

# Health and Social Inequity

IN SANTA CLARA COUNTY



REPORT 2011



## To the Residents of Santa Clara County,

We are proud to present the first “Health and Social Inequities” report for Santa Clara County. This report focuses on social determinants that influence the health of Santa Clara County residents and communities. A wealth of evidence has shown that factors such as education, income, racism, employment, housing and neighborhood conditions have a significant impact on the health and well-being of individuals and entire populations.

Social determinants create inequities that result in negative health outcomes for many in our community. Unfortunately, people with low incomes and certain racial and ethnic groups are disproportionately affected, resulting in significant health disparities. A more thorough understanding of the social determinants of health in our communities is needed to determine why people experience different health outcomes.

There are two main goals for this report. First, it provides descriptive data and information about the health status, and factors that influence the health status, of Santa Clara County residents. Second, while this report broadly depicts the health experience of many segments of our community, it is meant to begin a community-wide dialogue about the root causes of health inequities, and focus on justice and equity for all.

This report was developed by the Santa Clara County Public Health Department in collaboration with The Health Trust and numerous and diverse stakeholders from multiple sectors, including education, labor, academia, and non-profits who contributed their expertise in the development of this revealing portrait of our county’s well-being.

Together with our community partners, the Public Health Department and The Health Trust will continue to work for a healthier Santa Clara County by promoting access to healthy environments, by targeting root causes of health inequities, and by keeping these issues in the forefront.

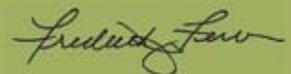
Best regards,



**Marty Fenstersheib**  
Health Officer



**Dan Peddycord**  
Public Health Director



**Frederick J. Ferrer**  
CEO, The Health Trust

## Table of Contents

Executive Summary	2
Chapter 1 Historical Narrative	10
Chapter 2 Race/Ethnicity	14
Chapter 3 Education	18
Chapter 4 Income	26
Chapter 5 Employment	30
Chapter 6 Immigration	34
Chapter 7 Housing	40
Chapter 8 Access to Health Care	46
Chapter 9 Neighborhood Conditions	52
Conclusion	58
Acknowledgements	59
Resources	60

# Executive Summary

The Santa Clara County Public Health Department's mission is to prevent disease and injury and create environments that promote and protect the community's health. American society has made great strides in health over the last century, yet in our work to fulfill this mission, we have observed persistent differences in the health of various population groups.

The root causes of these differences are linked to social, economic, and environmental disadvantages that could be prevented. In addition, several new and very serious threats to our health have arisen that may increase these disparities. We have reached the unavoidable conclusion that we will not continue to see improvements in

**“Interventions to improve access to medical care and reduce behavioral risk have only limited potential for success if the larger societal and economic context in which people live is not improved.”**

The Institute of Medicine

the health of our entire population—and achieve true equity in health outcomes—without changing the systemic conditions that affect health.

To begin, we need to create a much greater awareness that health and well-being are directly and indirectly influenced by more than our genetic make-up or medical care. Our health is fundamentally tied to the social,

economic, and institutional conditions in which we live.

This report is intended to be a first step and can be used as a tool with which to begin a community-wide dialogue about the root causes of health inequities. Through future discussion and action, we can build a platform for policies and programs that directly addresses the relationship between social injustices and health. We can then explore and advance policy solutions that reduce or eliminate health inequities.

As a community, we can take a firm position on key issues related to health inequities, and set minimum standards below which no individual or group falls.



### An Investment Strategy That Isn't Working

The United States is one of the richest countries in the world, and leads the world in medical research and medical care. We spend more per capita on health care than other industrialized nations by a wide margin, yet our actual health status as a nation is full of contradictions:

- We rank 50th in life expectancy.
- We have a higher rate of maternal deaths than at least 40 other countries.
- More than a third of U.S. adults are obese.

If we dedicate more resources to our health than any other nation, why are we so far from being the healthiest people on the planet? The reason lies primarily in our health investment strategy. Nearly 96 cents of every U.S. dollar spent on health care goes to care and treatment. That leaves very little for public health prevention strategies. This intervention model is not making us healthier as a nation or as a community.

In fact, there is now a large body of research showing that only a small part of health can

be attributed to medical care or genes. Other factors contribute more to our health, including employment, income, education, neighborhood conditions, and housing. In other words, where people live, work, learn, and play is even more important than the health care they receive.

Unfortunately, choices and opportunities in these key areas of life are limited by status or privilege in society, and large segments of our population experience persistent discrimination because of race or ethnicity, gender, national origin, and other factors. The resulting socioeconomic inequality contributes to health disparities.

Institutions around the world, including the World Health Organization and local, national, and international public health departments, have uncovered extensive evidence of health disparities and their origins in society. The Resources section of this document contains a list of published articles and reports.

However, until recently, the availability of this research has been limited largely to professionals

in public health and related fields. This Health and Social Inequity report, which draws on the work of agencies and foundations across the U.S. as well as data from Santa Clara County, is our first attempt to make this research available to the public and community leaders here in our county.

### A New Way of Thinking About Health

1. Health begins where we live, learn, work, and play.
2. Everyone should have the opportunity to make the choices that allow them to live a long, healthy life, regardless of their income, education, or ethnic background.
3. Our neighborhood or job shouldn't be hazardous to our health.
4. The opportunity for health starts long before we need medical care.
5. The opportunity for health begins in our families, neighborhoods, schools, and jobs.

Source: Robert Wood Johnson Foundation



### Defining the Problem in More Detail

While it's true that the U.S. has made great strides in health in the last century, due in large part to public health policies, the benefits of these achievements have not been distributed evenly across various population groups. Researchers have introduced several concepts in describing this situation:

- **Social determinants** of health are factors beyond our genetic make-up and our access to medical care, including social status, employment and income, education, housing and neighborhoods, and access to nutritious foods.
- **Health disparities** are differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups.
- **Health inequities** are health differences that are directly related to social inequities, which are systematic, socially produced (and therefore modifiable), and unfair.
- **Health equity** is the highest level of health for all people, which requires the absence of disparities and is therefore an issue of fairness and justice with far-reaching implications in our society.

The Bay Area Regional Health Inequities Initiative (BARHII) is a collaboration of local health departments in the San Francisco Bay Area dedicated to confronting health inequities. BARHII has used Hurricane Katrina and the

City of New Orleans to illustrate the concept of health inequities.

In the aftermath of Katrina, our nation saw a different side of New Orleans that shocked and saddened us. We learned that the city was deeply divided along racial and class lines, with large historical pockets of poverty and its attendant social problems experienced over multiple generations. We also saw how Katrina affected the poor much more deeply than others; many of them have yet to recover from the catastrophe more than five years later.

Now BARHII points to what they call “the constant hurricane of public health” in the U.S.: persistent, serious health issues that disproportionately affect the poor and people of color. For example, African-American babies are more than twice as likely as White babies to die in their first year. African-American men live on average 7 years less than White men. And African Americans have higher rates of heart disease, stroke, hypertension, diabetes, asthma, and certain cancers.

In fact, former U.S. Surgeon General David Satcher and his colleagues calculated that over a 10-year period, nearly 177,000 deaths were averted because of advances in medical technology, but more than 886,000 deaths could have been avoided if we eliminated the disparity between African Americans and Whites.

Although racial inequality is a significant source of health inequity, socioeconomic status

“If poverty were considered a cause of death in the U.S., it would have ranked among the top 10 causes of death in 1991.”

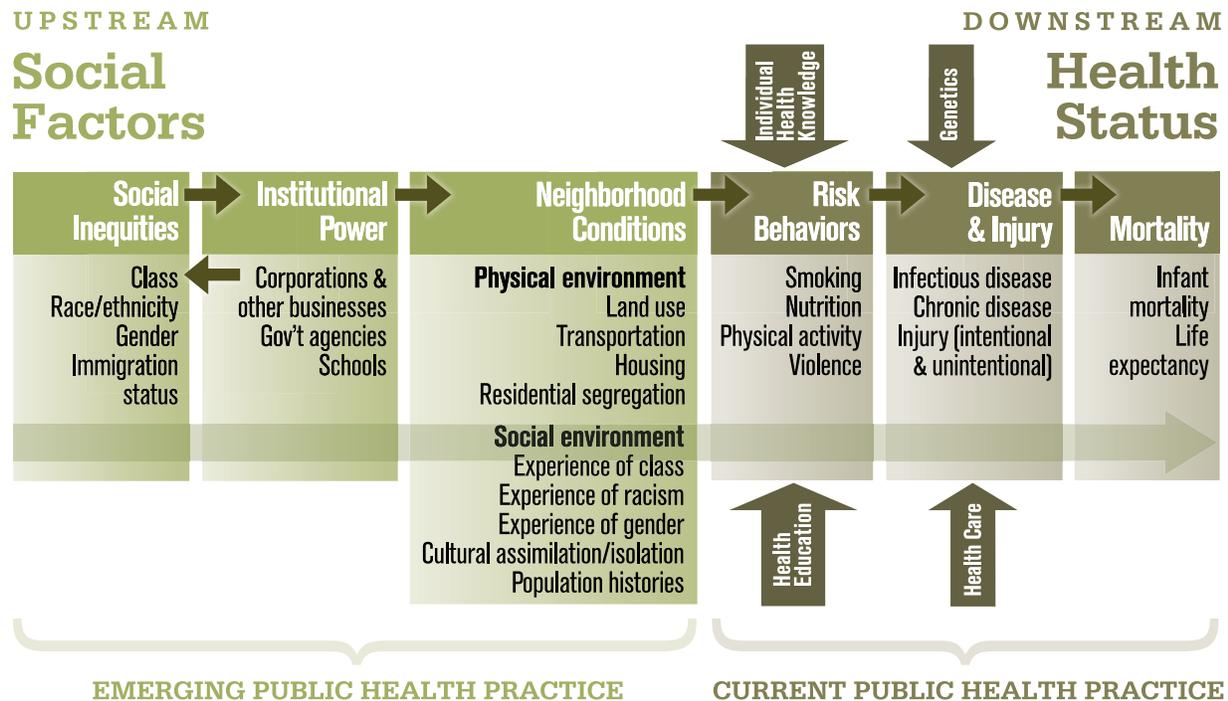
Krieger N, Williams DR, Moss NE. (1997). Measuring social class in US public health research: Concepts, methodologies, and guidelines. *Annual Review of Public Health*. 18, 341-378.

or class may have a greater influence. The rich are healthier than the middle class, and the middle class are healthier than the poor. Disease and death rates are higher in areas that have the greatest gap in income between the rich and poor.

From 1979 to 2007, the income gap tripled between the richest 1% of Americans and the middle and poorest fifths of the country. It is no coincidence that in 1980, the U.S. ranked 11th in the world for life expectancy, but in 2011 we rank 50th. The deterioration of health among the poor appears to offset any gains in health experienced by the rich. The recent economic downturn might increase health inequities even further.

Therefore, we may conclude that the greatest threat to our health in the U.S. today is the large income gap. An investment strategy that redirects resources to eliminating the root causes of health inequities could do more to improve health in the U.S. than improvements in medical care.

Figure ES.1: Framework for Understanding and Measuring Health Inequities



Source: Bay Area Regional Health Inequities Initiative

### A New Paradigm: Moving Investment “Upstream”

In Santa Clara County, as in so many other counties across the U.S., health care costs are rising rapidly with no relief in sight. The vast majority of our healthcare dollars are spent on what public health professionals call “direct services,” which follow a model of intervention, not prevention. These interventions largely focus on the

individual and are only remedial in nature. They don’t address underlying conditions or causes in the environment surrounding that individual. They are also expensive and difficult to sustain.

These expenditures haven’t made us healthier nor have they solved the dilemma of persistent health inequities. In Santa Clara County, we are particularly concerned about evidence of a rising epidemic in chronic diseases such as diabetes, heart disease, stroke, and some cancers.

During the last century in the U.S., mortality rates were reduced largely by combating infectious diseases. Now we are in danger of losing ground as higher mortality rates from chronic diseases could eclipse these gains in life expectancy. Our only recourse is to find a new paradigm for combating disease that addresses the

root causes of health problems and decreases health inequities. BARHII has developed a very helpful framework for understanding and measuring health inequities, which takes into account the complex and interrelated factors that influence the health of a community (Fig. ES.1).

According to the BARHII framework, factors that influence our health are either “upstream” or “downstream,” and upstream factors impact downstream factors. Upstream are the social, economic, institutional, and environmental factors that lead to health inequities. Downstream are other factors that impact our health, including individual health behaviors, genetics, health education, disease and injury, and health care, and finally, our overall health status as measured by mortality rates and life expectancy.



As mentioned, social, economic, and environmental factors have a major impact downstream. For example, if we don't earn a high wage and we live in a lower-income neighborhood with higher crime, we don't have the same opportunities to exercise as people who earn higher incomes and can afford to live in safer neighborhoods with abundant parks and walking trails. Therefore, upstream factors impact our ability to make certain health choices and avoid health problems like heart disease, and lack of choice can result in health disparities. Policies that impact these social inequalities, like requiring all neighborhoods to be pedestrian-friendly, would help to improve public health.

### Key Findings

Using our own research and the BARHII model as a framework, this report identifies eight social determinants of health in Santa Clara County: race/ethnicity, education, income, employment, immigration, housing, access to health care, and neighborhood conditions.

Chapter 1 provides a brief historical overview of Santa Clara County that explores the origins of some of our local health inequities. This is followed by a chapter about each of the eight social determinants. The key findings from each chapter are summarized here. You can find

### The Upstream Parable

People are being swept downstream by a river's raging water. The crowd on shore works to pluck them out of the rushing water, but many are missed and swept away. Lost. As most of the crowd continues its losing battle, a few trailblazers tromp upstream to see exactly why all those people are falling into the river in the first place. They identify the root cause of the problem (people are trying to cross a dangerous river without having the benefit of a bridge), come up with a solution (build a bridge), and put the solution into action. The result: People stop falling into the river. They are no longer at risk and there is no need to focus all the effort on pulling people out of the river one at a time. That's public health policy at work.

Source: Upstream Public Health

the sources for our research in the *Resources* section.

### Race/Ethnicity

A growing body of evidence points to the fact that differences in health outcomes between racial groups are due to the differences in our lived experiences, and not to genetic differences. The primary reason for this is believed to be a long history of racial discrimination and inequality in the U.S. How

groups of people are perceived and treated in society is also associated with their socioeconomic status or class.

Lower socioeconomic status translates into poorer health through social isolation and unequal access to the resources that could help us live healthier, longer lives. Therefore, the issues of race/ethnicity, class, and health are closely related.

Santa Clara County is truly reflective of the multicultural society that America is becoming. Our racial/ethnic composition is 35% White, 32% Asian, 27% Hispanic, and 2.3% African American. In addition, about 3% of the population is identified as "other," which includes two or more races, according to the 2010 Census. While the White population has declined by 19% over the decade since the last Census, the Asian and Hispanic populations have grown by 33% and 19%, respectively.

By 2050, the White population is projected to decline to 27%, Hispanics are projected to increase to 43%, and the Asian and African-American populations are expected to decrease slightly. Hispanics and African Americans are the most affected by unequal access to health resources and by social inequalities that have an impact on health. Therefore, the changing demographics in Santa Clara County will result in greater differences in health, which in turn will impact our health needs and demands for resources in the coming years.

### Education

Education opens the doors to opportunities and resources that lead to a higher socioeconomic status or class. More education is associated with higher-paying jobs and the related benefits like financial security, health insurance, healthier working conditions, and social connections.

Education also gives us the tools we need to make informed choices about our health. People who have more years of education tend to live longer and have better health. Education also affects health across generations because children of more educated parents tend to be healthier and do better in school. While Santa Clara County residents are better educated than the rest of the state and nation, there are disparities in educational attainment. The county also suffers

from a serious academic achievement gap that could hurt the health of our most vulnerable young residents.

Students in school districts with higher rates of poverty are at greater risk for low academic achievement. As a result, they are more likely to have lower-wage jobs and fewer economic, social, and health resources over the course of their lives, repeating the vicious cycle of poverty and poor health.

### Income

Those with higher incomes are more likely to live longer, healthier lives. More income leads to resources that promote better health, including access to health care, nutritious food, safe housing, and nurturing neighborhoods. On the other hand, those living in poverty face a number of hardships

that lead to poor health. Poverty also has a significant impact on children and can affect health across generations. Poor children are more likely to suffer poor health, affecting their ability to do well in school and eventually earn a decent wage.

Santa Clara County has the second highest median household income in the state (\$88,848 in 2008), but there are significant disparities, particularly when we consider race/ethnicity, gender, and age. For example, median annual earnings vary widely in our county by race/ethnicity and gender, from a high of \$70,348 for White men to a low of \$22,747 for Hispanic women. Those with lower incomes have poorer overall health as well as higher rates of obesity and smoking, which are risk factors for a number of chronic diseases.



### Employment

Employment provides income and other resources that lead to better health. Depending on our jobs, employment can also give us a sense of purpose, social contact, and opportunities for personal growth. Conversely, unemployment has been linked to poor health, and those with lower socioeconomic status are more likely to work in occupations that have unhealthy working conditions and lack the type of benefits needed to help them stay healthy.

While the recent recession has taken a serious toll on Santa Clara County residents—2 in 5 Silicon Valley households have experienced job losses since the recession began three years ago—some workers have been disproportionately affected. Local and national trends indicate that Hispanic residents, immigrants, those with less education, and older adults have been hardest hit by the recession.

In addition, long-term unemployment in California has more than doubled since 2007. Considering that 83% of insured adults in the county get their health coverage through their employer, this has serious implications for health.

### Immigration

According to the U.S. Census, 38% of our residents were born outside the U.S., the highest proportion for any county in California. Immigrants reside at every point on the wide spectrum of socioeconomic status in Santa Clara County, from great wealth to extreme poverty. Despite the diversity of our immigrant population, research has shown that simply being an immigrant does have a measurable impact on an individual's health.

The likely reason is that being an immigrant influences every other factor that affects health, including educational attainment, income and employment opportunities, neighborhood and housing options, access to health care, and cultural norms, particularly those that impact diet and other health-related behaviors.

Nearly 3 in 4 immigrants living in Santa Clara County have been settled here for 10 years or longer. This is significant because immigrants initially have an advantage over U.S.-born residents in terms of health, but this does not appear to last past the first five years. In a recent survey, more than half of recent immigrants reported their health as excellent, compared to nearly a quarter of those who have lived in the U.S. more than five years.

The children and grandchildren of immigrants also experience poorer health and reduced life expectancy, perhaps because they are more likely to be poor, have less access to health care, adopt the American diet and sedentary lifestyle, and experience weaker social connections.

### Housing

Lower-income families who are persistently exposed to poor living conditions have higher odds of suffering from serious illnesses. Poor living conditions are usually rooted in poverty. They can include structural problems, pest infestations, mold, and toxins in the home, overcrowding, and noise, as well as pollution and crime in the surrounding area.

New research has also revealed a complex relationship between homeownership and our health, with homeowners reporting better health than renters, and those in foreclosure reporting the lowest health status. Homelessness is also a growing problem that can seriously impact the health of individuals and families.

When looking at housing in Santa Clara County, four issues cause the most concern: lack of affordable housing, overcrowding, foreclosure, and homelessness. The recession and the rising rate of foreclosures have exacerbated our local affordable housing crisis, forcing many families into substandard living conditions.

Foreclosure disproportionately affects low-income people, and is considered a cause of disparities in health and health care in the county. In addition, the number of chronically homeless individuals has risen 30% since 2007. Health-related causes (including the cost of health care) play a large role in homelessness.

### Access to Health Care

Those of us who have health coverage are much more likely to have access to regular health care, including health screenings and other preventive services that can help us avoid chronic disease. But transportation, language, and cost are also factors in accessing health care. Even if we have health insurance, it may not cover enough of the costs to make it possible to regularly access needed healthcare services. Access can be limited if we aren't able to get to doctor's appointments or can't communicate with our healthcare provider.

While most adults and children in Santa Clara County have health insurance, the number of uninsured has grown at an alarming rate. The percentage of adults without health coverage rose from 8% in 2000 to 18% in 2009. In addition, there are large disparities when we look at coverage rates by race/ethnicity, education, and immigration status. Consider that 37% of Hispanic residents in the county are uninsured compared to only 8% of Whites.

### Neighborhood Conditions

Just as conditions in our homes affect our health, the places surrounding our homes also have a relationship with our health. More than 100 years of research reveal that even after accounting for other differences among the people who live in a specific area, the characteristics of their neighborhood can be proven to impact their health. These characteristics are usually divided into three categories: physical, social, and service.

In Santa Clara County, higher percentages of Hispanic and African-American residents live in poor neighborhoods compared to the general population. Residents in low-income areas of our county are also more likely to be exposed to the harmful effects of pollution in their neighborhoods.

The social environment includes crime and other safety concerns, and more than a third of all adults in Santa Clara County reported that crime, violence, and drug activity are a problem in their neighborhood. This not only causes fear and stress, it discourages walking and other forms of exercise. An important aspect of the service environment is retail outlets and our poorer neighborhoods have a high number of stores that sell unhealthy food, alcohol, and cigarettes.

### Health is Wealth

As the Robert Wood Johnson Foundation reminds us, "the health of America depends on the health of all Americans." Good health improves our personal productivity and contributions to our communities, which in turn creates a healthier and happier society. Health inequities not only keep us from being as healthy as we should be, they also result in enormous economic, social, and personal costs. This is why we, as a nation and a community, need to be concerned about growing health inequities.

However, these are very complicated issues that raise a number of important questions. This report is intended to be the beginning of a community dialogue about health inequities in Santa Clara County. In the Conclusion, we consider where we might choose to go from here to address health inequities and promote better health for all.



# Historical Narrative

The following brief narrative gives an overview of Santa Clara County's history, focusing primarily on its economy and the growth of its largest population sectors. It provides an insight into the role history plays in shaping social determinants that influence the quality of life and the physical and mental health of our residents. In particular, we are concerned about the origins of poverty, social exclusion, cultural loss, discrimination, racism, and lack of equal opportunity and power. It is through understanding the origins of these aspects of life in Santa Clara County that all entities involved in public health can begin to address the root causes of health disparities.

## A Population Shaped by Immigrants

Santa Clara Valley's original Native American inhabitants, the Ohlone, lived peacefully for more than 1,000 years before the arrival of Gaspar de Portola and Father Junipero Serra in 1769. In

1777, the Spanish established the Valley's first mission and pueblo, Mission Santa Clara de Asís, along the banks of the Guadalupe Creek. The first census of the Pueblo of San Jose was taken in 1830 and recorded 524 inhabitants.

