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Health Inequities in the Bay Area

BARHII
Bay Area Regional Health Inequities Initiative

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San Francisco, California

Acknowledgments

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>Introduction

The vision for Healthy People 2010, the official document that defines the nation's goals for health, is *healthy people in healthy communities*.

But, the odds of being healthy can depend very much on which community you live in.

While there has been a lot of debate about health care reform in California during the past year, there was very little discussion as to how much impact increased access to medical services will actually have on the health of our communities. As important as it is, most experts agree that health care contributes only about 10-15% to health outcomes and life span. Where you live is probably a bigger determinant of your health than whether you have health insurance. People who live in West Oakland, for example, can expect to live on average 10 years less than those who live in the Berkeley Hills. Similarly, people who live in Bayview/Hunters Point can expect to live on average 14 years less than their counterparts on Russian Hill, while residents of Bay Point can expect to live on average 11 years less than people in Orinda.[1]

People who live in West Oakland can expect to live on average 10 years less than those who live in the Berkeley Hills.

These statistics tell a complex story that is being explored in a new Public Broadcasting Service (PBS) series, *Unnatural Causes: Is Inequality Making Us Sick?*, which began airing on March 27, 2008 in most areas. Produced by California Newsreel, the series takes on the vexing issues related to what most defines health, and challenges us to reconsider the kinds of measures we must take to become a healthier nation.

Understanding the significant role the physical and social environment plays in shaping our health helps answer the question of why the United States spends more per capita on health care than any other country in the world yet ranks 30th in life expectancy. We now know that our prospects for a long and healthy life are very much tied to where we live, and to our income and wealth, race/ethnicity, immigration status and education, to the degree of inequality in society and to other "physical and social determinants" of health.[2]

The generation of Americans born at the beginning of the 21st century can expect to live on average 30 years longer than those born at the beginning of the 20th century. The introduction of antibiotics, vaccines and other medical advances have been important, but most of the increase—25 years—is attributable to improvements in our physical and social environments, such as food and water sanitation, workplace and traffic safety, restrictions on the sale and use of tobacco products and improvements in housing conditions.[3] Yet the benefits have not been distributed uniformly. For example, former Surgeon General David Satcher and his colleagues calculated that during 1991-2000, nearly 177,000 deaths were averted because of advances in medical technology, but if we were to eliminate the disparity between African Americans and whites, we would have avoided over 886,000 deaths.[4] If we can achieve health equity and create healthy communities, we can do more to improve the overall health of the nation than is likely from advances in medicine.

Former Surgeon General David Satcher and his colleagues calculated that during 1991-2000, nearly 177,000 deaths were averted because of advances in medical technology, but if we were to eliminate the disparity between African Americans and whites, we would have avoided over 886,000 deaths.

Getting a handle on these larger physical and social environmental factors poses a challenge. It involves major policy issues related to the distribution of income and wealth, to the role that racism plays as a force in its own right, and to social policies that affect education, housing and economic development, among others. It also points to the importance of focusing on the places where people live, since neighborhoods are where social factors such as class, race/ethnicity and immigration status converge with elements in the physical environment that influence health, such as exposure to toxics, the availability of open space and healthy foods, the presence or absence of stores specializing in fast foods, alcohol and tobacco, and residential patterns that promote or discourage interaction across boundaries of race and class. The combination of these factors contributes to differential rates of illness and injury that lead to premature death, including heart disease, cancer, stroke, diabetes, alcohol and drug abuse, depression and violence.

If we are to improve the health of our nation, we must address these underlying factors, and not focus only on how to treat the symptoms. It also means we have to broaden our understanding about what constitutes health policy. As David Williams,

> Social policy is health policy. Economic policy is health policy. Education policy is health policy.

Professor of Public Health at Harvard University and Chair of The Robert Wood Johnson Foundation's Commission to Build A Healthier America, says in *Unnatural Causes: Is Inequality Making Us Sick?*, "Social policy is health policy. Economic policy is health policy. Education policy is health policy." Until we understand the significance of his observations in our public deliberations over health, we will continue to come up short.

The report that follows, *Health Inequities in the Bay Area*, is an attempt to show how this larger set of factors influences our health in the nine-county Bay Area, and to suggest the kinds of policy initiatives and activities that will be crucial for both reducing the disparities among populations and improving our health overall. It was produced by the Bay Area Regional Health Inequities Initiative (BARHII),[5] a collaboration of eight Bay Area health departments, and is released in conjunction with a national campaign that coincides with the PBS series.


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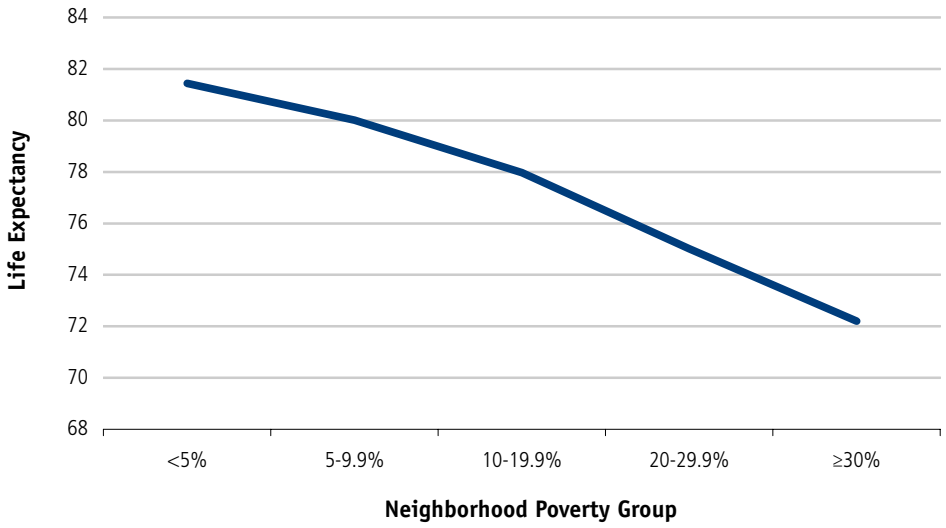
20

>Income and Health

What is the relationship?

- Life expectancy[6] in the Bay Area, as in the nation as a whole, conforms to a pattern called the "social gradient," in which the more income and wealth people have, the more likely they are to live longer, while people with less income and wealth can expect to live comparatively shorter lives.
- This pattern can be seen in the places where people live. The graph on the following page shows life expectancy for the nine-county Bay Area according to the extent of poverty in specific areas (census tracts). People who live in places where there is the least poverty can expect to live on average ten years longer than people who live in places with the most poverty.

