



TOBACCO CESSATION AND LUNG CANCER SCREENING

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AMERICAN CANCER SOCIETY COMPREHENSIVE CANCER CONTROL
AND THE
NATIONAL LUNG CANCER ROUNDTABLE LUNG CANCER SCREENING WEBINAR SERIES 2020

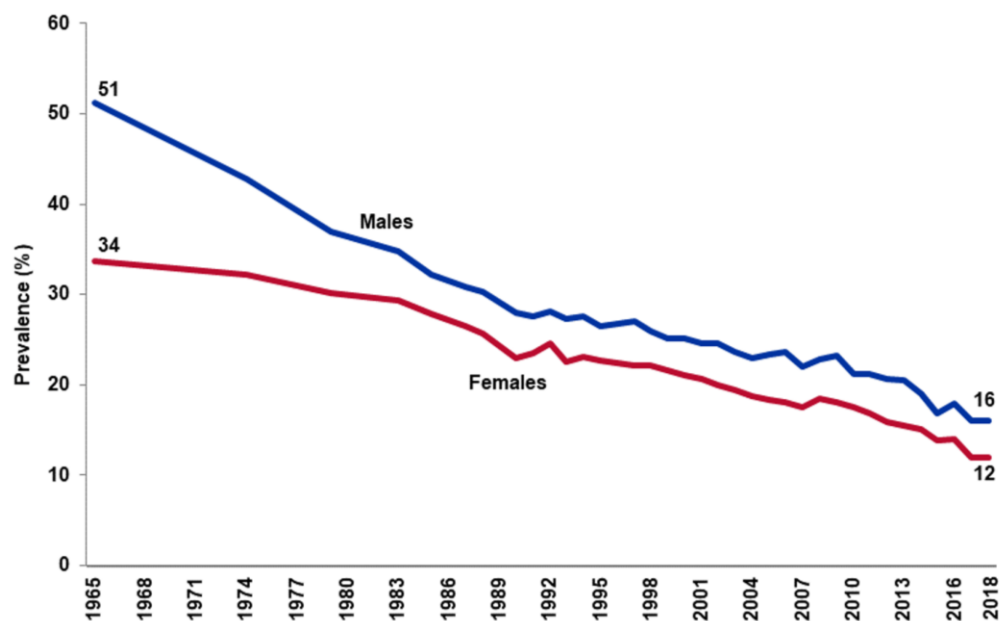
JUNE 03, 2020

OBJECTIVES

- Describe **smoking cessation as a regulatory mandate** in lung cancer screening
- Discuss the **benefits of smoking cessation** for lung cancer screening participants
- List the **proven interventions** for successful **smoking cessation**
- Describe **key components of high quality smoking cessation services in lung cancer screening**
- Discuss how **smoking cessation may be effectively integrated** in lung cancer screening
- List **key partners in advancing smoking cessation efforts in the context of lung cancer screening**

FIRST, WE MUST BEGIN AT THE BEGINNING

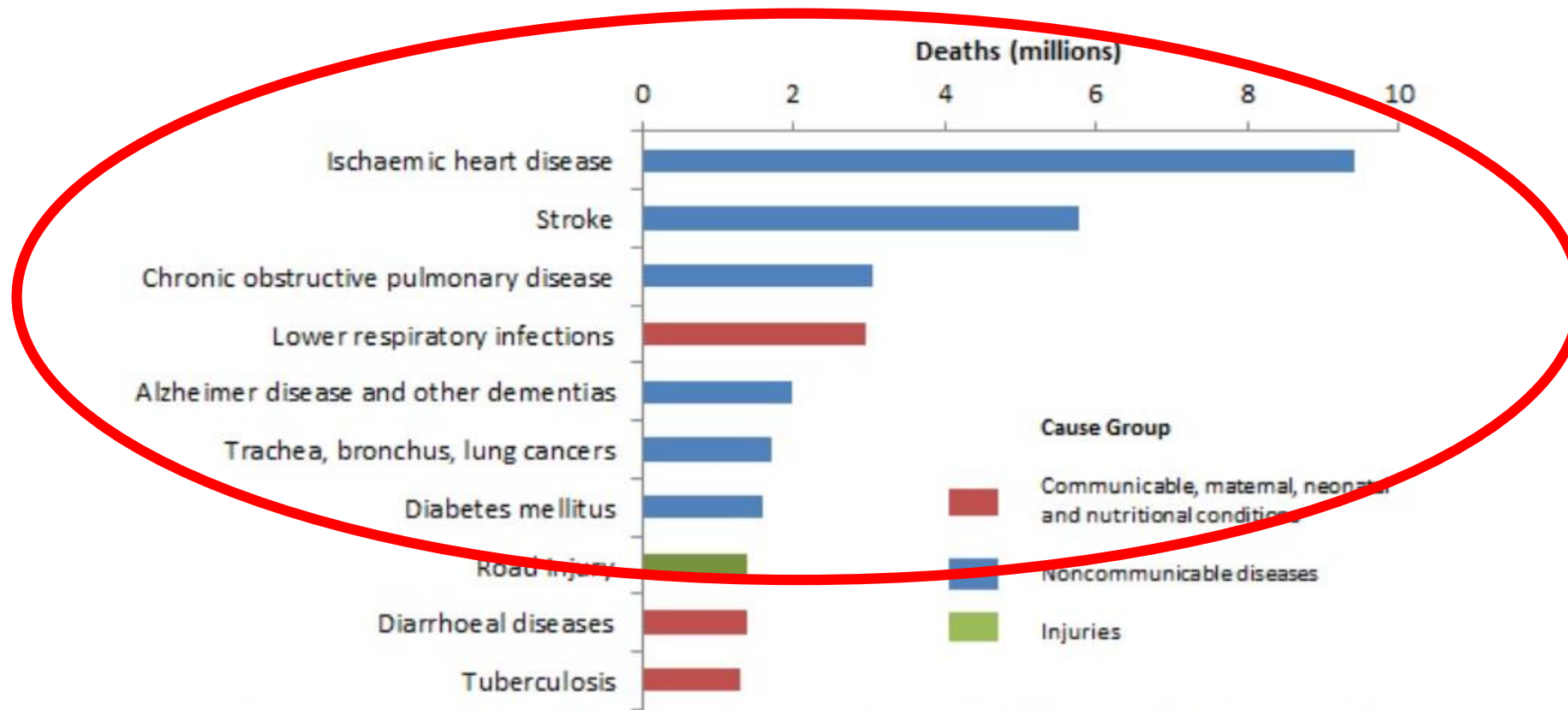
Trends in Current Cigarette Smoking* by Sex, Adults 18 and Older, US, 1965-2018



