



# Engaging Communities in Quality Lung Cancer Screening

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We do not have any relevant financial relationships within the last 24 months.

# Learning Objectives



- Discuss the role and impact of lung cancer screening in improving health outcomes in Kentucky
- Assess your community's needs, priorities, and values
- Describe strategies for engaging the community in lung cancer screening efforts

# The QUILS™ Group



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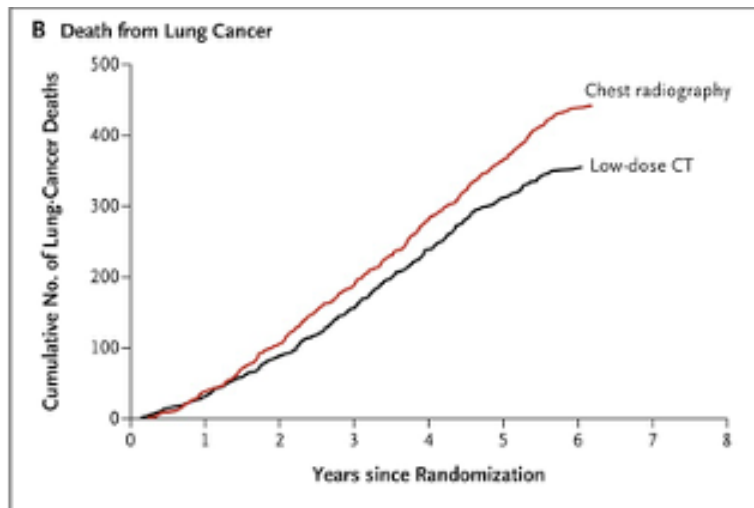


# Role and Impact of Lung Cancer Screening in Improving Health Outcomes in Kentucky

# Importance of Lung Cancer Screening



- Image from cancer facts and figures relative mortality (Panel 1) – lung cancer vs everything
- Stage distribution – image of stage – 70-80% diagnosed at a late stage
- NLST trial showing mortality reduction – if we do lung cancer screening, we can shift the stage toward early diagnosis and dramatically change LCS outcomes



N Engl J Med 2011; 365:395-409  
DOI: 10.1056/NEJMoa1102873

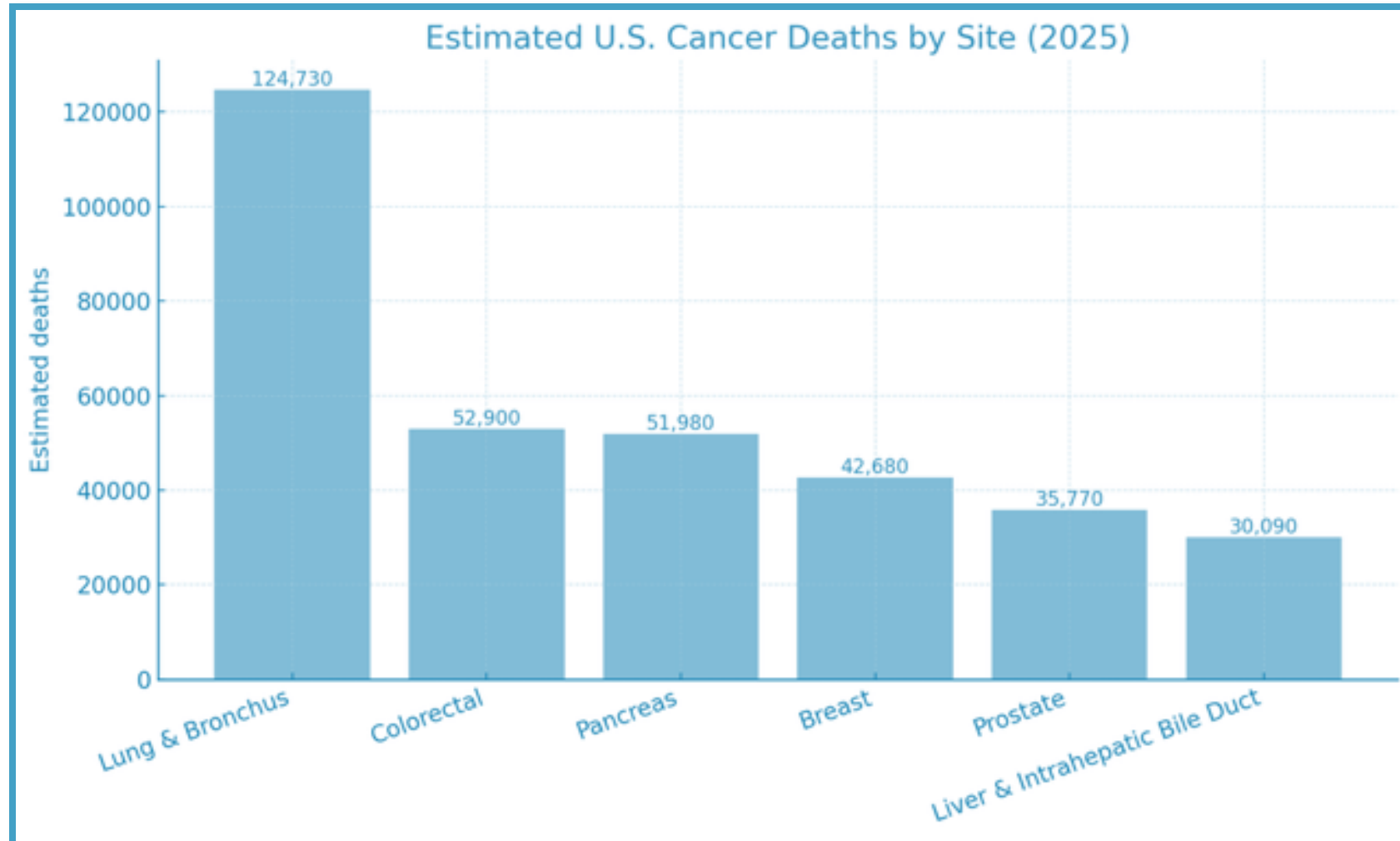
Figure 3. Leading Sites of New Cancer Cases and Deaths – 2025 Estimates

	Male				Female		
Estimated New Cases	Prostate	313,780	30%		Breast	316,950	32%
	Lung & bronchus	110,680	11%		Lung & bronchus	115,970	12%
	Colon & rectum	82,460	8%		Colon & rectum	71,810	7%
	Urinary bladder	65,080	6%		Uterine corpus	69,120	7%
	Melanoma of the skin	60,550	6%		Melanoma of the skin	44,410	4%
	Kidney & renal pelvis	52,410	5%		Non-Hodgkin lymphoma	35,210	4%
	Non-Hodgkin lymphoma	45,140	4%		Pancreas	32,490	3%
	Oral cavity & pharynx	42,500	4%		Thyroid	31,350	3%
	Leukemia	38,720	4%		Kidney & renal pelvis	28,570	3%
	Pancreas	34,950	3%		Leukemia	28,170	3%
	All sites	1,053,250			All sites	988,660	
Estimated Deaths	Lung & bronchus	64,190	20%		Lung & bronchus	60,540	21%
	Prostate	35,770	11%		Breast	42,170	14%
	Colon & rectum	28,900	9%		Pancreas	24,930	8%
	Pancreas	27,050	8%		Colon & rectum	24,000	8%
	Liver & intrahepatic bile duct	19,250	6%		Uterine corpus	13,860	5%
	Leukemia	13,500	4%		Ovary	12,730	4%
	Esophagus	12,940	4%		Liver & intrahepatic bile duct	10,840	4%
	Urinary bladder	12,640	4%		Leukemia	10,040	3%
	Non-Hodgkin lymphoma	11,060	3%		Non-Hodgkin lymphoma	8,330	3%
	Brain & other nervous system	10,170	3%		Brain & other nervous system	8,160	3%
	All sites	323,900			All sites	294,220	

Estimates exclude US territories and are rounded to the nearest 10; cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Ranking is based on modeled projections and may differ from observed data.