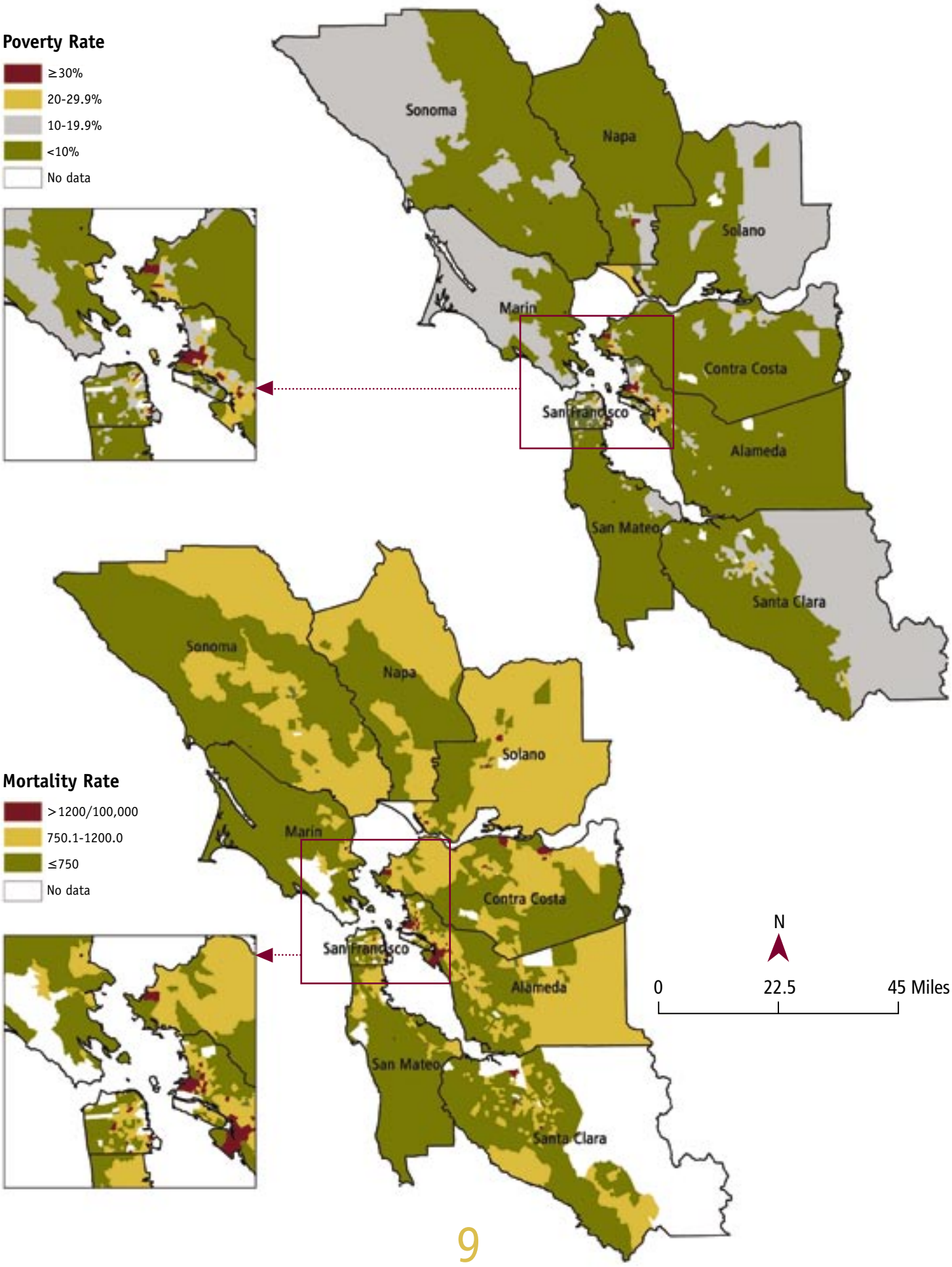
The more income and wealth people have, the more likely they are to live longer.



Bay Area Life Expectancy For All Nine Counties

Data from 1999-2001

- The maps to the right show how areas of high poverty and death (mortality) rates[7] are distributed throughout the Bay Area. While the areas with highest poverty and death rates are concentrated in some counties, it is also true that there are gradations in each county that produce differential prospects for long and healthy lives.
- The influence on health is more than just rich vs. poor. People who live in "middle class" areas can expect to live longer than those in poor areas, but not as long as those in more affluent neighborhoods.
- If everyone in the Bay Area lived as long as people in the areas with lowest poverty, death rates in the highest poverty areas would be reduced by nearly half, while death rates in the "middle class" neighborhoods would be reduced by 20%.


Poverty Rate
≥30%
20-29.9%
10-19.9%
<10%
No data
Sonoma
Napa
Solano
Marin
Contra Costa
San Francisco
Alameda
San Mateo
Santa Clara
Mortality Rate
>1200/100,000
750.1-1200.0
≤750
No data
N
0
22.5
45 Miles

What does it mean?

- It is generally understood that income and wealth play a major role in defining people's chances in life, but it is less widely known that they are also one of the most significant influences on health. Public and private policies that determine how income and wealth are generated and distributed have a substantial effect on our health.

> Income and wealth are one of the most significant influences on people's health.

- The means by which people maintain their standard of living, and how they attempt to improve their lot in life, are similarly important. Policies that affect employment, minimum or living wage, income support, education, housing and home ownership, among others, also have an influence on our health.
- Residential segregation into affluent, middle income and poor communities contributes to the reasons why where we live can have a significant influence on how long we can expect to live.

What are the trends?

- While the Bay Area may have unique features to its regional economy, it is not immune from national trends. The United States today has a degree of income and wealth inequality not seen in our history since the 1920s, and as a result we have become one of the most unequal among developed nations.[8]
- Economic growth in recent decades has mostly benefited a small percentage of the population as income and wealth have become increasingly concentrated at the top.[9]
- Employment growth in lower-paying service industries and a smaller percentage of the workforce in unions with strong wage and benefit packages have made it difficult for more people to make ends meet. Approximately 40% of the Bay Area workforce is now employed in service, sales and office work.[10]

The United States today has a degree of income and wealth inequality not seen in our history since the 1920s.

- While high school dropout rates have been decreasing overall in the Bay Area during the last ten years, 11% of students in SF, 15% in Santa Clara County and 27% in Oakland do not graduate.[11]
- Homeownership is often the first source of wealth for many people. It is an investment that is used for retirement, sending kids to college or providing protection against unanticipated expenses. The recent spate of foreclosures triggered by the subprime mortgage crisis reveals the tenuous nature of home ownership for the people who rely on it most as their primary or sole financial investment.[12]

What can be done?

- Over the past few decades, changes in taxes on income, estates and capital gains have driven the transfer of income and wealth from lower and middle to higher income people. Tax policies that reduce the extremes between wealthy and poor can contribute to improvements in overall health.
- Minimum wage policies tied to cost of living would help improve health among low-wage workers. In 2007, Congress passed the first increase in the minimum wage in this decade, yet minimum wage has not kept close to the rise in cost of living.
- Living wage campaigns, such as the one passed in San Francisco, provide additional financial and health benefits.
- Education policies, from early childhood development through college, that mitigate, rather than exacerbate, levels of inequality in society can contribute to improved health.
- Housing policies that enable more people to make secure investments can contribute to improvements in overall health.

>Race/Ethnicity and Health

What is the relationship?

- As seen in the graph on page 15, African Americans have the lowest life expectancy in general.
- Although whites have lower life expectancy in the highest poverty areas, fewer than one half of one percent of whites live in those areas.
- Asians and Latinos have overall longer life expectancies than both African Americans and whites, and they are less likely to show the influences of poverty.
    - While the issues are complex, a contributing factor is that longer life expectancies for Latinos and Asians are likely a result in part of significant immigrant populations. Many studies have shown that, while the health of immigrants overall is comparatively good, their health status deteriorates the longer they live in the United States, with subsequent generations showing poorer health along a number of public health indicators.[13]

African Americans have the lowest life expectancy.

- There is growing evidence that racism itself is a factor in health, translating into persistent stress and associated illnesses.[14] It has taken its greatest toll over centuries on Native Americans and African Americans, who have the poorest health status.

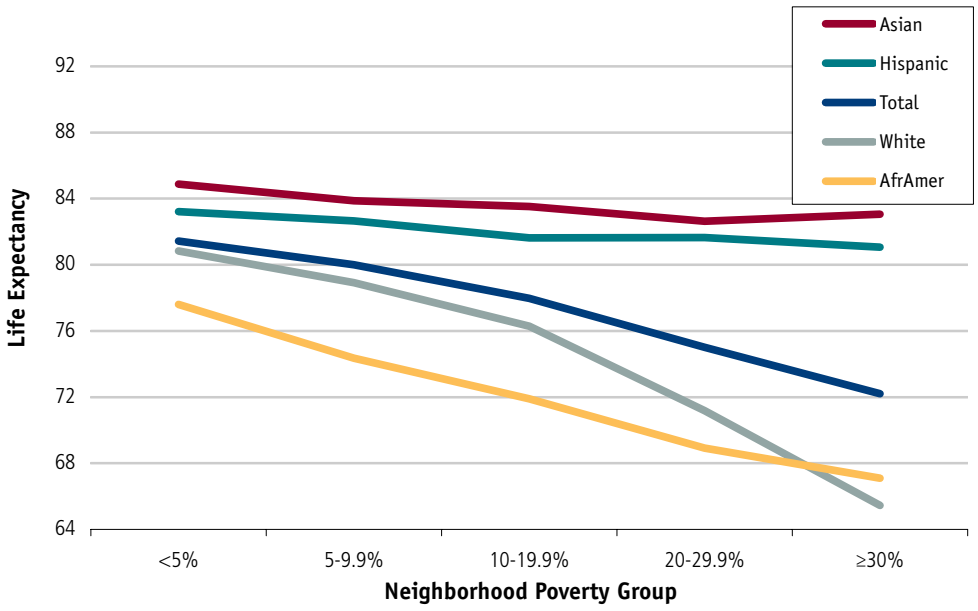
What does it mean?

