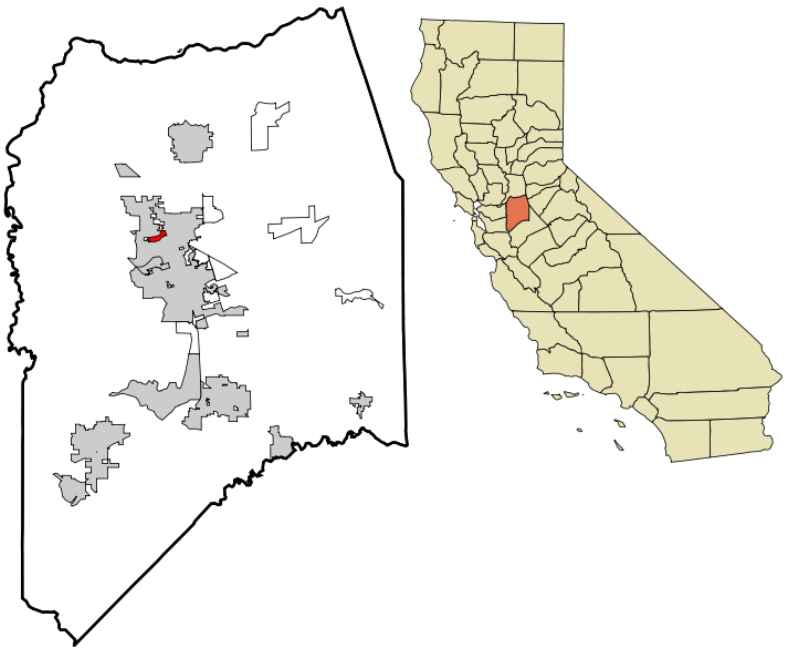
San Joaquin County

Community Health Status Report

2011

A description of the health status and mortality of San Joaquin County residents



SAN JOAQUIN COUNTY
Public Health Services
Healthy Future
A Division of San Joaquin County Health Care Services Agency

ACKNOWLEDGEMENTS

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April 2011

Dear San Joaquin County residents,

San Joaquin County Public Health Services is pleased to present the ***San Joaquin County 2011 Community Health Status Report***. This report examines data for various health indicators and provides discussion on the data and trends that are of particular significance for the County.

In April 2010 a Community Health Status Report - Executive Summary was published which contained an overview of the demographic characteristics of San Joaquin County residents, leading causes of death, and some chronic disease and Maternal, Child, and Adolescent Health indicators. The ***2011 Community Health Status Report*** is a more comprehensive report which updates and expands these indicators and also includes data on communicable diseases and cancers.

The health of an individual and of a population is determined by a range of personal, social, economic, and environmental factors. According to the national Healthy People 2010, these determinants of health are influenced by social factors, healthcare services, individual behavior, policymaking and people's biology and genetics. The interplay among these factors often leads to health disparities. Health disparities are health gaps that exist between different population groups as measured by the incidence, prevalence or mortality of disease, or other adverse health outcomes. These differences can affect populations based on gender, age, race/ethnicity, social status, economic status, geography, sexual orientation, disability, or special health care needs.

This report begins to elucidate some of the health disparities that exist in San Joaquin County. In particular, the report highlights various health indicators where racial/ethnic, age or geographic health differences exist. Examples are the higher rates of HIV/AIDS, infant mortality, and certain cancers among African-Americans, and high rates of sexually transmitted diseases, late entry into prenatal care, and teen births geographically concentrated in central and south Stockton.

We hope that this report initiates community-wide dialogue. Understanding and recognizing the differences in the health of various populations in San Joaquin County is important for community leaders as we work together to improve the overall health of the County residents.

Sincerely,

K Furst, MD

Karen Furst, MD, MPH
Health Officer

William Mitchell, MPH
Director

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The World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity (World Health Organization, 1948). As such, health is strongly affected by multiple factors that influence one's quality of life. Among these factors are genetics, environment, access to medical care, as well as socioeconomic measures such as education and poverty. In order to better understand the health status of a population, it is necessary to examine the social and economic conditions in which people live, in addition to the rates of diseases within the community. Therefore, this section of the report, in addition to providing population statistics, outlines socioeconomic data and trends for the county.

Population Demographics

San Joaquin County (SJC) has seen almost continuous growth over the last ten years. Between 2000 and 2009, the greatest percent increase in the population was in the 50-64 year age range (Table 1). However, SJC is still predominantly comprised of children and adults aged 0-49 years.

Table 1. SJC Population by Age, 2000 and 2009

Age	2000 Census		2009 Estimates		Percent Change
	Number	Percent*	Number	Percent*	
< 5 years	44,960	8.0%	57,154	8.5%	27.1%
5-9 years	50,511	9.0%	54,631	8.1%	8.2%
10-19 years	97,811	17.4%	111,990	16.6%	14.5%
20-29 years	73,866	13.1%	93,211	13.8%	26.2%
30-39 years	83,370	14.8%	88,006	13.0%	5.6%
40-49 years	79,713	14.1%	93,975	13.9%	17.9%
50-59 years	55,297	9.8%	78,828	11.7%	42.6%
60-64 years	18,271	3.2%	28,885	4.3%	58.1%
65+ years	59,799	10.6%	68,180	10.1%	14.0%
Total Population	**563,598**		**674,860**		**19.7%**

* Percent of Total Population
Source: United States Census Bureau, American Community Survey, 2009

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Over the last ten years, the bulk of the growth in SJC has been in the minority populations. In particular, there has been a tremendous increase in the Hispanic and Asian/Pacific Islander populations (Table 2). The White population has decreased over the last 10 years and is now roughly the same size as the Hispanic population in the county. Together, Hispanics and Whites make up roughly three-quarters of the county population.

