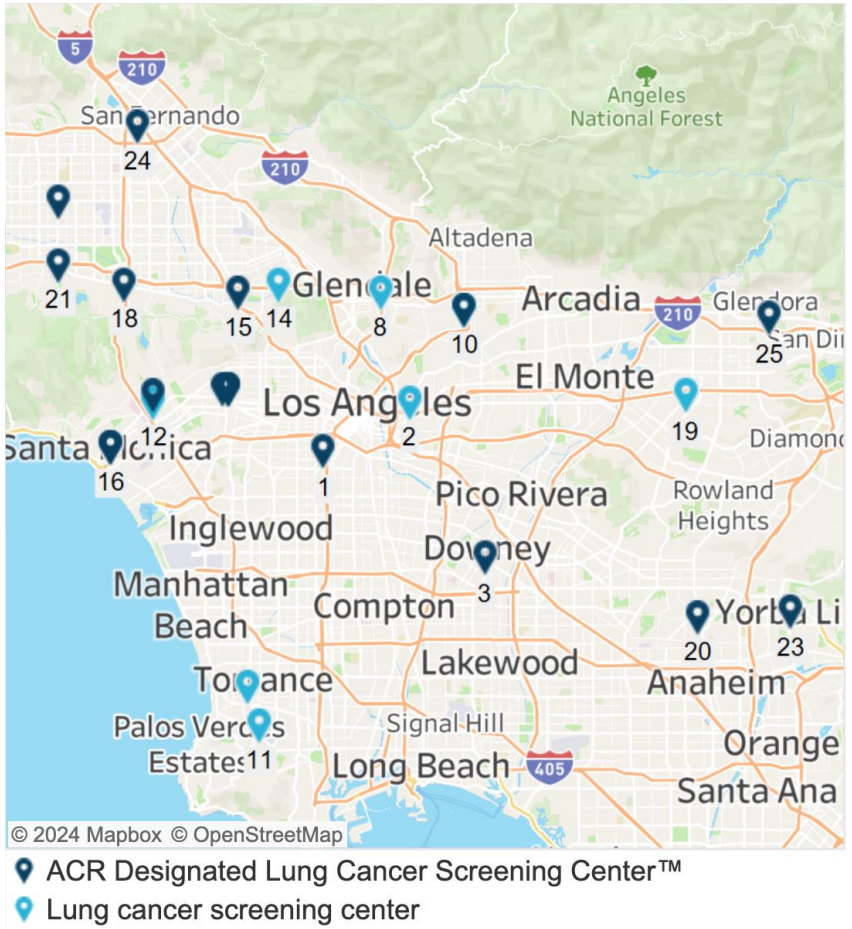
% Adults who currently smoke



Dark Purple: ~20% current smoking
Pale Blue: ~8% current smoking

https://map.healthyplacesindex.org/?redirect=false

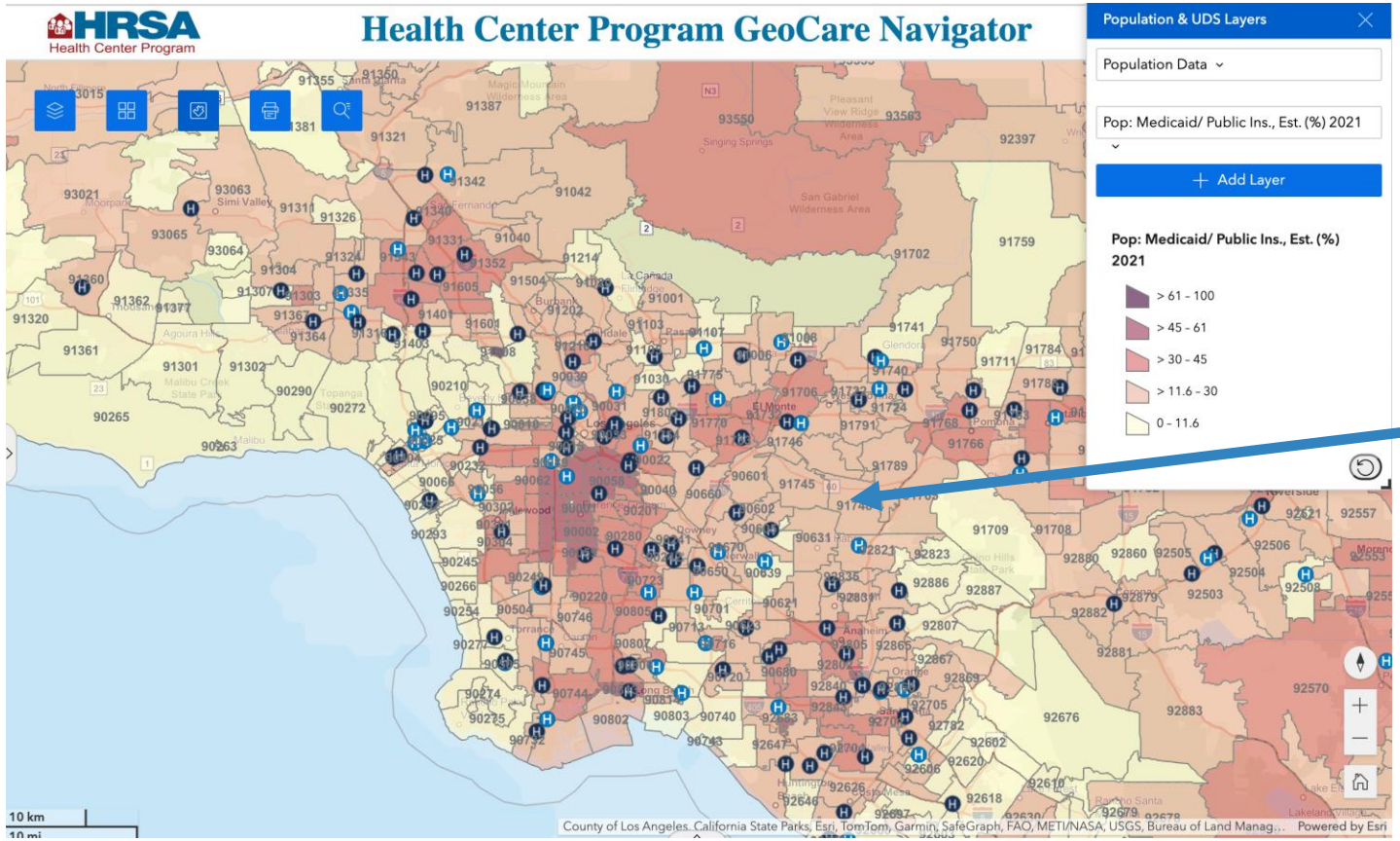
Registered lung cancer screening centers



Geographic Maldistribution of Healthcare Resources:
Existing lung cancer screening centers are clustered in (more affluent) lower-risk areas

ACR. Lung Cancer Screening Locator Tool [Internet]. 2024. Available from: https://www.acr.org/Clinical-Resources/Lung-Cancer-Screening-Resources/LCS-Locator-Tool

MediCal Insured



LA Care cares for about two-thirds of MediCal enrollees in LAC

The areas of high Medicaid enrollment align with elevated smoking rates and other risk factors

LA Care clinicians are uniquely positioned to prevent lung cancer mortality

Lung Cancer: Care

UCLA

Lung cancer is a health equity issue:

Care is unequal[1,2]

Black vs. White Californians:[3]

↓ early-stage diagnosis: 21.9% (vs. 27.3%)

↓ surgical treatment: 17.8% (vs. 22.6%)

↓ any treatment: 71.6% (vs. 75.1%)

↓ 5-year survival: 22.3% (vs. 27.4%)

** Similar trends for Latino and Indigenous backgrounds (Asian - mixed)*

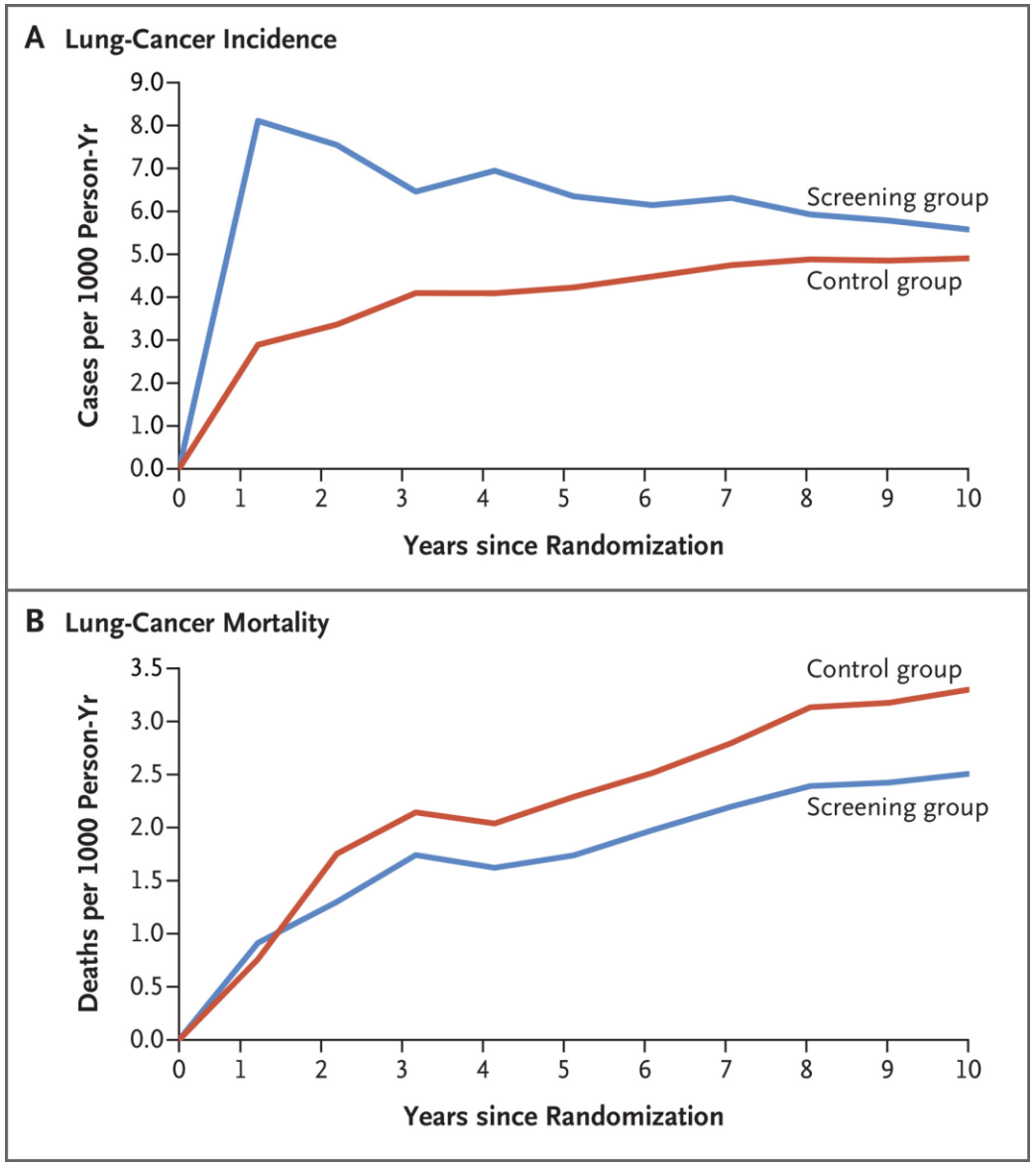
1. Zavala VA, Bracci PM, Carethers JM, Carvajal-Carmona L, Coggins NB, Cruz-Correa MR, et al. Cancer health disparities in racial/ethnic minorities in the United States. Br J Cancer. 2021 Jan 19;124(2):315–32.
2. Islami F, Baeker Bispo J, Lee H, Wiese D, Yabroff KR, Bandi P, et al. American Cancer Society's report on the status of cancer disparities in the United States, 2023. CA Cancer J Clin. 2023 Nov 14;caac.21812.
3. American Lung Association. California. Published 2021. https://www.lung.org/research/state-of-lung-cancer/states/california

Lung Cancer Screening: Why Screen?

- Lung cancer screening = **annual low-dose computed tomography (LDCT) in high-risk individuals.**
- Screening works by detection of cancer at an earlier stage with appropriate treatment.
  - **Stage I NSCLC 5-year survival:** 68.4%[1]
  - **Stage IV NSCLC 5-year survival**: 5.8%[1]
- Lung cancer screening **reduces lung cancer mortality by 20-24%**[2,3]
- Screening participation may decrease tobacco use[4,5]
  - NLST trial participants with abnormal results were significantly more likely to quit smoking and sustain abstinence at 7 years[4]
  - **Abstinence + LDCT screening**: ↓lung cancer mortality by 38%[6]

1. Ganti AK, Klein AB, Cotarla I, Seal B, Chou E. Update of Incidence, Prevalence, Survival, and Initial Treatment in Patients With Non–Small Cell Lung Cancer in the US. *JAMA Oncol*. 2021;7(12):1824. doi:10.1001/jamaoncol.2021.4932
2. Aberle D, Adams A, Berg C. Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening. N Engl J Med. 2011 Aug 4;365(5):395–409.
3. de Koning HJ, van der Aalst CM, de Jong PA, Scholten ET, Nackaerts K, Heuvelmans MA, et al. Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. N Engl J Med. 2020 Feb 6;382(6):503–13.
4. Tammemägi MC, Berg CD, Riley TL, Cunningham CR, Taylor KL. Impact of Lung Cancer Screening Results on Smoking Cessation. JNCI: Journal of the National Cancer Institute [Internet]. 2014 Jun [cited 2022 Sep 7];106(6). Available from: https://academic.oup.com/jnci/article-lookup/doi/10.1093/jnci/dju084
5. Moldovanu D, De Koning HJ, Van Der Aalst CM. Lung cancer screening and smoking cessation efforts. Transl Lung Cancer Res. 2021 Feb;10(2):1099–109.
6. Tanner NT, Kanodra NM, Gebregziabher M, Payne E, Halbert CH, Warren GW, et al. The Association between Smoking Abstinence and Mortality in the National Lung Screening Trial. Am J Respir Crit Care Med. 2016 Mar 1;193(5):534–41.

Lung Cancer Screening: Why Screen?



