

What Facets of socioeconomic inequality and neighborhood-level segregation are associated with consumer behavior, diet quality, and obesity?

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The health and economic consequences of obesity and poor dietary intake are considerable. Obesity is a well-established risk factor for heart disease, diabetes, stroke, several cancers, and other chronic health problems (Eckel 1997, WHO 2002, AICR 2009). An estimated 9.1% of medical expenditures in the US are obesity-related (Finkelstein et al. 2003). The overwhelming health consequences and costs associated with obesity underscore the importance of identifying risk factors that can be modified through public health, clinical, or policy interventions.

It is important to understand not only the composition of the food environment, but its variation and how variation is associated with individual-level health outcomes. Little research has evaluated the association between the retail food environment (RFE) and obesity prevalence at micro-geographic levels (e.g. census tracts or block groups) and rarely are patterns among food establishment types quantified. Understanding the influence that the RFE has on individuals based on both individual and community socioeconomic factors will inform behavioral interventions or policy recommendations.

The goal of this research is to evaluate the association between adult and childhood obesity, dietary intake, and the structural characteristics of the retail food environment and social environment near individuals' homes. Our prior work demonstrates the need for considering close-proximity food environments. We observed that particular types of food establishments cluster together (Leslie et al. 2013), and we identified sub-environments clustered on types of food establishments within overall good food environments that had obesity prevalence consistent with overall poor environments (Frankenfeld et al. 2015).

The proposed work requires access to individual-level SES, dietary, and obesity information, in addition to macro-level SES and business information. There is a wealth of data collected by the federal government that can be used for to efficiently evaluate these questions. Linkage of comprehensive government databases (individual health information, geographic SES information, and local business information) would create the necessary complement of data. Such data is restricted access to protect individual and business confidentiality, but is accessible to qualified researchers for approved projects. Funds for this project will support access to this information through the federal research data centers (RDCs) in this region.