- The influence of neighborhood on health is not only a matter of poverty or the physical environment, but also is affected by cultural factors (family, community, diet, etc.) that can help or hinder people's abilities to withstand the effects of poverty and environmental risks.
- Many of the cultural supports and practices that help immigrant populations maintain better health initially are subject to erosion over time as subsequent generations adopt new ways of life and environmental factors, both social and physical, take their toll.
- Improvements in neighborhood living conditions can benefit both those who are most vulnerable and those who are most resilient.
- The experience of racism as a factor in health is not only about where people live, but rather must be dealt with in its own right.

What are the trends?

- California has no racial/ethnic majority population. The next majority will be Latinos, most likely by mid-century.[15]
- The Bay Area reflects the larger statewide trends. The greatest increases have been among Asians and Latinos, who accounted for 9% and 12%, respectively, of the nine-county Bay Area population in 1980, but who each made up an estimated 22% of the population in 2006. The white population has declined from 76% to 46%, and African Americans from 9% to 7%, during the same period.[16]
- While just under 10% of the Bay Area population was estimated to live at or below the poverty level in 2006, between 19-43% of African American children, depending upon the county, and between 13-20% of Latino children were living in poverty. Similarly, high school dropout rates ranged from 10-26% for African Americans and 9-29% for Latinos in 2006.[17]
- Many low-income communities, some of which were once predominantly African American, are becoming increasingly multi-ethnic.

> Many of the cultural supports and practices that help immigrant populations maintain better health initially are subject to erosion over time.



Bay Area
Life Expectancy
by Race/Ethnicity

Data from 1999-2001

What can be done?

- Improvement of living conditions in increasingly multi-ethnic, low-income communities, which will have to become a priority for public agencies and private business investment, can make significant contributions to improving health.
- Building new alliances within communities to assure that neighborhood improvements do not mean displacement and gentrification will be an important corollary.
- Educational priorities, including those recently announced by the California Superintendent of Public Instruction, to reduce high school dropout rates among African Americans and Latinos will be important for creating avenues out of poverty and for reducing associated disparities in health.
- Renewed national dialogues on race and racism, perhaps with an opening emerging from the presidential campaign, could yield new strategies for reducing the toll that racism has taken on Native and African American populations, minimize its impact on immigrant populations and contribute to improvements in health for current and future generations.

>Neighborhoods and Health

What is the relationship?

- Where people live has an influence on their health. Neighborhoods are where poverty, race/ethnicity and other social factors converge with the physical environment to produce the overall conditions that affect health.
- Neighborhoods with high rates of poverty, often disproportionately communities of color, are more likely to have high concentrations of retail outlets that specialize in alcohol, tobacco and fast foods, a relative absence of stores that sell fresh produce at reasonable prices, a lack of open space, limited public transportation, housing adjacent to ports, rail yards, freeways and/or other sources of toxic exposures and socially segregated housing that contributes to high rates of community violence. These conditions constitute risk factors for heart disease, cancer, stroke, diabetes, asthma, alcohol and drug abuse and homicide, among others.

Neighborhoods are where poverty, race/ethnicity and other social factors converge with the physical environment to produce the overall conditions that affect health.

- Middle and upper income neighborhoods are often separate from work and commerce, requiring extensive use of automobiles and minimizing the amount of physical activity people get in the course of their everyday lives, which has contributed to growing rates of obesity and associated illnesses over recent decades.

What does it mean?

- Improving the social and physical environments in neighborhoods can be one of the most important contributions to improving the health of populations.
- When we think of health, it is not just hospitals, clinics and doctors' offices, but also neighborhoods.
- Policies that govern land use, transportation, economic development and redevelopment are health policies.

What are the trends?

- There is a growing recognition that the built environment[18] has consequences for health and, although it is still in its relative infancy, public health departments and planning agencies are beginning to work together to make health a consideration in land use and transportation decisions.
- After decades of urban sprawl as a consequence of development decisions, there are new currents in land use planning such as smart growth and the new urbanism that are consistent with many planning principles that support good health.
- While the public health/planning relationship is developing, it has not yet reached a priority focus on achieving greater health equity. That will require generating additional political support.

What can be done?

- Land use, transportation, economic development and redevelopment decisions that take health consequences into consideration will be an essential complement to other approaches.
- Improvements in neighborhood living conditions that combine mixed income, mixed use, no displacement, public transportation, affordable housing, open space and removal of blight can become centerpieces of public health in the 21st century.
- Building strong ties with communities where decades of mistrust of planning agencies has bred resistance can help establish the foundation for new relationships and opportunities to make communities healthier places to live.

Policies that govern land use, transportation, economic development and redevelopment are health policies.

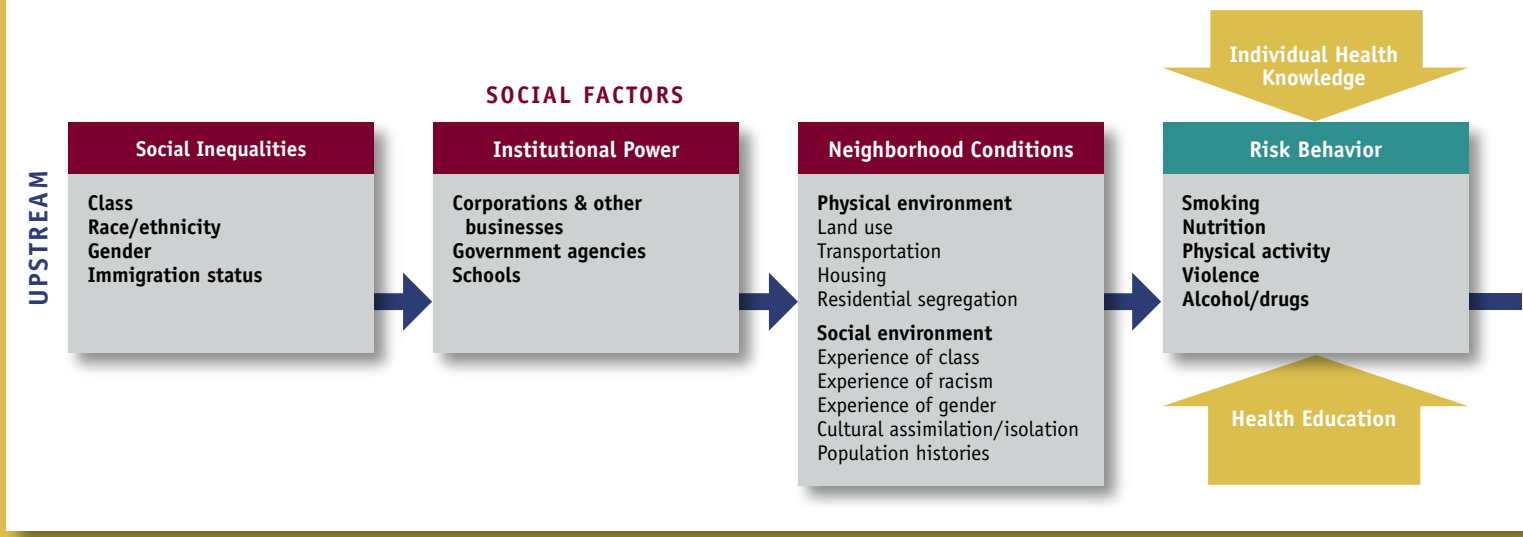
Bayview/Hunters Point, San Francisco, Power Plant in Background

