

Cynthia Warrick
Statement of Research Interests
CSISS specialist meeting on Health Risk Perception & Spatial Analysis

My research focuses on the social and environmental determinants of health disparities. I moved into this area following 7 years of working with minority communities on environmental justice (EJ) issues. All of these EJ communities (Augusta, GA; Fayetteville, NC; Washington, DC; Memphis, TN; Geissmer, LA; Houston, TX) perceive that their health problems, primarily cancers, are due to their proximity and exposure to hazardous sites, facilities, and pollution in their neighborhoods. The spatial representation of potential sources of pollution enabled better communication between researchers and community members, and a better understanding of the issues confronting the community. My research uses scientific evidence to support political strategies to achieve environmental justice success.

Current projects in progress and under development:

Environmental Justice in Acres Homes: Booker Landfill – Acres Homes is a historic African American community located in north Houston. Residents of West Donovan Street noticed that a number of their neighbors, on the east side of their street, were getting cancers and other unusual health problems. The backyards of the east side residents are adjacent to the Booker Landfill, a closed un-permitted solid waste landfill. The residents perceive that the health problems of their community are related to exposure from the water that constantly drains from the landfill into their backyards and street. I am directing a participatory action research project to address the concerns of this community. We have been funded by an EPA Environmental Justice small grant to conduct a community health survey and a preliminary environmental assessment of the impacted neighborhood. Toxic levels of metals were found in the soil and water in the backyards and data from the health survey are currently being evaluated. We are working with Congresswoman Sheila Jackson Lee's office to get EPA involvement on the site, and the EPA regional office will be conducting a site visit later this month. The goal of this project is to get an EPA Brownfields Assessment Pilot grant that will enable the community to cleanup and redevelop the Booker Landfill and other potentially hazardous sites in the Acres Homes community. Through this community-based research partnership, other projects that study the relationship between neighborhood effects and cancer prevention will be developed.

Using GIS to Study Mammography Disparities – The primary goal of this study is to determine why some African American women get mammograms and others do not. This project will study how neighborhood effects may or may not contribute to cancer prevention behaviors in communities that get mammograms and in communities that do not participate in breast cancer screening in a 16 county public health region in Texas. Because factors at the public policy level, the community level, the organizational level, and in the practice setting, interact in a synergistic manner to affect provider delivery and patient utilization of healthcare services¹, geographic information systems (GIS) can be used to assess and evaluate the factors related to mammography and breast cancer disparities at multiple levels of analysis for the development of effective intervention strategies. This analysis will use Medicare mammography claims data, stage of breast cancer diagnosis, mortality, mammography facility, and Census data to predict mammography utilization in African American Medicare beneficiaries.

Reinventing Public Health: Toward a Healthy (Re)Public – A “healthy republic” is one in which public decision making takes into account the impacts of policies related to fundamental determinants on the health of the populations targeted by these policies. This is a book project of the Rural Economic and Community Health (REACH) partnership, a policy-oriented, community service, research and teaching group of faculty who meet regularly to develop ideas and programs toward enhancing and evaluating the impact of rural development and community health policy on the health of individuals and communities. The project is led by Dr. Lu Ann Aday and I am the lead author on the chapter on *Community Development & Public Health*. This chapter will lead the reader through the literature to present an understanding of community development and its associated themes, social capital, community capacity, and community organizing and building. Because trust and communication have been identified as major factors for community development success, we will construct a conceptual framework that uses theory developed by Habermas and Paulo Freire, to express the importance of discourse and democratic participation by all affected parties. We will provide an overview and critical evaluation of the major policies that impact community development to expose its strengths and limitations based on their effectiveness, efficiency, and equity, and make recommendations on how to develop policies that influence community development.