The maps on the following page highlight areas of the county where concentrations of Whites, Hispanics, African Americans and Asians live (Map 1). It is evident in looking at the maps that there is not a lot of overlap when comparing where large numbers of the different race/ ethnicities reside within the cities of Stockton and Lodi.

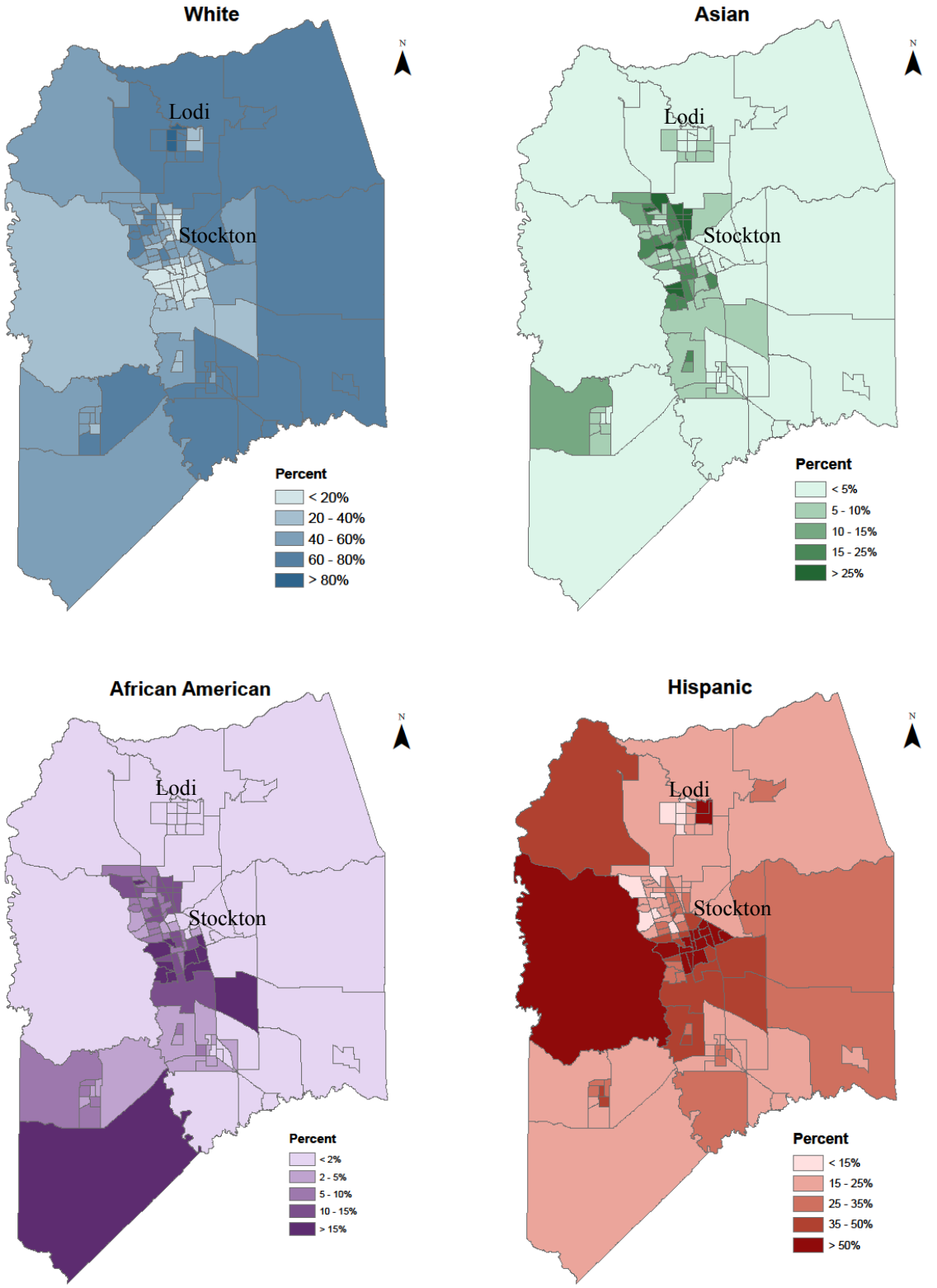
Table 2. SJC Race Breakdown, 2000 and 2009

Race	2000 Census		2009 Estimates		Percent Change
	Number	Percent*	Number	Percent*	
White	267,002	47.4%	257,884	38.2%	-3.4%
Hispanic	172,073	30.5%	253,516	37.6%	47.3%
African American	36,139	6.4%	49,289	7.3%	36.4%
Asian and Pacific Islander	63,750	11.3%	91,954	13.6%	44.2%
Native American	3,531	0.6%	3,910	0.6%	10.7%
Other/Multiple Race	21,103	3.7%	18,307	2.7%	-13.2%

* Percent of Total Population
Source: United States Census Bureau, American Community Survey, 2009