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# Lung Cancer Screening Perspective



# Lung Cancer Screening Perspective



***"Lung cancer screening is currently the greatest missed opportunity to reduce cancer mortality throughout the US—not just lung cancer mortality, but overall cancer mortality."***

**- J. L. Studts**



# Lung Cancer Screening Guidelines\*



- Age 50-77
- 20 pack year smoking history (e.g. one pack a day for 20 years)
- Still smoking or quit smoking less than 15 years ago
- Annual screening
- Does not have a pre-existing health condition that would limit ability or willingness to go through diagnosis or treatment

\* This a summary of the guidelines all national organizations currently agree upon and cover through insurance. There are differences by different organizations.

#1

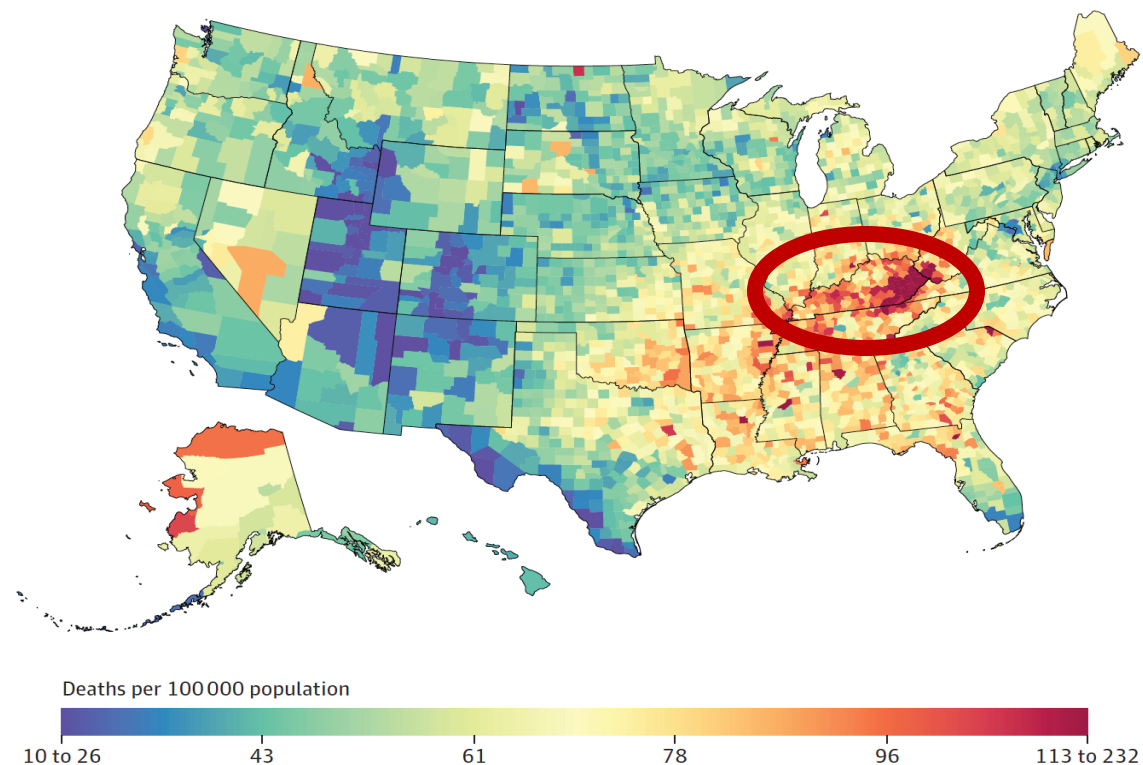
in Adolescent Smoking

#1

in Lung Cancer  
Mortality

Figure 2. County-Level Mortality From Tracheal, Bronchus, and Lung Cancer

A Age-standardized mortality rate from tracheal, bronchus, and lung cancer, both sexes, 2014