Since the arrival of the Spanish, Santa Clara County has always attracted new waves of people from inside and outside the United States. The first White European settler, John Gilroy (for whom the town of Gilroy was later named), came to the area in 1814. He married into a Spanish family, a practice that was common among early White inhabitants of the area. It is estimated that by 1830, there were still only 100 or fewer "foreigners" in the area. Whites did not begin to come to California in large numbers until the overland route was opened in 1841.

After nearly half a century of Spanish rule in California, the Mexican Revolution in 1821 brought an era of Mexican leadership, which lasted until 1846.

California was acquired by the United States under the terms of the 1848 Treaty of Guadalupe Hidalgo following the defeat of Mexico in the Mexican-American War. It was admitted to the Union as a free state in 1850, when Santa Clara became one of the state's original 28 counties and San Jose was briefly the state capital.

## The Agricultural Economy and its Workers

By the 1850s, agriculture flourished in Santa Clara Valley due to the expansion of railroads into the area, abundant sources of water, and a favorable climate. The area became known as the "Valley of Heart's Delight." Ethnic and immigrant farmers of many nationalities, as well as U.S. citizens, contributed to the agricultural economy and helped to make it a great source of wealth for the region.

Although many towns began to spring up in Santa Clara County in the following decades, the area remained largely rural and agricultural until after World War II. In addition to crop farming and seed production, fruit processing also became a major local industry. By 1939, San Jose had become the largest canning and dried-fruit packing center in the world, and this industry remained vital to the economy throughout the 1950s.

People of various ethnic groups have provided seasonal agricultural labor since the first commercial farms were established in California.



Chinese workers were among the first to come to the region in large numbers to work as farm laborers, but ethnic tensions and the Chinese Exclusion Act of 1882 caused their numbers to dwindle dramatically. In the ensuing years, Japanese people were recruited to work as migrant farm laborers.

However, by the 1920s, the majority of the state's farm labor population came from Mexico, driven north by the Mexican Revolution and the prospect of steady work and better wages. Filipino workers also came in large numbers between 1910 and 1930 in search of work in California. During World War II, an arrangement was made between the United States and Mexican governments to provide Mexican agricultural workers to growers. It continued after the war, becoming known as the Bracero Program, until it ended in 1964.

Workers who performed difficult physical labor in the fields received very low wages, and often had to pay corrupt labor agents to secure their jobs. Most had no access to clean water or toilets during the work day. They were regularly exposed to dangerous pesticides, and many were injured and died each year in preventable accidents. Living conditions in the migrant camps were not any better. Housing was unfairly priced, overcrowded, and often lacked running water, indoor toilets, heat, or electricity. Workers were commonly forced to buy overpriced goods in stores owned by growers, which kept them in debt and unable to escape hardship. Their average life expectancy was just 49 years.

Farm workers also experienced—and still face—active racial and class discrimination at all levels of society. Social policies that reflected prejudice against poor people of color perpetuated the degrading conditions of their lives. In particular, they were denied the economic rights that most other American workers had gained by the 1960s. For example:

- Agricultural workers were omitted from federal legislation that granted the right to organize labor unions
- They were excluded from Social Security and therefore had no access to unemployment and disability insurance
- They had no guaranteed minimum wage
- Agriculture was exempt from child labor laws
- The state laws that did govern the treatment of agricultural workers were ignored by the growers and went largely unenforced

To address these injustices, farm workers repeatedly tried to unionize. In 1962, a young Chicano named Cesar Chavez started the National Farm Workers Association (NFWA) along with Dolores Huerta. For three years, Chavez traveled across California, meeting with farm workers and building the organization. Then in 1965, he formed an alliance with Filipino labor leader Larry Itliong and in 1966, the NFWA and the Filipino-American Agricultural Workers Organizing Committee (AWOC) merged to form the United Farm Workers (UFW) union, affiliated with the AFL-CIO.

The struggles of poor farm workers and the UFW against rich, powerful growers gained national attention and support. Big growers were eventually forced to sign contracts with the union; smaller growers followed suit. The UFW also lobbied for legal reform and in 1975, it won the enactment of a California statute that became the nation's first Agricultural Labor Relations Act (ALRA), which established the Agricultural Labor Relations Board.

Most observers agree that the UFW peaked in power and numbers in the 1970s. It continues today as a labor union and an advocate for the rights of farm workers and immigrants, who still comprise the majority of agricultural workers in California and the U.S. Despite some improvements in field conditions—including wider-spread use of protective clothing, better sanitation, and some instances of healthcare coverage—agricultural working conditions are in many cases similar to the time when Cesar Chavez started the farm workers' struggle. Farm jobs are still rated among the most dangerous occupations in the U.S.

Today, urban growth and the rise of the high-tech sector in Santa Clara Valley have replaced most of our farms, orchards, and vineyards with office parks and housing tracts. After the decline of agriculture, most Mexican immigrants sought employment in industries such as construction and the service industry. For example, 76% of janitors in Santa Clara County are Hispanic.

### The Growth of the Computer Industry

The origin of Silicon Valley is associated with the iconic story of Bill Hewlett and Dave Packard, who founded Hewlett-Packard Co. in 1939 in a rented garage in Palo Alto. Their first product was an electronic test instrument used by sound engineers. The silicon-based inventions most associated with the actual birth of the computer industry are the semiconductor (1947), the Integrated Circuit (IC) (1958), and the first microprocessor (1971). The term “Silicon Valley” was coined by journalist Don C. Hoefler in 1971 in *Electronic News*. By then, several other large technology firms had opened facilities in Palo Alto, San Jose, and neighboring cities.

Those early inventions gave rise to the personal computer revolution, beginning with the introduction of the Apple 1 in 1976, and followed by the introduction of the IBM PC in 1981. The next major phase of development in Silicon Valley came with the invention of hypertext mark-up language (HTML), which is the basic building block of web pages. In 1993, the first browser for the World Wide Web was introduced. Although the digital Internet had existed for decades before the Web, web browsers enabled it to become widely used by businesses and individuals.

### The Next Waves of Immigration

The growth of the technology industry spawned a new wave of immigration. Today, the leading countries of origin for immigrants in Santa Clara County are Mexico, Vietnam, the Philippines, India, the People’s Republic of China, Taiwan, and Iran. Although it may seem that newer immigrants who come to work in the tech sector have little in common with the poor migrant laborers who came before them, there are some interesting parallels.

First, the rapid growth in non-Hispanic foreign-born workers in Silicon Valley is most associated with the creation of the H-1 program established with the Immigration and Nationality Act of 1952. Originally intended to admit temporary workers during labor shortages by exempting them from existing immigration quotas, it is a government-sponsored labor supply program that bears some resemblance to the Bracero Program.

Second, foreign workers are required to return to their home countries if they lose their jobs, or if their H-1B visas expire and are not renewed by their employers. This effectively keeps workers tied to their present employers, limiting their workforce mobility. (This is something that farm workers have experienced for decades due to employer practices that restrict advance-

ment and perpetuate poverty-level conditions.) Workers with H-1B visas are also at risk of deportation if their company lays them off or shuts down, as has become increasingly common during the present recession.

The comparison of these two programs is especially interesting given the current anti-immigrant sentiment in the U.S. It appears that most citizens are not aware of the active role the U.S. government and businesses have historically played—and continue to play—in bringing immigrants here. In fact, substantial private and public resources have been invested in convincing people of other nations to live and work in the U.S.

Here the similarities between the two immigrant groups end, however. Silicon Valley has long been a magnet for educated workers from around the world and the H-1B visa has played a key role in their presence here. An H-1B visa allows a U.S. employer to fill a position with a qualified worker from abroad if he or she has a U.S. degree or an acceptable foreign equivalent in the field specifically associated with that position. Thus the H-1B visa program favors an educated foreign-born workforce. Many of them have gone on to become entrepreneurs and now rank among some of the Valley’s wealthiest and most influential citizens.

In fact, in 1999, it was estimated that about 1 in 4 high-tech firms in the Valley were founded by immigrants. U.S. Census data shows that in 1990, immigrants accounted for 32% of the region's scientific and engineering workforce. Two-thirds of these skilled immigrants were from Asia; 51% were Chinese (from Taiwan or Mainland China) and 23% were from India. The Asian population in Santa Clara County actually grew from 8% to 32% from 1980 through 2010.

Any review of Asian immigration to Santa Clara County must include the large groups of people who fled Vietnam after the fall of Saigon in 1975. Resettlement of Vietnamese refugees in Santa Clara County began after the 1979 establishment of the U.S. government's Orderly Departure Program. Today, the largest concentration of Vietnamese Americans is in San Jose, where they form the second largest ethnic group after Mexican Americans and comprise nearly 10% of the total city population. From the time of the first refugees' arrival, Vietnamese residents have been employed in the region's technology businesses, primarily beginning as low-paid, low-skilled production workers.

Today, Asian immigrants as a whole make up nearly half of the workers in semi-skilled assembly line positions and about 40% of the unskilled workers in the high-tech industry. It's also interesting to note that some researchers

estimate that immigrant women (Asians and others) make up 68% to 90% of Silicon Valley's high-tech manufacturing labor force. These workers sometimes labor under difficult and dangerous conditions, often for very low pay, especially temporary workers whose companies contract to larger firms.

### **Economic Decline and the Rise in the Income Gap**

Rapid expansion and investment in the Silicon Valley technology sector is one of the major causes of the dot-com or Internet bubble that started in the mid-1990s and collapsed after the stock market underwent a steep decline beginning in March 2000. During the bubble era, stock and real estate prices reached unprecedented levels largely through speculation. In the aftermath, many companies filed bankruptcy and Silicon Valley workers at all socioeconomic levels experienced waves of layoffs.

This was followed not long after by 9/11, which caused further decline in the sector. Job loss has also been exacerbated by the steady growth in outsourcing of technology jobs, both skilled and unskilled, to foreign countries. While wages and jobs in Silicon Valley have always been subject to a relatively high degree of fluctuation, from 2000-2010, high-tech workers on average experienced a 12% drop in pay and the area now has about 25% fewer tech jobs.

Nationwide, the percentage of unemployed workers who have been out of a job six months or longer has grown to levels not seen since the Great Depression. Given the long duration of the recession and the weakness of the recovery, it seems possible that many more workers will continue joining the large group that already has been unemployed for one year or more. Many of the very long-term unemployed eventually leave the labor force permanently, and some of those end up on the disability rolls.

Economic trends have unfavorably affected workers and expanded the income gap in America to the largest of any industrialized nation. For example:

- The difference in after-tax income between the richest 1% of Americans and the middle and poorest fifths of the country more than tripled between 1979 and 2007.
- In the last 25 years, the income of top earners has increased 81%, while wages for those on the low end of the pay scale have stagnated or declined.
- The top 1% of American households holds more wealth than the bottom 90% combined.
- Today, 1 out of every 5 American children lives in poverty.

Unfortunately, our health as a nation has followed suit. In 1990, the U.S. ranked 27th in the world for life expectancy; in 2011 we ranked 50th.

# Race/Ethnicity

## Why is it important?

Researchers are increasingly questioning the theory that humans are separated into biologically distinct groups called “races.” Instead, race is being viewed as a concept created by human society and not a biologic determinant. Ethnicity is derived from culture and heritage, and is frequently associated with race. Like many of our colleagues in the field of public health, we will use these terms together.

In this report, race/ethnicity will be described using four abbreviated categories: African American, Asian, Hispanic, and White. It needs to be acknowledged, however, that there is diversity within each of these groups. For example, most of the health and socioeconomic indicators among Asians in Santa Clara County are at or above average compared to the other racial/ethnic groups, but if we separate the Asian subgroups based on their national origin, health and socioeconomic

status, indicators range from poor to very good. In addition, there is a growing number of people who are of mixed race and may not identify with only one group. Our understanding of the relationship between race/ethnicity and our health is still evolving, but more evidence points to the fact that differences in health outcomes between racial groups are due to the differences in our lived experiences, and not to genetic differences. The primary reason for this is believed to be discrimination, which is unfair treatment on the basis of race/ethnicity.

This reflects a long history of racial inequality in the U.S. Although all explicit forms of discrimination on the basis of race or ethnicity have been outlawed, racial segregation continues in housing and neighborhoods, and so does racial bias that limits economic and social opportunities for people of color. Racism has a big impact on society. Some individuals and groups are put

at an unfair disadvantage. Race is an indirect marker for culture, socioeconomic status, and genetic makeup. According to the Centers for Disease Control and Prevention, racism is classified into three categories: institutionalized, personally mediated, and internalized. Institutionalized racism is the process of purposely discriminating against certain groups of people through the use of biased laws or practices. Often, institutionalized racism is subtle and manifests itself in seemingly innocuous ways, but its effects are anything but subtle. An example of this type of racism is the redlining of districts to keep certain people from moving into a new neighborhood, pervasive in the financial industry in the 1950s and 60s. Personally mediated racism is racism characterized by a person’s prejudice and discrimination. Internalized racism includes self-devaluation and is often characterized by the acceptance by the stigmatized race of negative messages about their abilities and intrinsic worth.

How groups of people are perceived and treated in society is also associated with their socioeconomic status or class, which is a combination of family income, education level, occupation, and other factors. As explained in later chapters, lower socioeconomic status translates into poorer health through social isolation and unequal access to the resources that could help us live healthier, longer lives. The differences start even before birth and continue through death. Therefore, the issues of race/ethnicity, class, and health are closely related for all of us.



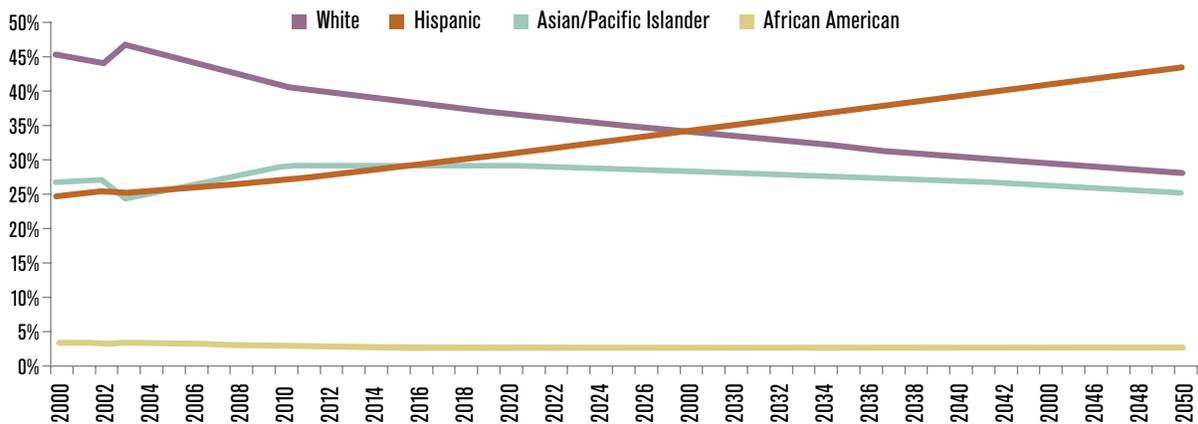
**What does the data tell us about Santa Clara County?**

Santa Clara County is truly reflective of the multicultural society that America is becoming. Our racial/ethnic composition is 35% White, 32% Asian, 27% Hispanic, and 2.3% African American.<sup>1</sup> In addition, about 3% of the population is identified as “other,” which includes two or more races, according to the 2010 Census. While the White population has declined by 19% over the last two decades since the 1990 Census, the Asian and Hispanic populations have grown by 33% and 19% respectively.<sup>2</sup> By 2050, the White population is projected to decline to 27% while Hispanics are projected to increase to 43%. Both the Asian and African-American populations are expected to decrease slightly<sup>3</sup> (Fig. 2.1).

Hispanics and African Americans are the most affected by unequal access to health resources, so it follows that changing demographics in Santa Clara County will result in greater differences in health. This will impact our health needs and demands for resources in the coming years.

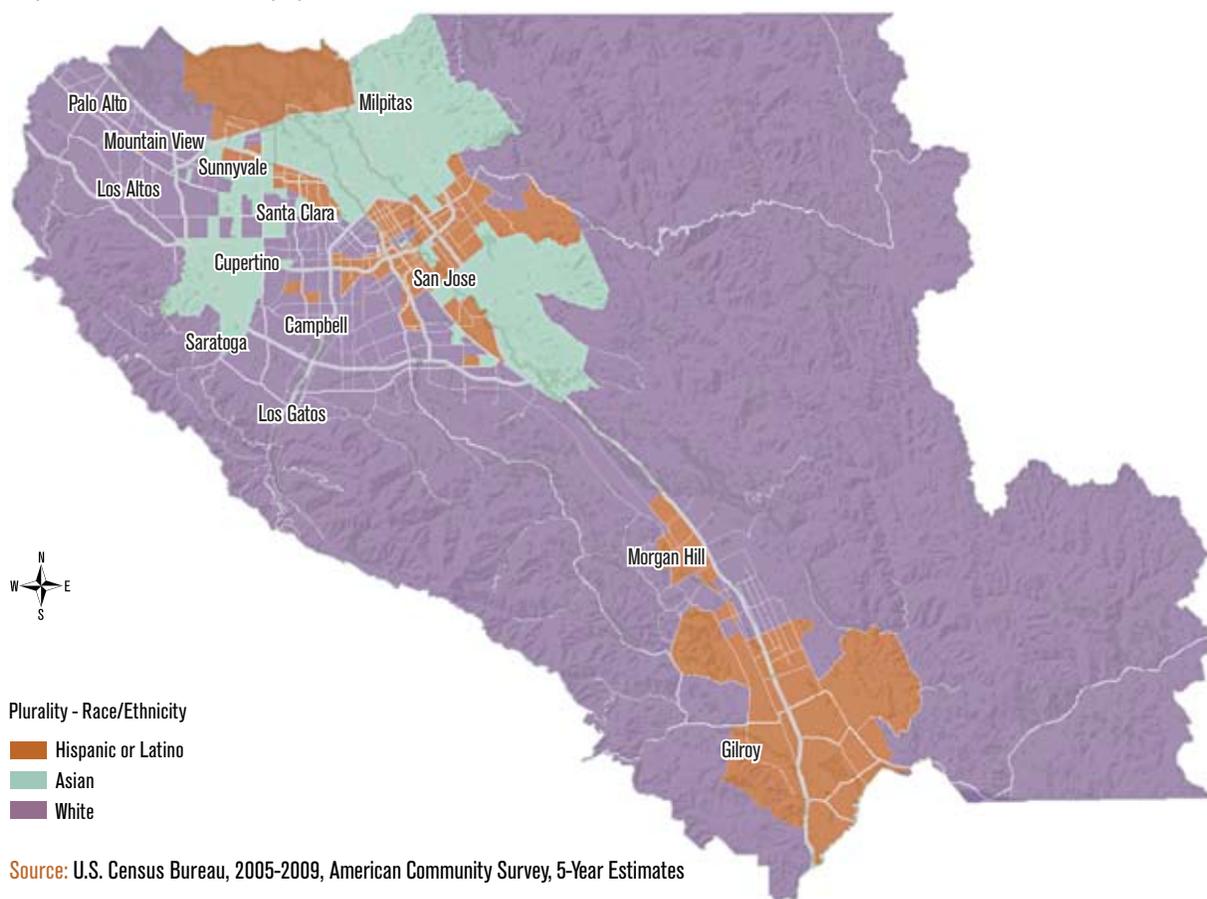


Figure 2.1: Population Projections by Race/Ethnicity, 2000-2050



Source: California Department of Finance, 2000-2050 County Population Estimates and Projections

Map 2.1: Racial/Ethnic Plurality by Census Tracts



While Santa Clara County has well-integrated areas, residents of specific racial/ethnic groups are generally concentrated in certain parts of our county (see Map 2.1). On the western side, tracts have a predominantly White population, while in the southern part of the county, and in East San Jose, many tracts have a Hispanic majority. The eastern side of the county has many tracts with a predominantly Asian population.<sup>4</sup> In general, Hispanics are the most segregated group in the county.

Mortality rates are an important indicator of health in a community. While mortality rates from all causes in Santa Clara County decreased over the past decade, racial/ethnic differences still exist. African-American residents continue to have the highest mortality rate, followed by Whites, Hispanics, and Asians.<sup>5</sup>

It is also troubling that the infant mortality rate for African Americans (10.1 per 1,000 live births) continues to be two to three times higher than that of any other racial/ethnic group. Hispanics had the next highest infant mortality rate (4.1), followed by Asians (3.3) and Whites (2.9).<sup>6</sup>

Perception of health is another factor that is closely tied to our actual health status. Higher percentages of African-American and Hispanic adults in our county report fair or poor general health compared to White and Asian adults (Fig. 2.3). Questions regarding poor mental health yield the same results.<sup>7</sup> Interestingly, the same pattern holds in perceptions of racism here. High percentages of White (90%) and Asian (87%) adults view their community's tolerance of people of other races and cultures as generally good to excellent,

while only 68% of Hispanics and 74% of African Americans share that perception.<sup>8</sup>

Social support is essential for overcoming all kinds of life stress, and is one of the most important factors in predicting the physical health and well-being of people from childhood through old age. For youth, social support includes the involvement and trust of responsible adults, the ability to participate in group activities outside of home or school, and belonging to clubs or teams. Among our middle and high school students, lower percentages of Hispanic and African-American children report that they have social support compared to White and Asian children. It is therefore not surprising that higher percentages of Hispanic and African-American children report being involved in physical fights and feeling hopeless than White and Asian children.<sup>9</sup>

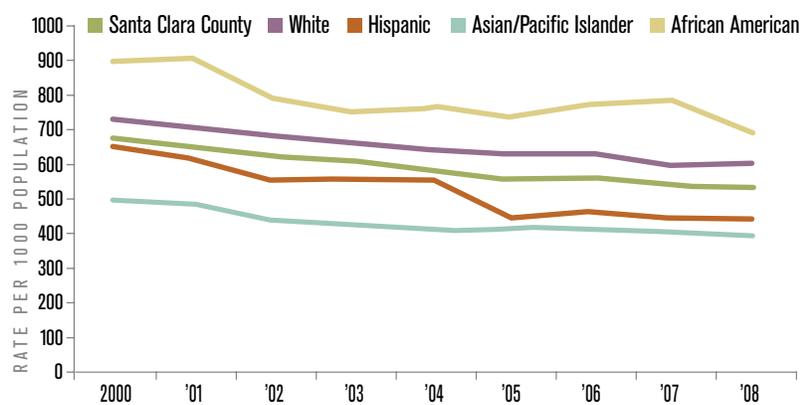
**How does it impact health?**

Racial/ethnic bias can limit where we live, learn, work, and play, and this is why race and ethnicity contribute to disparities in health. Reduced or unequal access to employment, housing, education, healthcare, and other resources decreases the social standing and socioeconomic status of specific groups. In addition, the experience of discrimination erodes our sense of control over our lives and our ability to participate in society. Negative emotional reactions to discrimination create stress and mental health issues.