Community Profile

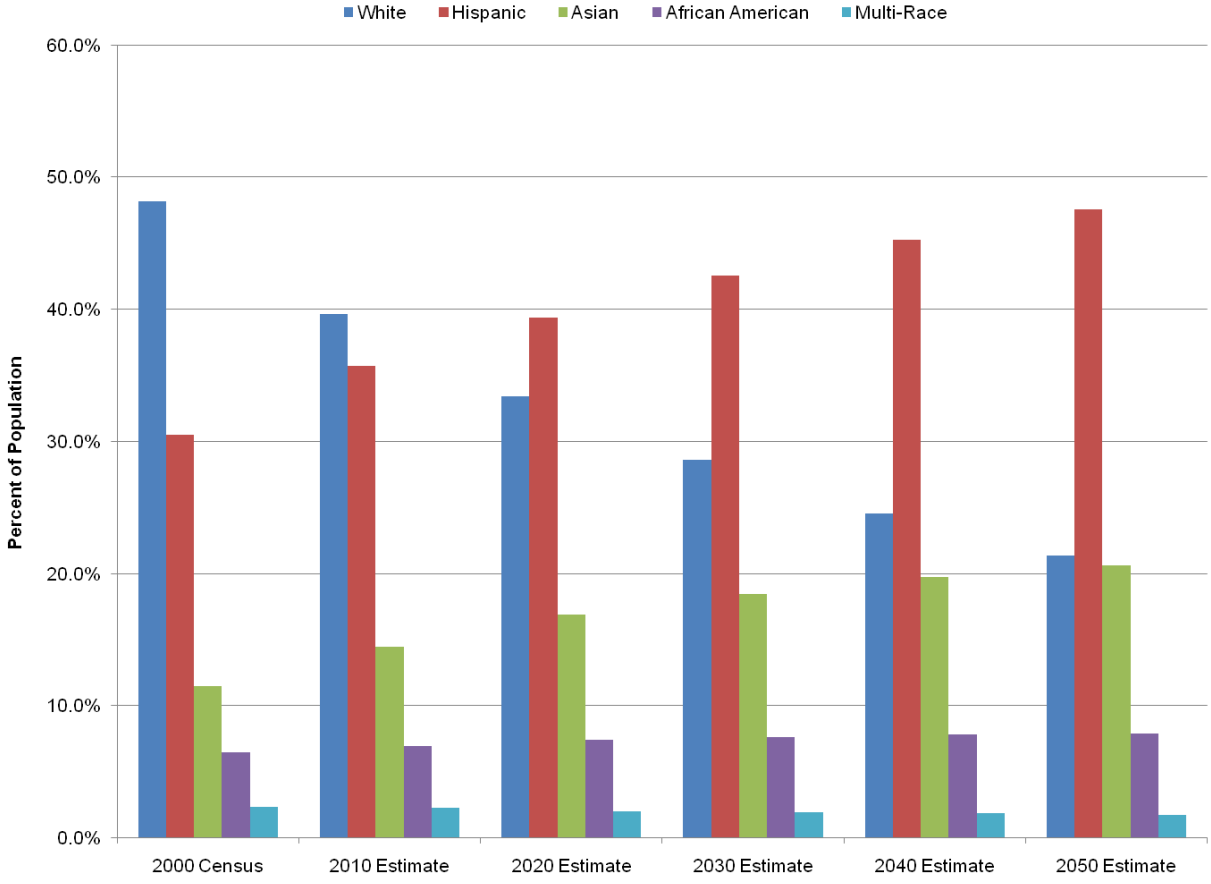
Map 1: SJC Population by Race/Ethnicity and Census Tract, 2000



Population Projections

From 2000-2009, the county´s population increased from approximately 570,000 to 680,000 (Table 1), and is projected to double between the years 2000 and 2030. By the year 2050, the Hispanic population is expected to be more than twice the White population and the Asian population will roughly equal the White population (Figure 1).

Figure 1: Race/Ethnicity Projections, SJC, 2000—2050



Source: California Department of Finance, Population Projections for California and Its Counties 2000-2050.

Income

Research has shown that wealthier people live longer and are healthier than others at lower income levels (Smith, 1999). Higher income allows greater access to nutritious food, safe and sanitary living conditions, education, and medical care, all of which improve health (Bloom & Canning, 2008). The earnings of a family are also a powerful determinant of children's health status (Case, Lubotsky, & Paxon, 2002). The health of children from families with lower income, deteriorate faster with age. Children from low income households enter adulthood in poorer health, having missed more days of school, and with more serious chronic conditions – all of which can compromise their future earnings ability (Case, Lubotsky, & Paxon, 2002).

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The median household income in the county increased from $41,282 in 2000 to $54,711 in 2009 (Table 3). Despite this increase, SJC remains poorer than California as a whole where the median household income in 2009 was $58,931 (U.S. Census Bureau, 2009). Additionally, a greater percentage of the SJC population lives below federal poverty levels (FPL) compared to California (U.S. Census Bureau, 2009), even though the percentage of people in the county under the poverty line decreased from 2000 to 2009 (Table 3).

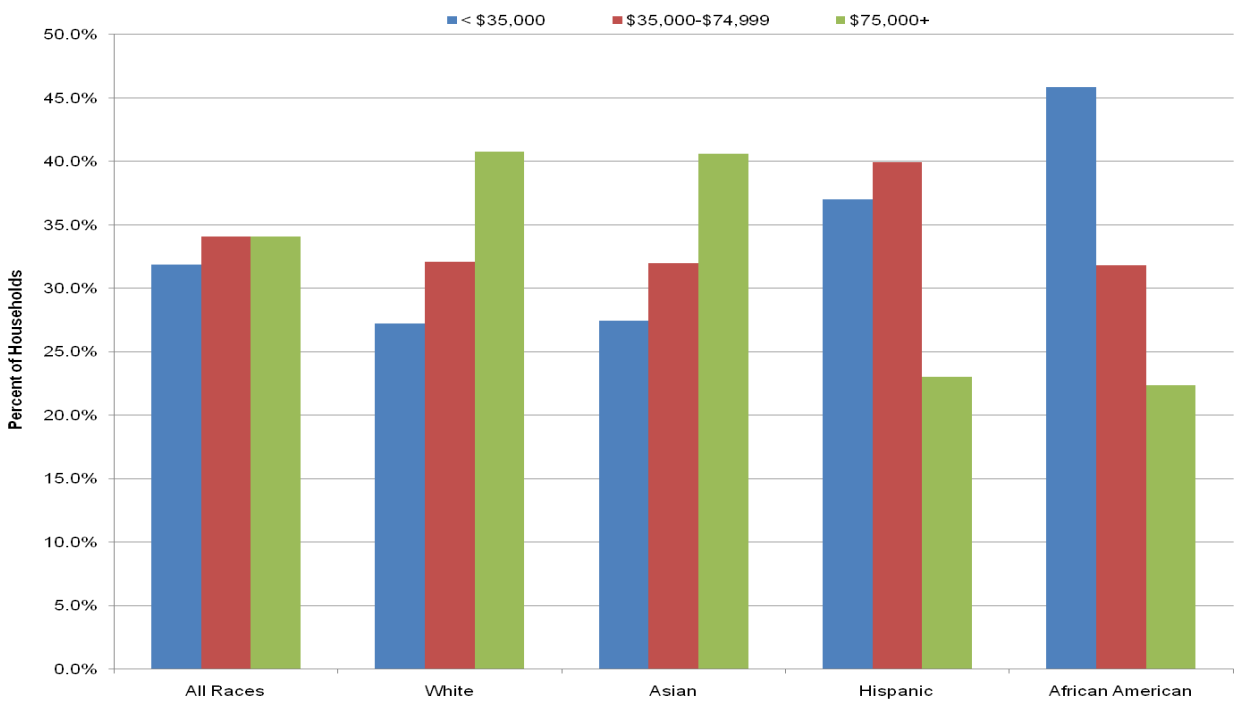
In SJC household income varies by race/ethnicity (Figure 2). While more than 45% of African Americans and one-third of Hispanics have incomes less than $35,000, only approximately 25% of Asians and Whites live in such households[2]. In general, Whites and Asians live in more affluent households in the county, as is evidenced by their having higher percentages of households making $35,000 or higher.