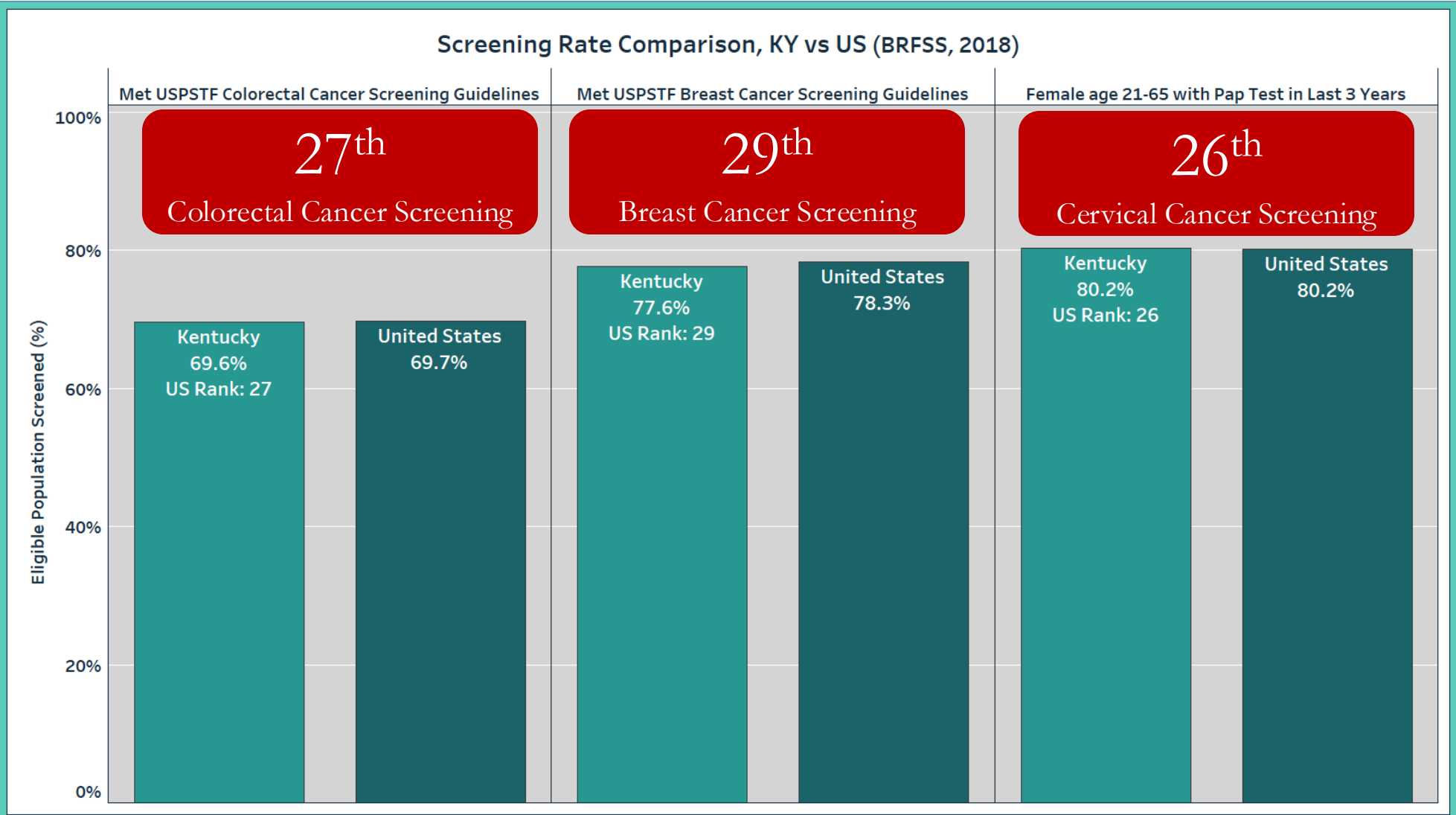
#1

in Adult  
Smoking

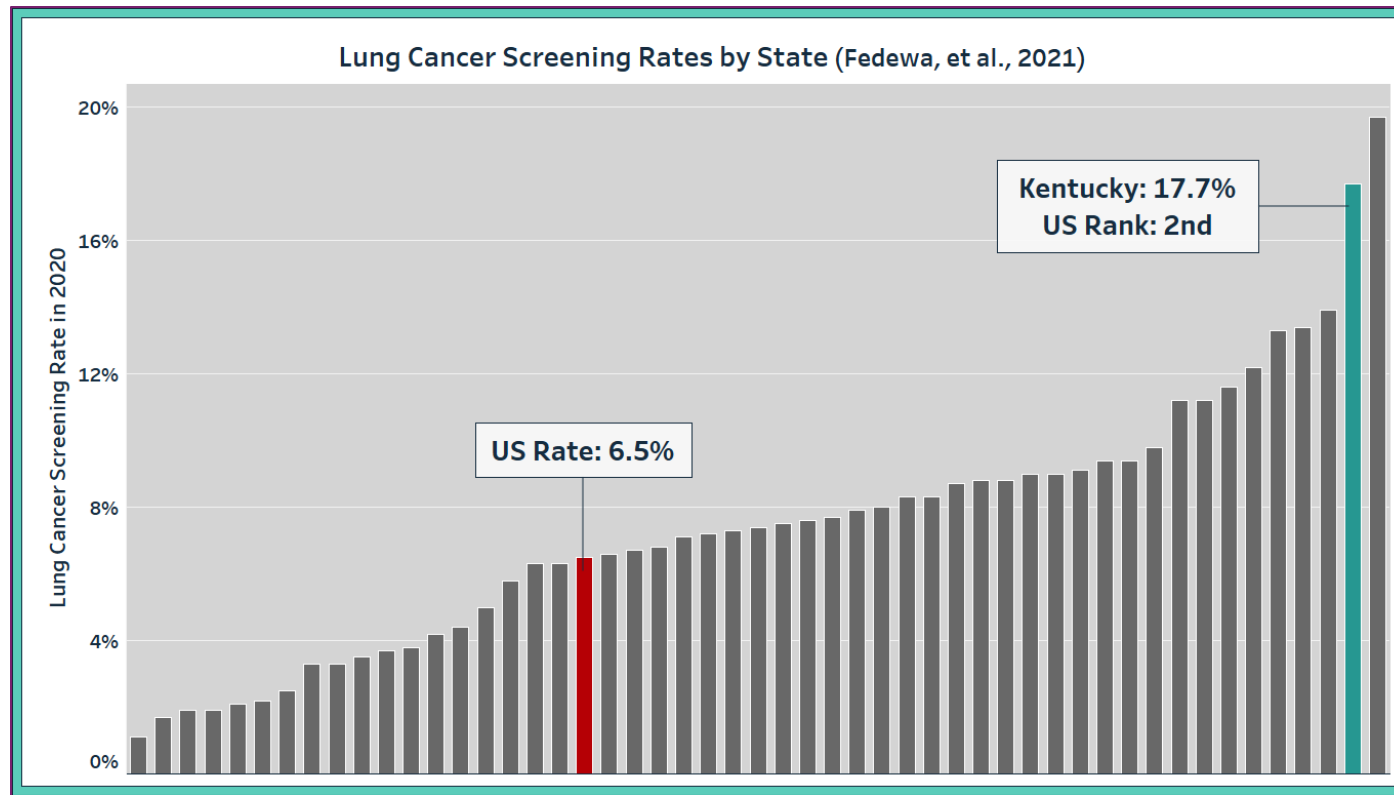
#1

in Lung Cancer  
Incidence

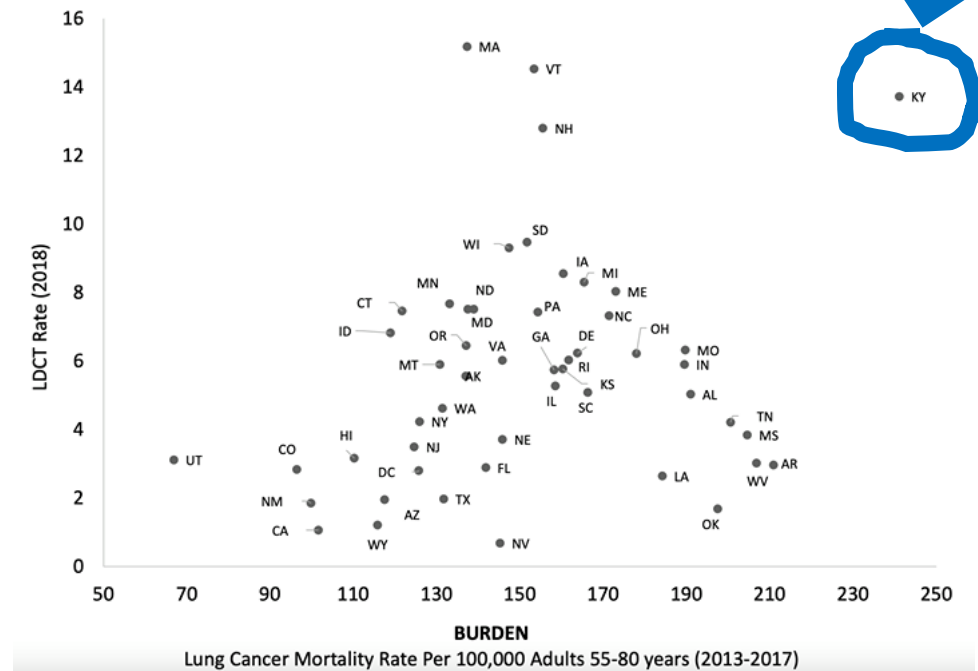
# Cancer Screening Rates in Kentucky



# National Lung Cancer Screening Uptake Landscape

