

Health Status Disparities in the United States

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Edited Transcript-

George Kaplan- Socioeconomic Inequalities in Health: What They Look Like and What Can be Done About Them

"The problem of poverty is not only seen in the class division between the highly developed industrial nations and the so-called underdeveloped nations, it is seen in the great economic gaps within the rich nations themselves. In the final analysis, the rich must not ignore the poor, because both rich and poor are tied together in a single garment of destiny." - Martin Luther King Jr., 1964 Nobel Prize Address

There are many kinds of inequalities in health, exemplified by differences in socioeconomic status (SES), race and ethnicity, geography, gender, and sexual orientation. Socioeconomic inequalities are core to this discussion, not in the sense that they are fundamental, but core in the sense that we can do something about them through the use of policy levers that change both the level and the distribution of income in this country. We know enough to put health inequalities on the political table. The number one task at this point should be translating what we know about socioeconomic and other inequalities in health status into policy.

Socioeconomic Health Disparities

There is a broad, generic nature to the relationship between socioeconomic position and health, supported by an enormous amount of literature and a scientific effort that produces 500-600 new scientific publications each month on the subject. Globally, the poorest countries have the lowest life expectancy, but even in wealthy countries the rich live longer. While health and life expectancy gradually increase with increasing measures of socioeconomic position, the greatest health returns on income accrue to the bottom 20-25 percent of the population (Figure 1), i.e. - the working poor and those less well-off.

This correlation is generally true regardless of how SES is measured, i.e. by income, occupation, education, or wealth, or the socioeconomic profile of where you live. While the magnitude of the relationship may vary, it is almost always in the same direction. Furthermore, the relationship between SES and health persists across time, location, racial groups, age groups, multiple organ systems, and multiple disease outcomes. Additionally, the magnitude of socioeconomic disparities in health varies over time, providing cause for hope when it declines and despair when it increases. Figure 2 shows



the increasing life expectancy gap between advantaged and disadvantaged counties in the US over the last two decades. While life expectancy in all counties increased, the gap between well-off and disadvantaged counties increased by 60 percent. Thus, it is not given in our genome that there must be inequalities in health. It is a social fact that most risk factors for common diseases, and many uncommon diseases, are more prevalent among the poor than among the wealthy.

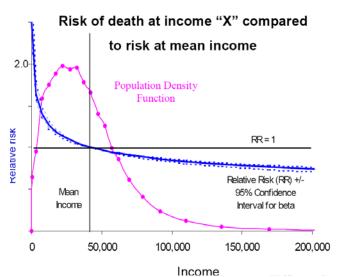
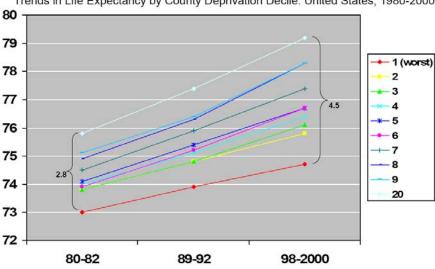


Figure 1 - Wolfson, et al. Relation between income and inequality and mortality: empirical demonstration. British Medical Journal. October 1999; 319(7215): 953-957.



Trends in Life Expectancy by County Deprivation Decile: United States, 1980-2000

Deprivation index: education, occupation, wealth, income distribution, unemployment, poverty, housing quality

Figure 2 - Sing, GK and M. Siahpush. Widening socioeconomic inequalities in US life expectancy, 1980-2000. International Journal of Epidemiology. August 2006; 35(4): 969-979.



The footprint of low socioeconomic position is seen on many causes of death and disease, occurring across multiple organ systems and stages of life, including:

- low birth weight
- premature birth
- childhood injuries
- diabetes
- asthma
- depression

- oral health
- heart disease
- most cancers
- stroke
- vision and hearing impairment
- dementia

Additionally, many of the behavioral, social and environmental risk factors that are closely connected with poor states of health are patterned in an orderly way by socioeconomic position, increasing with decreased economic status. These factors include:

- physical inactivity
- obesity
- excessive alcohol use
- illegal and legal drugs
- social isolation

- lack of access to healthcare
- poor indoor and outdoor air quality
- dangerous work and unsafe residential settings

Beyond Income – Myra's Story

Increasingly, as we sort through the 600 publications per month, a clear perspective on the determinants of population health and heath inequalities develops. To understand health inequalities, we need to integrate all the factors shown in figure 3, including the context of the physical environment and stages of the life course.