Seminal RCTs

NLST: n=53,452

→ 20% reduction in lung cancer mortality[1]

→ 6.7% reduction in overall mortality (over 7 years)[1]

NELSON: n=13,195

→ 24% reduction in lung cancer mortality[2]

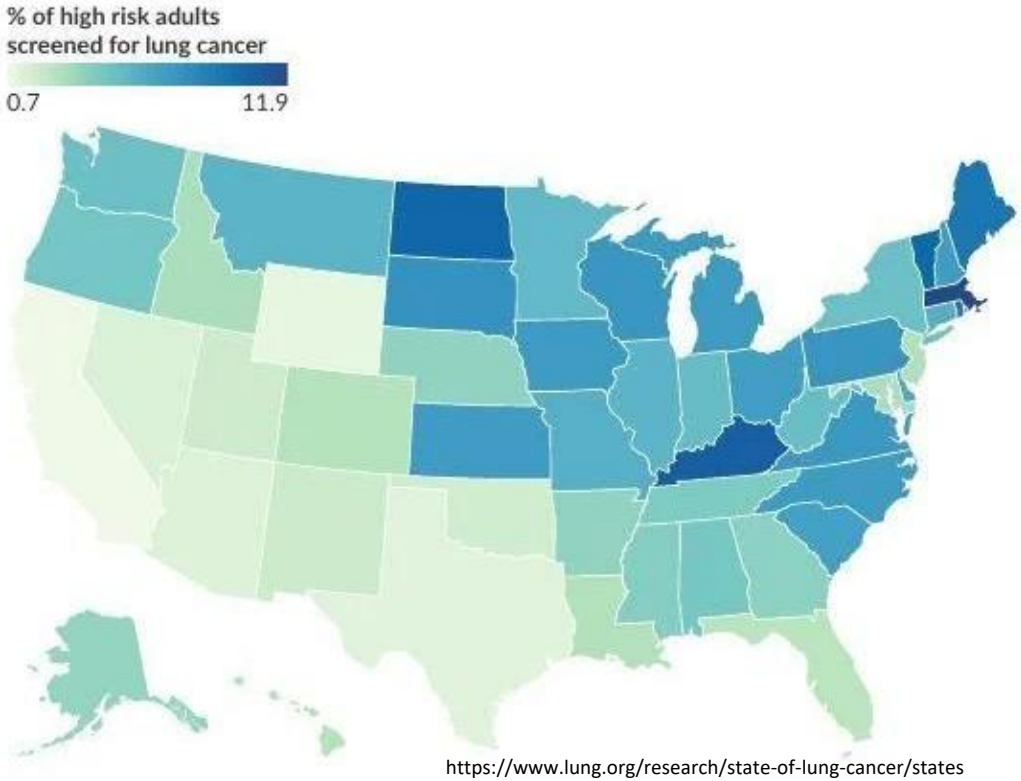
1. Aberle D, Adams A, Berg C. Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening. N Engl J Med. 2011 Aug 4;365(5):395–409.
2. de Koning HJ, van der Aalst CM, de Jong PA, Scholten ET, Nackaerts K, Heuvelmans MA, et al. Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. N Engl J Med. 2020 Feb 6;382(6):503–13.

Lung Cancer Screening Penetration

UCLA

Lung Cancer Screening Rates Are Low

- Screening recommendations have lowest penetration in Medicaid & uninsured populations[1]
  - In LA County, 42% of population covered by MediCal[2]
- California has **the lowest rate of lung cancer screening nationally at <1%**[3]
  - And ranks 46th for rate of improvement[4]…



https://www.lung.org/research/state-of-lung-cancer/states

1. Bonafede MM, Miller JD, Pohlman SK, et al. Breast, Cervical, and Colorectal Cancer Screening: Patterns Among Women With Medicaid and Commercial Insurance. *Am J Prev Med*. 2019;57(3):394-402. doi:10.1016/j.amepre.2019.04.010
2. DHS Medi-Cal Enrollment (July 2024) https://www.dhcs.ca.gov/dataandstats/dashboards/Pages/Continuous-Coverage-Eligibility-Unwinding-Dashboard-July2024.aspx
3. American Lung Association. California [Internet]. 2024. Available from: https://www.lung.org/research/state-of-lung-cancer/states/california
4. Fedewa SA, Kazerooni EA, Studts JL, Smith RA, Bandi P, Sauer AG, et al. State Variation in Low-Dose Computed Tomography Scanning for Lung Cancer Screening in the United States. JNCI J Natl Cancer Inst. 2021 Aug 2;113(8):1044–52.

Awareness: A Fundamental Issue

Lung Cancer Screening: Getting Started

Step 1: Identify screen-eligible

Step 2: Shared decision making

- Risks & Benefits
- Importance of adherence, willingness to undergo diagnosis/treatment
- Tobacco cessation counseling *(if appropriate)*

Step 3: Order LDCT (need Lung-RADS read)

Documentation & Billing Requirements

Documentation & Billing – 1st Screen

UCLA

Documentation Requirements (4 of 4 required)*

1) Screening eligibility;

2) Shared decision-making, including use of 1+ decision aids;

3) Counseling on the importance of screening adherence, impact of comorbidities, and willingness to undergo diagnosis/treatment;

4) Counseling on importance of abstinence (former smoking) or smoking cessation (current smoking)

**CMS no longer requires that the shared decision making/counseling be furnished by a physician or non-physician practitioner*

ICD Code: Must include one of the following diagnoses (1 of 2 required)

1) Z87.891: Personal history of nicotine dependence (*former smoking*)

2) F17.21: Nicotine dependence, **cigarettes** *(current smoking)*

CPT Codes (2 of 2 required)

- G0296: Counseling visit to discuss need for lung cancer screening using low-dose CT scan
  - Service is for eligibility determination and shared decision making
  - Listed as a permanent telehealth code, payable in facility and non-facility setting
- 71271: Computed tomography, thorax, low dose for lung cancer screening, without contrast material(s)

Documentation & Billing – Subsequent Screens

<u>Documentation Requirements</u> (1 of 4 required)*

1) Screening eligibility;

2) Shared decision-making, including the use of 1+ decision aids;

3) Counseling on the importance of screening adherence, impact of comorbidities, and willingness to undergo diagnosis/treatment;

4) Counseling on importance of abstinence (former smoking) or smoking cessation (current smoking)

**CMS no longer requires that the shared decision making/counseling be furnished by a physician or non-physician practitioner*

<u>ICD Code:</u> Must include one of the following diagnoses (1 of 2 required)

1) Z87.891: Personal history of nicotine dependence (*former smoking*)

2) F17.21: Nicotine dependence, **cigarettes** *(current smoking)*

<u>CPT Codes</u> (1 of 2 required)

- G0296: Counseling visit to discuss need for lung cancer screening using low-dose CT scan
  - Service is for eligibility determination and shared decision making
  - Listed as a permanent telehealth code, payable in facility and non-facility setting
- 71271: Computed tomography, thorax, low dose for lung cancer screening, without contrast material(s)

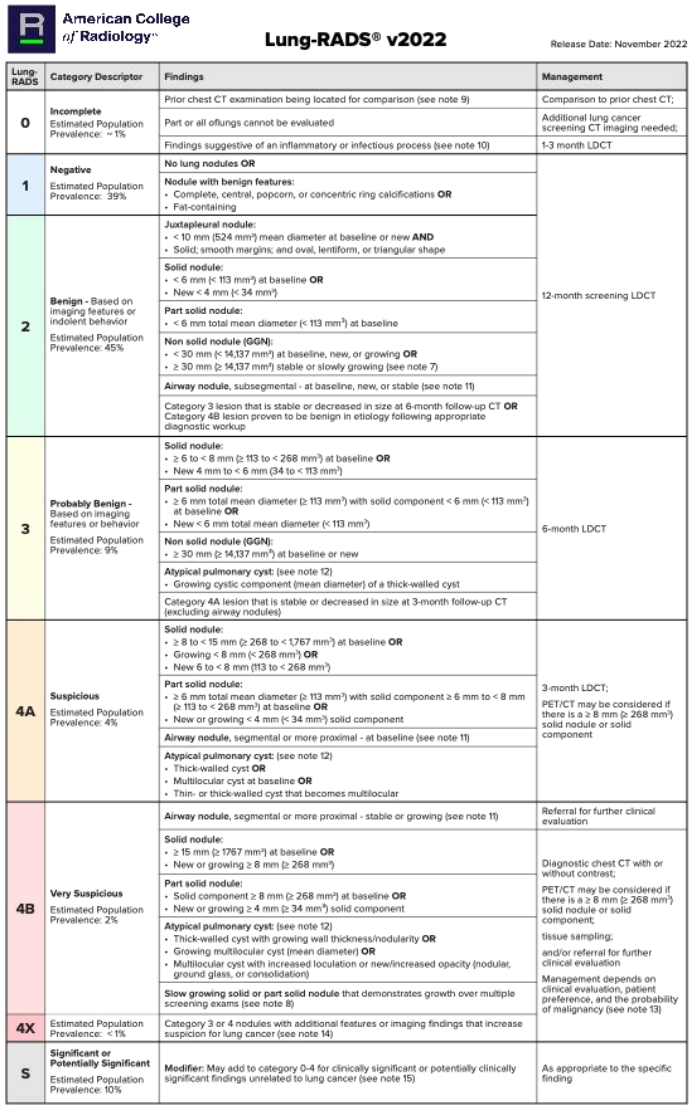
*Note if interval 3 or 6 month LDCT is needed → 71250: Diagnostic LDCT

Diverge: Lung-RADS + Incidental Findings Intro

The American College of Radiology (ACR) developed two invaluable resources:

1) Lung-RADS
2) CT Incidental Findings Guide

https://www.acr.org/Clinical-Resources/Lung-Cancer-Screening-Resources

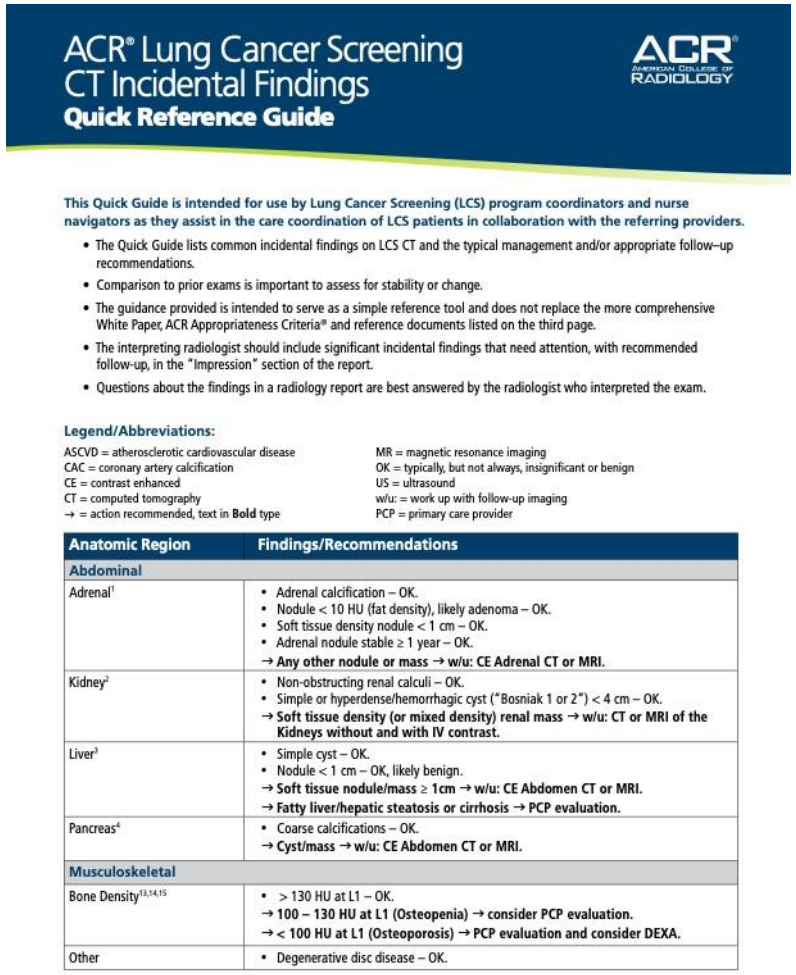


American College of Radiology

Lung-RADS® v2022

Release Date: November 2022

Lung-RADS	Category Descriptor	Findings	Management
0	**Incomplete** Estimated Population Prevalence: ~ 1%	Prior chest CT examination being located for comparison (see note 9)	Comparison to prior chest CT;
		Part or all oflungs cannot be evaluated	Additional lung cancer screening CT imaging needed;
		Findings suggestive of an inflammatory or infectious process (see note 10)	1-3 month LDCT
1	**Negative** Estimated Population Prevalence: 39%	**No lung nodules OR**	12-month screening LDCT
		Nodule with benign features: • Complete, central, popcorn, or concentric ring calcifications **OR** • Fat-containing	
2	**Benign** - Based on imaging features or indolent behavior Estimated Population Prevalence: 45%	**Juxtapleural nodule:** • < 10 mm (524 mm³) mean diameter at baseline or new **AND** • Solid; smooth margins; and oval, lentiform, or triangular shape	
		Solid nodule: • < 6 mm (< 113 mm³) at baseline **OR** • New < 4 mm (< 34 mm³)	
		Part solid nodule: • < 6 mm total mean diameter (< 113 mm³) at baseline	
		Non solid nodule (GGN): • < 30 mm (< 14,137 mm³) at baseline, new, or growing **OR** • ≥ 30 mm (≥ 14,137 mm³) stable or slowly growing (see note 7)	
		Airway nodule, subsegmental - at baseline, new, or stable (see note 11)	
		Category 3 lesion that is stable or decreased in size at 6-month follow-up CT **OR** Category 4B lesion proven to be benign in etiology following appropriate diagnostic workup	
3	**Probably Benign** - Based on imaging features or behavior Estimated Population Prevalence: 9%	**Solid nodule:** • ≥ 6 to < 8 mm (≥ 113 to < 268 mm³) at baseline **OR** • New 4 mm to < 6 mm (34 to < 113 mm³)	6-month LDCT
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm³) with solid component < 6 mm (< 113 mm³) at baseline **OR** • New < 6 mm total mean diameter (< 113 mm³)	
		Non solid nodule (GGN): • ≥ 30 mm (≥ 14,137 mm³) at baseline or new	
		Atypical pulmonary cyst: (see note 12) • Growing cystic component (mean diameter) of a thick-walled cyst	
		Category 4A lesion that is stable or decreased in size at 3-month follow-up CT (excluding airway nodules)	
4A	**Suspicious** Estimated Population Prevalence: 4%	**Solid nodule:** • ≥ 8 to < 15 mm (≥ 268 to < 1,767 mm³) at baseline **OR** • Growing < 8 mm (< 268 mm³) **OR** • New 6 to < 8 mm (113 to < 268 mm³)	3-month LDCT; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm³) solid nodule or solid component
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm³) with solid component ≥ 6 mm to < 8 mm (≥ 113 to < 268 mm³) at baseline **OR** • New or growing < 4 mm (< 34 mm³) solid component	
		Airway nodule, segmental or more proximal - at baseline (see note 11)	
		Atypical pulmonary cyst: (see note 12) • Thick-walled cyst **OR** • Multilocular cyst at baseline **OR** • Thin- or thick-walled cyst that becomes multilocular	
4B	**Very Suspicious** Estimated Population Prevalence: 2%	**Airway nodule,** segmental or more proximal - stable or growing (see note 11)	Referral for further clinical evaluation
		Solid nodule: • ≥ 15 mm (≥ 1767 mm³) at baseline **OR** • New or growing ≥ 8 mm (≥ 268 mm³)	Diagnostic chest CT with or without contrast; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm³) solid nodule or solid component; tissue sampling; and/or referral for further clinical evaluation Management depends on clinical evaluation, patient preference, and the probability of malignancy (see note 13)
		Part solid nodule: • Solid component ≥ 8 mm (≥ 268 mm³) at baseline **OR** • New or growing ≥ 4 mm (≥ 34 mm³) solid component	
		Atypical pulmonary cyst: (see note 12) • Thick-walled cyst with growing wall thickness/nodularity **OR** • Growing multilocular cyst (mean diameter) **OR** • Multilocular cyst with increased loculation or new/increased opacity (nodular, ground glass, or consolidation)	
		Slow growing solid or part solid nodule that demonstrates growth over multiple screening exams (see note 8)	
4X	Estimated Population Prevalence: < 1%	Category 3 or 4 nodules with additional features or imaging findings that increase suspicion for lung cancer (see note 14)	
S	**Significant or Potentially Significant** Estimated Population Prevalence: 10%	**Modifier:** May add to category 0-4 for clinically significant or potentially clinically significant findings unrelated to lung cancer (see note 15)	As appropriate to the specific finding



ACR® Lung Cancer Screening CT Incidental Findings

Quick Reference Guide

ACR American College of Radiology

This Quick Guide is intended for use by Lung Cancer Screening (LCS) program coordinators and nurse navigators as they assist in the care coordination of LCS patients in collaboration with the referring providers.

