Blacks' Utilization of Healthcare by Region: A Lifecourse Perspective

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Abstract:

Previous literature suggests that Blacks utilize healthcare less than whites, and a few studies have found geographic variation in healthcare utilization rates. This body of previous work has two major gaps; 1) studies rarely examine within group variation and 2) no studies account for effects of early life region. Blacks socialized in regions with historically greater formally segregated healthcare may utilize the healthcare system less than those socialized in regions with less formally segregated care. Also, Blacks who were socialized before the Civil Rights movement may be less likely to utilize healthcare than those who were socialized after. Using the Americans Changing Lives Survey 1986-2002, we model the effects of region socialized up until age 16, time period of socialization, current region, and a host of socioeconomic measures on healthcare utilization among a sample of Blacks who were socialized before and after the Civil Rights movement (N=409).

Healthcare Utilization Region

There is compelling evidence that Blacks use healthcare less often than do Whites (Smedley et al., 2009; Richardson et al., 2010**)**. Infrequent use of healthcare services among Blacks, compared to Whites is associated with racial inequalities in health outcomes, making it imperative to understand underlying mechanisms related to healthcare utilization (Sharma, 2012). Many studies seeking to understand racial disparities in healthcare utilization employ Anderson and Aday's (1978) behavioral model, which specifies that the individual level factors of predisposing (sex, age, race, and education), enabling (health insurance status, provider availability, and income), and need factors (physical and mental health status) are what account for differential service use. For instance, Rust et al. (2004) used the framework to identify three modifiable enabling factors associated with a lower use of healthcare facilities among Blacks; (1) poverty, (2) lack of insurance, and (3) lack of a primary medical care home.

Fewer studies, however, examine region as a contributor to these differences in utilization. Regional disparities have been observed in treatments for knee anthroplasty, HbA1c evaluation for diabetics , and hepatocellular carcinoma (Baiker, Chandra, and Skinner, 2005; Skinner et al., 2003; Sonneday et al., 2007). Semrad et al. (2011) found that rates of colorectal testing among Medicare beneficiaries were greatest in Atlanta Georgia, rural Georgia, and the San Francisco Bay Area of California. However, there are limitations in the current literature on region and healthcare utilization among Blacks.

First, most studies of geographic disparities in healthcare utilization compare blacks to whites. Although racial comparisons of utilization are important for understanding health disparities and exposing inequality in the healthcare system, they may not be the best method for understanding within group variation. The racial comparison approach ignores diversity within the Black population (Rust et al., 2004). We argue that gaining a better understanding of healthcare utilization among the Black population will provide a much fuller picture of health care inequality in the U.S. population.

Also, most literature only examines the respondent's current region, rather than birth or early socialization region. This trend is problematic, as it ignores the legacy of discrimination and segregation that Blacks born before the Civil Rights movement experienced that may influence their later use of healthcare. This segregation was more formal in some states than others. Most Blacks in America lived in segregated towns and schools before the Civil Rights movement; however, in the north, this segregation was reinforced by attitudes and history rather than formal law. In the south, the segregation was codified into the Jim Crow Laws, which mandated legal segregation in all public facilities including health care institutions (Tischauser, 2012). The stricter mandate on segregation may lead Blacks socialized in the south to have less trust in the healthcare system than Blacks from states without strict enforcement of legal separation.

The Life Course Perspective

The life course perspective may help guide inquiry as to why some Blacks do not frequent healthcare facilities, while others do. A core tenant of this theoretical framework is that historical

time and place, as well as the social environment in which one was raised, plays a major role in shaping individual life outcomes (Bengston, Elder, & Putney, 2012). People born around the same time share common formative experiences that likely shape their attitudes, beliefs, and behaviors in a similar manner across the life span. One way to measure the effect of these historical events is by constructing cohorts, defined by Ryder (1965) as an aggregate of people who experience the same event within the same time interval. Therefore, constructing cohorts may be a meaningful way to capture the effects of being socialized during a time period of formalized segregation.

Unfortunately, theoretically meaningful cohorts that capture these experiences have yet to be established. Previously constructed cohorts, such as the Baby Boomers and the Silent Generation appear to be White centric, as they do not adequately measure the effects of racial segregation. For this reason, we suggest a crude distinction between those born before and those born after 1950. Blacks born before 1950 were arguably socialized before the height of the Civil Rights movement (1955-1968), and therefore, likely experienced formal segregation in the healthcare system. Those born after 1950 were either socialized during or after the Civil Rights movement and much of their formative life experiences occurred either after formal racial segregation or during the dismantling of the separate-but-equal legal framework.

Current Study

The present study examines geographical variation in healthcare utilization among two Black cohorts, those who were socialized before the Civil Rights movement and those who were socialized after. We expect that Blacks socialized in the South before the Civil Rights movement will use healthcare less than Blacks socialized in other regions and after the Civil Rights movement. We also expect these effects of early life socialization by region to carry over into later life when migration across geographic regions occurs. Furthermore, we also expect to find variation in healthcare utilization by current region as well, with the South having the lowest utilization rates.

Research questions:

1. Does geographic region, both early life and current region, influence Blacks' healthcare utilization?

2. Do formative life experiences of formal segregation influence Blacks' later life healthcare utilization?

Data

Our data come from the 1986 and the 2002 waves of the Americans Changing Lives Survey (ACLS). The ACLS is a multi-stage probability sample of adults aged 25 and older who live in the United States that oversamples Blacks and adults aged 60 and older.
We limit our analysis to Black respondents who were in the study in 1986 (N=409).

Region socialized until age 16 was measured in the 2002 wave. Current region was measured at baseline. For both measures, the Census' four category assessment of region was used. This assessment defines four regions as northeast (CT , ME, MA, NH, NJ, NY, PN, RI, VT); north

central (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI); south (AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV); and west (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY). 13.20% of the respondents were socialized in the northeast, 11.74% in the north central, 2.69% in the west, and 68.70% in the south. Respondents born in other countries were excluded from the analysis.

The dependent variable is healthcare utilization, which includes two separate measures. The first is the number of times the respondent saw a health professional (excluding hospital stay, E.R. visit, or long term care) in the past 12 months. The second measure is the number of times the respondent received emergency room care in the past 12 months. 88.02% of respondents reported visiting a health professional, while 31.05% reported visiting an emergency room.

We differentiate our cohorts as those born before 1950 (68.22%) and those born after 1950 (31.78%). We also include age measured in years (M=44.35), marital status (45.95% married), employment status (71.39% employed), insurance (94.36% insured), and family income at baseline.

Methods

We want to model the effects of early life region, current region, and cohort on the two measures of healthcare utilization, which are count measures. As such, one would expect to model such data with a Poisson regression. However, healthcare utilization measures necessarily often include a large amount of zeros (i.e., respondents who did not utilize healthcare) necessitating a zero-inflated version of the model. Additionally, an initial run of the zero-inflated Poisson regression models demonstrated over-dispersion of the data. Thus, we utilize two zero-inflated negative binomial regression models for each of the health care utilization measures separately – one model for physician visits and another for emergency room visits.

Preliminary Results

Preliminary results suggest that current geographic region of residence has little influence on Black's healthcare utilization. Blacks socialized in the South are much less likely to utilize healthcare throughout adulthood, regardless of whether or not they move out of the South. Also, those who were socialized after the Civil Rights movement are more likely to utilize healthcare than those who were socialized before. One exception is if they were socialized in the South, then it does not matter whether or not it was before or after the civil rights movement, as Blacks socialized in the South are less likely to utilize healthcare regardless of cohort.

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