Port of Oakland, California

>What Bay Area Health Departments Can Do

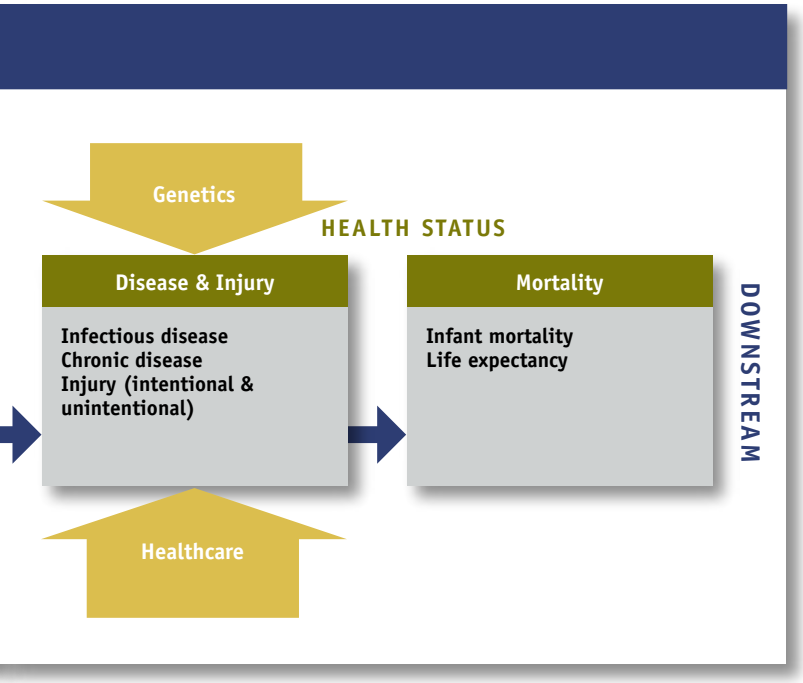
Much of what has been described in this report has been the increasing focus of work within Bay Area health departments, both individually and collectively through the Bay Area Regional Health Inequities Initiative (BARHII). Although the work is relatively new to health departments, where staff have been trained mostly in clinical disciplines to focus on specific diseases and populations, the evidence linking environmental factors to health is too compelling to ignore. As part of its efforts to broaden the scope of public health, BARHII created a conceptual framework (see page 22) to help guide current and future work. The framework directs our work upstream, from the more common focus on medical causes of death, diseases and risk behaviors to neighborhood conditions, the institutional decisions that help create those conditions and the social inequalities that shape the priorities of those institutions.

Framework for Understanding and Measuring Health Inequities



What follows are examples of the kinds of activities Bay Area health departments are engaged in now and will undertake in the future to begin to address the issues raised in this report. We are grateful to the PBS series *Unnatural Causes: Is Inequality Making Us Sick?* for the opportunity to reflect on our work in a public forum, and to align ourselves with public health colleagues from throughout California and around the nation who are engaged in similar activities.

- To make long-term work on the neighborhood conditions that contribute to poor health possible, Bay Area health departments have begun to redefine their **work with communities.** Whether the umbrella term is community engagement (Contra Costa), community capacity building (Alameda, Berkeley) or community action (San Francisco), the intent is to work with communities that bear an unequal burden of disease on the host of environmental conditions that contribute to poor health. In contrast to categorical programs that focus on specific diseases or populations, this new relationship requires an ability to work with a broad sector of the community on a wide range of issues. It sometimes means having to build trust where there has been decades of mistrust of public agencies, including health departments.
- Some of the most significant activities targeting neighborhood conditions that affect health have



centered around the role of **land use planning**. Planning departments are among the public agencies whose decisions have profound implications for living conditions in neighborhoods.

- BARHII and the Bay Area Planning Directors Association (BAPDA) co-hosted a forum in December, 2006, in which over one hundred planning directors and senior public health officials met to establish the reasons why their joint work is important.
- Bay Area health departments have begun to work with planning agencies in their respective jurisdictions to incorporate health considerations into land use decisions. Several

Bay Area health departments have begun to redefine their work with communities.

Bay Area health departments have been working with planning departments to incorporate health language into general plans, which establish the overall guidelines for land use decisions.

- BARHII is participating in the Association of Bay Area Governments Regional Vision process, which added Public Health and Safety as one of the regional goals.
- The San Francisco Department of Public Health has created a Healthy Development Measurement Tool that links conditions in neighborhoods to health and provides the research base for the association.

In neighborhoods such as West Oakland, Richmond and Bayview/Hunters Point, the conjuncture of ports, railways, municipal vehicle yards and freeways has contributed to high rates of air pollution and asthma hospitalizations.

  - BARHII and Planning for Healthy Places, a project of Public Health Law and Policy (Public Health Institute), have received a grant from The Robert Wood Johnson Foundation to expand the work on land use to include transportation, economic development and redevelopment, and to focus specifically on neighborhoods with high poverty and poor health status.
- In addition to planning, other public agencies have profound influences on neighborhood living conditions, including **ports, transportation agencies and regulatory bodies.** Bay Area health departments have begun to work with these agencies to improve the physical environment in communities with poor health status.
  - In neighborhoods such as West Oakland, Richmond and Bayview/Hunters Point, the conjuncture of ports, railways, municipal vehicle yards and freeways has contributed to high rates of air pollution and asthma hospitalizations. Health departments are working with community groups to make health a greater priority within the responsible public agencies.
  - Under the leadership of environmental justice and public health groups, a substantial campaign launched under the auspices of the Ditching Dirty Diesel Collaborative has been influential in convincing public officials to adopt stricter standards regulating diesel, affecting everything from ports to municipal transportation to school buses. BARHII is working with the Regional Asthma Management and Prevention (RAMP) initiative, a key partner in the collaborative, to broaden the platform of their work to encompass more of the risk factors for asthma and other illnesses.
- While federal **tax policy** is a stretch for local health departments, there are public health researchers who have begun to explore the relationship between socioeconomic factors and health.[19] International research has begun to explore the implications of macroeconomic policies on health.[20] The developing field of Health Impact Assessments (HIAs), which examines the health consequences of policy decisions not typically regarded as health policy, can be applied to

For additional information visit the websites listed below:

Alameda County: www.acphd.org
City of Berkeley: www.ci.berkeley.ca.us/PUBLICHEALTH/reports/reports.html
Contra Costa County: www.cchealth.org/groups/public_health
Marin County: www.co.marin.ca.us/depts/HH/main/index.cfm
City and County of San Francisco: www.dph.sf.ca.us
San Mateo County: www.co.sanmateo.ca.us/smc/department/home/0,,1954_2139,00.html
Santa Clara County: www.scgov.org/portal/site/phd
Solano County: www.co.solano.ca.us/SubSection/SubSection.asp?NavID=879

A copy of this report, as well as related information, can be found on the website of the Bay Area Regional Health Inequities Initiative: **www.barhii.org**

tax policies at all levels of government. Building upon this growing body of national and international research, local health departments, through BARHII, will undertake an HIA of tax policies and health, and use that to advocate for policies that promote better health.

- State and local **policies on minimum and living wage** are more accessible to local health departments. The San Francisco Department of Public Health, for example, conducted an HIA of a proposed living wage ordinance, which subsequently became law. Incorporating health consequences into public policy decisions such as these will be one of the major priorities emerging from this work.
- Similar activities related to **housing, education, employment and other policies** that affect health will also be undertaken.
- Existing and future research on the relationship of race, racism and immigration to health will be incorporated into local public health practice.

More generally—in the spirit of David Williams' comment, cited earlier, that "Social policy is health policy. Economic policy is health policy. Education policy is health policy."—Bay Area health departments will attempt to have health consequences taken into consideration whenever those policy decisions are being made.

