

A Multilevel and Community-Engaged Intervention to Leverage Lung Cancer Screening in Kentucky: *The Kentucky LEADS Collaborative*

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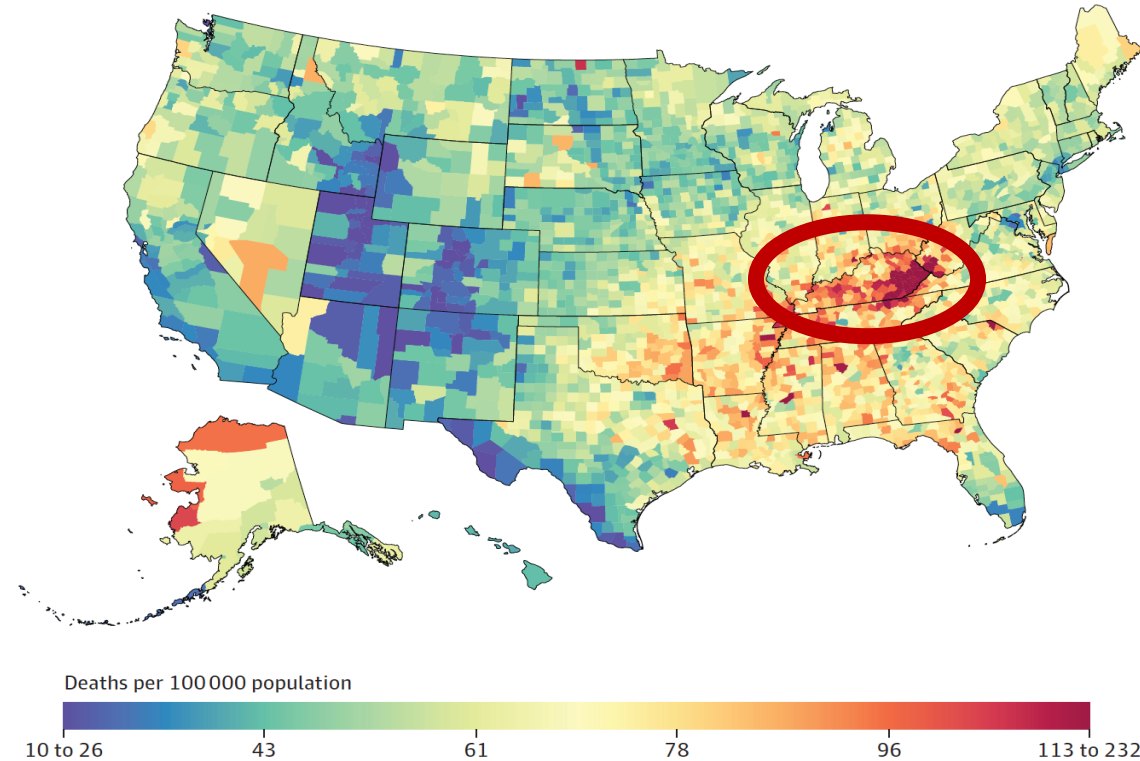