Table 3. Income and Poverty, SJC, 2000 and 2009

	2000 Census	2009 Estimates	Percent Change
Median Household Income*	$41,282	$54,711	32.5%
% of Population Living Below Federal Poverty Line*	17.7%	15.3%	-2.7%

**Data for Median Household Income and % of Population Living Below Federal Poverty Line comes from the U.S. Census 2000 and the American Community Survey , 2009.*

Figure 2: Household Income by Race/Ethnicity, SJC, 2009



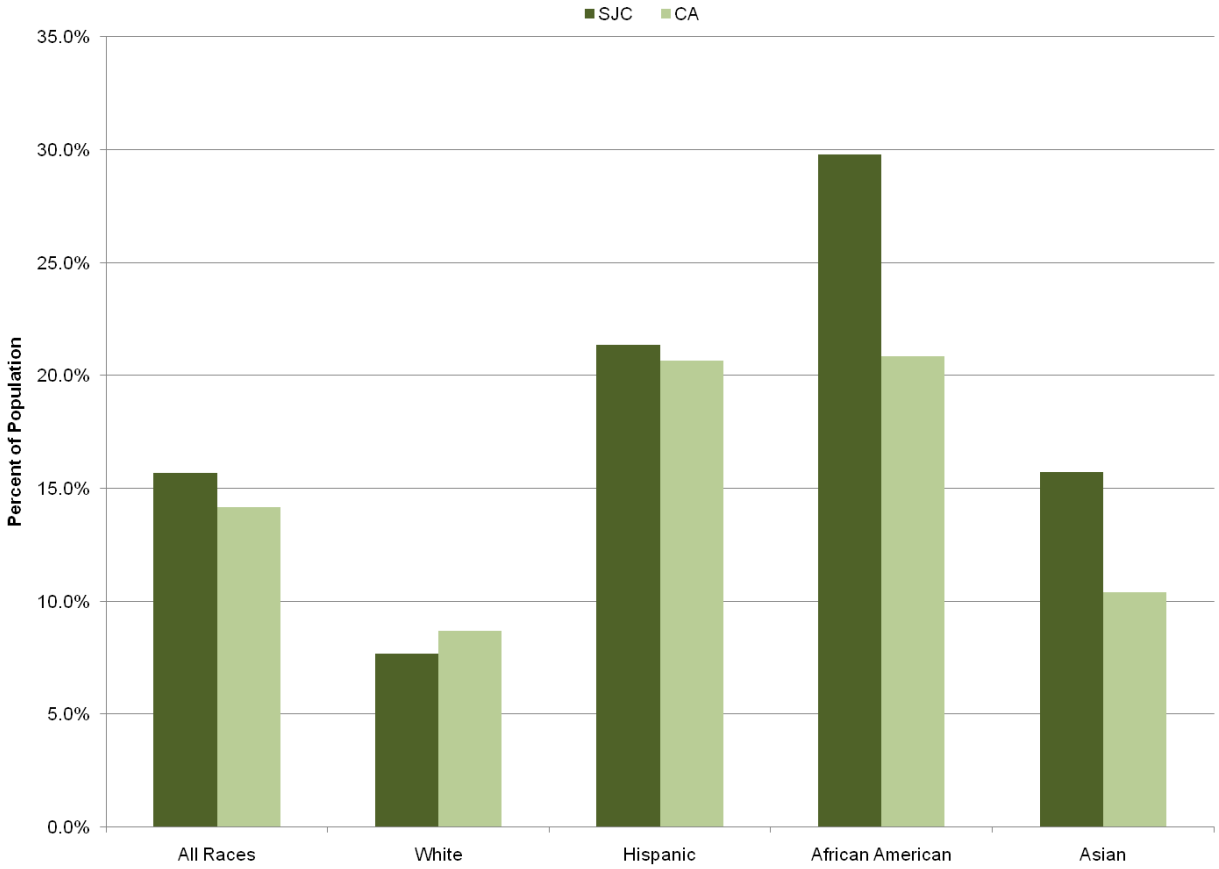
Source: United States Census Bureau, American Community Survey, 2009

Poverty

Research suggests that compared to obesity, smoking, and being a high school dropout, living in poverty is a great threat to health in the United States. A study by Muennig, Franks, Jia, Lubetkin, & Gold (2005) found that individuals whose household earnings are in the bottom one-third of the U.S. population lose 8.2 quality years of life. People living in poverty also tend to have more chronic illnesses and more frequent and severe disease consequences.

