

# Chapter 2

## HEALTH INEQUITIES

### Background

#### Health Disparities versus Health Inequities

The World Health Organization defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>1</sup> This definition recognizes that health must be understood in a broader context than the mere presence or absence of a list of diseases. The National Institutes of Health define health disparities as “differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States.”<sup>2</sup> Describing health disparities as simply “differences” that exist among specific population groups ignores the social conditions that produce strikingly consistent patterns of health outcomes.

Health inequities, on the other hand, are defined as “differences in health that are unnecessary, avoidable, unfair and unjust.”<sup>3</sup> Another useful definition describes health inequities as “material, social, gender, racial, income, and other social and economic inequalities that are beyond the control of individuals and are therefore considered unfair and unjust.”<sup>4</sup> ACPHD has found that the concept of health inequities provides a more useful way of understanding differences in health outcomes and encourages a more thoughtful and just approach to designing interventions to eliminate these differences.

#### Social Determinants of Health and the Influence of Racism

Public health efforts to improve a community’s health recognize that health is not just the product of individual characteristics—genetics, behaviors, and lifestyle choices—but also of underlying, or root causes, that can define a lifelong health trajectory. These root causes, generally referred to as social determinants of health, are powerful independent predictors of health outcomes. Key social determinants include, but are not limited to: income and other forms of wealth; affordable, quality housing; quality education; employment opportunities and employment at a living wage; safe neighborhoods and community recreation sites; quality food; social support; and transportation.<sup>5,6</sup> Social determinants, collectively, form the fabric of social and economic opportunity and a healthy environment. They help to shape individual behaviors in response to environmental conditions.

Racism and other forms of group discrimination have played a substantial historical role in the distribution of these social determinants in America. A consequence of this legacy of racial discrimination is that people of color are disproportionately represented among the poor. Consequently, people of color are more likely to have lower incomes, lower quality education, and fewer job opportunities than Whites. Thus race, as a consequence of long-standing patterns of racial discrimination in the distribution of key social determinants, has itself become an important determinant of health.

Racialized patterns of wealth distribution are consistent from community to community across the United States and there is evidence that the racial inequity in wealth in this country is growing rather

than diminishing.<sup>7</sup> So if in the American context wealth is strongly correlated with race, and wealth often equates with health, it naturally follows that there will be a strong relationship between race and health and that large inequities in wealth will translate to large racial health inequities.

### **The Social Gradient**

Rates of illness and death increase as socioeconomic status decreases.<sup>8,9</sup> There is now a large body of research that shows individual health is substantially influenced by the social and environmental context in which we live.<sup>10-15</sup> In fact, health and life expectancy increase with every step up the social hierarchy. This means that wealthier people live longer, healthier lives,<sup>5</sup> a phenomenon which is referred to as the social gradient. There is strong evidence that material wealth provides better access to all of the key social determinants of health. This phenomenon is significant for the middle class in our society, as well as the poor. Compared to the wealthy, the middle class must contend with lower incomes, more stressful jobs, lower quality schools, poorer access to health care, and generally less healthy living environments. As a consequence, the middle class live shorter and less healthy lives than the very rich.

### **Environment and the Concentration of Poverty**

Poverty is highly concentrated in certain neighborhoods. Historical policies and practices that separate communities on the basis of race have resulted in the poor and people of color becoming concentrated in extremely racially segregated neighborhoods. While there is some evidence that residential racial segregation is declining, this improvement is very modest and gradual in pace.<sup>16</sup>

Despite a slight decline in residential segregation in the past decade, there has been an increase in school segregation.<sup>17</sup> These increases are most pronounced for Latino students in western states such as California where the percent of Latinos in predominantly minority schools jumped from 73% in 1991-92 to 81% in 2003-04.<sup>18</sup> Similarly, African Americans in western states witnessed a more moderate increase from 70% attending predominantly minority schools in 1991-92 to 76% in 2003-04. There has been a large increase in the Latino population, and many are living in the poorest areas and attending the poorest schools. Asians and American Indians (those not living on reservations) tend to be less segregated than African Americans and Latinos.<sup>18</sup>

The most segregated minority schools are in urban metropolitan areas where the majority of African American and Latino students live.<sup>17</sup> The most segregated minority schools are almost entirely in areas with high concentrations of poverty, strongly suggesting that residential segregation perpetuates school segregation. Many of these neighborhoods are characterized by poor performing schools with high dropout rates, substandard housing and transportation, limited employment opportunities, inadequate parks and recreational space, and few full-service grocery stores. This inequity in key social determinants of health presents enormous obstacles to social and economic advancements, perpetuates residential and school segregation, and sustains persistent poverty.