#1
in Adolescent
Smoking

#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

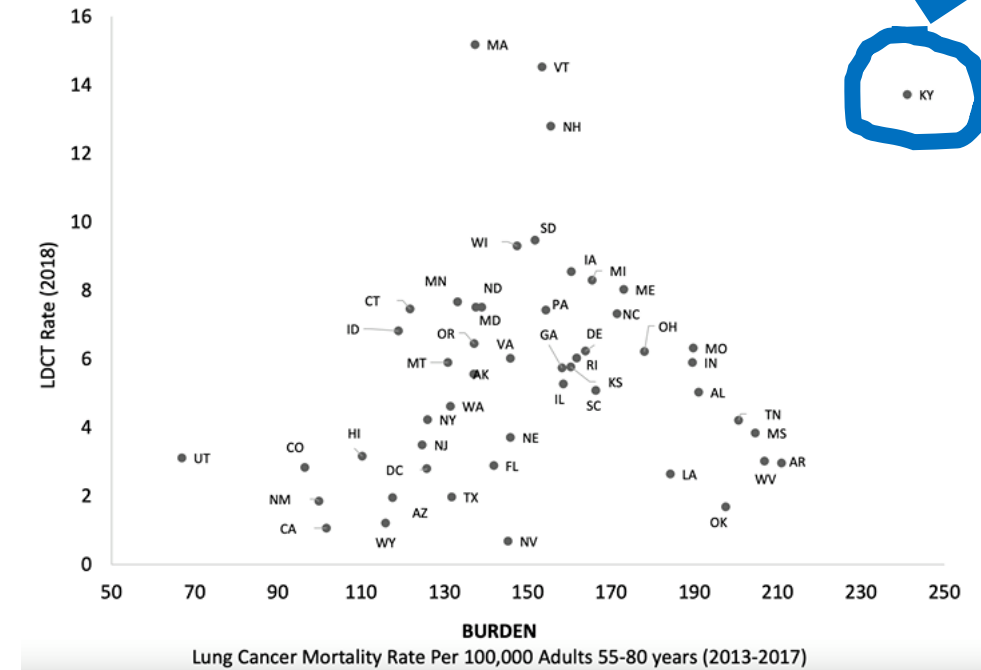
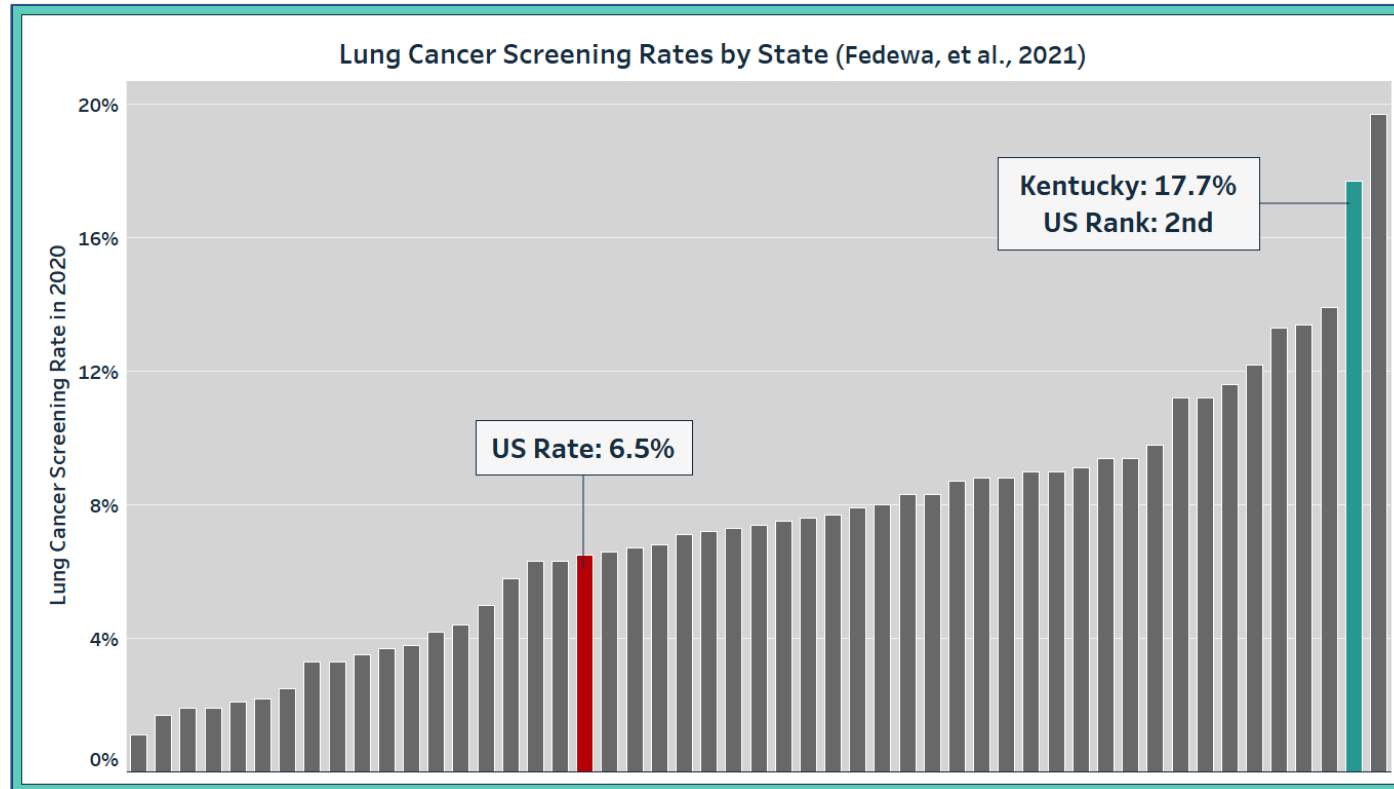
Lung Cancer Screening

“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.”

