

University of Wisconsin-Center for Tobacco Research and Intervention Overview

October 7, 2026



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University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI) Overview

Research

Outreach Program

Resources

- Wisconsin Tobacco Quit Line
 - Tobacco Treatment Implementation Roadmap
-

Opportunities to Partner

Dr. Kathuria – Lung Cancer Screening

UNIVERSITY OF WISCONSIN CENTER FOR TOBACCO RESEARCH AND INTERVENTION

- Nationally recognized organization with a mission to expand the understanding of tobacco dependence and its treatment and to use this knowledge to design and implement interventions to reduce tobacco use
- Established 1992
- Founded by Drs. Michael Fiore and Timothy Baker
- Current director is Dr. Hasmeena Kathuria





2005
conducts first
Clinical Trial
on
Varenicline

2006
based on the
National Action Plan,
800-QUIT-NOW
goes national



2010
Wisconsin passes its
Smoking Ban
thanks to the state
movement



2008
feds update the tobacco
Guideline,
again chaired by
UW-CTRI



2018
UW-CTRI surpasses
50,000
clinicians
trained



2020
UW-CTRI Celebrates
30 Years



2020
UW-CTRI contributes to
US Surgeon
General's
Report



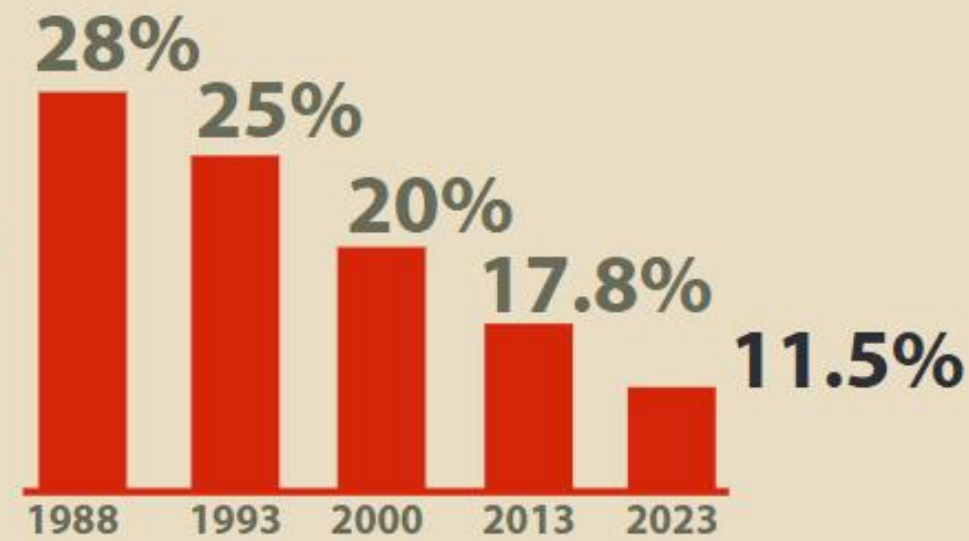
2023
UW-CTRI surpasses
\$192 million
in grant
funding



UW-CTRI has helped
more than **300,000**
patients



Smoking Prevalence
During UW-CTRI's Work



UNIVERSITY OF WISCONSIN CENTER FOR TOBACCO RESEARCH AND INTERVENTION

(UW-CTRI)

Research

- Basic science of tobacco treatment
- Applied science (clinical, systems)

Outreach

- Education, training, and technical assistance
- Treatment services (Quitline, clinics)

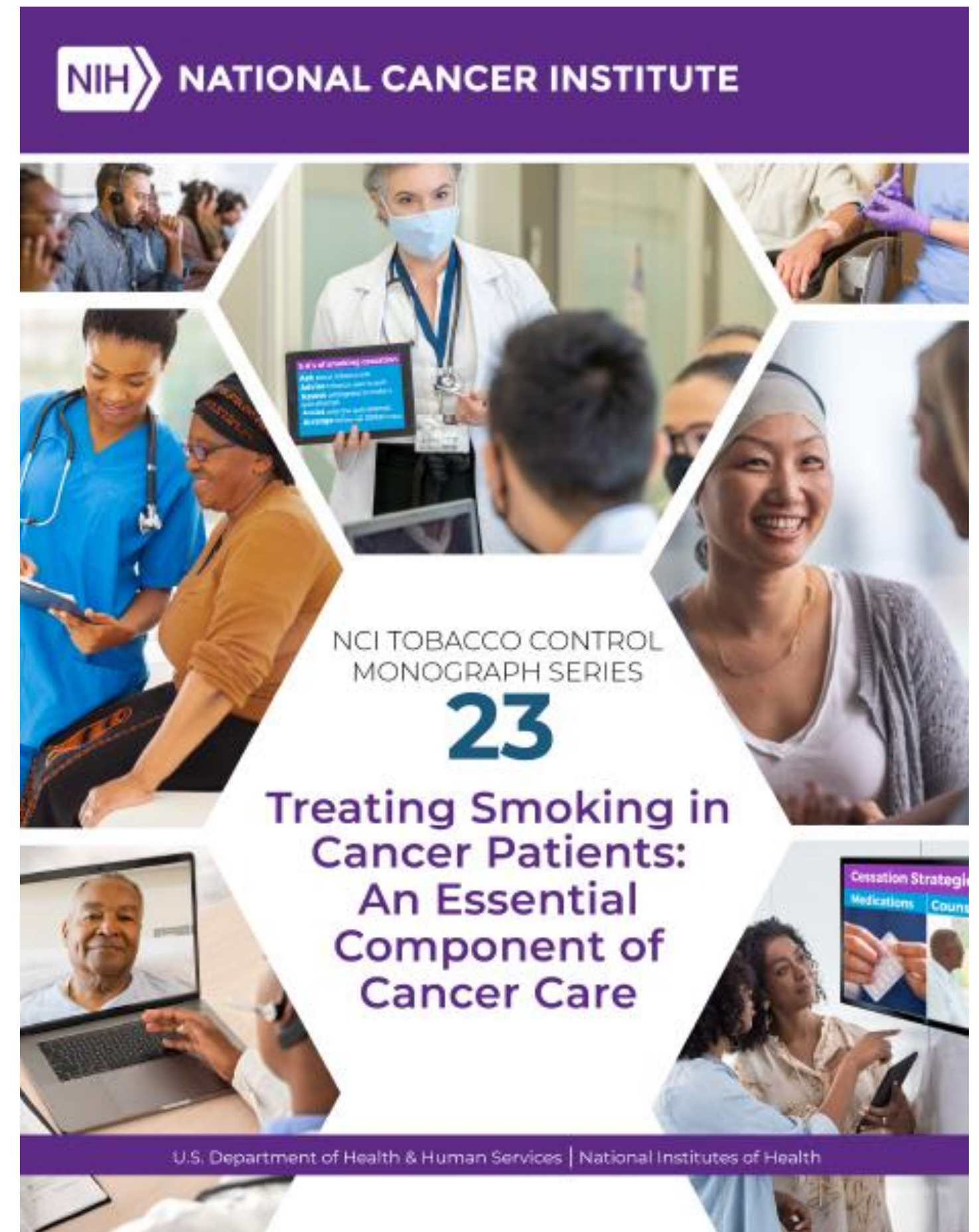
Research

NCI Monograph #23

Treating Smoking in Cancer Patients: An Essential Component of Cancer Care

Editors:

Baker (UW), Fiore (UW), Willis (NCI)



SMOKING CESSATION: THE FOURTH PILLAR OF CANCER CARE



Invited Commentary | Oncology

Effective Cessation Treatment for Patients With Cancer Who Smoke—The Fourth Pillar of Cancer Care

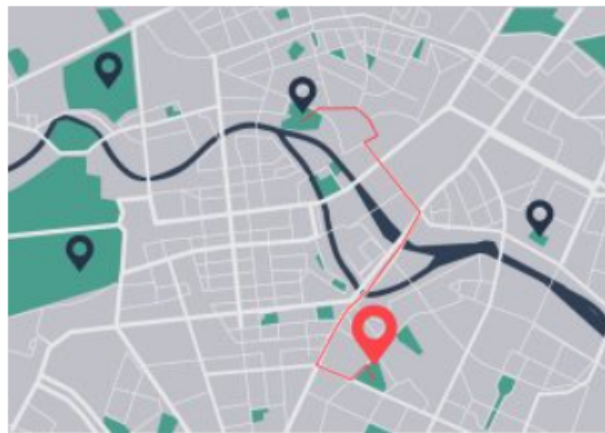
Michael C. Fiore, MD, MPH, MBA; Heather D'Angelo, MHS, PhD; Timothy Baker, PhD

CANCER CENTER CESSATION INITIATIVE (C3I)

- In 2017, NCI announced the Cancer Center Cessation Initiative as part of the Cancer Moonshot and asked UW-CTRI to lead it as the Coordinating Center.
- 52 cancer centers (CCs) funded from 2017 to 2020 (**Not UWCCC**)
- Goal: Enhance capacity of CCs to treat tobacco use of all oncology patients who smoke. Funded centers were charged with:
 - Taking a population-based approach
 - Increasing the proportion of patients who received cessation treatment and their cessation outcomes
- The Coordinating Center (UW-CTRI) collected reach and effectiveness data.

www.TobaccoTreatmentRoadmap.org

Tobacco Treatment Implementation Roadmap



Welcome to the C3I Tobacco Treatment Implementation Roadmap for Cancer and Other Patients. This resource was developed by the [Cancer Center Cessation Initiative \(C3I\)](#), funded by the National Cancer Institute.

The Roadmap provides practical guidance, examples, and resources that can be adapted to fit the particular needs and contexts of diverse clinical settings to deliver evidence-based tobacco treatment to patients who use tobacco.

We recommend starting with the [Pre-Implementation module](#). This module covers the functions of tobacco treatment programs in oncology and other settings; to engage interested parties; screening and treatment tools and workflows; and case studies to help champions and teams design tobacco treatment programs and systems.