In addition to limiting socioeconomic opportunities, living in poor neighborhoods can have a direct negative impact on health. Poor neighborhoods are often situated close to freeways and other sources of environmental pollutants. Streets may be unsafe and housing run down, providing a source of mold, dust, and other allergy and asthma triggers. The unhealthy neighborhood environment becomes the social context that promotes unhealthy behaviors such as low levels of exercise or poor nutrition. With an abundance of liquor stores and a paucity of full-service grocery stores, the environment supports less healthful behaviors and discourages healthful ones. In addition, poor neigh-

borhoods have a low property tax base and less political power to implement the upkeep or restoration of parks and other recreational areas.

In this analysis, neighborhood poverty level (specifically poverty level of census tract) is used as the measure of socioeconomic status. While there are several ways to measure poverty at the neighborhood level, research shows that the census tract is the best unit of analysis<sup>10-13</sup> and that percent of population living in poverty is a good measure of socioeconomic status.<sup>13</sup> See Technical Appendix for a description of methods used in this chapter.

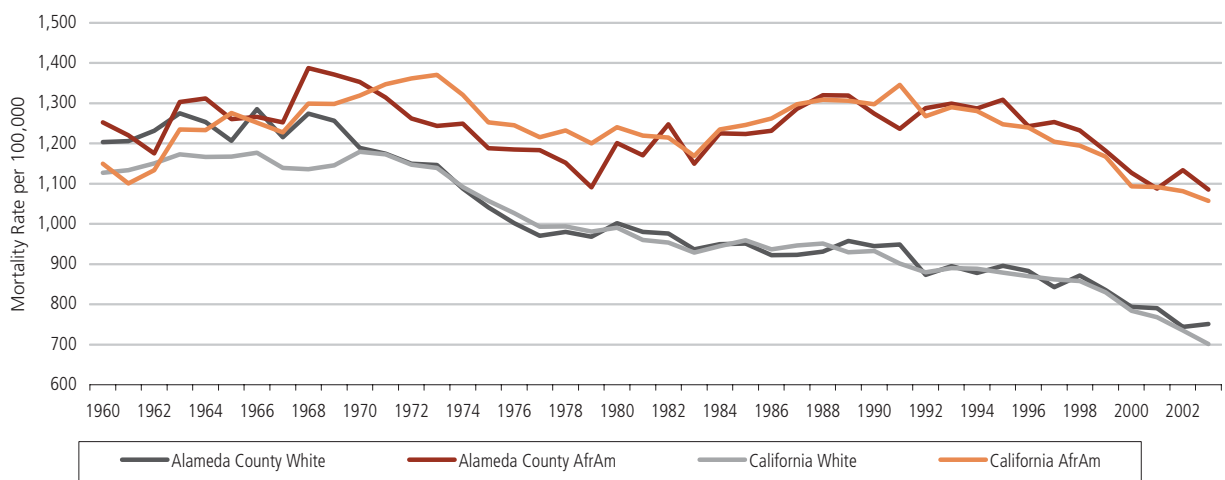
## Trends in Mortality and Life Expectancy

During the 1960s, African Americans and Whites in Alameda County had very similar mortality rates. Each fluctuated so that sometimes White rates were higher and other times African American rates were higher. In 1968, (perhaps due to Vietnam losses) both White and African American mortality rates jumped. The increase for African Americans was dramatic, hitting the highest point ever at nearly 1,400 per 100,000. After 1968, rates for both groups began a gradual decline, with the White decline continuing to the present. The African American decline lasted until 1979, at which time the rate climbed again until 1988 before dropping to present day levels which are comparable to 1979 levels.