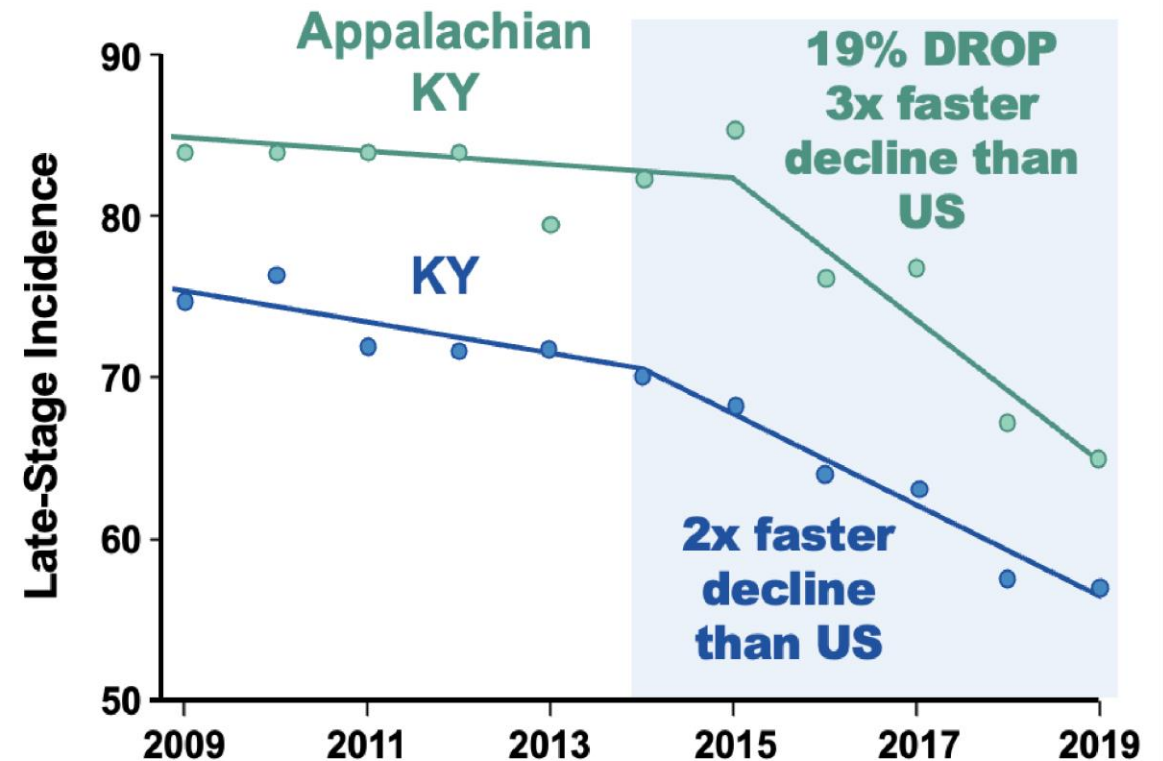
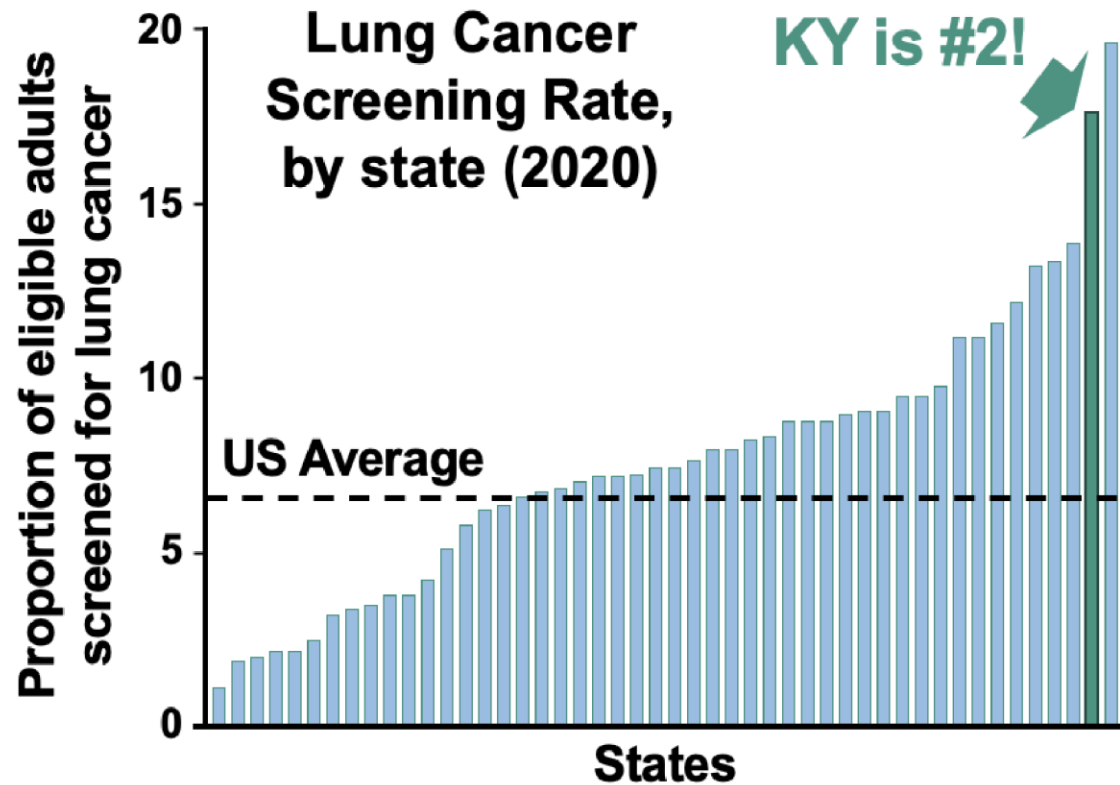


**Kentucky**—the only state with substantial lung cancer burden that is also leading statewide LCS implementation.

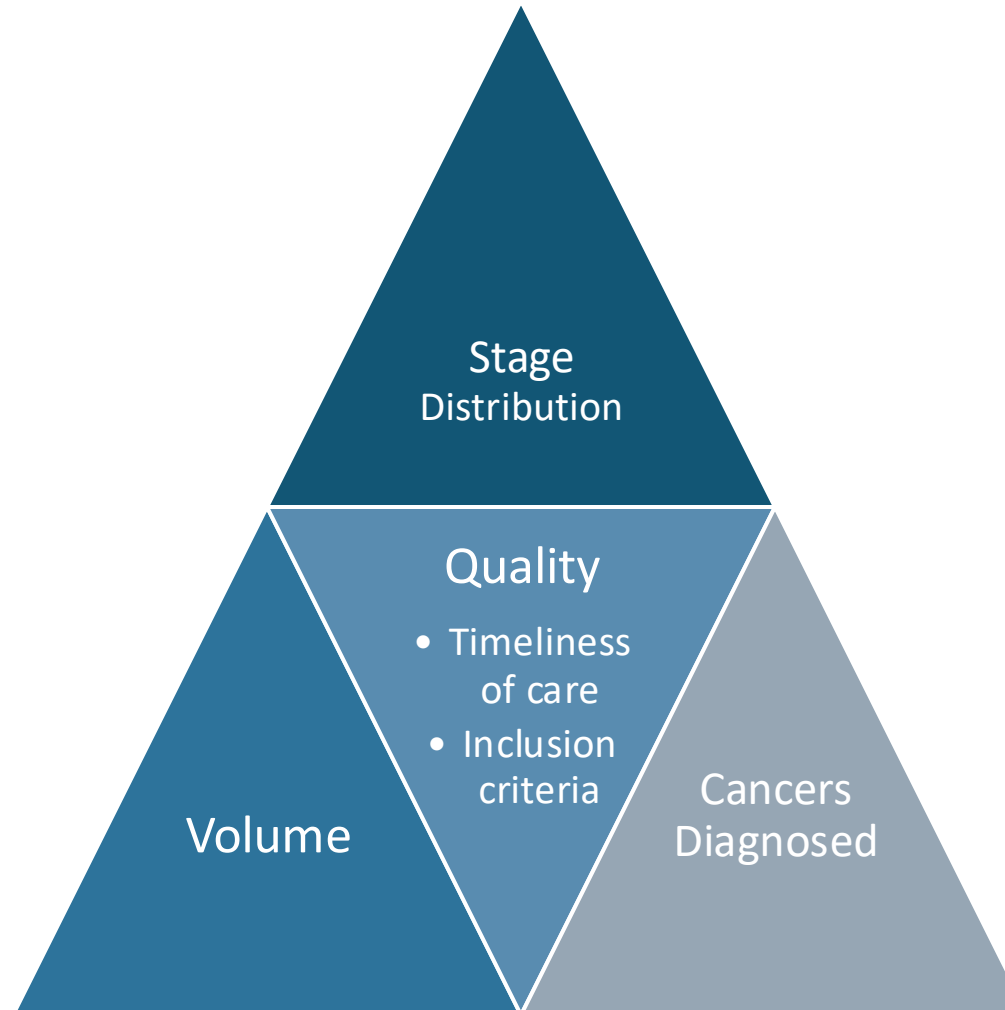


(Fedewa et al., 2021)

