

Social Networks and Rural-Urban Cognitive Health Disparities

Adam Roth and colleagues, Indiana University

Project Summary

The goal of the proposed project is to understand the social processes contributing to rural disparities in cognitive decline among older adults. We propose to analyze social network data on a representative sample of rural- and urban-dwelling older adults to characterize the social-behavioral mechanisms underlying the relationship between geographic area and cognitive decline. Rates of cognitive decline are disproportionately high among older adults in rural areas compared to those in urban centers. A critical point of intervention is the social environment, which has the potential to reduce these geographic disparities by offering opportunities for cognitive stimulation. Stimulating social interaction—including number of network friends and family, frequency of social contact, and social engagement—has been identified as a promising avenue for interventions to develop resilience against cognitive decline. However, the existing literature relies on limited and unidimensional measures of social interaction. Moreover, research has yet to contextualize individuals within a broader social environment, thereby ignoring that the ability to socialize with others is dependent on opportunity structures presented by one's social surroundings. The proposed project addresses these gaps via two specific aims. Aim 1 is to identify the associations between geography and social network characteristics. Aim 2 is to evaluate alternative models of geography and social networks in trajectories of cognitive decline. In sum, the proposed study will leverage novel social network data to address important geographic health disparities. Special attention will be given to how specific social network characteristics may influence cognitive decline differently in rural communities compared to the urban communities. By using leading-edge social network analytic methods to study cognitive decline, this project may help identify novel targets for assessment and intervention to reduce the burden of cognitive decline on individuals, families, and the health care system across rural as well as urban communities.