Kentucky Lung Cancer Screening Learning Collaborative

WYNTK About Lung Cancer Screening Eligibility

February 26, 2026

Access the recording here
Access the slides here

Summary of the session

This educational session from the **Kentucky Lung Cancer Screening Learning Collaborative** provides a comprehensive overview of lung cancer screening guidelines, with a focus on **eligibility criteria, evidence-based decision-making, and practical implementation challenges**. The central theme is that **eligibility guidelines are not barriers, but protective frameworks** designed to maximize benefit and reduce harm in population health.

The session highlights that lung cancer screening (using low-dose CT) is **highly effective when targeted appropriately** but can cause significant harm when applied too broadly. Therefore, adherence to evidence-based eligibility criteria—primarily defined by **age and smoking history**—is essential for delivering safe, equitable, and impactful care.

Subject Matter Expert

- **Plenary Speaker:** Jamie Studts, PhD, University of Colorado School of Medicine and the University of Colorado Cancer Center

Presentation Highlights:

1. Core Eligibility Guidelines

- **USPSTF (2021)**:
  - Age **50–80**
  - ≥ **20 pack-year** smoking history
  - Current smoker or quit within **15 years**
- **CMS (Medicare)**: Similar but excludes older age range (generally up to 77).
- These guidelines **determine insurance coverage under the Affordable Care Act**, making them the most operationally important.
- Other organizations (ACS, NCCN) issue guidelines but **do not control coverage decisions**.

2. Variability Across Guidelines

- **American Cancer Society (2023)** and **NCCN** removed the **“15-year quit” rule**, broadening eligibility.
- NCCN also incorporates non-evidence-based risk factors (e.g., environmental exposures).
- These differences reflect **varying interpretations of evidence and tolerance for uncertainty** but also create confusion in practice.

3. Evidence Base for Screening

- Landmark trials (**NLST and NELSON**) show that screening reduces lung cancer mortality by ~**20%**.
- However, **benefits are concentrated in the highest-risk individuals**, not evenly distributed across all eligible populations.

4. The Critical Benefit–Harm Balance

Screening decisions are based on **net benefit**, not just early detection.

- Screening must **help people live longer and better**, not just detect cancer earlier.

Key harms include:

- Physical: unnecessary procedures
- Psychological: anxiety
- Financial: patient/system costs
- Opportunity costs: time and resources

Example:

- In the NLST trial, **96% of suspicious findings were false positives**, leading to additional testing and procedures without benefit.

5. Why Eligibility Criteria Exist

- Benefits of screening increase with **higher risk levels**, while harms are more prominent in lower-risk individuals.
- Expanding eligibility to lower-risk populations:
    - **Dilutes benefit**
    - **Increases harm**
    - Misallocates limited resources

→ **Key message:** Eligibility criteria are **"participant protections," not restrictions**.

6. Misconceptions and Complexity

- Screening is often oversimplified ("just do it"), but in reality, it involves:
    - Complex **risk stratification**
    - Interpretation of **biases** (lead-time, overdiagnosis, etc.)
    - Careful balancing of **population-level outcomes**

7. Implementation Challenges

- **Low uptake**: <10% of eligible individuals receive screening.
- **Care fragmentation** and **disciplinary differences**:
    - Oncologists see benefits
    - Primary care providers manage burden and harms
- Screening is a **process**, not a one-time test—requiring follow-up and adherence.

8. Social Determinants and Equity

- Eligible populations are more likely to:

- Have **lower income and education**
- Lack access to care
- Live in rural or underserved areas

→ Therefore, lung cancer screening requires **targeted outreach**, not broad population campaigns.

9. Targeted vs. Population Screening

- Lung cancer screening is a **targeted intervention** (based on risk), unlike colorectal or breast screening.
- Expanding to population-based models without evidence risks **harm and inefficiency**.

Session: Key Take-Aways

Strategic Takeaways

- **Adhere to USPSTF/CMS criteria**—they are evidence-based and tied to coverage
- Focus on **high-risk populations**, where benefit is greatest
- Use **shared decision-making** to communicate benefits, harms, and patient preferences
- Treat eligibility criteria as **safeguards**, not barriers

Operational Takeaways

- Screening should be implemented as a **longitudinal program**, not a one-time event
- Improve **uptake among currently eligible individuals** before expanding criteria
- Develop **targeted outreach strategies** for high-risk, underserved groups
- Strengthen **care coordination** between primary care and specialty services

Policy & Research Takeaways

- Expansion of eligibility must be **evidence-driven**, not opinion-based
- Research should address both **benefits AND harms** of screening in new populations
- Resource allocation should prioritize **proven, high-value interventions**

Clinical Mindset Shift

- Move from:
  "Screen as many people as possible"
- To:
  "Screen the right people in the right way to maximize benefit and minimize harm.".

Resources

- U.S. Preventive Services Task Force (USPSTF) Recommendation Statement for Lung Cancer Screening – click here
- Centers for Medicare & Medicaid Services Screening for Lung Cancer with Low Dose Computed Tomography: Decision Summary – click here

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