# Lung Cancer Screening in Kentucky 2014 – 2019



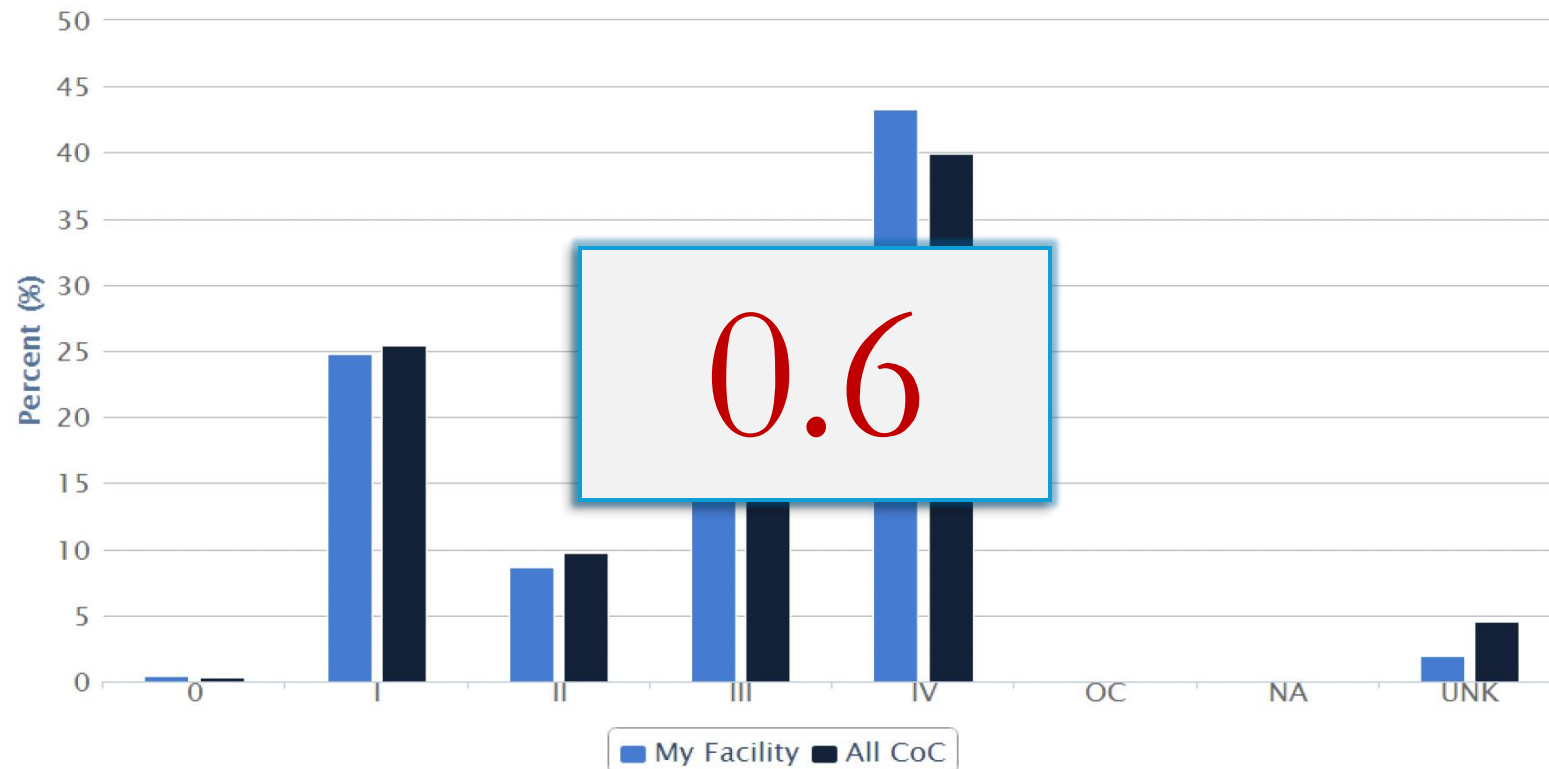
# Potential Metrics of Success



# Data Reported Since 2011 (2014 Report)

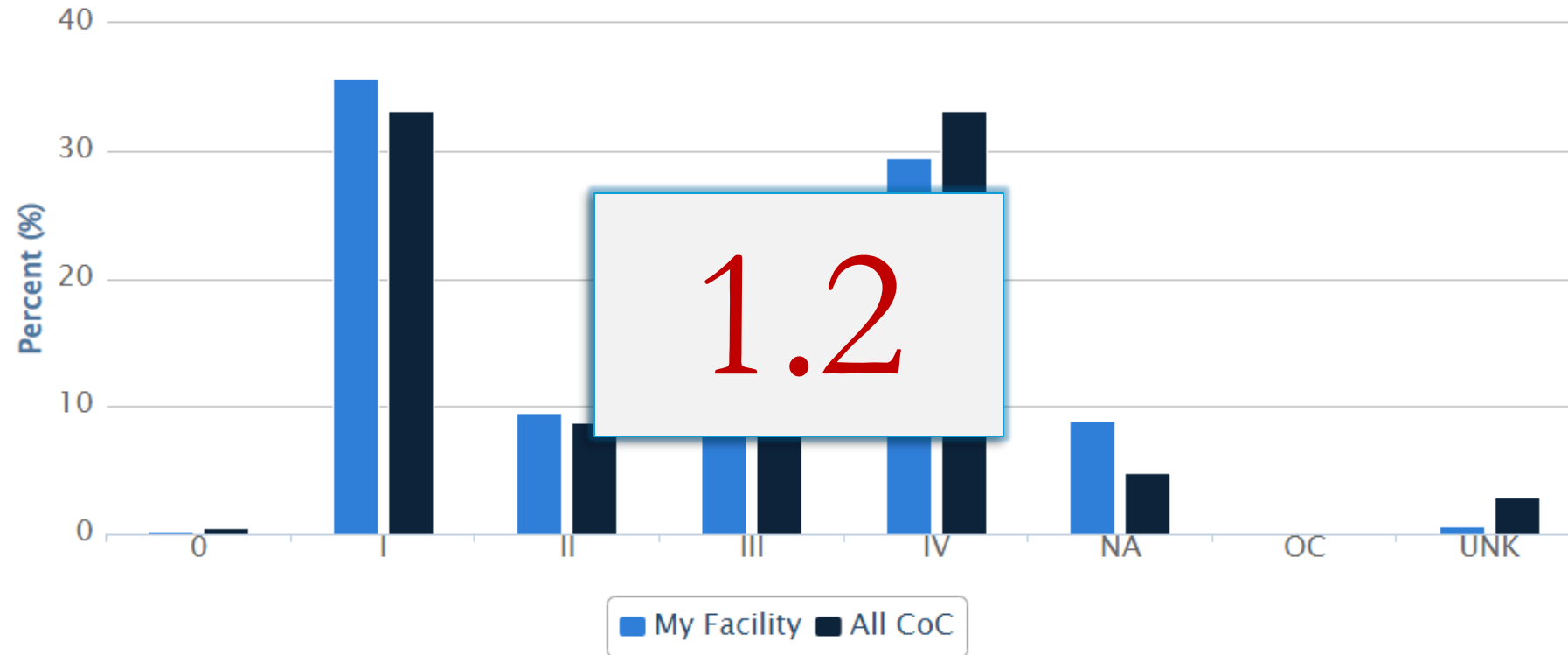


Stage Distribution - Non Small Cell Lung Cancer Diagnosed in  
2011, My Hospital vs. All CoC



	0	I	II	III	IV	OC	NA	UNK
My Facility	0.39 %	24.8 %	8.66 %	20.87 %	43.31 %	0 %	0 %	1.97 %
All CoC	0.33 %	25.46 %	9.7 %	19.92 %	39.91 %	0.14 %	0 %	4.53 %

# Stage Distribution - Non-Small Cell Lung Cancer Diagnosed in 2022, My Facility vs. All CoC



	0	I	II	III	IV	NA	OC	UNK
My Facility	0.2 % (n=1)	35.7 % (n=177)	9.5 % (n=47)	15.7 % (n=78)	29.4 % (n=146)	8.9 % (n=44)	0 % (n=0)	0.6 % (n=3)
All CoC	0.5 % (n=628)	33.2 % (n=39666)	8.8 % (n=10483)	16.7 % (n=19979)	33.1 % (n=39566)	4.8 % (n=5731)	0 % (n=49)	2.9 % (n=3419)



# Facility A



## Stage Distribution - Non-Small Cell Lung Cancer Diagnosed in 2022, My Facility vs. All CoC



	0	I	II	III	IV	NA	OC	UNK
My Facility	0.2 % (n=1)	48.1 % (n=195)	5.4 % (n=22)	12.6 % (n=51)	25.2 % (n=102)	6.2 % (n=25)	0 % (n=0)	2.2 % (n=9)
All CoC	0.5 % (n=628)	33.1 % (n=39618)	8.8 % (n=10497)	16.7 % (n=19991)	33.1 % (n=39598)	4.8 % (n=5743)	0 % (n=49)	2.9 % (n=3411)

# Facility B



## Stage Distribution - Non-Small Cell Lung Cancer Diagnosed in 2022, My Facility vs. All CoC



	0	I	II	III	IV	NA	OC	UNK
<b>My Facility</b>	0.5 % (n=1)	33.3 % (n=68)	10.8 % (n=22)	19.1 % (n=39)	23.5 % (n=48)	11.3 % (n=23)	0 % (n=0)	1.5 % (n=3)
<b>All CoC</b>	0.5 % (n=628)	33.2 % (n=39747)	8.8 % (n=10499)	16.7 % (n=20005)	33.1 % (n=39651)	4.8 % (n=5747)	0 % (n=49)	2.9 % (n=3417)