- The Quick Guide lists common incidental findings on LCS CT and the typical management and/or appropriate follow-up recommendations.
- Comparison to prior exams is important to assess for stability or change.
- The guidance provided is intended to serve as a simple reference tool and does not replace the more comprehensive White Paper, ACR Appropriateness Criteria® and reference documents listed on the third page.
- The interpreting radiologist should include significant incidental findings that need attention, with recommended follow-up, in the "Impression" section of the report.
- Questions about the findings in a radiology report are best answered by the radiologist who interpreted the exam.

Legend/Abbreviations:

ASCVD = atherosclerotic cardiovascular disease
CAC = coronary artery calcification
CE = contrast enhanced
CT = computed tomography
→ = action recommended, text in **Bold** type
MR = magnetic resonance imaging
OK = typically, but not always, insignificant or benign
US = ultrasound
w/u: = work up with follow-up imaging
PCP = primary care provider

Anatomic Region	Findings/Recommendations
Abdominal	
Adrenal[1]	• Adrenal calcification – OK. • Nodule < 10 HU (fat density), likely adenoma – OK. • Soft tissue density nodule < 1 cm – OK. • Adrenal nodule stable ≥ 1 year – OK. **→ Any other nodule or mass → w/u: CE Adrenal CT or MRI.**
Kidney[2]	• Non-obstructing renal calculi – OK. • Simple or hyperdense/hemorrhagic cyst ("Bosniak 1 or 2") < 4 cm – OK. **→ Soft tissue density (or mixed density) renal mass → w/u: CT or MRI of the Kidneys without and with IV contrast.**
Liver[3]	• Simple cyst – OK. • Nodule < 1 cm – OK, likely benign. **→ Soft tissue nodule/mass ≥ 1cm → w/u: CE Abdomen CT or MRI. → Fatty liver/hepatic steatosis or cirrhosis → PCP evaluation.**
Pancreas[4]	• Coarse calcifications – OK. **→ Cyst/mass → w/u: CE Abdomen CT or MRI.**
Musculoskeletal	
Bone Density[13,14,15]	• > 130 HU at L1 – OK. **→ 100 – 130 HU at L1 (Osteopenia) → consider PCP evaluation. → < 100 HU at L1 (Osteoporosis) → PCP evaluation and consider DEXA.**
Other	• Degenerative disc disease – OK.

Lung Cancer Screening: Lung-RADS

American College of Radiology

Lung-RADS® v2022

Release Date: November 2022

Lung-RADS	Category Descriptor	Findings	Management
0	**Incomplete** Estimated Population Prevalence: ~ 1%	Prior chest CT examination being located for comparison (see note 9)	Comparison to prior chest CT;
		Part or all oflungs cannot be evaluated	Additional lung cancer screening CT imaging needed;
		Findings suggestive of an inflammatory or infectious process (see note 10)	1-3 month LDCT
1	**Negative** Estimated Population Prevalence: 39%	**No lung nodules OR**	12-month screening LDCT
		Nodule with benign features: • Complete, central, popcorn, or concentric ring calcifications **OR** • Fat-containing	
2	**Benign -** Based on imaging features or indolent behavior Estimated Population Prevalence: 45%	**Juxtapleural nodule:** • < 10 mm (524 mm^3) mean diameter at baseline or new **AND** • Solid; smooth margins; and oval, lentiform, or triangular shape	
		Solid nodule: • < 6 mm (< 113 mm^3) at baseline **OR** • New < 4 mm (< 34 mm^3)	
		Part solid nodule: • < 6 mm total mean diameter (< 113 mm^3) at baseline	
		Non solid nodule (GGN): • < 30 mm (< 14,137 mm^3) at baseline, new, or growing **OR** • ≥ 30 mm (≥ 14,137 mm^3) stable or slowly growing (see note 7)	
		Airway nodule, subsegmental - at baseline, new, or stable (see note 11)	
		Category 3 lesion that is stable or decreased in size at 6-month follow-up CT **OR** Category 4B lesion proven to be benign in etiology following appropriate diagnostic workup	
3	**Probably Benign -** Based on imaging features or behavior Estimated Population Prevalence: 9%	**Solid nodule:** • ≥ 6 to < 8 mm (≥ 113 to < 268 mm^3) at baseline **OR** • New 4 mm to < 6 mm (34 to < 113 mm^3)	6-month LDCT
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm^3) with solid component < 6 mm (< 113 mm^3) at baseline **OR** • New < 6 mm total mean diameter (< 113 mm^3)	
		Non solid nodule (GGN): • ≥ 30 mm (≥ 14,137 mm^3) at baseline or new	
		Atypical pulmonary cyst: (see note 12) • Growing cystic component (mean diameter) of a thick-walled cyst	
		Category 4A lesion that is stable or decreased in size at 3-month follow-up CT (excluding airway nodules)	
4A	**Suspicious** Estimated Population Prevalence: 4%	**Solid nodule:** • ≥ 8 to < 15 mm (≥ 268 to < 1,767 mm^3) at baseline **OR** • Growing < 8 mm (< 268 mm^3) **OR** • New 6 to < 8 mm (113 to < 268 mm^3)	3-month LDCT; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm^3) solid nodule or solid component
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm^3) with solid component ≥ 6 mm to < 8 mm (≥ 113 to < 268 mm^3) at baseline **OR** • New or growing < 4 mm (< 34 mm^3) solid component	
		Airway nodule, segmental or more proximal - at baseline (see note 11)	
		Atypical pulmonary cyst: (see note 12) • Thick-walled cyst **OR** • Multilocular cyst at baseline **OR** • Thin- or thick-walled cyst that becomes multilocular	
4B	**Very Suspicious** Estimated Population Prevalence: 2%	**Airway nodule,** segmental or more proximal - stable or growing (see note 11)	Referral for further clinical evaluation
		Solid nodule: • ≥ 15 mm (≥ 1767 mm^3) at baseline **OR** • New or growing ≥ 8 mm (≥ 268 mm^3)	Diagnostic chest CT with or without contrast; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm^3) solid nodule or solid component; tissue sampling; and/or referral for further clinical evaluation Management depends on clinical evaluation, patient preference, and the probability of malignancy (see note 13)
		Part solid nodule: • Solid component ≥ 8 mm (≥ 268 mm^3) at baseline **OR** • New or growing ≥ 4 mm (≥ 34 mm^3) solid component	
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		Slow growing solid or part solid nodule that demonstrates growth over multiple screening exams (see note 8)	
4X	Estimated Population Prevalence: < 1%	Category 3 or 4 nodules with additional features or imaging findings that increase suspicion for lung cancer (see note 14)	
S	**Significant or Potentially Significant** Estimated Population Prevalence: 10%	**Modifier:** May add to category 0-4 for clinically significant or potentially clinically significant findings unrelated to lung cancer (see note 15)	As appropriate to the specific finding

Lung-RADS ≈ BiRADS

Final Assessment Categories

Category		Management	Likelihood of cancer
0	Need additional imaging or prior examinations	Recall for additional imaging and/or await prior examinations	n/a
1	Negative	Routine screening	Essentially 0%
2	Benign	Routine screening	Essentially 0%
3	Probably Benign	Short interval-follow-up (6 month) or continued	>0 % but ≤ 2%
4	Suspicious	Tissue diagnosis	4a. low suspicion for malignancy (>2% to ≤ 10%) 4b. moderate suspicion for malignancy (>10% to ≤ 50%) 4c. high suspicion for malignancy (>50% to <95%)
5	Highly suggestive of malignancy	Tissue diagnosis	≥95%
6	Known biopsy-proven	Surgical excision when clinical appropriate	n/a

Lung-RADS 0, 1, 2

0: Incomplete - Need additional imaging
1: Negative – Routine Screening
2: Benign – Routine Screening

American College of Radiology™

Lung-RADS® v2022

Release Date: November 2022

Lung-RADS	Category Descriptor	Findings	Management
0	**Incomplete** Estimated Population Prevalence: ~ 1%	Prior chest CT examination being located for comparison (see note 9)	Comparison to prior chest CT;
		Part or all oflungs cannot be evaluated	Additional lung cancer screening CT imaging needed;
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2	**Benign** - Based on imaging features or indolent behavior Estimated Population Prevalence: 45%	**Juxtapleural nodule:** • < 10 mm (524 mm^3) mean diameter at baseline or new **AND** • Solid; smooth margins; and oval, lentiform, or triangular shape	
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		Category 3 lesion that is stable or decreased in size at 6-month follow-up CT **OR** Category 4B lesion proven to be benign in etiology following appropriate diagnostic workup	

BiRADS

Final Assessment Categories			
Category		Management	Likelihood of cancer
0	Need additional imaging or prior examinations	Recall for additional imaging and/or await prior examinations	n/a
1	Negative	Routine screening	Essentially 0%
2	Benign	Routine screening	Essentially 0%

Lung-RADS 3

UCLA

3: Probably Benign – Short Interval Follow-Up (6-month imaging)

Lung-RADS

3	**Probably Benign -** Based on imaging features or behavior Estimated Population Prevalence: 9%	**Solid nodule:** • ≥ 6 to < 8 mm (≥ 113 to < 268 mm^3) at baseline **OR** • New 4 mm to < 6 mm (34 to < 113 mm^3)	6-month LDCT
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm^3) with solid component < 6 mm (< 113 mm^3) at baseline **OR** • New < 6 mm total mean diameter (< 113 mm^3)	
		Non solid nodule (GGN): • ≥ 30 mm (≥ 14,137 mm^3) at baseline or new	
		Atypical pulmonary cyst: (see note 12) • Growing cystic component (mean diameter) of a thick-walled cyst	
		Category 4A lesion that is stable or decreased in size at 3-month follow-up CT (excluding airway nodules)	

BiRADS

3	Probably Benign	Short interval-follow-up (6 month) or continued	>0 % but ≤ 2%

Lung-RADS 4A, 4B, 4X

4A: Suspicious – 3-month imaging, consider PET-CT for some
4B & 4X: Very Suspicious – Diagnostic work-up (Refer to Specialist)

Lung-RADS

4A	**Suspicious** Estimated Population Prevalence: 4%	**Solid nodule:** • ≥ 8 to < 15 mm (≥ 268 to < 1,767 mm³) at baseline **OR** • Growing < 8 mm (< 268 mm³) **OR** • New 6 to < 8 mm (113 to < 268 mm³)	3-month LDCT; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm³) solid nodule or solid component
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm³) with solid component ≥ 6 mm to < 8 mm (≥ 113 to < 268 mm³) at baseline **OR** • New or growing < 4 mm (< 34 mm³) solid component	
		Airway nodule, segmental or more proximal - at baseline (see note 11)	
		Atypical pulmonary cyst: (see note 12) • Thick-walled cyst **OR** • Multilocular cyst at baseline **OR** • Thin- or thick-walled cyst that becomes multilocular	
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		Solid nodule: • ≥ 15 mm (≥ 1767 mm³) at baseline **OR** • New or growing ≥ 8 mm (≥ 268 mm³)	Diagnostic chest CT with or without contrast; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm³) solid nodule or solid component; tissue sampling; and/or referral for further clinical evaluation Management depends on clinical evaluation, patient preference, and the probability of malignancy (see note 13)
		Part solid nodule: • Solid component ≥ 8 mm (≥ 268 mm³) at baseline **OR** • New or growing ≥ 4 mm (≥ 34 mm³) solid component	
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		Slow growing solid or part solid nodule that demonstrates growth over multiple screening exams (see note 8)	
4X	Estimated Population Prevalence: < 1%	Category 3 or 4 nodules with additional features or imaging findings that increase suspicion for lung cancer (see note 14)	

BiRADS

4	Suspicious	Tissue diagnosis	4a. low suspicion for malignancy (>2% to ≤ 10%) 4b. moderate suspicion for malignancy (>10% to ≤ 50%) 4c. high suspicion for malignancy (>50% to <95%)
5	Highly suggestive of malignancy	Tissue diagnosis	≥95%

Incidental Findings

ACR® Lung Cancer Screening CT Incidental Findings
Quick Reference Guide

ACR® AMERICAN COLLEGE OF RADIOLOGY

This Quick Guide is intended for use by Lung Cancer Screening (LCS) program coordinators and nurse navigators as they assist in the care coordination of LCS patients in collaboration with the referring providers.

Anatomic Region	Findings/Recommendations
Abdominal	
Adrenal[1]	• Adrenal calcification – OK. • Nodule < 10 HU (fat density), likely adenoma – OK. • Soft tissue density nodule < 1 cm – OK. • Adrenal nodule stable ≥ 1 year – OK. → **Any other nodule or mass → w/u: CE Adrenal CT or MRI.**
Kidney[2]	• Non-obstructing renal calculi – OK. • Simple or hyperdense/hemorrhagic cyst ("Bosniak 1 or 2") < 4 cm – OK. → **Soft tissue density (or mixed density) renal mass → w/u: CT or MRI of the Kidneys without and with IV contrast.**
Liver[3]	• Simple cyst – OK. • Nodule < 1 cm – OK, likely benign. → **Soft tissue nodule/mass ≥ 1cm → w/u: CE Abdomen CT or MRI.** → **Fatty liver/hepatic steatosis or cirrhosis → PCP evaluation.**
Pancreas[4]	• Coarse calcifications – OK. → **Cyst/mass → w/u: CE Abdomen CT or MRI.**
Musculoskeletal	
Bone Density[13,14,15]	• > 130 HU at L1 – OK. → **100 – 130 HU at L1 (Osteopenia) → consider PCP evaluation.** → **< 100 HU at L1 (Osteoporosis) → PCP evaluation and consider DEXA.**
Other	• Degenerative disc disease – OK.

Lung Cancer Screening: Getting Started

Step 1: Identify screen-eligible

Step 2: Shared decision making

- Risks & Benefits.
- Importance of adherence, willingness to undergo diagnosis/treatment.
- Tobacco cessation counseling *(if appropriate).*

Step 3: Order low-dose computed tomography LDCT (need Lung-RADS read)

Documentation & Billing Requirements

Step 1: Identify Eligible (+ Document)

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What are the Current Eligibility Requirements?

