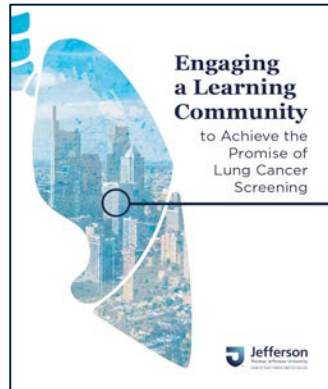


Engaging a Learning Community to Achieve the Promise of Lung Cancer Screening



<https://tinyurl.com/ujtpx9m>

November 16, 2021

Lung Cancer Incidence, Mortality, and Funding

Lung Cancer Incidence (2017*-2018**)

| | |
|----------------------|------------------|
| United States** | 53.1 per 100,000 |
| Pennsylvania* | 61.6 per 100,000 |
| Philadelphia County* | 66.4 per 100,000 |

Lung Cancer Mortality (2017-2018)

| | |
|----------------------|------------------|
| United States** | 38.5 per 100,000 |
| Pennsylvania* | 38.6 per 100,000 |
| Philadelphia County* | 42.5 per 100,000 |

Estimated US and PA Deaths in 2021 from Lung Cancer and Funding for Lung Cancer Prevention/Detection***

US: 608,570 Lung - 131,880 (22%)

PA & Federal Support for Lung Cancer Prevention and Detection Activities: \$33,499

❖ <.5% of support for cancer-activities in the Commonwealth

PA: 27,960 Lung - 6,140 (22%)

Sources: *National Cancer Institute, Surveillance, Epidemiology, and End Results Program accessed and Cancer Stat Facts Lung and Bronchus Cancer at <https://seer.cancer.gov/statfacts/html/lungb.html> accessed on June 3, 2021; **Pennsylvania Department of Health, Cancer Statistics Dashboard, at <https://www.health.pa.gov/topics/HealthStatistics/CancerStatistics/dashboard/Pages/Cancer-Dashboard.aspx> accessed on June 3, 2021; ***American Cancer Society, Inc. Surveillance Research, 2021; 2017-2018 Pennsylvania Cancer Prevention and Control Annual Report (Feb. 2018), PA Department of Health.

Healthy People 2030 and Lung Cancer

Increase the proportion of adults who receive lung cancer screening based on the most recent guidelines

- **Baseline:** 4.5% of adults aged 55 to 80 years of age had lung cancer screening in 2018 based on 2015 guidelines
- **Target:** 7.5%

Reduce the lung cancer death rate

- **Baseline:** 34.8 lung cancer deaths per 100,000 population in 2018
- **Target:** 25.1 lung cancer deaths per 100,000 population

How do we get there?

Engaging a Learning Community to Achieve the Promise of Lung Cancer Screening

- **Support**

- Bristol Myers Squibb Foundation support for a 4-year (January 2018 - December 2022) lung cancer learning community (LC2) initiative to increase lung cancer screening in vulnerable populations

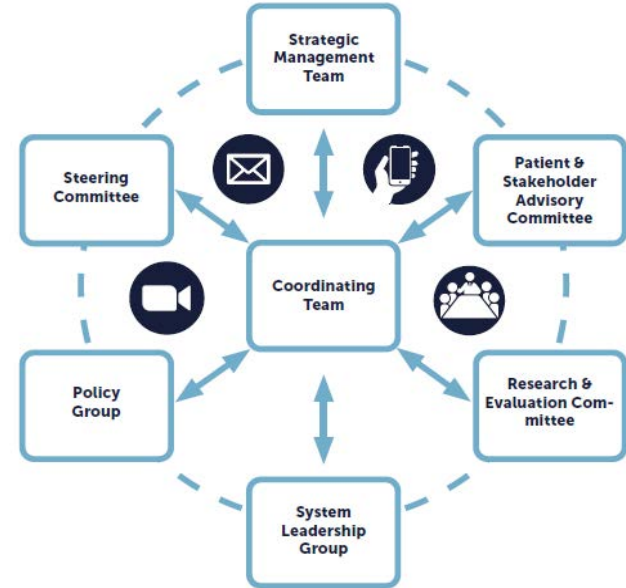
- **Aims**

- Engage a health system, health plans, patients, and other stakeholders in a “lung cancer learning community” to increase screening
- Develop and evaluate an effective outreach intervention strategy that increases screening
- Catalyze intervention implementation and maintenance

A Health System Learning Community Model

Establish a health system-based lung cancer learning community:

