

The Chronic Burden of Diabetes: Exploring the Racial Gap in Functional Status Among Older Americans

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Adult onset diabetes has reached near epidemic levels. Among persons aged 60 years and older, approximately 53% of these individuals report having the disease. The numbers are staggering for older African Americans, relative to whites. Between the ages of 65-74, diabetes is eight times more prevalent among blacks than whites. For black females, there is a 50% greater chance of being diagnosed with diabetes than white females (Lieberman, 1988). Approximately 2.8 (National Diabetes Information Clearinghouse, 2002) million African Americans, or 13% of the U.S. black population, has diabetes. Among white Americans, approximately 11.4 million have the disease, or 7.8% of the U.S. white population.

Diabetes affects not only individuals but societies as well. This condition reduces the average person's life expectancy by approximately 15 years (McKinlay & Marceau, 2000). In comparison with other major health conditions (heart disease, cancer, strokes), diabetes is the only disease that has shown an average significant increase in new cases. Diabetes-adjusted prevalence rates have increased by 30% since 1980 disease rates (McKinlay & Marceau, 2000).

Chronic diseases such as diabetes often result in a loss of physical functioning. Decreased physical functioning often translates into severe limitations for older individuals and hence is often referred to as the burden of disease. From a physiological perspective, diabetes can alter an elderly person's life in several ways. The consequences for impairment for people living with diabetes can lead to problems in managing life in the home as well as participating in work or social-related activities. Alterations of the daily routines of these individuals can prove to be quite costly as well. Approximately \$54 billion dollars is attributed to diabetes-linked morbidity conditions, premature work stoppage, and/or subsequent mortality (Langa et. al, 2002).

This current investigation has both descriptive and analytic goals. Descriptively, three main issues are addressed in this paper:

- What is the age-specific prevalence of diabetes among non-Hispanic blacks and non-Hispanic whites?

- Are there racial differences in the burden of diabetes, when burden refers to differences in physical functioning?
- Are there any significant comorbidity patterns involving diabetes among the racial groups?

Analytically, two issues are of importance in this paper.

- How does life cycle SES conditions account for racial differences in the prevalence and subsequent burden of diabetes? (The comparison of adult SES and childhood SES will be the primary tool for analysis.)
- Is there a limit to the SES paradigm in accounting for disparities in diabetes?

Data and Methods

I use the 1998 wave of the Health and Retirement Survey (HRS) as the principal data source for this paper. The HRS is a nationally representative longitudinal study of the health, retirement, and overall aging patterns of older U.S. citizens. This biannual survey samples approximately 22,000 individuals who were between the ages of 51 and 61 at the time of the survey's formation in 1992. The HRS' fourth wave of data offers a unique sample of additional respondents. This particular wave links the HRS respondents with the respondents of the 1995 wave of the Assets and Health Dynamics of the Oldest-Old (AHEAD) survey. As a companion to the HRS, the AHEAD's targeted population consists of individuals who were between the ages of 70-79 in the first wave (1993). The HRS and the AHEAD are excellent tools for measuring health disparities (physical and cognitive) of the United States' older cohorts. To alleviate problems concerning data inconsistencies throughout the previous waves, I also use the Social Security Administration-Health and Retirement Survey (SSA-HRS) RAND data file for wealth, income, functional limitations, and work-related measurements. I use logistic regression models to examine the link between lifetime socioeconomic circumstances and functional limitations attributed to diabetes among blacks and whites.

Dependent Variables

The prevalence of diabetes is derived from respondents' answers to the question of whether a doctor has ever told them that they have diabetes in 1998. Also, respondents were asked if a doctor has ever told them that they had a heart condition (e.g. heart attack, coronary heart disease, angina, and congestive heart failure, among others). Lastly, the prevalence of cardiovascular disease is based upon the respondents' answers to the questions of whether a doctor has told them that they had a stroke or heart disease.

Independent Variables

Important independent variables exhibiting the health and financial status of respondents in both childhood and adulthood are measured in this study. For example, family's socioeconomic status and respondents' health in childhood are examined. Adulthood measures such as respondents' SES, wealth, and health status are added to provide a life course approach to the chronic burden of diabetes. I also assess lifestyle behaviors, health care access, and gender differences in addition to the control variables of age, marital status, and education.

Conclusion

Preliminary results suggest that the SES gradient is more important to the functional limitations of black diabetes sufferers. Significant differences in childhood, such as self-reported health in adolescence and financial difficulties within the family, seem to play important roles in subsequent educational, financial, and health consequences in adulthood.

References

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