Step 1: Identify Eligible (+ Document)

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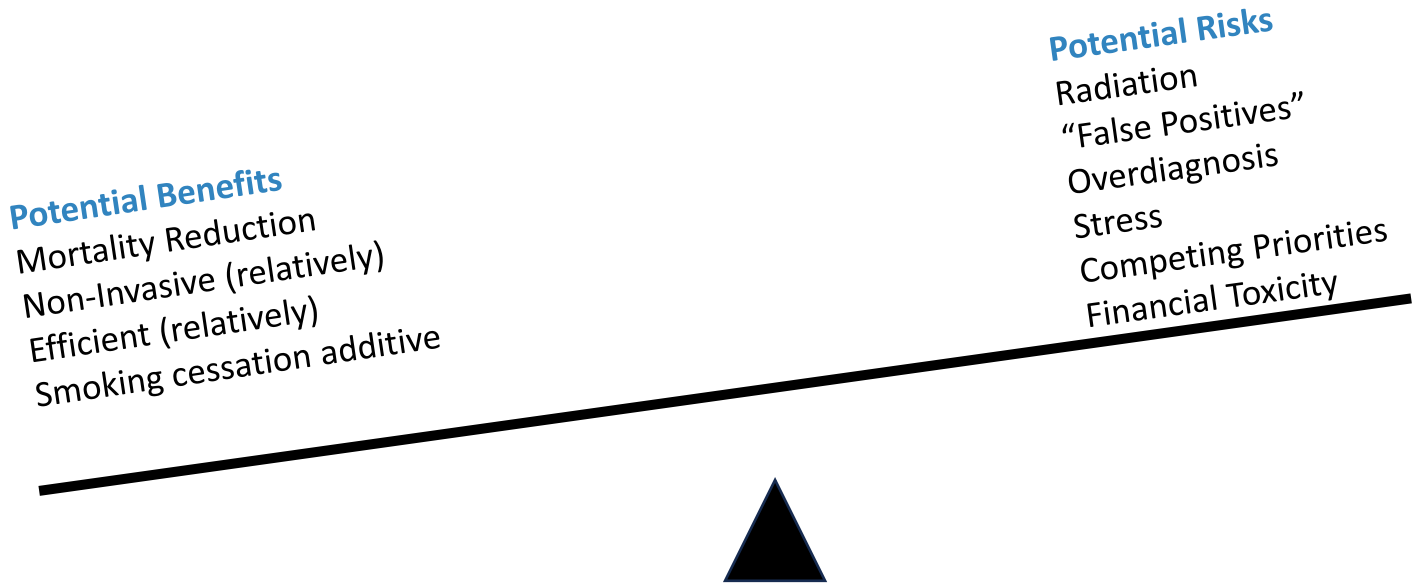
US Preventive Services Task Force (USPSTF) Eligibility (Variations)

- Asymptomatic
- Age 50-80 (only 50-77 covered by Medicare)
- ≥20 pack-year smoking history
- Current smoker or quit in ≤15 years (American Cancer Society recommends removing this)

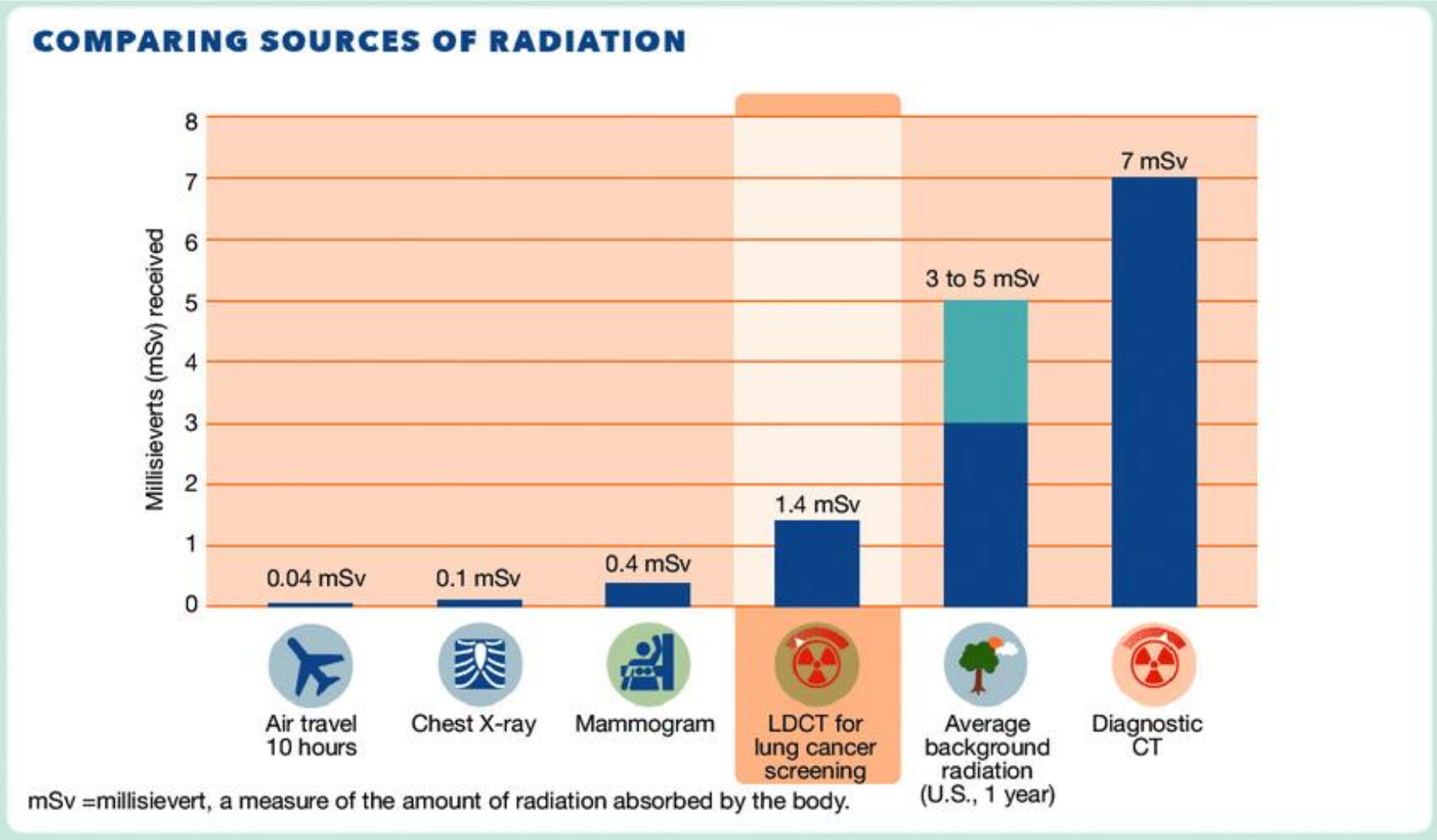
Step 2: Shared Decision Making (SDM) Visit

Counseling (Shared Decision Making) Visit Logistics:

- Must occur before the beneficiary's first lung cancer screening.
  - Can occur the same day as LDCT (but prior authorization can complicate coordination).
- Can be performed by any auxiliary personnel incident to a physician's professional service.
  - Does not need to be performed by provider anymore.
- Can bill CPT code (G0296) same day as a medically-necessary E/M or annual wellness with -25 modifier.
  - Health plans may limit same-day billing of G0296 and smoking cessation intervention codes (99406, 99407).



Potential Risk: Radiation



Lowenstein, Lisa & Deyter, Gary & Nishi, Shawn & Wang, Tianhao & Volk, Robert. (2018). Shared decision-making conversations and smoking cessation interventions: Critical components of low-dose CT lung cancer screening programs. Translational Lung Cancer Research. 7. 254-271. 10.21037/tlcr.2018.05.10.

Potential Risk: Stress

Anticipated distribution of Lung-RADS scores among eligible population[1]

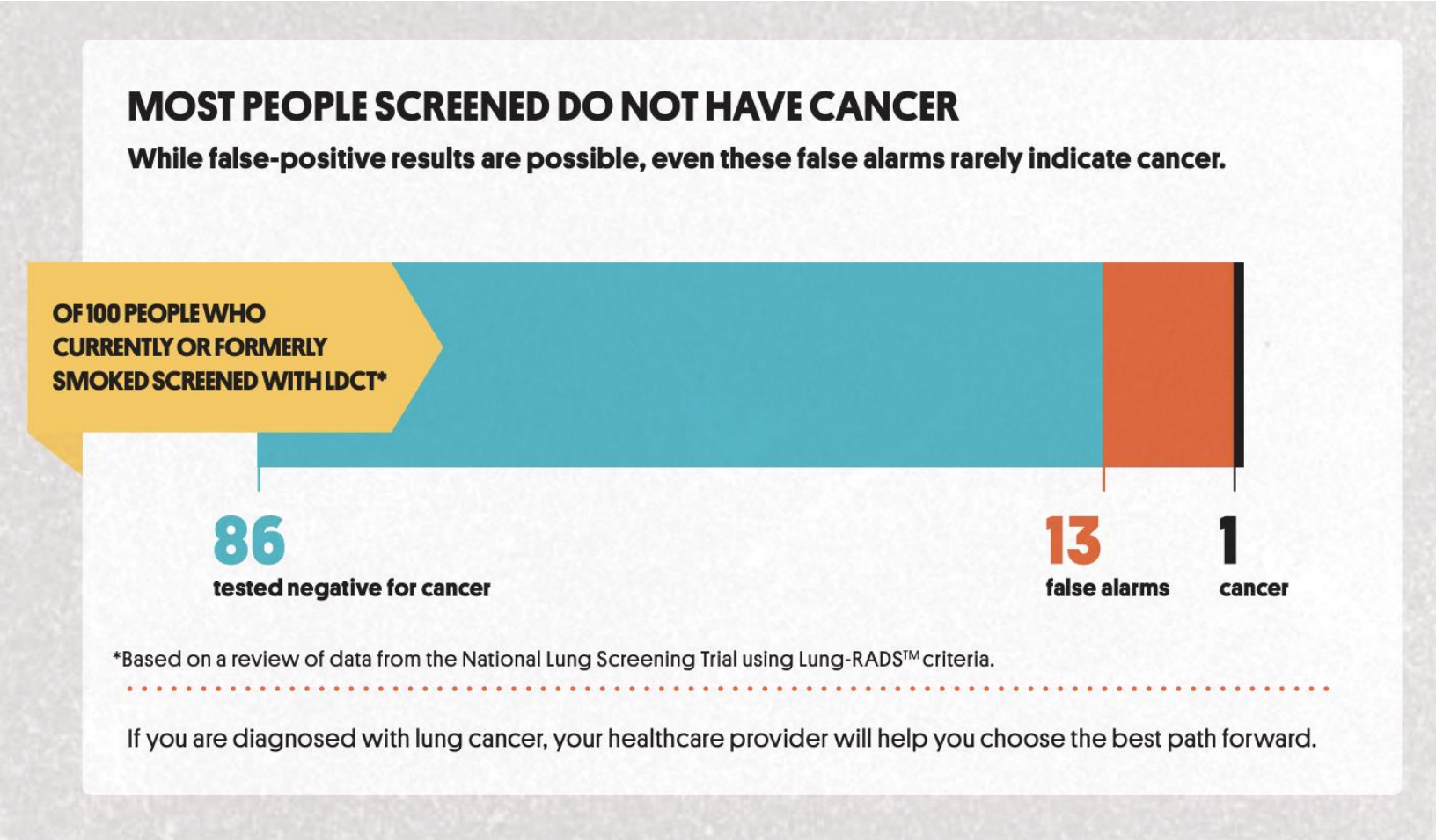
- Lung-RADS 0 (Incomplete): 1%
- Lung-RADS 1: 39%
- Lung-RADS 2: 45%

→ **84% of screening LDCTs are negative or benign**

- Lung-RADS 3: 9% → ~3% of these will be cancer
- Lung-RADS 4A: 4% → ~15% of these will be cancer
- Lung-RADS 4B: 2% → ~40% of these will be cancer
- Lung-RADS 4X: <1% → ~75% of these will be cancer

1. ACR. Lung-RADS v2022 [Internet]. 2022. Available from: https://www.acr.org/Clinical-Resources/Reporting-and-Data-Systems/Lung-Rads

Potential Risks: Stress cont.



https://www.screenyourlungs.org/resources.html

Potential Risk: "False Positives"

E.g. low-dose computed tomography (LDCT) findings that result in more imaging (3 + 4A) or invasive procedures (4B + 4X)

Use of Lung-RADS can significantly reduce "false positives" requiring additional testing[1]

Risk of Cancer with Abnormal Screen

- **Lung-RADS 3**: 1-2% cancer risk[2]
  - 15/517 (3%)[3]
  - 28/712 (3.9%)[2]
- **Lung-RADS 4A**: 5-15%[2] cancer risk
  - 38/233 (16%)[3]
  - 59/381 (15.5%)[2]
- **Lung-RADS 4B**: >15%[2] cancer risk
  - 35/86 (41%)[3]
  - 49/135 (36.3%)[2]
- **Lung-RADS 4X**: >15%[2] cancer risk
  - 51/69 (74%)[3]
  - 53/69 (76.8%)[2]

Additional non-invasive interval testing needed
(e.g. 3 or 6 month LDCT)

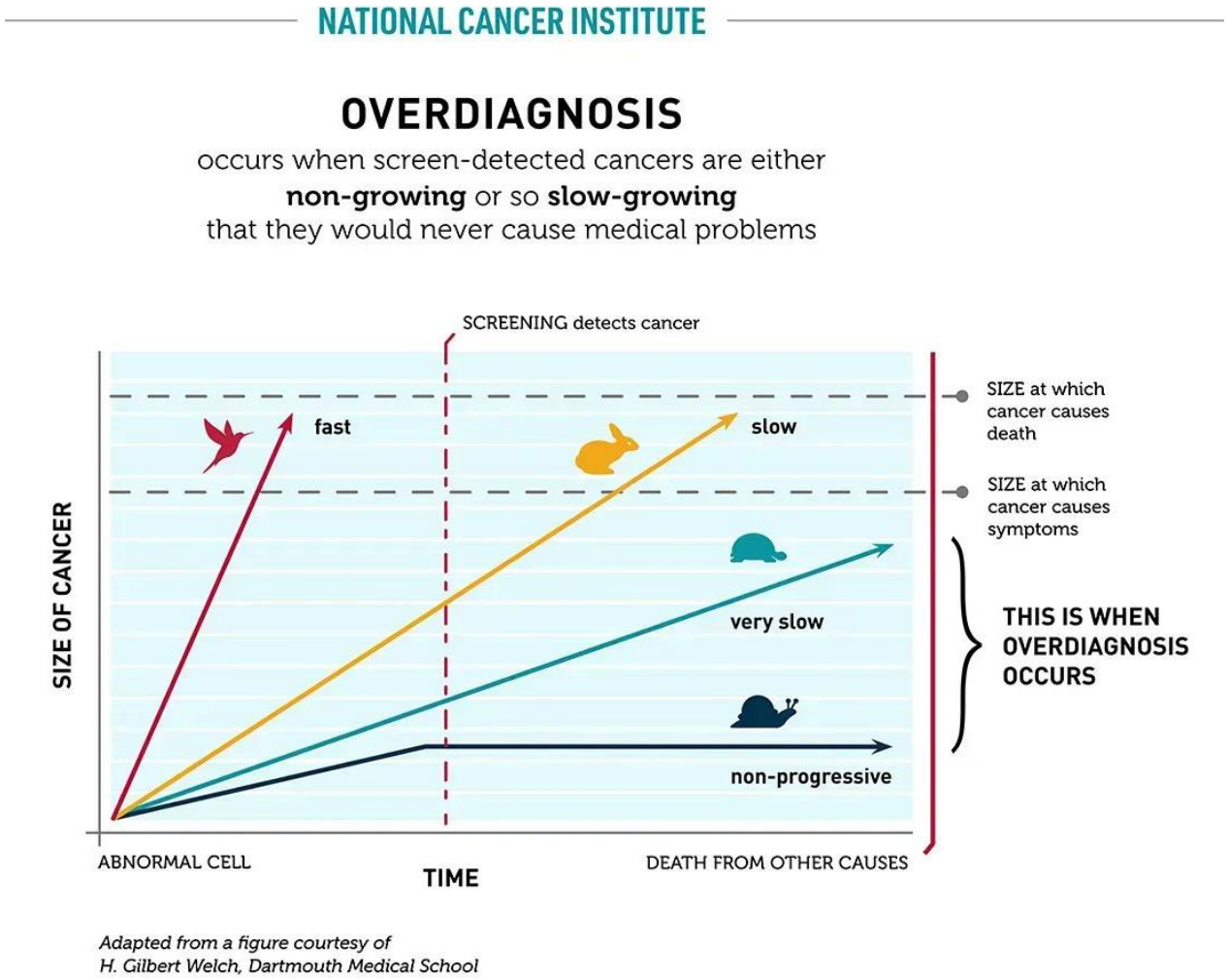
Invasive testing (e.g. lung biopsy) may be needed
CT at this point is also full-dose radiation with IV contrast