During this forty-year period, California rates were very similar to Alameda County rates, except that the 1968 increase in African American mortality continued to 1973 (about the end of the Vietnam war). In addition, the White California rate was lower than the White Alameda County rate during the 1960s.

The similarity between African American and White mortality in the 1960s was a phenomenon not observed nationally. At the national level, African American mortality has historically exceeded White mortality by a substantial margin. The fact that California rates reflect a pattern similar to Alameda County's during that time suggests that migration patterns may have played an important role. Immigrants are generally younger and in better health than stationary populations. This may

Figure 2.1: Mortality Rate, Alameda County and California, 1960-2003



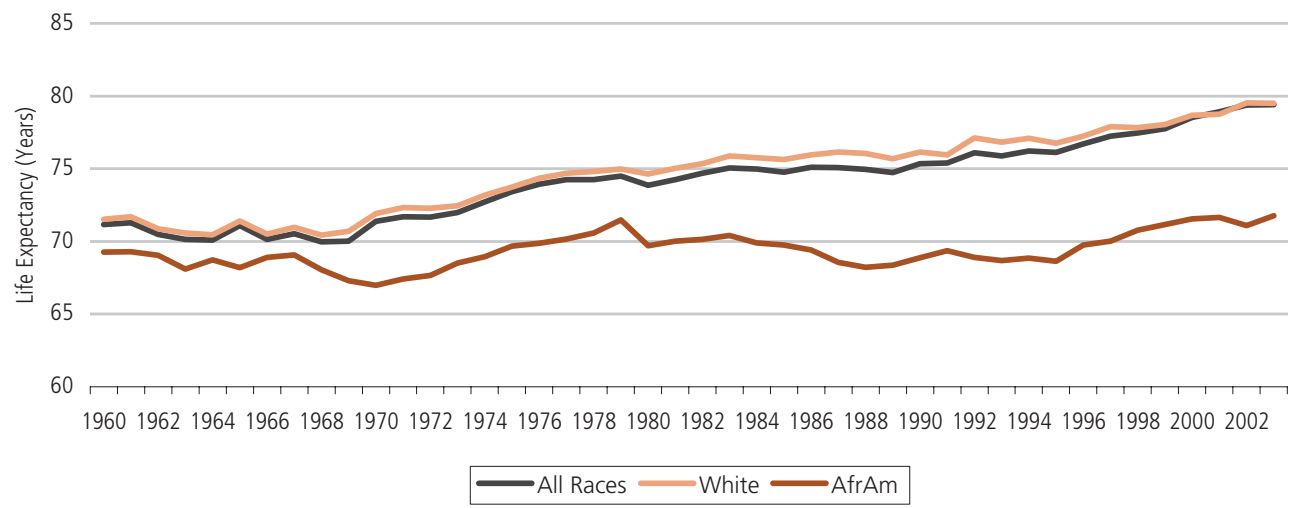
Source: CAPE; Census 1960-2000, Alameda County vital statistics files, California DHS, DOF.

have been true of African Americans moving to California from the south in the 1940s and 1950s. If they were younger and in good health, migrating to the area for employment opportunities, then we would expect their mortality to be lower than the national average. In nearly all East Bay cities, the African American population grew from less than 3% in 1940 to more than 11% in 1950.

Over time, however, the racial patterns of mortality in Alameda County and California came to reflect national patterns. If we examine the differences between African American and White rates between 1960 and 2003 for both Alameda County and California, we see that differences have grown. That is, even though rates have been declining for both African Americans and Whites, the White rate has been declining more steeply and thus the relative difference has grown. In 1960 in Alameda County the African American mortality rate was 4% higher than the White rate; in 1970 it was 14% higher, 20% in 1980; 35% in 1990; and 42% in 2000.

The trend in life expectancy (Figure 2.2) mirrors the trend in mortality. Life expectancy for African Americans and Whites was similar in the 1960s. However, life expectancy for Whites has climbed steadily since 1970 while for African Americans it has changed very little. In 2003, the life expectancy for African Americans was 71.8 years, 7.7 years less than that for Whites (79.5 years).