Notes

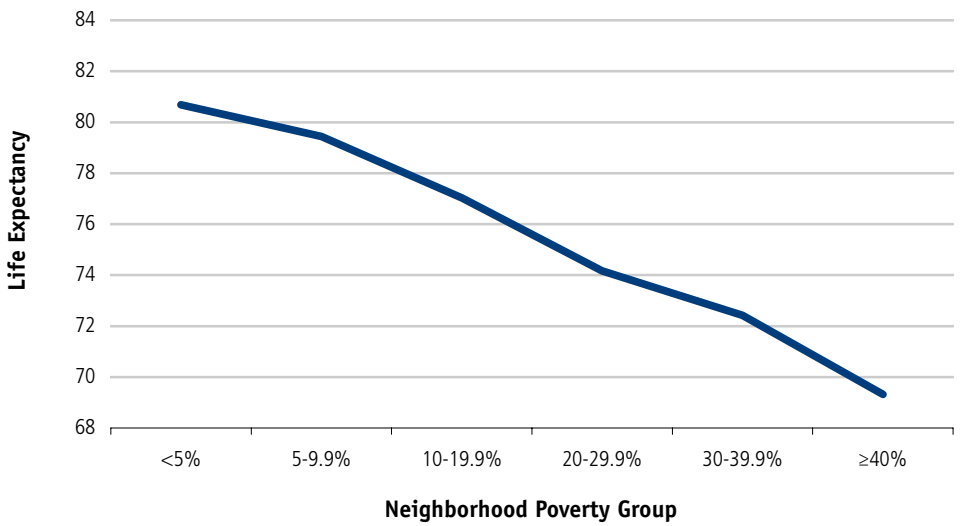
1. Life expectancy is calculated using deaths for census tracts aggregated by poverty level and/or race/ethnicity. While the census tracts do not conform precisely to the city or neighborhood boundaries cited, they are within those boundaries.
2. See, for example, Wilkinson R, Marmot M (eds), *Social Determinants of Health: The Solid Facts*, 2nd Edition, Copenhagen: World Health Organization, 2003
3. See, for example, Wilkinson R, Marmot M, ibid; Kawachi I, Kennedy BP, Wilkinson RG, *The Society and Population Health Reader: Income Inequality and Health*, The New Press, New York, 1999; Sieguistr J, Marmot M, *Social Inequalities and Health: New Evidence and Policy Implications*, Oxford University Press USA, 2006; Hofrichter R, *Health and Social Justice: Politics, Ideology and Inequity in the Distribution of Disease*, Jossey-Bass, San Francisco, 2003; Adler N et al, *Reaching for a Healthier Life: Facts on Socioeconomic Status and Health in the U.S.*, The John D. and Catherine T. MacArthur Foundation Research Network on Socioeconomic Status and Health, 2008, www.macses.ucsf.edu
4. Woolf SH, Johnson RE, Fryer GE, Rust G, Satcher D, *The Health Impact of Resolving Racial Disparities: An Analysis of US Mortality Data*, American Journal of Public Health, December 2004: 94 (12); 2078-2081
5. See www.barhii.org.
6. Life expectancy is the number of years someone born today can expect to live if exposed to current death rates throughout their life.
7. Death rates refer to the number of deaths per 100,000 population. They are adjusted to allow comparisons among populations with different age distributions. Death rates are used when groupings cause the numbers to be too small to calculate life expectancy reliably.
8. Thomas Piketty and Emmanuel Saez, *Income Inequality in the United States, 1913-1998*, Quarterly Journal of Economics, 118, no.1 (Feb 2003) 1-39
9. Paul Krugman, *The Conscience of a Liberal*, W.W. Norton and Company, New York, 2007
10. Association of Bay Area Governments, Bay Area Census, www.bayareacensus.ca.gov/bayarea.htm
11. Lucille Packard Foundation for Children's Health, www.kidsdata.org
12. See, e.g., Amaad Rivera, Brenda Cotto-Escalara, Anisha Desai, Jeannette Huezo and Dedrick Muhammad, *Foreclosed: State of the Dream*, 2008,United for a Fair Economy, Boston, MA, January 15, 2008
13. See, e.g., K.L. Koya and L.E. Egede, *Association Between Length of Residence and Cardiovascular Disease Risk Factors Among an Ethnically Diverse Group of United States Immigrants*, Journal of General Internal Medicine, 22(6):841-6 (June, 2007)
14. See Adler et al, op cit
15. Mark Baldassare, *California in the New Millenium: The Changing Social and Political Landscape*, The Public Policy Institute of California, 2002
16. Association of Bay Area Governments, op cit
17. Lucille Packard Foundation for Children's Health, op cit
18. "Built environment" is a term increasingly used as a contrast to the "natural environment," which implies that it is the result of purposeful human construction, although sometimes with unintended consequences.
19. See, for example, www.macses.ucsf.edu, which contains recent work by the Research Network on Socioeconomic Status and Health.
20. See, for example, Tony Blakely, Martin Tobias, June Atkinson, *Inequalities in Mortality During and After Restructuring of the New Zealand Economy: Repeated Cohort Studies*, BMJ, doi:10.1136/bmj.39455.596181 (24 January 2008)

>Appendix

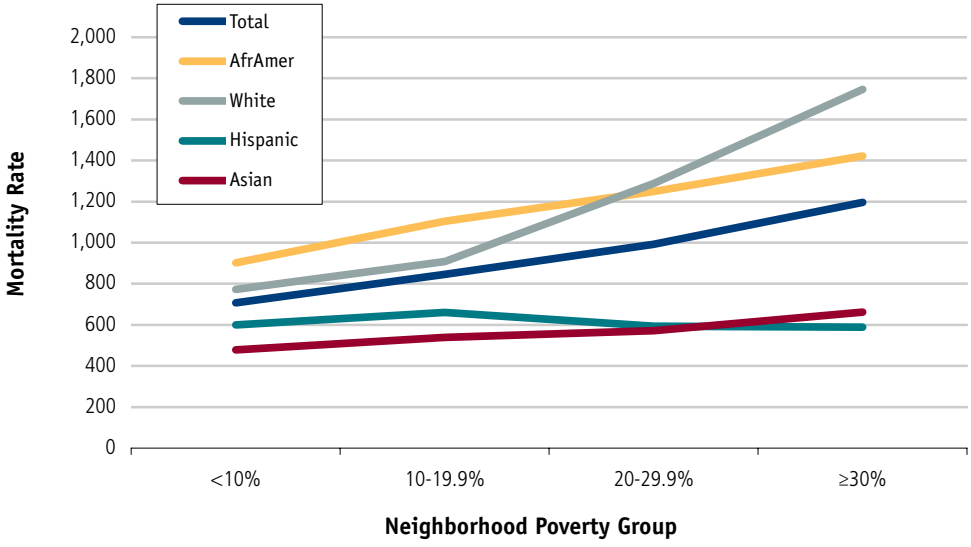
The graphs that follow provide individual profiles of Bay Area counties. Life expectancy by percent poverty shows how many years someone born today can expect to live if exposed to current death (mortality) rates throughout their life. Death (mortality) rates refer to the number of deaths per 100,000 population. They are adjusted to allow comparisons among populations with different age distributions. Death (mortality) rates are shown for race/ethnicity and poverty, because the numbers are too small to calculate life expectancies with adequate reliability. When reading the graphs, a general guide is that high numbers for life expectancy are good, while low numbers for death (mortality) rates are good. In some instances, such as people living in high poverty areas in more affluent counties, there were not enough to calculate even mortality rates. There were also insufficient numbers to calculate death (mortality) rates by race/ethnicity and poverty in Marin and Napa counties. Notwithstanding the challenges of producing comparable data for each county, the overall patterns seen for the Bay Area as a whole are evident in each county profile, even though the steepness of the slopes might vary.

(All data from 1999-2001)