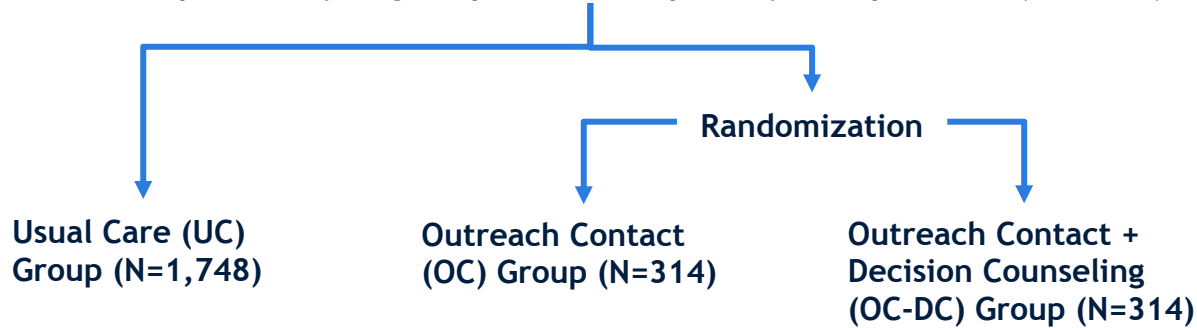
- Engage health system leaders, health plan representatives, and other stakeholders, identify effective multi-level interventions, implement and evaluate interventions, and sustain intervention implementation



Flood et al., 2015; Chambers et al., 2012; Myers et al., 2018

Patient Outreach

EHR list of potentially-eligible patients in 4 primary care practices (N=2,376)



Screening Results

- **UC Group**
2% of potential eligibles
- **OC Group**
4% of potential eligibles
28% of eligibles
- **OC-DC Group**
7% of potential eligibles
40% of eligibles

Provider Support: A Shared Decision Making (SDM) Training Program

Thomas Jefferson University and the American College of Chest Physicians developed a no-cost accredited 3-module online educational program, “Shared Decision-Making in Lung Cancer Screening” to help providers:

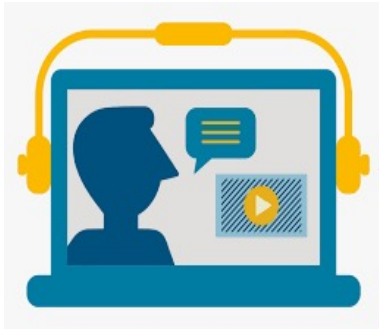
- Identify persons eligible for annual lung cancer screening
- Educate eligible persons about screening benefits and harms
- Engage eligible persons in shared decision making (decision counseling), screening and tobacco treatment

CHEST: <https://www.chestnet.org/Store/Products/Standard-Products/eLearning/Shared-Decision-Making-in-Lung-Cancer-Screening>

SDM Training to Structure the Conversation

- Online Learning

- ~ 60 minutes
- 1.25 credits



- Outcomes (N=21)

- Provider Knowledge: Correct responses from pretest to posttest increased from 74% to 93% ($p < 0.001$)
- Provider Intention: > 90% reported intention to change practice by engaging patients in a lung cancer screening conversation

Patient Outreach and Provider Support

A

Identify patients potentially eligible for LCS and have a scheduled practice visit using



B

Train care primary care providers and care coordinators in shared decision making (SDM) about lung cancer screening (LCS)



C

Support care coordinator outreach contacts and provider support to engage patients in SDM

Community Engagement in Implementation

- Learn about knowledge, attitudes and beliefs towards lung cancer and screening
- Support the development and implementation of lung cancer screening education, outreach, and support



Health system, health plans,
and other stakeholders

Health System, Health Plan, and Other Stakeholder Representative Interviews (N=13)

Identify Areas of Potential Collaboration and Develop a Survey:

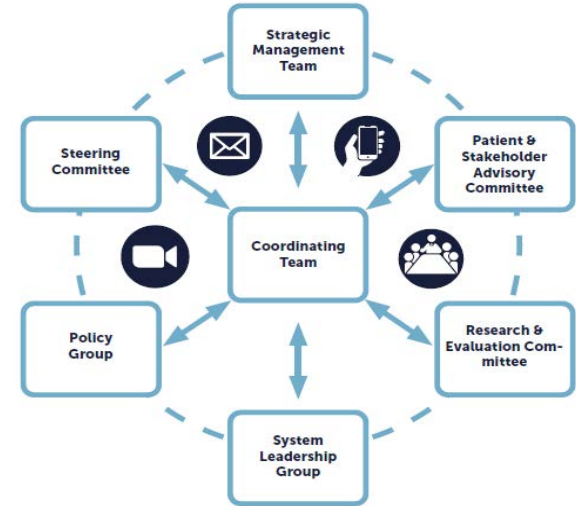
- Support a learning community infrastructure
- Share educational resources and interventions
- Improve the assessment of screening eligibility
- Conduct cost analyses related to screening
- Use value-based contracting to support screening
- Advocate for investment in lung cancer screening

