**Community-engaged research in urban and rural settings: Identifying environmental priorities and measuring exposure**

Public health interventions for reducing the effects of exposure to extreme heat are being evaluated. Surveillance data suggests heat-related illnesses may be heightened in rural areas compared to urban areas; however very little is known regarding differences in factors affecting exposure or vulnerability to heat-related illness between rural and urban settings. The effectiveness of interventions requires an understanding of where and when extreme heat is most prevalent, human behaviors that lead to exposure to extreme heat and physiological factors that may increase the probability of adverse effects following exposure to extreme heat. Combining local knowledge within communities with spatial epidemiology approaches using on ground and satellite-derived data may aid in development of targeted adaptation approaches, specific to the needs of urban or rural settings. The purpose of this session is to provide attendees with: 1) Socioeconomic, cultural, and political considerations when designing and implementing community-based research on health implications of climate change and other environmental issues 2) Utility of neighborhood level temperature measurements and satellite-derived datasets for estimating variability in heat exposure and associations with health outcomes across urban and rural communities 3) Methods for engaging residents in environmental health research through personal heat exposure measurement, and 4) A framework for moving community-engaged research into informing development of targeted climate change adaptation strategies for urban and rural settings. Talks will draw from longstanding researcher-community partner health projects conducted in Birmingham AL and Wilcox County AL. In particular, results from the recent and ongoing ENACT (Environmental Health for Alabama Communities, [www.enactalabama.org](file:///C:\Users\jgohlke\Desktop\www.enactalabama.org)) project will be described. Speakers will reflect on how these place-based projects inform generalizable methods for conducting community-engaged research in urban versus rural settings and discuss implications of their results for climate change adaptation strategies.

***Measurable* learning objectives\*:**

**1. Describe the socioeconomic and cultural contexts for prioritizing climate change and other environmental health issues in urban and rural settings in the Deep South.**

**2. Define heatwave trends in the Southeast and the influence of urban and rural landscapes on neighborhood level heat exposure.**

**3. Compare heatwave-health outcome associations using zip code versus address level exposure estimation methods.**

**4. Evaluate the utility of community engaged research for developing climate change adaptation strategies.**