Overall, SJC has similar rates of poverty compared to California for Whites and Hispanics (Figure 3), but much higher rates of poverty for both African Americans and Asians. Comparing poverty rates across racial/ethnic groups within the county shows that while approximately 15% of Asians, 20% of Hispanics, and 30% of African Americans were living in poverty in 2009, only 8% of Whites were.

Figure 3: Percent of Individuals Living in Poverty* by Race/Ethnicity, SJC and CA, 2009



*Poverty is defined using Federal Poverty Levels (FPL) set by the Office of Management and Budget (OMB). If an individual or family falls under the FPL, they are considered to be living in poverty. In 2009, the FPL for an individual was an annual income < $10,830, and for a family of four it was an annual income < $22,050.
Source: United States Census Bureau, American Community Survey, 2009

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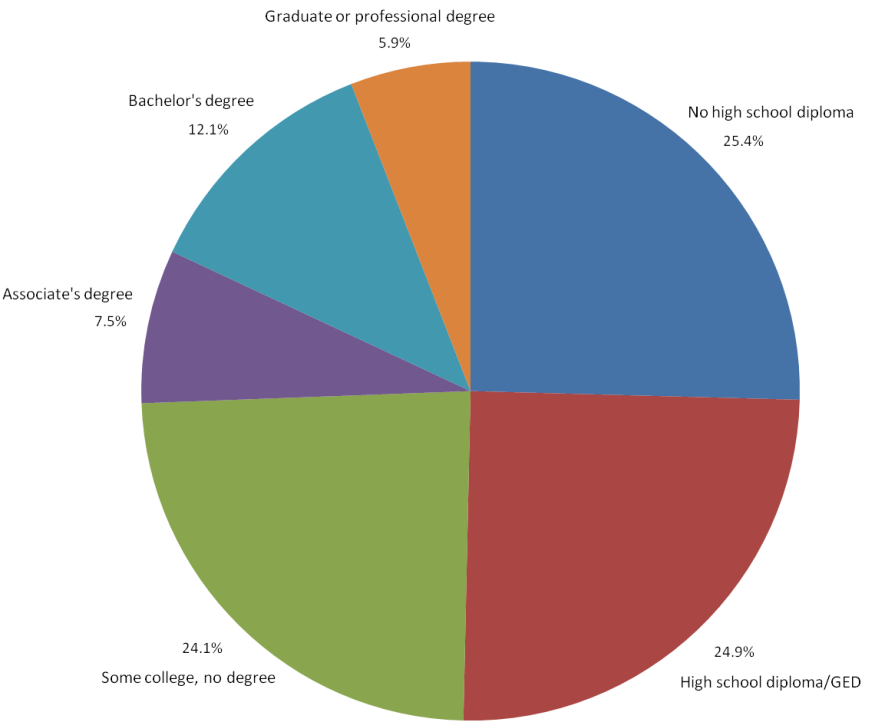
Education

There is a well known and persistent link between education and health. Data shows that individuals with more education report having lower morbidity from the most common chronic diseases (heart diseases, stroke, hypertension, emphysema, diabetes, asthma) (National Center for Chronic Disease Prevention and Health Promotion, 2009). Nationally, the percent of adults in poor health varies by level of education. In California, compared with college graduates, adults who have not completed high school are nearly three times as likely to be in poor health (U.S. Census Bureau, 2009).

This disparity is even more evident when looking across race/ethnicity groups. Hispanic adults are more than twice as likely and African American adults are 1.5 times as likely as White adults to experience poor health (U.S. Census Bureau, 2009). People with more education tend to have a better understanding of the importance of health-related behaviors. Higher educational attainment can also lead to higher paying jobs with greater economic security and opportunities and better benefits, including health insurance. Conversely, limited income can make everyday life a struggle, leaving little or no resources, time or energy to adopt healthy behaviors (U.S. Census Bureau, 2009).

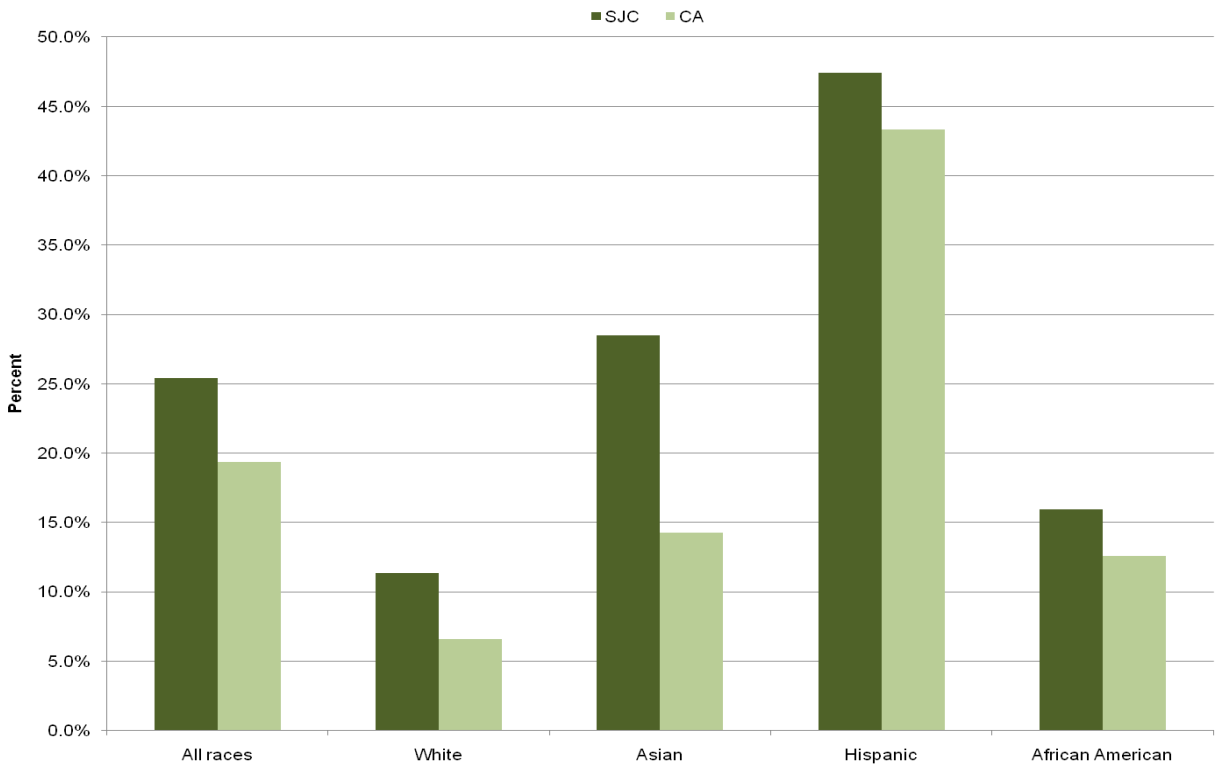
Figure 4: Educational Attainment of Adults Aged 25+ Years, SJC, 2009



