



CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
PP180018

Project Title:
BSPAN4: Optimizing Spatial Access to High-Quality Breast Screening & Patient Navigation for Rural Underserved Women across North Texas

Award Mechanism:
Evidence-Based Prevention Programs and Services

Principal Investigator:
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Entity:
The University of Texas Southwestern Medical Center

Lay Summary:

Need: Rural Texans are typically under- and un-insured, older, and lower-income than their urban counterparts; they comprise a critically underserved population. Together, these factors work to decrease access to routine preventive care. Per Texas Cancer Plan, these women are at greatest risk for decreased access to routine preventive care: upwards of 16% of this population reports living below the Federal Poverty Level; nearly 25% are uninsured and 26.5% are either underinsured or enrolled in Medicaid. Our target geography is a catchment area spanning 35 North Texas counties: predominately rural with a strong emphasis in farming and ranching, all counties are either full or partial Medically Underserved Areas; indeed, 20 counties are further designated a Primary Care Health Provider Shortage Area (HPSA). To address cancer screening disparities associated with socioeconomic status, race/ethnicity, and geographic region, BSPAN has successfully targeted screen-eligible women residing in rural and medically underserved counties.

Demand for preventive breast cancer services currently outpaces local access and provider capacity in rural and underserved regions. Nearly 40% of BSPAN2 patients had not had a previous mammogram in 5 years; 89% of women served were uninsured; 73% were racial and ethnic minorities; and 86% reported incomes <200% federal poverty level. In the most recent two program years, as of August 2017, our program identified 321 cancers and precursors, 87% of which were early stage (0, I, II) compared to the state average of 60%. BSPAN has sustained a critical cancer prevention network for community-based care: we link under- and uninsured women to local providers, none of whom would be capable of providing the clinical services without access to the BCCS reimbursement that BSPAN makes possible.

Overall Project Strategy: The intent of this competitive renewal is two-fold: (1) extending our Breast Screening & Patient Navigation (BSPAN) program for comprehensive mammography and appropriate follow-up to serve 35 rural and underserved counties across North Texas and (2) increase access to breast cancer screening services across this region, using innovative quantitative geospatial analytics, to optimize program reach and visibility for the most vulnerable residents and participating providers. Building on our outstanding 8-year record of success, we will strengthen high-quality screening and follow-up access by sustaining key performance metrics, e.g. sustaining timely completion of screening follow-up and facilitating timely referral to local treatments.

BSPAN4 proposes to reach over 2.09 million screen-eligible women in rural and underserved communities with messages and opportunities for comprehensive breast cancer screening. We aim to serve more than 16,000 patients with oncology-certified nurse-driven clinical navigation, clinical screening, and follow-up services. With CPRIT funds, BSPAN4 will provide at least: 1500 screening mammograms, 750 diagnostic mammograms, and 138 biopsies, leveraging many thousand more clinical services through our award-winning contract with Texas Breast & Cervical Cancer Services (BCCS) contract.

Evaluation. We propose a comprehensive analysis of spatial accessibility to breast cancer screening and diagnostic services across the 35-county BSPAN catchment region in North Texas. Our evaluation will assess both potential and realized spatial accessibility. Potential accessibility is defined as the presence of breast cancer screening and diagnostic facilities; realized accessibility is actual use of these facilities among women receiving services by the BSPAN program over time. Such accessibility to breast cancer services can be restricted by both cost and location.

We have previously demonstrated how our BSPAN model reduces financial barriers and sustained rates of high-quality screening and diagnostic follow-up, even as the BSPAN service area grew nearly six-fold. However, we have not systematically evaluated locational or spatial barriers to these services within our network and across North Texas. BSPAN has collected unique, robust qualitative data and developed capability to extract robust quantitative data from the program's EHR.

In this competitive renewal, we will apply innovative geospatial analytics to these program service data, with two specific evaluation objectives: to measure (1) realized and (2) potential accessibility to breast cancer within and beyond the BSPAN catchment area. We will directly apply these findings to optimize linkage between providers and patients across North Texas and to inform dissemination for other prevention programs in the state of Texas and the nation.