Modules:

- Pre-Implementation
- Implementation
- Sustainability
- Treatment for All

Resources:

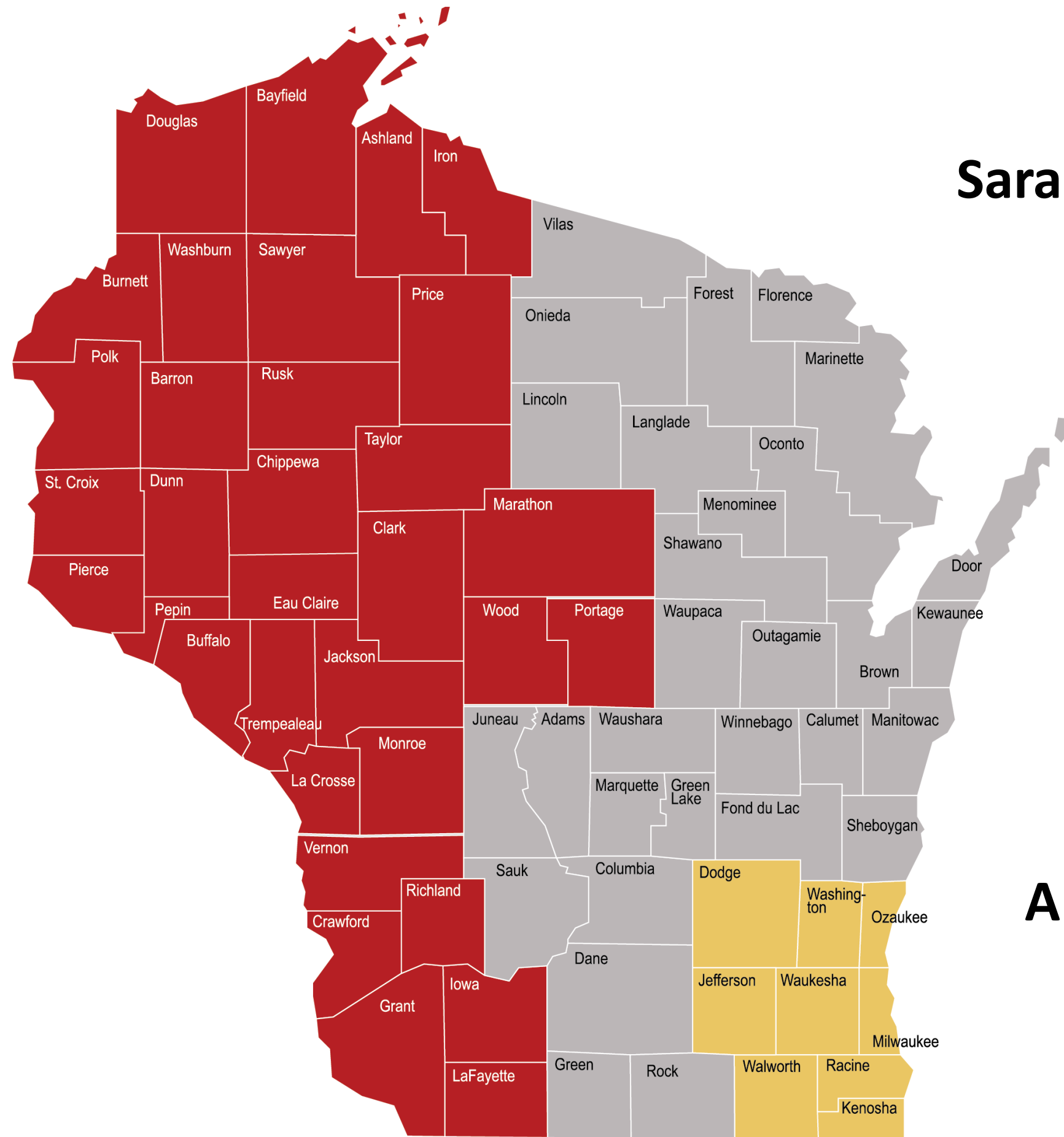
- Planning tools
- Case studies
- EHR screenshots and samples
- External toolkits
- Billing guidance
- Team building and engagement tools

Outreach Program

UW-CTRI OUTREACH SPECIALISTS

Susan Lundsten

Sarah Thompson



Allison Gorrilla

TRAINING AND TECHNICAL ASSISTANCE FOR HEALTH SYSTEMS

Training

- Evidence-based tobacco treatments
 - Counseling, medication, systems change

Technical Assistance

- Integrate tailored tobacco dependence treatment or tobacco free policies into health care facilities
- Establish a tobacco treatment protocol
- Workflow and policy development
- Integrate Wisconsin Tobacco Quit Line referrals

Resources

WISCONSIN TOBACCO

QuitLine

800-QUIT-NOW

WISCONSIN TOBACCO QUIT LINE

- Served over 200,000 callers
- Funded by the Wisconsin Department of Health Services
- Managed by UW-CTRI
- WI contracts with RVO Health for quit line counseling and NRT services

WISCONSIN TOBACCO QUIT LINE

- Free to anyone in WI
- Confidential
- 13 and older
- Free medication for anyone who is over 18 and medically eligible
- Available 24/7
- Provides tailored support



Standard Quit Line Services

- All WI residents 18 and older
- Call, text or live chat with an experienced coach
- 2-week starter kit of quit-tobacco medicines (nicotine patches, gum, or lozenges) if medically eligible.
- Includes interactive web tool, group video coaching, text messaging program and tailored web resources



American Indian Program

- Tailored help via call, text and live chat to quit commercial tobacco
- 12-weeks of nicotine patches, gum, or lozenges (single or combination therapy), if medically eligible

Live Vape Free

- Text-based program helps youth and young adults (13-26 years old) quit vaping.
- Access to 24/7 text support and interactive content.
- Young adults 18 or older may receive a 2-week supply of nicotine patches, gum or lozenges, if medically eligible

**Free yourself
from vaping with
free quit meds**

**LIVE
VAPE
FREE**

*2 weeks of nicotine replacement therapy to eligible members age 18+ at no additional cost



Tobacco type:

- 76% cigs only
- 10% e-cigs only
- 13% dual use of cigs and e-cigs
- 4% nicotine pouch only (new question since March 2026)
- 45% use menthol (of those who smoke cigarettes or cigars)

How Callers Hear About The Quit Line

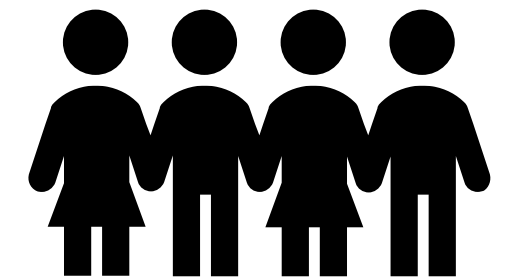
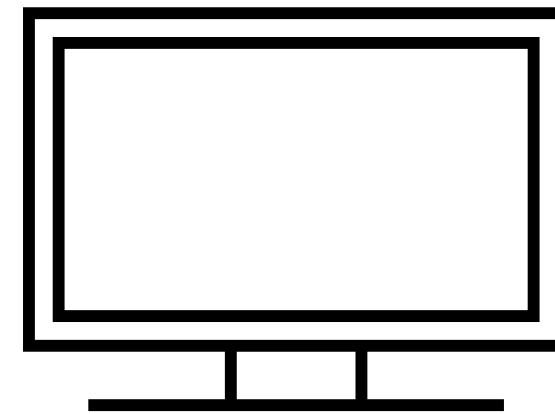
Health professional – 21.8%

Family/Friend – 16%

CDC Tips Campaign – 15%

TV/Commercial – 12%

Online – 10%

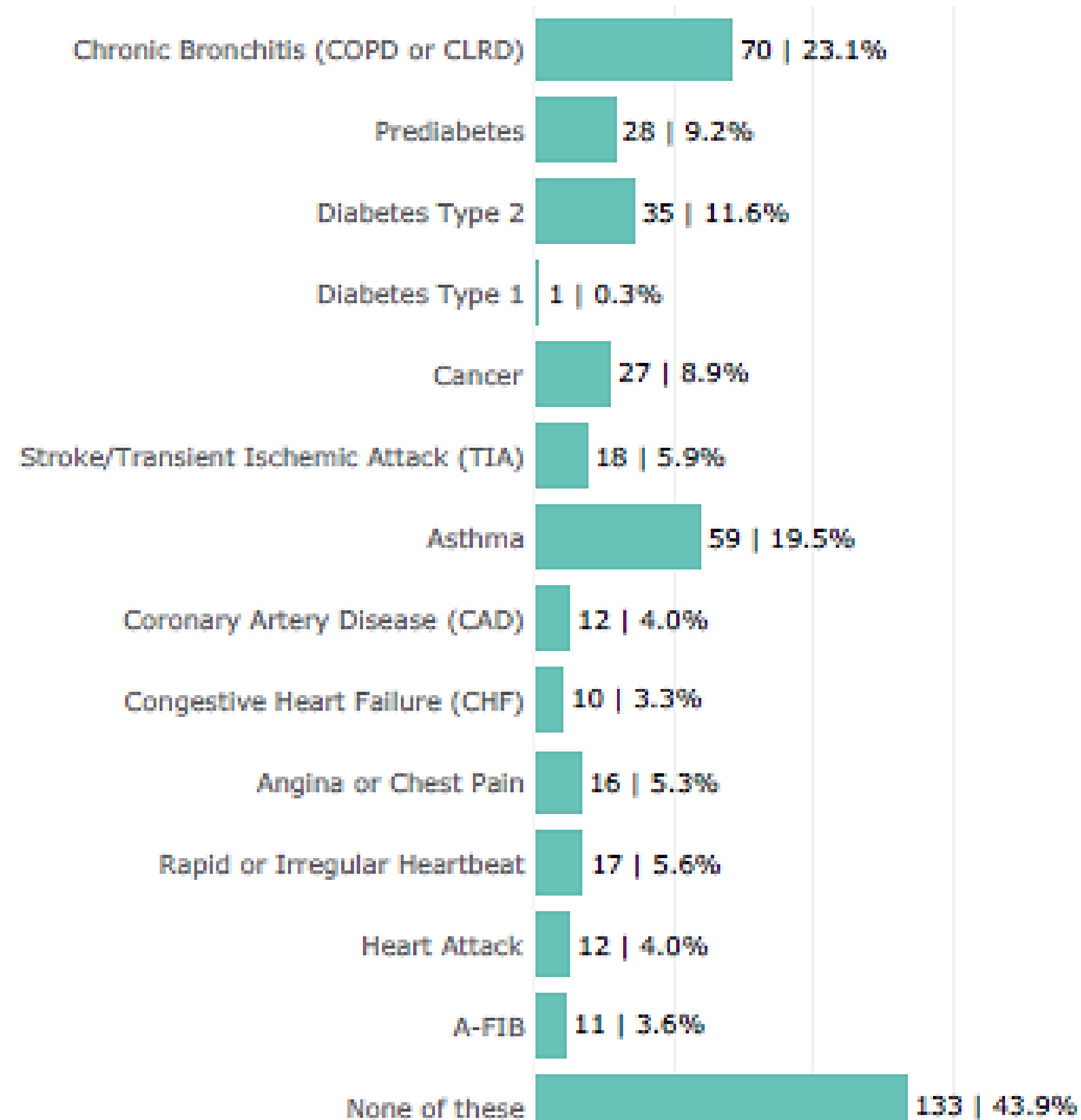


52% report 1 or more chronic health condition

68% report 1 or more behavioral health condition

13% report regular cannabis use (new question since October 2025)

Chronic Conditions



Opportunities to Partner



Implementation Date: January 1, 2026

Standard 5.9: Smoking Cessation for Patients with Cancer

- As of this year, the Commission on Cancer requires a new **Accreditation Standard**:
 - **>90%** of patients with a new cancer diagnosis must be screened
 - **>80%** of patients who report current smoking must be treated

THE ROLE OF QUIT LINES

The oncology provider's role:

- Identify clients who use tobacco
- Assess clients' willingness to quit or cut down
- Provide brief counseling
- Offer support of the Wisconsin Tobacco Quit Line
- Prescribe cessation medication(s) to support to those interested in quitting or reducing

Quit Line Role:

- Used as a treatment extender for ongoing counseling and two weeks of NRT

INTEGRATING QUIT LINE REFERRALS INTO CLINICAL PRACTICE

Fax and electronic referrals to the quitline are two of the most common methods behavioral health providers can use to connect clients to the quitline services.