*Ever smoked 100 cigarettes in lifetime and smoking every day or some days at time of survey. Note: Estimates are age-adjusted to the 2000 US standard population.

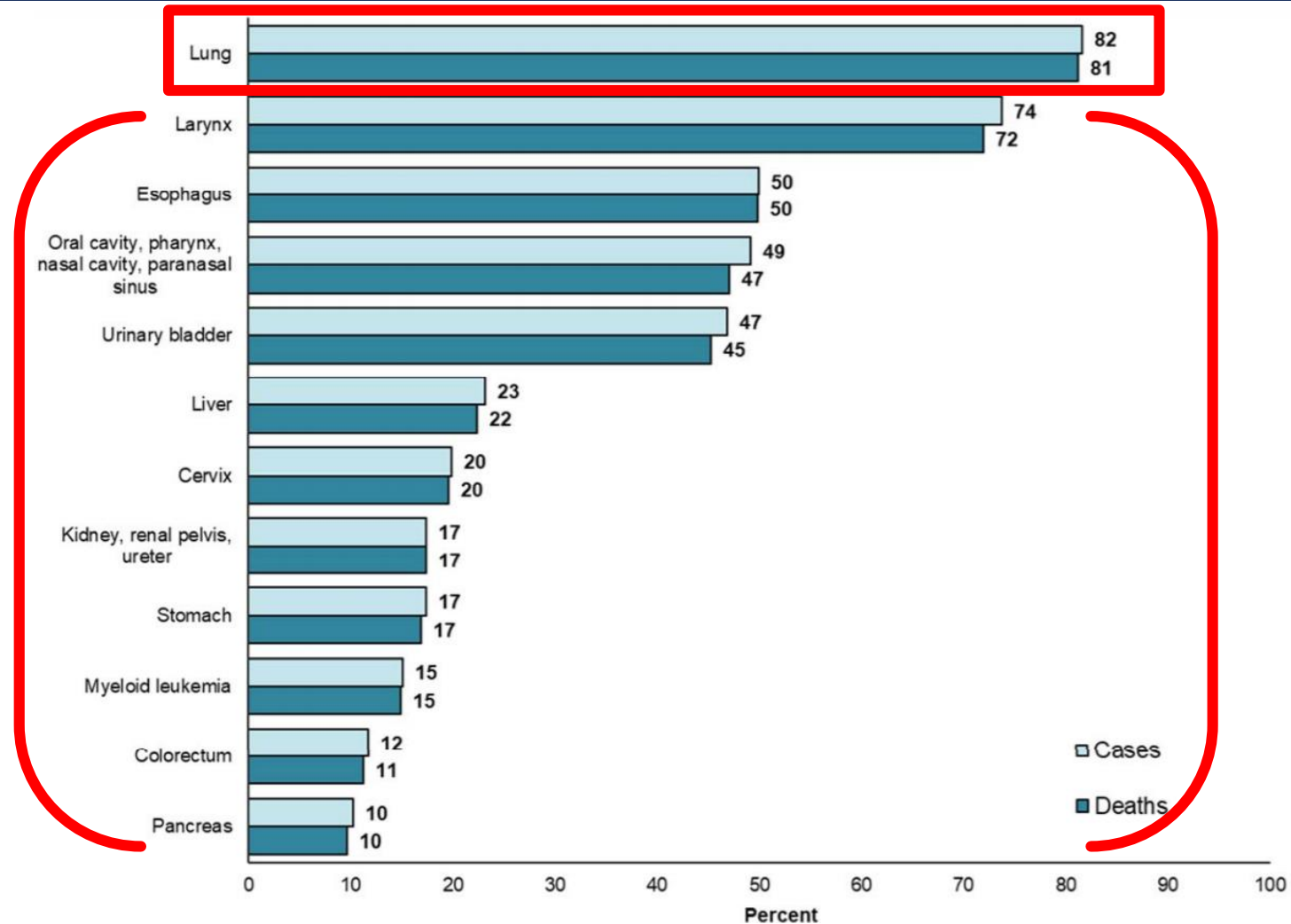
- 13.7% US Americans smoke cigarettes
- 34.2 million currently cigarette smokers
- ½ of these smokers will die prematurely, 10 years before their never-smoking peers