Source: United States Census Bureau, American Community Survey, 2009

In 2009, 76% of SJC adults had graduated from high school or received a General Education Diploma (GED), but only 18% of adults had bachelor's degrees or higher (Figure 4). In comparison, 30% of adults in California had bachelor's degrees or higher (U.S. Census Bureau, 2009). Most striking is the difference in rates of completion of a high school education by race/ethnicity within the county (Figure 5). Hispanics had the lowest rates of high school education completion – almost half of Hispanic adults in SJC did not complete high school – followed by Asians, with 28.5% of Asian adults having less than a high school education. In all race/ethnic groups, a greater percent of adults in SJC had less than a high school education compared to California.

Figure 5: Percent of Adults (>25 years) without a High School Education by Race/Ethnicity, SJC and CA, 2009

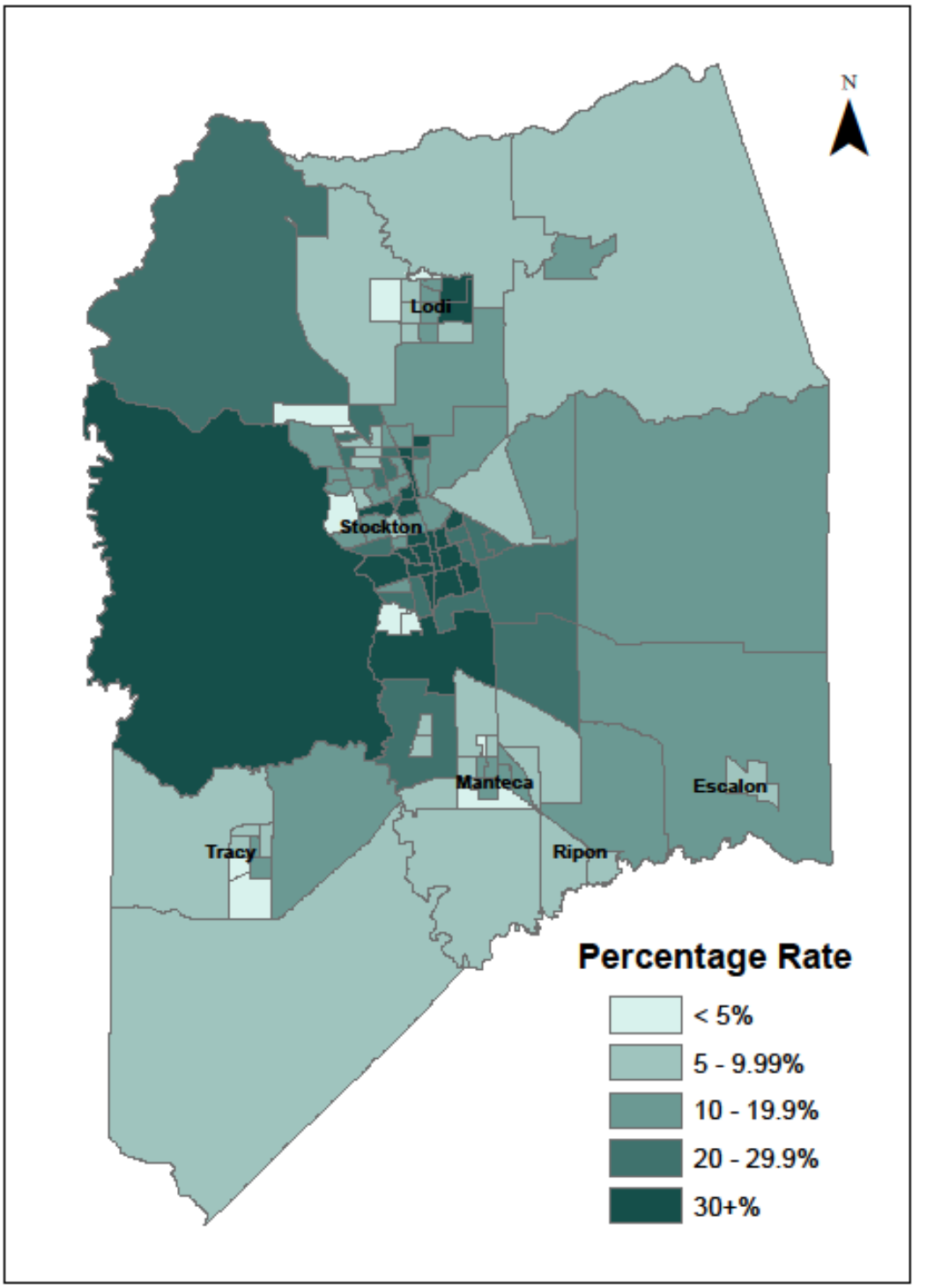