- Prompt the quitline to make the first call
- Close-looped – the quitline sends back an outcome report after the referral was made
- Improves connection to services for clients interested in making changes in tobacco use

New UW Health | Carbone Cancer Center Tobacco Treatment Program

UW-Health Tobacco Treatment Program

- Oncology Nurses screen for tobacco use at every encounter
- Provide opt-out referrals to the Carbone Tobacco Program
- Proactive calls and support are provided by a Tobacco Treatment Specialist
- Tobacco Treatment Options
 - Free telephone counseling
 - Nicotine Replacement Therapy (NRT) medications



Melissa Hansen

New UW Health (1.0 FTE)
Tobacco Treatment Specialist

Lung Cancer Screening



Hasmeena Kathuria MD, ATSF
Director, UW Center for Tobacco Research and Intervention (UW-CTRI)
Jan and Kathryn Ver Hagen Professor of Translational Research in Medicine
University of Wisconsin School of Medicine and Public Health

Outline

- Lung Cancer Incidence and Mortality Rates
- Etiology
- Lung Cancer Screening
- Tobacco Treatment in the Lung Cancer Continuum

Lung Cancer Incidence and Mortality Rates

Leading Sites of New Cancer Cases and Deaths-2026 Estimates

Female New Cancer Cases

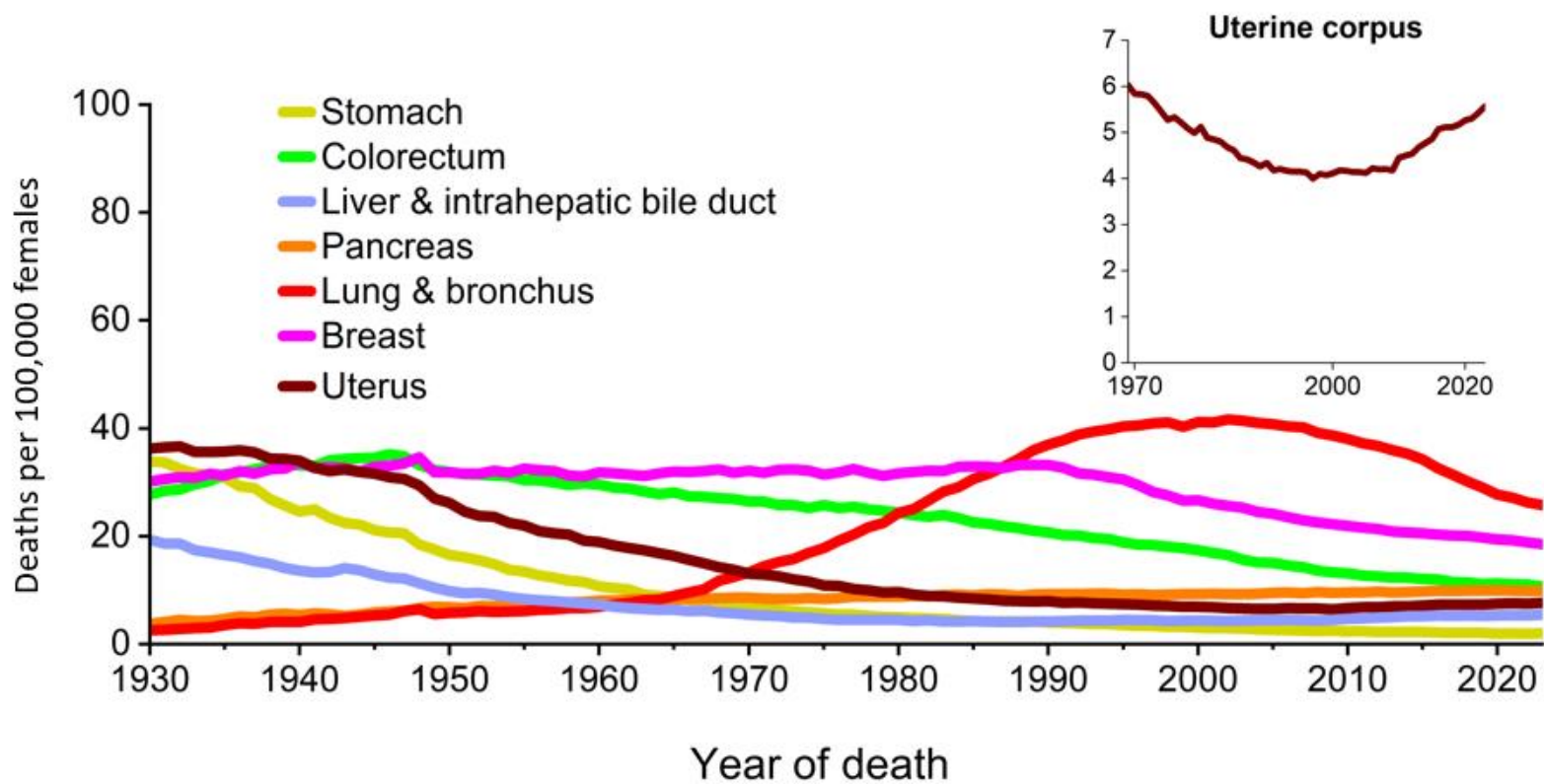
Breast	321,910	32%
Lung & bronchus	118,500	12%
Colon & rectum	74,690	7%
Uterine corpus	68,270	7%
Melanoma of the skin	46,600	5%
Non-Hodgkin lymphoma	35,550	3%
Pancreas	32,340	3%
Thyroid	32,000	3%
Kidney & renal pelvis	29,680	3%
Leukemia	28,720	3%
All sites	1,020,780	

Female Deaths

Lung & bronchus	61,950	21%
Breast	42,140	14%
Pancreas	25,510	9%
Colon & rectum	25,120	8%
Uterine corpus	14,450	5%
Ovary	12,450	4%
Liver & intrahepatic bile duct	11,330	4%
Leukemia	10,010	3%
Brain & other nervous system	8,380	3%
Non-Hodgkin lymphoma	8,260	3%
All sites	298,850	



Trends in cancer death rates among females, US, 1930-2023



Source: Cancer Facts & Figures 2026.

©2026, American Cancer Society, Inc., Surveillance, Prevention, and Health Services Research

Leading Sites of New Cancer Cases and Deaths-2026 Estimates



Estimated New Cases

Male	New Cancer Cases	
Prostate	333,830	31%
Lung & bronchus	110,910	10%
Colon & rectum	84,160	8%
Melanoma of the skin	65,400	6%
Urinary bladder	64,730	6%
Kidney & renal pelvis	50,770	5%
Non-Hodgkin lymphoma	43,770	4%
Oral cavity & pharynx	43,070	4%
Leukemia	39,070	4%
Pancreas	35,190	3%
All sites	1,094,070	

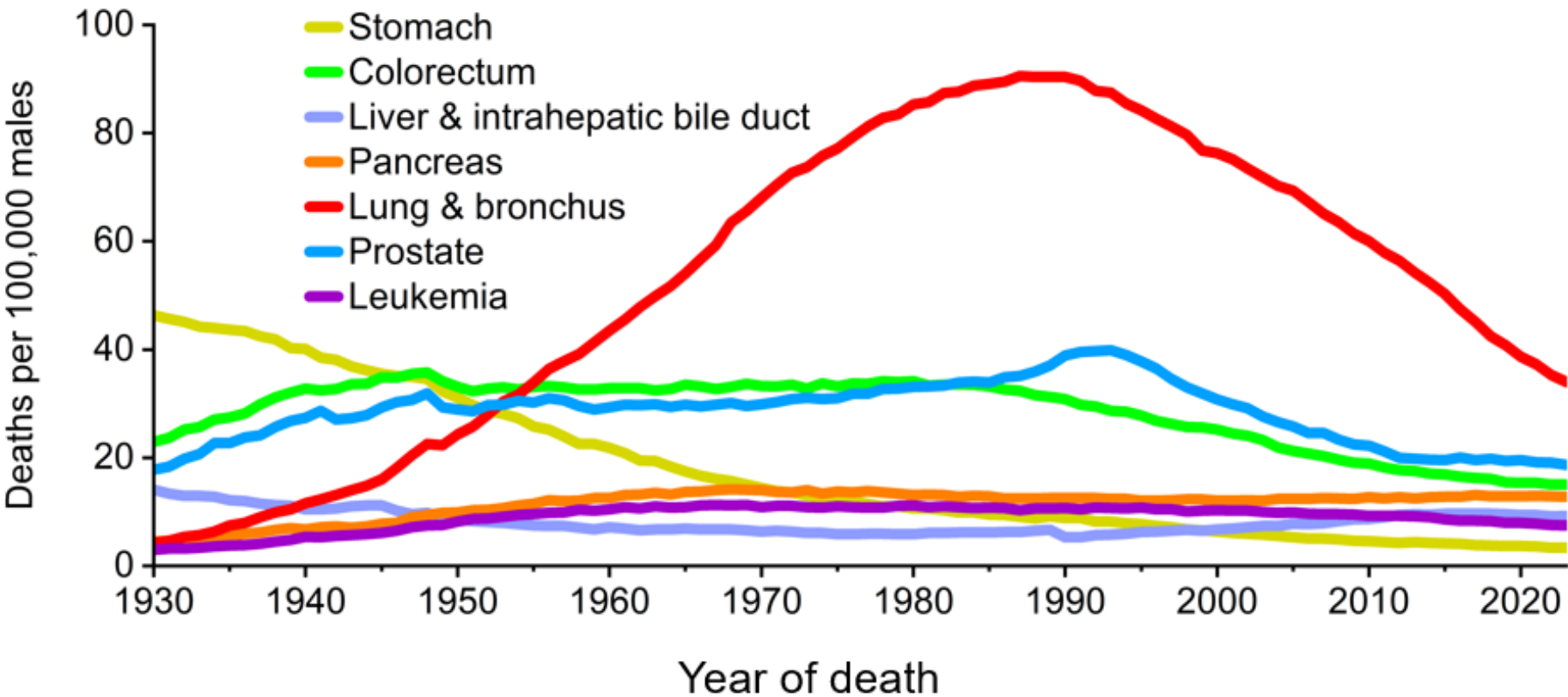


Estimated Deaths

Male	Deaths	
Lung & bronchus	63,040	19%
Prostate	36,320	11%
Colon & rectum	30,110	9%
Pancreas	27,230	8%
Liver & intrahepatic bile duct	19,650	6%
Leukemia	13,900	4%
Esophagus	12,940	4%
Urinary bladder	12,640	4%
Non-Hodgkin lymphoma	11,710	4%
Kidney & renal pelvis	10,200	3%
All sites	327,290	