> Alameda County



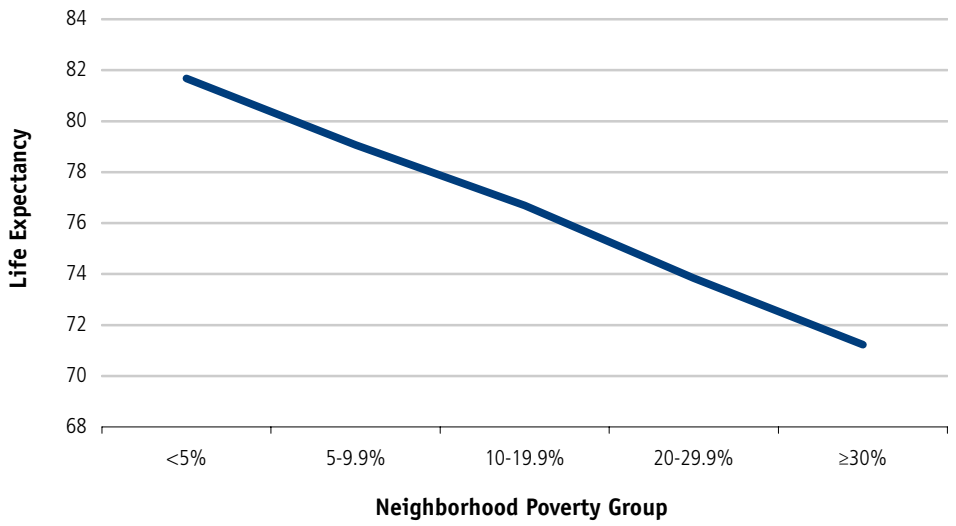
Alameda County
Life Expectancy



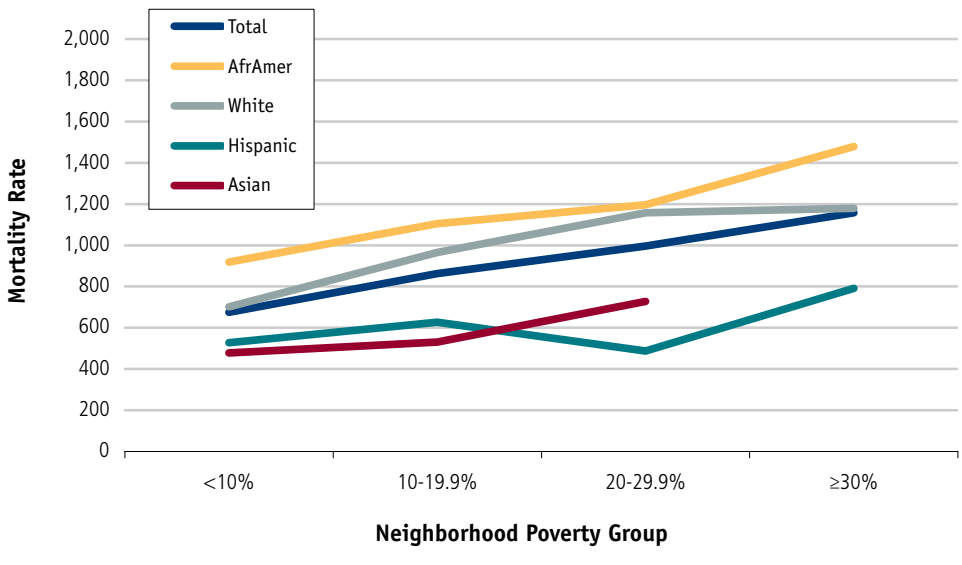
Alameda County
Mortality Rate
by Race/Ethnicity