While there have been improvements in life expectancy and the rates of some infectious diseases within the U.S. population as a whole, socioeconomic and racial/ethnic inequalities generally have not decreased. In fact, some studies have shown widening gaps in health and health-related behaviors. In California, for example, life expectancy for African Americans is still considerably lower than Whites (a difference of 7 years among men and 5 years among women).<sup>10</sup>

African-American women at every socioeconomic level in the U.S. have higher rates of pre-term birth and infant mortality. Incredibly, these rates exceed those of White women who have not even finished high school and those of Black women who emigrated to the U.S. from other countries. For example, infant mortality in White women with a college degree or higher level of education in the U.S. is 4 per

**Figure 2.2: Age-Adjusted Mortality Rates by Race/Ethnicity**



Source: California Department of Public Health, 2000-2008 Vital Statistics

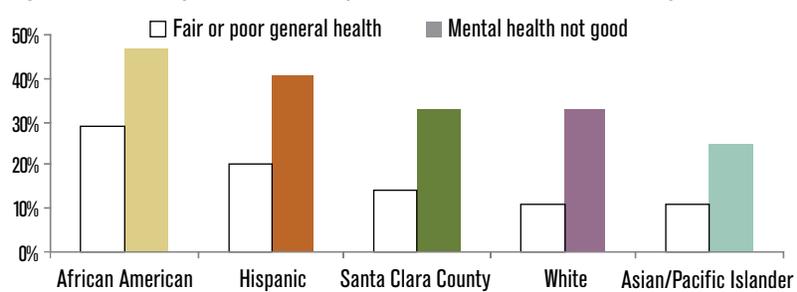
1,000 births, while the rate is 12 per 1,000 for similarly educated African-American women in the U.S.<sup>11</sup>

Our Hispanic residents, however, have lower mortality rates in spite of having a higher prevalence of risk factors (Fig. 2.2). Cultural factors like family structure, lifestyle behaviors, and social networks may somehow shield Hispanics from some of the consequences of discrimination and low-socioeconomic status. This “Latino paradox” has been found not just in Santa Clara County, but also at national and state levels across the U.S.

In the remainder of this report, we will detail the most significant differences in health outcomes for racial/ethnic groups in Santa Clara County as they relate to these key factors:

- The educational and employment opportunities available to us, both of which are major influences on income (Chapters 3, 4, and 5)
- The experiences of those of us who have immigrated to the U.S. (Chapter 6)
- The neighborhoods in which we live and the quality of the housing available (Chapters 7 and 9)
- Our ability to access the healthcare system in order to stay healthy (Chapter 8)

**Figure 2.3: Percentage of Adults Who Reported General Health as Fair or Poor by Race/Ethnicity**



Source: Santa Clara County Public Health Department, 2009 Behavioral Risk Factor Survey

**REFERENCES**

<sup>1</sup> U.S. Census Bureau, 2010 Census  
<sup>2</sup> U.S. Census Bureau, Census 1990 Summary File  
<sup>3</sup> California Department of Finance, 2000-2050 County Population Estimates and Projections  
<sup>4</sup> U.S. Census Bureau, 2005-09 American Community Survey 5-Year Estimates  
<sup>5</sup> California Department of Public Health, 2000-08 Vital Statistics  
<sup>6</sup> University of California, San Francisco, 2006-2008 Family Health Outcomes Project  
<sup>7</sup> Santa Clara County Department of Public Health, 2009 Behavioral Risk Factor Survey  
<sup>8</sup> Santa Clara County Department of Public Health, 2003 Behavioral Risk Factor Survey  
<sup>9</sup> 2007-2008 California Healthy Kids Survey  
<sup>10</sup> Lee H., McConville S. Death in the Golden State – Why Do Some Californians Live Longer? Public Policy Institute of California, California Counts Population Trends and Profiles. Vol. 9, No. 1, August 2007. Retrieved from <http://www.ppic.org/main/publication.asp?i=761>  
<sup>11</sup> Dr. Janet Taylor. Stress of racism can cause premature births for black moms. the grio; posted on 11/23/2009

# Education

## Why is it important?

While most of us know education is important, we may not realize the significant impact it has on our health. In fact, education may be the most powerful social determinant of health because it opens the doors to opportunities and resources that lead to a higher socioeconomic status or class.

More education is associated with higher-paying jobs and the related benefits like financial security, health insurance, healthier working conditions, and social connections. But even when taking income into account, a large body of evidence links education with health. That may be because education gives us the tools we need to make informed choices about our health.

People who have more years of formal education tend to live longer and are more likely to experience better health for a number of reasons. One reason is that education provides the knowledge and skills needed to get a good job, and employment and income are key factors in determining how healthy we are.



As mentioned, another important reason is that education can increase our health knowledge and cognitive skills, enabling us to make better-informed health choices. Those with more education tend to engage in healthier behaviors and stay on top of new evidence or advice about health. For example, they are more likely to exercise regularly, avoid tobacco, and get timely health checkups and screenings.

In addition, education is linked with social and psychological factors that affect our health. These

include having a sense of control over our lives, our social standing, and the social support we receive. These factors can improve health by reducing stress, influencing health-related behaviors, and providing practical and emotional support.

Also important to note is that education affects health across generations. Parents' educational attainment is linked to their children's health as well as their success in school, both of which have a significant impact on their children's health as adults.

Babies of more educated women are less likely to die before their first birthdays, and children of more educated parents tend to be healthier and do better in school. These children are born into a higher socioeconomic status and all the advantages and resources that come with it. Conversely, children born to parents with less education tend to face more obstacles.



**What does the data tell us about Santa Clara County?**

While Santa Clara County residents are better educated than the rest of the state and nation, there are disparities in educational attainment. A third of our population has only a high school diploma or even fewer years of schooling, preventing them from getting the high-paying jobs that are a hallmark of Silicon Valley.<sup>1</sup>

When we look at our general population, 44% of adults ages 25 or older in Santa Clara County have a bachelor’s degree or higher level of education compared to 29% in California and 27% in the U.S. There is also a smaller proportion of adults in the county who did not complete high school or have only a high school diploma: 32% compared to 42% in California and 45% in the U.S.<sup>1</sup>

The disparities become clear when we consider race/ethnicity as shown in Figure 3.1. More than 8 in 10 Asian and White adults, and 7 in 10 African-American adults have completed at least some college classes compared to only 3 in 10 Hispanic adults. In addition, 64% of Hispanics and 42% of Vietnamese have at most a high school diploma compared to 20% of Whites.<sup>1</sup>

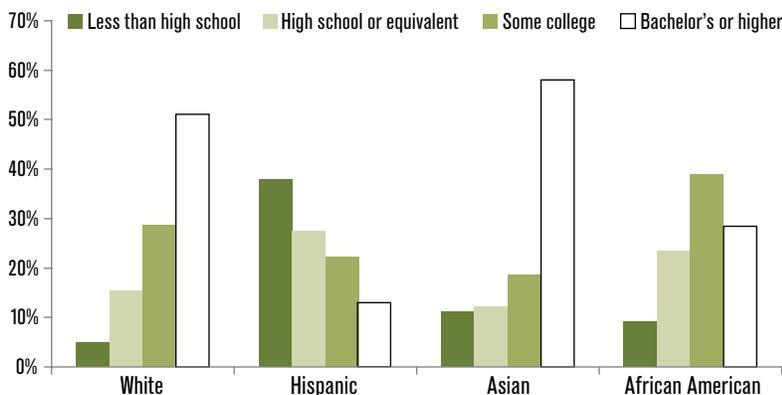
County data on immigrants’ educational attainment shows that immigrants fall into two groups: they tend to have either a very high level of education or a very low level of education. Consider that 46% of immigrants have a bachelor’s degree or higher level of education compared to 42% of U.S.-born residents. But at the opposite end of the spectrum, 22% of immigrants did not complete high school compared to 7% of U.S.-born residents<sup>1</sup> (Fig. 3.2).



“Education is a marker for an array of opportunities and resources that can lead people to better or worse health.”

David Williams,  
Commission to Build a Healthier America

**Figure 3.1: Educational Attainment Among Adults Ages 25 Years or Older by Race/Ethnicity**

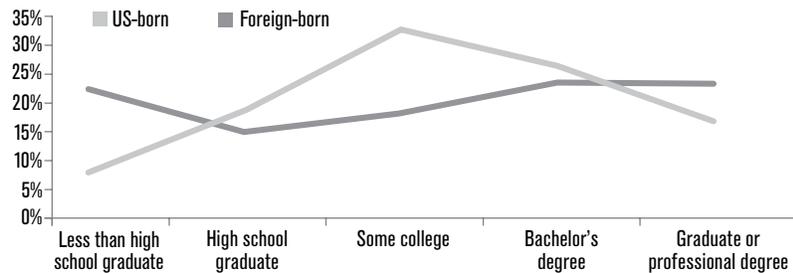


Source: U.S. Census Bureau, 2006-2008 American Community Survey, 3-Year Estimates

The fact that education and income are closely tied is apparent in Santa Clara County. Residents who live in our poorer neighborhoods are more likely to have attained fewer years of education. For example, half of the adults ages 25 or older who live in areas where at least 20% of residents have incomes at or below the Federal Poverty Level did not complete high school or have only a high school diploma.<sup>1</sup>

County residents who have more education tend to have higher

Figure 3.2: Educational Attainment Among Adults Ages 25 Years or Older by Country of Birth

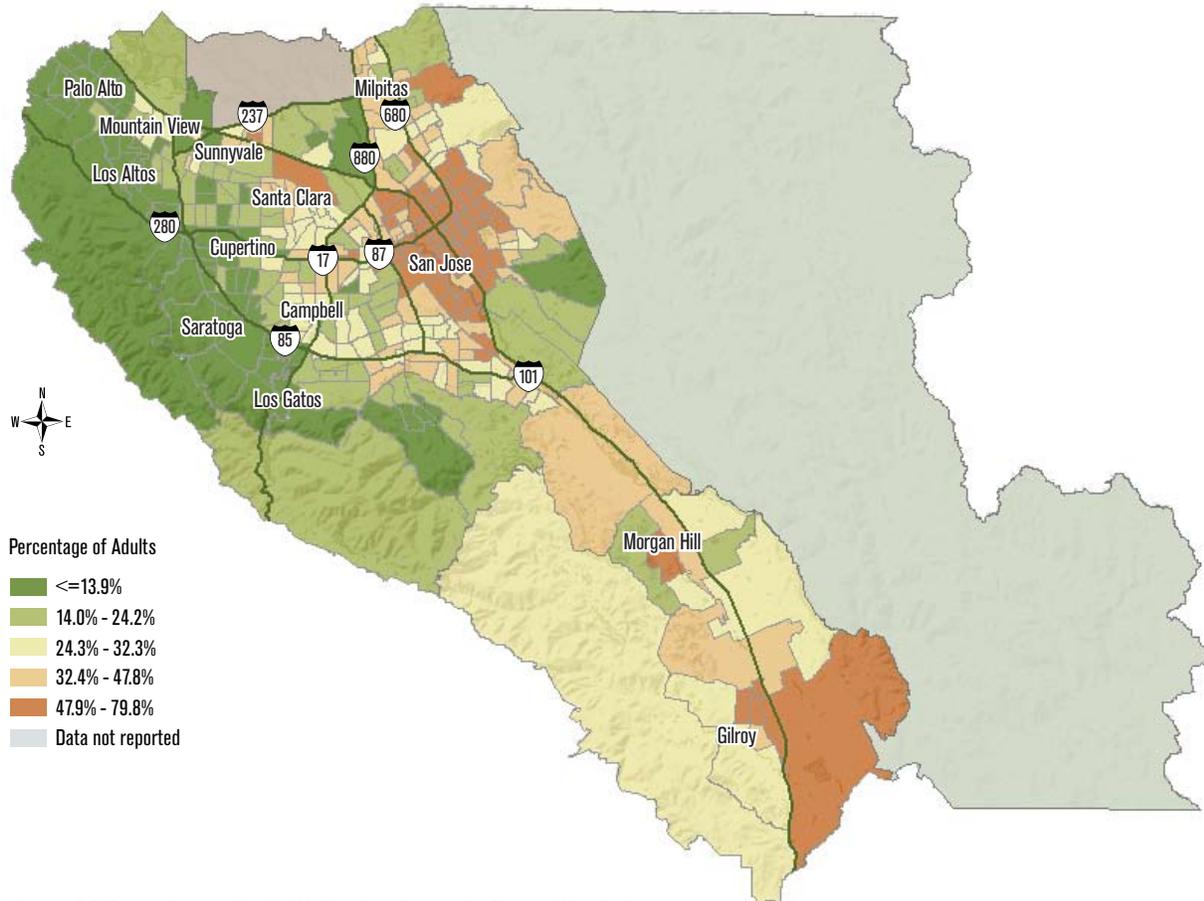


Source: U.S. Census Bureau, 2006-2008, American Community Survey, 3-Year Estimates

incomes. Maps 3.1 and 3.2 show how the geographic distribution of various educational attainment levels corresponds to median

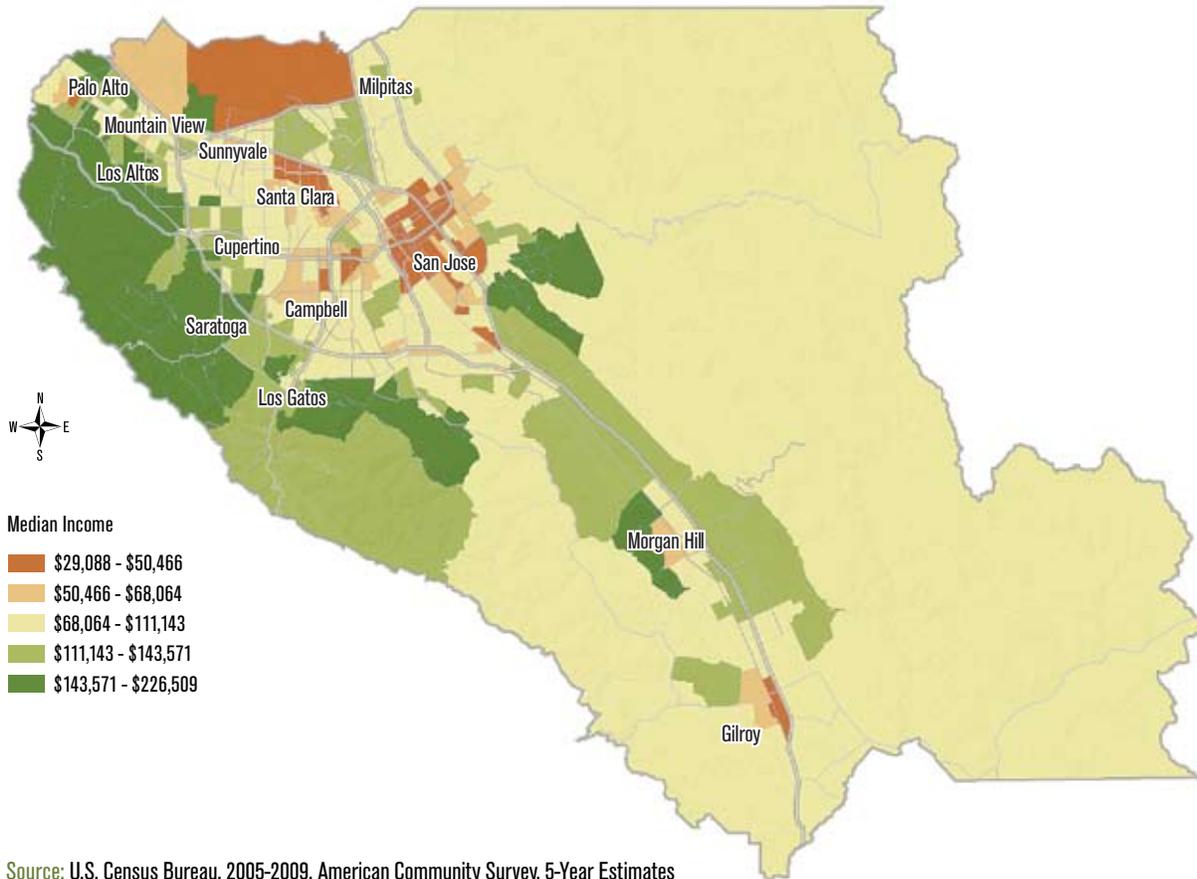
household income in Santa Clara County. Areas with lower household incomes also have lower levels of educational attainment.

Map 3.1: Educational Attainment Among Adults Age 25 Years or Older, High School Graduation or Less



Source: U.S. Census Bureau, 2005-2009, American Community Survey, 5-Year Estimates

Map 3.2: Median Household Income by Census Tracts



Source: U.S. Census Bureau, 2005-2009, American Community Survey, 5-Year Estimates

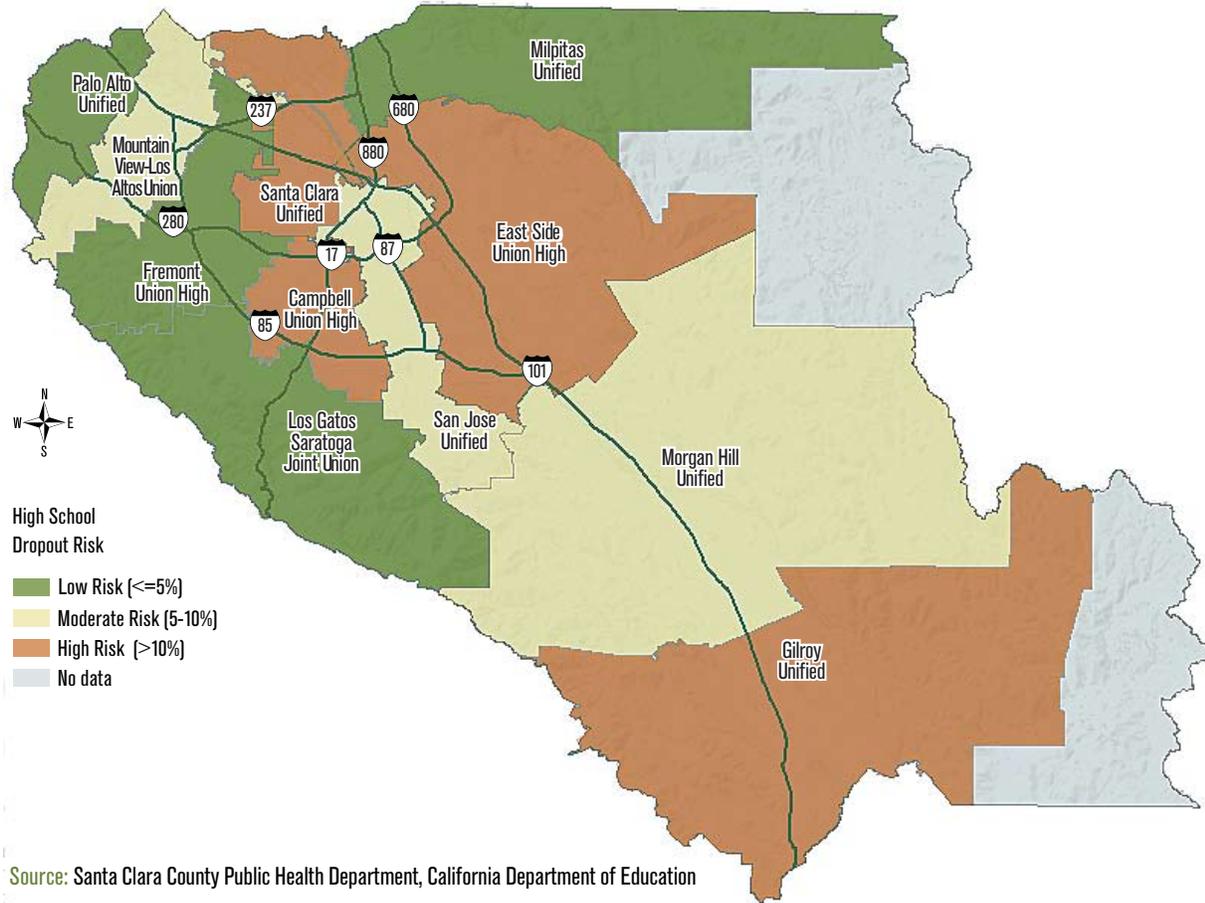


The county also suffers from a serious academic achievement gap that could negatively impact the health of some of our most vulnerable young residents. Students in school districts with higher rates of poverty—indicated by the percentage of students enrolled in the free or reduced-price lunch program—are at greater risk for low academic performance. These school districts also have a greater percentage of students who are English-language learners and/or Hispanic or African American compared to other school districts. In addition, they have lower

Academic Performance Index (API) scores and lower percentages of students who are proficient in math, science, and language arts, as well as higher dropout rates and lower percentages of students who are eligible for college.<sup>2</sup>

The academic achievement gap can also be seen in high school graduation rates. Asian/Pacific Islander students (92%) have the highest high school graduation rate followed by White (89%) students. African-American (75%) and Hispanic (69%) students have the lowest high school graduation rates.

