

Residential Segregation: A Story of Health Inadequacies

Ananya Bhaktaram

Dr. Aparna Mitra

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Abstract

The intentional segregation of metropolitan areas in the United States during the twentieth century has resulted in rising health disparities in low-income minorities today. Contemporary medical practices like collecting health data by race and not by socioeconomic status obfuscates the problem. One's geography of opportunity, meaning the opportunities one is afforded based on where you live has direct effects on your prospective health. Low income minorities are faced with greater adverse risk because they are more likely to be found in a double jeopardy situation where they are simultaneously impoverished and living in a bad neighborhood. Additionally, treatment within the healthcare system itself is often times sub-par.

Introduction

Unlike most countries, the United States collects national health data primarily by race and not by socioeconomic status. Consequently, "these health disparities have been rationalized on the basis of genetic "differences" despite evidence that genetics does not contribute significantly to these disparities. Racial differences in socioeconomic status, not genetics, are the most important cause of these health disparities" (Fiscella and Williams). In this paper I briefly give an over view of the racial segregation that went into shaping American cities during the twentieth century. After that I delve into the consequences of living in a bad neighborhood. In this section I unpack the concept of "geography of opportunity" which is the premise "is that residents of a metropolitan area are situated within a context of neighborhood-based opportunities that shape their quality of life, including their health. Thus, the location of housing is a powerful impediment to or vehicle for accessing these opportunities (Acevedo-Garcia et. al). Additionally, in this section the idea of "double jeopardy" is explained. Double jeopardy is a phenomenon in which the adverse effects of poverty are amplified by not only growing up in an impoverished family but also in a poor

neighborhood. Afterward, the link between education and health is expanded upon drawing from information from the preceding two sections. Lastly, Neglected Tropical Diseases (NTDs) are explored on their effects on impoverished Americans, before finally conducting some analysis and concluding.

A Brief History of Racial Segregation in the United States

“This shifting terminology should not distract us from this underlying truth: We have created a caste system in this country, with African Americans kept exploited and geographically separate by racially explicit government policies. Although most of these policies are now off the books, they have never been remedied and their effects endure” (Rothstein, p. XVII). Through a series of racialized policies during the twentieth century America’s cities were effectively segregated. St. Louis can be used as a prime example of what happened to the majority of American cities during the twentieth century. In addition to promoting segregation, zoning decisions contributed to the continued degradation of African American neighborhoods into slums, many of these policies are still in place today:

Not only were these neighborhoods zoned to permit industry, even polluting industry, but the plan commission permitted taverns, liquor stores, nightclubs, and houses of prostitution to open in African American neighborhoods but prohibited these as zoning violations in neighborhoods where whites lived. Residences in single-family districts could not legally be subdivided, but those in industrial districts could be, and with African Americans restricted from all but a few neighborhoods, rooming houses sprang up to accommodate the overcrowded population (Rothstein, p. 50).

These zoning conditions were not limited to St. Louis. In fact, a 1983 analysis by the U.S. General Accounting Office (GAO), concluded that, trans-nationally, commercial waste treatment facilities

or uncontrolled waste dumps were more likely to be found near traditionally African American than white residential areas.

These structural inequalities are not accidental, after World War II, low-interest home loans offered to middle class white families through the Federal Housing Administration (FHA) and the Veterans Administration enabled them to move from cities to suburbs. Simultaneously, the FHA initially refusing to provide housing loans to African Americans forcing them to take subprime mortgages and remain in the city. Furthermore, the National Association of Real Estate Boards began using racially exclusive covenants encouraging developers and homeowners to only sell homes to members of the same race. In Chicago, where the majority of homes pre-dated the use of racial covenants, existing neighborhoods retroactively adopted the practice to forcibly and effectively begin sorting out segregating Chicago's neighborhoods. In newer cities like Los Angeles which were predominantly being built during the former half of the twentieth century, class biased zoning tended to follow along racial lines, as neighborhoods designed luxury accommodations typically drew residents from wealthy white neighborhoods in the city into the suburbs. As a result, by the 1960s "73% of nonwhite renters and 93% of nonwhite homeowners in Los Angeles living in substandard dwellings. In contrast, white housing options subsidized by federal government loans under the New Deal, increased. Between 1940 and 1957, 1 million new housing units were built within Los Angeles County 98.5% were occupied by whites" (Baker and Effat). In order to improve access to newly created suburbs, highways were commissioned which cut through and effectively destroyed middle-class Black neighborhoods. The passage of the Fair-Housing Act in 1964, did little to solve the problem, as the immediate impact only aided the minority of educated, wealthier Black professionals who quickly moved out of the cities and into the suburbs. The mass exodus of wealthier community members resulted in an increasing

unemployment rate and a higher concentration of poorer minorities in the inner-city. The national trend of moving high-industry to the suburbs resulted in rising unemployment and poverty for poor minorities living within the cities who could not commute for those jobs. Structural inhibitions put and continue to place impoverished minorities at a higher risk for adverse health outcomes as they are more likely to be exposed to violence, crime, prostitution, sub-par education, limited access to nutritious food which systematically recreate cycles of poverty.