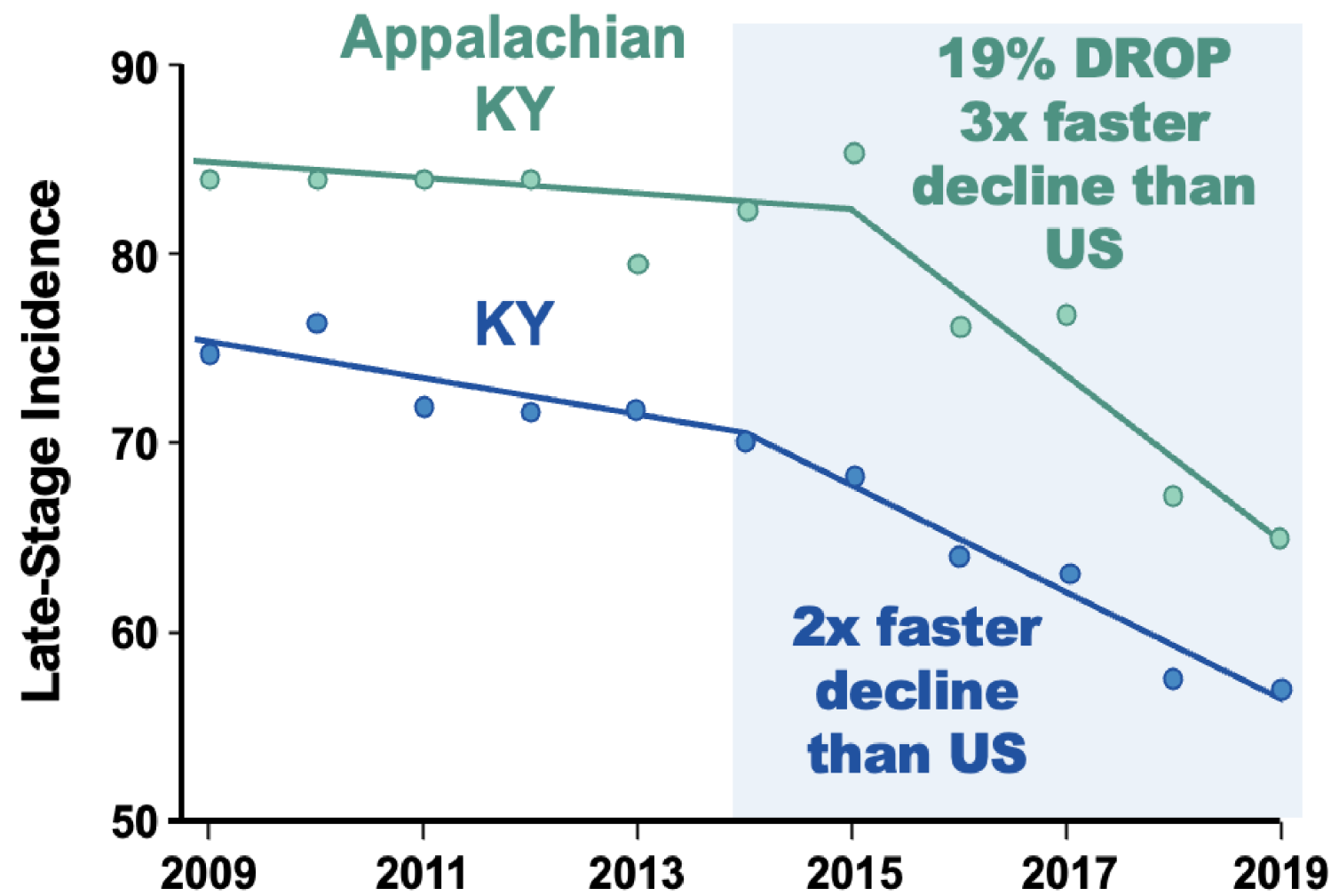
-- J. L. Studts (just now and every day)

National Lung Cancer Screening Uptake Landscape

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



Reduction in Late-Stage Lung Cancer Incidence in KY



The “Great” Kentucky Lung Cancer Screening Road Show (2013-2014)



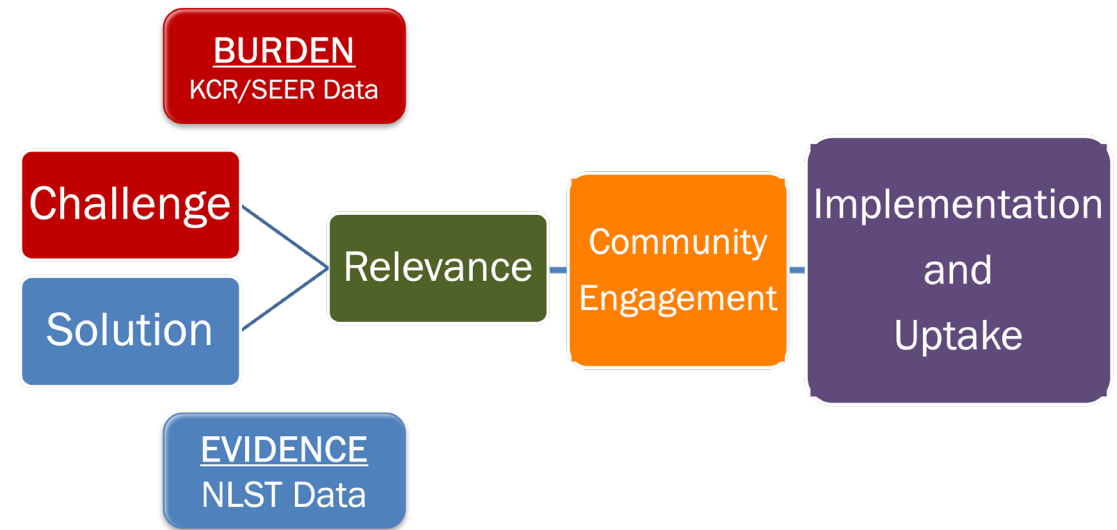
Annual Meetings (District Cancer Councils)



Bi-Directional Sharing of Cancer-Related
Concerns, Perspectives, and DATA!

The Kentucky Lung Cancer Screening Road Show

- Following NLST publication and USPSTF draft guidelines...
- Begin discussion using Kentucky *District Cancer Councils*
- Lunchtime meeting held across state with clinicians, healthcare administrators, and community members
- Panel Format (60 – 90 minutes)
 - 1) Regional Cancer Control Specialist (Moderator)
 - 2) **Local** Primary Care Clinician
 - 3) **Local** Lung Cancer Screening Program Leader
 - 4) Lung Cancer Screening Expert
 - 5) State Cancer Prevention and Control Leader



(Starting the Discussion → Raising Awareness → Building Engagement)

The Kentucky Lung Cancer Screening Road Show (2013-2014)



- **Directly** reached hundreds of clinicians and engaged community members throughout the state
- **Indirectly** reached thousands of clinicians and community members through media coverage (e.g., tv, radio, newspaper)
- **Conclusions/Accomplishments:**
 - 1) Tremendous engagement/attendance throughout the state
 - 2) Significant interest in screening among clinicians and community
 - 3) Pockets of apprehension, concerns, skepticism, and frank stigma
 - 4) Recognition that extensive additional efforts would be needed

The Story of the Kentucky LEADS Collaborative

Jamie L. Studts, PhD

Timothy Wm. Mullett, MD, MBA

Jennifer Knight, DrPH



With support from the...