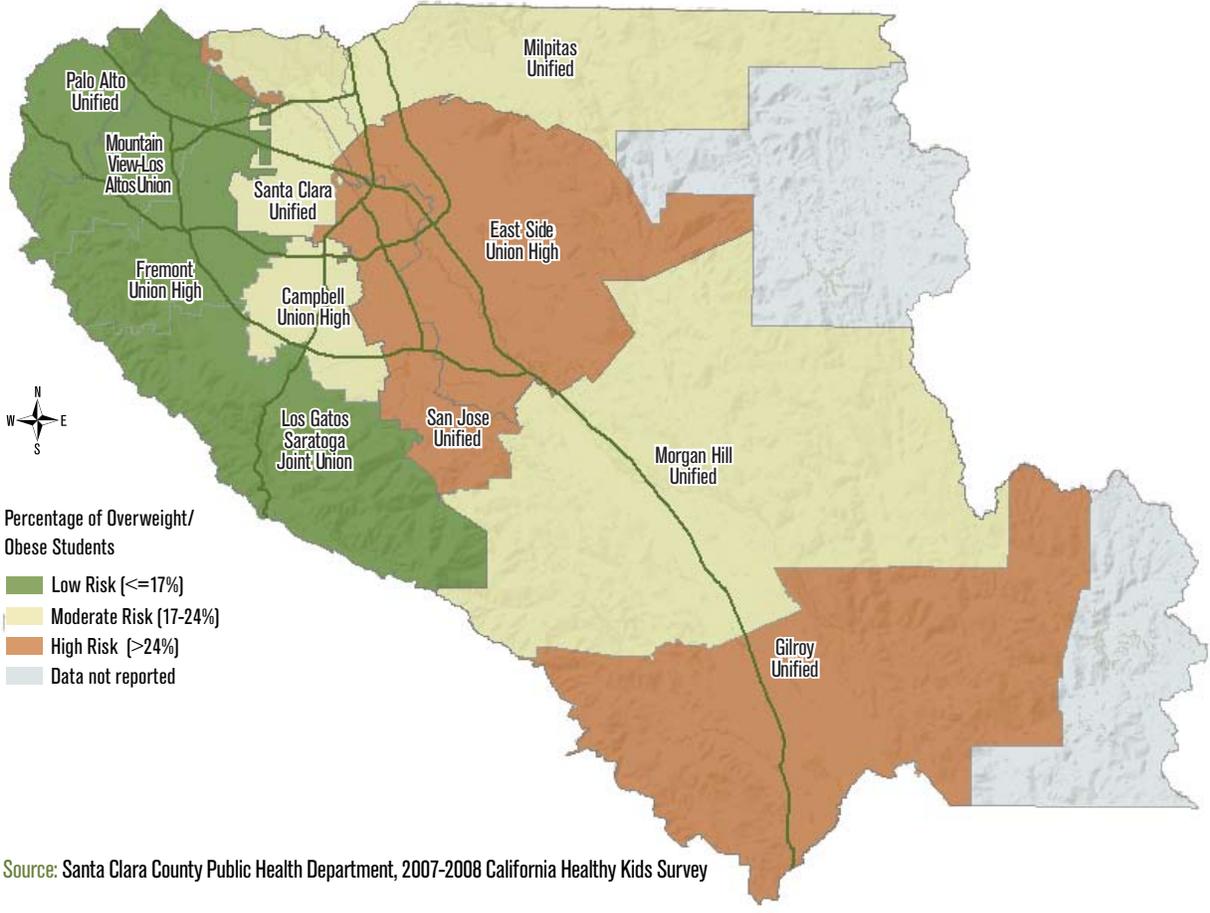
Map 3.3: High School Dropout Rates by School District



The percentage of students who graduate with courses required to enter a university also varies by race/ethnicity, with 64% of Asian/Pacific Islander students, 56% of White students, 34% of African-American students, and 26% of Hispanic students graduating with the required classes.

This achievement gap puts students in poorer neighborhoods at a disadvantage when it comes to attaining higher levels of education. As a result, they are more likely to have lower-wage jobs and fewer economic, social, and health resources over the course of their lives.

Map 3.4: Percentage of Overweight/Obese High School Students by School District



Source: Santa Clara County Public Health Department, 2007-2008 California Healthy Kids Survey



**How does it impact health?**

Poor academic achievement is associated with poorer health as shown in Maps 3.3 and 3.4. For example, areas with higher dropout rates correspond to areas with higher percentages of students who are overweight or obese.

When looking at adults, those with higher levels of education tend to experience better health and lower rates of disease. They are less likely to suffer from high blood pressure, emphysema, or diabetes, which can seriously impact quality of life. Those with

more education are less likely to report they are in poor health or suffer from anxiety or depression. They also report spending fewer days in bed or not at work because of disease, and they have fewer functional limitations.

The more education people have, the more likely they are to report their health as good, very good, or excellent. As shown in Figure 3.3, a higher percentage of adults with at least a bachelor's degree reported their general health as good or better compared to adults who have less education.<sup>3</sup>



People with higher levels of education also tend to have more health-promoting behaviors, including eating more fruits and vegetables and other healthy foods, getting regular physical activity, and refraining from smoking or drinking too much alcohol. For example, 13% of adults with a high school education or less are current smokers compared to 5% of adults with a bachelor's degree or higher level of education.<sup>3</sup>

Those with more education are also more likely to change their behavior in response to new evidence, health advice, and public health campaigns (about the risks of smoking, for example).

Having a sense of control over our lives also improves health. Higher levels of education have been linked with greater perception of personal control, which fosters skills, habits and attitudes—such as problem-solving, purposefulness, self-directedness, perseverance and confidence—that contribute to people’s expectations that their own actions and behaviors shape what happens to them. Increased sense of control in turn has been linked with higher levels of self-rated health, lower levels of physical impairment, and decreased risk of chronic conditions.

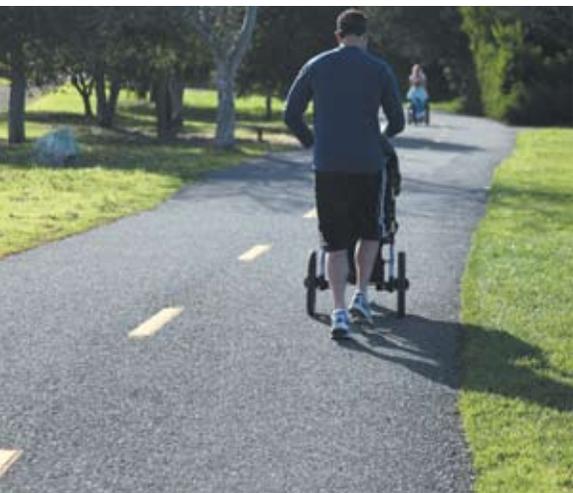
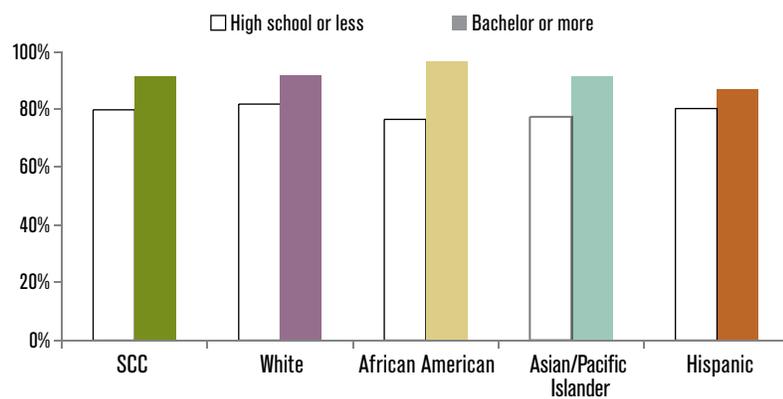


Figure 3.3: Percentage of Adults Reporting Their General Health as Good or Better by Educational Attainment



Source: Santa Clara County Public Health Department, 2009 Behavioral Risk Factor Survey

REFERENCES

- <sup>1</sup> U.S. Census Bureau, 2006-2009 American Community Survey 3-Year Estimates
- <sup>2</sup> California Office of Education, Data Quest, 2008-2009 school year
- <sup>3</sup> Santa Clara County Department of Public Health, 2009 Behavioral Risk Factor Survey

# Income

## Why is it important?

Income affects our health in many ways. Those with higher incomes are more likely to live longer, healthier lives. More income leads to resources that promote better health, including access to health care, nutritious food, safe housing, and nurturing neighborhoods.

Conversely, those living in poverty face a number of hardships that can lead to poor health. These include homelessness, food insecurity, overcrowded housing, and limited access to health care. For example, pregnant women “on the lowest rungs of the ladder” receive less prenatal care, experience higher levels of stress, and deliver more premature and low-weight babies, who are at higher risk for premature death and a number of serious health conditions like breathing problems and heart disease.<sup>1</sup>

Poverty has a significant impact on children and can affect health



across generations. Children living in poverty are seven times more likely to have poor health than children living in high-income households.<sup>2</sup> Poor physical and emotional health can hurt their ability to succeed in school and eventually earn a decent wage, raising the risk that poverty and poor health will be passed on to the next generation.

However, the relationship between income and health is a complicated one. While

the United States is one of the richest countries in the world, people who live in America have one of the shortest life expectancies of any industrialized nation. The U.S. ranks behind 20 other developed countries even though our per capita income is substantially higher.<sup>1</sup> This may be due to lifestyle factors as well as the lack of universal access to health care in the U.S.

In addition, while some neighboring counties see wide gaps in life expectancy based on income, this is not the case in Santa Clara County. For example, in some other counties life expectancy is as high as 81 years for those in high-income neighborhoods compared to 69 years for those in low-income neighborhoods. But in Santa Clara County, the gap is only 3 years: 82 compared to 79 years<sup>3</sup> (Fig. 4.1).



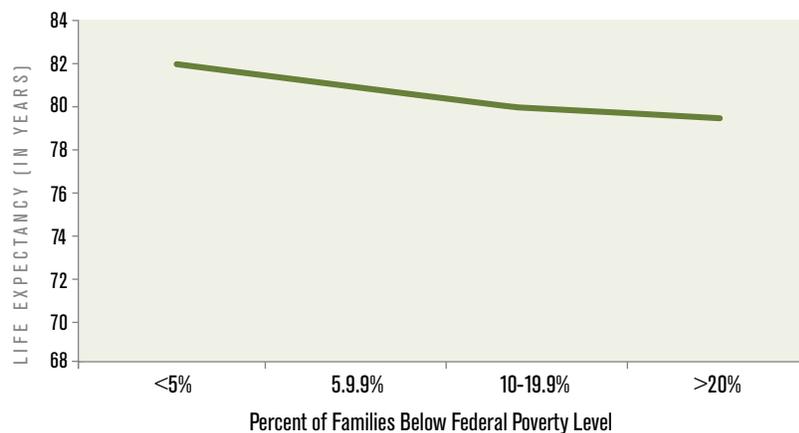
### What does the data tell us about Santa Clara County?

Santa Clara County has the second highest median household income in the state (\$88,848 in 2008), but there are significant disparities, particularly when we consider race/ethnicity, gender, and age. While more than 4 in 10 households in the county have annual incomes of \$100,000 or more, nearly 3 in 10 have annual incomes of \$50,000 or less.<sup>4</sup>

The disparities become clear when we look at race/ethnicity, with about twice the percentage of Hispanic and African-American households making \$50,000 or less compared to Asian and White households (about 2 in 5 Hispanic and African-American households compared to 1 in 5 Asian and White households). Conversely, 24% of Hispanic households and 25% of African-American households have incomes of \$100,000 or more compared to 54% of Asian and 48% of White households.<sup>4</sup>



Figure 4.1: Life Expectancy in Santa Clara County by Neighborhood Poverty Groups



Source: Bay Area Regional Health Inequities Initiative, Health Inequities in the Bay Area Report, 2008

In fact, looking at 2008 numbers, median annual earnings varied widely in our county by race/ethnicity and gender, from a high of \$70,348 for White men to a low of \$22,747 for Hispanic women. These large disparities reflect differences in wages both within occupations and between occupations. Consider that Hispanic residents account for 76% of Silicon Valley's janitors, an occupation with median annual earnings of just \$18,710.

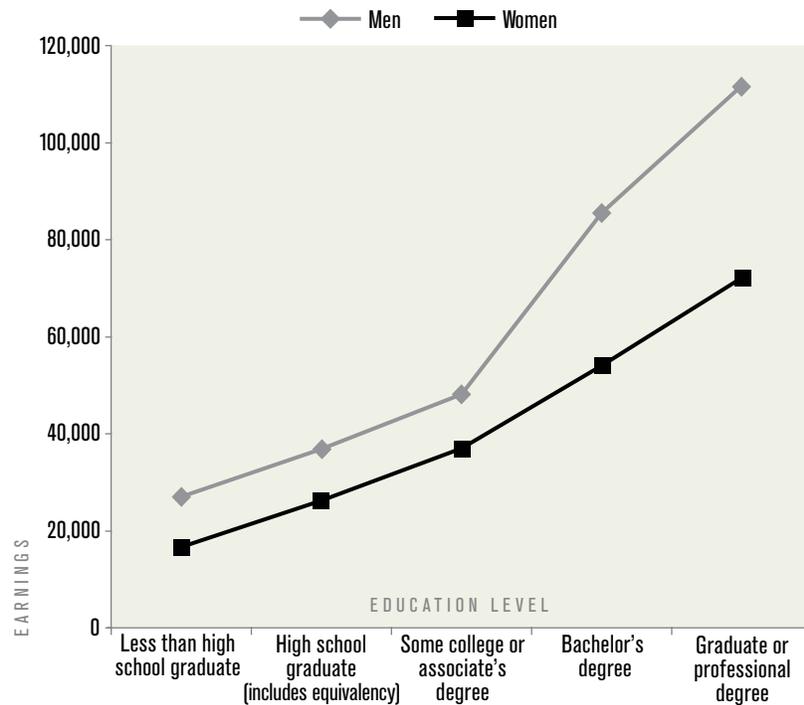
On the other hand, Whites fill 70% of all legal occupations, with average median annual earnings of \$113,300.<sup>5</sup>

In addition, median income levels are lower for women across all education levels in Santa Clara County as shown in Figure 4.2.<sup>6</sup>

While nearly 1 in 10 children and 1 in 12 adults live below the Federal Poverty Level (FPL) in Santa Clara County, differences exist between racial/ethnic groups. There is a disproportionate number of Hispanic and African-American residents living in poverty. For example, 13% of Hispanics and 13% of African Americans have incomes below FPL, compared to 6% of Asians and 5% of Whites.<sup>4</sup>

But the FPL does not tell the whole story because it fails to take into account the high cost of living in Santa Clara County. For example, the FPL for a family of three is \$18,530 no matter where we live.<sup>7</sup> Instead, the Self-Suffi-

Figure 4.2: Median Income by Education and Gender



Source: U.S. Census Bureau, 2006-2008 American Community Survey, 3-Year Estimates

ciency Standard provides a clearer picture because it measures the actual cost of living on a county-by-county basis, accounting for different family sizes, ages of children, and local variations in costs. In 2008, the Self-Sufficiency Standard for a family of two adults

and one infant living in Santa Clara County was \$58,512.<sup>8</sup>

Taking into account all income sources, 22% of Santa Clara County households fall below the Self-Sufficiency Standard, meaning their incomes are too low to cover the basic costs of living. The vast majority (86%) are “working poor.” In the Bay Area, 45% of Hispanic households and 32% of African-American households fall below the level of self-sufficiency compared to 14% of White households.<sup>9</sup> And when we look at age, nearly half of all Santa Clara County seniors (48.4%) are economically insecure, with incomes too low to meet their basic needs without assistance.<sup>10</sup> Unfortunately, federally funded income-support programs are based on FPL, leaving a large number of needy county residents without government assistance.



### How does it impact health?

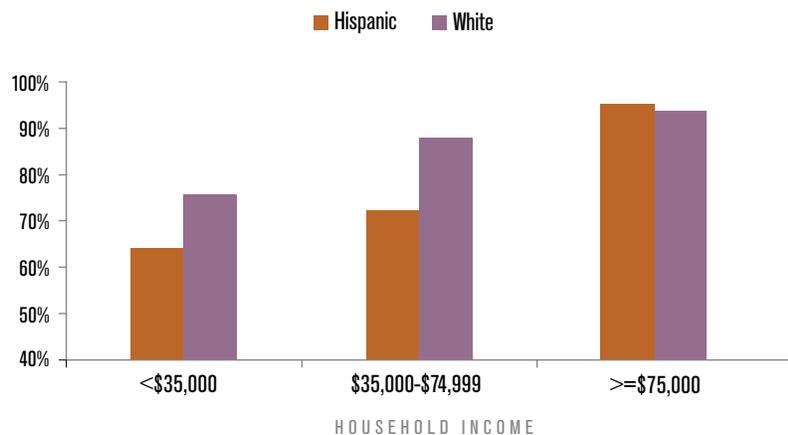
Income affects our health in a number of ways, including poorer overall health for those with lower incomes, as well as higher rates of obesity and smoking—two risk factors for a number of serious chronic diseases like diabetes and emphysema. In addition, income impacts our access to health care.

According to the data, income plays a bigger role in health than race/ethnicity, meaning Whites with lower incomes tend to have poorer health than people of color with higher incomes. For example, in Santa Clara County 76% of Whites with annual incomes of \$35,000 or less reported general good health compared to 90% of African Americans and 95% of Hispanics with annual incomes of \$75,000 or more<sup>11</sup> (Fig. 4.3).

Income also impacts mental health, with 39% of county residents who earn \$20,000 or less reporting poor mental health (stress, depression, and emotional problems) compared to 27% of residents who earn \$75,000 or more.<sup>11</sup>

Food insecurity is also higher among those with lower incomes. In 2009, 4% of adults in the county reported that they had gone hungry in the past 12 months because they could not afford food. Along with women

Figure 4.3: Percentage of Adults Reporting General Health as Good or Better by Household Income and Race/Ethnicity



Source: Santa Clara County Public Health Department, 2009 Behavioral Risk Factor Survey

and people without a college education, those making less than \$50,000 were most at risk for food insecurity. In addition, more Hispanics reported this than any other racial/ethnic group. Hispanics were more likely to have been unable to afford food and to live in households that had been helped by a church, food pantry, or food bank.<sup>11</sup>

However, while the poorest among us are most likely to be food insecure, they are also more likely to be obese. Consider that 28% of county residents with annual incomes of \$20,000 or less reported being obese compared to 15% of those earning \$75,000

or more.<sup>11</sup> This is explored further in Chapter 9, which addresses the availability of healthy food in lower-income neighborhoods.

Adults with lower incomes also smoke at twice the rate of adults with higher incomes: 19% of county residents earning \$20,000 or less compared to 9% of residents earning \$75,000 or more.<sup>11</sup> This has serious implications for health because smoking is the most significant preventable cause of death, resulting in more than 400,000 premature deaths in the U.S. every year.<sup>12</sup> The further we move down the economic ladder or social gradient, the more tobacco use we see.

### REFERENCES

- Adler N, Stewart J, Cohen S, Cullen M, Roux Diez A, Dow W, Evans G, Kawachi I, Marmot M, Matthews K, McEwen B, Schwartz J, Seeman T, Williams D. Reaching for a Healthier Life: Facts on Socioeconomic Status and Health in the United States. The John D. and Catherine T. MacArthur Foundation Research Network on Socioeconomic Status and Health, 2007
- National Health Interview Survey, 2001–2005.
- Bay Area Regional Health Inequities Initiative. Health Inequities in the Bay Area Report, 2008
- U.S. Census Bureau, 2008 American Community Survey 1-Year Estimates
- Economic Policy Institute Analysis of 2007 ACS Microdata
- U.S. Census Bureau, 2006–2008 American Community Survey 3-Year Estimates.
- Federal Register Vol. 76, No. 13, January 20, 2011, pp. 3637–3638. Monthly percentage data calculated by FHCE and rounded to the nearest dollar.
- The Insight Center for Community Economic Development, 2008
- Diana M. Pearce, Overlooked and Undercounted 2009: Struggling to Make Ends Meet in California. United Way, December 2009. <http://www.insightcoed.org/uploads/ctes/CA%20Overlooked%20%20Undercounted%202009.pdf>
- Wallace SP and Smith SE. Half A Million Older Californians Living Alone Unable to Make Ends Meet. Los Angeles, CA: UCLA Center for Health Policy Research, 2009.
- California Counties [http://www.healthpolicy.ucla.edu/eess0209\\_pdf/santa-clara\\_A.pdf](http://www.healthpolicy.ucla.edu/eess0209_pdf/santa-clara_A.pdf)
- Santa Clara County Department of Public Health, 2009 Behavioral Risk Factor Survey
- Sorensen G, Barbeau E, Hunt MK, Emmons K. Reducing social disparities in tobacco use: A social-contextual model for reducing tobacco use among blue-collar workers. *Am J Public Health.* 2004;94(2):230-239.

# Employment

## Why is it important?

Employment is the third component of socioeconomic status or class, which takes into account education, income, and occupation. Those with more education, higher incomes, and better jobs are considered to have a higher socioeconomic status, which numerous studies link to better health.

Employment impacts our health in other ways as well. In addition to income, employment provides resources that lead to better health, like medical and dental insurance. Depending on our jobs, employment can also give us a sense of purpose, social contact, and opportunities for personal growth.

Conversely, unemployment has been linked to poor health, and those with lower socioeconomic status are more likely to work in occupations that have unhealthy working conditions and lack the type of benefits needed to help them stay healthy.



### What does the data tell us about Santa Clara County?

While the recent recession has taken a serious toll on Santa Clara County residents—2 in 5 Silicon Valley households have been hit by job losses since the recession began three years ago—some workers have been disproportionately affected.<sup>1</sup> Silicon Valley lost 84,500 jobs and local unemployment reached a 60-year high during the recession.<sup>2</sup> Despite reports of an improved economy, unemployment in Santa Clara County stood at 10.4% in December 2010. That is a dramatic increase from 2006, when the unemployment rate was 4%.<sup>3</sup>

Particularly troubling is that long-term unemployment in California has more than doubled since 2007. In fact in 2009, an unprecedented 35% of all unemployed workers were out of work for more than six months.<sup>2</sup> Considering that 83% of insured adults in the county get their health coverage through their employer, this has serious implications for health.<sup>4</sup>

While there is not a wealth of local employment data, local and national trends indicate that Hispanic residents, immigrants, those with less education, and



older adults have been hardest hit by the recession. That may be in part because the worst losses in our county were in the construction industry, where employment fell 35%.<sup>2</sup>

In a survey of 515 county adults, about half of Hispanic residents reported job losses.<sup>1</sup> Local immigrants, who account for 38% of the county's population, may have suffered similar losses. National numbers show that foreign-born workers lost 400,000 jobs from 2008 to 2010 and the national unemployment rate for immigrants is still more than double the rate prior to the recession.<sup>5</sup>

National numbers also show that those with fewer years of education face higher rates of unemployment. For example, the unemployment rate in the U.S. is 18% for those without a high school diploma, 12% for high school graduates, 8% for those with some college or an associate's degree, and 5% for those with a bachelor's degree or higher level of education.<sup>6</sup>

Older adults also seem to have experienced more job loss based on national numbers. In the U.S., 2.2 million of the 14.9 million unemployed are ages 55 and older. Nearly half of them have been unemployed for six months or longer. Some have been forced into early retirement, which can create an intense financial burden, particularly for those with lower incomes. The poverty rate among those ages 55-64 in the U.S. increased to 9.4% in 2009, up from 8.6% in 2007.<sup>7</sup>



**How does it impact health?**

Whether we are employed or not and the type of job we have affects our health. Unemployment, poor working conditions, and high-stress jobs tend to have a negative impact on health.