Over the past few decades, we seem to have forgotten how we as a nation have been complicit in both the active and passive segregation of minority groups. “We have become embarrassed about saying ghetto, a word that accurately describes a neighborhood where government has not only concentrated a minority but established barriers to its exit. We don’t hesitate to acknowledge that Jews in Eastern Europe were forced to live in ghettos where opportunity was limited and leaving was difficult or impossible. Yet when we encounter similar neighborhoods in this country, we now delicately refer to them as the inner city, yet everyone knows what we mean” (Rothstein, p. XVI).

The Consequences of Living in a “Bad” Neighborhood

There is “growing evidence suggests that segregation is a key determinant of racial inequalities for a broad range of societal outcomes, including health disparities” (Acevedo-Garcia et. al). Residential segregation affects health outcomes through numerous pathways. There are three primary ways that residential segregation effects health outcomes. First, segregation stagnates socioeconomic progress for minorities by “limiting educational quality and employment, as well as by diminishing the returns to home ownership because school quality, job opportunities, and property values are lower in disadvantaged neighborhoods” (Acevedo-Garcia et. al). Second, residing in “bad” neighborhoods increase exposure to a plethora of adverse variables including

crime, environmental hazards, inferior municipal services and “food deserts.” Lastly, the third way residential segregation effects health outcomes are through segregation in health care settings, which has a directly correlation with disparities in the quality of treatment. This is an increasingly difficult problem to solve because often “even eliminating unequal treatment within health care settings would not eliminate racial disparities in health care because of the large disparities between health care facilities, which result from segregation” (Acevedo-Garcia et. al).

[Figure 1]

The three different isolated pathways: limited educational quality, being exposed to adverse variables, and segregation in healthcare settings support the existence of a “geography of opportunity.” A geography of opportunity asserts that residents of metropolitan areas are situated within the opportunities that their neighborhoods provide. Consequently, their neighborhoods shape their quality of life, including their health. Hence, the location of where one resides and grows up can be a powerful impediment or vehicle for success. The idea of a geography of opportunity holds up when statistics are applied:

Across metro areas, the typical poor white child lives in a neighborhood that has a poverty rate of 13.6 percent, while the typical poor black child experiences a neighborhood poverty rate of 29.2 percent, and the typical poor Hispanic child, 26.2 percent. In most metropolitan areas, the worst-off white children are better off than the majority of black and Hispanic children, and these disparities are not accounted for by differences in family poverty (Acevedo-Garcia et. al).

The “worst-off white children” are defined as the 25% who live in the most highly-impooverished neighborhoods for white children. However, “on average, across metropolitan areas, about 76

percent of black children and 69 percent of Latino children live in neighborhoods with poverty rates higher than those found in the neighborhoods of the 25 percent worst-off white children” (Acevedo-Garcia et. al). With only 1.4 percent of white children living in both a poor family and in a bad neighborhood, “double jeopardy is rare for white children. Double jeopardy refers to the phenomenon where adverse risk factors are amplified because a child is not only limited by the consequences of poverty but also by their geography of opportunity. While, white children rarely face double jeopardy the disparity for Black and Latino children is astounding; “on average, 16.8 percent of black children and 20.5 percent of Latino children experience double jeopardy” (Acevedo-Garcia et. al).