Contra Costa County <

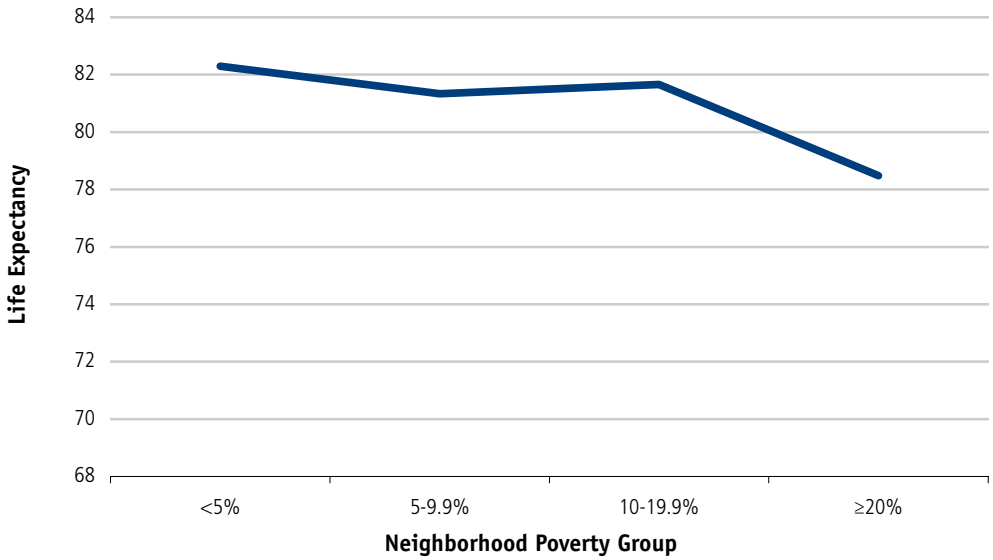
Contra Costa County
Life Expectancy



Contra Costa County
Mortality Rate
by Race/Ethnicity



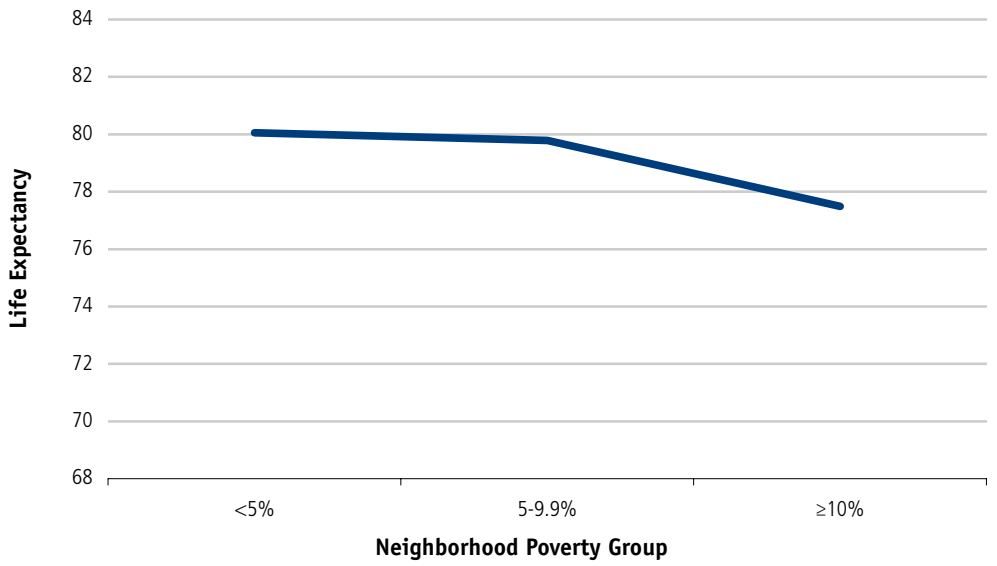
> Marin County



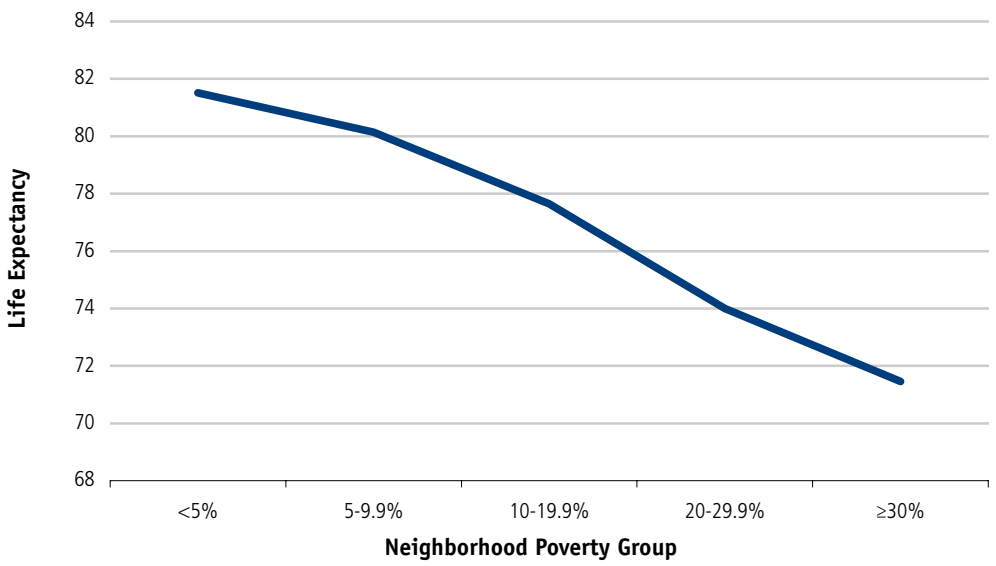
Marin County
Life Expectancy

Napa County <

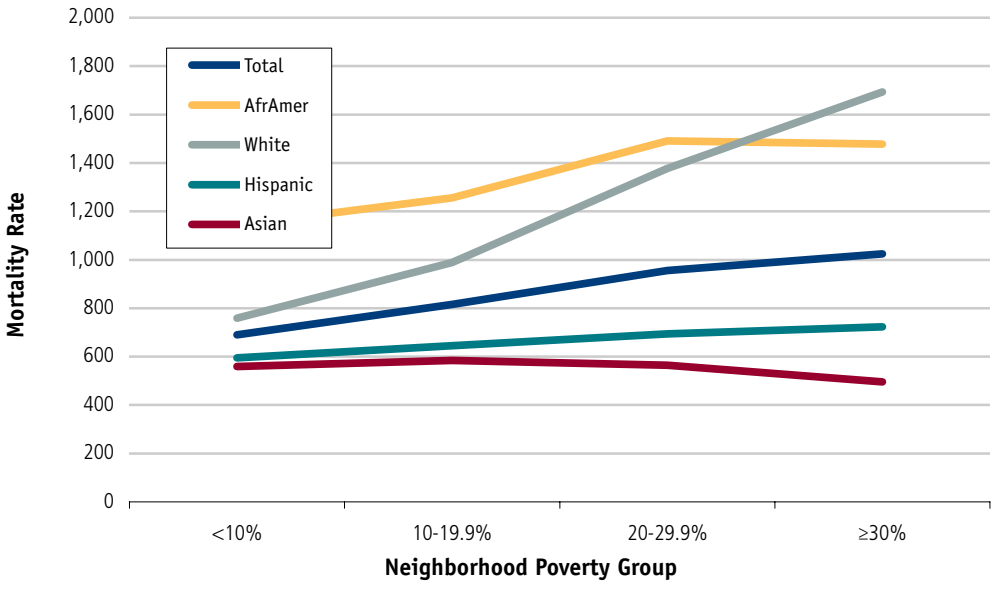
Napa County
Life Expectancy



> City and County of San Francisco



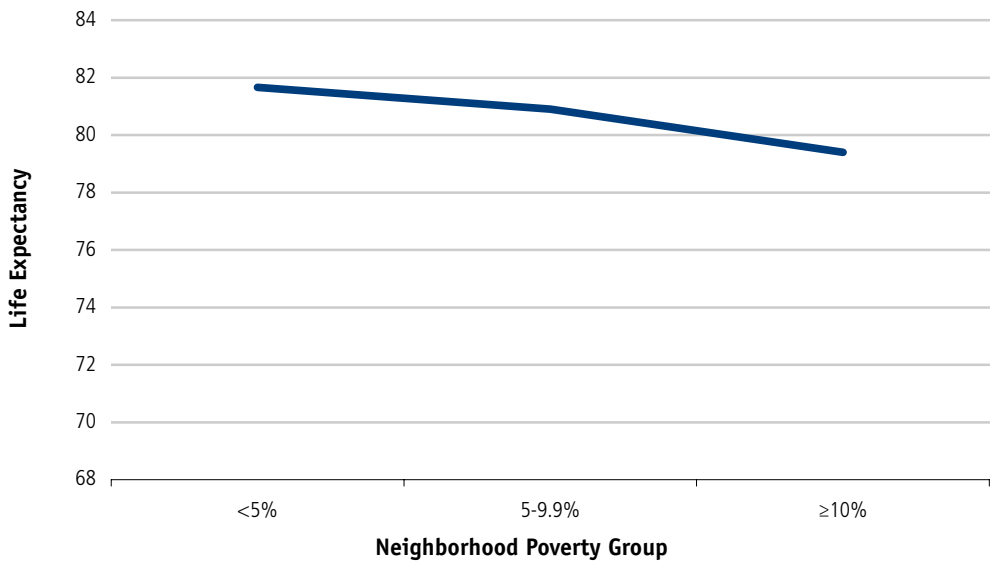
City and County of San Francisco
Life Expectancy



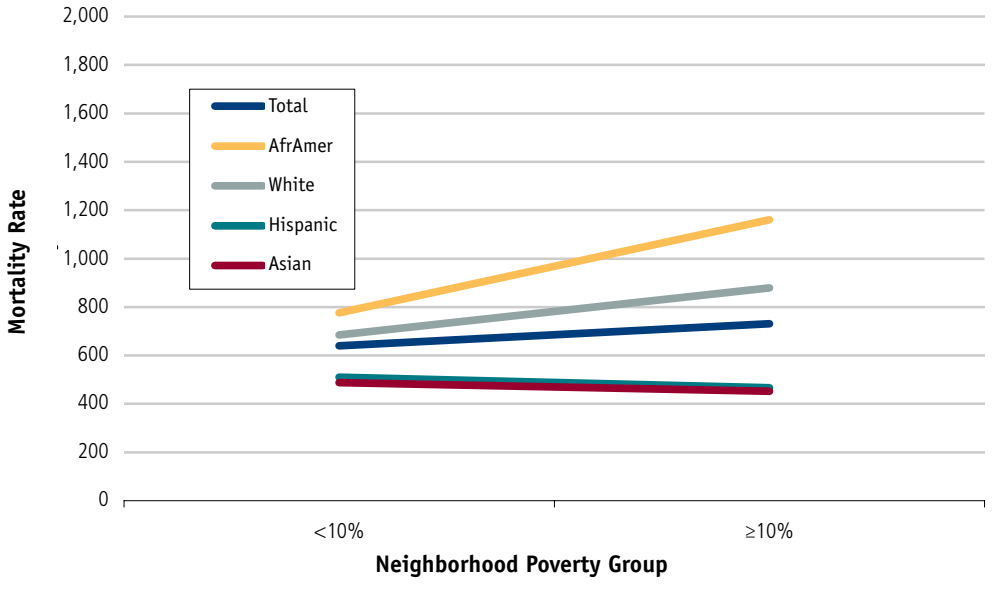
City and County of San Francisco
Mortality Rate by Race/Ethnicity

San Mateo County <

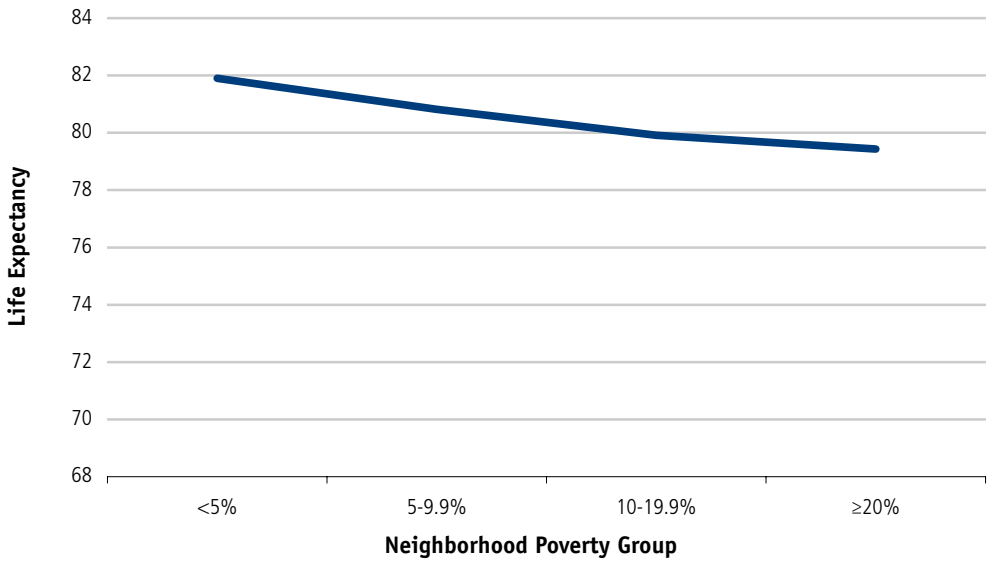
San Mateo County
Life Expectancy



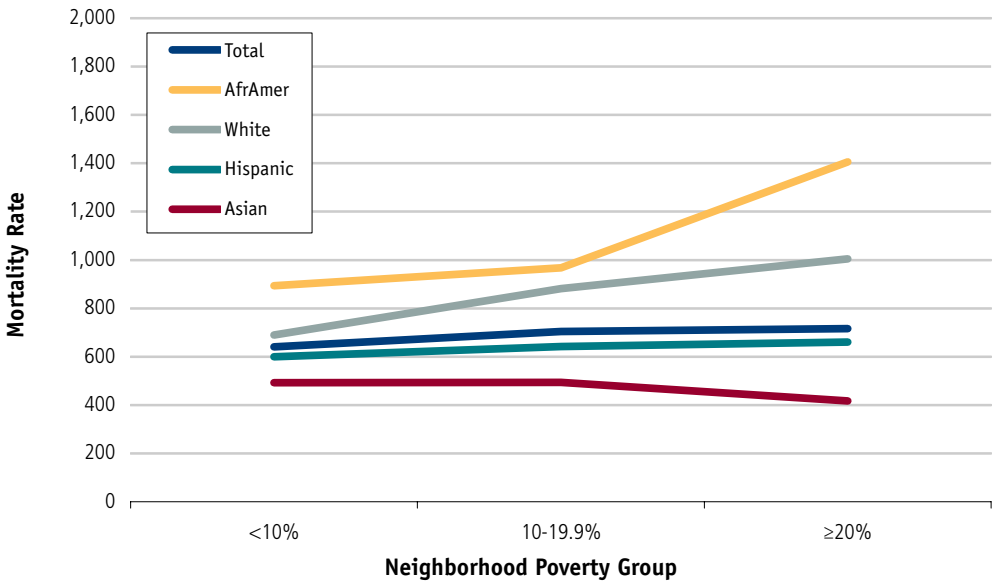
San Mateo County
Mortality Rate
by Race/Ethnicity