Santa Clara County residents who are unemployed are four times more likely (12%) to report their health as fair or poor rather than good or excellent compared to those who are employed (3%). In addition, poor mental health and suicide attempts are more common among county residents who are unemployed, with 44%

reporting at least one day of poor mental health each month compared to 30% of those who are employed. Similarly, 4.5% of unemployed residents reported that they had attempted suicide in the past 12 months compared to 1.5% of those who are employed.<sup>8</sup>

Several studies also link job loss to a number of chronic diseases, including diabetes, arthritis, heart attack, and stroke. In fact, national data shows that a person who experiences job loss has an 83% greater chance of developing a stress-related health problem like diabetes, arthritis, or psychiatric issues.<sup>9</sup>



Job loss among older adults tends to have wide-ranging health consequences. For example, the six- and 10-year risk of heart attack or stroke in people ages 51-61 who have lost their jobs is more than double that of those in the same age range who are employed. Stress-related changes in health behavior have also been documented among older unemployed adults, including less physical activity, more smoking and smoking relapse, and increased drinking and weight gain, which raise the risk of diabetes and heart disease.<sup>10</sup>

When looking at those who are employed, blue collar workers have twice the mortality rate as white collar workers, which may be due in part to more challenging working conditions.<sup>11</sup> In general, blue color workers perform manual labor while white collar workers have office jobs. Blue collar workers are more likely to hold lower-paying jobs with more occupational hazards, including environmental and chemical exposures, fewer breaks, and other conditions that put them at higher risk for injury and death. They are less likely to have benefits like paid sick and personal leave, workplace wellness programs, child and elder care resources, and retirement benefits, in addition to employer-sponsored health insurance.



However, working in the high-tech industry can also have a negative impact on health, even though working conditions and benefits tend to be good. This is significant because high-tech workers account for a large proportion of Santa Clara County's workforce. The fast pace in

high-tech companies has caused employees to work extended and weekend hours, putting a strain on mental health. In addition, many companies have been forced to reduce their payrolls, causing them to add extra duties and responsibilities to remaining staff.



#### REFERENCES

- San Jose State University, Survey and Policy Research Institute poll conducted Sept. 27-Oct. 16 among 515 Silicon Valley adults
- Andrea Alarcon, Louise Auerhahn, Bob Brownstein, Cindy Chavez, Brian Darrow, Jeremy Ray. *Life In The Valley Economy*, Silicon Valley Progress Report 2010. Working Partnerships USA.
- California Employment Development Department, data as of February 2010
- California Health Interview Survey, 2007
- Rakesh Kochhar, C. Soledad Espinoza and Rebecca Hinze-Pifer. 'After the Great Recession: Foreign Born Gain Jobs; Native Born Lose Jobs' Pew Hispanic Center, Washington, D.C. (October 29, 2010)
- U.S. Department of Labor, 2010
- Rich, M. Older unemployed struggle to rejoin the workforce. *The New York Times*. (September 19, 2010) Retrieved from [http://www.nytimes.com/2010/09/20/business/economy/20older.html?\\_r=1](http://www.nytimes.com/2010/09/20/business/economy/20older.html?_r=1)
- Santa Clara County Department of Public Health, 2009 Behavioral Risk Factor Survey
- Kate W. Strully, Job Loss and Health in the U.S. Labor Market Demography - Volume 46, Number 2, May 2009, pp. 221-246
- William T. Gallo, PhD,\* Elizabeth H. Bradley, PhD., Tracy A. Falba, PhD., Joel A. Dubin, PhD., Laura D. Cramer, ScM, Sidney T. Bogardus, Jr., MD, and Stanislav V. Kasl, PhD. Involuntary Job Loss as a Risk Factor for Subsequent Myocardial Infarction and Stroke: Findings From the Health and Retirement Survey. *Am J Ind Med*. 2004 May; 45(5): 408-416.
- Armstrong, D.L., Strogatz, D., Barnett, E., Wang, R. Joint effects of social class and community occupational structure on coronary mortality among black men and white men, upstate New York, 1988-92. (Research Report). *Journal of Epidemiology & Community Health*; May 01, 2003; British Medical Association.)

# Immigration

## Why is it important?

Immigration is an integral part of life in Santa Clara County. According to the U.S. Census, 38% of our residents were born outside the U.S., the highest proportion for any county in California.<sup>1</sup> Therefore, understanding the history and status of our immigrant population is critical to comprehending the overall health and health barriers experienced by Santa Clara County residents.

Studying immigrant health is complicated by the fact that our immigrant population is diverse; it's difficult to characterize the many factors that influence their health and life experiences in simple terms. Immigrants vary widely by country of origin, race/ethnicity, culture, educational attainment, language, socioeconomic status, immigration status (documented or undocumented), age, reasons for emigrating, and other characteristics. In fact,

“Immigration is an enduring hallmark of the United States, helping to drive economic growth and define national identity since the country’s founding.”

Silicon Valley Community Foundation

immigrants reside at every point on the wide spectrum of socioeconomic status in Santa Clara County, from great wealth to extreme poverty.

However, despite their differences, research has shown that simply being an immigrant does have a measurable impact on an individual’s health. Immigration status is a significant social determinant of health and this conclusion is supported by numerous studies. The likely reason is that being an immigrant influences

every other factor that affects health, including educational attainment, income and employment opportunities, cultural norms (which determine diet and other health-related behaviors), neighborhood and housing options, and access to health care.

As this chapter also explains, the impact of immigration status on health actually changes over time. Despite the challenges that all immigrants face, as a group they have an advantage over U.S.-born residents in terms of health status during the first five years in this country. Unfortunately, this advantage disappears over time, and the children and grandchildren of immigrants generally have poorer health than the immigrants themselves do. Given the size of our immigrant population, both of these trends merit further study, and the results could potentially be helpful to U.S.-born residents as well as immigrants.

Immigrants who are undocumented face increased health risks. While data about undocumented immigrants in Santa Clara County is unavailable, it is believed that nearly a quarter of the country’s estimated 11.2 million undocumented immigrants live in California.<sup>2</sup> Surveys of these immigrant groups have reported less use of healthcare services and poorer experiences with care compared with their U.S.-born counterparts. They may avoid health care because of fears of exposure and deportation. They are also at increased risk of exploitation through dangerous or degrading working conditions that can affect their health.



### What does the data tell us about Santa Clara County?

More than a quarter of immigrants came to Santa Clara County in the past decade.<sup>1</sup> This means that nearly three-quarters have been settled here for 10 years or longer. As we'll learn in the next section, longer stays in the U.S. actually have a negative impact on the health of most immigrants.

About 60% of our foreign-born residents emigrated from Asian countries and 30% from Latin American countries, but there are significant cultural and language differences within and across these two groups.<sup>1</sup> Comparisons between the groups and between U.S. and foreign-born residents yield interesting and diverse results in terms of the factors that influence health.

For example, language ability is linked to income-earning potential and income plays a major role in health. More than 100 languages and dialects are spoken in Santa Clara County, and in 2007 the county became one of only 10 U.S. counties in which half of the residents speak a language other than English at home. Though 27% of the county's immigrants speak Spanish and 64% speak another language as their primary tongue, 50% speak English either exclusively or very well and 10% speak only English.<sup>1</sup>

Also, data on the educational attainment of immigrants shows some interesting

contrasts to the U.S.-born population at both ends of the spectrum, reflecting a more bimodal educational pattern. Among immigrants, many are either highly educated (having attained a bachelor's degree or higher level) or have relatively little formal education.<sup>1</sup>

No review of immigration data is complete without mentioning youth because children of

immigrants are the fastest-growing segment of our child population. Studies have found that young children of immigrants are more likely to live in low-income families. However, among immigrant families, there is significant variation between groups. For example, nearly half of young children in San Jose with a parent born in Mexico live in low-income families versus only 8% of those with a parent born in East Asia.<sup>3</sup>



**How does it impact health?**

As we have seen, it's difficult to characterize the "immigrant experience" in Santa Clara County because of the vast differences in the backgrounds of immigrants. The most vulnerable immigrants are those who have been subjected to poverty, hunger, discrimination, violence, and separation from loved ones before resettling here. But even among immigrants who don't experience such adversity, settling in a foreign country can be difficult.

Despite our history as a nation of immigrants, Americans are ambivalent about newcomers to our society. This creates social and economic challenges that can lead to health inequities, though experiences may vary depending on an immigrant's race/ethnicity, educational attainment, language skills, employment, and other factors. As would be expected, undocumented immigrants have the greatest social, economic, and health disadvantages.



There are other stressors on immigrants and their families that specifically affect their mental health. Lack of extended family connections and other social supports are a concern for all ages. Parent-child relationships suffer as both generations struggle with changing family dynamics. The children are caught between two worlds and face enormous pressure to become more “American” in order to fit in. In addition, seniors experience social isolation, depression, and poor health when their adult children work full-time, they have difficulty relating to their grandchildren, and they can’t access culturally sensitive social and healthcare services.

But here we also encounter what has been referred to as the “immigrant health paradox” or the “healthy migrant effect.” Despite the challenges that all immigrants face, they have a considerable advantage over U.S.-born residents in terms of health. Studies in the Bay Area have shown that immigrants have lower rates of mortality than their U.S.-born racial/ethnic counterparts. They are also less likely to suffer from common chronic diseases and their risk factors, including hypertension, asthma, heart disease, obesity, and smoking.



A number of explanations are possible for this paradox. For example, U.S. immigration policies generally favor healthier immigrants, and some less healthy, older immigrants do return to their native countries. But the explanation that seems most likely is immigrants have healthier behaviors that lower their risk for chronic health problems. For example, they tend to eat a better diet and fewer of them smoke. It's been suggested that overall health in our community could be improved if more of us adopted the healthy lifestyle practices introduced by immigrant groups.



Unfortunately, this “protective effect” of immigration does not last long. For example, in a recent Santa Clara County survey, more than half of those who have lived in the U.S. five years or less described their health as excellent, compared to less than a quarter who have lived in the U.S. more than five years.<sup>4</sup> Numerous studies about actual health status and behavior prove that their perceptions are accurate.

Overall, immigrants from all groups report lower satisfaction, not just with their health, but in many major areas of life such as housing and employment training. Figure 6.1 shows significantly greater needs expressed by immigrants than U.S.-born residents.

Children and grandchildren of immigrants also experience poorer health and reduced life expectancy. As the MacArthur Foundation concluded, “First-

generation immigrants, born in their native land, have better health than their descendants born and raised in the United States.” The difference in life expectancy between immigrants and U.S.-born generations is found in all racial/ethnic groups, but is greatest for Blacks. Black immigrant men and women live 8 and 6.5 years longer, respectively, when compared to U.S.-born Black Americans.<sup>5</sup>



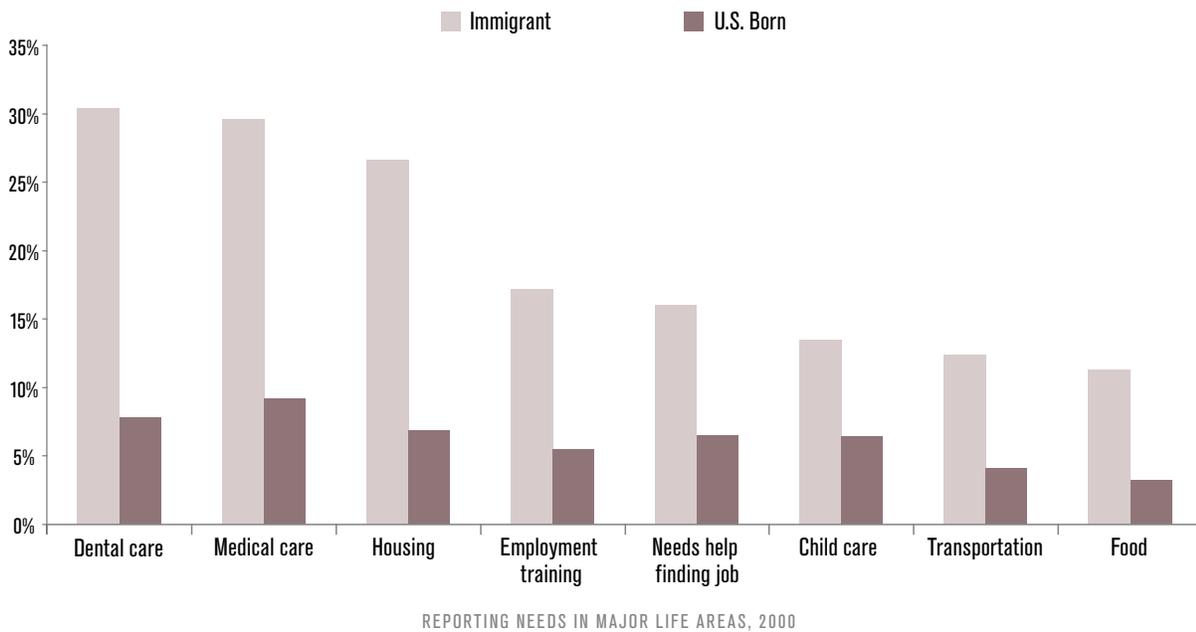
In fact, a number of serious concerns affect the health of second- and third-generation immigrants. The reasons may be that they are more likely to experience poverty, live in substandard housing, and have less access to health care. Also, more of them have adopted the high-calorie American diet and sedentary lifestyle, and they smoke and engage in substance abuse in greater numbers than their immigrant parents and grandparents. It also appears that healthy, supportive family and social connections grow weaker as immigrants and their families integrate into American society.



Lastly, it is important to note that immigration status itself strongly affects access to health insurance, which is another key determinant of health. For example, studies in neighboring

counties have shown that recent immigrants are twice as likely to be uninsured than are U.S.-born citizens. And in the U.S. as a whole, 3 in 5 low-income non-citizens are uninsured.<sup>7</sup>

**Figure 6.1: Percentage of Immigrants vs. U.S.-Born Residents Reporting Needs in Major Life Areas**



Source: Santa Clara County Office of Human Relations, Citizenship and Immigration Services Program, 2000

**REFERENCES**

- U.S. Census Bureau, 2008 American Community Survey 1-Year Estimates
- Michael Hoefler, Nancy Rytina, Bryan C. Baker. Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2008. U.S. Department of Homeland Security, Office of Immigration Statistics Policy Directorate
- Dixon, David. Young Children of Immigrants in the San José Knight Community. Migration Policy Institute for the John S. and James L. Knight Foundation, 2004.
- Santa Clara County Department of Public Health, 2009 Behavioral Risk Factor Survey
- Adler N, Stewart J, Cohen S, Cullen M, Roux Dietz A, Dow W, Evans G, Kawachi I, Marmot M, Matthews K, McEwen B, Schwartz J, Seeman T, Williams D. Reaching for a Healthier Life: Facts on Socioeconomic Status and Health in the United States. The John D. and Catherine T. MacArthur Foundation Research Network on Socioeconomic Status and Health, 2007
- Beyers M, Brown J, Cho S, Desautels A, Gaska K, Hovsley K, Iton T, Lee T, Maker L, Martin J, Murgai N, Schaff K, Witt S, Anderson SM. Life and Death from Unnatural Causes Health and Social Inequity in Alameda County, August 2008.
- Brown, Richard E., Roberta Wyn, and Victoria D. Ojeda. Noncitizen Children's Rising Uninsured Rates Threaten Access to Health Care, Policy Brief 99-5 (Los Angeles, CA: University of California, Los Angeles Center for Health Policy Research, June 1999).

# Housing

## Why is it important?

Recent studies in the U.S. have shown that after adjusting for age, sex, race, education, and income, there are clear differences in the health of people based on their housing status. It now appears that we can't explain the large disparities in the health of lower-income and minority families compared with other groups just in terms of factors such as diet or heredity. The differences must be at least partially due to housing. And those who are persistently exposed to poor living conditions have higher odds of suffering from serious illnesses.

There are many physical ways in which a home affects our health, including the structural quality: whether the dwelling has been built and maintained properly or if it has faulty wiring, inadequate heating or cooling, sanitation issues, mold and dampness, or pest infestations. Another hazard to consider is exposure to toxic chemicals, often used to deal with some of the aforementioned problems.

Even in structurally sound housing, overcrowding can be an issue. This is more common among low-income and immigrant families, who need to “double up” in order to afford a place to live. Overcrowding has been associated with a rise in infectious diseases, and it also interferes with health-related activities such as sleeping, exercising, and eating properly.

The quality of the neighborhood surrounding a home can affect living conditions within the home as well. This is true of environmental issues such as pollution (including excess noise) as well as violence and crime, which is explored more in Chapter 9.

The home has long been considered one of the most dangerous places for children because it is where most childhood accidents occur. This is true of all kinds of homes, but with poor housing conditions there are higher incidents of the worst accidents as well as exposure to lead paint and other hazardous substances.

While it is well-known that unhealthy living spaces contribute to disease and even early death, new research has revealed a closer and more complex relationship between housing and our health. In surveys about health status, homeowners who are not experiencing any financial strain have reported the best health, followed by homeowners with moderate strain, renters, and those who have experienced foreclosure.<sup>1</sup> Local statistics support national findings: 80% of Santa Clara County residents who report excellent health status are homeowners, while only 17% are renters.<sup>2</sup>

Lastly, we must consider the growing problem of homelessness, which has a two-way relationship with health. First, health issues can impact a person's ability to pay for housing, and chronic physical or mental health problems are major contributors to homelessness. Regardless of the reasons for their homelessness, however, the health of homeless people is often worse than that of the general public.



### What does the data tell us about Santa Clara County?

When looking at the housing picture in Santa Clara County, four issues cause the most concern: lack of affordable housing, overcrowding, foreclosure, and homelessness. Each is related to income and the fact that the price of housing in Santa Clara

County is high. For example, in 2008, the median monthly housing payment was \$3,059 for homeowners and \$1,365 for renters.<sup>3</sup>

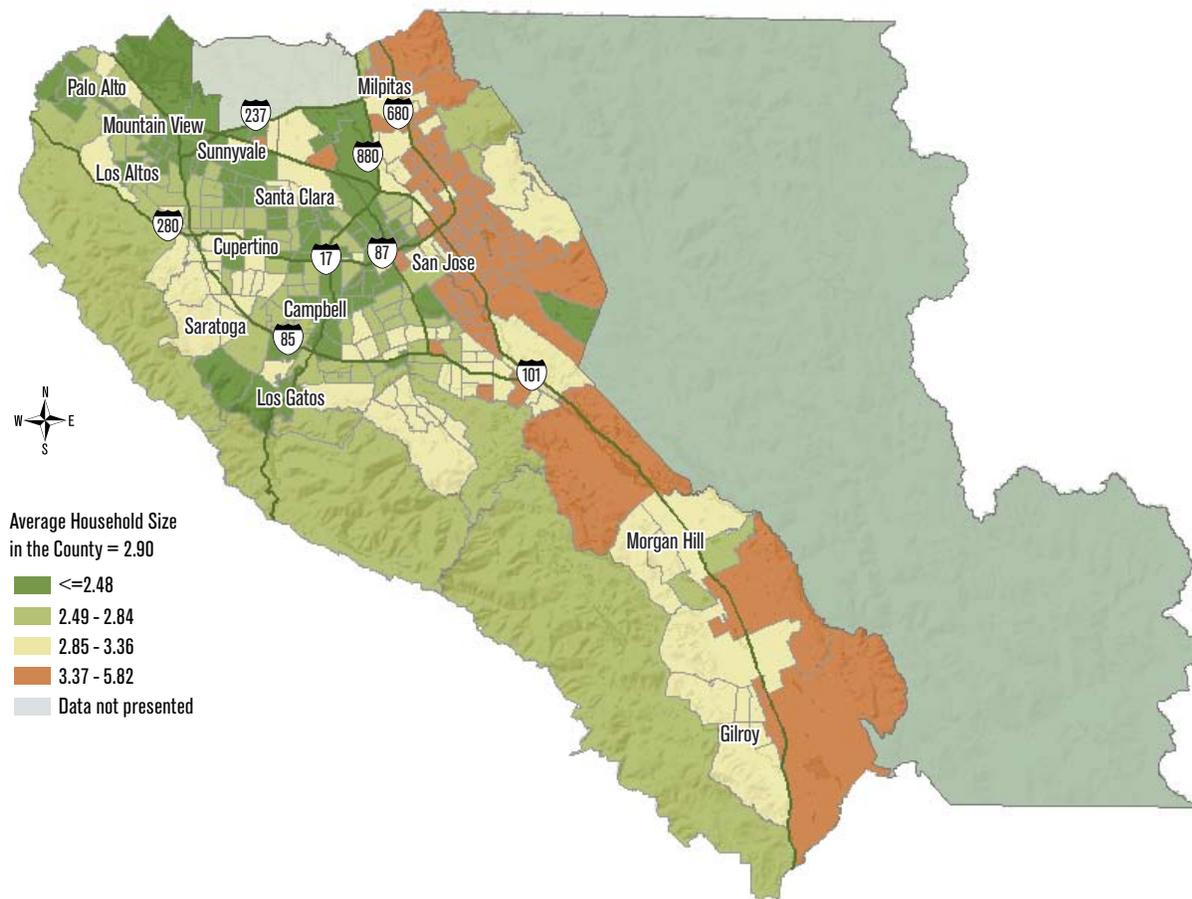
More than half of homeowners (51%) and 44% of renters spent 30% or more of their household incomes on housing in Santa

Clara County, compared to 38% of homeowners and 16% of renters nationwide.<sup>4</sup> The number of households in Santa Clara County that could afford to buy an entry-level home decreased from 62% in the first quarter of 2009 to 53% in the third quarter of 2010.<sup>5</sup> From 2007 to 2009, the percentage of Hispanics who were homeowners in Silicon Valley decreased 7 percentage points, mirroring a statewide trend.<sup>8</sup>

Households with more people tend to cluster along the “poverty corridor” shown in Map 7.1. As could be expected, there are racial/ethnic disparities in this aspect of housing. Though the average number of household members in Santa Clara County is relatively low (2.92 people), there are notable differences between groups: 2.4 for Whites, 2.77 for African Americans, 3.35 for Asians, and 4.2 for Hispanics.<sup>6</sup>



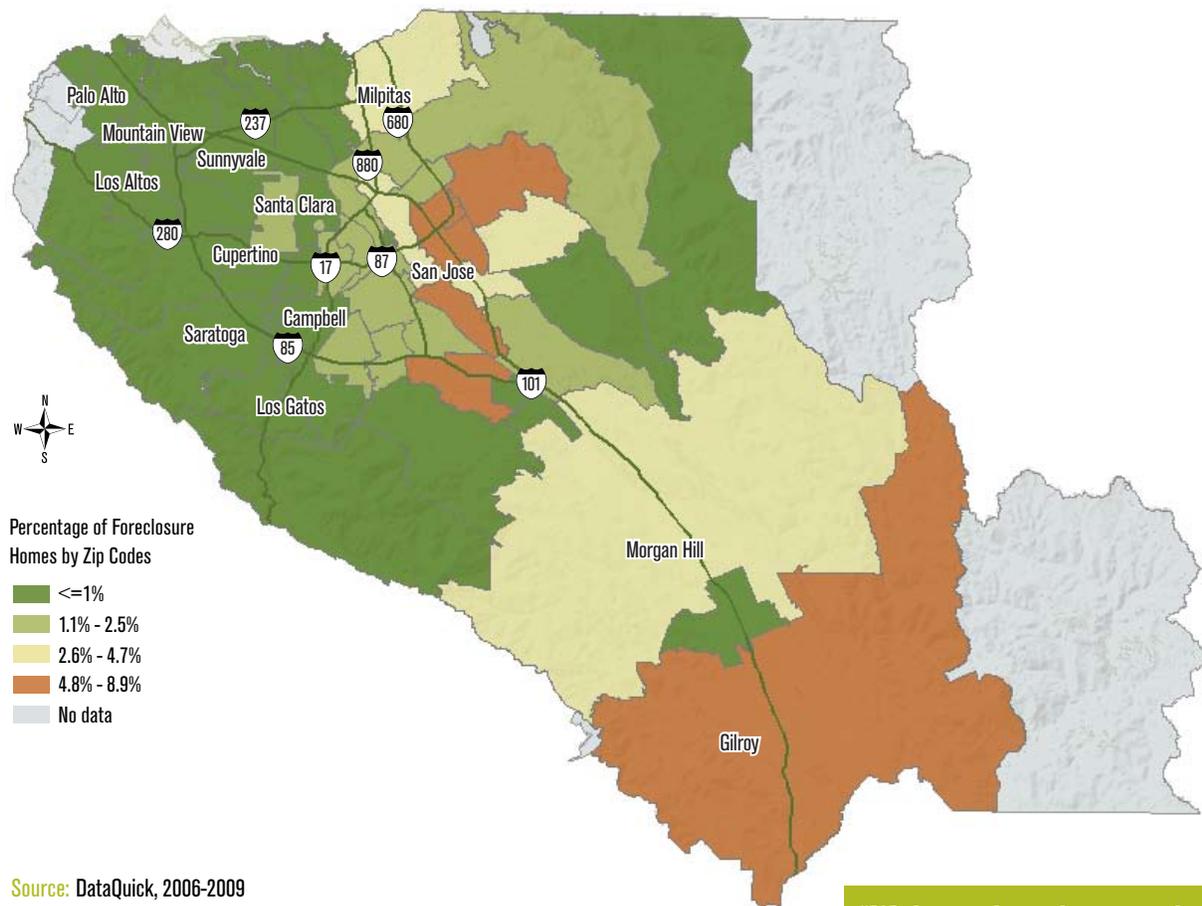
Map 7.1: Average Household Size by Census Tracts



News about rising foreclosure rates has been constant in the past few years, but many still do not realize the extent of this crisis. Between 2006 and 2008, 1 in 40 homeowners in Santa Clara County received a notice of default on their mortgage, and foreclosure activity grew by more than 500%.<sup>7</sup>

Although the crisis was precipitated by rising unemployment caused by the recent recession, poor health and the resulting medical expenses also cause a substantial number of personal bankruptcies in the U.S. For example, 7% of participants in the National Foreclosure Mitigation Counseling Program reported that medical issues were the

Map 7.2: Foreclosures by Zip Codes



Source: DataQuick, 2006-2009

primary reason they were facing foreclosure.<sup>1</sup>

One of the reasons foreclosure is receiving close attention from health researchers is the strong association between home ownership and good health, as mentioned earlier. Foreclosures have disproportionately affected low-income people, and this trend is now considered a cause of disparities in health and health care within our population (Map 7.2). In addition, the effects are felt neighborhood-wide. Higher numbers of foreclosures create a sense of fear, distrust, and instability that can negatively affect all residents' health.

