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How's Your Health? What's Your Zip Code? Poverty and Health

JOHN W. SEAVEY

HEALTH MANAGEMENT AND POLICY

FOR CENTURIES IT HAS BEEN KNOWN that there is a relationship between one's status within a social system and health. While the evidence for this is extensive and pervasive, we tend to block it out. However, traveling twelve miles on the Washington Metro from downtown Washington, DC 20001 to Rockville, MD 20847 takes one on a trip of life expectancy; life expectancy rises by half a year for each mile traveled. At one end poor blacks have a life expectancy of 67 years and on the other end wealthy whites have a life expectancy of 76.7 years, a difference of almost ten years (Marmot, 2006). Geronimus has demonstrated that within New York City the probability of a white male surviving from age 15 to 65 was 77%: the probability of a black male in New York City surviving was 37% (Geronimus, Bound, Waidmann, Hillemeier & Burns, 1996). Stated differently, nearly two-thirds of young black men in 11212 (Bedford Stuyvesant) will die before the age of 65. Someone living in Gramercy Park-Murray Hill 10010, a distance of 6.7 miles, has a very different life expectancy. In work that I and my colleagues have been doing, people in Biddeford, Maine [04005] have nearly twice the rate of preventable hospitalizations for diabetes than people in Kennebunkport, Maine 04046, a distance of 12.5 miles. Portland, ME 04101 has a rate of preventable hospitalization for diabetes which is 2.4 times that of Cumberland, ME 04110 which is eleven miles away (Seavey, McGrath, Laflamme & Stransky, 2008).

The poor and disadvantaged have traditionally carried the larger burden of disease and disability. An oversimplification of the argument is that the disadvantaged (as measured by multiple indicators) are more likely to be sick and die at an earlier age. Others have stated it as "the poor have poor health" (Marmot, 2006). However, the relationship between poverty and health is best described as a "gradient." This implies that the impact of socioeconomic status on health (income, education, occupation, class and other factors) affects us all and not just the poor. As socioeconomic status improves, health improves. However, this paper will focus on the poor. The following discussion will expand upon some of the

complexities of the relationship between income and health and then raise policy questions at the end.

The relationship between socioeconomic factors and health is tied to the issue of "downstream" and "upstream" causes. The "downstream" causes of mortality and morbidity are the more direct causes (*e.g.*, smoking, lack of exercise) while the "upstream" causes are "the causes of the causes" (Marmot, 2005). For example, it is readily accepted that if we did not smoke, exercised more, drank pure water, ate fresh fruits and vegetables and limited intake of saturated fats we would be healthier individuals as well as a healthier society. The US Department of Health and Human Service's HealthierUS Initiative program points to the four pillars of health, being physically active, eating a nutritious diet, getting preventive screening, and making healthy choices (U.S. Department of Health and Human Services, 2008). However, this focus on behavior and "just do it" frequently becomes "victim blaming." If only people would eat right, if only.... However, the reasons for unhealthy behaviors and the difficulty of changing them are far more complex than merely advocating changing behavior. These behaviors have complex relationships with socioeconomic factors. For example, the poor tend to eat bad foods not because they do not know better or because they do not like nutritious foods. Healthy food tends to be more expensive and less accessible in poorer neighborhoods. In addition, the lack of safe neighborhoods and outlets for recreation limit opportunities for exercise for the poor. Diet and exercise are both causes of obesity which in turn lead to increased cardiovascular and other diseases. Getting the poor to eat nutritious food, exercise, get screenings, and avoid risky behaviors requires resources as well as will.

The link between health and poverty is complicated by the fact that it is reciprocal. The poor have ill health and the ill are more likely to be poor. The latter relationship is especially true in a country such as the United States which does not do as much as other countries to reduce income insecurity due to ill health. In the United States health insurance is not a right and your level of

health is actually a major determinant of how much you must pay for health insurance. In the United States medical expenditures account for 40% of bankruptcies [approximately 500,000 in one year] (Gottlieb, 2000). Approximately 37% of Americans have difficulty paying medical bills and two-thirds of these forgo medical care as a result of their medical debt (Doty, Edwards & Holmgren, 2005). Ill health can cause poverty which can in turn lead to further health problems and then cascading economic and health consequences.

That is not the case in most other comparable countries in the Organization for Economic Cooperation and Development (OECD), where health insurance is universal and the cost of it is more evenly distributed among the sick and the healthy. Even if one cannot ease the physical or emotional impacts of illness, a major role of health insurance is to isolate individuals from the potential devastating economic impacts of poor health. In other OECD countries, not only is health insurance universal, the cost of the insurance tends not to be based on how sick an individual or family might be. In addition, supplemental income is frequently provided for those who are unable to work for a period of time. In the United States, a severely disabled child can easily place an entire household in economic jeopardy as well as cause additional health problems.

However, the general focus of this paper is on the other side of the relationship between poverty and health: those who are poor have poor health. Here again the interactions are complicated. Those who are poor are less likely to have jobs that have health insurance. They are more likely to be working two or three part-time positions, none of which have health insurance as a benefit. Without health insurance the poor are more likely to be ill and face more serious problems due to the delay in treatment. The Institute of Medicine has demonstrated that the lack of insurance has an important impact on the health status of those without insurance (Institute of Medicine, 2001). A recent update on the IOM methodology estimates that 137,000 people died from 2000 to 2006 due to lack of health insurance (Dorn, 2008). There have been some important policy initiatives to help solve the problem of the 47 million uninsured in the United States; however, the number of uninsured has increased steadily and there is nothing to indicate any decline soon.