Trends in cancer death rates among males, US, 1930–2023



Source: Cancer Facts & Figures 2026.
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Etiology

Etiology

- Cigarette smoking: the most important environmental carcinogen
 - Second-hand smoke
 - Environmental factors: e.g., Radon
 - Industrial exposures: e.g., Asbestos
 - Chemicals: e.g., Arsenic
 - Air Pollution
 - Genetic factors
 - Underlying COPD
- Throughout this talk, smoking tobacco refers to commercial tobacco use, distinct from sacred or ceremonial tobacco practices*

Etiology: Smoking (80-90% of Lung Cancers)

Smoking Commercial Tobacco

Cigarettes include **many proven carcinogens**

Aromatic hydrocarbons

Nitrosamines

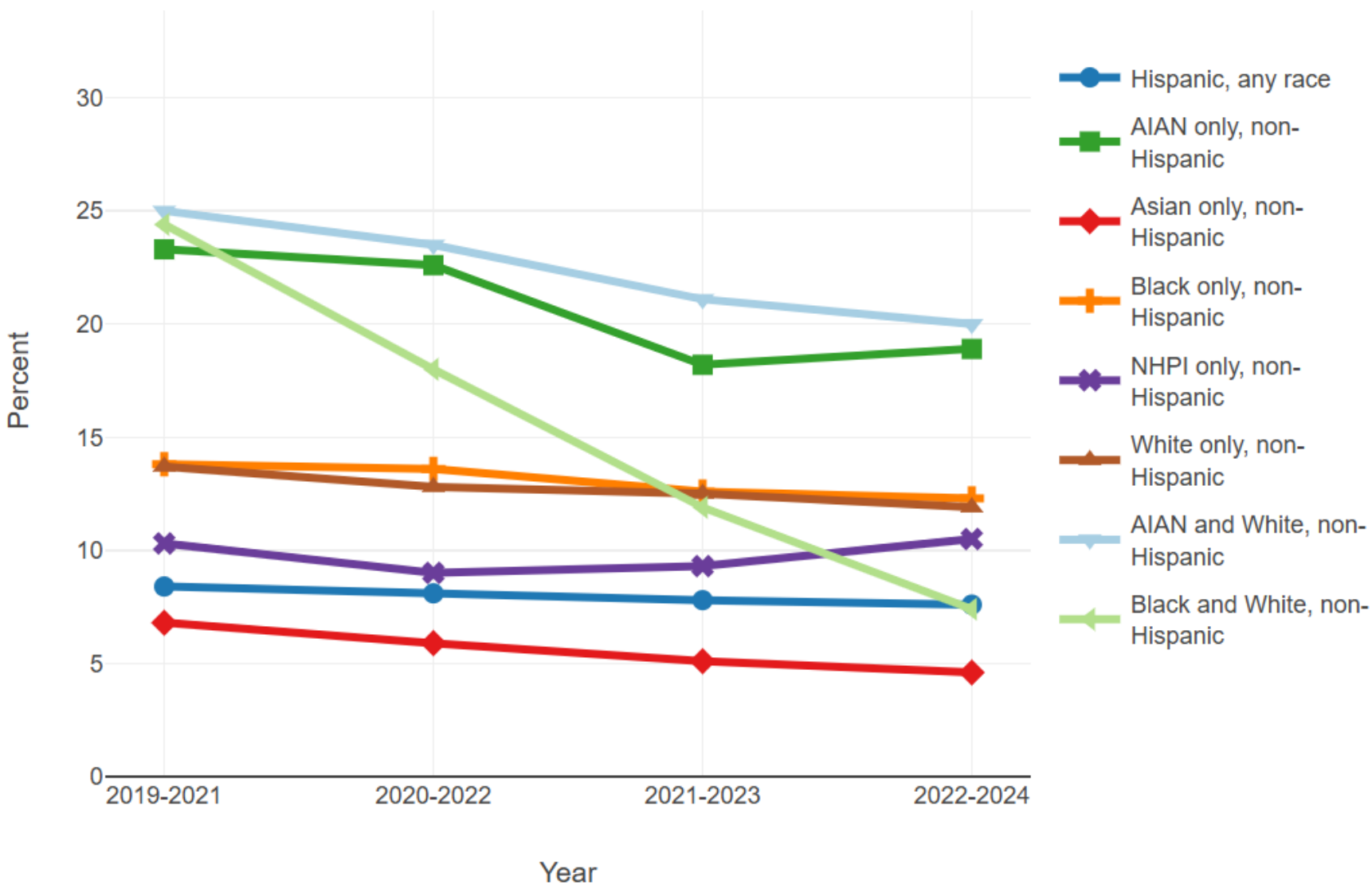
Arsenic

Polonium

Substances with synergic effect with tobacco

Asbestos

Radon

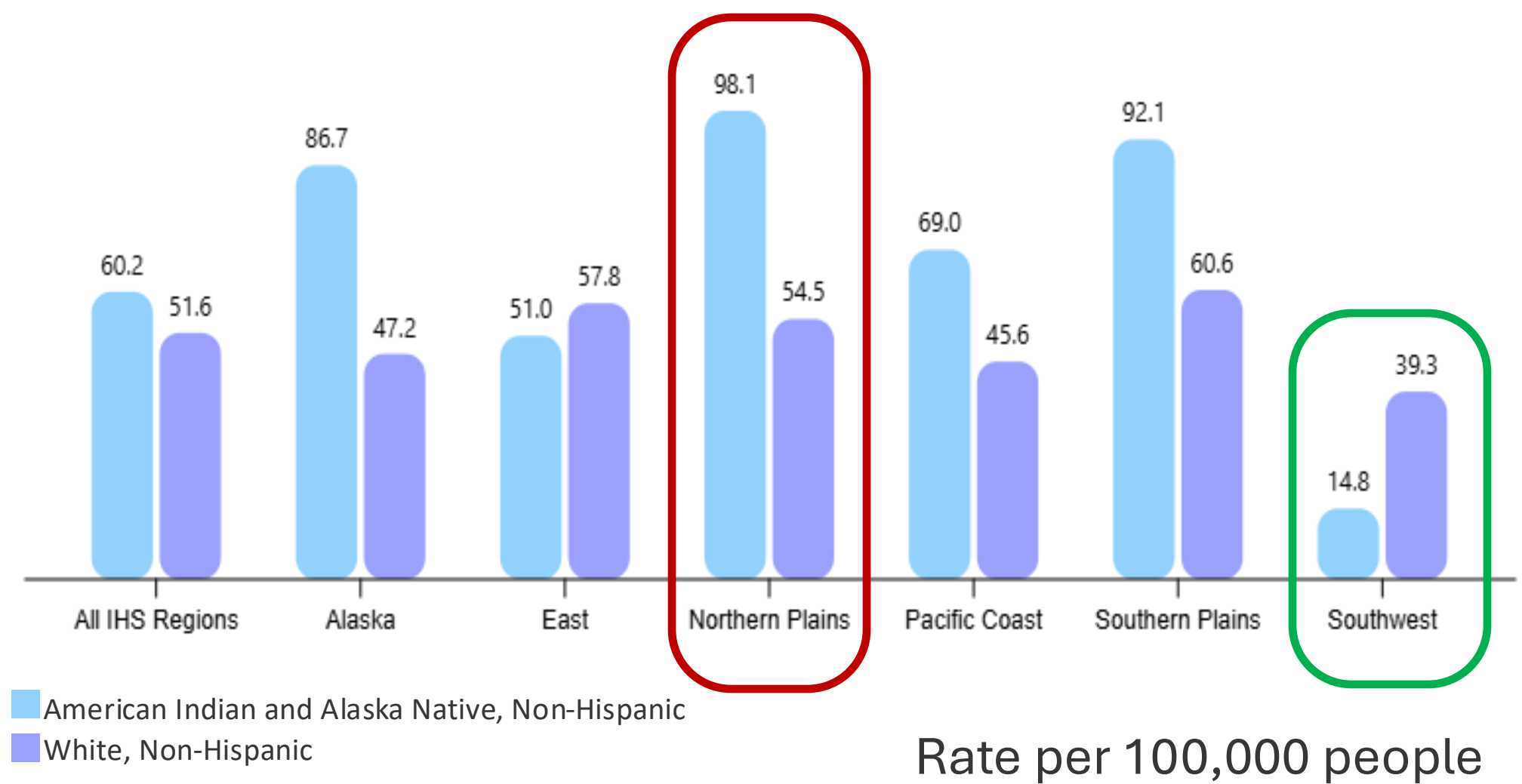


Compared to all other racial groups, American Indian/Alaska Natives have the highest rate of commercial tobacco use

National Center for Health Statistics, National Health Interview Survey (NHIS) Interactive Summary Health Statistics for Adults, Select Demographic Subgroups. Three-year rolling averages (2019-2021 through 2022-2024), Current Cigarette Smoking.