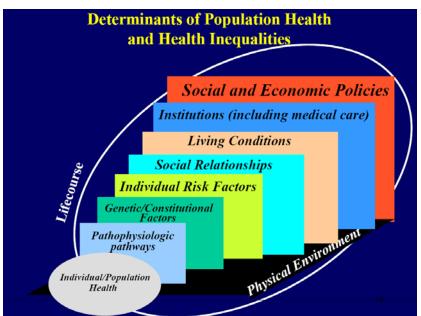


Figure 3 - Kaplan GA. What is the role of the social environment in understanding inequalities in health? Annals N Y Acad Sci 1999; 896:116-119.



The value of such a model can be seen in helping us to understand the health of Myra, a 12-year-old girl living a life characterized by parental unemployment and poverty. Her parents face vulnerable occupational status, bringing on residential instability and poor quality housing; combined with inadequate schooling; food insufficiency and fast and junk food binging; under-endowed and dangerous neighborhoods; and poor access to quality health care. Evidence shows that these factors place her at increased risk for obesity; poor oral health; asthma; increased susceptibility to communicable diseases; injuries; depression; type II diabetes; early sexual activity and associated risks; early substance use; and other behavioral and social risks such as gang membership, aggression, victimization, and social isolation.

What about her future? Based on evidence, she is at increased risk for early pregnancy and premature birth; hypertension; obesity; cardiovascular disease; complications of diabetes; lung disease; musculoskeletal disorders and mobility limitations; depression; abuse; and behavioral and social risks, including involvement in illegal activities, victimization, and adverse occupational trajectories. What can be done to close the gap between Myra's health and those better off socioeconomically? Figure 3 suggests that looking upstream to social and economic policies might help.

Moving away from "Compound Disinterest"

Social and economic policies can have an impact on Myra and those like her. Upstream policies could make an impact by reducing child poverty and marginalization by race, ethnicity, and nativity. Policies could also be used to increase opportunity, education, training, and access to quality health care. Finally, policies could encourage investment in creating healthy communities.

Myras's life reflects a pattern of "compound disinterest," a vicious cycle of one disadvantage adding to another over the lifespan. Poor health of her parents leads to poor birth outcomes, influencing poor child health, which in turn leads to poor adult health. Thus the vicious cycle of compound disinterest accrues disadvantage over the life course and across generations.

Upstream Policies

Can upstream social and economic policies break this pattern of compound disinterest, turning vicious cycles to virtuous? The following are three areas where upstream policy implementation can lead us away from the vicious cycle of "compound disinterest."

Child Poverty - Over the last 40 or 60 years, adult poverty has been reframed as child poverty, in order to promote pro-child activities. However, because children are not generally wage earners, there is in my opinion no such thing as child poverty. What we are really talking about is adult poverty. Regardless of definition, the US does not do well when adult poverty is translated into child poverty. According to the international comparisons of child poverty rates from the Luxembourg income study – probably the best set of comparative data for comparing countries in terms of economic indicators –



out of 15 industrialized countries, the US has by far the highest rate of child poverty (Figure 4).

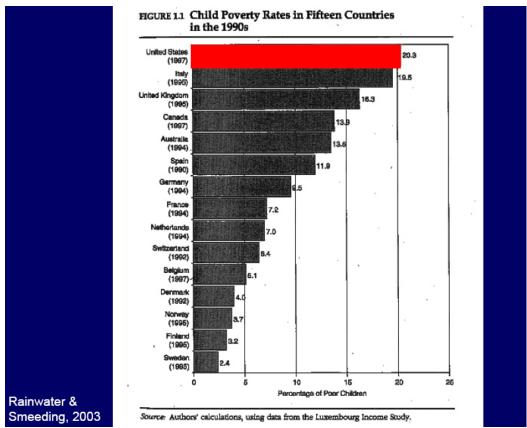


Figure 4 - Rainwater, Lee, and Timothy M. Smeeding. Poor kids in a rich country: America's children in comparative perspective. Russell Sage Foundation, 2003.