Figure 2.2: Life Expectancy at Birth, Alameda County, 1960-2003



Source: CAPE; Census 1960-2000, Alameda County vital statistics files, California DHS, DOF.

## Poverty and Health Outcomes

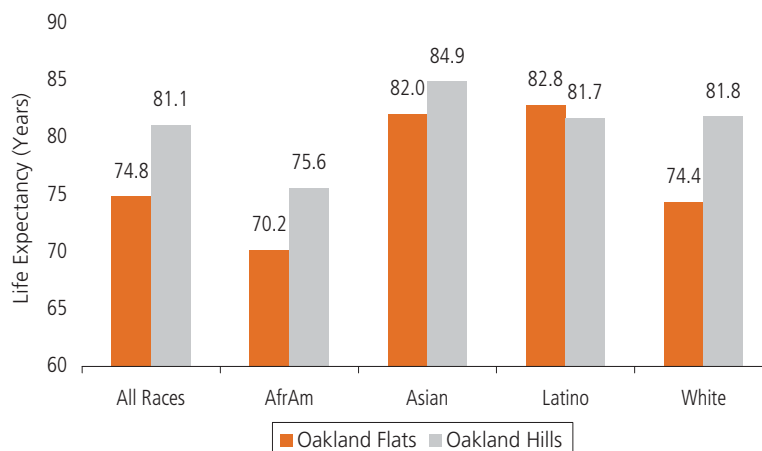
Figure 2.3 illustrates both racial differences in life expectancy and socioeconomic differences in life expectancy that exist in Oakland, Alameda County's largest city. With the exception of Latinos, people of every racial group that live in the wealthier Oakland hills areas live longer, on average, than those of the same race who live in the flatter, less wealthy areas. For all races combined, Oakland hills residents live 6.3 years longer than those who live in the flats. Differences are most pronounced for Whites (7.4 years) and African Americans (5.4 years). In contrast, Latinos living in the Oakland hills have a life expectancy nearly the same as those living in the flats.

The life expectancy is lowest for African Americans, including those living in the Oakland hills. Whites living in the flats have a life expectancy that is on par with African Americans living in the hills.

These findings suggest that the social gradient is operating in Alameda County, as evidenced by lower life expectancy among those with lower incomes, especially African Americans with lower incomes.

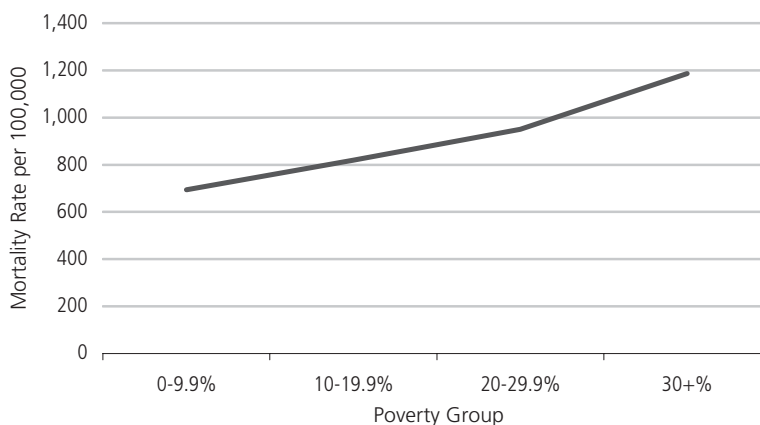
Mortality from all causes in Alameda County increases with each step up in the concentration of neighborhood poverty. The mortality rate increases from 700 per 100,000 in the lowest poverty areas to nearly 1,200 per 100,000 in the highest poverty areas, an increase of 71%. (For this analysis, census tracts are grouped together based on the poverty rate of each tract; see the map on the next page).