In the United States version of medical care delivery, market forces are seen as important for decreasing unnecessary consumer demand. The insurance designs for co-pays and deductibles are meant to decrease unnecessary utilization by making the consumer feel

the economic pain of unnecessary medical treatment. However, such economic tools are crude devices which have long been recognized to have unfortunate impacts on the poor. Even the famous Rand Study which was the economic study lending support for co-pays and deductibles warns against their application to the poor (Brook, Ware, Rogers, Keeler, Davies, Donald et al. 1983). Despite that warning, deductibles and co-pays of \$10, \$20, or \$50 which have no impact on use of medical services by the middle class or wealthy become major obstacles for the poor.

The poor have fewer opportunities when it comes to education. For example, the economic value of a college education is slightly less than one million dollars of additional income over that of a high school graduate (Day & Newburger, 2002). If one can find sufficient student loans and endure the debt upon graduation, a college education remains a good economic investment. However, it is more than that; it is an investment in one's health and longevity as well. Education is one of the more powerful determinants of health (Smith, 2005). The link between education and health generally is tied to increased cognitive capacities, an increased knowledge base, access to better and safer occupations, increased learned deferral of gratification, and higher self-maintenance (Duncan, Daly, McDonough & Williams, 2002; Mechanic, 2007). While there are interrelationships between education and income, evidence from more wealthy countries indicates that income and education are separately protective and that each additional year of education reduces mortality by about eight percent (Deaton, 2002).

The connection between poverty and health is both at the individual and community level. That is, people's health is affected by the general level of affluence of the community in which they live and not just their own personal income. Stephanie Robert presents a conceptual framework for examining the impacts of community characteristics on individual health (Robert, 1999). Levels of air pollution, safe neighborhoods, meaningful working opportunities, the presence or absence of illicit drugs, sidewalks, and the quality of public education are all factors reflecting community affluence. The characteristics of a zip code create the environment which in turn impacts both the individual's and the community's health.

Much of the effort in the United States on the disadvantaged has focused on increased access to medical care which makes sense given the 47 million uninsured in the United States. However, models of the production of health such as the one developed by Evans and

Stoddart reflect the importance of socioeconomic factors and the relatively minor contribution that medicine plays in making our society healthier (Evans & Stoddart, 2003). Universal health insurance is a necessary but not sufficient factor for improved health in the United States. It should be accompanied by social policies which reduce the social gradient and improve the socioeconomic status of the poor. What we do about the impact of poverty on health goes back to a debate between two of the founders of epidemiology in 19th century Great Britain. Edwin Chadwick and William Farr had a debate in 1839-1840 regarding what could be cited as the cause of death on a death certificate. Farr, who was a physician and Registrar of General Births, Deaths and Marriages, attributed 63 of the 148,000 deaths in 1839 to "starvation." Chadwick, who was at the time the Chief Administrator of the Poor Law and responsible for Farr's appointment, objected to the classification of the 63 deaths due to starvation since it reflected poorly on the functioning of the Poor Law which was supposed to be the safety net (Hamlin, 1995). Chadwick focused on the downstream causes (infections); Farr recognized the importance of upstream causes (poverty). Chadwick won the debate. The political implications of upstream causes are as polarizing today. How could the richest country in the world, the United States, recognize that poverty is a major contributor to death and illness among its citizens? How can those same market forces which are supposed to create efficiency also create increased death and disability among the poor? Instead of recognizing the role of socioeconomic status on health and the importance of social policy, it is easier to downplay its significance and blame the victim.

Among the 30 OECD countries, the US ranks above only Mexico, Korea, and Ireland in gross public social expenditures as a share of GDP spending, and it does the least to target government taxes and transfers towards moving families out of poverty. Not surprisingly, outcomes such as infant mortality and life expectancy are worse in the U.S. than in most advanced industrial countries (Yellen, 2006).

This has led some to argue for public policies to counteract growing income inequalities in the United States.

The link of health and poverty has been well established. What has not been extensively discussed in this country is what we should do about this situation. To what extent should the fact that a baby was born to a family in zip code 20001 rather than in 20847 determine the health of that person or the length of that

person's life? Should the tax burden be more progressive to lessen the burden on those with the lowest income in order to allow for those people to have more disposable income for better food and living conditions? To what extent should medical care and health care be a marketable commodity whereby the poor are disadvantaged? Should the government become more active in terms of maternal and child health by guaranteeing healthy starts for all children no matter what their socioeconomic status background? What would such support look like? Should there be increased focus on community opportunities for exercise, sidewalks, bike trails, skating rinks, urban exercise parks? Should there be economic incentives to provide fresh fruits and vegetables to poor neighborhoods? Should public policy not care about the poor and their health outcomes? Should co-pays and deductibles for medical care be linked to income levels? Should public transportation systems be extended to ease transportation costs for the poor and facilitate access to medical centers? With the rising cost in food goods, should funding for school lunch programs, a major source of total nutrition for poor children, be expanded? Should minimum wage and minimum tax levels be adjusted each year for medical care cost inflation? These are only some of the topics that are in need of dialogue so that least we have a clearer understanding of what we want our public policies to accomplish in providing the opportunity for a long and healthy life.

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