When we look at homelessness, we see that in 2009, 1 in 40 Santa Clara County residents had been homeless or temporarily displaced in the past two years; about a third of those were immigrants. About 2 in 5 of those who were displaced reported that they or their spouse had been laid off in the past 12 months.<sup>7</sup> While the percentage of Hispanic residents in our county who are homeless is small, it is higher than the rate of homelessness among non-Hispanics and it is on the rise.<sup>8</sup> Currently, the total number of homeless individuals in the county is about 7,000. While this is less

"We know that where people live has a major impact on their health. Common sense alone tells us that healthy places result in healthy people."

Improvement and Development Agency of the U.K.

than 0.4% of our population, the number of chronically homeless individuals has risen 30% since 2007. It's also important to note that health-related issues play a large role in causing homelessness in our community: 67% of homeless residents had one or more disabling conditions, 47% reported at least one mental health issue, and 41% reported substance abuse issues.<sup>9</sup>

**How does it impact health?**

A number of troubling statistics demonstrate that housing often inhabited by low-income individuals is associated with a variety of preventable health conditions. Heart and lung diseases are disproportionately found among people who lived in low-income households in both their childhood and adulthood. Asthma rates are higher among children living in low-income communities. Diabetes is approaching epidemic proportions in the U.S. and there appears to be a relationship between poor housing, neighborhood conditions, and the higher rate of diabetes. Even increases in headaches and migraines could be related to exposure to pesticides among families living in

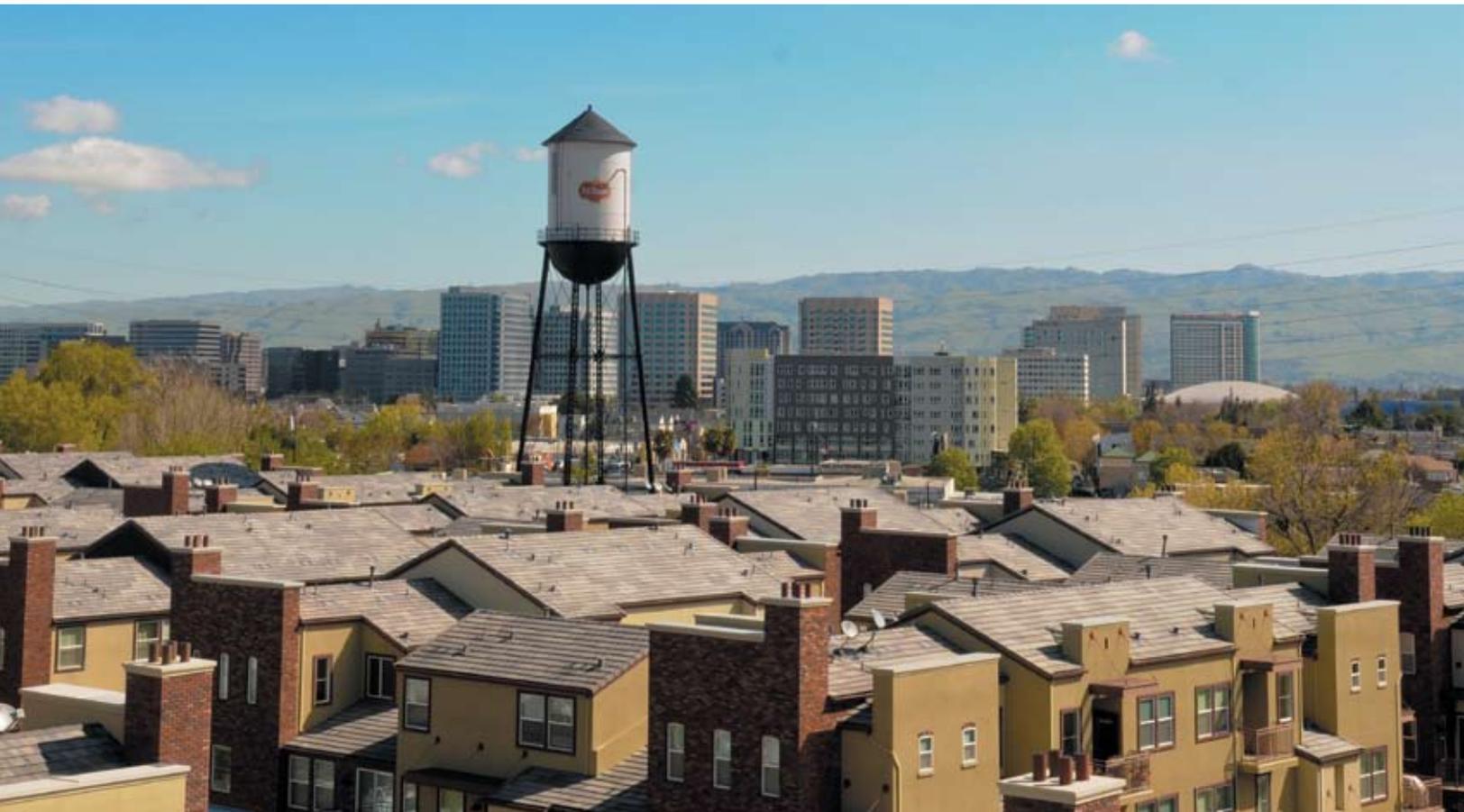
poor-quality housing, which is more likely to have pest infestation problems.

Earlier, we mentioned the higher proportion of accidents and lead exposure experienced by children in poor living conditions, but there are other ways housing interferes with their healthy development. When children aren't able to sleep through the night because of noise or other disruptions, they are less able to focus on activities during the day, especially in school.

Also, children need a quiet place at home where they can study and complete homework assignments in order to be successful in school. As discussed in Chapter 3, education is

directly tied to health status. Home environments that are not conducive to learning in childhood can create socioeconomic disadvantages that affect people's health throughout their lives.

Crowding in the home is a problem for people of all ages. Not only is it associated with higher rates of infectious diseases, but it also robs people of privacy, limits their access to facilities such as kitchens and bathrooms, and increases noise levels in the home. It can be degrading and stressful, and may interfere with sleep and other normal daily activities that are important for maintaining good health.



As mentioned earlier, foreclosure rates have been on the rise in Santa Clara County. It appears that health and wealth are closely linked, and the financial strain of foreclosure can cause extreme stress. This can lead to poor eating habits and decreased exercise; increased use of alcohol, tobacco, and drugs; sleep disturbances; and general neglect of a person's health. In one study of people who were at least two months behind on their mortgage payments, more than one-third met the screening criteria for major depression.<sup>1</sup>

Housing displacement is especially hard on our children and is considered a specific

health risk with effects that continue into adolescence and adulthood. Relocation breaks up families and social connections that are important for a child's well-being and development. Also, relocating frequently is directly associated with higher rates of child abuse and neglect.

On the other end of the housing spectrum, homelessness subjects people to crowded, inadequate, and unhealthy living conditions. It also causes extreme mental stress, and limits an individual's access to healthcare resources as well as the educational and job opportunities needed to reverse their situation.



#### REFERENCES

- <sup>1</sup> Pollack CE, Lynch J, Alley DE, Cannuscio CC. Leonard Davis Institute of Health Economics Issue Brief, Volume 15, Issue 2, January/February 2010.
- <sup>2</sup> California Health Interview Survey, 2007
- <sup>3</sup> U.S. Census Bureau, 2008 American Community Survey 1-Year Estimates
- <sup>4</sup> U.S. Census Bureau, 2009 American Community Survey 1-Year Estimates
- <sup>5</sup> Santa Clara County Association of Realtors, 2010.
- <sup>6</sup> U.S. Census Bureau, Census 2000 Summary File
- <sup>7</sup> Santa Clara County Department of Public Health, 2009 Behavioral Risk Factor Survey
- <sup>8</sup> Silicon Valley Latino Report Card, 2011
- <sup>9</sup> Santa Clara County, 2009 Homeless Census and Survey Report

# Access to Health Care

## Why is it important?

Access to health care refers to the ability to get preventive care or treatment for medical or mental health conditions. Limited or no access can negatively impact our health. For example, lack of access to health care has been associated with poor perception of health and poor overall productivity as well as increases in hospital admissions for conditions that could be managed with outpatient care, emergency room visits, and premature death.

Whether we have health insurance or not has a major influence on our access to health care. Those who have health coverage are much more likely to have access to regular health care, including health screen-

ings and other preventive services that can help us avoid chronic disease. In addition, people with health-care coverage are more likely to see a doctor early on and less likely to use the emergency room for care.

But transportation and language are also factors in accessing health care. Even if we have health insurance, we may not be able to get to the doctor's office or pharmacy. The ability to reliably and affordably make it to healthcare appointments is not equal for all residents. People who are disabled and those with low incomes face greater hurdles because they may not be able to drive and public transportation may be unreliable or inaccessible.

In addition, if doctors or other healthcare providers don't speak our language, it makes it more difficult to get our healthcare needs met. In fact, language barriers can have tragic consequences, causing misdiagnoses and other medical errors.

Cost is another issue that impacts our access to health care. Even if we have health insurance, it may not cover enough of the costs to make it possible to regularly access needed healthcare services. For example, we might not be able to pay our portion of a doctor's visit or afford the medication we need. And for those without health insurance, cost is an even bigger barrier.

Most people who have private medical insurance get it through their employers. Public programs like Medicare and Medicaid (Medi-Cal in California) provide health coverage to seniors and people with low incomes who don't get it through their employers or can't afford it. But even with these programs, about 46 million people in this country and nearly 250,000 adults in Santa Clara County are uninsured.<sup>12</sup> Recent healthcare legislation is expected to reduce the number of uninsured, but it will not be fully implemented until 2014.





### What does the data tell us about Santa Clara County?

While most adults and children in Santa Clara County have health insurance, the number of uninsured has grown at an alarming rate. Consider that the percentage of adults without health coverage rose from 8% in 2000 to 18% in 2009. When looking at adults younger than 35, that number jumps to 35% uninsured. In addition, some of our most vulnerable residents—including people of color as well as those who are poor, less educated, and disabled—do not have adequate health or dental coverage.<sup>3</sup>

Job losses and cutbacks by local companies are the major reason for this trend. But budget cuts at the state and local levels have also left many of our residents without coverage. For example, more than 126,000 low-income adults in Santa Clara County, including seniors and disabled residents, lost their dental benefits when funding for the Denti-Cal program was cut in 2009.<sup>4</sup> In addition, more than 2,500 children lost their health coverage between 2008 and 2010 due to cuts to the county's Healthy Kids program.<sup>5</sup>

There are huge disparities when we look at coverage rates by race/ethnicity, education, and immigration status. Consider that 37% of Hispanic residents in the county are uninsured compared to only 8% of Whites. Rates for African Americans and Asian/Pacific Islanders fall in the middle at 29% and 13% respectively.<sup>3</sup>

There is an even bigger gap between those without a high school diploma (43% uninsured)

“Of all the forms of inequity, injustice in health care is the most striking and inhumane.”

Martin Luther King, Jr.

and those with a bachelor's degree or higher (8% uninsured). We also see inequalities when we consider immigration status: 27% of Santa Clara County immigrants reported being uninsured in the last year compared to 14% of U.S. citizens.<sup>2</sup> While local data is not available, national numbers indicate that even fewer undocumented immigrants have health insurance. In the U.S., 65% of undocumented immigrants are uninsured compared with 32% of permanent residents.<sup>6</sup>

In addition, Map 8.1 shows that those without health insurance are concentrated in lower-income neighborhoods.

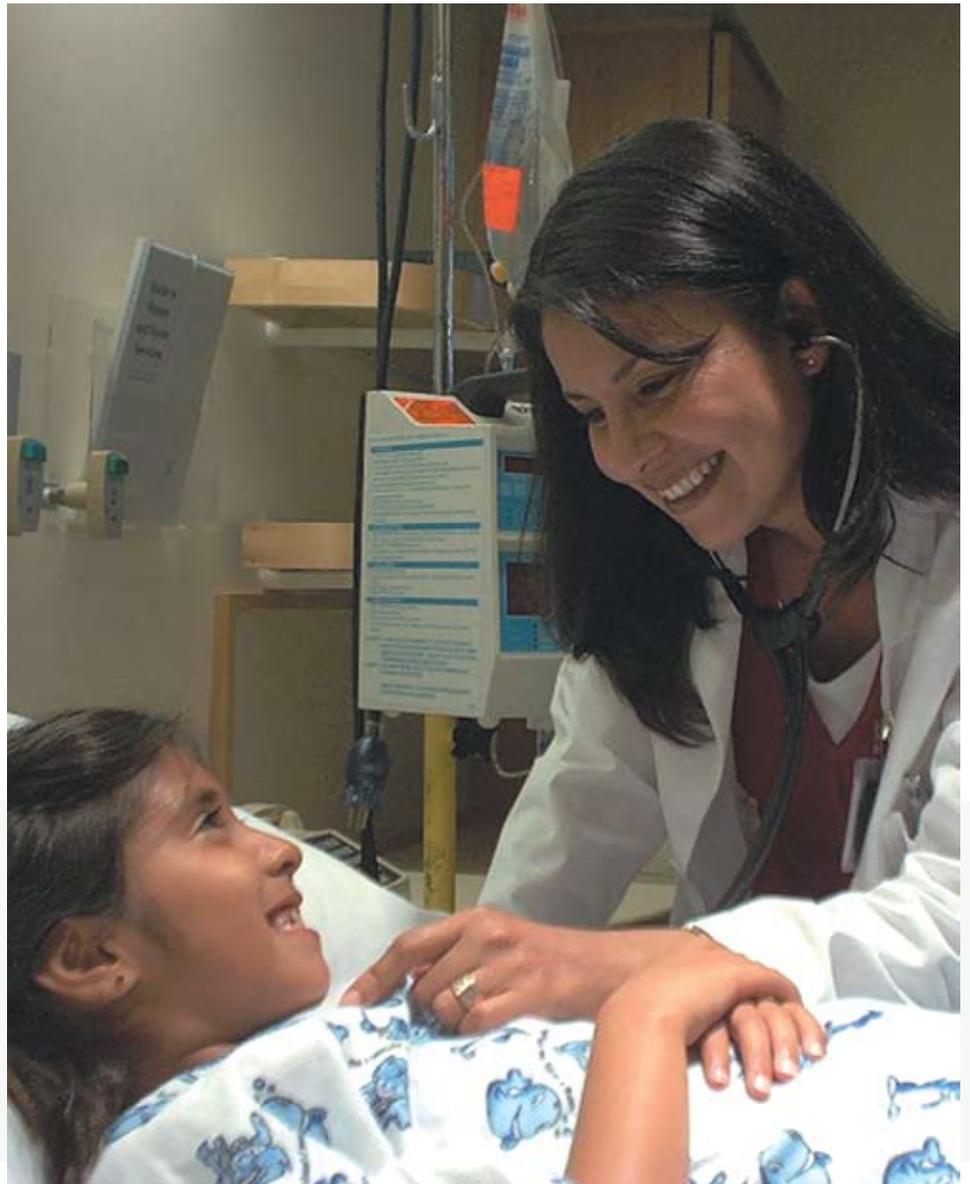


Our children fare much better when it comes to health coverage due to Santa Clara County's Children's Health Initiative (CHI), an ambitious program launched in 2001 to ensure that every child has health coverage. CHI helps families apply for existing public health insurance programs like Medi-Cal and offers low-cost insurance to those who do not qualify. Healthy Kids provides health, dental, and vision coverage to children. However, as mentioned earlier, the number of children enrolled in Healthy Kids declined 26% between 2008 and 2010 due to funding cuts.<sup>5</sup>

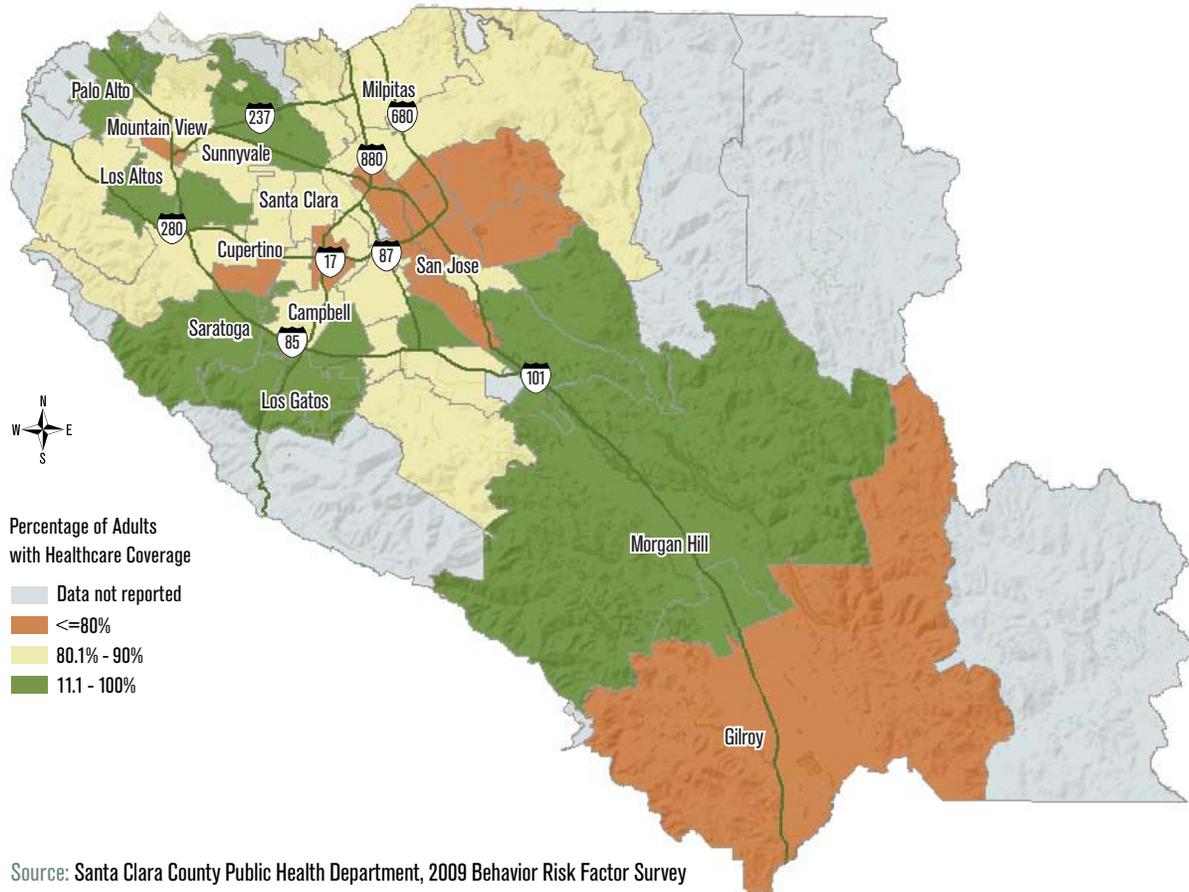
Access to health care is also affected by the availability of health services as more healthcare providers refuse to take Medi-Cal or other forms of public health coverage. For example, the number of Medi-Cal outpatient visits provided by Valley Medical Center increased from 293,168 visits in 2004 to 397,642 visits in 2009 as other area hospitals stopped accepting Medi-Cal patients or closed down altogether.<sup>7</sup> This could be a serious burden for Hispanic families because more Hispanic residents rely on Medi-Cal for health coverage than any other race/ethnicity in Santa Clara County.<sup>8</sup>

In addition, health care costs and lack of adequate health coverage are barriers to accessing health care for a number of Santa Clara County residents, particularly Hispanics and African Americans. When looking at the general population, we see that 13% reported that there had been a time during the past 12 months when they had not seen a doctor due to cost or lack of

insurance. That number jumps to 21% for Hispanic residents and 33% for African-American residents.<sup>2</sup> In addition, immigrants seem to have a more difficult time accessing regular health care, with 86% of foreign-born residents reporting that they have a usual place to go when sick or need health advice compared to 99% of U.S.-born residents.<sup>8</sup>



Map 8.1: Percentage of Adults with Healthcare Coverage by Zip Codes



Source: Santa Clara County Public Health Department, 2009 Behavior Risk Factor Survey

### How does it impact health?

Access to health care has a major influence on our health. Those who lack medical coverage and regular access to health care suffer higher mortality rates and poorer health. Consider that more than 45,000 people in the U.S. ages 17-64 die each year due to lack of health insurance. Those without health coverage had a 40% higher risk of death than those with private health insurance because they could not get the necessary medical care.<sup>9</sup> In addition, lack of health insurance leads to more emergency room use in place of primary care, which causes delayed treatment,

making people sicker and giving diseases more time to progress.