# Facility C



## Stage Distribution - Non-Small Cell Lung Cancer Diagnosed in 2022, My Facility vs. All CoC



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CQIP  
Cancer Quality Improvement Program



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# Facility D



## Stage Distribution - Non-Small Cell Lung Cancer Diagnosed in 2022, My Facility vs. All CoC



	0	I	II	III	IV	NA	OC	UNK
My Facility	0 % (n=0)	14.3 % (n=16)	14.3 % (n=16)	13.4 % (n=15)	48.2 % (n=54)	8.9 % (n=10)	0 % (n=0)	0.9 % (n=1)
All CoC	0.5 % (n=629)	33.2 % (n=39802)	8.8 % (n=10504)	16.7 % (n=20023)	33.1 % (n=39644)	4.8 % (n=5759)	0 % (n=49)	2.9 % (n=3419)



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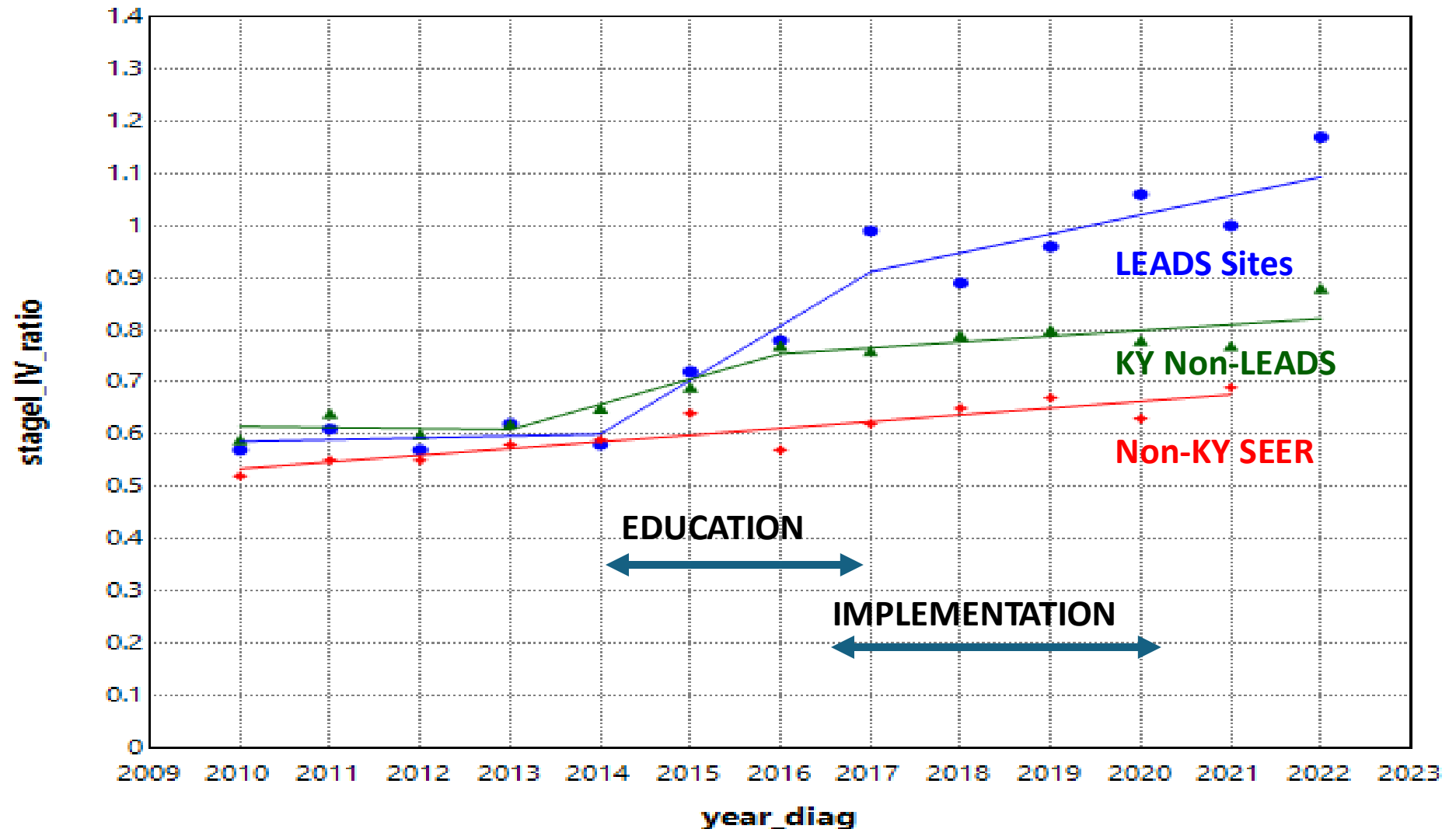
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# Ratio of Stage I to Stage IV for NSCLC



- A new concept for evaluating lung cancer screening effectiveness
- QUILS™ System provides persistent impact

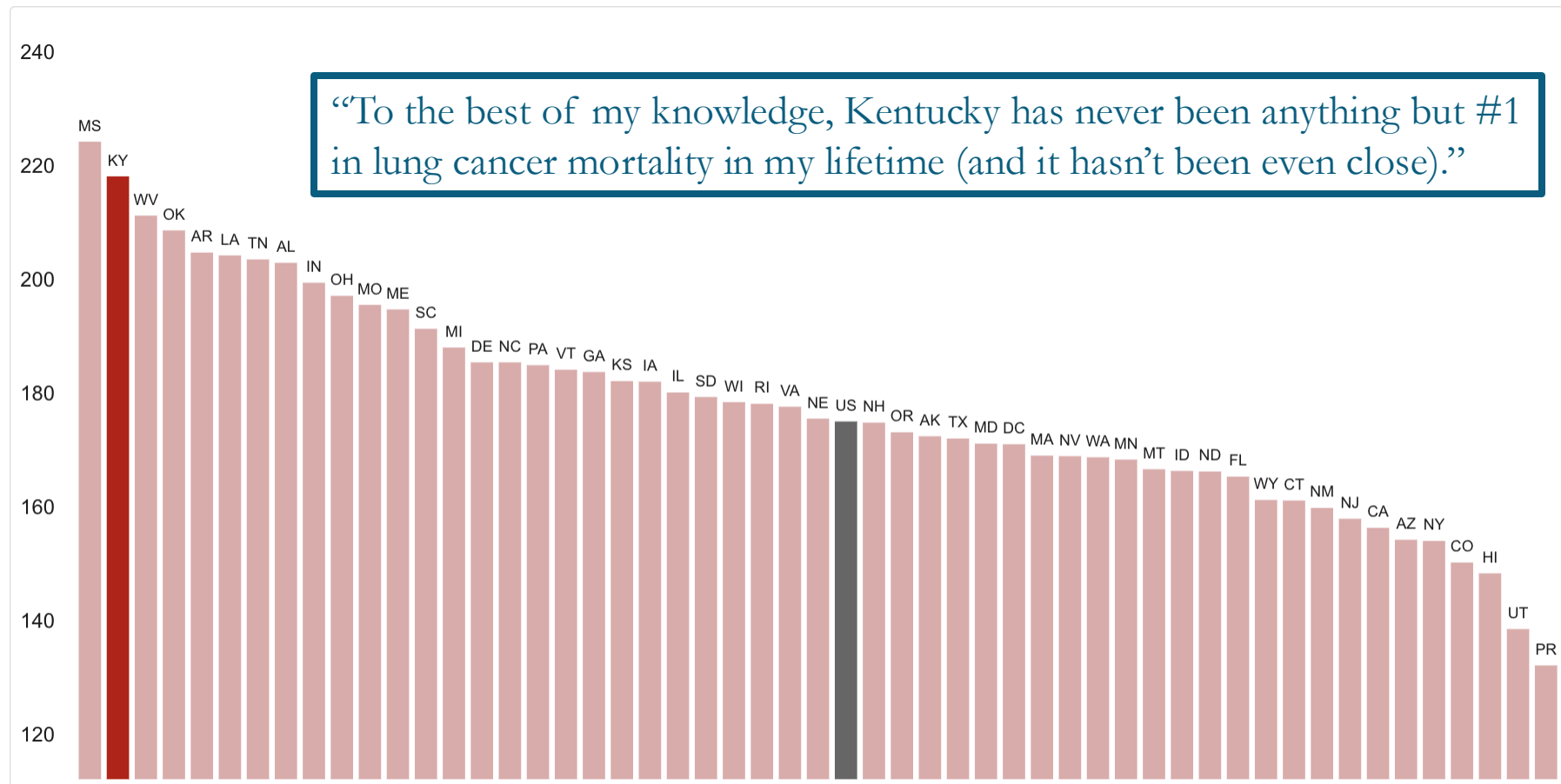
*Preliminary Data  
pending publication*



# Lung Cancer Mortality Data



## State Lung Cancer Mortality Rates for Men (2017-2021)



©American Cancer Society, 2024

Average annual rate per 100,000, age adjusted to the 2000 US standard population.

