

The National Institute of Environmental Health Sciences: Socio-Economic Disadvantages and Risk for Poor Health and Disability

The study aims are to identify neighborhood conditions that have an adverse affect on health and to examine the stress levels by which living in disadvantaged neighborhoods lead to increased risk for poor health and disability in an older, urban, and ethnically diverse population.

Lead Agency:

The National Institute of Environmental Health Sciences (NIEHS)/National Institutes of Health (NIH)

Agency Mission:

The mission of the NIEHS is to reduce the burden of human illness and disability by understanding how the environment influences the development and progression of disease.

Principal Investigator:

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General Description:

Socio-Economic Disadvantages and Risk for Poor Health and Disability

These NIEHS funded researchers will investigate the effect of socio-economic disadvantages and neighborhood conditions on disability in older blacks and whites. The project takes place in a population of persons aged 65 years and over who live in an urban, biracial community in Chicago. The overall aims of this study are to identify the specific nature of neighborhood conditions that have an adverse affect on health and to examine the stress-related physiological mechanisms by which living in disadvantaged neighborhoods lead to increased risk for poor health and disability in an older, urban, and ethnically diverse population. To accomplish this aim, the investigators propose to collect yearly disability data and obtain blood samples and salivary cortisol from over 7,000 participants. These data will be integrated with a rich set of existing data on personal characteristics, health conditions, and neighborhood factors to test a series of specific hypotheses related to the overall goals. Disability is a common and highly prevalent consequence of age-related chronic diseases, and a critical indicator of overall health among older people. Prevention of disability is essential to improve the lives of older people and reduce health care costs. The proposed work will contribute to a better understanding of the specific neighborhood conditions that are associated with increased disability, laying the foundation for more effective policies to prevent disability in future generations of older adults.

Excellence: What makes this project exceptional?

This project is exceptional as it relates to measures of neighborhood environment, social cohesion and neighborhood disorder and the effects upon disability and stress levels. Other associations are being explored more fully such as the association between neighborhood conditions and walking behavior in older adults. In addition the researchers are investigating the role of body weight in aging-related decline in physical and cognitive function as well as racial differences in quality of life. The association between perceived discrimination and mortality are also examined along with ongoing analyses on perceived discrimination and blood pressure, on neighborhood conditions and psychosocial outcomes, and on SES related differences in mortality and disability.

Significance: How is this research relevant to older persons, populations and/or an aging society?

This research focuses on disability in older adults. Disability is the result of the impact of chronic diseases on a person's ability to perform specific tasks and activities that are essential for self-care and independent living. Because disability forms the common consequence of different, and often co-occurring chronic conditions, it is an essential indicator of overall physical health in older adults. Disability and resulting loss of independence is a condition of enormous consequence for older people. It is highly prevalent; affecting about 10% of persons aged 65-74 to about 50% of those aged 85 and over. It is the primary cause of institutionalization, and accounts for a large amount of the informal and formal health care needs of older adults.

Effectiveness: What is the impact and/or application of this research to older persons?

The existence of major health disparities in the U.S. population is widely accepted, and elimination of these disparities is a primary objective of Healthy People 2010. Disparities are evident across major indicators of health at all stages of life, including conditions that affect infants and children, adult-onset chronic diseases, such as cardiovascular disease, diabetes, and cognitive impairment and Alzheimer's disease, mental disorders, and all cause-mortality. Previous studies indicate that there are substantial socioeconomic and racial disparities in disability. This project will provide a better understanding of how to reduce and ultimately prevent disability in regard to the built environment of older persons that addresses racial disparities and socioeconomic status.

Innovativeness: Why is this research exciting or newsworthy?

This study examines disability in older persons, disparities among whites and blacks, neighborhood factors and health, and socioeconomic differences in health among older adults. Prevention of disability is essential to improve the lives of older people and reduce health care costs. The proposed work will contribute to a better understanding of the specific neighborhood conditions, including differences in socioeconomic status and race, which may directly affect increased disability, laying the foundation for more effective policies to prevent disability in future generations of older adults.