Identifying Information

Project Title: Measuring Racial Health Disparities and Uncovering their Origins to Bolster Policy and Individual Behavior

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Retirement and Disability Research Consortium Focal Area #1: Disparities by Race and Ethnicity. Estimating disparities.

Rationale

Among the most profound inequities is that some are unable to lead as long and as healthy lives as others. In the U.S., such health disparities are particularly pronounced by race. While it is clear that these racial health disparities exist, what remains unclear is how to best measure them to inform policy and individuals. The concept of health, though frequently invoked, has a vast range of interpretations.

While novel methods of measuring health are emerging, much work remains in crafting measures that also take into account racial health disparities. This is crucial, as a root cause of health disparities at the level of policy and the individual is the incomplete understanding of how it develops over the life-cycle and why disparities arise.

An economic approach to health is critical. Whereas medicine is mainly focused on measuring health at the individual level to prescribe treatment for specific maladies, social sciences aim at evaluating health at a holistic level to better understand individual decision-making and social resource allocation. Given the enormous sums spent, even small gains to efficiency in health spending in late adulthood could yield tremendous benefits to national health.

Research Approach & Activities

Our research questions revolve around computing better health measures by race and ethnicity. What is the best way to measure health to predict key outcomes such as mortality, out-of-pocket medical spending, nursing home entry, and more? What do we learn about the evolution of health after age 50 as a result? How do different measures vary in effectiveness by race and gender? What do these measures tell us about the current state of health disparities in the U.S., particularly later in life? To what extent do self-reported measures and diagnosed health measures, which depend on insurance and medical coverage, help predict ket economic outcomes by race and gender?

In addition to the traditionally used health measure in which people self-report their health status, a highly promising measure of health is the “frailty index.” It quantifies health as the proportion of deficits (undesirable health conditions) that an individual has out of a certain number of deficits considered, meaning 0 indicates ideal health and 1 indicates the worst possible health.

A difficulty in computing the frailty measure stems from deciding which deficits to consider and how to weigh them. For example, medical diagnoses are frequently considered in frailty measures, but this understates frailty for those with lower levels of medical care who may not receive official diagnoses. Additionally, when people report their health subjectively, they do so relative to those with whom they most interact, so populations with poorer health may be overstating their subjective experience of their health

Our preliminary findings show that one construction of the frailty index effectively illustrates the vast differences in health by race. At age 50, median frailty for White people is .15 while median frailty for Black people is .19. White individuals do not reach such a high level of average frailty until the age of 65, suggesting Black people are 15 years further along in terms of frailty by age 50. However, the disparity in frailty may likely be even greater, as certain health deficits may be understated by race due to under-diagnosis and subjective reports refererring to a less healthy peer group.

Although the current literature on frailty is growing, it has yet to explore how such racial disparities must be dealt with in the construction of the measure, motivating our research. Our current findings point to the promise of frailty in predicting key outcomes. Even including a robust set of controls and traditional health measurements like self-reported health status, frailty at age 50 is highly significant in predicting mortality later in life. Interestingly, this initial frailty condition appears more impactful to health outcomes for White individuals than for Black individuals, suggesting that health interventions for Black individuals could be particularly impactful even later on in life.

We will compare the self-reported health measure with various measures of frailty over the life cycle and will study their ability to predict key outcomes such as mortality, future health evolution, nurshing home entre, disability receipt and so on. We will also evaluate whether distinguishing between mental and physical health provides further clarity on the development of health and racial health disparities. More traditional measures can be effectively employed alongside novel measures. For example, when combined with a frailty index, self-reported health status is highly statistically significant for White respondents in predicting key outcomes like mortality, but not for Black respondents. This illustrates the importance of calibrating health measures with racial inequities in mind.

We will use data from the Health and Retirement Study from the University of Michigan. It surveys a sample of over 43,000 Americans aged 50 and older and their spouses. Importantly, it oversamples people from racial minority groups to ensure sufficiently large samples for analysis. The core HRS surveys are conducted on a biennial basis starting in 1992 and ongoing to the present. The dataset is renowned for its breadth of variables relating to respondents' health, finances, consumption, and more, as well as its low attrition rate We have already obtained restricted access to the dataset's most detailed information, including Social Security Administration information on respondents' wealth and income.