Rate of Lung Cancer Diagnosis by Indian Health Service (IHS) Region

2019-2023: Lung Cancer Diagnosis



2000-2010 Smoking Rates

Region	Male (%)	Female (%)
Alaska	42.1	36.8
East	40.4	36.3
Northern Plains	42.1	42.1
Pacific Coast	33.5	27.7
Southern Plains	34.5	31.6
Southwest	18.8	14.8

Cobb N, Espey D, King J. Health behaviors and risk factors among American Indians and Alaska Natives, 2000–2010. Am J Public Health. 2014;104(Suppl 3):S481–S489

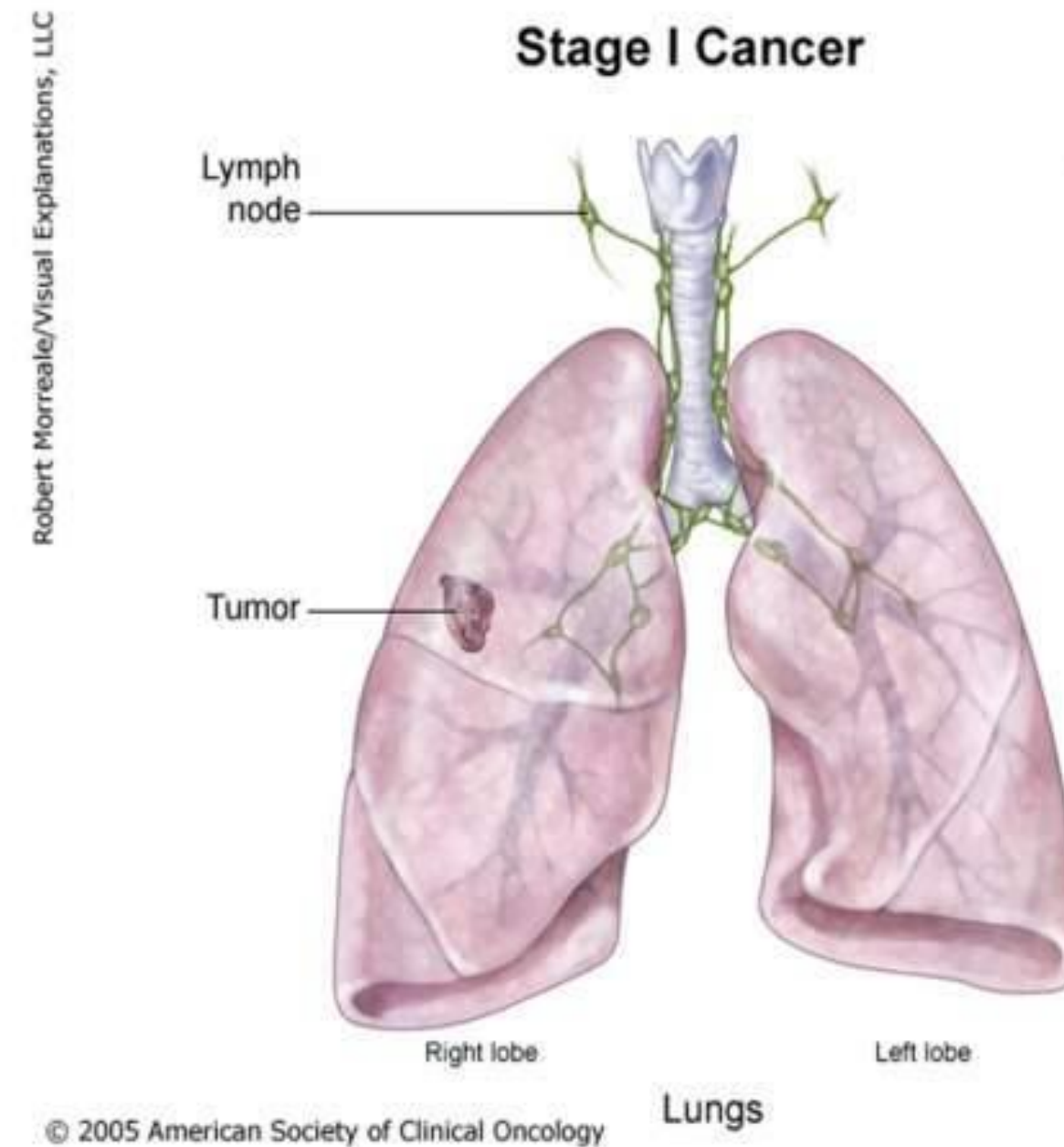
Source - U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; <https://www.cdc.gov/cancer/dataviz>, released in June 2026.

Lung Cancer Screening

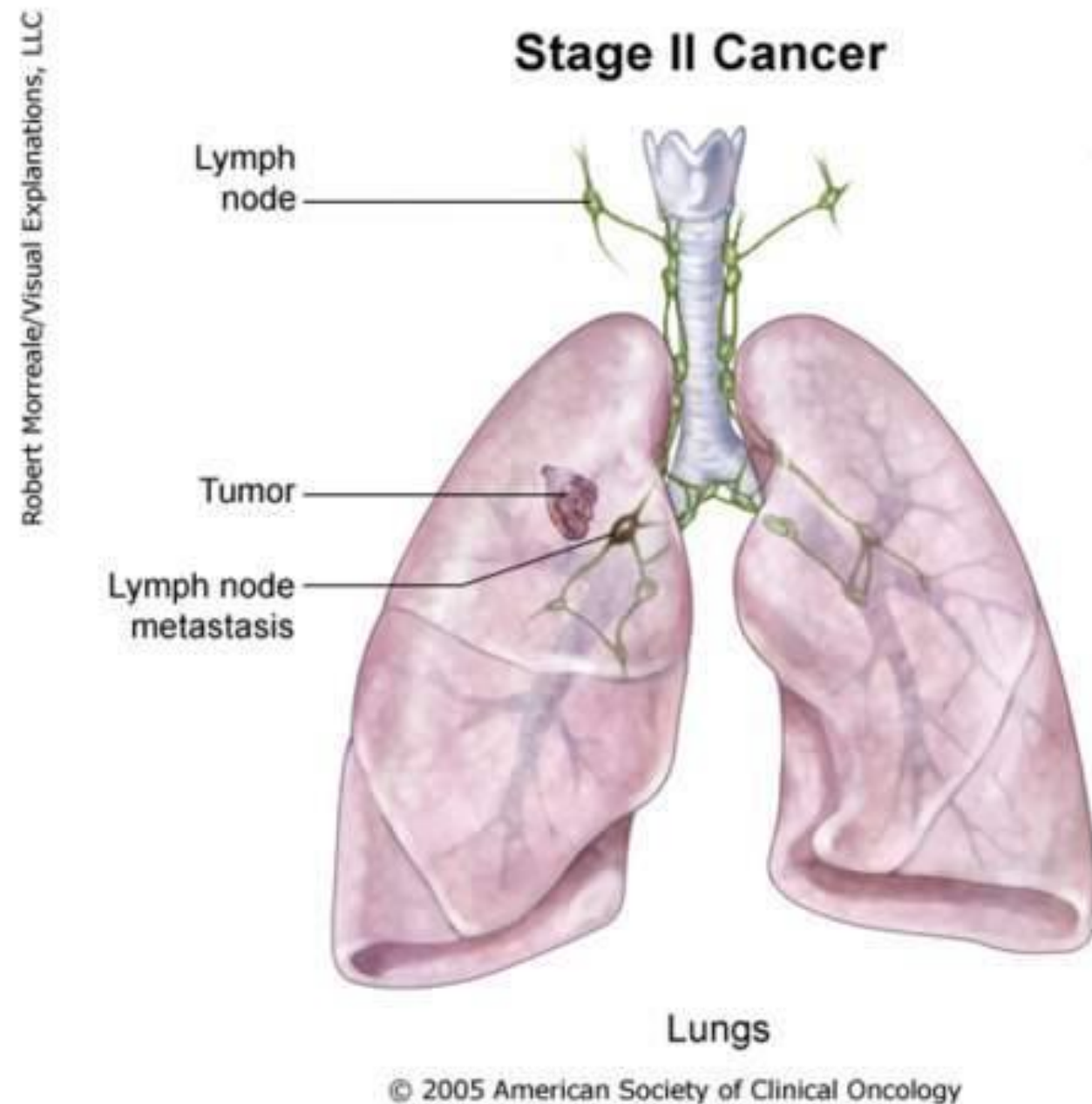
The goal of lung cancer screening is to reduce lung cancer deaths by finding cancers at an earlier, more treatable stage before symptoms develop

Stage I Non-Small Cell Lung Cancer

- Cancer is found only in the lung
- Surgical removal recommended
- Radiation therapy may be used if not surgical candidate

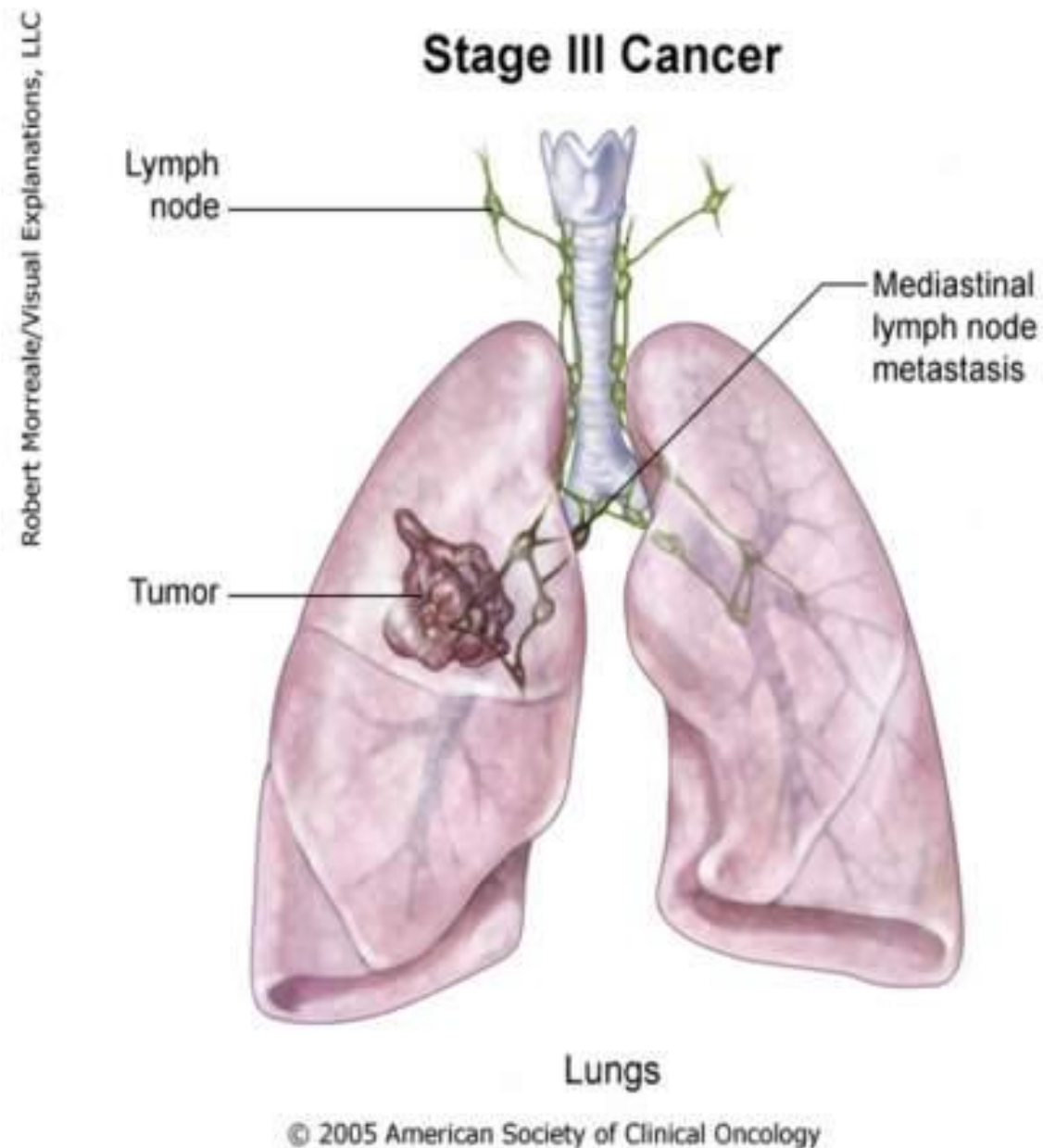


Stage II Non-Small Cell Lung Cancer



- The cancer has spread to lymph nodes in the lung
- Treatment is surgery to remove the tumor and nearby lymph nodes
- Radiation therapy if not a surgical candidate
- Adjuvant (*after* surgery) systemic treatment recommended

