



CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
PP180016

Project Title:
Equitable Access to Lung Cancer Screening and Smoking Cessation
Treatment: A Comprehensive Primary Care and Community Health
Approach

Award Mechanism:
Tobacco Control and Lung Cancer Screening

Principal Investigator:
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Entity:
Baylor College of Medicine

Lay Summary:

Need: This proposal responds to the critical need for evidence-based prevention initiatives for lung cancer (LC) among predominantly underserved populations within Harris County. LC is the top cause of US cancer mortality, accounting for 1 in 4 cancer deaths, and in 2015, Harris County had more LC-related deaths at ages over 35 years than any other county in Texas. Because symptoms of these LC cases are mistaken for other problems or don't appear until the disease is advanced and perhaps incurable, diagnosis is often delayed with a resultant decrease in survival longevity. Low-dose computed tomography (LDCT) has recently become available to detect LC at earlier stages, and when combined with multidisciplinary smoking cessation treatments (SCT), serves as effective strategies to increase survival among patients with LC, improve the quality of life for those living with LC, and prevent future LC cases (through SCT). Community-based primary care physicians (PCPs) play a critical role in providing these services and a recent study reported that although 90% of PCPs in Texas screened their patients for tobacco use as part of regular care, only 10% had a formal LC screening (LCS) program in their practice.

Overall Project Strategy: The overall aim of this proposal is to develop and implement a comprehensive primary care and community health program for efficient and equitable delivery of LCS and SCT for high-risk underserved residents of Harris County. Our multi-level strategy will develop a critical mass of 220 providers educated and trained in LCS and SCT, a detailed LCS program implementation guide with feedback from administrators and providers of multiple disciplines, and in 15 community health centers, operationalization and coordination of services through process flow maps, EMR enhancement, and clinic-specific plans for integration. The program will also add currently unavailable integrative pharmacotherapy and behavioral therapy services onsite.

Specific Goals: Goal 1: Design and implement an evidence-based comprehensive LCS program to increase equitable access to screening and early detection services among high-risk underserved residents of Harris County. Objectives include: a) a comprehensive, interdisciplinary LCS implementation guide that leverages key informant interviews; b) clinic-specific plans for adoption of screening and appropriate referral practices across 15 community health centers; and c) training an interdisciplinary group of 220 primary care providers to utilize AHRQ shared decision-making toolkits in the

identification and screening of high-risk patients for LC. Goal 2: Implement a comprehensive evidence-based smoking cessation program in the Harris Health System (HHS) for individuals 55-80 years of age to serve as an essential adjunct to lung cancer screening activities.

Innovation: Our proposal develops LCS and SCT programs and services which are currently unavailable to the high risk populations we serve. The innovative, evidence-based, approach targets key inputs and outcomes at the clinic, provider, and patient levels. Immediate interdisciplinary and interinstitutional engagement in the development of a comprehensive implementation guide will build a foundation for collaboration and a clinical infrastructure with program buy-in. PCPs will receive training so that all staff across clinics are: (a) aware of top management support for the program; (b) familiar with the processes of patient identification, referral for LDCT and SCT, and tracking; and (c) able to use approaches to shared decision-making in the identification and screening of high-risk patients for LC. Clinic-specific process flow maps and clinical decision supports integrated in the EMR will facilitate program adoption, reduce barriers, and maximize efficiency, and patient navigators will ensure patients receive continuity of care (e.g., follow-up for abnormal results, coordination with imaging/surgical services).

Significance/Impact: LDCT is capable of producing a 20% reduction in LC mortality and a 6.7% decrease in all-cause mortality; when combined with SCT in high-risk populations, the anticipated health benefits are increased. However, in Harris County, there currently does not exist up-to-date, evidence-based LCS programs with integrated SCT services, nor are PCPs adequately trained to engage high-risk patients in making shared decisions about the risks and benefits of LCS. Our proposal is significant in filling this void within high-impact venues reaching at least 20,000 high-risk patients. Our program will specifically target 220 providers who serve predominantly vulnerable populations, and 3,300 patients aged 55-80 years with a history of 30 pack-years who are current smokers or quit less than 15 years ago. The impact of our program is likely to be scalable and sustainable given strong institutional support and partnerships led by Baylor College of Medicine and MD Anderson Cancer Center.