

**New Health Events and the Origin of Educational and
Racial Inequalities in Health Behaviors***

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Extended Abstract

In an emerging interdisciplinary literature, scholars have begun to unravel the processes that produce inequalities in health (Lutfey and Freese 2005; Glied and Lleras-Muney 2008; Miech 2008; Chang and Lauderdale 2009; Miech, Pampel, Kim and Rogers 2011). One approach uses advances in medical information or technology as an exogenous shock to test whether socioeconomic differences in specific health behaviors and outcomes emerge or increase over time. Results from several studies find that people with more money, knowledge, power, and prestige are better positioned to avoid health risks when they encounter new health information based on medical advances (Kenkel 1991; Link, Northridge, Phelan, and Ganz 1998; Glied and Lleras-Muney 2008; Miech 2008; Chang and Lauderdale 2009). What is more, health information requiring more complex treatment regimens may result in larger socioeconomic differences in particular health behaviors (Goldman and Smith 2002).

We build on this line of inquiry by examining the intersection between socioeconomic status and race/ethnicity at an important turning point for health inequalities. We employ new illness diagnoses (i.e., new health events) as a type of exogenous shock to test whether people change their behaviors differently depending on their socioeconomic status and race/ethnicity.¹ Our approach is informed by one of the predominant theories about the origins of social inequalities in health, fundamental cause theory. Fundamental cause theory argues that when new information becomes available that would enable people to reduce their exposure to a specific health risk, socially advantaged individuals will be situated to avoid that health risk better than

¹ Arguably, an illness diagnosis is not a true health shock, given that people are often aware of factors that may influence the onset of diseases. Even with prior knowledge of predisposing factors, though, the specific onset and timing of a new chronic illness diagnosis is often unanticipated (Smith 1999; 2004).

others (Link and Phelan 1995; Phelan, Link and Tehranifer 2010).² The reversal of the socioeconomic gradient in smoking behavior provides a prime example. Prior to the 1960s, smoking was more prevalent among those of high socioeconomic status, but after the U.S. Surgeon General warned the public about the hazards of smoking cigarettes, well-educated individuals were more likely to quit and less likely to begin smoking (de Walque 2010; Kenkel 1991; 2007; Pierce 1989). When breast cancer screens became available, people with higher education and income levels utilized these preventive procedures more than those who had completed less schooling or had a lower income (Link et al. 1998). Technological advances in screening and treatment have resulted in larger socioeconomic gradients in cancer mortality and survivorship for those that have a higher survival rate, compared to those that are not preventable (Kogevinas and Porta 1997; Glied and Lleras-Muney 2008; Miech et al. 2011).

Observing these unintended consequences provides one vantage point to pinpoint the origin of socioeconomic inequalities in specific health behaviors or outcomes. But the availability of new medical information or technology need not always result in health inequalities (Goldman and Lakdawalla 2005; Chang and Lauderdale 2009). There are two potential outcomes, both of which depend on the amount of agency required to alter individual exposure to a specific health risk. On one hand, a medical advance (i.e., epidemiological research about the hazards of smoking) may disproportionately benefit socially advantaged people, creating or exacerbating health disparities. Alternatively, a medical advance that simplifies individual efforts, and is available to everyone, may cause health disparities to “contract” or prevent their formation. Goldman and Lakdawalla (2005), for instance, provide evidence that a simpler hypertension drug regimen was associated with a “contraction” in cardiovascular disparities.

² The theory does not necessarily require that individuals possess the agency to alter their exposure; for instance, they may live in a neighborhood with fewer fast-food restaurants.

Based upon these theoretical perspectives, our first aim is to test whether a chronic illness diagnosis prompts educational differences in health behaviors. Prior research by Margolis (2012) indicates that people with more education were more likely to change certain health behaviors when diagnosed with a new condition. Using longitudinal data from the Health and Retirement Study, we examine a variety of health-related behaviors and narrow our focus to chronic disease illnesses that are amenable to specific behavioral changes: hypertension, heart disease, stroke, and diabetes. We limit our analysis to individuals who reported a new illness diagnosis and participated in at least two waves of the study.

We operationalize socioeconomic status as educational attainment because it may help people to develop cognitive skills that would enable them to understand and act upon new health information (Rosenzweig 1995; Mirowsky and Ross 2003; Cutler and Lleras-Muney 2010). Methodologically, it is an ideal measure of SES for a number of reasons (Hummer and Lariscy 2011): 1) in most instances, schooling ends in the beginning of adulthood and does not change; 2) it is a stable measure of SES regardless of employment status; and, 3) it precedes, and often directly impacts, other measures of SES such as income and occupation, thus reducing the impacts of health-related endogeneity.

The behavioral changes we will be testing are based upon the standard biomedical recommendations for these diagnoses put forth by the American Heart Association, the American Diabetes Association, and the American Stroke Association: improve healthy eating; decrease alcohol intake; quit smoking; lose weight; increase exercise; and, adhere to medication recommendations. We divide these into behavioral changes that require more agency to change (i.e., eating behavior, alcohol intake, smoking behavior, and exercise) and those that require less agency to change (i.e., medication intake). We anticipate that following a diagnosis of

hypertension, heart disease, stroke, or diabetes there will be educational differences in health behaviors that require more agency. In contrast, we expect few, if any, educational differences in medication intake following these chronic illness diagnoses.

Our second aim is to examine whether new health events prompt changes in these health behaviors differently depending on race or ethnicity. A growing body of literature illustrates that the benefits of higher levels of education for health outcomes may be less pronounced among racial/ethnic minorities compared to whites (Zajacova and Hummer 2009; Montez, Hummer and Hayward 2012). If racial or ethnic minorities fail to benefit equally from additional schooling, an illness diagnosis may not result in educational differences in specific health behaviors. Therefore, we hypothesize that there will be fewer educational differences in health behaviors among racial or ethnic minorities, compared to whites.

Building on a line of inquiry that has observed the emergence of socioeconomic inequalities in health (Lutfey and Freese 2005; Glied and Lleras-Muney 2008; Miech 2008; Chang and Lauderdale 2009; Miech, Pampel, Kim and Rogers 2011), we employ first new health events to advance our understanding of the origins of educational and racial inequalities in specific health behaviors. Our findings will hold the potential to sharpen our theoretical perspectives on the origins of health inequalities. Although eliminating socioeconomic and racial/ethnic disparities in health has been an aim in the U.S. for over a decade (DHHS 2010; Smedley, Stith and Nelson 2003), inequalities in health persist and, in many cases, are widening (Zajacova and Hummer 2009; Hummer and Lariscy 2011; Montez, Hummer and Hayward 2012; Masters, Hummer, and Powers 2012). Identifying how early health decisions produce health inequalities holds substantial implications for ameliorating or preventing them (Miech, Pampel, Kim and Rogers 2011).

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