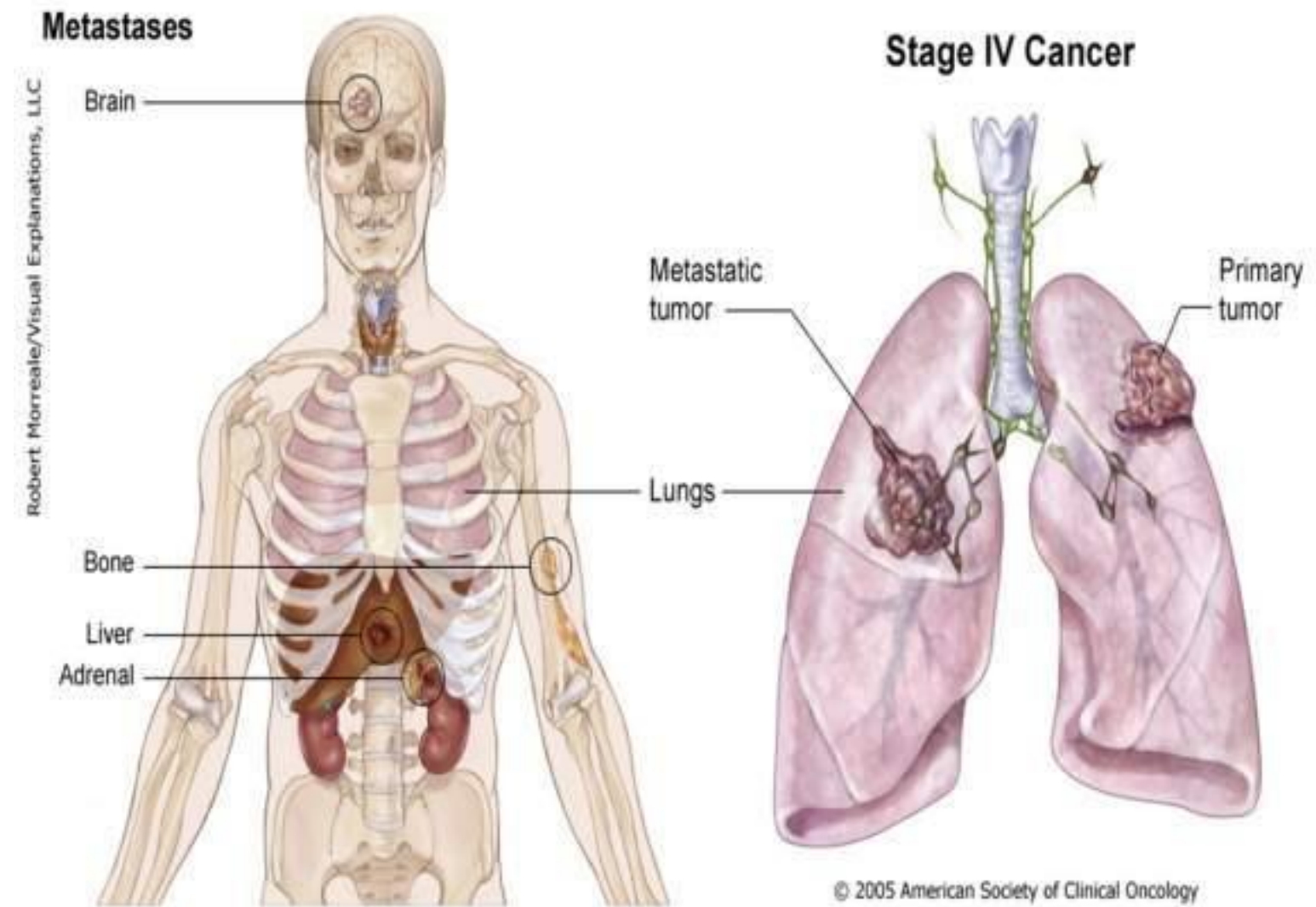
Stage III Non-Small Cell Lung Cancer



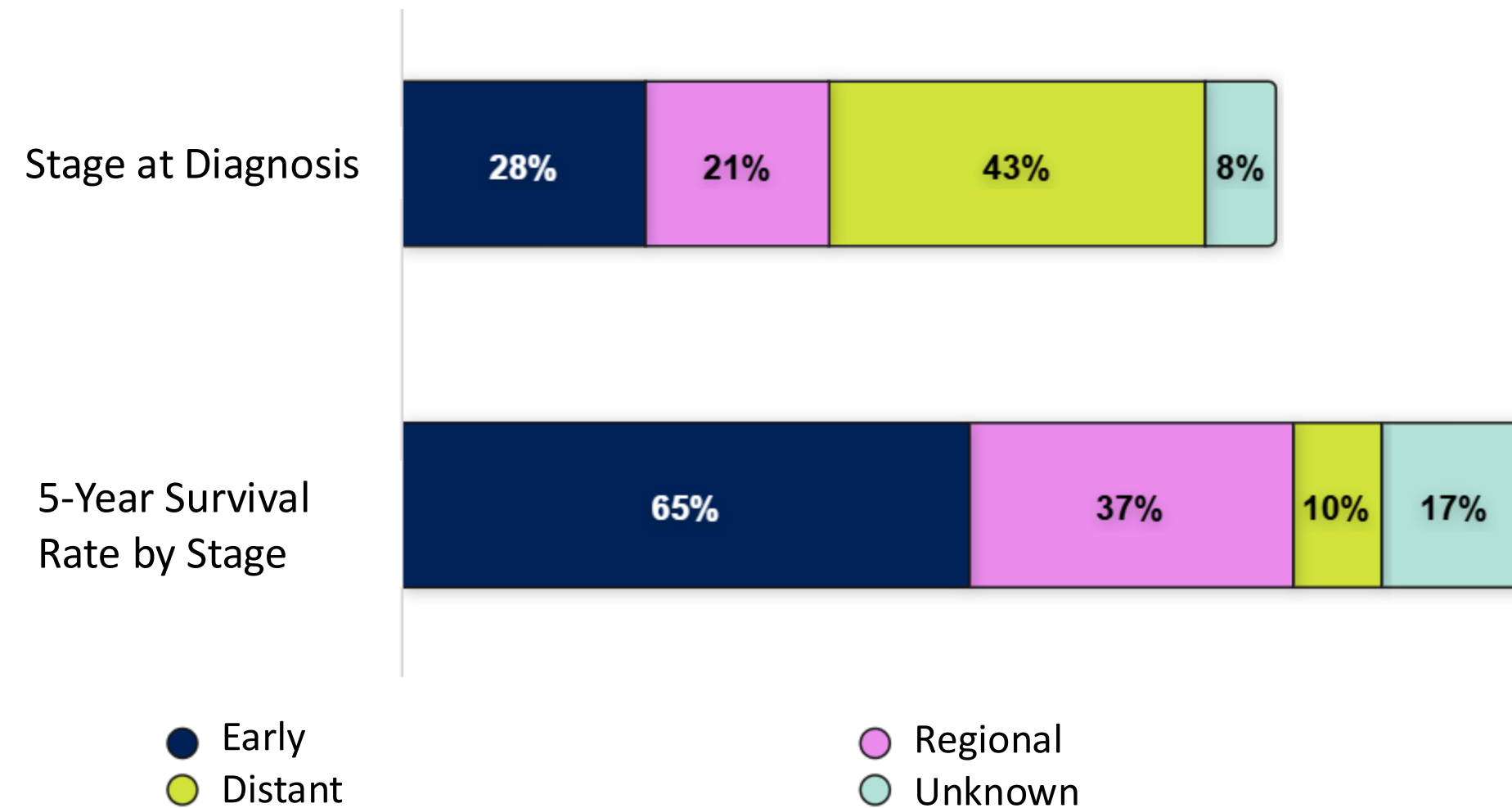
- The cancer has spread to the lymph nodes located in the center of the chest, outside the lung
- Treatment may include a combination of neoadjuvant (before surgery), adjuvant (after surgery) systemic treatment, surgery and/or radiation therapy depending on tumor and patient characteristics.

Stage IV Non-Small Cell Lung Cancer

- The cancer has spread to contralateral lobes of the lung, the pleura, or to other organs, such as the brain, bones, liver, and adrenals
- Stage IV non-small cell lung cancer is treated with chemotherapy, immunotherapy, targeted therapy and/or radiation therapy



National Stage at Diagnosis and 5-Year Survival Rate



- The overall 5-year survival is 31.2% in WI, higher than the national rate of 29.7%
- When lung cancer is caught earlier, the 5-year survival is 65%
- In Wisconsin, 30.8% of cases are diagnosed at an early stage
- This is significantly higher than the national rate of 28.1%

Wisconsin Cancer Collaborative, Lung Cancer in Wisconsin (2024)
American Lung Association, State of Lung Cancer 2025.

Effective Screening: Identified Risk Factors Allow Targeted Screening



Cigarette smoking

- Linked to 80% of lung cancer deaths in the US
- 25 million active adults who smoke in the US
- 55 million adults who smoked in the past in US

Increasing age

- Median age of lung cancer diagnosis is 70 years

Agaku I. Tobacco Product Use among U.S. Adults, 2023-2024. NEJM Evid. Apr 2026;5(4):EVIDpha2500339.
https://www.cdc.gov/lung-cancer/risk-factors/?CDC_AAref_Val=https://www.cdc.gov/cancer/lung/basic_info/risk_factors.htm

The NEW ENGLAND
JOURNAL *of* MEDICINE

ESTABLISHED IN 1812

AUGUST 4, 2011

VOL. 365 NO. 5

Reduced Lung-Cancer Mortality with Low-Dose Computed
Tomographic Screening

The National Lung Screening Trial Research Team*

NLST (National Lung Screening Trial)

Can lung cancer screening using low- dose helical CT reduce lung cancer-specific mortality relative to screening with CXR in a high-risk cohort?

Multicenter (33 sites), randomized, non-blinded clinical trial

53,454 participants

Sponsored by the National Cancer Institute (NCI)

Conducted by American College of Radiology Imaging Network (ACRIN) and the Lung Cancer Screening Study group

N Engl J Med 2011;365:395-409.