Source: United States Census Bureau, American Community Survey, 2009

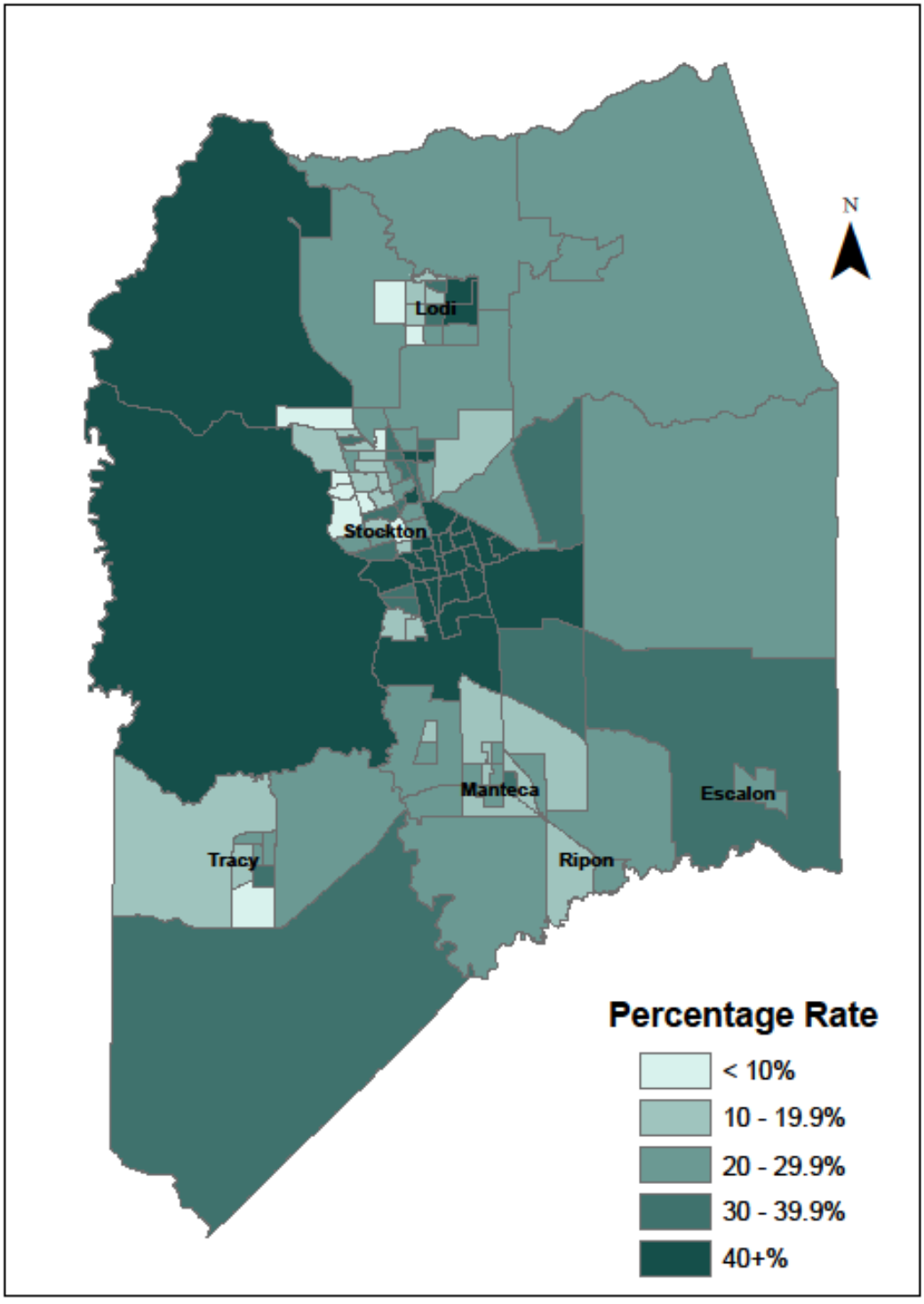
As can be seen in the poverty and education geographic information system (GIS) maps (Maps 2 and 3), many of the census tracts with low rates of educational attainment are also the same census tracts with high rates of poverty. This is not surprising given that levels of educational attainment and poverty are linked. The census tracts with high rates of both poverty and low education are concentrated in central and south Stockton. As will be shown in many of the maps in the following sections, this area of the county consistently has high rates of disease and poor health outcomes. Affecting change in this geographical area would contribute greatly to improving the overall health status of the county.

COMMUNITY PROFILE

Map 2: Percent of Population Living in Poverty by Census Tract, SJC, 2000



Map 3: Percent of Adults (>25 Years) with Less Than a High School Education by Census Tract, SJC, 2000