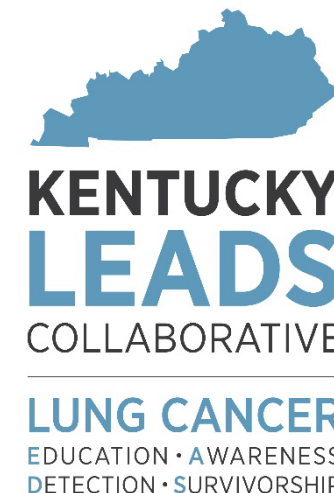


LUNG CANCER
EDUCATION • AWARENESS
DETECTION • SURVIVORSHIP

Component 1: Provider Education Efforts

■ Four Educational Offerings:

- 1) Academic Detailing (January, 2016)
- 2) Large Group Presentations (February, 2016)
- 3) Online Training Course (April, 2016)
- 4) Webinars (March, 2017)

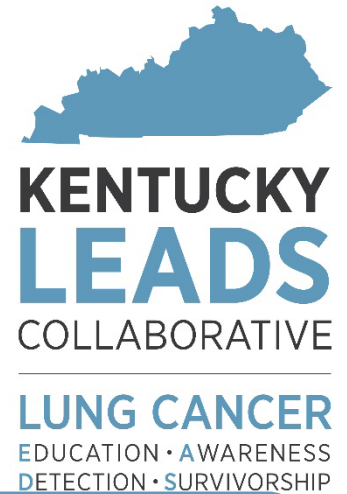


REACH: Primary Care Clinicians and Staff

Intervention	PCPs Engaged	Non-PCPs Engaged
Academic Detailing	985	922
Large Group Presentations	254	285
Online Courses	79	34
Webinar	85	32
TOTAL	1,403	1,273

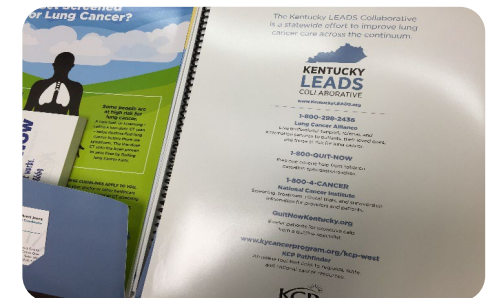
Educational Efforts

Establishing Social Norms



UL James Graham Brown Cancer Center

Provider Type	Total Educated
MD/DO	631
NP	511
PA	101



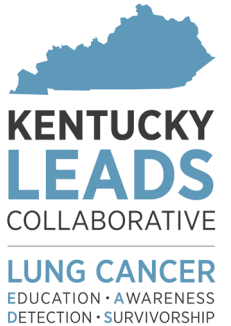
CU University of Colorado Anschutz Medical Campus

CU Cancer Center
NCI-DESIGNATED CANCER CENTER

Component 3: Prevention and Early Detection (PD)

What does the study plan to do?

- Integrate recommendations from evidence-based guidelines to promote high quality lung cancer screening in Kentucky
- Apply specific implementation strategies (i.e., resources, training, feedback) to facilitate adoption and implementation of high-quality lung cancer screening programs in diverse healthcare settings
- Evaluate outcomes of lung cancer screening using implementation science



QUILS™ System

- QUILS™ Index
- QUILS™ Audit and Feedback Process
- QUILS™ Resource Portal
- QUILS™ Team Coaching and Technical Assistance



Quality Implementation
of Lung Cancer Screening

Assess Quality
(QUILS™ Index)

Feedback
System
(QUILS™ Audit
and Feedback)

Resource Portal
(QUILS™
Resource Portal)

Active Support
(QUILS™ Team
Coaching Technical
Assistance)

Program Data
Reporting

Program Policies
and Practices
Interviews

Program Domain	Item	Screening Element Scoring	Maximum Score	Site Score
Eligibility	1	Screening Eligibility Policy	5	
Eligibility	2	Screening Frequency & Duration Policy	5	
Radiology	3	LDCT Performance	5	
Radiology	4	Lung Nodule Identification	5	
Radiology	5	Standard Results Reporting	5	
Radiology	6	Lung Nodule Management Algorithm	5	
Team	7	Interdisciplinary Clinical Team	5	
Team	8	Team Review of Radiology Results	5	
Prevention	9	Tobacco Treatment Interventions	5	
Prevention	10	Tobacco Treatment Targets	5	
Prevention	11	Second Hand Smoke Prevention/Educ	3	
Prevention	12	Radon Prevention Education	2	
Patient	13	Shared Decision Making	5	
Patient	14	Engagement and Retention Methods	5	
Community	15	Responsible Marketing and Outreach	5	
Community	16	Provider Outreach	5	
Total		Summary Score	75	
Converted		Total Converted Summary Score	100	



- KY LEADS Lung Cancer Screening
- Study CME/CE Modules
- Faculty Information
- Pre-test
- For Radiologists
- For Lung Cancer Screening Program Team

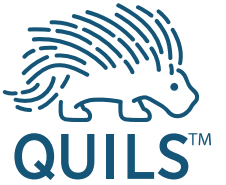


Welcome to the Study Resource Portal for the KY LEADS Implementation of Quality Lung Cancer Screening research study.