TOBACCO USE LEADS 5 OF TOP 6 GLOBAL CAUSES OF DEATH



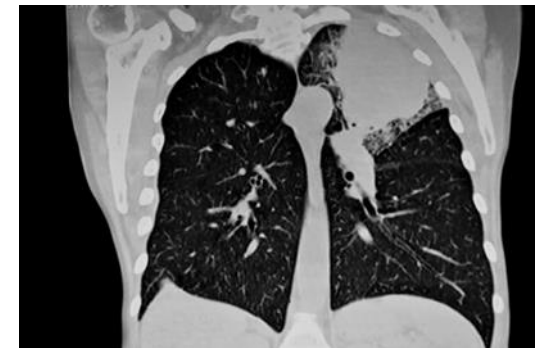
Source: Global Health Estimates 2016: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2016. Geneva, World Health Organization; 2018.

PROPORTION OF CANCER CASES AND DEATHS ATTRIBUTABLE TO CIGARETTE SMOKING IN THE US



MOST IMPORTANT RISK FACTOR FOR LUNG CANCER IS SMOKING

- 228,150 lung cancer diagnoses in 2019
 - 625 people diagnosed daily with lung cancer
- 142,670 lung cancer related deaths in 2019
 - 400 people dying a day from lung cancer



LUNG CANCER SCREENING

National Screening Recommendation

Recommendation Summary

Population	Recommendation	Grade
Adults Aged 55-80, with a History of Smoking	The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.	B

- Screening high risk individuals for lung cancer by low dose CT scan provides a 20% relative risk reduction lung cancer mortality
- Also yields a 6.7% reduction in all-cause mortality

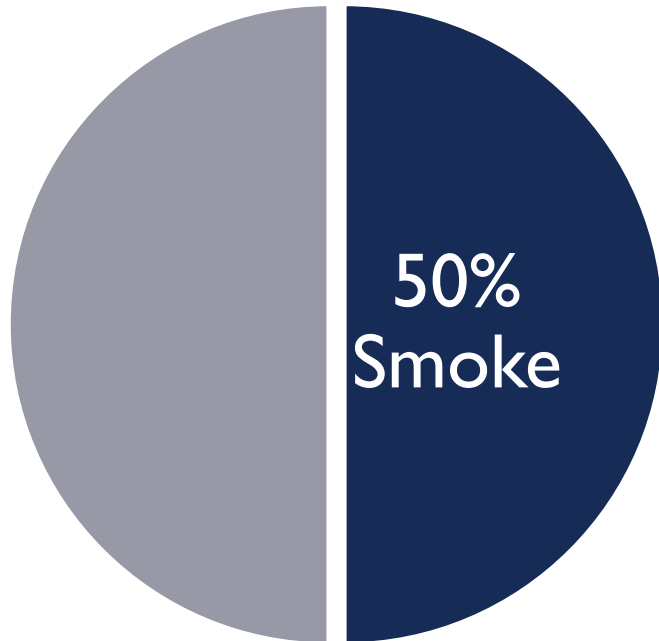
Benefit and Goal of Screening

- Improves the quantity of life
- Improves the quality of life

SMOKING CESSATION: A CMS MANDATE AND PILLAR OF LUNG CANCER SCREENING



SCREENING IS A SEEMINGLY OPPORTUNE TIME TO HELP PEOPLE QUIT SMOKING



- Half of lung cancer screening participants smoke
- This number may be even higher in eligible smokers who don't get screened
- Evidence that addressing smoking in the context of lung cancer screening is impactful

LUNG CANCER SCREENING AND MOTIVATION TO QUIT



Preventive Medicine

Volume 33, Issue 6, December 2001, Pages 613-621



Regular Article

Smoking Cessation Following CT Screening for Early Detection of Lung Cancer ☆

Jamie S. Ostroff Ph.D.^{a, 2}, Natasha Buckshee M.D.^b, Carol A. Mancuso M.D.^c, David F. Yankelevitz M.D.^b, Claudia I. Henschke Ph.D., M.D.^b

- IELCAP studied the impact of lung cancer screening participation on smoking cessation
- **Findings:** Evidence that lung cancer screening promotes motivation quit smoking!
 - **74% agreed that participation increased motivation to quit**
 - **23% reported they had quit**
 - **27% decreased their smoking patterns**

PARTICIPATION IN LUNG CANCER SCREENING POSITIVELY PROMOTES SMOKING CESSATION



Review

Smoking cessation interventions within the context of Low-Dose Computed Tomography lung cancer screening: A systematic review

Bárbara Piñeiro^{a,b,*}, Vani N. Simmons^{a,c,d}, Amanda M. Palmer^{a,c}, John B. Correa^{a,c}, Thomas H. Brandon^{a,c,d}



- Systematic review
 - 6 empirical studies (RCTs & single-arm)
- Studying effects of participation in lung cancer screening on smoking cessation
- **Findings:**
 - **Participation in a lung screening trial promotes smoking cessation** and may represent a teachable moment.