[Figure 2]

Food Deserts

The term “food deserts” has been “applied by policymakers, government officials, and researchers to low-income rural and urban communities within the United States lacking convenient access to healthy food” (Baker and Effat). 23.5 million Americans live in low-income neighborhoods located more than a mile away from a supermarket. “African Americans are half as likely to have access to chain supermarkets and Hispanics are a third less likely to have access to chain supermarkets” (Baker and Effat). Area-specific studies show a link in access to supermarkets between low-income and predominantly minority communities and non-minority communities. Detroit, which is 83% Black and 6% Latino, has no major chain supermarkets. In Los Angeles, predominantly white residential areas have 3.2 times as many grocery stores as predominantly Black neighborhoods and 1.7 times as many Latino neighborhoods. The lack of supermarkets within inner-city minorities is not an accident. In fact, prior to President Roosevelt’s

New Deal Policies, the “typical northern black resident was likely to live in a neighborhood dominated by whites and only a third of U.S metropolitan dwellers were suburban dwellers” (Baker and Effat). Consequently, the inner-city minority diet is more likely to contain processed foods. A low nutritional diet with high fast, salt and sugar intakes corresponds with low-income neighborhoods being more vulnerable to obesity, heart disease, hypertension, diabetes mellitus etc. Thus, the increased likelihood that Black and Hispanic populations are more likely to suffer from heart-disease is not a primarily genetic situated problem but a dietary and structural problem with solutions.

The Long-term Health Effects in Correlation with Education

Education is one of best predictors of long-term health. Although there is a direct correspondence with education and higher levels of income and occupation which indirectly result in better health returns over the course of one’s life. Formal education also has direct effects on health:

More formal education is consistently associated with lower death rates, while less education predicts earlier death. The less schooling people have, the higher their levels of risky health behaviors such as smoking, being overweight, or having a low level of physical activity. High school completion is a useful measure of educational attainment because its influence on health is well studied, and it is widely recognized as the minimum entry requirement for higher education and well-paid employment (Frue denberg and Ruglis).

Similarly, as Black and Latino students were at increased risk of residing in food deserts due to their geography of opportunity. Education, is another tangible example of the consequences of double jeopardy and why not only being poor but living in a bad neighborhood effects one’s health

outcomes. While, Black, Latino, and Native Americans comprise of only a third of the United States population they account for nearly half of all the high school dropouts.

[Table 1]

“From 1975 through 2000, the proportion of adults aged 25 years or older who completed high school increased from 63% to 84%. However, high dropout rates are increasingly concentrated among low-income and black and Latino students, and the rate at which students leave school between grades 9 and 10 has tripled” (Frueденberg and Ruglis). By looking at the graduation rates in the nation’s largest cities, one can see the effects that formation of the inner city and segregation has had on educational districts. In 2001, 6 out of the 10 largest cities in the United States had overall graduation rates below 50%. In 2002, while only 18% of the nations 11, 129 high schools had less than 60% of their students graduate, the majority of those schools were centered in urban neighborhoods with low average incomes and with a high black and Latino population (Frueденberg and Ruglis).

[Table 2]

Compared to people who have an advanced degree, those who do not have a high school diploma on average have life expectancies that are six years shorter. A low socioeconomic status corresponds with higher death rates across the board. “They experience premature chronic morbidity and disability including the onset of hypertension at an earlier age, diabetes, cardiovascular disease, obesity, osteoarthritis, depression, oral pathology, many cancers, and cardiovascular disease” (Fiscella and Williams).

Segregated Healthcare Systems

While, high school dropout rates have both direct and indirect effects on health, the reverse is also true. Health and inadequate treatment can also result in students dropping out. Teenage pregnancy is the leading cause of dropping out of school for adolescent women; an estimated 30%–40% of female teenaged dropouts are mothers. However, Early parenting also affects young men who drop out to support a child (Fruedenberg and Ruglis). Substance abuse, psychological, emotional, and behavioral problems can also result in low income students to drop out of school. However, while students from wealthier families might be able to receive treatment for mental health, or attend rehabilitation centers for substance abuse, more often than not that is not the case for students from impoverished families. This is another case of double jeopardy at play, where highly impoverished children in living in bad neighborhoods are more prone to developing at risk behavior, they are less likely to receive adequate care and as a result are more likely to end up incarcerated.

The tragedy is that while highly impoverished low income neighborhoods are at greater risk of developing health complications, the current structure of the American healthcare often fails them. Dr. Peter Hotez's group at Baylor Medical school determined that 12 million Americans who live in acute poverty levels suffer from at least one neglected tropical disease (NTD). Additionally, the problem with neglected tropical diseases is that because they are perceived as being "tropical" diseases they go largely undiagnosed. However, Dr. Hotez's work shows that they are not really tropical diseases but diseases of poverty.

Furthermore, children of low socioeconomic status have greater risks of death from infectious disease, sudden infant death, accidents, and child abuse. They have higher rates of exposure to lead poisoning and household smoke. They have higher rates of asthma, developmental delay and learning disabilities, conduct disturbances, and avoidable

hospitalizations. Additionally, low socioeconomic status and overcrowding are associated with infectious disease including tuberculosis and *Helicobacter pylori* infection. By their preteen years, children of low socioeconomic status report lower health status and more risk behaviors. Moreover, Low socioeconomic adolescents report worse health; they have higher rates of pregnancy, sexually transmitted disease, depression, obesity, and suicide. They are more likely to be sexually abused, drop out of high school, or be killed (Fiscella and Williams).

