

THE IMPACT OF URBAN SPRAWL ON THE WALKABILITY OF SUBURBAN, TRADITIONAL, AND URBAN COMMUNITIES IN CINCINNATI, OHIO, USA

Dawn Ebron, *Wright State University, United States of America*

Naila Khalil, *Wright State University, United States of America*

Jennifer Weisser, *Wright State University, United States of America*

Caitlin Botschner, *Warren County Soil and Water Conservation District/Engineer's Office, United States of America*

Background and Aims: The prevalence of obesity in the United States of America (USA) has risen over the past 25 years. Participation in regular physical activity and adopting a healthy diet are recommended behaviors in preventing obesity. An individual's level of physical activity is influenced by the walkability of his or her environment which has been compromised by the trend of urban sprawl. This research addressed the effect urban sprawl has on physical inactivity of members of suburban Cincinnati, Ohio, USA, communities as well as the negative impact of urban sprawl on physical activity of members who remained in the urban communities.

Methods: Using geographic information systems (GIS) and field observations, the walkability of a suburban, traditional, and urban community was assessed using six walkability criteria. In each community, two residences were chosen and observations related to the walkability criteria were recorded within a 400 meter buffer zone of the house.

Results: The suburban community was considered safe with good path quality and context, but deficient land use mix, poor connectivity, and minimal access to other modes of transportation proved to be a barrier to walking. The neighborhoods in the urban community had good mix of land uses, high connectivity of the path network, acceptable path quality, and multiple linkages to other modes of transportation. Safety and path context proved to be extremely poor attributes of this neighborhood. The traditional neighborhood could be deemed walkable based on all six walkability criteria.

Conclusions: City planners and public health practitioners must work together to evaluate their communities and plan improvements that will support walking and outdoor physical activity. Enhancing neighborhood walkability by adding sidewalks, addressing safety concerns, or improving neighborhood aesthetics can reduce the negative effects urban sprawl has had on physical activity and ultimately the rates of obesity.