

1. Descriptive Title of Proposed Project

Spatially Informed Strategies for Cancer Intervention

2. PI/Co-PI Information

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Spatially Informed Strategies for Cancer Intervention

1. Abstract

With more than 10 million new cases every year worldwide, cancer poses an enormous burden on society and affects almost all families. The burden can be disproportionately higher in certain underserved population groups and communities. This disproportionate burden is called cancer disparity and must be addressed. The consensus among researchers and health professionals is that cancer disparity can be significantly reduced through targeted intervention. The challenge is that targeted intervention requires highly effective strategies to identify individuals in these population groups and communities, develop intervention programs that are tailored to the individual needs of people who require the most assistance, and then deliver the intervention programs to individuals using personalized messages. To address this challenge, researchers of this project will launch an initiative to develop spatially informed cancer intervention strategies aimed at reducing cancer disparities. The interdisciplinary research team will design a Spatially Informed Cancer Intervention Enhancement System (SICIES) and evaluate how information products from SICIES can be used to enhance cancer intervention programs to achieve targeted and personalized intervention. A unique and innovative aspect of this initiative is the identification of individuals in underserved population groups and communities where cancer disparities exist, as well as the detection of risk factors associated with the disparities. The unique features of SICIES make targeted and personalized delivery of cancer intervention programs possible because we can tailor the messages of the intervention program based on the specific demographic, socioeconomic, culture, language, location, and community characteristics associated with an individual.