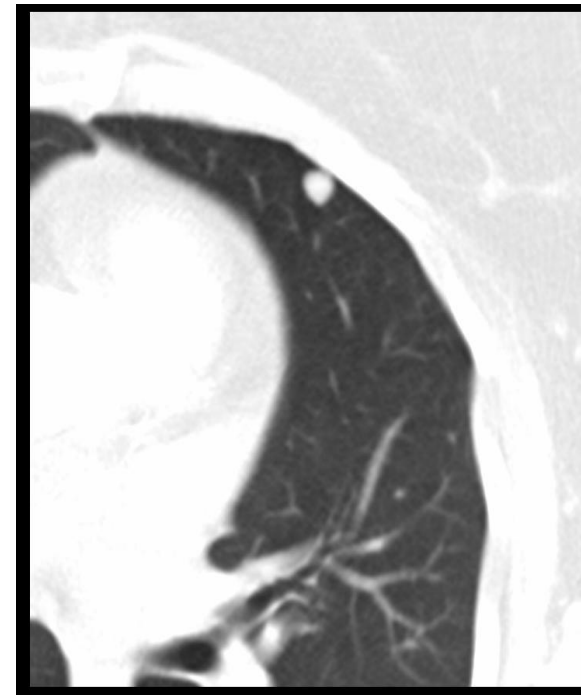
Screening

CT scan with any non-calcified nodule $\geq 4\text{mm}$ or CXR with any non-calcified nodule or mass classified as positive, “suspicious for” lung cancer

Stable abnormalities over 3 studies could be reclassified as minor abnormalities



- Single AP Chest x-ray (n=26,733)
- 3 screenings performed at 1-yr intervals
- Chest x-ray chosen as control b/c of ongoing PLCO trial



- Low-dose CT (n=26,723)
- 3 screenings performed at 1-yr intervals
- Average exposure 1.5mSv (Diagnostic study ~ 8mSv)

N Engl J Med 2011;365:395-409.

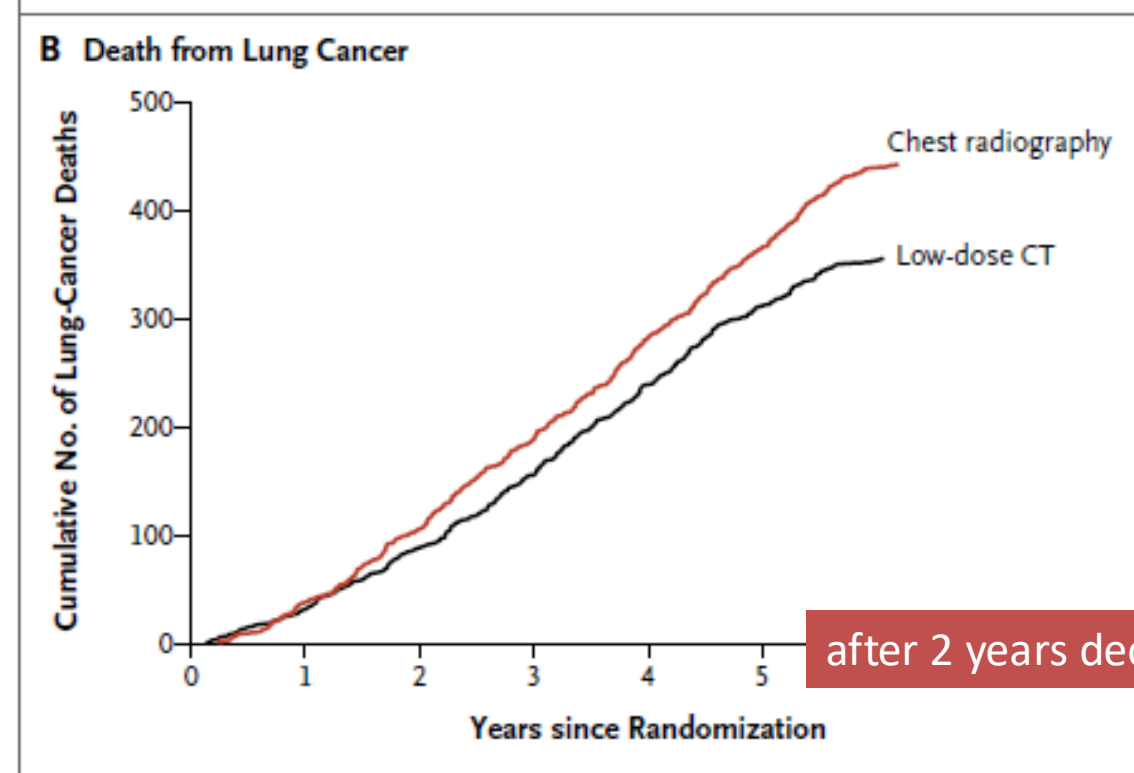
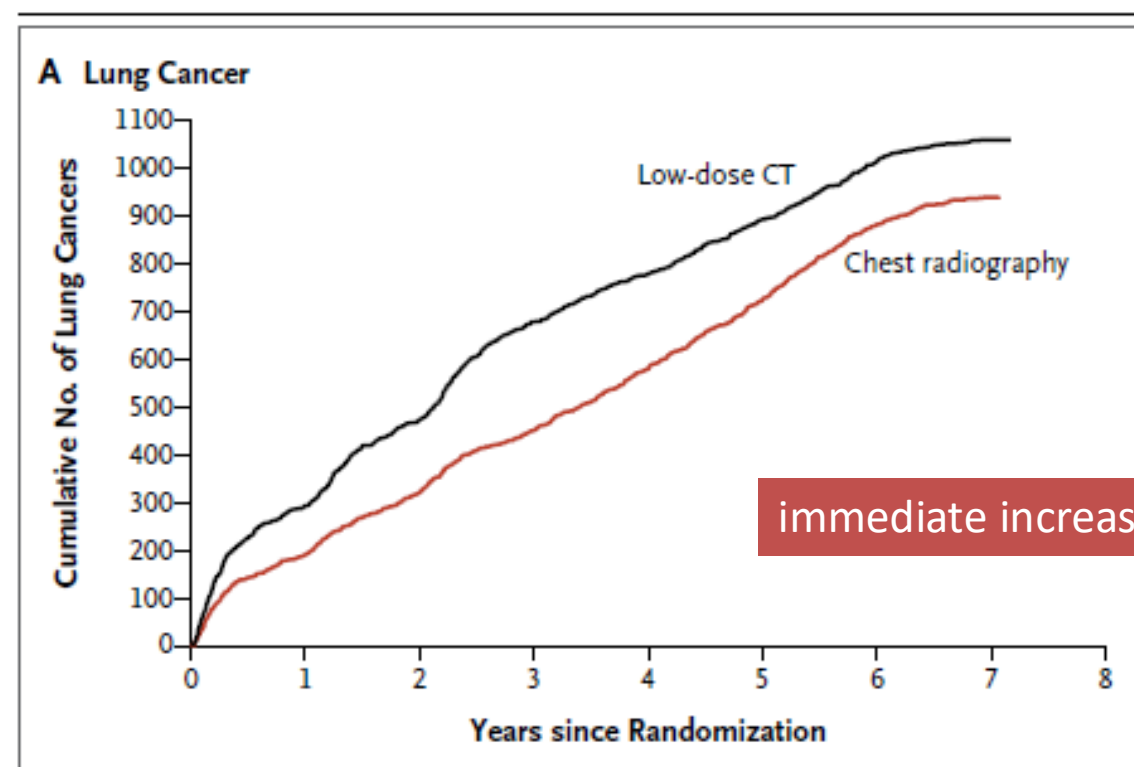


Figure 1. Cumulative Numbers of Lung Cancers and of Deaths from Lung Cancer.

The number of lung cancers (Panel A) includes lung cancers that were diagnosed from the date of randomization through December 31, 2009. The number of deaths from lung cancer (Panel B) includes deaths that occurred from the date of randomization through January 15, 2009.

	CT	CXR
Person-years	144,103	143,368
Deaths from lung cancer	356	443
Deaths per 100,000 person-years	247	309
Absolute risk reduction lung cancer mortality	0.062%	
Relative risk reduction lung cancer mortality	20%	
Number needed to screen	320	
Absolute risk reduction all-cause mortality	0.0925%	
Relative risk reduction all-cause mortality	6.7%	

LDCT Screening Carries a High False Positive Rate

- 24.2% of LDCT screening exams had positive findings
 - Nodule > 4mm or other significant abnormality
 - Lower rates of positive findings in subsequent screening rounds
 - 27% on Rounds 1 and 2 and 17% on Rounds 3
- 96.4% of positive findings were false positives
- 72.1% of positive LDCT exams had any diagnostic follow-up

N Engl J Med 2011;365:395-409.

Radiation-Related Risks in Imaging Studies

Exposure	Approximate Radiation Dose
Transcontinental flight	0.02 mSv
Chest X-ray	0.02-0.1 mSv
Mammogram	0.7 mSv
LDCT (1 screening scan)	~1-1.6 mSv
Natural background radiation (1 year)	~3 mSv
10 years of annual LDCT	~10-16 mSv*
Conventional chest CT	5-20 mSv

- 1 LDCT $\approx$ 1-1.6 mSv**
- ~6 months of natural background radiation
 - ~15-20 chest X-rays
 - **Substantially lower radiation dose than a conventional chest CT**

Radiation-related cancer risk is small compared with the expected benefit of screening in high-risk individuals:

- **Estimated lifetime radiation-induced cancer risk:** ~1 per 2,500 screened participants
- **COSMOS modeling:** ~108 screen-detected lung cancers for every 1 radiation-induced major cancer

Recommendations Regarding LDCT Screening by Expert Groups

Organization	Age	Pack-years	Smoking status	Years Since Quitting
USPSTF*	50-80	≥20	Current or Former	≤15 years
American Cancer Society	50-80	≥20	Current or Former	No limit
NCCN	≥50	≥20	Current or Former	No limit

*USPSTF gave lung cancer screening a **Grade B recommendation**.