1. Pinsky PF, Gierada DS, Black W, Munden R, Nath H, Aberle D, et al. Performance of Lung-RADS in the National Lung Screening Trial: A Retrospective Assessment. Ann Intern Med. 2015 Apr 7;162(7):485–91.
2. Mendoza DP, Petranovic M, Som A, Wu MY, Park EY, Zhang EW, et al. Lung-RADS Category 3 and 4 Nodules on Lung Cancer Screening in Clinical Practice. American Journal of Roentgenology. 2022 Jul;219(1):55–65.
3. Hammer MM, Byrne SC, Kong CY. Factors Influencing the False Positive Rate in CT Lung Cancer Screening. Academic Radiology. 2022 Feb;29:S18–22.

Potential Risk: Overdiagnosis

(E.g. Diagnosis of lung cancer that would not have killed the patient)

- Unknown (screening relatively nascent)
- Lung cancer historically diagnosed at late-stage with poor survival
- People with tobacco-use history at risk of dying from multiple conditions



Financial Toxicity & Insurance Issues

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Tobacco Cessation[1]

- Tobacco Cessation Code (if separate visit from counseling visit): 99406 or 99407*
  * Insurance typically only covers 1 counseling session per day
- Medications: Covered by Medi-Cal
  - NRT gum/patch/lozenge/nasal spray/inhaler (prescription required for low/no-cost sharing)
  - Bupropion
  - Varenicline
- Group & Individual Counseling: Covered by Medi-Cal

1. Brady L, Gray J. Coverage of Preventive Services without Cost-Sharing. American Lung Association;

Financial Toxicity & Insurance Issues

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Annual Screening low-dose computed tomography LDCT[1]

- Generally no cost-sharing for G0296 and 71271.
  - Medicare: No cost sharing (co-insurance and Part B deductible waived).
  - Medi-Cal: No cost-sharing allowed.
  - Private:
    - Employer-Sponsored (except some grandfathered plans): No cost-sharing.
    - Covered California: No cost-sharing.
- Prior authorization and use of in-network providers may be required.
  - Complicates care consolidation since eligibility determination is part of counseling visit (→ prior authorization).
  - L.A. Care does not require referral/prior authorization for lung cancer G0296 or 71271.

1. Brady L, Gray J. Coverage of Preventive Services without Cost-Sharing. American Lung Association;

Financial Toxicity & Insurance Issues

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Diagnostic Work-Up[1]

- Interval 3-month or 6-month CT CPT Code: **71250** *(if needed before 12-month screening LDCT).*
- Cost-sharing is common.
- One study in Michigan: Average out-of-pocket (OOP) costs for follow-up tests after LDCT = $424.
  - 7.4% of participants required a follow-up test after their screening LDCT[1] .
- Prior authorization, in-network providers, and referrals for specialty services may be required.

1. Brady L, Gray J. Coverage of Preventive Services without Cost-Sharing. American Lung Association;

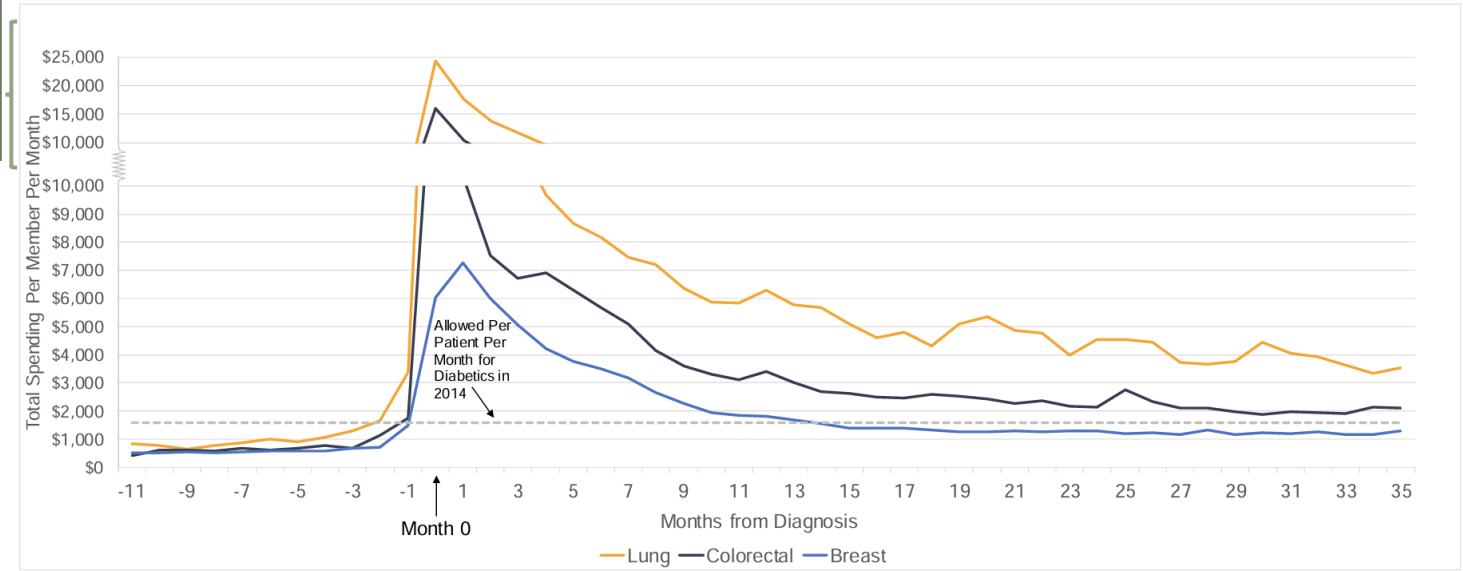
Financial Toxicity & Insurance Issues

Treatment[1]

MONTHS FROM DIAGNOSIS	0	5	11	17	23	29	35	41	47
CUMULATIVE TOTAL HEALTH SPENDING									
LUNG CANCER	$37,621	$99,062	$139,958	$172,213	$200,580	$225,270	$248,163	$265,725	$282,147
COLORECTAL CANCER	$24,555	$62,355	$87,316	$103,993	$118,372	$131,762	$143,722	$154,450	$165,080
BREAST CANCER	$13,323	$39,647	$55,084	$64,297	$71,960	$79,339	$86,646	$94,186	$101,401
CUMULATIVE PATIENT OUT-OF-POCKET COST									
LUNG CANCER	$2,918	$4,299	$5,489	$6,648	$7,747	$8,848	$9,794	$10,588	$11,180
COLORECTAL CANCER	$2,180	$3,273	$4,113	$4,973	$5,744	$6,534	$7,274	$7,938	$8,442
BREAST CANCER	$1,795	$2,825	$3,588	$4,329	$5,011	$5,741	$6,400	$7,017	$7,531

FIGURE 1: AVERAGE MONTHLY HEALTHCARE SPENDING BEFORE AND AFTER DIAGNOSIS, BY CANCER TYPE (2011-2014)[a]

Note different scale



1. Dieguez G, Ferro C, Pyenson B. A Multi-Year Look at the Cost Burden of Cancer Care. Milliman Research Report. 2017.

Financial Toxicity & Insurance Issues

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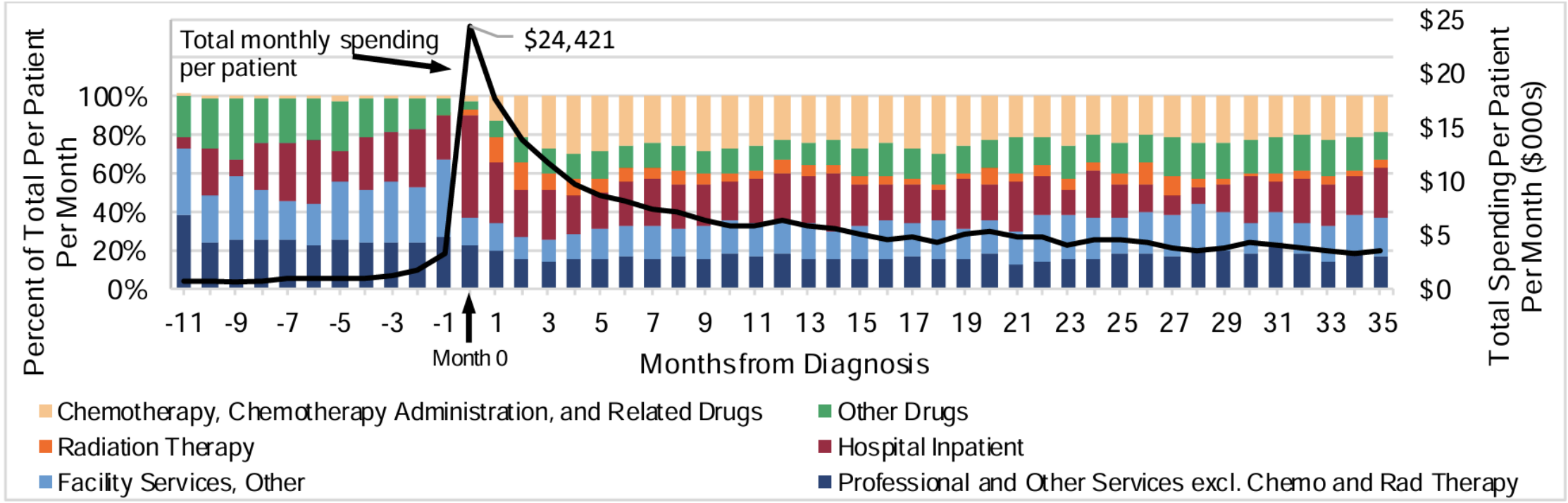
Treatment cont.[1]

FIGURE 2A: DISTRIBUTION AND MAGNITUDE OF MONTHLY TOTAL HEALTHCARE SPENDING BY SERVICE CATEGORY BEFORE AND AFTER DIAGNOSIS, – PATIENTS DIAGNOSED WITH LUNG CANCER (2011-2014)



1. Dieguez G, Ferro C, Pyenson B. A Multi-Year Look at the Cost Burden of Cancer Care. Milliman Research Report. 2017.

Risk or Benefit? Incidental Findings

NLST: 33.8% of participants had a significant incidental finding[1]

- 43% were pulmonary findings (non-cancerous).

Table 3. Specific SIFs Considered Reportable to the Referring Physician for the LDCT Arm of the NLST Across All 3 Screens by Frequency of Report[a]

Organ system	Classification	No. (% of all SIFs reported)
Abdomen	Kidney mass	647 (3.2)
	Liver lesion, no size	420 (2.1)
	Adrenal nodule or mass and not further characterized as benign	265 (1.3)
Cardiovascular	Coronary artery calcification, no evidence of a prior CABG or stent	2432 (12.1)
	Significant cardiovascular abnormality, not specified	904 (4.5)
	Aortic aneurysm	198 (1.0)
Pulmonary	Emphysema, COPD, hyperinflation, code 59 with no comments	8677 (43.0)
	Diffuse or patchy ground glass opacification	253 (1.3)
Thoracic and chest wall	Breast: nodule, mass	161 (0.8)
Total	NA	20 156 (100)

Abbreviations: CABG, coronary artery bypass grafting; COPD, chronic obstructive pulmonary disease; LDCT, low-dose computed tomography; NA, not applicable; NLST, National Lung Screening Trial; SIFs, significant incidental findings.

[a] Total represents the total number of SIFs reported by radiologists, as reported in eTable 2 in Supplement 1. This table includes SIFs occurring with a frequency of 0.8% or more of all reported SIFs observed in the LDCT arm of the NLST. The same SIF can appear more than once if detected at more than 1 screening visit.

1. Gareen IF, Gutman R, Sicks J, Tailor TD, Hoffman RM, Trivedi AN, et al. Significant Incidental Findings in the National Lung Screening Trial. JAMA Intern Med. 2023 Jul 1;183(7):677.

Shared Decision Making: Risks Summary

- **Radiation**: LDCT is less than annual background radiation.
- **Stress**: 84% of LDCTs are negative or benign.
- **"False Positives":** When biopsy recommended, high probability of malignancy (4B: ~40%, 4X: ~75%).
- **Overdiagnosis**: Unknown
- **Financial Toxicity:**
  - ↓ for tobacco cessation
  - ↓ for screening LDCT
  - ↑ for interval CT + diagnostic work-up
  - ↑ for treatment
- **Incidental Findings**: 30-40%, almost half of findings were pulmonary.