We are pleased to partner with C2 Central to offer this customized portal to house our study online medical education and a toolkit that includes resources for lung cancer screening programs. The target audience of this content extends to the multidisciplinary health professionals at participating study sites who are involved in LC Screening programs and research across the state of Kentucky. These include the radiologists, pulmonologists, surgeons, patient navigators, research nurses/coordinators, referring primary care physicians and others engaged in the implementation and management of the lung cancer screening program at your institution.

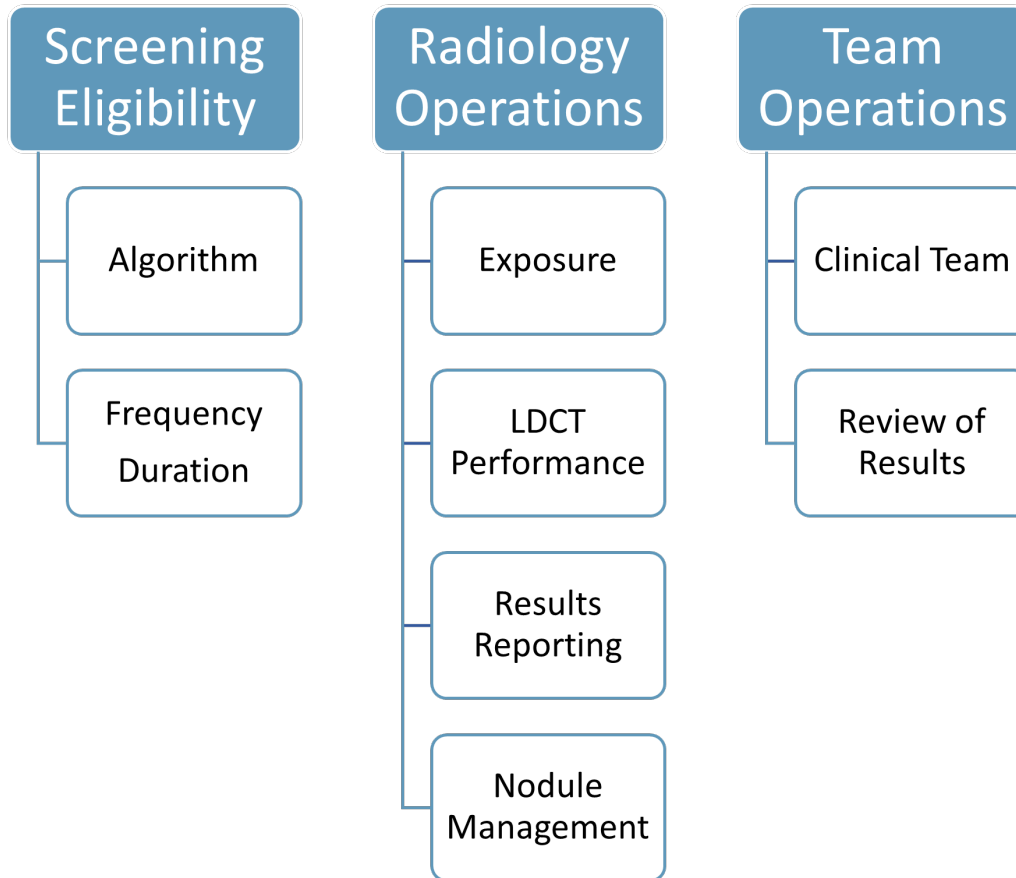


QUILS Index 1.0 Domains, and Elements

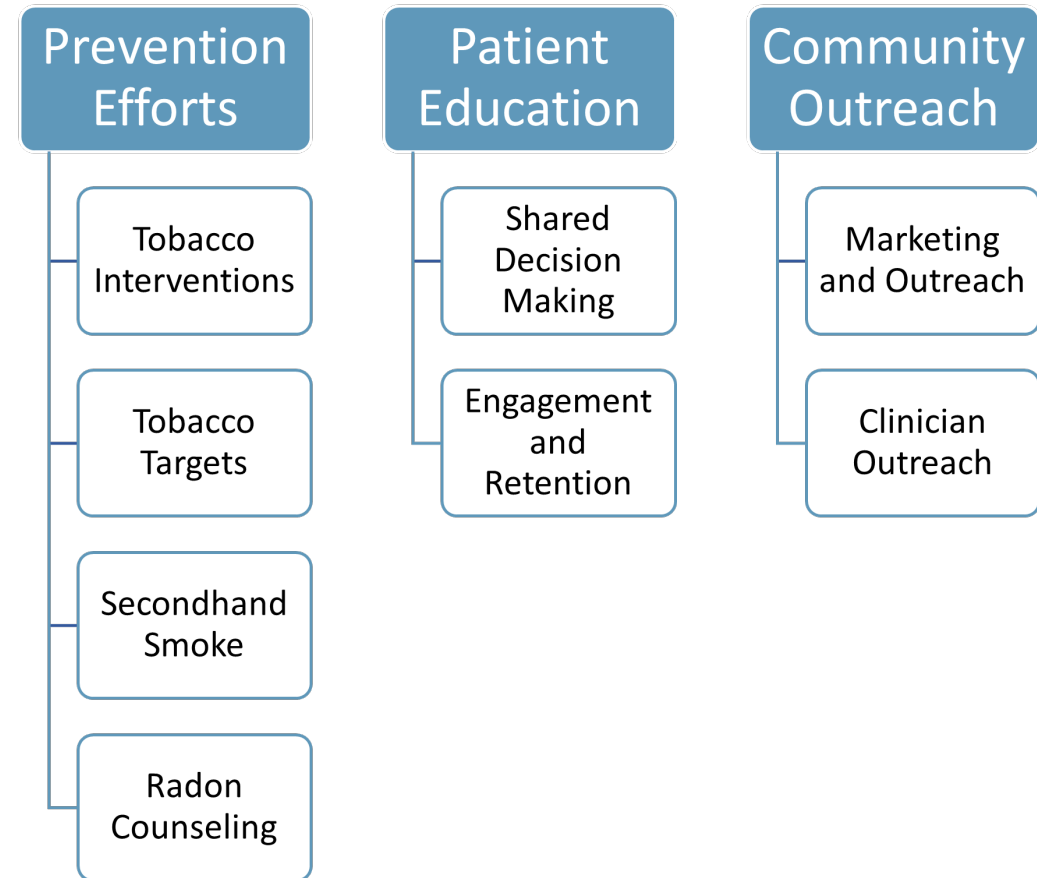


Quality Implementation
of Lung Cancer Screening

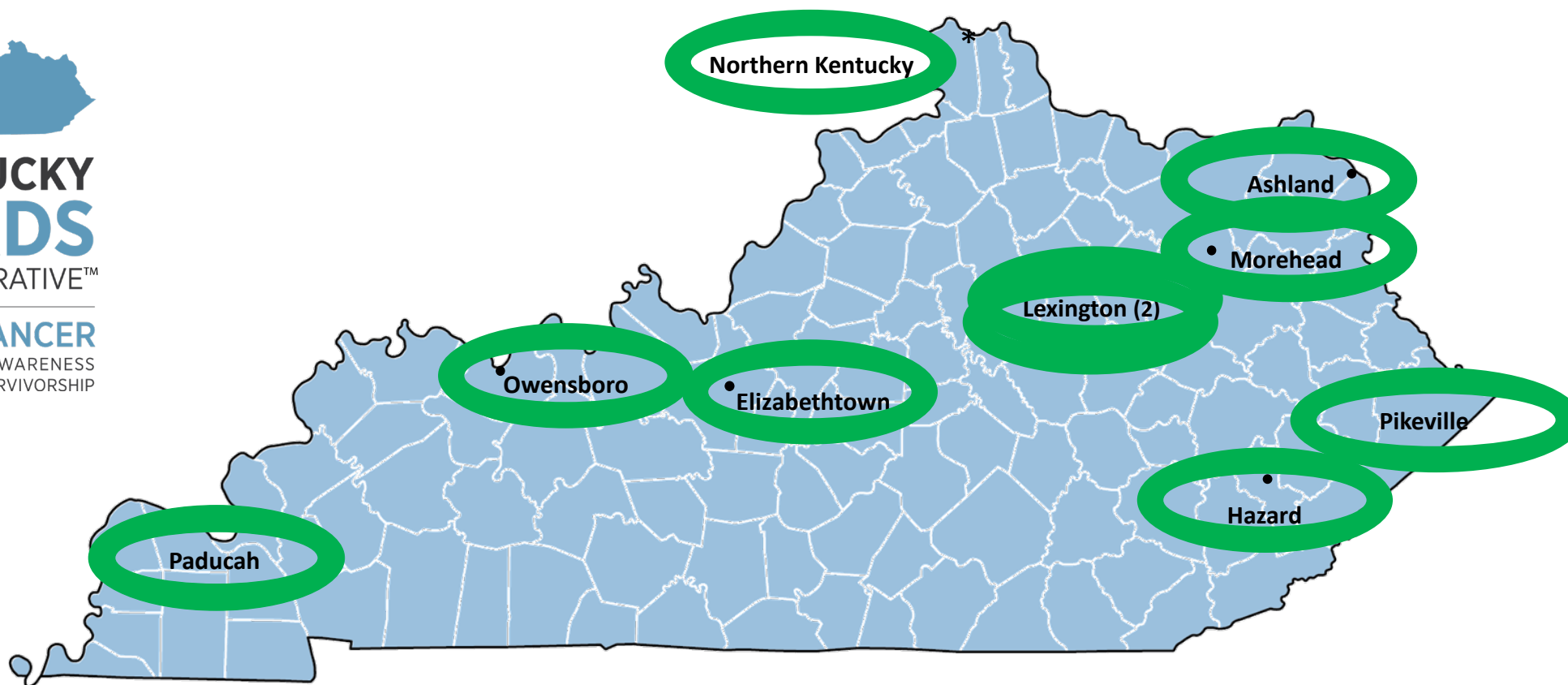
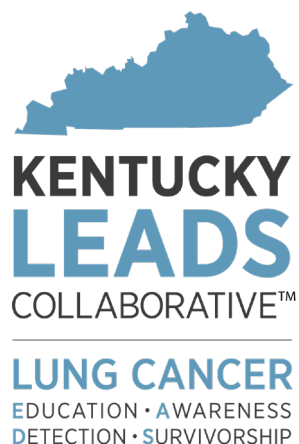
Technical/Clinical