One of the reasons the US does not perform well in child poverty comparisons is the large population of low-wage workers in the US. There is a very strong relationship: the more low-wage workers you have, the higher the child poverty rates. In order to decrease the illness connected with child poverty, something must be done about wages. In 2003, Rainwater and Smeeding found that the US had the highest rate of low-wage workers among 15 countries, including the UK, Canada, Spain, Germany, and Denmark (Figure 5).

In fact, child poverty creates inter-generational adult poverty. Fifty percent of the children in the poorest ten percent of the population as children will end up in the poorest 20 percent of the population as adults while only 1.2 percent – the lucky – will end up in the wealthiest ten percent. On the other side, 41 percent of children starting in the wealthiest ten percent of the population will remain in the top 20 percent of the wealthiest population as adults, and only 2.4 percent will fall down to the poorest ten percent. Additionally, downward movement from the wealthiest 25 percent to the poorest 25 percent of the population is five times greater for blacks than whites.ⁱ



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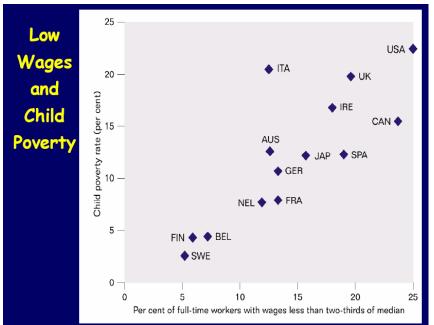


Figure 5 - Rainwater, Lee, and Timothy M. Smeeding. Poor kids in a rich country: America's children in comparative perspective. Russell Sage Foundation, 2003.

In some countries, tax and transfer policies do much to reduce the prevalence of poor families, and hence poor children. Figure 6 from UNICEF shows that the US does comparatively very poorly in reducing child poverty through tax and transfer programs.

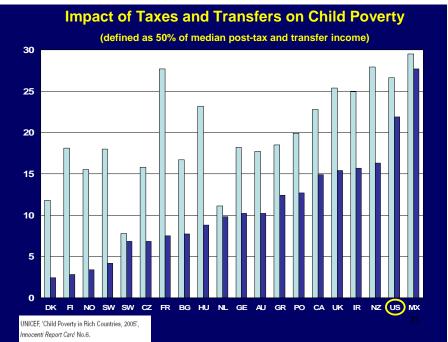


Figure 6 - Child Poverty in Rich Countries, 2006. Innocenti Report Card No. 6, UNICEF: Florence, Italy.



Education and Training - US students are not performing well compared to other countries. In a 2004 study of 29 countries by Lemke et al., the US was 6th from the bottom for combined mathematics and literacy scores for 15-year-oldsⁱⁱ School retention rates and safety concerns also need to be addressed. A study from 2001 estimated that only 68 percent of all students who enter 9th grade in the US graduate with a regular diploma in the 12th grade. And the rates vary enormously by race and ethnicity: 75 percent of white students, 53 percent of Hispanic students, 51 percent of Native American students, and 50 percent of black students will graduate high school.ⁱⁱⁱ Additionally, 15 to 20 percent of high school students report being threatened or victimized with a weapon in the last year^{iv}.

Funding of education is central to addressing these issues that are contributing to compound disinterest. State governments provide greater than 90 percent of funds for K-12 education, with an average of 53 percent based on local tax revenues.^v Education funding in the US is therefore dependent on the ever-changing economic resources of the local and state communities, which leads to the development of significant disparities between schools in per-student funding. In 2003, there was a \$1,436 per-student, per-year revenue gap between the highest- and lowest-poverty rate districts, and a \$964 per-student, per-year revenue gap between the highest and lowest minority population districts^{vi}. These differences add up quickly, potentially creating gaps in revenue between schools of \$1 million to \$3 million per year.

