Lung Cancer Screening Quality Improvement Project: Executive Summary

(Grant # A-38773, January 2025 – June 2026)

Goal: To improve early detection and diagnosis of non small cell lung cancer through (1) increased lung cancer screening for eligible patients and (2) improved rates of follow up and/or biomarker testing to support diagnosis.

1 System-level Gaps

- Pack years data availability within the EHR is limited (lack structured field, inconsistent or incomplete assessment, staff/provider education needed)
- USPSTF guidelines for screening not aligned with CMS reimbursement
- Variable practices for LDCT follow up by provider (results communication and biomarker testing)

2 HCO-level Gap

Multi-disciplinary coordination between primary care, pulmonary, and oncology in addition to standardized EHR tools at the point of care.

5 Health Systems:

Selected through AMGA vetting process

- *Varying size in 4 U.S. regions*
- *Epic, Cerner, and Greenway EHRs*
- *Estimated 670,000+ patients eligible for LDCT screening across 5 HCOs*
- *Engagement from primary care, pulmonary, oncology, and health services research across the 5 HCOs.*

HCI Initiative Design:

Measures

- HCOs to submit baseline and interim clinical EHR measures, including:
  - Screening via LDCT
  - New lung cancer diagnosis
  - Lung nodule biopsy with or without biomarker testing
- AMGA developed standardized measures specifications to support benchmark reports and data insights within and across the 5 HCOs.

Root cause analysis

- HCOs to follow AHRQ and AMGA process for RCA including:
  - Environmental scan following structured template to identify workflows and stakeholders and project teams
  - Fishbone diagram and fallout analysis
  - iPRISM webtool to assess baseline implementation readiness and interim progress post implementation
  - Clinician surveys and feedback

PRISM Practical, Robust Implementation and Sustainability Model

Quality Improvement & Interventions

- Following RCA, each HCO will define one or more root causes to address through a QI intervention
- HCOs will provide AMGA details of QI content and workflows to develop QI summaries.
- Data quality reviews, PDSA cycles, data insights & QI documentation will facilitate discussion and peer-to-peer learnings throughout the initiative
- HCOs will establish definitions for intervention success in addition to pre-defined measures.

PDSA

Anticipated Patient Outcomes

Increase lung cancer screening

Increase % of eligible adults who receive a low dose CT scan (LDCT) for lung cancer screening

Increase follow up and/or detection lung cancer

Increase % of adults with positive LDCT who receive lung nodule biopsy with or without biomarker testing

Health disparities in lung cancer screening, follow up and diagnosis, will be addressed by all measures

Dissemination/Sustainability

Broaden implementation to other organizations by standardizing process, tailoring to local contexts, training, and building partnerships

- Press Release following completion of site agreements
- Panel with participating HCOs at AMGA's Annual Conference
- Conference presentations/posters to professional scientific organizations
- Ongoing informing of professional orgs (i.e. American Cancer Society, American Lung Association)
- White paper and/or case studies
- Peer-reviewed manuscript