Figure 2.3: Life Expectancy at Birth, Oakland Flats & Hills, 2000-2003



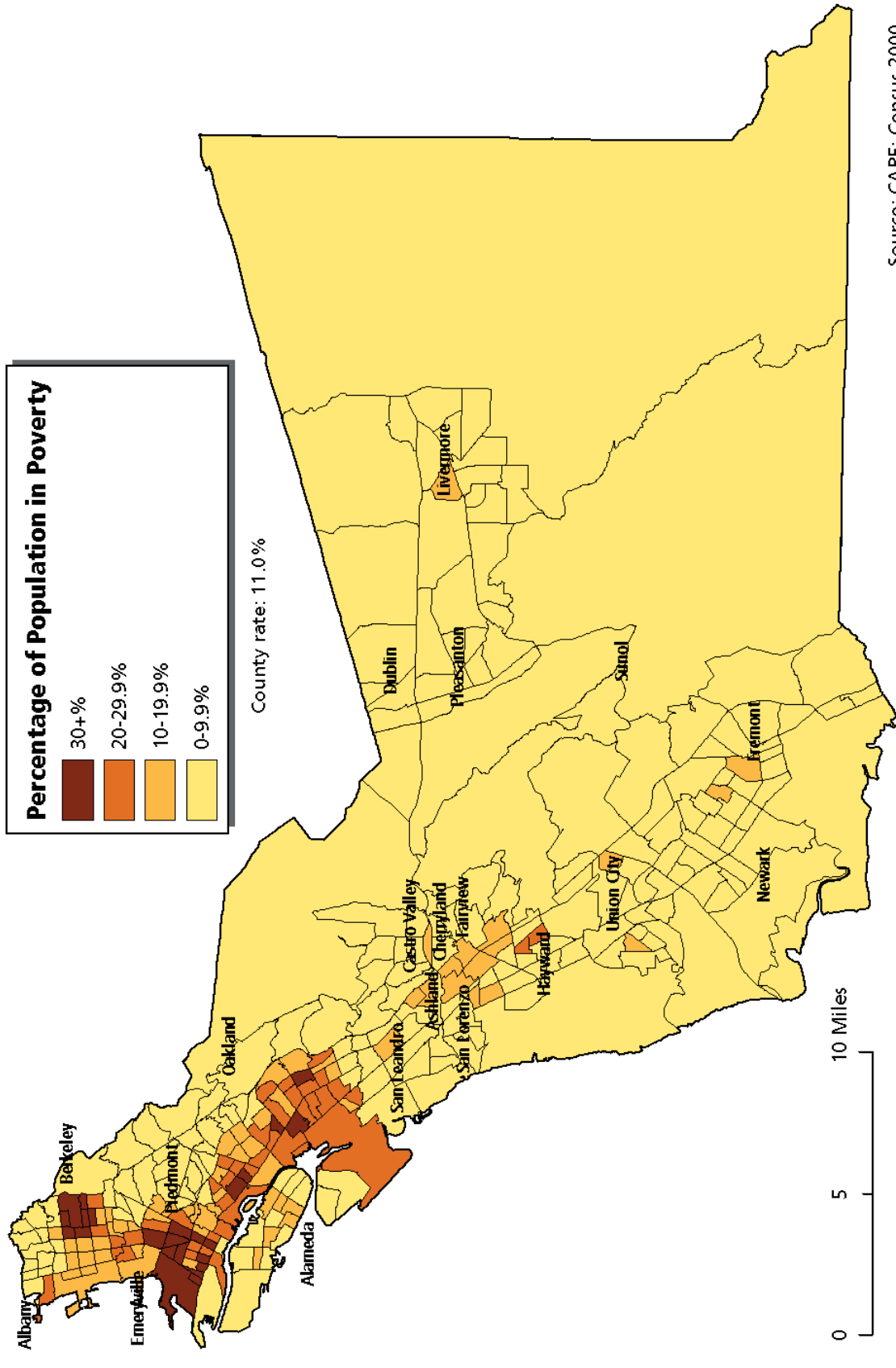
Source: CAPE; Census 2000, Alameda County vital statistics files, DOF.

Figure 2.4: Mortality Rate, Alameda County Poverty Groups, 2000-2003



Source: CAPE; Census 2000, Alameda County vital statistics files, DOF.