Coverage:

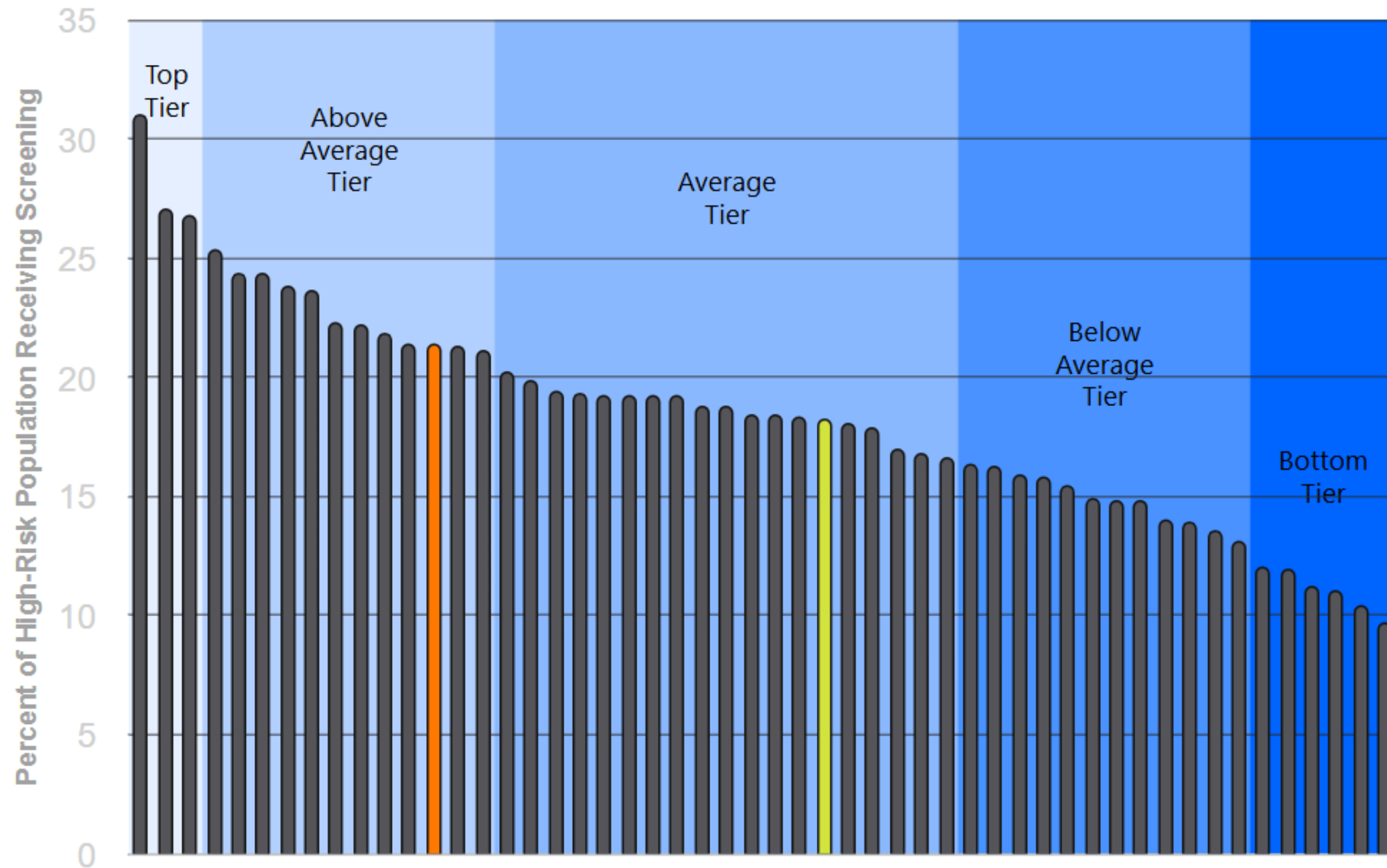
- CMS/Medicare currently covers annual LDCT screening for adults aged **50-77 years** with a **≥20 pack-year smoking history** who **currently smoke or quit within the past 15 years**.
- Most commercial insurers generally follow USPSTF eligibility criteria.
- CMS coverage requires **a Shared Decision-Making visit** that includes discussion of benefits and harms, false positives, radiation exposure, follow-up testing, importance of annual screening, and smoking cessation.
- **Quitting smoking reduces mortality risk three to five-fold**

Lung-Rads Recommendations For Nodules Detected on Lung Screening CT

Lung Rads: based on nodule characteristics	Imaging Recommendation	Probability of Malignancy	Estimated Population Prevalence
Category 0	Compare with prior studies before assigning Lung-RADS category	N/A	15%
Category 1 (Negative)	Annual screening with LDCT	<1%	90%
Category 2 (Benign)	Annual screening with LDCT		
Category 3 (Probably benign)	6 month follow up with LDCT	1-2%	5%
Category 4A (Suspicious)	3 month follow up with LDCT - PET/CT if ≥ 8 mm solid component	5-15%	2%
Category 4B; 4X (Very suspicious)	- Chest CT with/without contrast, - PET/CT and/or tissue sampling	>15%	2%

Referral to specialty clinic (pulmonary or thoracic surgery)

State Ranking by Lung Cancer Screening Rates



- In Wisconsin, 21.4% of those at highest risk were screened
- 12th among all screening rates
- National Screening rates: 18.2%

American Lung Association. State of Lung Cancer 2025. Lung cancer screening rates among eligible adults based on 2022 BRFSS data

Lung Cancer Disparities

Indigenous Peoples

Rate of new lung cancer cases (per 100,000)

- 101 (AI/AN, WI)
- 55 (White, WI)

Lung cancer mortality rate (per 100,000)

- 52 (AI/AN, WI)
- 34 (White, WI)

Early-stage diagnosis rates:

- 22% (AI/AN, WI)
- 31% (White, WI)

5-year survival rate:

- 22% (AI/AN, WI)
- 29% (White, WI)

Black Adults

Rate of new lung cancer cases (per 100,000)

- 85 (Black, WI)
- 55 (White, WI)

Lung cancer mortality rate (per 100,000)

- 53 (Black, WI)
- 34 (White, WI)

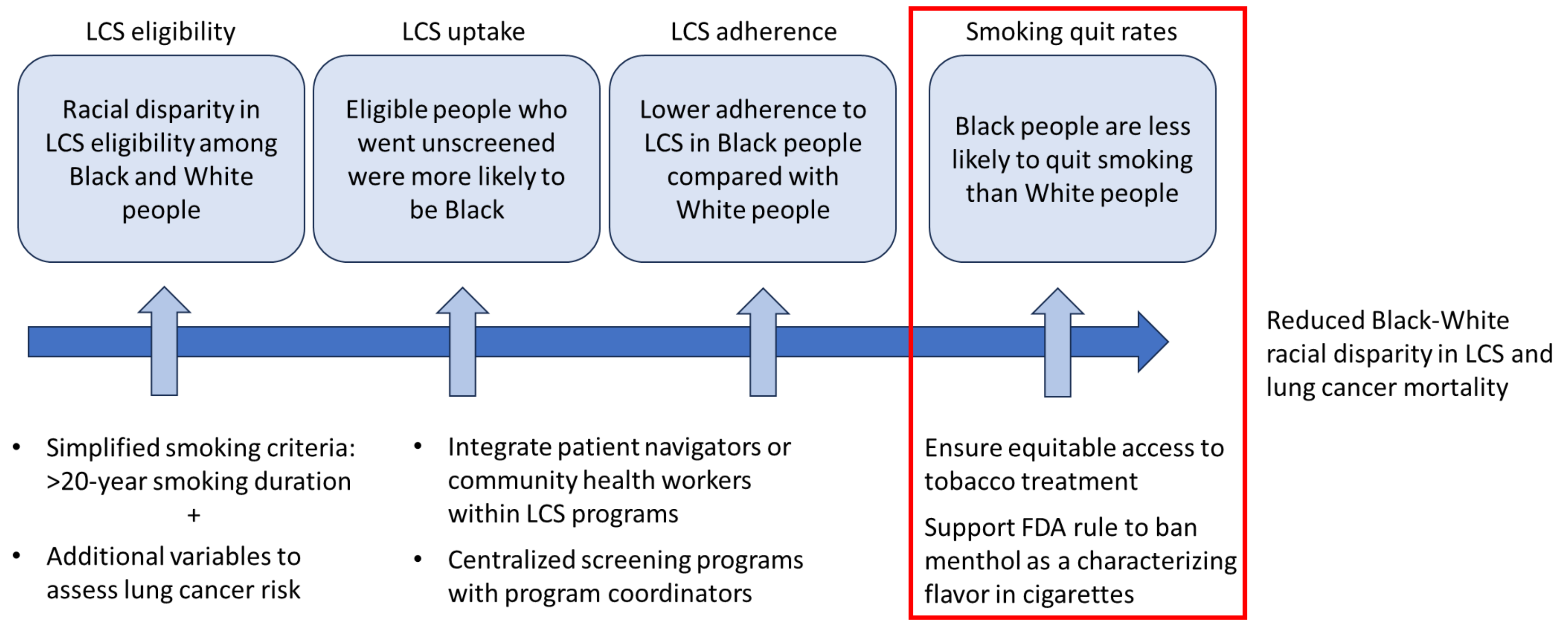
Early-stage diagnosis rates:

- 27% (Black, WI)
- 31% (White, WI)

5-year survival rate:

- 28% (Black, WI)
- 29% (White, WI)

Strategies to Mitigate Racial Disparities in LCS and Lung Cancer Mortality



Tobacco Treatment: The Fourth Pillar of Cancer Care

Lung Cancer Continuum: Effects of Smoking and Cessation

Lung Cancer Screening

- About 50% of screened individuals smoke cigarettes
- Quitting smoking reduces mortality risk three to five-fold

At the Time of Diagnosis

- Smoking cessation improves treatment response and decreases toxicities
- Increases 5-year survival by at least 30%

During and After Treatment

- Continued smoking doubles mortality risk
- Smoking cessation reduces disease progression, second cancers, and recurrence

Pastorino U, Boffi R, Marchiano A, Sestini S, Munarini E, Calareso G, et al. Stopping Smoking Reduces Mortality in Low-Dose Computed Tomography Screening Participants. J Thorac Oncol. 2016;11(5):693-9.

Parsons A, Daley A, Begh R, Aveyard P. Influence of smoking cessation after diagnosis of early stage lung cancer on prognosis: systematic review of observational studies with meta-analysis. BMJ. 2010;340:b5569.

Warren GW, Alberg AJ, Cummings KM, Dresler C. Smoking Cessation After a Cancer Diagnosis Is Associated With Improved Survival. Journal of thoracic oncology : official publication of the International Association for the Study of Lung Cancer. 2020;15(5):705-8.

Aredo JV, Luo SJ, Gardner RM, Sanyal N, Choi E, Hickey TP, et al. Tobacco Smoking and Risk of Second Primary Lung Cancer. J Thorac Oncol. 2021;16(6):968-79. doi: 10.1016/j.jtho.2021.02.024.

Treating Smoking in Cancer Care

- There are 7 FDA-approved medications to help people stop smoking that are safe and effective.
 - Varenicline
 - Combination Nicotine patch with nicotine gum/lozenge
- Resources
 - Wisconsin Tobacco Quit Line: 1-800-QUIT-NOW
 - American Indian Quitline:
 - Text READY to 21586
 - WiQuitLine.org
 - Smokefree.gov
 - American Lung Association Freedom From Smoking

US Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, GA: Centers for Disease Control and Prevention; 2014.

U.S. National Cancer Institute. Treating Smoking in Cancer Patients: An Essential Component of Cancer Care. National Cancer Institute Tobacco Control Monograph 23. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; 2022.

Thank you!