CESSATION IN LUNG CANCER SCREENING SAVES LIVES



ELSEVIER

Journal of Thoracic Oncology

Volume 11, Issue 5, May 2016, Pages 693-699



Original Article

IASLC Staging Committee Article

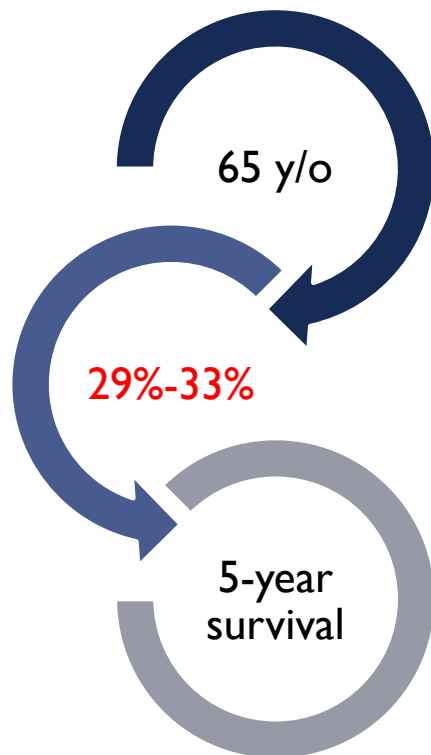
Stopping Smoking Reduces Mortality in Low-Dose Computed Tomography Screening Participants

Ugo Pastorino MD ^a ✉, Roberto Boffi MD ^b, Alfonso Marchianò MD ^c, Stefano Sestini MD ^a, Elena Munarini PhD ^b, Giuseppina Calareso MD ^c, Mattia Boeri PhD ^d, Giuseppe Pelosi MD ^{e,f}, Gabriella Sozzi PhD ^d, Mario Silva MD ^g, Nicola Sverzellati MD ^g, Carlotta Galeone PhD ^h, Carlo La Vecchia MD ^h, Arianna Ghirardi PhD ⁱ, Giovanni Corrao PhD ⁱ

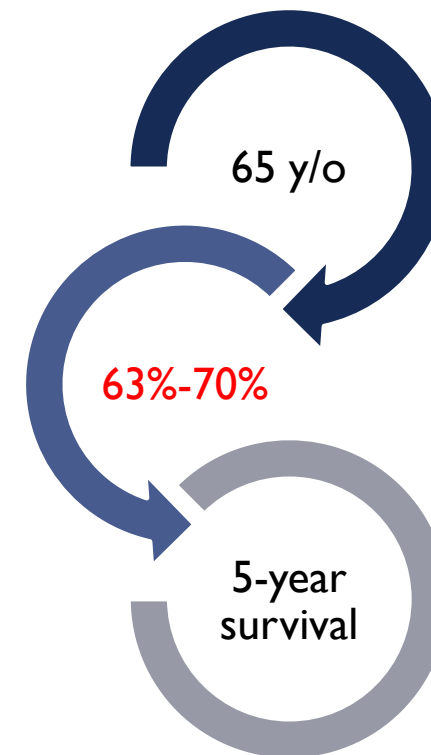
- Studying effects of smoking cessation on mortality in lung cancer screening participants
- Two study arms
 - Current smokers
 - Former smokers
- **Findings:**
 - **Former smokers had a 39% reduced mortality rate compared to current smokers**
 - **Late quitters also benefited with a 35% mortality reduction**
 - **People who are at high risk for lung cancer benefit from a 3-5 fold mortality reduction when they quit smoking and stay quit.**

QUITTING SMOKING CONTROLS LUNG CANCER

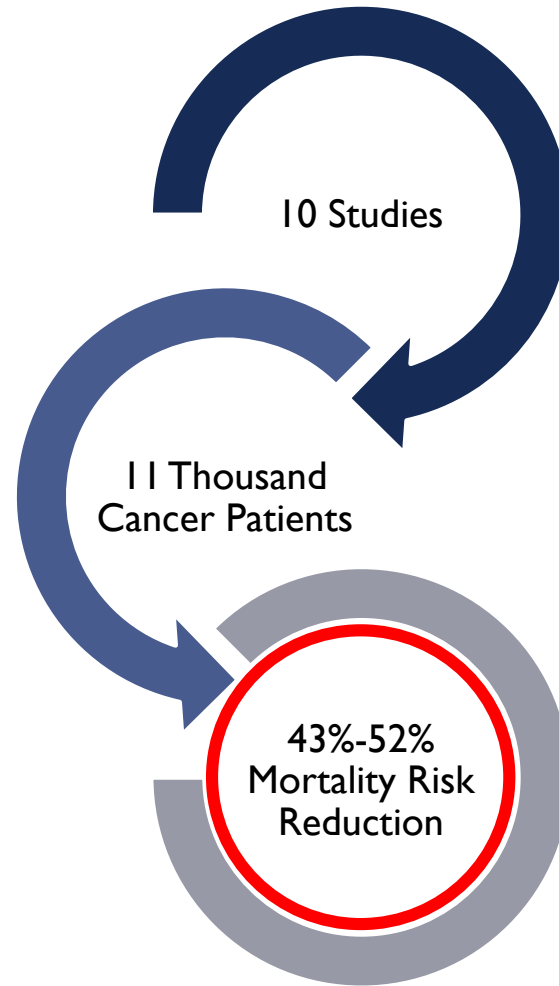
Early Stage Lung Cancer-**Smoker**



Early Stage Lung Cancer-**Quit**



QUITTING SMOKING SAVES LIVES ACROSS THE CANCER CARE CONTINUUM



PEOPLE WANT TO QUIT SMOKING

70% Interested in quitting smoking

50% Make a quit attempt

4-7% Succeed

PEOPLE AT HIGH RISK FOR LUNG CANCER WANT TO QUIT!