However, it seems that instead of receiving more proactive and targeted care. The most vulnerable populations in the United States are largely ignored, whether it be due to insurance struggles or lack of health infrastructure in high risk areas. This is problem is further exacerbated by missed appoints. Missed appointments are very common at practices with patients from low socioeconomic status. A patient coming in for a routine diabetes checkup might suddenly disclose that she is homeless or that her son has been murdered. Practices frequently compensate for missed appointments by overbooking patients, which results in long wait times for patients (Fiscella and Williams). Additionally, missed appointments might result in a patient being labelled as noncompliant which might make it difficult for them to get into certain treatment programs when it comes to HIV/AIDS, cancer etc. which otherwise might be too costly to treat.

Conclusion

Although there are more poor white than black persons in the United States, one reason for the greater adverse impact of poverty on African Americans is that poor blacks are markedly more likely than are their white peers to reside in high-poverty residential areas (Fiscella and Williams). While only percent of white children living in both a poor family and in a bad neighborhood, “double jeopardy is rare for white children. However, on average, 16.8 percent of black children and 20.5 percent of Latino children experience double jeopardy (Acevedo-Garcia et. al).

Low-income minority children are often restricted because they are limited in their geography of opportunity. Their risk factors are amplified in a double jeopardy scenario in which they are inhibited by three main pathways: limited educational quality, being exposed to adverse variables, and segregation in healthcare settings. The level of socioeconomic status during childhood independently predicts educational attainment and adult mortality (Fiscella and Williams). A mother's low socioeconomic status is associated with multiple risk factors for adverse birth outcomes, including unplanned and unwanted pregnancy, single and/or adolescent motherhood, smoking, urogenital tract infections, chronic illness in the mother, and inadequate prenatal care. Not surprisingly, a mother's low socioeconomic status, and to some extent the low socioeconomic status of the father, are associated with low birth weight and infant mortality. (Fiscella and Williams). Low-income children are more likely to end up with inadequate care when they make it to the healthcare system itself.

In an opinion that Justice Kennedy Wrote: "Vestiges of past segregation by state decree do remain in our society...stubborn facts of history linger and persist. But though we cannot escape our history, neither must we overstate its consequences in fixing legal responsibilities" (Rothstein, p. XIV). We bear a collective responsibility to rectify past violations and whose effects continue to endure to today. "African Americans experience dramatically worse health across the age spectrum, including higher adult and infant mortality. They have significantly higher mortality rates from cardiovascular and cerebrovascular disease, most cancers, diabetes, HIV, unintentional injuries, pregnancy, sudden infant death syndrome, and homicide than do whites (Fiscella and Williams). We have an obligation to find policy solutions to desegregate America's cities and increase the geography of opportunity for many who, active policies by the United States Government during the twentieth century, were robbed of equality. This means restructuring strike

policies and not labelling low-income patients as noncompliant, it means structured mental health and rehabilitation centers. It means fixing dilapidated housing in the inner city. It means comprehensive education reform. It means building grocery stores and increasing access to nutritional foods at cheaper prices. It means giving everyone a fair shot at living.

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Figure 1

Appendix

EXHIBIT 1
Racial/Ethnic Disparities In Access To Opportunity Neighborhoods Among Children, 2000

	Neighborhood poverty rate (%)	Neighborhood rentership rate (%)	Neighborhood share of adults without diploma (%)	Neighborhood unemployment rate (%)
Typical white child	7.2	25.6	13.9	4.2
Typical black child	21.1	48.0	27.4	10.5
Typical Latino child	19.3	47.7	35.4	8.9
Typical poor white child	13.6	36.0	21.2	6.0
Typical poor black child	29.2	56.3	33.3	13.5
Typical poor Latino child	26.2	56.1	42.9	11.1

SOURCE: Calculated from U.S. Census Bureau, 2000 Census, Summary File 3, accessed through the Neighborhood Change Database; and U.S. Census Bureau, 2000 Census, Summary File 1.