Benefits

- Early diagnosis → majority Stage I
  - Annually **1-3%** of screeners are diagnosed with lung cancer[1]
    - **50-70%** of diagnoses are Stage I[1]
    - No screening: Nearly half of diagnoses metastatic (Stage IV)[2]
- Lung cancer-specific mortality: ↓ 20-24%
  - 5-year NSCLC survival[3]
    - **Stage I**: 68.4%
    - **Stage IV**: 5.8%
- Overall mortality: ↓ 6.7%
- Relatively non-invasive
- Relatively efficient
- Additive benefits with tobacco cessation + lung cancer screening

1. Oudkerk M, Liu S, Heuvelmans MA, Walter JE, Field JK. Lung cancer LDCT screening and mortality reduction — evidence, pitfalls and future perspectives. Nat Rev Clin Oncol. 2021 Mar;18(3):135–51.
2. SEER*Explorer: An interactive website for SEER cancer statistics [Internet]. Surveillance Research Program, National Cancer Institute; 2023 Apr. Available from: https://seer.cancer.gov/statistics-network/explorer/
3. Ganti AK, Klein AB, Cotarla I, Seal B, Chou E. Update of Incidence, Prevalence, Survival, and Initial Treatment in Patients With Non–Small Cell Lung Cancer in the US. JAMA Oncol. 2021 Dec 1;7(12):1824.
4. Ganti AK, Klein AB, Cotarla I, Seal B, Chou E. Update of Incidence, Prevalence, Survival, and Initial Treatment in Patients With Non–Small Cell Lung Cancer in the US. JAMA Oncol. 2021 Dec 1;7(12):1824.
5. de Koning HJ, van der Aalst CM, de Jong PA, Scholten ET, Nackaerts K, Heuvelmans MA, et al. Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. N Engl J Med. 2020 Feb 6;382(6):503–13.
6. Jonas DE, Reuland DS, Reddy SM, Nagle M, Clark SD, Weber RP, et al. Screening for Lung Cancer With Low-Dose Computed Tomography: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 2021 Mar
7. Goding Sauer A, Siegel RL, Jemal A, Fedewa SA. Current Prevalence of Major Cancer Risk Factors and Screening Test Use in the United States: Disparities by Education and Race/Ethnicity. Cancer Epidemiol Biomarkers Prev. 2019 Apr 1;28(4):629–42.
8. Richardson A. Screening and the number needed to treat. J Med Screen. 2001 Sep 1;8(3):125–7.
9. Smith RA, Andrews KS, Brooks D, Fedewa SA, Manassaram-Baptiste D, Saslow D, et al. Cancer screening in the United States, 2019: A review of current American Cancer Society guidelines and current issues in cancer screening. CA Cancer J Clin. 2019 May;69(3):184–210.
10. Fitzpatrick-Lewis D, Ali MU, Warren R, Kenny M, Sherifali D, Raina P. Screening for Colorectal Cancer: A Systematic Review and Meta-Analysis. Clin Colorectal Cancer. 2016 Dec;15(4):298–313.
11. Peirson L, Fitzpatrick-Lewis D, Ciliska D, Warren R. Screening for cervical cancer: a systematic review and meta-analysis. Syst Rev. 2013 Dec;2(1):35.
12. Winawer SJ, Fletcher RH, Miller, Laura, Godlee F, Stolar M. Colorectal Cancer Screening: Clinical Guidelines and Rationale. Gastroenterology. 1997;112:594–642. 9;325(10):971.

Benefits

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- Overall mortality: ↓ 6.7%
- Relatively non-invasive
- Relatively efficient
- Additive benefits with tobacco cessation + lung cancer screening

National Screening Rate & Efficiency by Cancer Type[4-12]

Cancer	% of Eligible Screened	Number Needed to Screen*
Lung	4.5%	130-320
Breast	75.7%**	781
Cervical	75.2%**	1140
Colorectal	72.2%**	gFOBT: 1250 FlexSig: 864 Colonoscopy: 186

*To prevent 1 cancer-specific death

**Self-reported (BRFSS)

1. Oudkerk M, Liu S, Heuvelmans MA, Walter JE, Field JK. Lung cancer LDCT screening and mortality reduction — evidence, pitfalls and future perspectives. Nat Rev Clin Oncol. 2021 Mar;18(3):135–51.
2. SEER*Explorer: An interactive website for SEER cancer statistics [Internet]. Surveillance Research Program, National Cancer Institute; 2023 Apr. Available from: https://seer.cancer.gov/statistics-network/explorer/
3. Ganti AK, Klein AB, Cotarla I, Seal B, Chou E. Update of Incidence, Prevalence, Survival, and Initial Treatment in Patients With Non–Small Cell Lung Cancer in the US. JAMA Oncol. 2021 Dec 1;7(12):1824.
4. Ganti AK, Klein AB, Cotarla I, Seal B, Chou E. Update of Incidence, Prevalence, Survival, and Initial Treatment in Patients With Non–Small Cell Lung Cancer in the US. JAMA Oncol. 2021 Dec 1;7(12):1824.
5. de Koning HJ, van der Aalst CM, de Jong PA, Scholten ET, Nackaerts K, Heuvelmans MA, et al. Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. N Engl J Med. 2020 Feb 6;382(6):503–13.
6. Jonas DE, Reuland DS, Reddy SM, Nagle M, Clark SD, Weber RP, et al. Screening for Lung Cancer With Low-Dose Computed Tomography: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 2021 Mar
7. Sabatino SA, Thompson TD, White MC, Villarroel MA, Shapiro JA, Croswell JM, et al. Up-to-Date Breast, Cervical, and Colorectal Cancer Screening Test Use in the United States, 2021. Prev Chronic Dis. 2023 Oct 26;20:230071.
8. Richardson A. Screening and the number needed to treat. J Med Screen. 2001 Sep 1;8(3):125–7.
9. Smith RA, Andrews KS, Brooks D, Fedewa SA, Manassaram-Baptiste D, Saslow D, et al. Cancer screening in the United States, 2019: A review of current American Cancer Society guidelines and current issues in cancer screening. CA Cancer J Clin. 2019 May;69(3):184–210.
10. Fitzpatrick-Lewis D, Ali MU, Warren R, Kenny M, Sherifali D, Raina P. Screening for Colorectal Cancer: A Systematic Review and Meta-Analysis. Clin Colorectal Cancer. 2016 Dec;15(4):298–313.
11. Peirson L, Fitzpatrick-Lewis D, Ciliska D, Warren R. Screening for cervical cancer: a systematic review and meta-analysis. Syst Rev. 2013 Dec;2(1):35.
12. Winawer SJ, Fletcher RH, Miller, Laura, Godlee F, Stolar M. Colorectal Cancer Screening: Clinical Guidelines and Rationale. Gastroenterology. 1997;112:594–642. 9;325(10):971.

Why does annual adherence matter?

% cancers identified on **index (baseline) LDCT**:

- NLST: 35%[1]
- NELSON: 28%[2]

% cancers identified on **subsequent LDCTs**:

- NLST (2 subsequent LDCTs): 65%[1]
- NELSON (3 subsequent LDCTs): 72%[2]

One screen is better than none, but most cancers are identified on subsequent screening LDCTs

1. Aberle D, Adams A, Berg C. Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening. N Engl J Med. 2011 Aug 4;365(5):395–409.
2. de Koning HJ, van der Aalst CM, de Jong PA, Scholten ET, Nackaerts K, Heuvelmans MA, et al. Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. N Engl J Med. 2020 Feb 6;382(6):503–13.

Step 3: Order low-dose computed tomography (LDCT)

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Request Lung-RADS read from radiologist to simplify next steps

American College of Radiology

Lung-RADS® v2022

Release Date: November 2022

Lung-RADS	Category Descriptor	Findings	Management
0	**Incomplete** Estimated Population Prevalence: ~ 1%	Prior chest CT examination being located for comparison (see note 9)	Comparison to prior chest CT;
		Part or all oflungs cannot be evaluated	Additional lung cancer screening CT imaging needed;
		Findings suggestive of an inflammatory or infectious process (see note 10)	1-3 month LDCT
1	**Negative** Estimated Population Prevalence: 39%	**No lung nodules OR**	12-month screening LDCT
		Nodule with benign features: • Complete, central, popcorn, or concentric ring calcifications **OR** • Fat-containing	
2	**Benign -** Based on imaging features or indolent behavior Estimated Population Prevalence: 45%	**Juxtapleural nodule:** • < 10 mm (524 mm^3) mean diameter at baseline or new **AND** • Solid; smooth margins; and oval, lentiform, or triangular shape	
		Solid nodule: • < 6 mm (< 113 mm^3) at baseline **OR** • New < 4 mm (< 34 mm^3)	
		Part solid nodule: • < 6 mm total mean diameter (< 113 mm^3) at baseline	
		Non solid nodule (GGN): • < 30 mm (< 14,137 mm^3) at baseline, new, or growing **OR** • ≥ 30 mm (≥ 14,137 mm^3) stable or slowly growing (see note 7)	
		Airway nodule, subsegmental - at baseline, new, or stable (see note 11)	
		Category 3 lesion that is stable or decreased in size at 6-month follow-up CT **OR** Category 4B lesion proven to be benign in etiology following appropriate diagnostic workup	
3	**Probably Benign -** Based on imaging features or behavior Estimated Population Prevalence: 9%	**Solid nodule:** • ≥ 6 to < 8 mm (≥ 113 to < 268 mm^3) at baseline **OR** • New 4 mm to < 6 mm (34 to < 113 mm^3)	6-month LDCT
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm^3) with solid component < 6 mm (< 113 mm^3) at baseline **OR** • New < 6 mm total mean diameter (< 113 mm^3)	
		Non solid nodule (GGN): • ≥ 30 mm (≥ 14,137 mm^3) at baseline or new	
		Atypical pulmonary cyst: (see note 12) • Growing cystic component (mean diameter) of a thick-walled cyst	
		Category 4A lesion that is stable or decreased in size at 3-month follow-up CT (excluding airway nodules)	
4A	**Suspicious** Estimated Population Prevalence: 4%	**Solid nodule:** • ≥ 8 to < 15 mm (≥ 268 to < 1,767 mm^3) at baseline **OR** • Growing < 8 mm (< 268 mm^3) **OR** • New 6 to < 8 mm (113 to < 268 mm^3)	3-month LDCT; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm^3) solid nodule or solid component
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm^3) with solid component ≥ 6 mm to < 8 mm (≥ 113 to < 268 mm^3) at baseline **OR** • New or growing < 4 mm (< 34 mm^3) solid component	
		Airway nodule, segmental or more proximal - at baseline (see note 11)	
		Atypical pulmonary cyst: (see note 12) • Thick-walled cyst **OR** • Multilocular cyst at baseline **OR** • Thin- or thick-walled cyst that becomes multilocular	
4B	**Very Suspicious** Estimated Population Prevalence: 2%	**Airway nodule,** segmental or more proximal - stable or growing (see note 11)	Referral for further clinical evaluation
		Solid nodule: • ≥ 15 mm (≥ 1767 mm^3) at baseline **OR** • New or growing ≥ 8 mm (≥ 268 mm^3)	Diagnostic chest CT with or without contrast; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm^3) solid nodule or solid component; tissue sampling; and/or referral for further clinical evaluation Management depends on clinical evaluation, patient preference, and the probability of malignancy (see note 13)
		Part solid nodule: • Solid component ≥ 8 mm (≥ 268 mm^3) at baseline **OR** • New or growing ≥ 4 mm (≥ 34 mm^3) solid component	
		Atypical pulmonary cyst: (see note 12) • Thick-walled cyst with growing wall thickness/nodularity **OR** • Growing multilocular cyst (mean diameter) **OR** • Multilocular cyst with increased loculation or new/increased opacity (nodular, ground glass, or consolidation)	
		Slow growing solid or part solid nodule that demonstrates growth over multiple screening exams (see note 8)	
4X	Estimated Population Prevalence: < 1%	Category 3 or 4 nodules with additional features or imaging findings that increase suspicion for lung cancer (see note 14)	
S	**Significant or Potentially Significant** Estimated Population Prevalence: 10%	**Modifier:** May add to category 0-4 for clinically significant or potentially clinically significant findings unrelated to lung cancer (see note 15)	As appropriate to the specific finding

Lung-RADS 4A+ → Refer to Pulm

Suspicious → Pulm

4A	**Suspicious** Estimated Population Prevalence: 4%	**Solid nodule:** • ≥ 8 to < 15 mm (≥ 268 to < 1,767 mm³) at baseline **OR** • Growing < 8 mm (< 268 mm³) **OR** • New 6 to < 8 mm (113 to < 268 mm³)	3-month LDCT; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm³) solid nodule or solid component
		Part solid nodule: • ≥ 6 mm total mean diameter (≥ 113 mm³) with solid component ≥ 6 mm to < 8 mm (≥ 113 to < 268 mm³) at baseline **OR** • New or growing < 4 mm (< 34 mm³) solid component	
		Airway nodule, segmental or more proximal - at baseline (see note 11)	
		Atypical pulmonary cyst: (see note 12) • Thick-walled cyst **OR** • Multilocular cyst at baseline **OR** • Thin- or thick-walled cyst that becomes multilocular	
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		Part solid nodule: • Solid component ≥ 8 mm (≥ 268 mm³) at baseline **OR** • New or growing ≥ 4 mm (≥ 34 mm³) solid component	
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		Slow growing solid or part solid nodule that demonstrates growth over multiple screening exams (see note 8)	
4X	Estimated Population Prevalence: < 1%	Category 3 or 4 nodules with additional features or imaging findings that increase suspicion for lung cancer (see note 14)	

Lung-RADS 4A+! What Next?

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Diagnostic Work-Up

- Diagnostic CT
- PET-CT
- Tissue biopsy (endobronchial or transthoracic)

Cancer Staging & Treatment Work-Up

- Invasive lymph node sampling (EBUS or mediastinoscopy)
  - **EBUS-FNA:** (Interventional) Pulmonology
  - **Mediastinoscopy:** Thoracic Surgery
- Surgical fitness: PFTs
- Biomarkers

Stage-Appropriate Treatment

- Stage I-IIIA: Surgical resection* (if candidate)

**treatment sequencing varies*

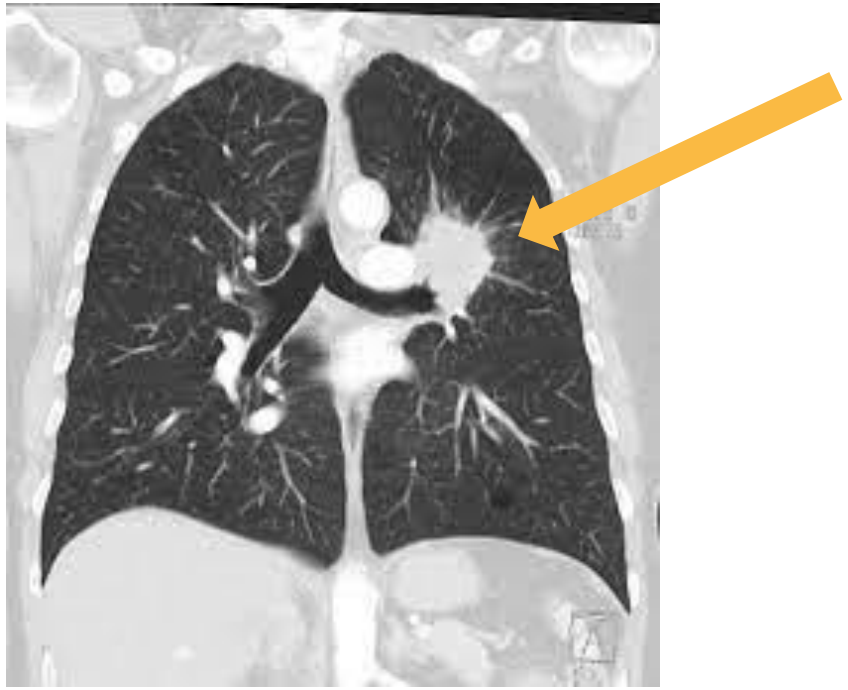
  - IA: No further treatment
  - IB+: Maybe adjuvant therapy
- IIIB-IV: Usually systemic therapy +/- radiation

Surveillance

- Years 1-2: CT Chest every 6 months
- Years 3-5: CT Chest every year
- Years 6+: Back to regular screening (if eligible)

Who are the potential specialists?