79%

Lung cancer screening eligible smokers had **previous quit attempts**

60%

Lung cancer screening eligible smokers had **low confidence in their chances of quitting**

UNDERSTANDING THE COMPLEXITY OF TOBACCO USE

Chemical (Nicotine) Dependence



Behavioral and Conditioning Component



CIGARETTE DEPENDENCE AS A CHRONIC DISEASE

- Chronic relapsing disorder
- Not curable, only controlled
- Calls for multimodal therapy for successful management
- Requires routine follow-up

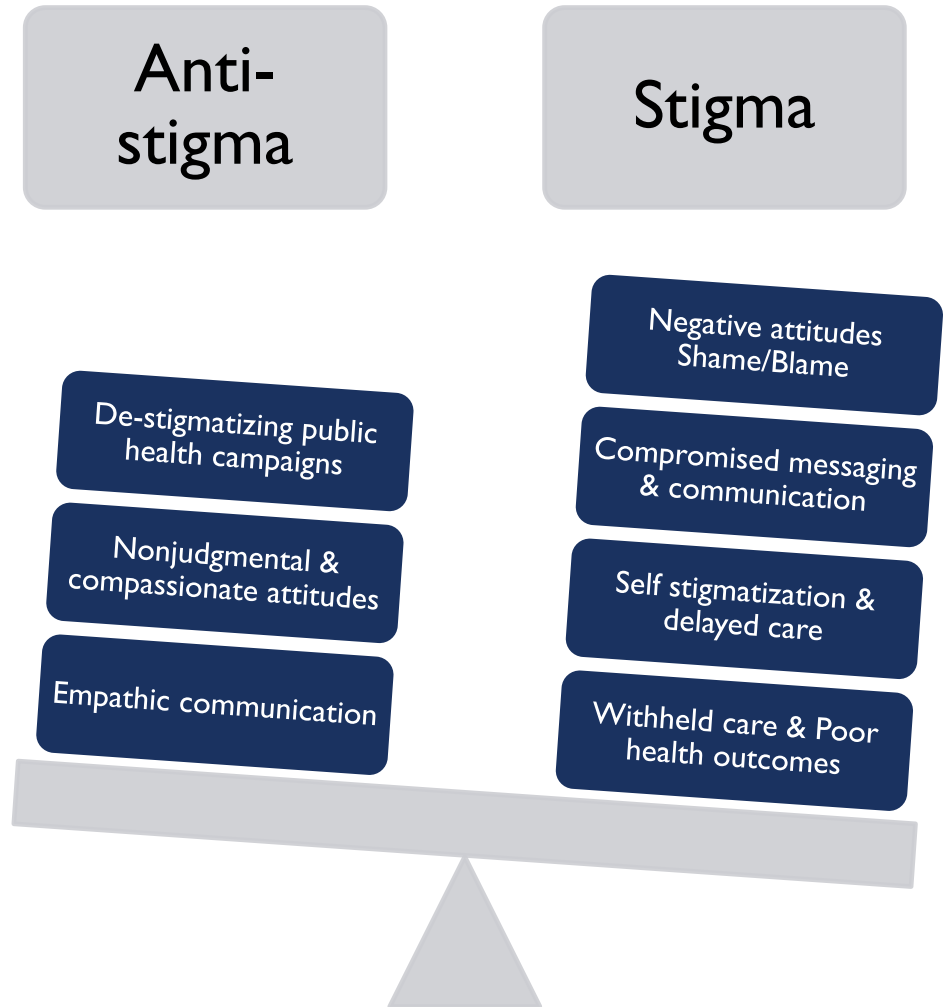


CESSATION AND THE LUNG CANCER SCREENING CARE CONTINUUM



- Smoking cessation is NEVER easy
- The cessation journey is NEVER over
- Lung cancer screening continuum is a perfect place to partner with patients in the cessation journey

COUNTERING STIGMA THAT IMPEDES TREATMENT



USING THE 5A'S TO START THE CONVERSATION IN SCREENING

Ask

- Asking all patients ensures opportunities for lifesaving conversation

Advise

- Advising patients of the benefits of quitting spurs motivation to quit at a teachable moment

Assess

- Assessing willingness and readiness to quit opens the door for conversation and next steps

Assist

- Assisting patients in securing medication treatment and counseling enhances chances of quitting