> Santa Clara County



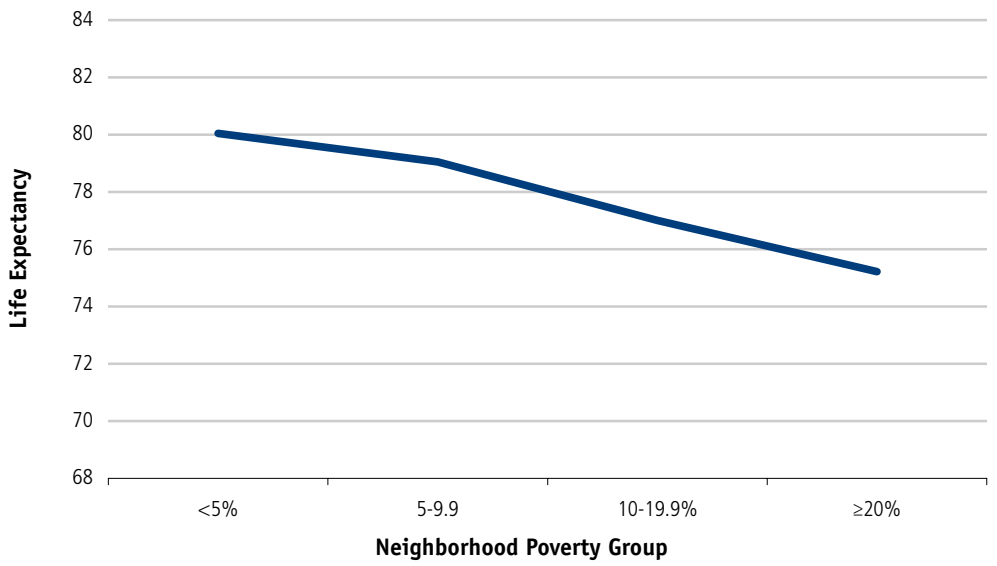
Santa Clara County
Life Expectancy



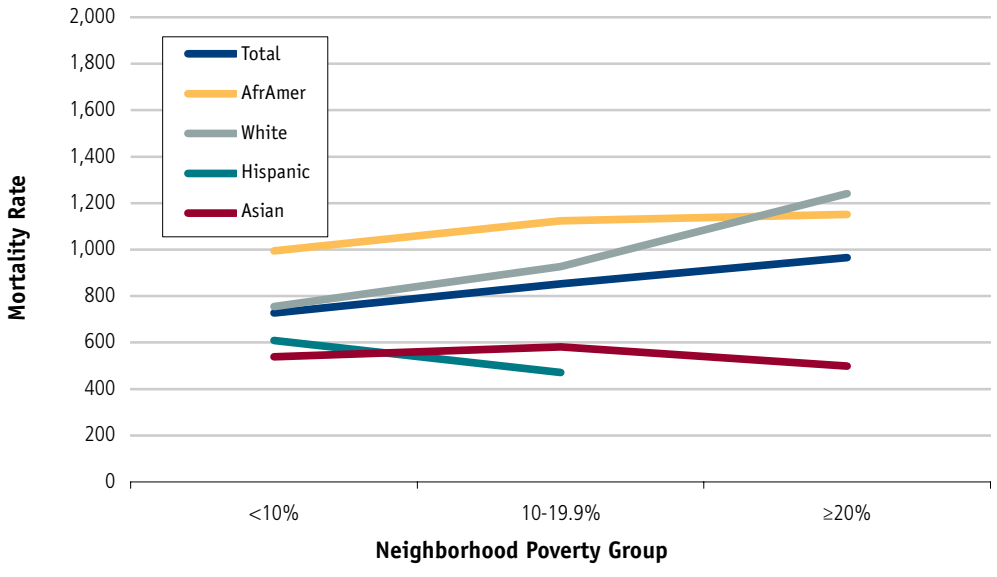
Santa Clara County
Mortality Rate
by Race/Ethnicity

Solano County <

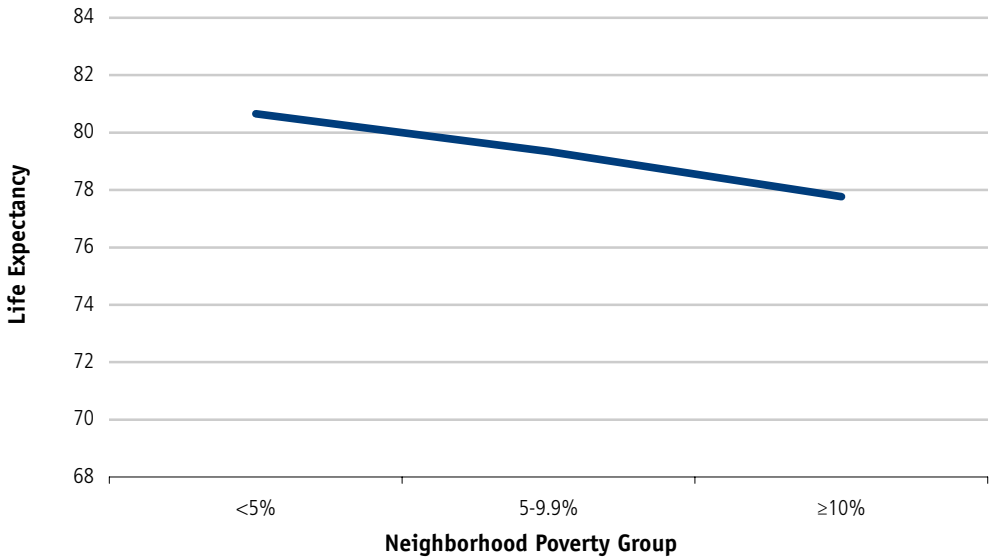
Solano County
Life Expectancy



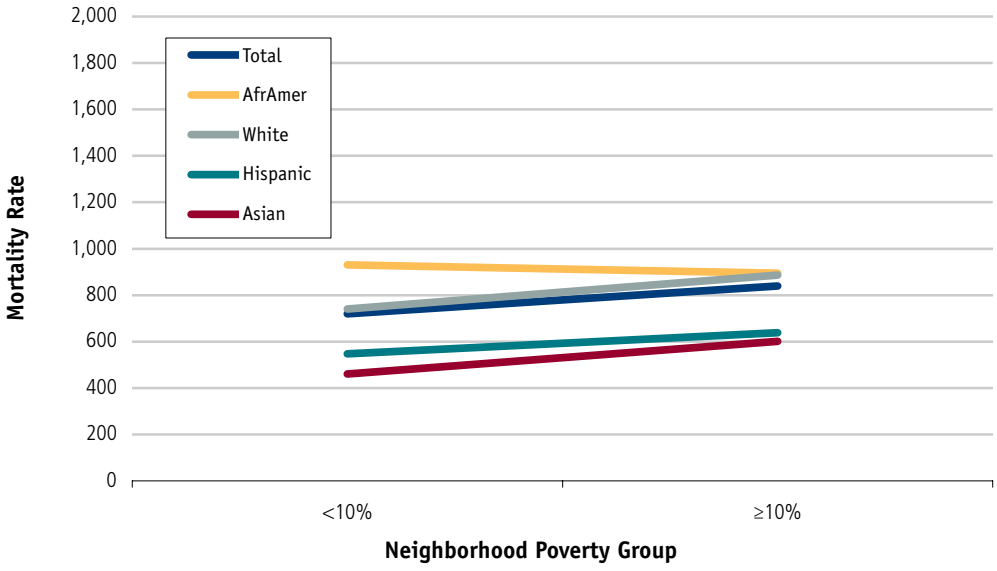
Solano County
Mortality Rate
by Race/Ethnicity



> Sonoma County



Sonoma County
Life Expectancy



Sonoma County
Mortality Rate
by Race/Ethnicity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