Tissue biopsy:
- Interventional radiology (IR) or
- (Interventional) pulmonology



https://radiopaedia.org/cases/39727/studies/42103?lang=us

Lung-RADS 4A+! What Next?

UCLA

Diagnostic Work-Up

- Diagnostic CT
- PET-CT
- Tissue biopsy (endobronchial or transthoracic)

Cancer Staging & Treatment Work-Up

- Invasive lymph node sampling (EBUS or mediastinoscopy)
  - **EBUS-FNA**: (Interventional) Pulmonology
  - **Mediastinoscopy**: Thoracic Surgery
- Surgical fitness: PFTs
- Biomarkers

Stage-Appropriate Treatment

- Stage I-IIIA: Surgical resection* (if candidate)

**treatment sequencing varies*

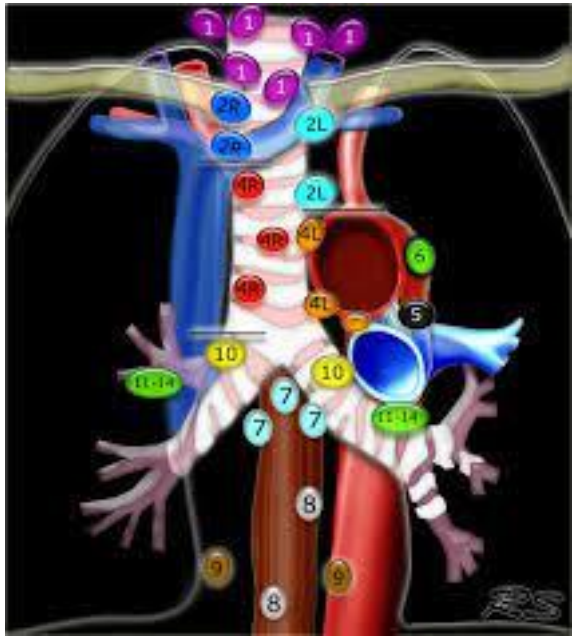
  - IA: No further treatment
  - IB+: Maybe adjuvant therapy
- IIIB-IV: Usually systemic therapy +/- radiation

Surveillance

- Years 1-2: CT Chest every 6 months
- Years 3-5: CT Chest every year
- Years 6+: Back to regular screening (if eligible)

Who are the potential specialists?

Invasive lymph node sampling:
- (Interventional) pulmonology
- Thoracic surgery



https://radiologyassistant.nl/chest/mediastinum/mediastinum-lymph-node-map

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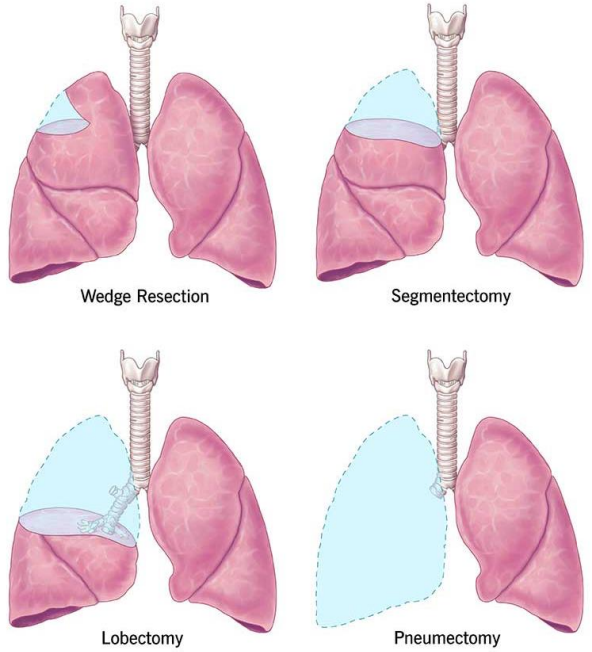
Who are the potential specialists?

Treatment:
- Thoracic surgery
- Thoracic (medical) oncology
- Radiation oncology



https://my.clevelandclinic.org/health/treatments/21868-lung-resection

Lung-RADS 4A+! What Next?

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- **Years 1-2:** CT Chest every 6 months
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https://ufhealthjax.org/conditions-and-treatments/lung-cancer-screening-low-dose-ct

Review: 3 Practical Screening Requirements

1) Eligibility (4 of 4)

- Asymptomatic
- Age: 50-80 (77 for Medicare)
- 20 pack-years
- Quit ≤15 years ago

2) 1st Screen Documentation Requirements (4 of 4)

- Patient eligibility
- Shared decision making with 1+ decision aid
- Screening rationale + importance of adherence discussion
- Abstinence or tobacco cessation

3) Necessary Codes (CPT & ICD) (3 of 4)

1 of 2 ICD codes required:

- Z87.891: Personal history of nicotine dependence or,
- F17.21: Nicotine dependence, **cigarettes**

2 of 2 CPT codes required:

- G0296: Counseling visit to discuss lung cancer screening need Listed as a permanent telehealth code, payable in facility and non-facility setting
- 71271: Computed tomography, thorax, low dose for lung cancer screening, without contrast material(s)

Conclusion: 3 Main Takeaways

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1. Lung cancer is a serious health equity issue → Screening saves lives.

2. Risk factors ≠ eligibility, but smoking duration is paramount.

3. Request Lung-RADS reads → Refer at 4A to pulm.

Frequently Asked Questions (FAQs)

UCLA

Question # 1: Is lung cancer screening covered by insurance?

Answer # 1: In California, annual low-dose computed tomography (CT) is covered by insurance for people who meet eligibility criteria without cost-sharing (e.g. no copay) for Medicare, Medi-Cal and private insurance (exception: "grandfathered" insurance plans are not required to cover lung cancer screening).

Question # 2: Can I just screen my patient once for lung cancer?

Answer #2: One screen is better than none, but most lung cancers are identified on subsequent screening low-dose computed tomography (LDCT), not on the baseline screen. In the two largest trials – the NLST (3 rounds of screening) and NELSON (4 rounds of screening) – 35% and 28% of cancers were found on index (baseline) LDCT, respectively, while 65% and 72% of cancers were identified on subsequent screening LDCTs.

Frequently Asked Questions (FAQs)

UCLA

Question # 3: Can you just biopsy someone's lung if something abnormal is found?

Answer # 3: Most abnormal lung cancer screening findings are monitored with a shorter-interval LDCTs (3-month or 6-month LDCTs). When biopsy is recommended, there is a relatively high probability of malignancy (LungRADS 4B: ~40%; 4X: ~75%). The lung tissue can be biopsied through the chest wall (transthoracic) or through the bronchi (endobronchial) with a low risk of pneumothorax.

Frequently Asked Questions (FAQs)

Question # 4: Can I help my patients stop smoking instead of recommending lung cancer screening?

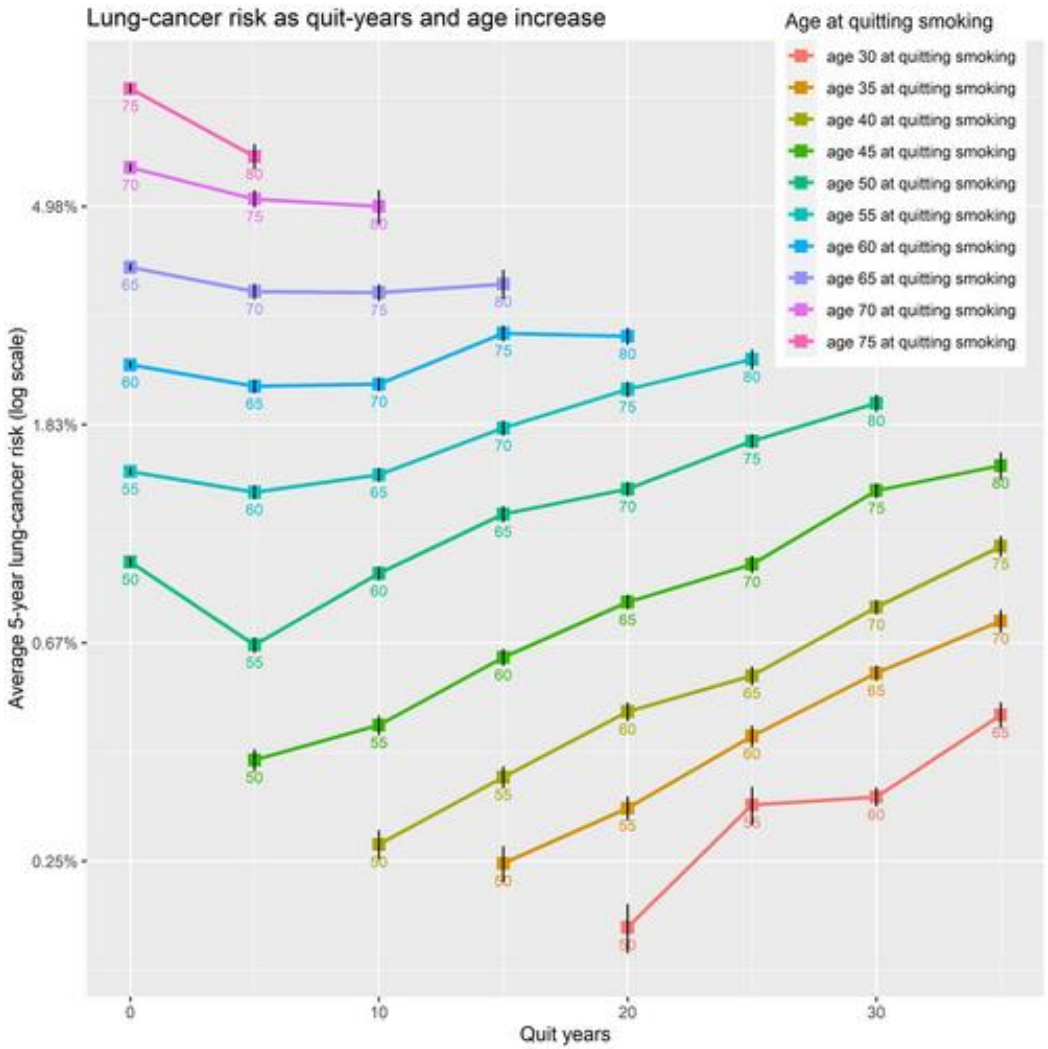
Answer # 4: Smoking cessation is one of the most powerful health interventions available. For lung cancer risk, quitting smoking (and not just smoking less) is very important. Smoking at a lower-intensity for a long duration confers a greater lung cancer risk than smoking at a higher-intensity for a shorter duration. However, even after quitting smoking, lung cancer risk still remains elevated. Combining lung cancer screening with sustained smoking abstinence can reduce lung cancer mortality by approximately 40%.

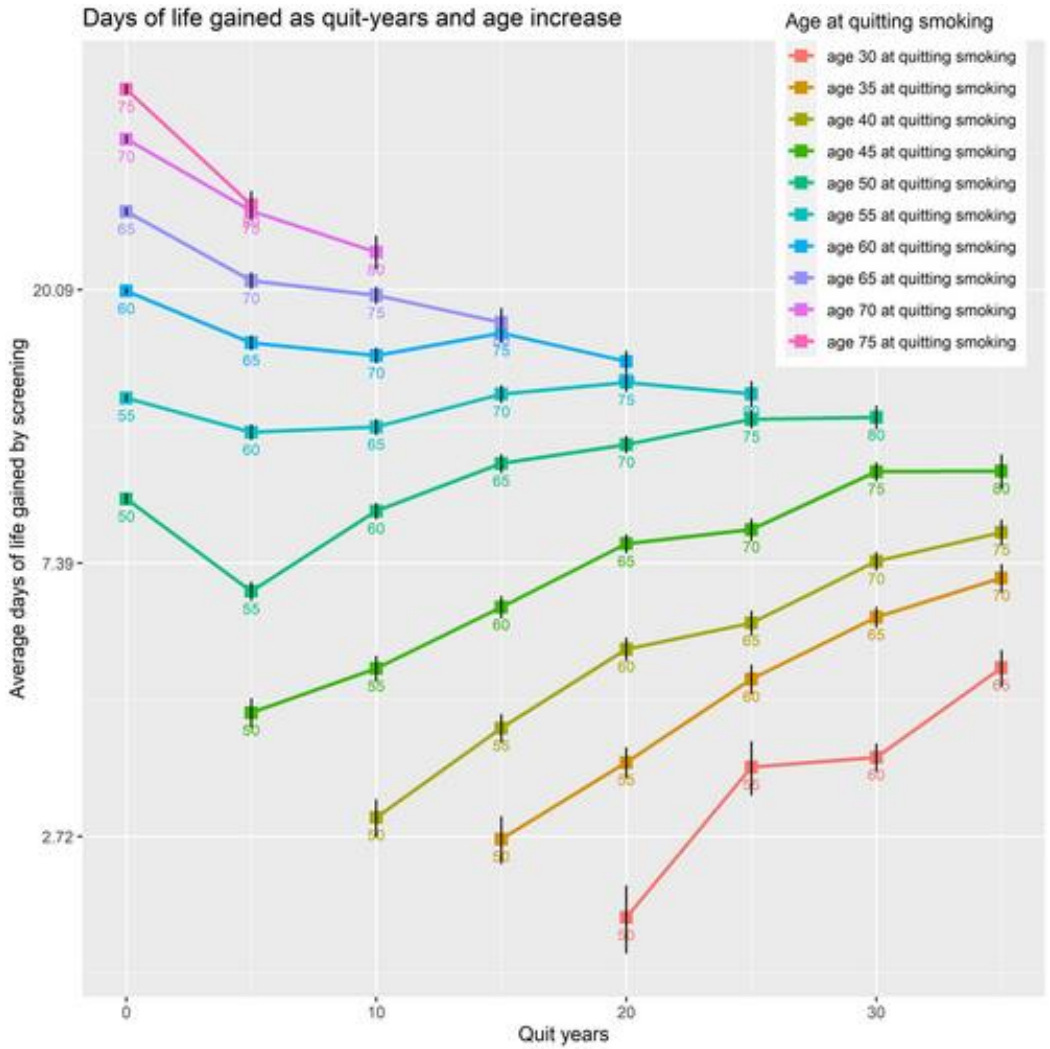
Thank you!