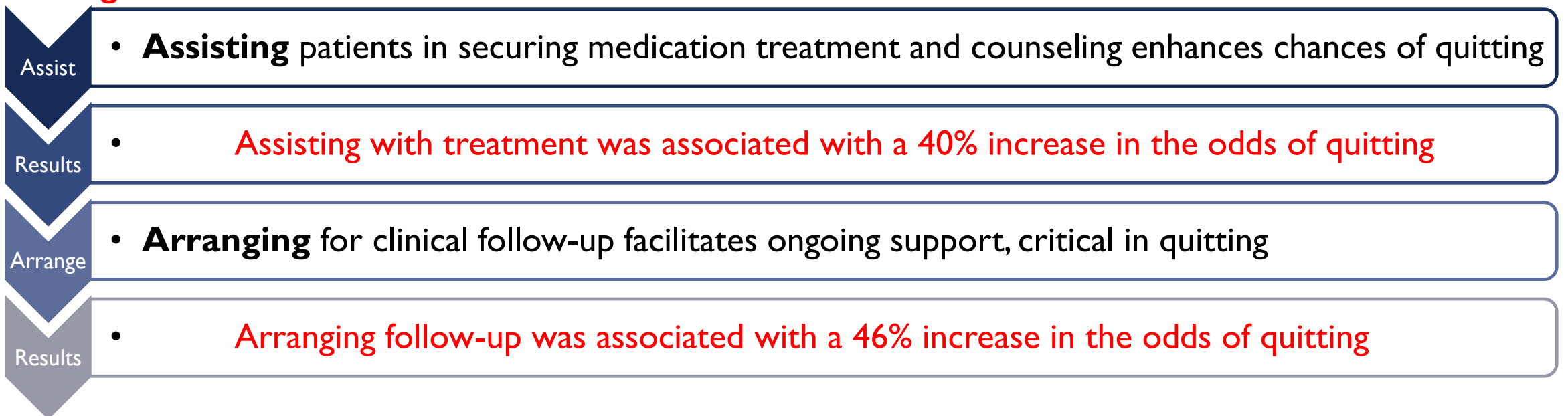
Arrange

- Arranging for clinical follow-up facilitates ongoing support, critical in quitting

EFFECTIVENESS OF THE 5A'S IN THE CONTEXT OF LUNG CANCER SCREENING

- **Case controlled study:** conducted on 3,336 National Lung Screening Trial participants
- **Outcomes measures:** prevalence of clinician use of the 5As and smoking cessation after lung cancer screening

Findings:



EVIDENCE BASED TOBACCO TREATMENTS

Medication Treatment



Behavioral Counseling



EVIDENCE BASED-GUIDELINE DIRECTED TOBACCO TREATMENT



CESSATION IS NOT A ONE-STOP-SHOP:WHAT IT TAKES TO QUIT

- Average of 30 quit attempts for successful smoking cessation
- For most, smoking cessation is a marathon not a sprint
- Must NOT give up on patients



VARIATION IN MODELS OF LUNG CANCER SCREENING

Hybrid Program

- PCP +/- Responsible/Refer
- LCSP +/- Management of screening activities
- Variable cessation services

Decentralized Program

- PCP +/-Responsible
- LCSP +/- reviews and manages Lung-RADS results (3&4)
- Variable cessation services



Centralized Program

- PCP Refers to LCSP
- LCSP manages all screening results & activities
- Integrated cessation services

CESSATION PRACTICE PATTERNS IN LUNG CANCER SCREENING

Survey of 93 Lung Cancer Screening Sites

Nicotine & Tobacco Research, 2016, 1067–1075
doi:10.1093/ntr/ntv177
Original investigation
Advance Access publication September 7, 2015



Original investigation

Readiness of Lung Cancer Screening Sites to Deliver Smoking Cessation Treatment: Current Practices, Organizational Priority, and Perceived Barriers

Jamie S. Ostroff PhD¹, Amy Copeland MPH², Sarah P. Borderud MPH¹, Yuelin Li PhD¹, Donna R. Shelley MD³, Claudia I. Henschke MD⁴

Current Practice Patterns

- 98.9% sites ask about current smoking status
- 91.4% advised current smokers to quit
- 60.2% referred smokers to a quitline
- 57% of sites provided cessation counseling
- **36.6% routinely recommend cessation medications**
- Survey respondents reported less attention to smoking cessation advice and treatment on follow-up screening visits.

BARRIERS TO SMOKING CESSATION IN LUNG CANCER SCREENING

Survey of 93 Lung Cancer Screening Sites

Nicotine & Tobacco Research, 2016, 1067–1075
doi:10.1093/ntr/ntv177
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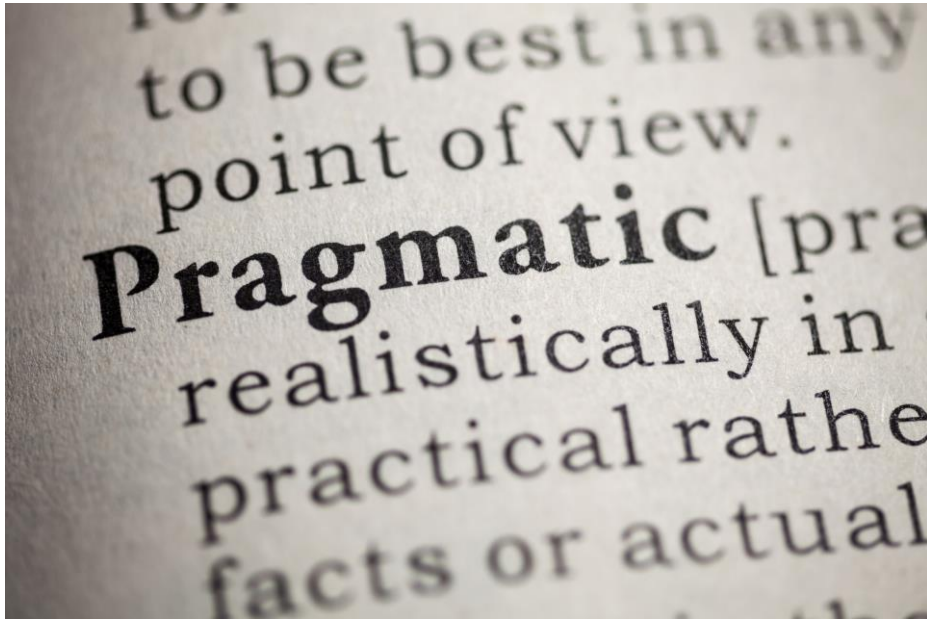
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Jamie S. Ostroff PhD¹, Amy Copeland MPH², Sarah P. Borderud MPH¹, Yuelin Li PhD¹, Donna R. Shelley MD³, Claudia I. Henschke MD⁴