# Map 1: Poverty, Alameda County, 1999



## Map 1: Poverty

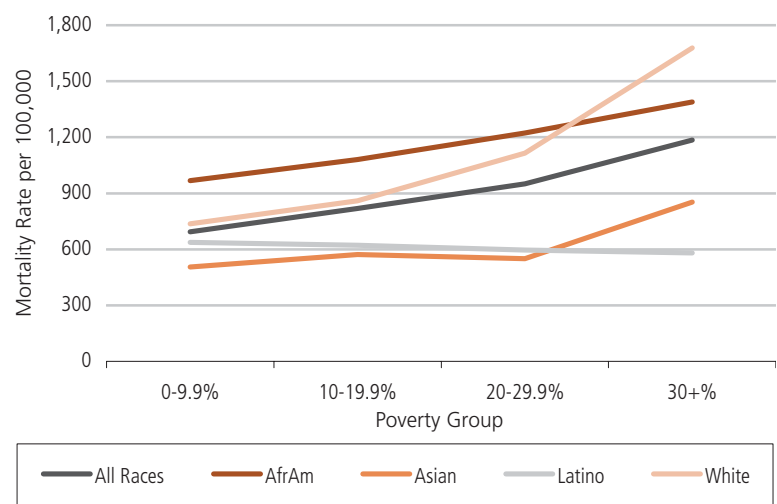
As shown in the map, the highest poverty areas, those census tracts with 30% or more of the residents living in poverty, are concentrated in North Oakland, West Oakland, San Antonio, and parts of East Oakland and Berkeley. Areas concentrated around the UC Berkeley campus in the eastern part of Berkeley appear as high poverty, but residents are predominantly students. These census tracts were not included in the poverty-mortality analysis presented in this chapter. Other areas of moderate poverty, where 20-29% of residents live in poverty are scattered throughout South Berkeley, North Oakland, much of East Oakland, and parts of Hayward.

Figure 2.5 shows the mortality rate, for each race/ethnicity, by poverty level. As in the previous graph, Figure 2.5 shows that people in poorer neighborhoods die at higher rates than those in wealthier neighborhoods. In addition, this graph shows that this is true for African Americans, Asians, and Whites in Alameda County, but not for Latinos. Latinos have about the same mortality regardless of neighborhood poverty.

Among both Whites and Asians, mortality rates jump most significantly at the highest levels of neighborhood poverty, with White mortality surpassing African American mortality in neighborhoods where 30% or more of the population lives in poverty.

For African Americans, the mortality rate increases by about 140 deaths per 100,000 for each increase in neighborhood poverty level, or 423 overall from lowest to highest. For Whites, mortality increases by 942 deaths per 100,000 from lowest to highest poverty, but 60% of the increase occurs at the highest poverty level.

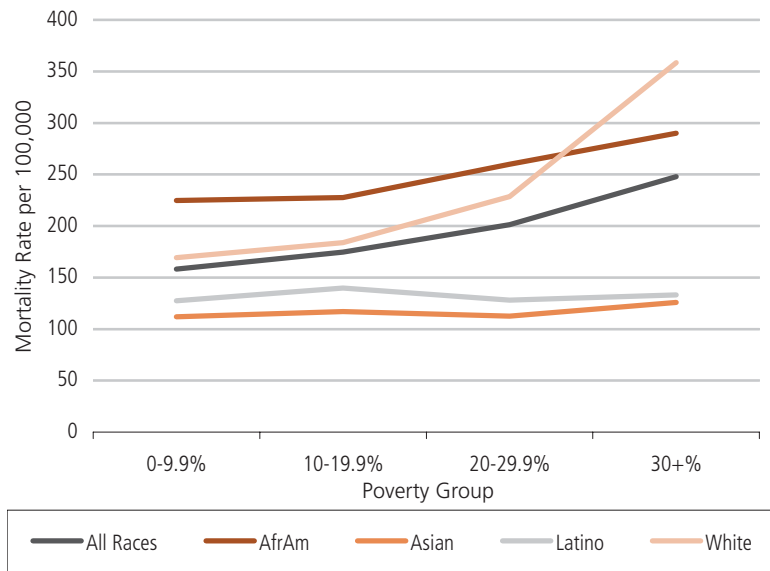
Figure 2.5: Mortality Rate, Alameda County Poverty Groups by Race/Ethnicity, 2000-2003



Source: CAPE; Census 2000, Alameda County vital statistics files, DOF.