Personal



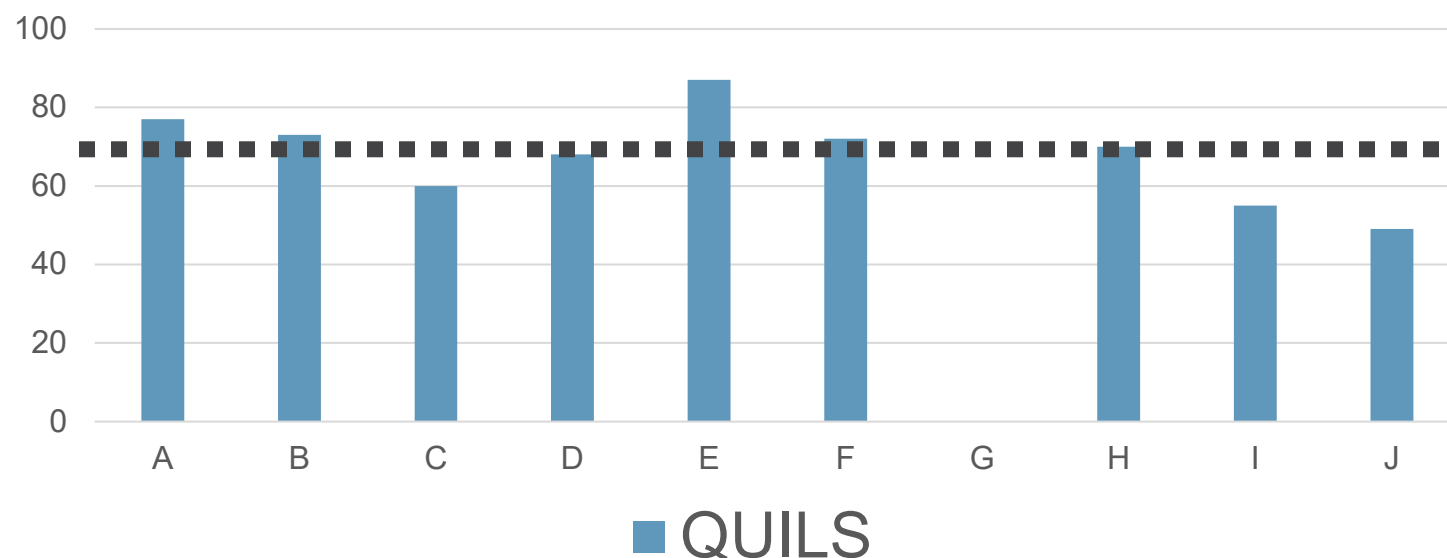
Prevention & Early Detection (PD) Implementation Sites



1. Baptist Health, Lexington
2. Baptist Health, Paducah
3. Hardin Memorial Hospital and Cancer Center, Elizabethtown
4. Hazard Appalachian Regional Healthcare, Hazard
5. St. Elizabeth Healthcare, Northern Kentucky

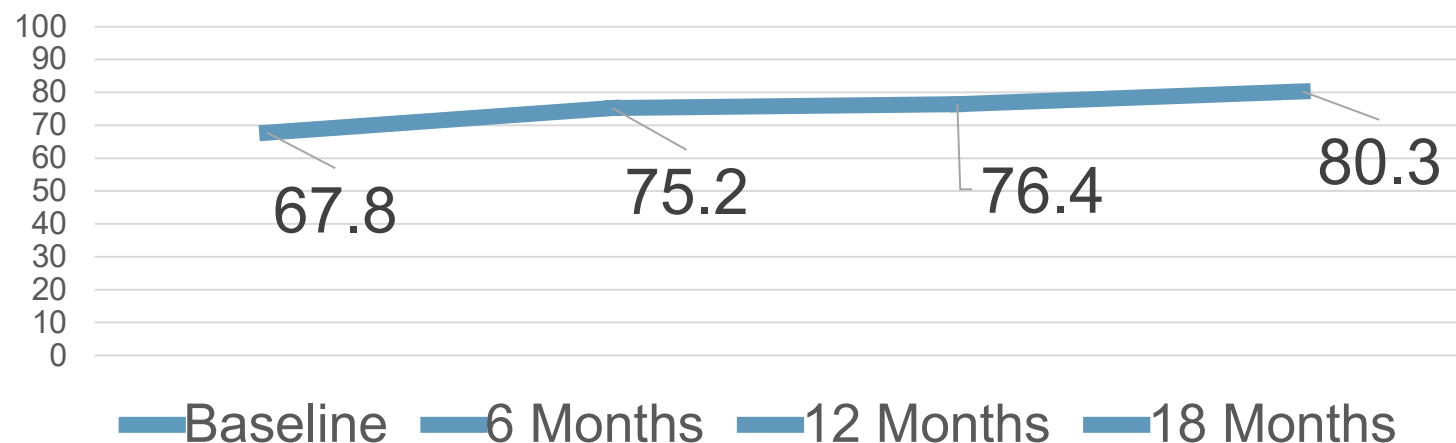
6. King's Daughters Medical Center, Ashland
7. Markey Cancer Center, Lexington
8. Owensboro Health, Owensboro
9. St. Claire Regional Medical Center, Morehead
10. Pikeville Medical Center, Pikeville