Barriers for Providing Smoking Cessation Treatment

- Perceptions that patients lacked motivation to quit and were resistant to cessation advice and treatment.
- Lack of institutional support for tobacco treatment
- Lack of tobacco treatment champions or identified and designated providers of cessation services
- Lack of confidence in how to help patients quit smoking
- Lack of time in screening visit to address smoking
- Lack of familiarity with tobacco treatment practice guidelines

GETTING STARTED: IMPLEMENTATION OF KNOWLEDGE TO PRACTICAL APPLICATION



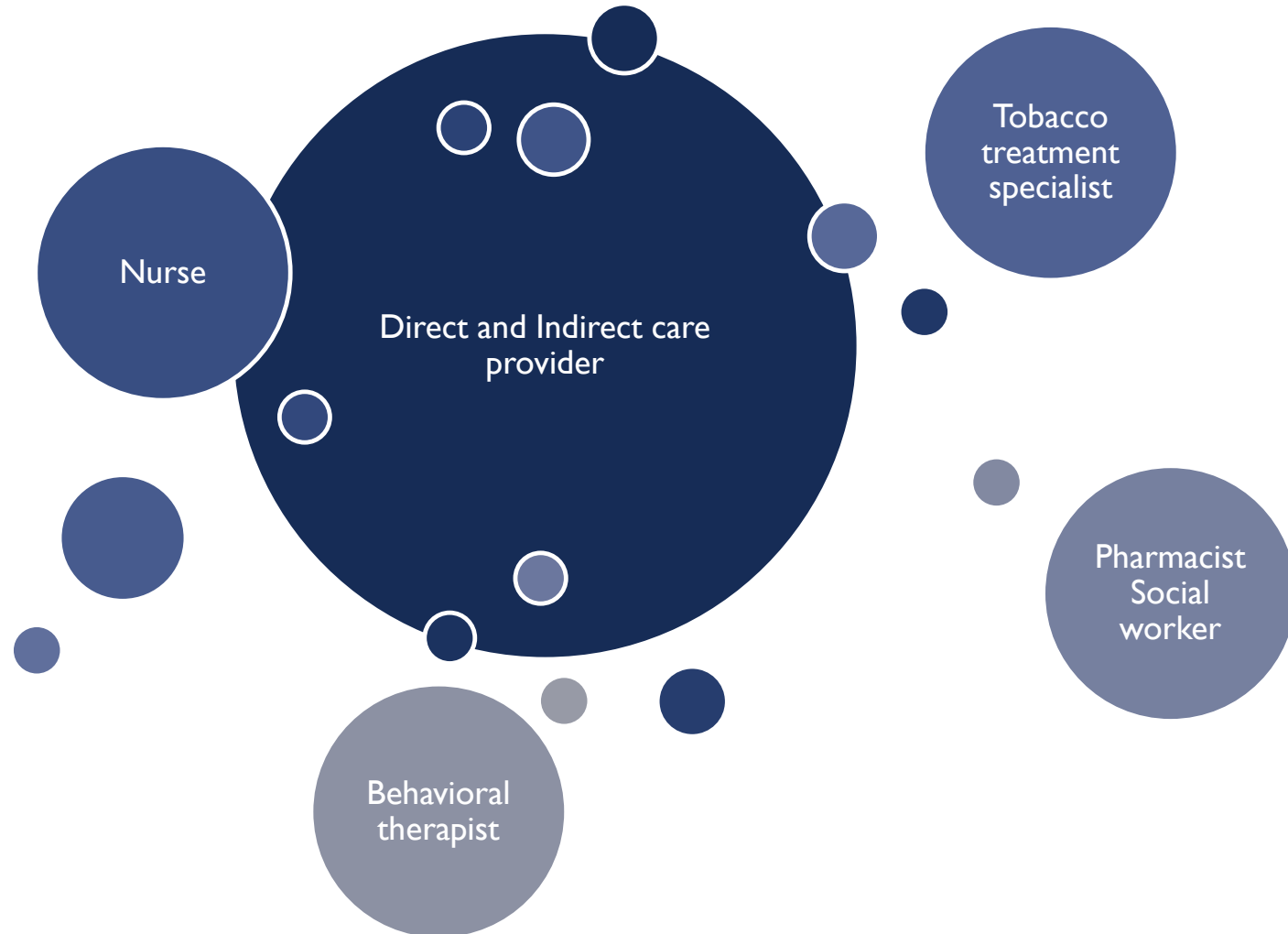
Make it Practical and Applicable to the Setting and Local Resources

- Develop leadership buy-in and support
- Identify institutional champion
- Address health system and facility design to promote cessation services
- Leverage the electronic health record for cessation services
- Invest in provider interest, knowledge, and willingness, to engage in cessation treatment
- Identify and incorporate patient education resources in health system, facility, and community cessation resources

CUSTOMIZE IT, ONE SIZE DOES NOT FIT ALL!