Because coronary heart disease (CHD) is the leading cause of death, patterns of CHD mortality by race/ethnicity and neighborhood poverty level are very similar to those for mortality from all causes. Two differences emerge, however. First, for Latinos and Asians, the rate of mortality from CHD is nearly constant over all poverty groups. Second, CHD mortality rates among African Americans are the same at the two lowest poverty levels and increase starting at the third highest poverty level. Thus for CHD mortality, the social gradient appears to operate at some level for African Americans and Whites but not for Asians and Latinos.

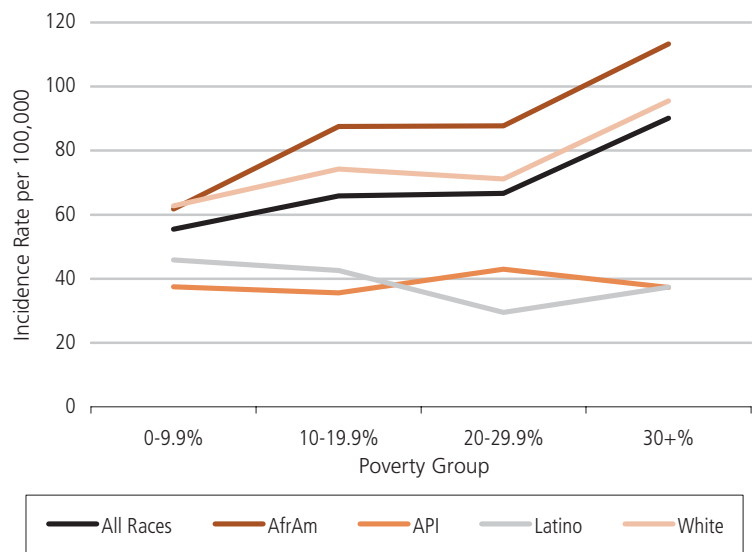
Figure 2.6: Coronary Heart Disease Mortality Rate, Alameda County Poverty Groups by Race/Ethnicity, 2000-2003



Source: CAPE; Census 2000, Alameda County vital statistics files, DOF.

Lung cancer incidence reflects the rate at which new cases of lung cancer are diagnosed. Thus it is a measure of morbidity, not mortality. Yet a pattern similar to those seen for mortality is evident. For both African Americans and Whites, incidence rates are lowest at the lowest level of neighborhood poverty and highest at the highest level. The gradient is steepest for African Americans, with rates increasing 82% between the lowest and highest poverty levels; for Whites, the rates increased by 52%.

Figure 2.7: Lung Cancer Incidence Rate, Alameda County Poverty Groups by Race/Ethnicity, 1998-2002



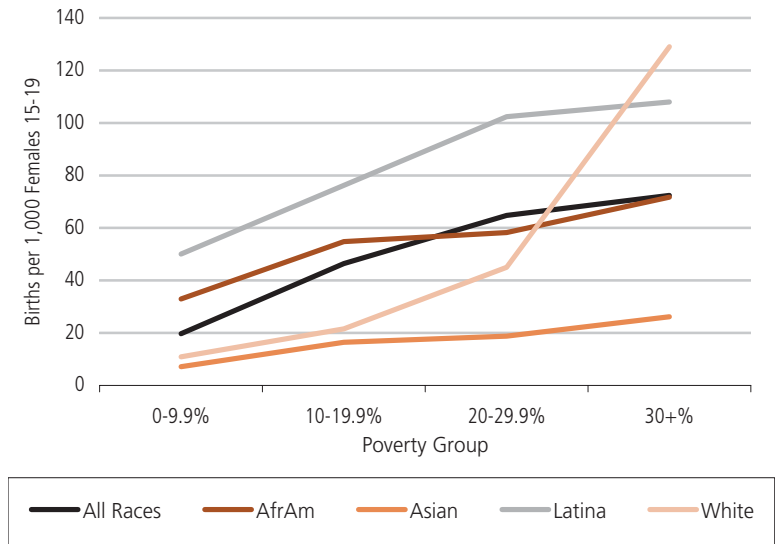
Source: CAPE; Census 2000, Alameda County vital statistics files, DOF.