Overall Baseline QUILS Score (0-100)



Baseline
Average
67.8%

Mean QUILS Scores Over Time (0-100)



Summary of QUILS™ Index Scoring Across Sites

Consistently High	
Eligibility	Screening Eligibility Policy
Eligibility	Screening Frequency & Duration Policy
Radiology	LDCT Performance
Radiology	Lung Nodule Identification
Radiology	Structured Results Reporting
Radiology	Lung Nodule Management Algorithm
Patient	Engagement and Retention Methods
Community	Provider Outreach

Consistently Low	
Prevention	Tobacco Treatment Interventions
Prevention	Tobacco Treatment Targets
Prevention	Second-Hand Smoke Prevention/Education
Prevention	Radon Prevention Education

Inconsistent	
Team	Interdisciplinary Clinical Team
Team	Team Review of Radiology Results
Patient	Shared Decision Making
Community	Responsible Marketing and Outreach

Summary and Conclusion

- Engaging with established partners, the **Kentucky LEADS Collaborative** developed, implemented, and evaluated a multilevel effort to reduce lung cancer in Kentucky.
- Community-engaged methods constituted the foundation and the load-bearing infrastructure for the **Collaborative** that has created the potential for a trajectory of significant change.
- Recognizing challenges/opportunities at every level of lung cancer screening implementation has stimulated a broad range of projects to translate results in Kentucky across the US (e.g., Mississippi and Nevada).



Bristol-Myers Squibb
Foundation

Bristol-Myers Squibb Foundation



Bridging Cancer Care
Community Awareness, Prevention and Care

**University of
Kentucky**

**James Graham Brown
Cancer Center**
A proud member of **UK Health Care**



**LUNG CANCER
ALLIANCE**

**GO2
FOUNDATION
FOR LUNG
CANCER**



Cancer Center
NCI-DESIGNATED COMPREHENSIVE
CANCER CENTER



**Kentucky
Clinical Trials Network**



HealthCare
MARKEY CANCER CENTER
Network

UK HealthCare
Markey Cancer Center
Research Network



ASCO
AMERICAN SOCIETY OF CLINICAL ONCOLOGY



**Commission
on Cancer**
ACCREDITED PROGRAM



**NORTON
HEALTHCARE**



**Cancer Action
Network**
American
Cancer Society



**College of
Medicine**



**American
Lung
Association.**



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DAUGHTERS**
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Improving the state of healthcare.

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HealthCare
MARKEY CANCER CENTER



Appalachian Regional Healthcare



**Owensboro
Health**



**NATIONAL
LUNG CANCER
ROUNDTABLE**



**KENTUCKY
LEADS**

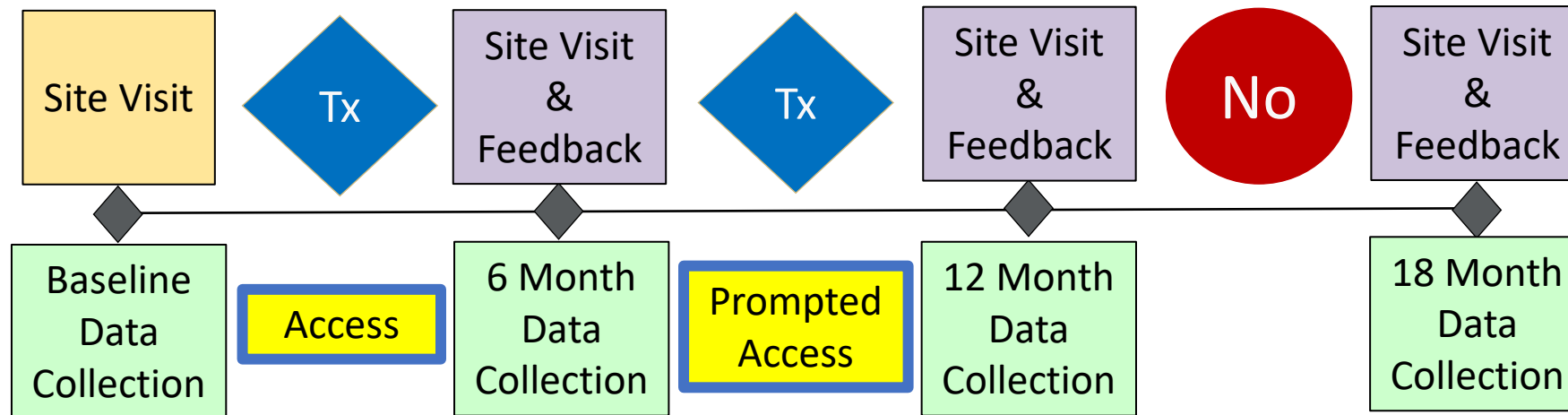
COLLABORATIVE™

LUNG CANCER
EDUCATION • AWARENESS
DETECTION • SURVIVORSHIP



QUILS™
Quality Implementation
of Lung Cancer Screening

Kentucky LEADS Collaborative Prevention & Early Detection Study Schema



Data Sources for Evaluation

- 1) Team Member Interviews (Structured and Semi-Structured)
- 2) Program Surveys (Standardized IS Instruments)
- 3) Program Database Extraction (Enhanced Common Database)