

Title: Racial Health Disparities from Aging in Changing Places

Investigators: Michael Bader, Ph.D. and Jennifer Ailshire, Ph.D.

Abstract:

The proposed research identifies how neighborhood change affects racial health disparities among older adults in the United States. Although older Americans prefer aging in place and policy makers increasingly support programs to make that possible, little research investigates how aging in place might exacerbate racial health disparities. Evidence from children and their caregivers demonstrates that Blacks and Latinos live in neighborhoods experiencing worsening economic conditions and increasing racial isolation, but little research examines how these changes affect the health of older adults. We examine the general hypothesis that racial health disparities can be explained, in part, by Blacks' and Latinos' exposure to increasing racial isolation and worsening economic conditions in neighborhoods. We aim to identify differences in the neighborhood change that Blacks, Latinos, and Whites experience in older age and to estimate the influence of neighborhood change on the hazard of all-cause mortality and cardiovascular disease. The proposed research will provide evidence to researchers and policy makers and support a future R01 to understand the mechanisms that link neighborhood change to racial health disparities.



Population Studies Center
239 McNeil Building
3718 Locust Walk
Philadelphia, PA 19104-6298
Tel 215.898.6441 Fax 215.898.2124

Irma T. Elo
Professor of Sociology
Director, Population Aging Research Center
popelo@pop.upenn.edu
215-898-9162

June 10, 2015

Dear Committee:

We have attached an application in response to the request for Pilot Proposals from the Network on Life Course Health Dynamics and Disparities in 21st Century America. The title of our proposed project is "*The contribution of weight status to black-white differences in mortality and diabetes.*" This proposal is focused on the role of obesity in generating Black-white disparities in mortality and morbidity. We believe the proposed analyses will provide new insights regarding the contribution of obesity to these B-W differences. The proposal builds on our recent work on the contribution of obesity to mortality in the U.S. and elsewhere.

Short Abstract

The black-white health disparities in the United States are large and persistent. Cardiovascular diseases and diabetes account for a large fraction of the B-W difference in life expectancy at birth. Obesity is a key risk factor for developing heart disease and diabetes and it is more common among blacks than whites, especially among women. No study has systematically assessed the contribution of obesity to black-white differences in mortality or diabetes. We draw insights from our recent research that has shown the importance of accounting for weight histories in assessing the contribution of obesity to mortality and morbidity. The results of the proposed research will provide new estimates of the contribution of weight status to B-W differences in all-cause and cardiovascular disease mortality, life expectancy at age 40, and diabetes prevalence.

Sincerely,

Irma T. Elo, Principal Investigator
Samuel H. Preston, Co-Investigator
Neil K. Mehta, Co-Investigator

Work Histories and Racial/Ethnic Disparities in Multimorbidity Trajectories

A Pilot Proposal to the Network on Life Course Health Dynamics and Disparities in 21st Century America

Michal Engelman, PhD MHS
Assistant Professor of Sociology
Center for Demography of Health and Aging
University of Wisconsin-Madison
mengelman@wisc.edu

June 12, 2015

Abstract

As longevity in the U.S rises, the persistence of racial/ethnic disparities may increasingly manifest in poor health. There are substantial differences by race/ethnicity in the prevalence of individual chronic conditions, as well as in multimorbidity (the co-occurrence of multiple chronic conditions). While chronic diseases grow common with age, little is known about the relationship between working (a nearly universal life course experience) and the pattern of disease accumulation in later life. The proposed study will explore the link between occupational histories and subsequent multimorbidity trajectories from a disparities perspective. It will test the hypothesis that cumulative exposures associated with specific occupational histories influence the pattern of subsequent health declines. Because labor markets and health experiences varied markedly by race/ethnicity and gender for older Americans, all models will be estimated separately for each demographic group. I will develop novel work exposure measures by combining longitudinal data on respondents' longest-held occupations from the Health and Retirement Study with data from the Occupational information network, which captures the required abilities and work characteristics that distinguish specific occupations. Using latent-class methods, I will analyze the role of occupations and specific occupational characteristics (including decision-making capacities, creative thinking, interpersonal relationships, and physical demands) in differentiating multimorbidity trajectories both across and within demographic groups defined by race/ethnicity and gender. Findings from this research will inform debates surrounding the legal retirement age, and have implications for understanding the impact of occupational factors on current health disparities as well future trends for America's aging and increasingly diverse population.