Among Asian/Pacific Islanders, rates are relatively flat over the poverty levels, while for Latinos, rates are actually lower at the higher poverty levels, but not significantly.

The social gradient effect is evident when teen birth rate is examined. As in the mortality analysis, there is a clear disparity based on both where people live and on their race/ethnicity.

For each race/ethnic group, teen birth rates increase with each increase in neighborhood poverty level (with the exception of African Americans for whom the two middle rates are the same). Latinas have the highest rates except in the highest poverty group. As with mortality, rates for Whites in the highest poverty neighborhoods increase dramatically. While Latina rates jump two-fold between the lowest and highest poverty levels, White rates jump over ten-fold.

Figure 2.8: Teen Births, Alameda County Poverty Groups by Race/Ethnicity, 2000-2003



Source: CAPE; Census 2000, Alameda County vital statistics files, DOF.

## Summary

In the demographics chapter, we showed that, compared to Whites, a much higher proportion of African Americans and Latinos in Alameda County live in poverty. In this chapter we examined the relationships between race/ethnicity, income, and health. We showed that, in general, African Americans have a shorter life expectancy and higher mortality rate than Whites, and that the gap between the two groups has widened over the last 40 years in Alameda County.

We also showed that mortality and morbidity in Alameda County are higher in poorer neighborhoods, and higher among African Americans than Whites (with the exception of Whites in the poorest areas). This effect, which we call the ‘social gradient,’ is robust. We demonstrate its impact on measures of health, including mortality, morbidity, and teen births. The effects are not uniform; for instance there is little evidence of social gradient for Latinos on mortality and morbidity indicators we examined but there is an effect for teen births. Among Asians the effects are variable. Some effects, however, are consistent: both African Americans and Whites show the relative effects of wealth for all the indicators examined, with the wealthiest experiencing the lowest death rates and those in the middle and lower end of the socioeconomic ladder experiencing higher death rates, respectively.

Mortality and morbidity, just like health and wellness, are influenced by a constellation of factors—environmental, economic, and geographic—in addition to genetic and behavioral. We have argued here that the root causes (income, education, safety, etc.) of health inequities must be addressed in order to improve health outcomes. But addressing the root causes of health inequities requires sustained innovation, persistence, and dedication. Health departments can strengthen a community’s capacity to improve community health and well-being by finding and supporting local leaders, viewing residents as potential resources for change, helping residents to identify health and social issues, and working with residents to address these issues.

This approach is in line with Institute of Medicine recommendations that health departments form partnerships with other stakeholders, including community residents, health service delivery organizations, and community organizations, public and private, with the goal of engaging community participation in solving problems they identify as most important.<sup>19</sup> This process is critical to the success of public health prevention and intervention efforts.

Since 1990, the ACPHD has built partnerships with residents and local agencies around a variety of health and neighborhood issues, including increasing childhood immunizations, improving nutrition, decreasing violence, and providing alternative activities for youth. Since 1999, the ACPHD has placed nurses and outreach workers directly in neighborhoods to meet local needs for health services and community capacity-building through our Community Health Teams Initiative.

The ACPHD has also joined with the City of Oakland Neighborhood Services Department, local organizations and residents to form the Community Capacity-Building Leadership Team. Currently, the Leadership Team focuses its work in two demonstration neighborhoods, Sobrante Park in East Oakland, and the Hoover Elementary School area in West Oakland. Leadership Team members have engaged residents in priority setting and action-planning around issues of local importance such as improving safety and recreation at local parks, reducing drug dealing, developing youth programs and increasing emergency preparedness. Additionally, the ACPHD is working with the city of Fremont, Fire Safety and Neighborhood Resource Center, to assess emergency preparedness among

seniors, disabled, and low income residents and to provide resources for improving and sustaining emergency preparedness in these communities.

The remainder of this report follows a descriptive format that highlights the racial, gender, and age groups most affected by each health indicator. While we would like to examine every health indicator by some measure of socioeconomic status, we have only neighborhood measures of poverty for some of the indicators reviewed here. Future reports will examine in greater detail a larger number of health outcomes in relation to neighborhood poverty.

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