IDENTIFY INSTITUTIONAL CESSATION CHAMPIONS AND PROVIDERS



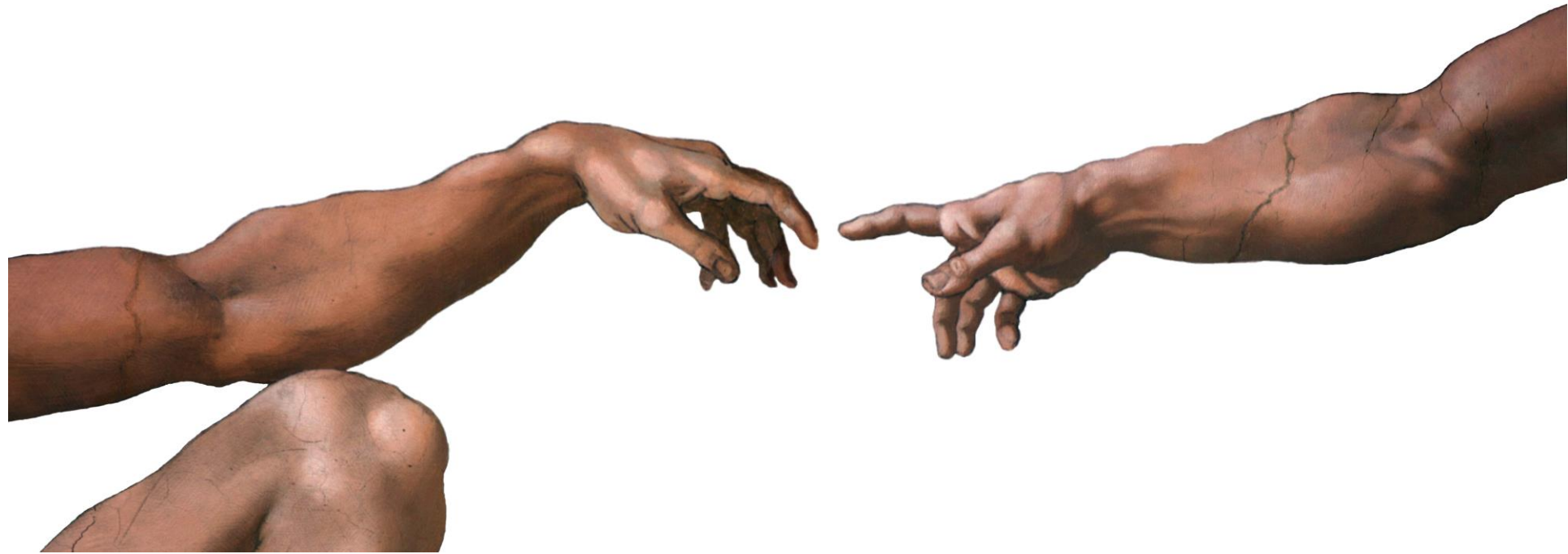
KEY PARTNERS IN THE CESSATION PATHWAY



IF YOU CAN'T FIND IT: CREATE AND COLLABORATE!



REACHING PATIENTS CHANGES LIVES



TELEHEALTH: BRIDGING CARE AND CLOSING HEALTH INEQUITY GAPS



THE POWER OF THE PHONE IN SUCCESSFUL CESSATION



REMEMBER WHO OUR CUSTOMER IS: GIVING PATIENT AND FAMILY CENTERED CARE A HEART BEAT



- Patients are partners in their health care
- Encourage active collaboration and shared decision making with patient and families
- Design and manage health systems and facilities and clinical programs to meet patient needs
 - Well coordinated, collaborative, and accessible care
- Encourage the presence of family members and engage them
- Share information fully and openly with patients and families

CANCER COALITIONS: CRITICAL PARTNERS IN ADVANCING SMOKING CESSATION IN LUNG CANCER SCREENING

- **Cancer Coalitions represent strategic partnerships that effectively achieve the following:**
 1. Prevent lung cancer and promote public health through awareness by large scale campaigns and initiatives
 2. Reduce the risk of lung cancer through policy and tobacco control efforts
 3. Promote opportunities for early detection of lung cancers, improved cancer treatments and survivorship in funding research and novel practice



RESEARCHERS SHAPING CLINICAL PRACTICE: THE SCALE COLLABORATION

- Smoking Cessation within the Context of Lung Cancer Screening NCI grant
- 5 projects funded for 5 years
- Design and implementation of smoking cessation interventions in lung cancer screening

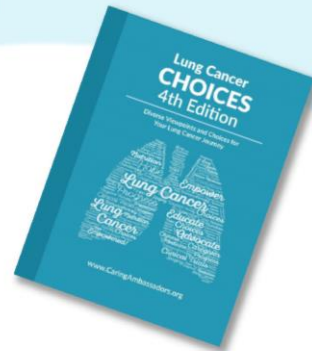
CARING AMBASSADORS

How to Quit Smoking Confidently and Successfully

Joelle Thirsk Fathi, DNP, RN, ARNP, CTTS, NCTTP

This chapter is part of *Lung Cancer Choices, 4th Edition*[®]

You can download a free copy of the book at
www.caringambassadors.org



- <https://lungcancercap.org/lung-cancer-choices/how-to-quit-smoking-confidently-and-successfully-4th-edition/>

CONCLUSION

- **Lung cancer screening + effective and successful smoking cessation holds a promise of:**
 - Improving the quantity and quality of life for those who are at high risk for lung cancer and other smoking related disorders
 - Lung cancer screening is an opportune time to engage patients and walk their cessation journey with them
 - Integrated smoking cessation within lung cancer screening should be evidence based and customized to that setting

THANK YOU!

- Together we care
- Together we fight
- Together we win the war on tobacco and lung cancer