People with medical insurance are much more likely than those without it to get the recommended health screenings and care for chronic conditions. They are also less likely to have undiagnosed chronic diseases. In addition, those with health coverage are less likely to receive substandard medical care.

Access to regular health care is an important prerequisite to obtaining quality care. A regular doctor or source of health care can serve as a guide to the

healthcare system by encouraging patients to get the right preventive care and helping them manage any chronic conditions. Lack of Medical coverage is just one barrier to accessing regular health care. Others include transportation, language, and cost.

The lack of reliable transportation is an issue when it comes to making and keeping medical appointments. For example, a North Carolina study found that people with reliable transportation visited their doctor 2.29 times more frequently for serious illness and 1.92 times more frequently for regular checkups than those who did not.<sup>10</sup>

People who face language barriers are also less likely to have a regular source of medical care and more likely to use medications improperly. Among patients with psychiatric conditions, those who encounter language barriers are more likely than others to receive a diagnosis of severe mental

illness; they are also more likely to leave the hospital against medical advice. Among children with asthma, those who face language barriers have an increased risk of intubation. In addition, those patients are less likely than others to return for follow-up appointments after visits

to the emergency room, and they have higher rates of hospitalization and drug complications. In fact, poor communication between medical provider and patient can have deadly consequences because it can lead to misdiagnoses, inadequate treatment, and other medical mistakes.



Cost also keeps people from accessing health care. Families facing economic hardships are less likely to visit the doctor, especially for preventative care, and are frequently unable to afford prescription medications. For example, 77% of Santa Clara County residents who either delayed filling a prescription or declined to fill it at all said it was due to cost or lack of insurance.<sup>2</sup>

In addition, with the current economic climate, more than 50%

of Americans ages 45 and older report that they have switched to generic or non-prescription drugs, 16% delayed preventative care, and more than 20% delayed

seeing a doctor, according to a recent nationwide survey.<sup>11</sup> There is concern that these behaviors could become more common if the economy does not improve.



#### REFERENCES

- 1 US Census Bureau. Income, poverty, and health insurance coverage in the United States: 2007
- 2 Santa Clara County Department of Public Health, 2009 Behavioral Risk Factor Survey
- 3 Santa Clara County Department of Public Health, 2000-2009 Behavioral Risk Factor Survey
- 4 Oral Health Access Council. Eliminating Medi-Cal Adult Dental: Costs & Consequences.
- 5 Santa Clara County, 2010. Retrieved at [http://www.sccgov.org/portal/site/scc/aspecial?path=%2FV%2FSCC%20Public%20Portal&contentId=2e21552a31d8210VgnVCM10000048d04a92\\_\\_\\_\\_\\_](http://www.sccgov.org/portal/site/scc/aspecial?path=%2FV%2FSCC%20Public%20Portal&contentId=2e21552a31d8210VgnVCM10000048d04a92_____)
- 6 Health Insurance Coverage of Immigrants Living in the United States: Differences by Citizenship Status and Country of Origin," American Journal of Public Health 90, no. 6 (2000): 917-923
- 7 Santa Clara County Health and Hospital System.
- 8 California Health Interview Survey, 2007
- 9 Andrew P. Wilper, MD, MPH, Steffie Woolhandler, MD, MPH, Karen E. Lasser, MD, MPH, Danny McCormick, MD, MPH, David H. Bor, MD, and David U. Himmelstein, MD. Health Insurance and Mortality in US Adults. Am J Public Health. 2009;99
- 10 Arcury TA, Preisser JS, Gesler WM, Powers JM. Access to transportation and health care utilization in a rural region. J Rural Health. 2005 Winter;21(1):31-8.
- 11 Keenan T. Impact of the economy on health behaviors. AARP Knowledge Management. 2008 Available: [http://www.aarp.org/research/health/carefinancing/healthcosts\\_08.html](http://www.aarp.org/research/health/carefinancing/healthcosts_08.html). Accessed May 5, 2009.

# Neighborhood Conditions

## Why is it important?

The concept of “place” is very important to health. Just as conditions in our homes affect our health, the places surrounding our homes also have a relationship with our health. This conclusion is backed by more than 100 years of research, which shows that even after accounting for other differences among the people who live in a specific area, the characteristics of their

neighborhood can be proven to impact their health.

These characteristics are usually divided into three categories: physical, social, and service. The physical environment is composed of the “built environment” constructed by people, as well as the natural environment such as open fields or waterways. The social environment is the result of individual

“Improving the social and physical environments in neighborhoods can be one of the most important contributions to improving the health of populations.”

BARHII, “Health Inequities in the Bay Area”

behavior and the quality of relationships between people. The service environment includes resources for education, employment, transportation, health care, food, and recreation.

For example, in poor neighborhoods—those where at least 20% of residents have incomes at or below the Federal Poverty Level—the physical environment generally features lower-quality housing, public buildings, and streets, and it is more likely to include toxic waste dumps, freeways, refineries, and other sources of pollution. In terms of the social environment, poor neighborhoods often have higher rates of crime and violence. And the service environment generally includes fewer employment opportunities; fewer or lower-quality parks, libraries, and community centers; fewer healthcare facilities; and fewer stores and restaurants that supply healthy food.





Not surprisingly, poor neighborhood conditions have been linked to higher rates of mortality, disability, chronic diseases and their risk factors, mental health issues, injuries, and violence. Besides having immediate, short-term effects on health and our ability to make healthy choices, neighborhoods also have longer-term effects. Accumulated stress, poor environmental quality, and

limited resources wear down our health over the years and make us more likely to die from a number of diseases.

Conversely, it's been shown that moving to a better neighborhood can improve our health. Although studies are preliminary, it seems that children benefit even more than adults from a move to a better quality, lower-poverty neighborhood.

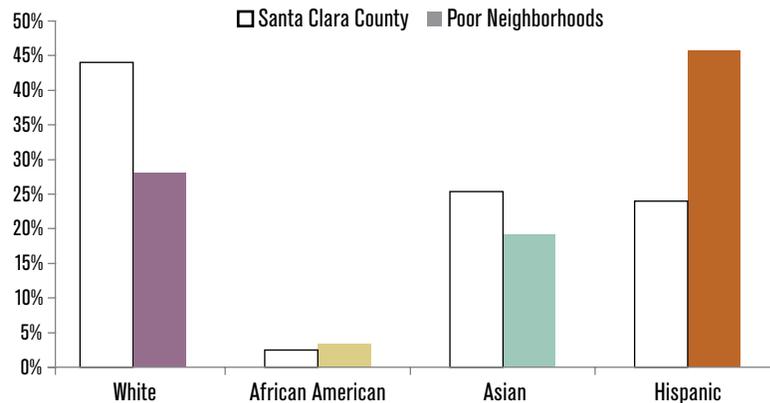


### What does the data tell us about Santa Clara County?

One feature that stands out about low-income neighborhoods in Santa Clara County is their racial/ethnic composition. As Figure 9.1 shows, higher percentages of Hispanic and African-American residents live in poor neighborhoods compared to the general population. Conversely, a lower percentage of Whites and Asians live in poor neighborhoods.<sup>1</sup> This is considered by many to be the continuing legacy of discrimination.

In Santa Clara County, more than a third of all adults reported that crime, violence, and drug activity are a problem in their neighborhood. Of those, more than half had annual household incomes of \$20,000 or less. A higher per-

Figure 9.1: Population Distribution by Race/Ethnicity



Source: U.S. Census, 2000

centage of Hispanics reported crime, violence, and drug activity compared to other racial/ethnic groups.<sup>2</sup>

In addition to the obvious health threats posed by

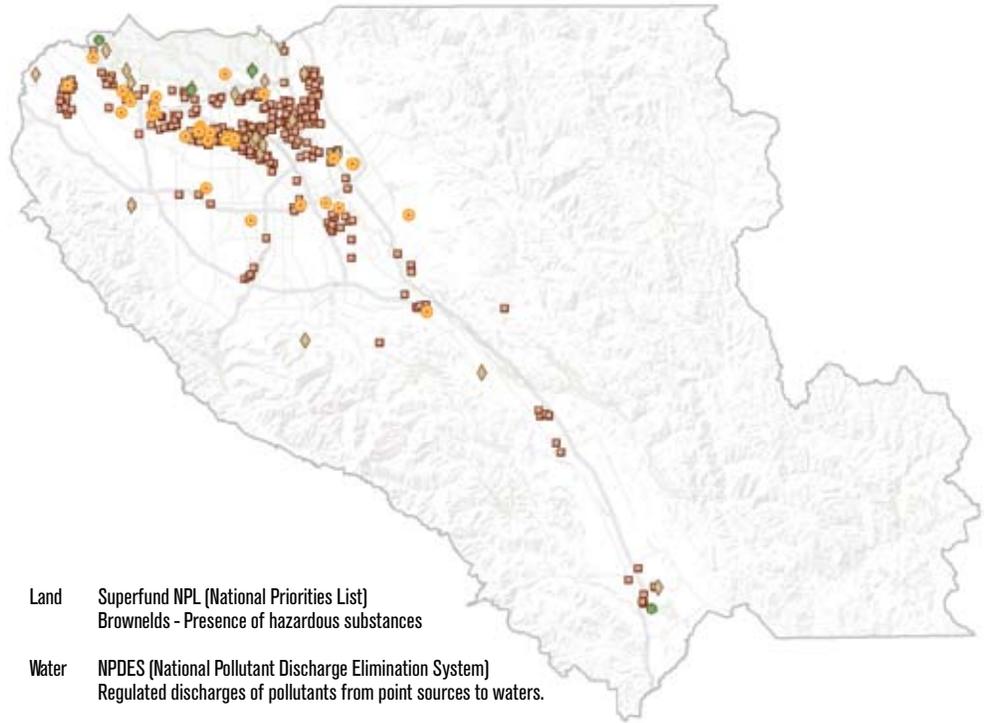
these problems, concerns about personal safety can discourage walking and other healthy forms of exercise. In Santa Clara County, 63% of adults who reported their neighborhoods are not easy to walk are overweight or obese, compared to 54% of adults who reported their neighborhoods are easy to walk. In addition, 16% of adults living in households with annual incomes of \$20,000 or less reported their neighborhoods are not easy to walk compared to only 4% of adults living in households with annual incomes of \$75,000 or more.<sup>2</sup>

Another threat to health in poorer neighborhoods is the high number of retail outlets that sell unhealthy food, alcohol, and cigarettes. Figure 9.2 shows that areas with a lower median income in our county have a higher density of tobacco retailers as compared to areas with a higher median income.<sup>1,3</sup>



Map 9.1: Pollutant and Toxin Releasing Sites

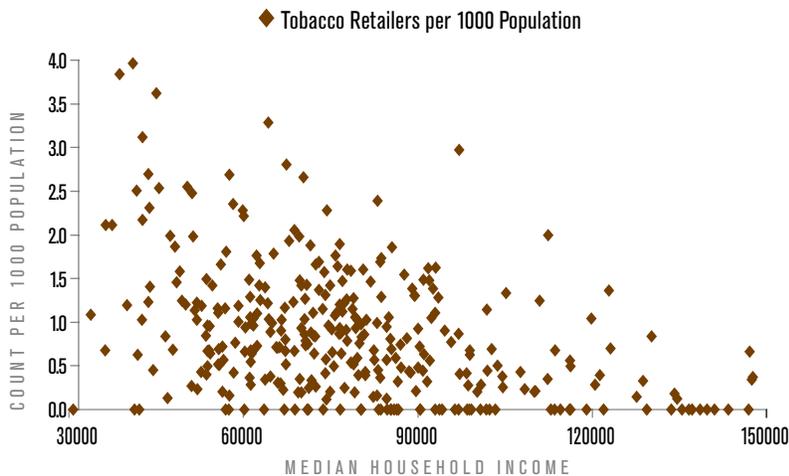
Our county’s landscape is also crowded with food outlets that offer relatively little in the way of fruits, vegetables, and other healthy foods. According to the California Center for Public Health Advocacy, the county has more than four times as many fast food restaurants and convenience stores than supermarkets and produce vendors. Our low-income neighborhoods have a higher density of tobacco retailers and fast food restaurants compared to the county overall. Perhaps most alarming is that three-fourths of the fast food outlets and tobacco retailers are within a half mile of a public school.<sup>1,3,4</sup>



- Land** Superfund NPL (National Priorities List)  
Brownfields - Presence of hazardous substances
- Water** NPDES (National Pollutant Discharge Elimination System)  
Regulated discharges of pollutants from point sources to waters.
- Air** AIRS/AFS - Major Reporters - Actual or potential emissions that meet or exceed the major source threshold for their location.
- Toxic Releases** TRIS (Toxic Release Inventory System)  
Toxic chemical releases and waste management activities reported by certain industries.

Source: Santa Clara County Public Health Department and the U.S. Environmental Protection Agency

Figure 9.2: Density of Tobacco Retailers by Median Household Income of a Census Tract



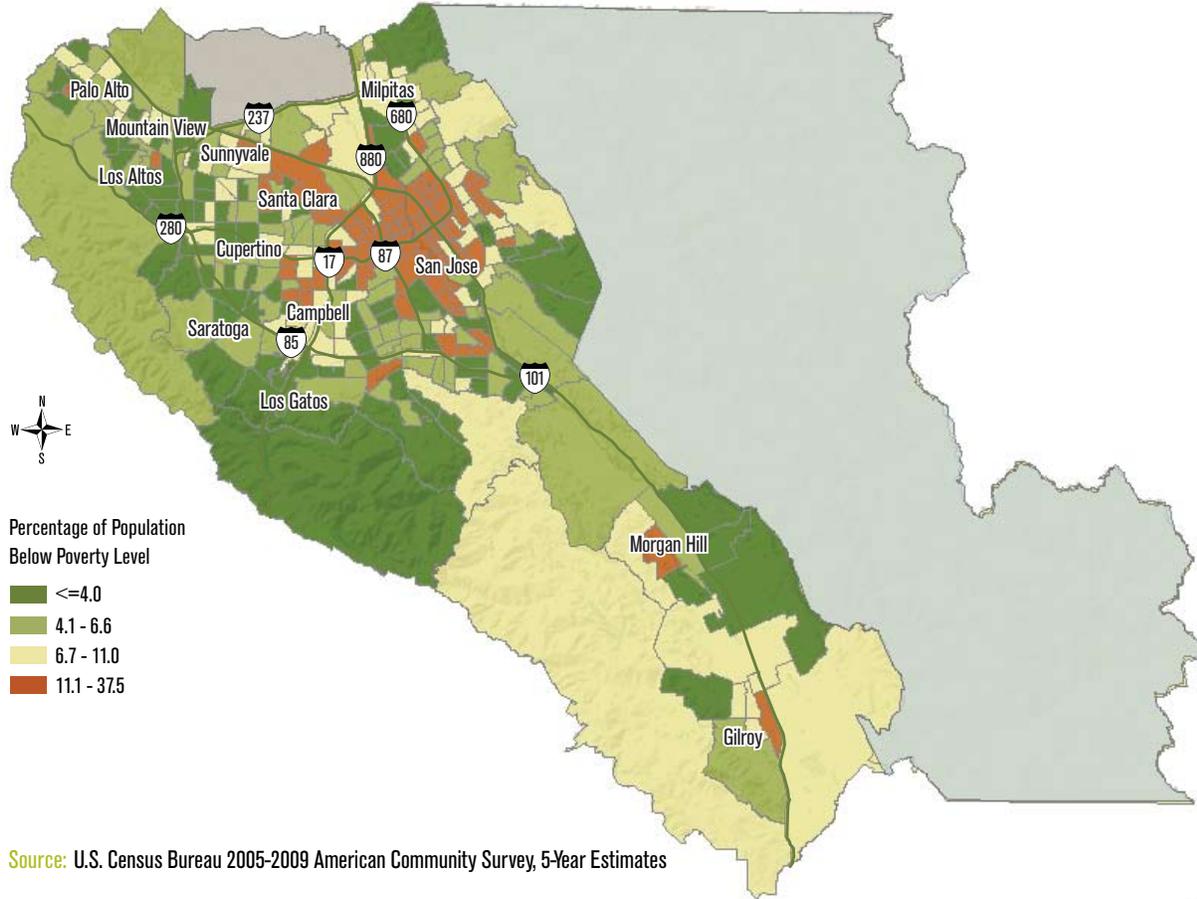
Source: U.S. Census Bureau, 2000 and California Board of Equalization, Data as of June 2010

Residents in low-income areas of our county are also more likely to be exposed to the harmful effects of pollution in their neighborhoods. As a comparison of Maps 9.1

and 9.2 shows, most of the local pollutant and toxic release sites reported by the Environmental Protection Agency (EPA) are situated in the northern parts

of the county above the “poverty corridor.” Wind directions and other environmental factors cause much of the pollutants to drift toward the poorer areas of the county.

**Map 9.2: Families with Incomes Below the Federal Poverty Level by Census Tracts**



Source: U.S. Census Bureau 2005-2009 American Community Survey, 5-Year Estimates



### How does it impact health?

In terms of the physical environment, the health of residents in poorer neighborhoods can be seriously threatened by environmental hazards such as poor air and water quality or proximity to facilities that produce or store toxic substances. Some of the most common threats are in housing, which is discussed in Chapter 7.

With regard to the social environment, new research is being conducted to look at how health is influenced by the social characteristics of neighborhoods, primarily the levels of trust and connectedness that neighbors feel for each other. For example, people living in “close-knit” neighborhoods may be more likely to work together to advocate for better services in the area and to discourage bad behaviors like crime, drunkenness, littering, and graffiti. And all residents are less likely to be the victims of violent crime. Less closely knit neighborhoods and those with more social disorder have been associated with greater concerns about public safety as well as higher rates of anxiety and depression.

The availability and quality of services is another way neighborhoods influence our health. The most directly related services are those of health care, and low-income areas tend to have fewer readily accessible, affordable health services. Also, differences across neighborhoods in education and employment opportunities can create and reinforce social disadvantages that translate into worse health.



As mentioned earlier, the service environment also includes access to healthy food and places to exercise. The relationship to health has been proven in many studies. For example, the higher the density of outlets selling fast and/or fatty foods, the higher the rates of obesity; the higher the density of alcohol outlets, the higher the rates of alcohol-related problems; and the higher the density of tobacco outlets, the higher the rates of smoking and use of other tobacco products.

Poorer neighborhoods frequently lack well-maintained parks, sporting facilities, and walking or jogging trails. This is especially problematic when you consider that half of the preventable deaths in the U.S. are related to

behaviors such as poor diet and lack of physical activity. The existence of litter, vandalism, graffiti, and crime is also an obstacle to physical activity, as are traffic and noise on the streets.

Lastly, it's important to understand that children may be particularly vulnerable to unhealthy conditions in neighborhoods, with consequences both in childhood and later in life. For example, the odds of a child being obese or overweight were 20% to 60% higher among children in neighborhoods with the most unfavorable social conditions.<sup>5</sup> This is also true for adopting unhealthy behaviors; children in these neighborhoods are less likely to receive guidance from adults and are more likely to smoke, drink, use drugs, or join gangs.

#### REFERENCES

- 1 U.S. Census Bureau, Census 2000 Summary File
- 2 Santa Clara County Department of Public Health, 2009 Behavioral Risk Factor Survey
- 3 California Board of Equalization, Data as of June 2010
- 4 California Department of Public Health, 2010 California Nutrition Network
- 5 Gopai K. Singh, Mohammed Shahpush, Michael D. Kogan. Neighborhood Socioeconomic Conditions, Built Environments, And Childhood Obesity. Health Affairs, March 2010, vol. 29, no. 3:503-512 (doi:10.1377/hlthaff.2009.0730)

# Conclusion

It is clear that social, economic, and environmental conditions, also called social determinants, have a powerful impact on our health. So it stands to reason that inequalities in these areas lead to health disparities. As this report shows, this is true in our community as well as in the rest of the nation and world. Our health is a reflection of the social inequalities and inequities that exist in our society.

Social inequities help to determine where we live, work, learn, and play, which may have a bigger role than medical care in determining how healthy we are. So that means the opportunity for good health starts long before we need medical care. It starts in our neighborhoods, schools, and workplaces. It starts with the causes of social inequalities.

As we have seen, these inequalities are the result of complex, interconnected social and economic factors that shape our lives. These factors include discrimination, racism, public policies, and other upstream factors that ultimately impact our health. So how do we pull them apart and influence them in ways that give everyone equal opportunities for good health?

There have been a number of studies and reports on the social determinants of health and health inequities over the past decade, and policy and systems changes have been suggested that would seem to have a positive impact on health, including universal preschool, living-wage laws, affordable-housing

requirements, and pedestrian-friendly land-use policies.

Efforts aimed upstream are already occurring in our county. For example, the Public Health Department is advocating for anti-tobacco policies aimed at reducing the availability of tobacco products and exposure to secondhand smoke, and a number of groups are working to improve educational options and neighborhood conditions.

But most of our investment has been in programs and services designed to change individual behaviors rather than the institutions and systems that help to perpetuate social inequalities. That may be why a significant portion of our investment has produced lackluster results. We have to ask ourselves if we are willing to do what it takes to change the paradigm and focus on the social determinants of health. Are we willing to invest in upstream strategies?

The Public Health Department will always invest in downstream programs and services because our primary role is to protect and improve public health, making sure our most vulnerable residents are not marginalized. The department prevents illness through downstream activities like vaccinations, health education, and disease detection, treatment, and surveillance. We help individuals and health systems manage chronic disease, and help people and organizations change their health behaviors. But public health professionals here and around

the globe are considering ways we can impact health upstream so that fewer people need our services downstream.