Data Sources: National Center for Health Statistics, Centers for Disease Control and Prevention, 2022

# Building on KY LEADS Research Foundation



Quality Implementation  
of Lung Cancer Screening



## PLANNING GRANT

Bristol Myers Squibb Planning Grant to explore potential to expand LEADS experience to other states.

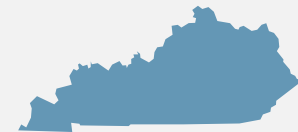


## ASSESSMENTS

The QUILS™ leadership team assessed several states based on lung cancer burden, existing collaborations, current state of lung cancer screening and opportunities to address disparities.

## SELECTION

Mississippi and Nevada were selected as leading candidates for expansion



**KENTUCKY  
LEADS**  
COLLABORATIVE™

**LUNG CANCER**  
EDUCATION • AWARENESS  
DETECTION • SURVIVORSHIP

## NEW MAJOR GRANT

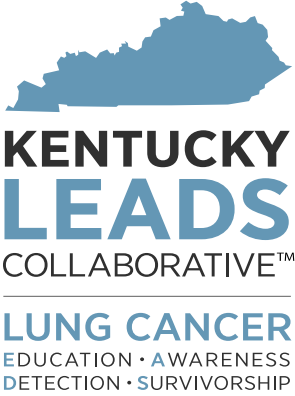
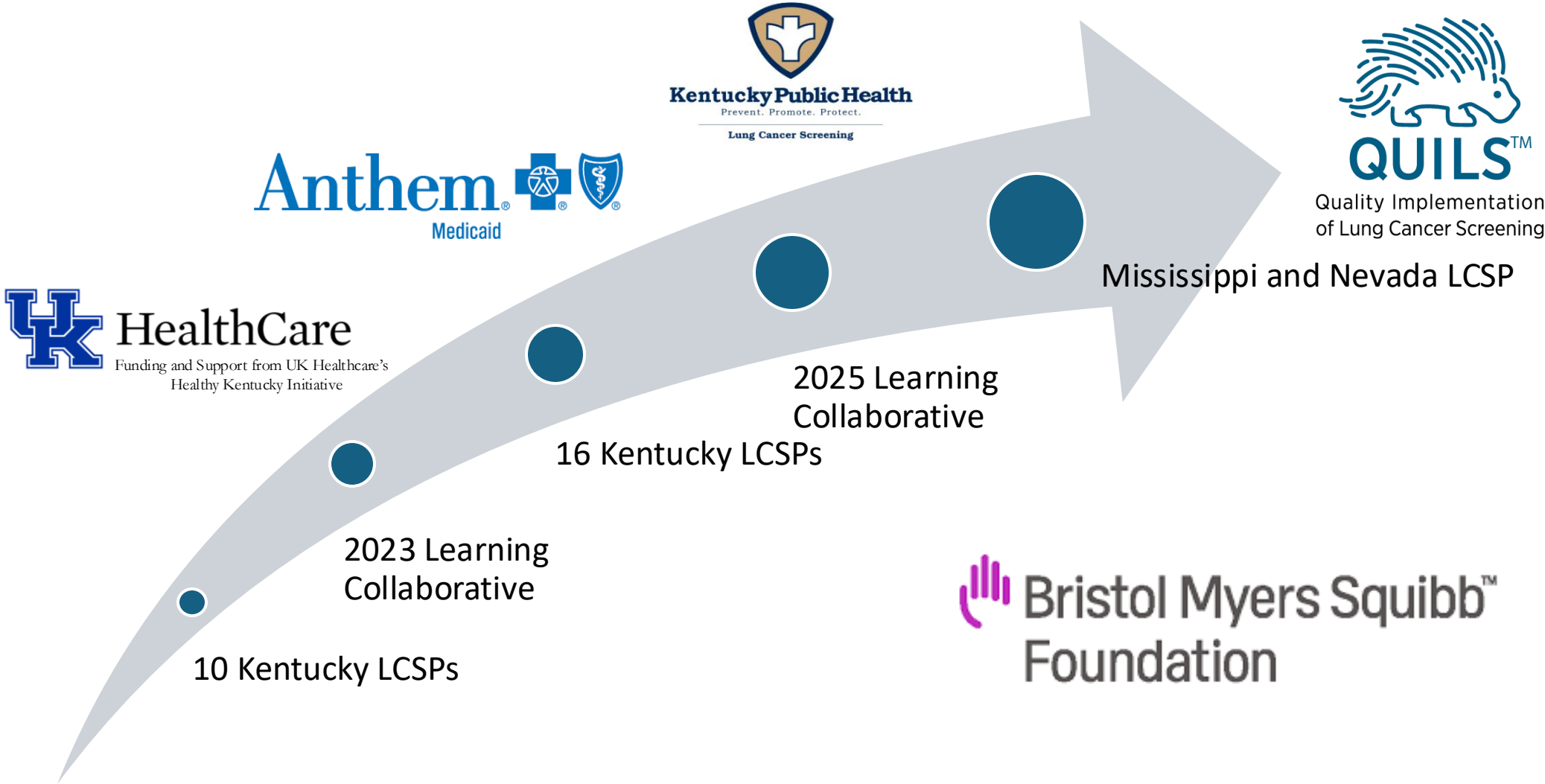
Awarded a 4-year, \$6.5 million proposal to enhance effectiveness and quality of lung cancer screening in these states

This grant will focus on:

- Implementing QUILS™ (QQuality Implementation of Lung Cancer Screening) in 12 lung cancer screening programs
- Clinician engagement
- State-based coalition support, community outreach, training, policy change



# Journey Over Time





**Legacy**  
Lung  
Cancer  
Screening:  
  
Emphasis  
on Volume

Person-Centered  
Approaches

Clinician  
Engagement

Community  
Outreach

**Optimizing**  
Lung  
Cancer  
Screening:

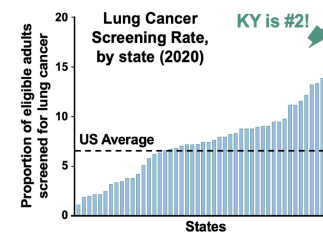
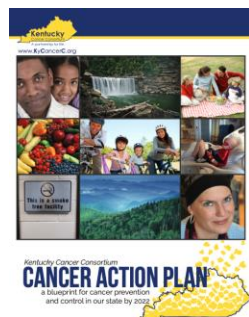
Sustainable  
Systemic  
Scalable

Emphasis:

- Quality
- Retention
- Program



Quality Implementation  
of Lung Cancer Screening



2013

2014

2015

2022

2023

2025

Data showing need  
Momentum  
National Guidelines  
Passionate Leaders  
Regional Road Shows

New Cancer Action  
Plan Update  
Investment Funding  
Source

Unified Efforts  
Strengthened  
Leadership  
Structure  
Maximized  
Resources

Policy  
Changes  
Data showing  
impact

Virtual Learning  
Collaborative LCS  
and Equity  
Updated QUILS™  
System in W. KY

Social Marketing  
Outreach  
Patient Navigation  
Expansion QUILS™  
system in KY  
Virtual Learning  
Collaborative 2  
Expansion QUILS™  
system to MS and NV



Assess your community's  
needs, priorities and values

# Community Assessment Steps: Phase 1



1. Examine community needs
2. Examine your health system data (LCSP data)
3. Compare community needs with health system data
4. Identify targeted community partners/opportunities for outreach and engagement

# Examine community needs



## Key Questions:

- Who is in your community?
- What is important to your community?
- What are common values for your community?
- What are the characteristics of your community? (demographics, health-data, etc.)