Health Plan, Payer, and Stakeholder Leader Survey (N=25)

| Areas for Collective Action | Support | | | | Total | |
|--|---------|-------|----|------|-------|-------|
| | Yes | | No | | | |
| Health systems and health plans should: | N | % | N | % | N | % |
| Support a learning community infrastructure | 25 | 100.0 | 0 | 0.0 | 25 | 100.0 |
| Share educational resources and interventions | 25 | 100.0 | 0 | 0.0 | 25 | 100.0 |
| Improve the assessment of screening eligibility | 20 | 80.0 | 5 | 20.0 | 25 | 100.0 |
| Conduct cost analyses related to screening | 23 | 92.0 | 2 | 8.0 | 25 | 100.0 |
| Use value-based contracting to support screening | 21 | 84.0 | 4 | 16.0 | 25 | 100.0 |
| Advocate for investment in lung cancer screening | 25 | 100.0 | 0 | 0.0 | 25 | 100.0 |

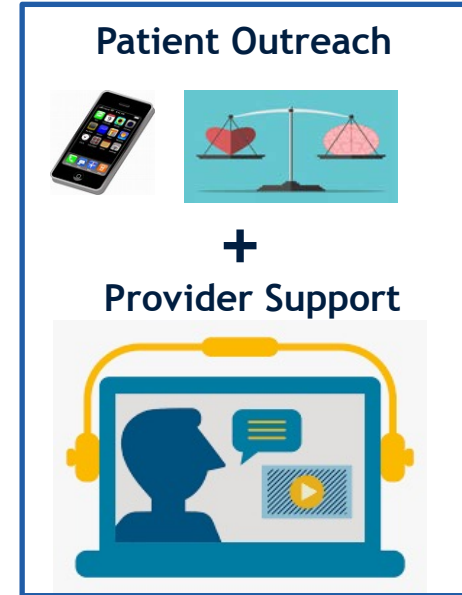
Proposal 1

Health systems should organize a lung cancer learning community that can guide collaborative efforts of the health system, health plans, and other stakeholders to increase shared decision making and screening, promote smoking cessation, and reduce disparities.



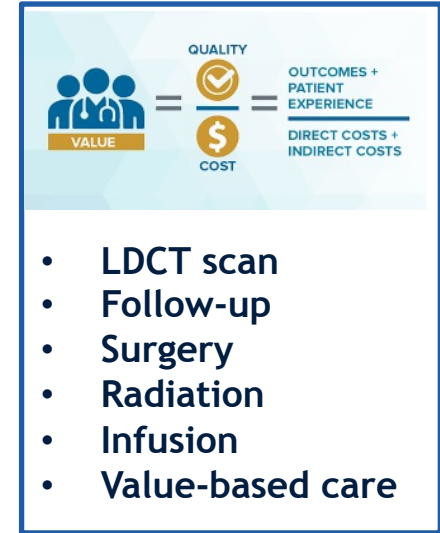
Proposal 2

Health system lung cancer learning communities should encourage health systems and health plans to identify individuals eligible for lung cancer screening and ensure that shared decision making, lung cancer screening, and smoking cessation services are offered at multiple “touchpoints” in care.



Proposal 3

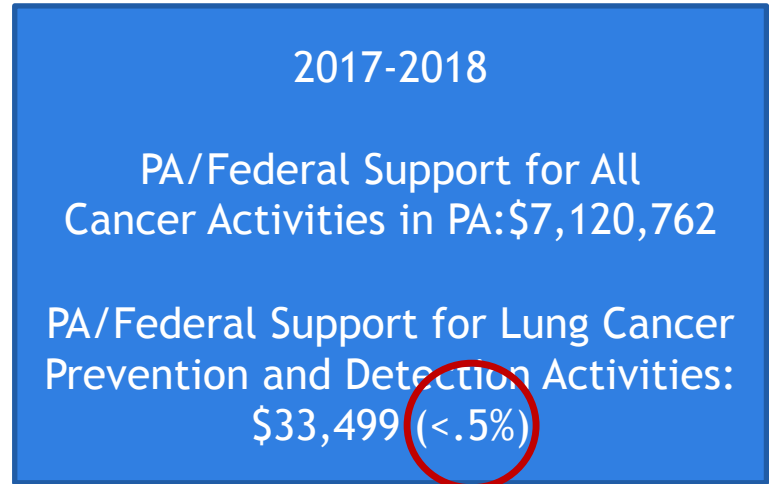
Health system lung cancer learning communities should encourage health systems and health plans to conduct cost analyses to guide collaborative efforts to support shared decision making, screening, diagnostic follow-up, treatment, and smoking cessation.



Chriss et al., Cost-Effectiveness Analysis of Lung Cancer Screening in the United States, *Annals of Internal Medicine* 2019; 171:796-804.

Proposal 4

4. Health system lung cancer learning communities should advocate for increased public and private investment to identify and implement effective strategies that can increase shared decision making, lung cancer screening, and smoking cessation.



2017-2018 Pennsylvania Cancer Prevention and Control Annual Report (Feb. 2018), PA Department of Health.

How can we realize the promise of lung cancer screening?

Implement health system learning communities to catalyze patient outreach and provider support

- Increase patient awareness and knowledge about screening
- Engage patients and providers in shared decision making
- Increase initial screening, repeat screening, and follow-up
- Reduce the cost of care and improve outcomes
- Increase health equity