Now that we have a better understanding of social determinants and their impact on health, our mission to protect public health calls on us to be proactive in our efforts to eliminate social inequities that lead to health disparities. So while much of our resources are dedicated to necessary downstream activities, we must find ways to make an impact upstream.

The Public Health Department is well-positioned to guide this effort in our community. We can provide the data needed to assess local inequalities and measure progress, and we have immense health knowledge and expertise within our ranks. But making real change will require strategic collaborations with other government agencies, community-based organizations, and key stakeholders already working on these issues. It will also require local policy and systems changes that level the playing field so everyone has opportunities for good health, and the Public Health Department can take a leadership role in advocating for these policies. We can also find ways to invest some of our limited resources in upstream efforts, such as grants to organizations that are working to eliminate social inequities.

As we have shown, impacting health upstream goes well beyond the bounds of the Public Health Department. It is an issue that is important and relevant in every corner of our society. Each of us has a stake in reducing health inequities, no matter where we reside on the social gradient.

Health disparities are costing our country billions of dollars every year in health-care expenses and lost productivity. Social inequalities also lead to more crime, blighted neighborhoods, and an ill-prepared workforce. Beyond that, it is a fairness and justice issue. In a country that holds equality and justice for all as core beliefs, how can we continue to allow those of us with fewer resources to suffer such poor health?

America is also a place where we believe in individual responsibility, and ensuring everyone has the opportunity for good health does not run counter to that belief. We are all ultimately responsible for our own health, but there has to be a level playing field. Everyone should have equal access to the choices that allow us to live long and healthy lives. Health starts in families that support each other, safe neighborhoods with parks and sidewalks, jobs that offer a fair wage and are free from hazards, an educational system that provides everyone with the same opportunity to go to college, and health care that is available to all.

While the gap in life expectancy between the rich and poor in Santa Clara County is not as wide as other areas, the time to act is now. There are a number of explanations for the smaller gap that were mentioned in this report, including healthier immigrants, the Latino paradox, integrated neighborhoods, and racial/ethnic diversity. But the report also shows rising rates of chronic diseases and their risk factors. As immigrants spend more time in the U.S., their health tends to decline. In addition, children of immigrants tend to fare worse than their parents and grandparents when it comes to their health. These and other alarming trends compel us to take action now.

This report was meant to start a public dialog about what our community needs to do to impact health upstream so we can all live healthier, more productive lives. We all want better educational opportunities, more affordable housing, a living wage and decent job opportunities, pedestrian-friendly communities, and better health for every Santa Clara County resident. The question is how do we get there? How do we make the systems and policy changes needed to eliminate health disparities? It will require us all—the Public Health Department, policymakers, community-based organizations, government institutions, corporations—to work together to change long-held beliefs and institutional power because social inequalities are deeply ingrained in our society.

## Acknowledgements

### Santa Clara County Board of Supervisors

Supervisor Dave Cortese, President, District 3  
Supervisor Donald F. Gage, District 1  
Supervisor George Shirakawa, District 2  
Supervisor Ken Yeager, District 4  
Supervisor Liz Kniss, District 5

### County Executive

Jeff Smith, MD

### Santa Clara Valley Health & Hospital System

Linda Smith, CEO

### Public Health Department

Dan Peddycord, Director  
Martin Fenstersheib, MD, Health Officer

### Contributors to the Health and Social Inequity Report

Mandeep Baath, Sara Cody, David Hill, Shilpa Jani, Rocio Luna, Kinnery Patel, Aimee Reedy, Maritza Rodriguez, Todd Saretsky, Douglas Schenk, Anandi Sujeer, AsiehZarghami

### Advisory Board

SJSU Applied Sciences and Arts Working Partnerships  
Stanford School of Medicine  
Franklin-McKinley School District  
Asian Americans for Community Involvement  
Catholic Charities of Santa Clara County  
People Acting in Community Together (PACT)  
Santa Clara County Social Services  
County Executive, Santa Clara County  
Strong Neighborhoods Initiative  
Silicon Valley Leadership Group  
FIRST 5 Santa Clara County  
Santa Clara University

### Writing and Editing

Caitlin Kerk, Kerk Communications  
Claire Wagner, Wagner Writes  
Technical Report: Catherine Ley, Caradon Consulting

### Creative Direction and Design

Nicole Coleman, Nicole Coleman Design, ncolemadesign.com  
nicolecoleman@earthlink.net

### Photography courtesy of

Nicole Coleman, ncolemadesign.com  
Sergio Lopez, Leserge@hotmail.com  
Carlos Pérez, Art Origin, ArtOrigin@comast.net  
Vic Zikoor, Vic Zikoor Photography, vic.zikoor@gmail.com

**This report was supported by  
The Health Trust**

# Resources

AllBusiness.com, Workplace health and safety. Retrieved from: <http://www.allbusiness.com/human-resources/workplace-health-safety/794518-1.html>

Adler, N., Stewart J., Cohen S., Cullen M., Roux Diez A., Dow W., Evans G., Kawachi, I., Marmot, M., Matthews, K., McEwen, B., Schwartz, J., Seeman, T., & Williams, D. Reaching for a Healthier Life: Facts on Socioeconomic Status and Health in the United States, The John D. and Catherine T. MacArthur Foundation Research Network on Socioeconomic Status and Health, 2007

Alarcon, A., Auerhahn, L., Brownstein, B., Chavez, C., Darrow, B., & Ray, R. Life in the Valley Economy, *Silicon Valley Progress Report 2010*. Working Partnerships USA.

*Alcohol Outlet Density and Public Health*. Marin Institute Alcohol Industry WatchDog. Published in July 2010. Retrieved on December 17, 2010

Arcury, T.A., Preisser, J.S, Gesler, W.M, & Powers, J.M. (2005). Access to transportation and health care utilization in a rural region. *Journal of Rural Health*, 21(1), 31-8.

Ayanian, J.Z., Kohler, B.A., Abe, T., & Epstein, A.M. (1993). The relation between health insurance coverage and clinical outcomes among women with breast cancer. *The New England journal of medicine*, 329, 326–331.

Ayanian, J.Z., Weissman, J.S., Schneider, E.C., Ginsburg, J.A., & Zaslavsky, A.M. (2000). Unmet health needs of uninsured adults in the United States. *JAMA*. 284, 2061–2069.

Baker, D.W., Sudano, J.J, Durazo-Arvizu, R., Feinglass, J., Witt, W.P., & Thompson, J. (2006). Health insurance coverage and the risk of decline in overall health and death among the near elderly, 1992-2002. *Med Care*, 44, 277–282.

Bartlett, S. (1997). The significance of relocation for chronically poor families in the USA. *Environment and Urbanization*, 9(1), 121-132.

Bennett, C.L, Horner, R.D, Weinstein, R.A, Dickinson, G.M., DeHovitz, J.A., Cohn, S.E., Kessler, H.A., Jacobson, J., Goetz, M.B., Simberkoff, M. et al. (1995). Racial differences in care among hospitalized patients with *Pneumocystis carinii* pneumonia in Chicago, New York, Los Angeles, Miami, and Raleigh-Durham. *Archives of Internal Medicine*, 155, 1586– 1592.

Bhattacharya, J., Goldman, D., & Sood, N. (2003). The link between public and private insurance and HIV-related mortality. *Journal Health Economics*, 22, 1105–1122.

California Pan-Ethnic Health Network. The Landscape of Opportunity: Cultivating Health Equity in California. Retrieved from: <http://www.cpehn.org/pdfs/LandscapeOfOpportunity.pdf>

California Newsreel. *Unnatural Causes*. is inequality making us sick: Backgrounders from the unnatural causes health equity database. Retrieved from: <http://www.unnaturalcauses.org/assets/uploads/file/primers.pdf>

Campbell, F. (Ed.) (2008). *The Social Determinants of Health* and the Role of Local Government. Improvement and Development Agency. London, UK.

Canadian Council on Social Development (2001). *Housing Conditions and Child Development*. Kanata, ON, Canada.

Cannon, R. (2008). *The Social Determinants of Health*. Retrieved from: [http://www.sacoss.org.au/online\\_docs/081210%20Social%20Determinants%20of%20Health%20Report.pdf](http://www.sacoss.org.au/online_docs/081210%20Social%20Determinants%20of%20Health%20Report.pdf)

Canto, J.G., Rogers, W.J., French, W.J., Gore, J.M., Chandra, N.C., & Barron, H.V. (2000). Payer status and the utilization of hospital resources in acute myocardial infarction: a report from the National Registry of Myocardial Infarction 2. *Archives of Internal Medicine*, 160, 817–823.

Carey, P. & Johnson, S. (2010). Silicon Valley tech workers had rough decade. Retrieved from: [http://www.siliconvalley.com/news/ci\\_14320026?nclick\\_check=1](http://www.siliconvalley.com/news/ci_14320026?nclick_check=1)

Carrasquillo, O., Carrasquillo, A.I., & Shea, S. (2000). Health Insurance Coverage of Immigrants Living in the United States: Differences by Citizenship Status and Country of Origin. *American Journal of Public Health* 90(6), 917–923.

Centers for Disease Control and Prevention. National Surveillance for Asthma-United States 1980-1999. Surveillance Summaries. MMWR 2002; 51(No. SS01).

Centers for Disease Control and Prevention. National Surveillance for Asthma- United States, 1980-2004. Surveillance Summaries. MMWR 2007;56(No. SS-8).

- Clark, C.M. Relations Between Social Support and Physical Health. Retrieved from: <http://www.personalityresearch.org/papers/clark.html>
- County of Santa Clara. History of the County. Retrieved from: <http://www.sccgov.org>
- Cutler, D.M., & Lleras-Muney, A. Education and Health: Evaluating Theories and Evidence. The National Bureau of Economic Research (NBER) Working Paper No. 12352; Issued in July 2006. Retrieved November 24, 2010
- Davies, A.A., Basten, A., & Frattini, C. (2006). Migration: A Social Determinant of the Health of Migrants. International Organization for Migration, 2006. Retrieved from: [http://ec.europa.eu/ewsi/UDRW/images/items/docl\\_9914\\_392596992.pdf](http://ec.europa.eu/ewsi/UDRW/images/items/docl_9914_392596992.pdf)
- Dong, M., Anda, R.F., Felitt, V.J., Williamson, D.F., Dube, S.R., Brown, D.W., & Giles, W.H. (2005). Childhood residential mobility and multiple health risks during adolescence and adulthood: the hidden role of adverse childhood experiences. *Archives of Pediatrics & Adolescent Medicine*, 159(12), 1104-10.
- Downs-Karkos, S. Addressing the Mental Health Needs of Immigrants and Refugees, The Colorado Trust Grantmakers Concerned with Immigrants and Refugee, February 2004
- Dunn, J.R. (2002). Housing and inequalities in health: a study of socio-economic dimensions of housing and self reported health from a survey of Vancouver residents. *Journal of Epidemiology Community Health*, 56, 671-81.
- Ellen, I. G., Mijanovich, T. & Dillman, K.N. (2001). Neighborhood Effects on Health: Exploring the Links and Assessing the Evidence. *Journal of Urban Affairs*, 23, 391-408.
- Evans, J., Hyndman, S., Stewart-Brown S, Smith, D., & Petersen, S. (2000). An epidemiological study of the relative importance of damp housing in relation to adult health. *Journal of Epidemiology and Community Health*, 54, 77-86.
- Evans, G.W., & Kantrowitz, E. (2002). Socioeconomic status and health: the potential role of environmental risk exposure. *Annual Review of Public Health*, 23, 303-331.
- Flores, G. (2005). The impact of medical interpreter services on the quality of health care: a systematic review. *Medical Care Research and Review* 62, 255-299.
- Flores, G., Laws, M.B., Mayo S.J., Zuckerman, B., Abreu, M., Medina, L., Hardt, & E.J. (2003). Errors in medical interpretation and their potential clinical consequences in pediatric encounters. *Pediatrics*, 111:6-14.
- Franks, P., Clancy, C.M, & Goldm, M.R. (1993). Health insurance and mortality. Evidence from a national cohort. *JAMA*, 270, 737-741.
- Frisbie, W.P, Cho, Y., & Hummer, R. (2001). Immigration and the Health of Asian and Pacific Islander adults in the United States. *American Journal Epidemiology*, 153, 372-380.
- Goldman, D.P, Smith, J.P., & Sood, N. (2005). Legal Status and Health Insurance among Immigrants. *Health Affairs*, 24(6), 1640-1653.
- Gopal, K., Singh, M. S., & Kogan, M.D. (2010). Neighborhood Socioeconomic Conditions, Built Environments, And Childhood Obesity. *Health Affairs*, 29(3), 503-512.
- Health Inequities in the Bay Area. Bay Area Regional Health Inequities Initiative (BARHII), 2008
- Horst, K.V., Timperio A., Crawford, D., & Roberts, R. (2008). The School Food Environment. *American Journal of Preventive Medicine*, 35(3), 217-223.
- Immigrantinfo.org. *Knowledge of Immigrant Nationalities of Santa Clara County (KIN)*. Retrieved: from <http://www.immigrantinfo.org/kin/index.html>
- Institute of Medicine. Care Without Coverage, Too Little, Too Late. Washington, DC: The National Academies Press; 2002
- Jones C.P. (2000). Levels of Racism: A Theoretic Framework and a Gardener's Tale. *American Journal of Public Health*, 90 (8), 1212-1215.
- Jones C.P. (2002). Confronting Institutionalized Racism. *Phylon*, 50 (1/2), 7-22.
- Julien, R., Adamkiewicz, G., Levy, J.I., Bennett, D., Nishioka, M., & Spengler, J.D. (2008). Pesticide loadings of select organo-phosphate and pyrethroid pesticides in urban public housing. *Journal of Exposure Science & Environmental Epidemiology*, 18, 167-174.

- Krieger, J., & Higgins, D.L. (2002). Housing and health: time again for public health action. *American Journal of Public Health*, 92, 758-68.
- Kirch, W. (2008). *Encyclopedia of Public Health*. New York: Springer-Verlag Inc.
- Koya, K.L. & Egede, L.E. (2007). 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), 841-846.
- La Prensa San Diego. Cesar Chavez and the UFW Legacy: *Richard Rodriguez Gets it Wrong*. Retrieved from <http://laprensa-sandiego.org/featured/cesar-chavez-and-the-ufw-legacy-richard-rodriguez-gets-it-wrong/>
- Life and Death from Unnatural Causes, Health and Social Inequity in Alameda County, Alameda County Public Health Department, 2008
- McWilliams, J.M, Zaslavsky, A.M, Meara, E., & Ayanian, J.Z. (2004). Health insurance coverage and mortality among the near-elderly. *Health Affairs*, 23, 223-233.
- National Children's Alliance (n.d.). Housing as a Social Determinant of Health Retrieved from: [http://homelessness.samhsa.gov/\(S\(stkyqc55qahfaufbjqaiad45\)\)/ResourceFiles/Housing\\_as\\_a\\_Social\\_Determinant\\_of\\_Health\\_Policy\\_Brief.pdf](http://homelessness.samhsa.gov/(S(stkyqc55qahfaufbjqaiad45))/ResourceFiles/Housing_as_a_Social_Determinant_of_Health_Policy_Brief.pdf)
- National Healthcare Disparities Report, U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. July 2003.
- Neighborhood Safety and the Prevalence of Physical Inactivity* – Selected States, 1996. Centers for Disease Control and Prevention, MMWR; February 26, 1999/48(07);143-146.
- New York City Department of Health and Mental Hygiene. (2006). *The Health of Immigrants in New York City*. New York, New York: Author.
- Novak S.P., Reardon S.F., Rauswnbush S.W., & Buka S.L. (2006). Retail Tobacco Outlet Density and Youth Cigarette Smoking: A Propensity-Modeling Approach. *American Journal of Public Health*, 96(4), 670-676.
- Oakes, J., Rogers, J., Silver, D., Valladares, S., Terriquez, V., McDonough, P., Renne, M., & Lipton, M. (2006). *Removing the Roadblocks: Fair College Opportunities For All California Students*. Los Angeles: UC/ACCORD and UCLA/IDEA.
- Ortega, A.N., Fang, H., Perez, V.H., Rizzo, J.A., Carter-Pokras, O., Wallace, S.P., & Gelberg, L. (2007). Health Care Access, Use of Services, and Experiences Among Undocumented Mexicans and Other Latinos. *Archives of Internal Medicine*, 167(21), 2354-2360.
- Pollack, C.E., Lynch, J., Alley, D.E., & Cannuscio, C.C. (2010). Leonard Davis Institute of Health Economics Issue Brief, 15, 2.
- Public Health Agency of Canada, Population Health. Retrieved from: <http://www.phac-aspc.gc.ca/ph-sp/determinants/determinants-eng.php>
- Public Policy of Institute of California. *Silicon Valley's Skilled Immigrants: Generating Jobs and Wealth for California*. Retrieved from: [http://www.ppic.org/content/pubs/rb/rb\\_699asrb.pdf](http://www.ppic.org/content/pubs/rb/rb_699asrb.pdf)
- Reich, M. (2010). High unemployment after the great recession: Why? What can we do? Retrieved from: <http://www.irle.berkeley.edu/cwed/wp/2010-01.pdf>
- Robert Wood Johnson Foundation. (2009). Race and Socioeconomic Factors Affect Opportunities for Better Health (Brief 5). Princeton, New Jersey: Author
- Robert Wood Johnson Foundation. (2008). *Overcoming Obstacles to Health*. Princeton, New Jersey: Author
- Robert Wood Johnson Foundation. (2009). *Education Matters for Health* (Brief 6). Princeton, New Jersey: Author
- Robert Wood Johnson Foundation (2008). *America's Health Starts With Healthy Children: How Do States Compare?* Princeton, New Jersey: Author
- Roetzheim, R.G., Gonzalez, E.C., Ferrante, J.M., Pal, N., Van Durme, D.J., & Krischer, J.P. (2000). Effects of health insurance and race on breast carcinoma treatments and outcomes. *Cancer*, 89, 2202-2213.

- Roetzheim, R.G., Pal, N., Gonzalez, E.C., Ferrante, J.M., Van Durme, D.J., & Krischer, J.P. (2000). Effects of health insurance and race on colorectal cancer treatments and outcomes. *American Journal of Public Health*, 90, 1746–1754.
- Rogers, J., Fanelli, S., Medina, D., Zhu, Q., Freelon, R., Bertrand, M., & Del Razo, J. (2009). *California Educational Opportunity Report: Listening to Public School Parents*. Los Angeles: UCLA/IDEA, UC / ACCORD.
- Rogers, J., Fanelli, S., Freelon, R., Medina, D., Bertrand, M., & Del Razo, M. (2010). *Educational Opportunities in Hard Times: The Impact of the Economic Crisis on Public Schools and Working Families*. Los Angeles: UCLA IDEA, UC / ACCORD.
- Rosenberg, M.W., & Wilson, K. (2001). Exploring the links between health and housing: the limitations of population health surveys. *GeoJournal*, 53, 109-116.
- Schneiderman, N., Ironson, G., & Siegel, S.D. (2005). Stress and health: Psychological, behavioral, and biological determinants. *Annual Review of Clinical Psychology*, 1, 607-628.
- Schootman, M., Andresen, E., Wolinsky, F.E., Malmstrom, T., Miller, J.P., Yan, Y., & Miller, D.K. (2007). The Effect of Adverse Housing and Neighborhood Conditions on the Development of Diabetes Mellitus among Middle-aged African Americans. *Journal of Epidemiology*, 166(4), 379-387.
- Searching for Health Food; The Food Landscape in California Cities and Counties. The California Center for Public Health Advocacy. January 2007
- Sherman, A. & Stone, C. (2010). Income gaps between very rich and everyone else more than tripled in last three decades, new data show. Retrieved from: <http://www.cbpp.org/files/6-25-10inc.pdf>
- Silicon Valley. (n.d.). Retrieved from: Wiki: <http://en.wikipedia.org>
- Silicon Valley Community Foundation, Immigration Brief, 2007. Retrieved from: [http://www.siliconvalleycf.org/docs/cip/ImmigrationBrief\\_web.pdf](http://www.siliconvalleycf.org/docs/cip/ImmigrationBrief_web.pdf)
- Singh, G.K., & Yu, S.M. (1996). Adverse pregnancy outcomes: differences between U.S. and foreign-born women in major U.S. racial and ethnic groups. *American Journal of Public Health*, 86, 837-843.
- Smedley, B., Jeffries, M., Adelman, L., & Cheng, J. (2008). Race, Racial Inequity and Health Inequities: Separating Myth from Fact. Retrieved from: [www.unnaturalcauses.org/assets/uploads/file/Race\\_Racial\\_Inequality\\_Health.pdf](http://www.unnaturalcauses.org/assets/uploads/file/Race_Racial_Inequality_Health.pdf)
- Sorlie, P.D., Johnson, N.J., Backlund, E., & Bradham, D.D. (1994). Mortality in the uninsured compared with that in persons with public and private health insurance. *Archives of Internal Medicine*, 154, 2409–2416.
- Stephen, E.H., Foote, K., Hendershot, G.E., & Schoenborn, C.A. (1994). Health of foreign-born population: United States, 1989–90. *Advance Data*, 241, 1-12.
- Strully, K.W. (2009). Job Loss and Health in the U.S. Labor Market. *Demography*, 46 (2), 221-246.
- The Valley of Heart's Delight. First American Settlers: Santa Clara Valley California. Retrieved from: <http://www.mariposaresearch.net/santaclararesearch/SCBIOS/firstamsett.html>
- United Farm Workers. Research: *UFW Chronology*. Retrieved from: [http://www.ufw.org/\\_page.php?menu=research&inc=\\_page.php?menu=research&inc=history/01.html](http://www.ufw.org/_page.php?menu=research&inc=_page.php?menu=research&inc=history/01.html)
- Wei, M., Valdez, R.A., Mitchell, B.D., Haffner, S.M., Stern, M.P., & Hazuda, H.P. (1996). Migration status, socioeconomic status, and mortality rates in Mexican Americans and non-Hispanic whites: the San Antonio Heart Study. *Annual Epidemiology*, 6, 307-313.
- Where We Live Matters for Our Health: Neighborhoods and Health*. Robert Wood Johnson Foundation, Commission to Build a Healthier America. Issue Brief 3: Neighborhoods And Health. September 2008.
- Wise, D. (2001). Employee Burnout Taking Major Toll on Productivity. *Los Angeles Business Journal*. Retrieved from: <http://www.allbusiness.com/human-resources/workplace-health-safety/794518-1.html>
- Yamato, A. (2008). Farming in the Santa Clara Valley. Retrieved from: <http://www.returntothevalley.org/chapter01.html>



Santa Clara County  
**PUBLIC**  
**HEALTH**

Great Things Start with Good Health