# Potential Data Sources



- Community Health Needs Assessments (Local, district health departments, health systems)
- Cancer InFocus, <https://www.kycancerneeds.org/maps/>
- Census.gov, <https://www.census.gov/>
- Behavioral Risk Factor Surveillance System (BRFSS), <https://www.cdc.gov/brfss/index.html>
- Primary Care Provider lists
- Smoke-free Policy coverage (lack of coverage)
- Kentucky-based research (e.g. Social Marketing, Dr. Erin Hester)

# Examine health system data (LCSP data)



## **Key Questions:**

- Who is participating in your services and programs?
- What are the common characteristics of your those participating in your services? (demographics, health-data, etc.)

## **Data Sources:**

- Electronic Health Records
- Additional software dedicated to lung cancer screening programs
- Program survey, interview data (if collected)

# Compare community needs to program participation



## **Key Questions:**

- Which populations are you successfully reaching with your services?
- Who is missing from the community?
- What are opportunities for growth, outreach and addressing gaps in service?

## **Resources Needed:**

- Staff dedicated to organizing, comparing and sharing the data
- Team Meetings to review and discuss



# Identify targeted community partners/opportunities



## Key Questions:

- Which community partners have you worked with previously in community-based outreach efforts?
- Who are community partners that may already work with populations identified?
- Who may have connections with community partners that you can ask for referrals?

Describe strategies for engaging the community in lung cancer screening efforts



# Community Engagement Steps: Phase 2



1. Co-design outreach and engagement plan
2. Implement outreach and engagement plan
3. Evaluate results
4. Share successes and lessons learned
5. Re-assess opportunities and repeat the process

# Guiding Principles (Stephen Covey)



- *Seek first to understand, then be understood*®
  - Interpersonal communication
  - Listening, consideration and courage
- *Think Win-Win*®
  - Character, Relationships, Agreements
  - Benefits the community (partner) AND benefits your lung cancer screening program/health system
- *Synergize*®
  - *Creative cooperation, mutual learning*
  - *Catalyzing the strengths of each person (partner organization)*
  - Doing more together than we could on our own

# Trust



“Without trust, we don’t truly collaborate; we merely coordinate or, at best cooperate. It’s trust that turns mere coordination into true collaboration. It’s trust that turns a group of people into a team.”

– Smart Trust, Stephen M.R. Covey

# Co-design outreach and engagement plan



- Clarify Purpose
- Connect with Partners
- Communicate Effectively
- Develop the plan (strategies, tasks, timelines, persons responsible)
- Determine Roles and Responsibilities

# Implement outreach and engagement plan



- Focus on the co-designed plan
- Coordinate Roles and Responsibilities
- Communicate Effectively
- Practice Emotional Intelligence
- Conduct effective meetings
- Follow-through with commitments

# Evaluate results



- Did you accomplish the purpose?
- Are you reaching the people you wanted to reach?
  - Look at the data. Are there more people from the population you targeted participating in your lung cancer screening program?
- Are your community partners satisfied with working together on this plan?
- Are there partners that may have been missing?
- What worked well?
- What could be improved?
- How can you apply what you learned to future efforts?
- How will you share lessons learned?



# Share Successes and Lessons Learned



- How can you share credit across all participating partners?
- Who is most interested in what was learned? (Who is your audience?)
- How can it be communicated in a way to resonate with your audience?
- Who are the best people to communicate the lessons learned?
- Are there others who would benefit from your lessons learned?
- What is the best way(s) to communicate this information to additional audiences?

# Re-assess opportunities and repeat the process



## **Strategic Expansion**

- Do we continue focusing on the same population or is it time to target another population?
- What does our data show that continues to be a population of need in the community and in our lung cancer screening program? (See Phase 1)
- What do we want to apply from the previous plan implementation?
- What do we want to do differently next time?

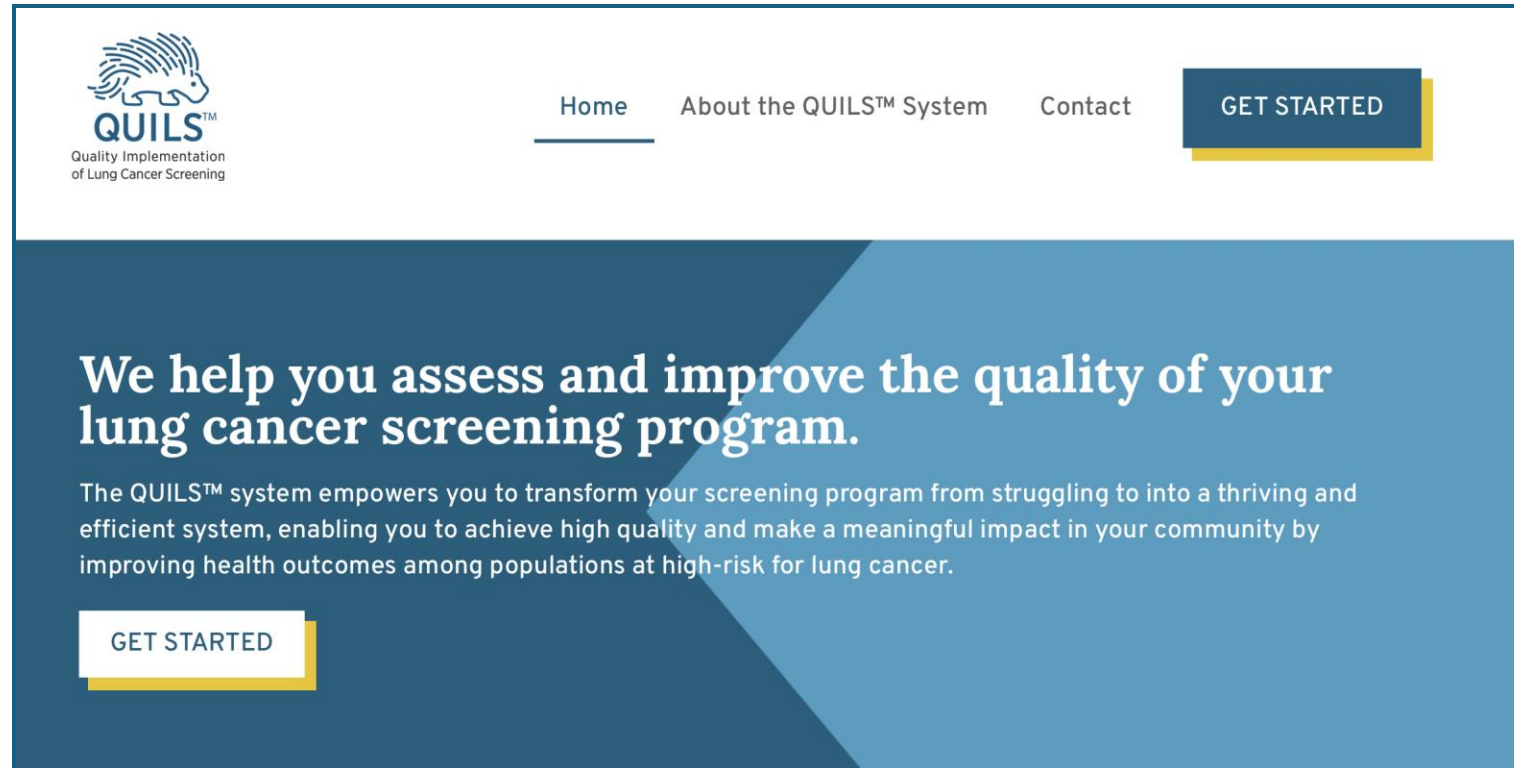
## **Commitment to continued collaboration**

- Do we have the staff effort and correct partners to develop a new outreach and engagement plan?



# Questions and Discussion

# Contact Us!



Visit: [quilsgroup.org](https://quilsgroup.org)

Email: [quilsgroup@uky.edu](mailto:quilsgroup@uky.edu)