Title: Race and Ethnic Differences in Measured Indicators of Health and Biological Risk

Investigator: Uchechi A. Mitchell, Ph.D

Abstract:

Eliminating disparities in health has been and continues to be a primary objective of public health researchers and practitioners. Much like disparities in chronic disease, cumulative biological disease risk—a summary measure of dysregulation across multiple physiological systems—is also systematically patterned by race/ethnicity. Blacks are more likely to be high-risk on measured biological indicators of health and have greater cumulative biological risk scores. To contribute to this body of work, the proposed study will examine race differentials in mortality, incidence of elevated biomarker levels (i.e., high-risk levels) and behavior responses to information on cardiometabolic risk. The specific aims of this project are to (1) determine whether race differences in mortality are associated with cardiometabolic risk and explain change in risk or subsequent differentials in risk; (2) examine race differences in change in the cardiometabolic score and in transitions between high- and low-risk levels of individual biomarkers; and (3) determine if there are race differences in behaviors and subsequent biological risk, after becoming aware of being high-risk on indicators of high blood pressure, high cholesterol, or glucose dysregulation (i.e., diabetes). This project will advance research on racial/ethnic disparities in health among older adults by using longitudinal data from a large, racially diverse and national sample of older adults; using measured indicators of health; accounting for differential mortality; and testing multiple explanations for race differences in biological risk. In the end, the knowledge gained from this project will inform efforts to improve the health of older minorities and reduce racial and ethnic health disparities in the U.S. population. The proposed research, therefore, meets objectives set forth by both the NIA and Healthy People 2020.

Sources of Favorable Neighborhood 'Effects' on Mexican-American Health

Fernando Riosmena, Principal Investigator

This project will contribute to debates on the Hispanic Health Paradox (HHP) and other race/ethnic health disparities as well as on the effects of residential segregation by providing a broader, more in-depth examination of neighborhood effects on Mexican American health. People of Mexican origin living in residential environments with higher concentrations of coethnics are in better health than Mexican Americans living outside of these enclaves. Because "barrios" tend to have fewer economic and infrastructural resources conducive to better physical health, these associations could signal the existence of countervailing, socio-cultural protective mechanisms of intra-ethnic social support/control. These patterns may question the pervasiveness of the health-deleterious consequences of high socioeconomic and race/ethnic stratification and segregation in the United States. More specifically, the barrio effect could suggest that the Hispanic Health Paradox, i.e., the more favorable chronic health that Latinos often exhibit relative to their socioeconomic position in U.S. society, may be the result of locally-embedded protection mechanisms. However, the barrio effect could be an artifact of the composition of neighborhoods due to selective in-/out-migration. Furthermore, prior research has almost exclusively focused on estimating barrio effects for the average individual and community; examined barrio effects only in traditional Mexican American gateways; and only used census geography boundaries (e.g., individual or clusters of census tracts) as proxies for residential environments.

This project aims to present a more complete picture of barrio effects by: studying and dealing with self-selection in and out of neighborhoods; examining the extent of variation in barrio effects over time and across measures, gateway types, neighborhood settings, and individual life courses (under a synthetic cohort perspective); and by using more flexible spatial units as proxies of residential environments than prior work. We use nationally-representative biomarker and anthropometric data from restricted-access 1999-2010 National Health and Nutrition Examination Surveys merged to contextual data from the 1990 and 2000 Censuses and 2005-2009 American Community Surveys to assess the existence of barrio effects in inflammation, cardiometabolic, and behavioral risk factors. We depart from and extend prior work on the topic by 1) addressing the role of self-selection in and out of neighborhoods; 2) examining (net-of-selection) variation in barrio effects across traditional, re-emerging, and new Mexican gateways as well as across neighborhoods over time and according to their levels of demographic stability, economic disadvantage, and turnout, as well as across the life course and other individual characteristics; and 3) taking advantage of exact latitude/longitude data in the survey to construct indicators of the residential environment using a buffer-based approach to define different spatial scales and zonings by using standard census geographies as well as by drawing buffers of 0.5, 1.0, 1.5, and 2.0 km. around each sampled dwelling.