Investing in Healthy Communities – As exemplified by school funding disparities, geography - one's location in a given city or state - significantly affects the way local services are funded, resulting in differential patterns in access to many health related services. If schools, garbage collection, public health, etc., are funded from local taxes, there are going to be potentially enormous health disparities. Over 20 years ago, we looked at the health experience, over a 9-year period, of people who lived in a poor area in Oakland, California, compared to people living in other, non-poor, parts of the city. While the federally-designated "poverty area" had only 41 percent of the population of Oakland it had 66 percent of the unemployed males , 61 percent of Aid to Families with Dependent Children, 73 percent of those receiving aid to the disabled, 65 percent of the police workload, 68 percent of the TB Cases, 75 percent of poor housing, and 89 percent of housing without a private bath.

When we compared the mortality experience of those who lived in this area with those who lived in other parts of Oakland, we found that those who lived in the poverty area died at a 50 percent higher rate during the 9-year study period, even after taking into account racial, socioeconomic, behavioral, health care access, and other confounding factors ^{vii}.

In addition to this study, there are many hundreds more that show neighborhood characteristics have an important impact on health. It is reasonable to believe that



variations in the geography of opportunity are causing many of the neighborhood differences in health outcomes we observe. However, the geography of opportunity continues to change. According to a 2006 report by Berube and Kneebone, suburban poor now outnumber urban poor^{viii}. As gentrification of the inner cities proceeds, poor people are pushed out to the first ring of suburbs. This process continues to promote marginalization – both institutional and interpersonal – based on income, race, ethnicity, and nativity, and there is no question that it is an extraordinary generator of health disparities. In short, many of the differences in health that we now focus on as racial or ethnic disparities reflect processes of spatial marginalization that exclude the poor and "minorities" from living in places that allow access to health protective goods and services and protection from risks to their health.

Ending Compound Disinterest

Time after time, in system after system, there is often a failure to sustain and nourish the capacity for health and development. Myra, her parents, and perhaps her future children are but a thread in the unraveling quilt created by compound disinterest and consequent health disparities. With a little imagination, one can visualize a society filled with Myra's, where there is a compounding of disinterest blanketing current and future generations; where a vision of healthy and productive lives for all is blocked by exponentially expanding disadvantage and blocked capability, where the gap between what is possible and what is realized grows larger and larger. If we mind this gap, if we pay attention to it and use social and economic policy levers to reduce it, we may just improve health and reduce health disparities.

ⁱⁱⁱ Swanson, Christopher. 2004. Who Graduates? Who Doesn't? A Statistical Portrait of Public High School Graduation, Class of 2001. Washington, DC: The Urban Institute. http://www.urban.org/UploadedPDF/410934_WhoGraduates.pdf.

^{iv} Brener N, et al. Violence-related behaviors among high school students – United States, 1991-2003. *Mortality and Morbidity Weekly*. July 30, 2004; 53(29): 651-655.

^v The Funding Gap 2005: Low-Income and Minority Students Shortchanged by Most States. A Special Report by the Education Trust.

http://www.edtrust.org/NR/rdonlyres/31D276EF-72E1-458A-8C71-E3D262A4C91E/0/FundingGap2005.pdf

^{vii} Haan M, GA Kaplan, T Camacho. Poverty and health: prospective evidence from Alameda County study. *American Journal of Epidemiology*. 1987; 125: 989-998.

^{viii} Berube, Alan and Elizabeth Kneebone. Two Steps Back: City and Suburban Poverty Trends, 1999-2005. December 2006. Living Cities Census Series. The Brookings

Institute. http://www.npr.org/documents/2006/dec/suburban_poverty.pdf

ⁱ Bowles, Samuel and Herbert Gintis. The inheritance of inequality. *The Journal of Economic Perspectives*. August 2002; 16(3): 3-30. Data Source: PSID, Hertz (2002).

ⁱⁱ Lemke, Mariann, et al. International outcomes of learning in mathematics literacy and problem solving: PISA 2003, Results From the U.S. Perspective. *Education Statistics Quarterly*. vol. 6, no. 4. http://nces.ed.gov/programs/quarterly/vol_6/6_4/2_2.asp