NOTES: These statistics are exposure rates showing characteristics of the average neighborhood in which each group resides. For instance, the typical (mean) white child resides in a neighborhood where 7.2 percent of the population is in poverty; the typical black child, in a neighborhood where 21.1 percent of the population is in poverty. Table calculated using the 100 metropolitan areas with the largest child populations. "Poor black child" category includes both Hispanic and non-Hispanic blacks; other "white" and "black" categories include only non-Hispanic members of those racial groups. "Adults without diploma" refers to adults age twenty-five and older without a high school diploma.

Source: Acevedo-Garcia et. al.

Figure 2

EXHIBIT 3
Racial/Ethnic Disparities In The Proportion Of Children Who Experienced Double Jeopardy, By Segregation Level, 2000

	White children (%)	Black children (%)
All metropolitan areas	1.4	16.8
Five metro areas with highest black segregation	1.0	26.4
Five metro areas with medium black segregation	0.8	14.6
Five metro areas with lowest black segregation	1.4	10.0
ANOVA <i>p</i> value	0.2518	0.0044
	White children (%)	Latino children (%)
All metropolitan areas	1.4	20.5
Five metro areas with highest Latino segregation	3.5	25.1
Five metro areas with medium Latino segregation	1.5	10.8
Five metro areas with lowest Latino segregation	1.2	5.0
ANOVA <i>p</i> value	0.0309	0.0004

SOURCE: Calculated from U.S. Census Bureau, 2000 Census, Summary File 3, accessed through the Neighborhood Change Database; and U.S. Census Bureau, 2000 Census, Summary File 1.

NOTES: Double jeopardy refers to the share of children living in poor families and in neighborhoods with poverty rates over 20 percent. "All metro area" statistics include the 100 metropolitan areas with the largest child populations. High, medium, and low segregation subgroups exclude those metros with less than 5,000 of the specified minority child population. Segregation was measured using the Isolation Index among minority children (for example, black child isolation and Latino child isolation). Medium-segregation metros were defined as the median segregation value and the two metros above and two below the median segregation value. Analysis of variance (ANOVA) tests compared the proportions of children in double jeopardy for each racial group, by level of segregation, among these fifteen metro areas.

Source: Acevedo-Garcia et. al.

Table 1

National Graduation Rates, By Race or Ethnicity and Sex, United States, 2001

Race or Ethnicity	Female %	Male %	Total
American Indian/Alaska Native	51.4 ^a	47.0 ^a	51.1
Asian/Pacific Islander	80.0 ^a	72.6 ^a	76.8
Black	56.2	42.8	50.2
Hispanic	58.5	48.0	53.2
White	77.0	70.8	74.9
All Students	72.0	64.1	68.0

^aRate based on estimates that cover between 50% and 75% of the student population.

Source: Fruedenberg and Ruglis

Table 2

Graduation Rates for the 10 Largest Public School Districts in the United States, 2001

District (Enrollment)	Characteristic Largest Racial or Ethnic Group	% Minority ^a	% Free or Reduced Lunch ^b	Cumulative Promotion Index Graduation Rates, %					
				Total	American Indian	Asian	Hispanic	Black	White
New York City, NY (1,066,516)	Hispanic	84.7	71.9	38.2	41.2	60.9	30.1	32.2	57.9
Los Angeles Unified School District, CA (721,346)	Hispanic	90.1	73.5	46.4	50.8	76.6	40.2	48.1	68.1
City of Chicago, IL (435,261)	Black	90.4	—	48.4	—	80.6	50.8	42.1	65.3
Dade County, FL (368,625)	Hispanic	88.7	59.3	52.1	—	84.7	52.8	46.8	60.7
Broward County, FL (251,129)	White	58.8	37.1	47.2	49.5	79.5	—	35.2	55.7
Clark County, NV (231,655)	White	50.1	26.3	51.9	51.5	79.1	37.3	40.1	58.7
Houston Independent School District, TX (208,462)	Hispanic	90.0	70.7	40.2	—	78.1	34.7	39.5	62.3
Philadelphia City, PA (201,190)	Black	83.3	66.7	41.9	27.1	59.5	31.5	41.1	45.6
Hawaii Department of Education, HI (184,360)	Asian	79.6	43.7	66.0	70.9	66.8	59.9	60.7	64.7
Hillsborough County, FL (164,311)	White	48.2	47.4	55.0	—	86.3	51.0	41.5	60.2

Dashes (—) indicate that district provided no data for this group.

^aIndicates percentage of nonwhite students enrolled in the district.

^bIndicates percentage of students in the district eligible for federal free or reduced-cost lunch programs, a proxy for poverty and socioeconomic status.

Source: Swanson CB ([14](#)). Found used in Freudenberg and Ruglis