

**Title: Raising Awareness About Lung Cancer Screening: Kentucky TLC (Terminate Lung Cancer) Study**Specific Objectives/Aims:

1. Develop a community outreach campaign in East Kentucky through a formative approach involving high-risk target populations (Age 55-75, Smoking > 30 pack year, quit smoking <15 years ago).
2. Implement the community outreach intervention in three regions in East Kentucky (Morehead, Hazard, Pikeville) to assess the uptake of LDCT in those regions.
3. Assess the impact of community health workers/navigators in one of three campaign regions on the uptake of LDCT.

Approach: A mixed-methods approach will be conducted to achieve the targeted aims. The first 9-months of Year 1 will be to design and implement focus groups involving high-risk target populations (Age 55-75, Smoking > 30 pack year, quit smoking <15 years ago)<sup>8-10</sup> residing in the three participating regions; Morehead, KY, Pikeville, KY (CCTS partner), and Hazard, KY. These three East Kentucky regions are defined as counties that include and border the respective city's county. All three sites are members of the Appalachian Osteopathic Post-Graduate Training Consortium (A-OPTIC) who functions as one of the study's community partners. Reach into these vulnerable populations is made possible by existing trust and relationships with the HomePlace program, which has a long history with the communities. The focus groups will consist of 10-12 individuals per focus group and there will be 2-3 focus groups for each region. The focus groups will be used to a.) Assess knowledge and attitudes regarding LDCT to screen for lung cancer, b.) Identify barriers to lung cancer screening uptake, and c.) Assess perceptions of existing state/national educational resources related to lung cancer screening by this population. The remaining 3-months of the first year will be used to design a community outreach intervention by study team partners based on formative data. Dr. Jamie Studts, The Kentucky Cancer Consortium (KCC) and the Kentucky Cancer Program (KCP) will provide expertise and leadership in developing a repository of lung cancer screening (and prevention, if appropriate) resources that is responsive and aligns with focus group findings. During this time, the study team will also acquire rates of LDCT utilization that were performed in the previous 12-months from LDCT sites in each region as baseline measures.

The first 6-8 months of Year 2 will be used to implement the community outreach intervention in 2 of 3 regions. Again, the actual activities of the intervention will be guided by the results of the community focus groups. In addition, the HomePlace program navigators will be integrated into the community outreach campaign in the Hazard region only. It is not the intention of this study to develop educational materials for individuals and providers, as numerous efforts have been completed or are ongoing that is specific for lung cancer screening. However, the focus group participants will have the opportunity to provide feedback and input about their perceptions on these resources during the sessions.

The intention of the study is to develop a community-based outreach campaign to increase knowledge and receptivity to lung cancer screening and to increase lung cancer screening among high-risk individuals in these communities. For example, the community outreach campaign may be a general message about lung cancer, lung cancer screening, associated risk factors to lung cancer, or direct individuals to the lung cancer screening information repository. To ensure healthcare providers are aware and receptive to individuals presenting to their clinics and inquiring about lung cancer screening as a result of the community outreach campaign, the repository of healthcare provider information and location of LDCT units in their regions will be disseminated by the study team.

Potential Impact and Expected Outcomes: The potential impact of the proposed study is significant as lung cancer and associated risk factors in East Kentucky are the highest in the country. While it remains undetermined whether the cost LDCT for lung cancer screening is covered by insurers, these sites still provide a significantly reduced cost rate to the communities. The community outreach intervention is expected to

increase the number of LDCTs that are performed in the intervention regions, with the greatest increase in the region that also has HomePlace navigators participating in the intervention (Hazard region). Changes in LDCT utilization rates pre- and post-community outreach intervention will be compared overall and within each region. Statistical process control methods will also be applied.

**Key Personnel:**

Key Personnel	UK	Community Partner	CCTS Partner	Department/Affiliation	Role
Roberto Cardarelli	X			UK, COM, Dept. of Family & Community Medicine	PI
David Reese		X		Appalachian Osteopathic Post-graduate Training Consortium	Co-PI
Dana Schaffer			X	University of Pikeville, KCOM, Associate Dean GME	Co-I
Tony Weaver	X			UK, COM, Dept of Internal Medicine (Morehead, KY)	Co-I
Gretchen Holmes	X			UK, Research Director, Center of Excellence in Rural Health (Hazard, KY)	Co-I
Jamie Studts	X			UK, COM, Dept. of Behavioral Science	Co-I
Fran Feltner	X			UK, Dept. of Family & Community Medicine/ Director, Center of Excellence in Rural Health (Hazard, KY)	Co-I
Kathryn Cardarelli	X			UK, College of Public Health, Dept. of Behavioral Health/ Associate Dean	Co-I
Debra Armstrong		X		Kentucky Cancer Program	Co-i
Jennifer Redmond	X	X		Kentucky Cancer Consortium	Co-I