Email: htupper@mednet.ucla.edu

UCLA

ACS: Removal of ≤15 years since quit





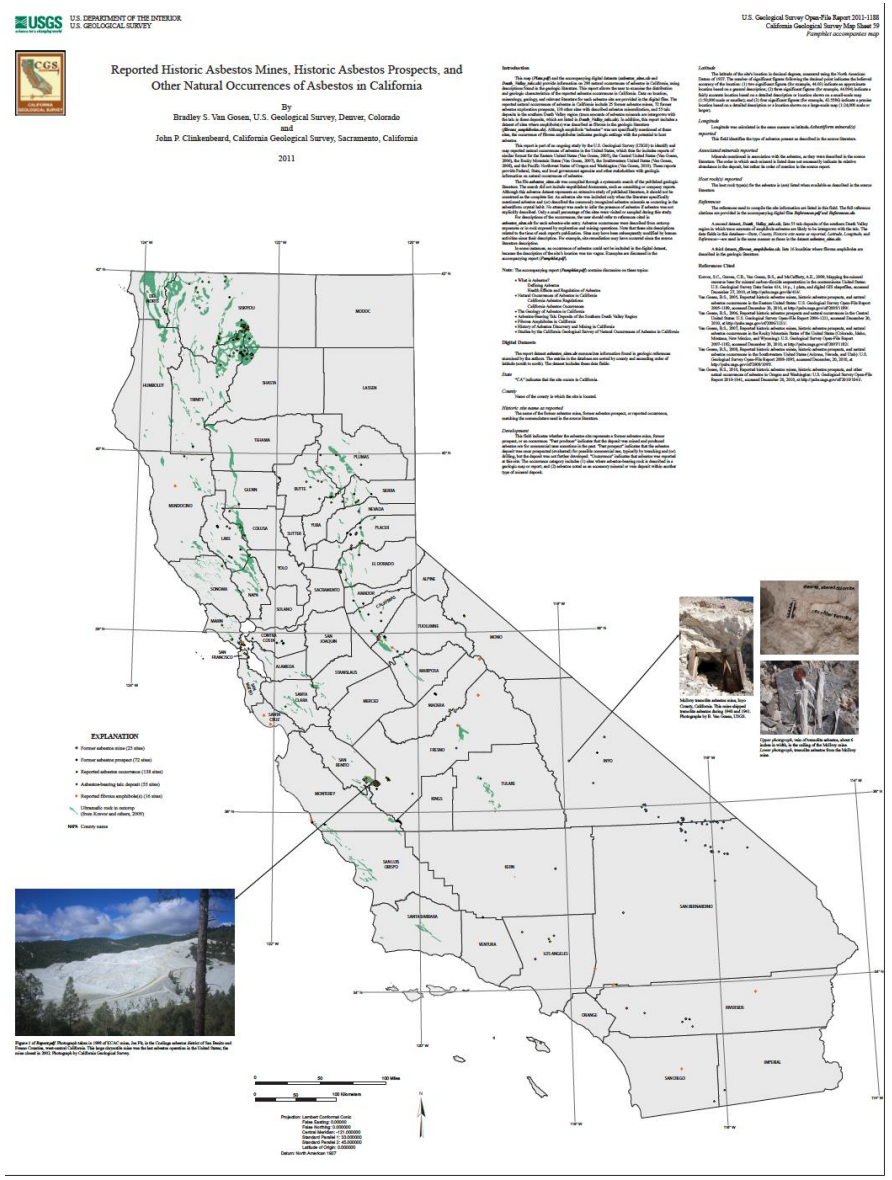
Landy R, Cheung LC, Young CD, Chaturvedi AK, Katki HA. Absolute lung cancer risk increases among individuals with >15 quit-years: Analyses to inform the update of the American Cancer Society lung cancer screening guidelines. Cancer. 2024 Jan;130(2):201–15.

Risk Factors: Asbestos

https://www.conservation.ca.gov/cgs/minerals/mineral-hazards/asbestos

Caveat: This is naturally occurring asbestos

Also, see attached pdf of historic asbestos sites

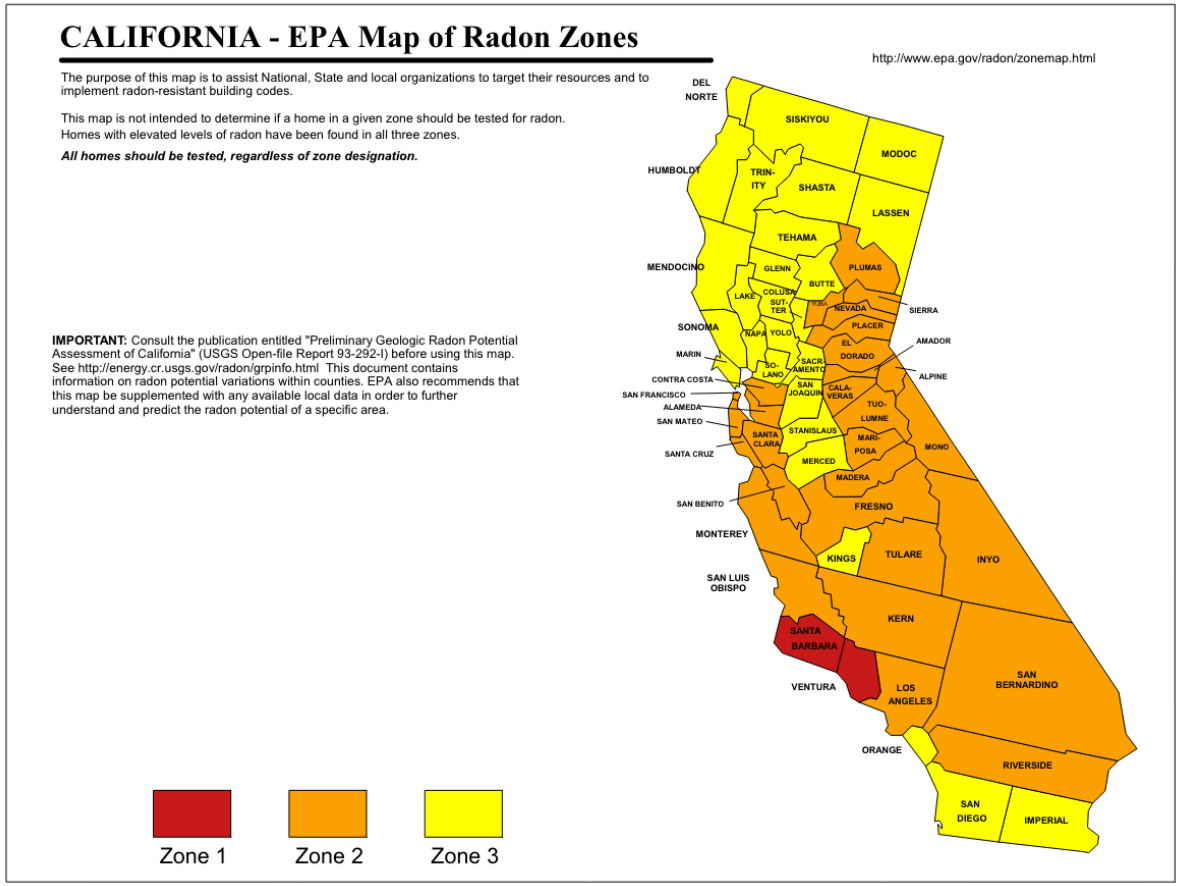


Risk Factors: Radon

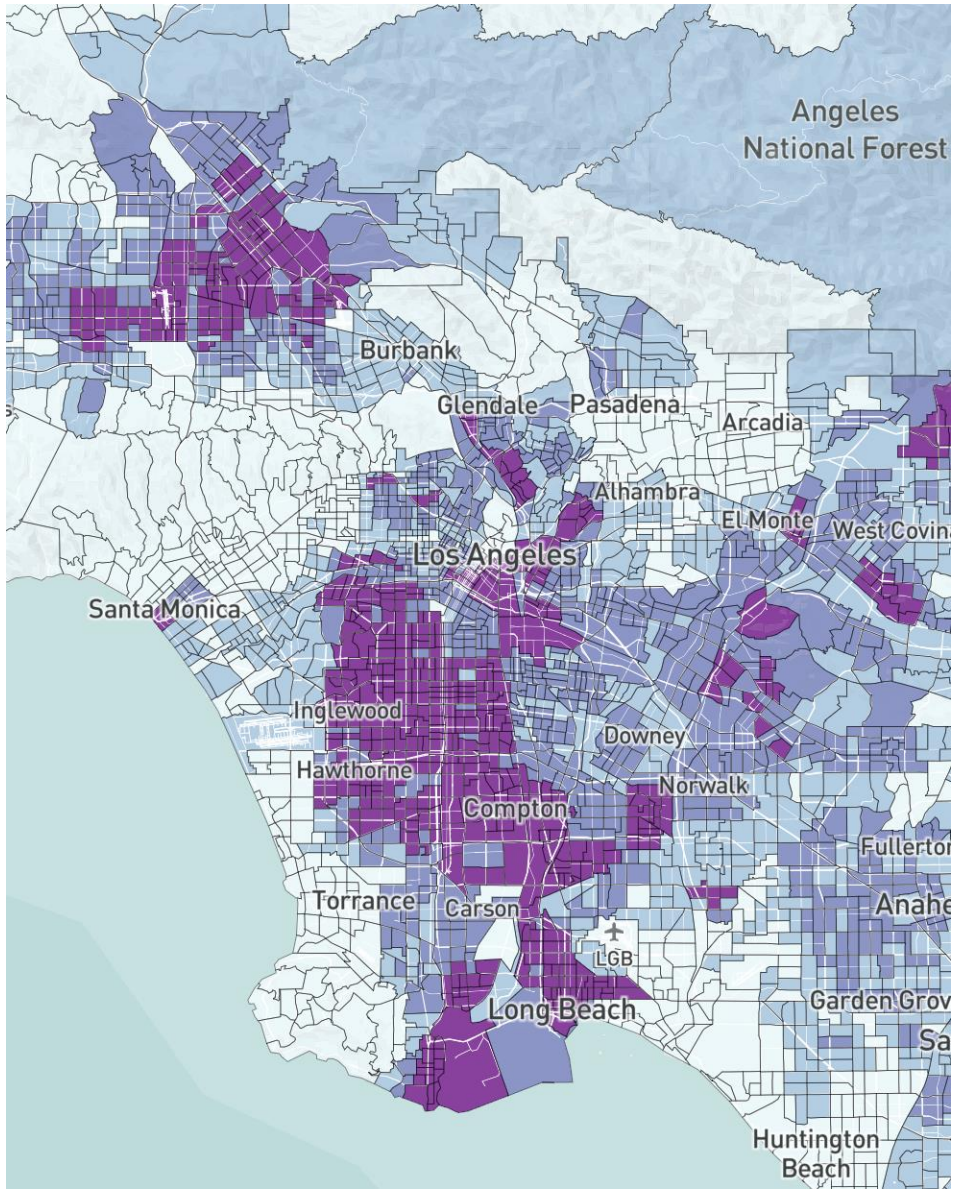
https://www.cdph.ca.gov/Programs/CEH/DRSEM/Pages/EMB/Radon/Radon-in-California.aspx#

https://www.epa.gov/sites/default/files/2014-08/documents/california.pdf

Supposedly maps available for the following counties/areas:
Western Tulare
Orange County
San Mateo
Palos Verdes
Santa Cruz
Lake Tahoe
San Luis Obispo
Monterey County
Ventura County
Southern Los Angeles
Santa Barbara



Asthma ER Visits



Asthma ER Admissions
(2011 - 2013)
Percentile Ranking

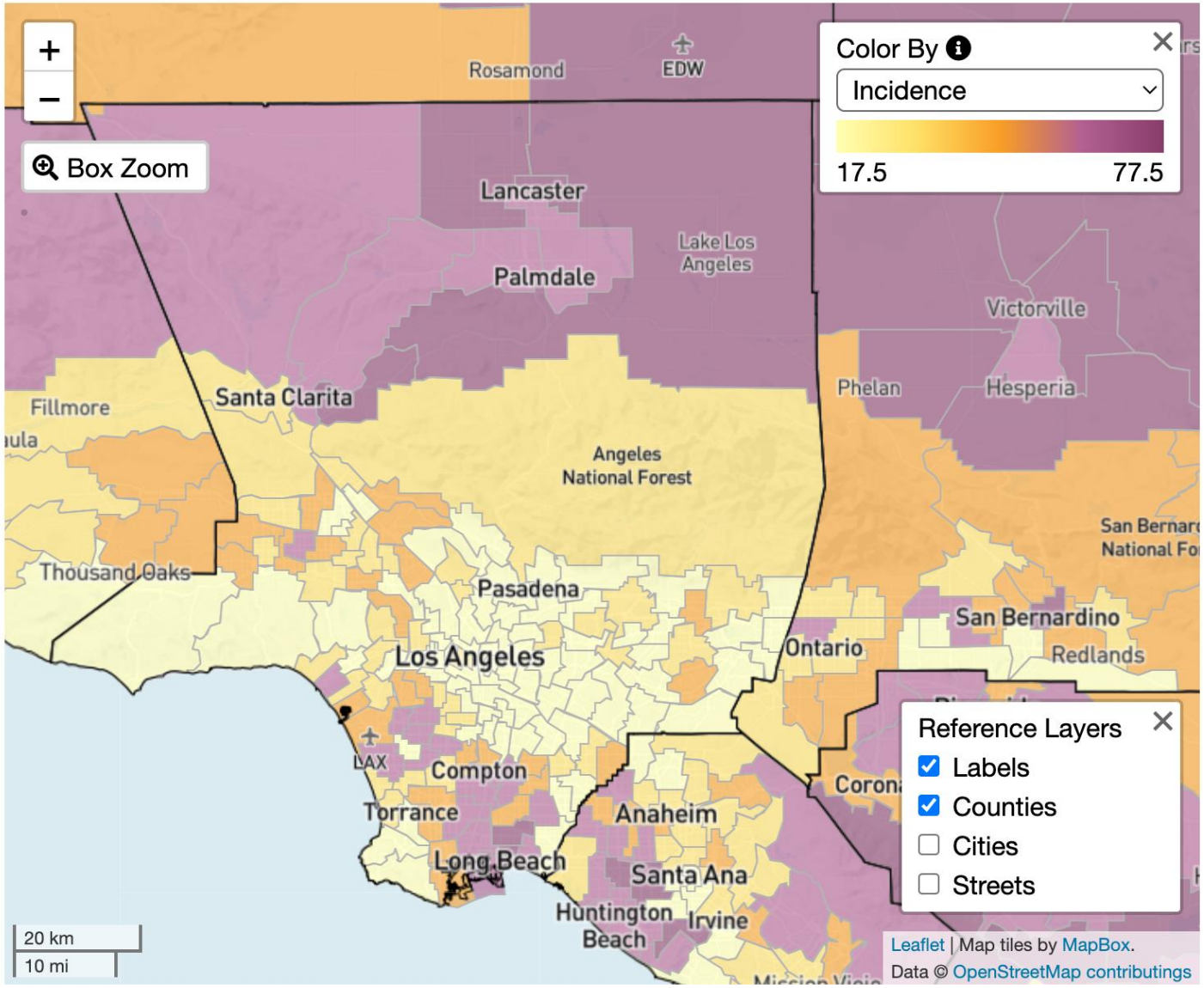
100
75
50
25
0

More
↑
Less

Select geography

https://map.healthyplacesindex.org/?redirect=false

Lung Cancer Incidence



Q & A Session

L.A. Care PCE Program Friendly Reminders

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Please note: ***the online survey may appear in another window or tab after the webinar ends.***

Upon completion of the online survey, you will receive the PDF CME or CE certificate based on your credential, verification of name and attendance duration time of at least 75 minutes, ***within two (2) weeks after today's webinar.***

Webinar participants will only have up to two weeks after webinar date to email Leilanie Mercurio at lmercurio@lacare.org to request the evaluation form if the online survey is not completed yet. No name, no survey or completed evaluation and less than 75 minutes attendance duration time via log in means No CME or CE credit, No CME or CE certificate.

Thank you!