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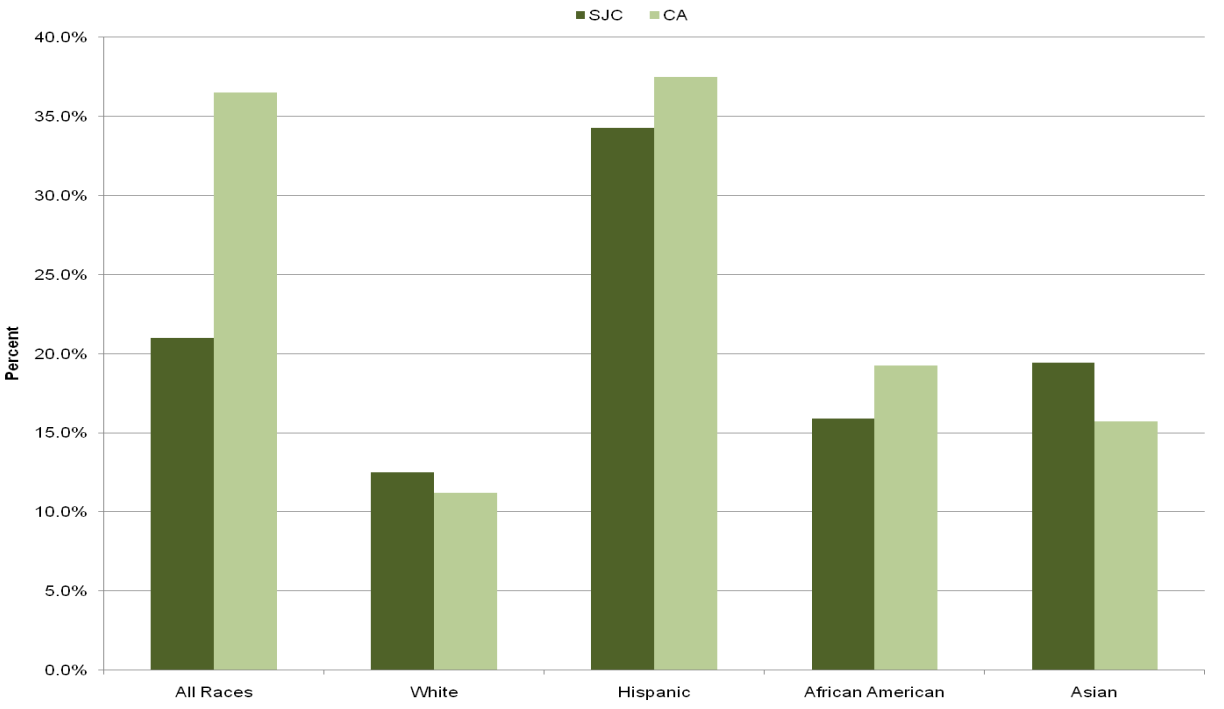
Health Insurance and Unemployment

In San Joaquin County, approximately 21% of the adults (18 years and older) lacked health insurance at some point in 2009 (Department of Finance, 2009). Of the adults in SJC with health insurance, public insurance accounts for 28.4% of the coverage. In California, this number is slightly less than SJC at 24.9%. In SJC, a much greater percentage of Hispanic adults were without any health insurance in 2009 than any other race (Figure 6). Over one-third of Hispanic adults and almost 20% of Asian adults in the county were uninsured. Despite the fact that SJC has comparatively lower uninsured rates for Hispanics and African Americans than California, large numbers of SJC residents are going without health insurance. Lack of medical insurance compromises the ability of these individuals to maintain their health. The uninsured are less likely to have been seen by a physician recently, receive preventive care such as immunizations or cancer screening, or to avoid hospitalization for serious conditions (Lynch, Smith, Kaplan, & House, 2000).

Health insurance rates are linked to employment rates since many people have employment-based coverage. The unemployment rate in SJC in January 2010 was estimated at 18.4%, up from 17.0% in December 2009, and above the December 2008 estimate of 14.6 percent. This compares with an unemployment rate of 13.2% for California and 10.6% for the nation in January 2010 (California Employment Development Information, 2009). Given the current economic recession, the rates of unemployment and the number of uninsured individuals in SJC will likely increase beyond 2010.

Figure 6: Percent of Adults (>18 years) without Health Insurance by Race/Ethnicity, SJC and CA, 2009



Source: Department of Finance, 2009

MATERNAL, CHILD, ADOLESCENT HEALTH

Overview

Improving the health of mothers and babies is a core objective of public health. While overall birth outcomes have improved in SJC in recent years, significant disparities by race/ethnicity and geography are still evident. Much of the disparities that continue to exist regarding birth outcomes in SJC have root causes in environmental and social factors such as long-term residence in areas of low education/high poverty, as well as lifetime exposure to racism. In the past, disparities in birth outcomes have often been explained by the quality and frequency of prenatal care. A new perspective, called the life course, suggests prenatal care is just one component, and that these health disparities result from differences in additional protective factors and risk factors over the course of a woman's life (Lu & Halfon, 2003; Lu et al., 2010). It also postulates that the health and socioeconomic status of one generation can have an impact on the birth outcomes and health of future generations. Thus, in order to for there to be considerable improvement in birth outcomes in SJC, especially in regards to health disparities, efforts will need to embrace this model and involve the collaboration of many agencies/organizations working together.

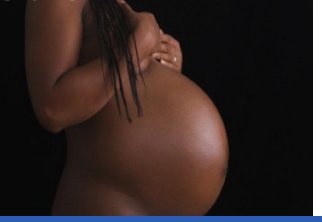
Live Births & Birth Rates of SJC

Reversing a decreasing trend seen during the 1990's, the birth rate in SJC generally increased from 2000-2006 (Table 4). From 2007-2009, however, the birth rate declined in SJC, as well as California (Table 4) and the U.S. overall (Tejada-Vera & Sutton, 2010). Although not definitively the reason for the decreases from 2007-2009, the lower rates are most likely associated with fewer women having babies because of the poor economy.

Table 4: Live Births and Birth Rates, SJC and CA, 2000—2009

Year	San Joaquin County		California	
	Live Births	Birth Rate*	Live Births	Birth Rate*
2000	9,603	16.9	531,285	15.6
2001	9,811	16.6	527,371	15.2
2002	10,162	16.7	529,245	15.0
2003	10,455	16.7	540,827	15.0
2004	11,010	17.1	544,685	14.9
2005	11,495	17.4	548,700	14.9
2006	11,782	17.6	562,157	15.1
2007	11,592	17.1	566,137	15.0
2008	11,030	16.1	551,567	14.5
2009	10,872	15.7	526,774	13.7

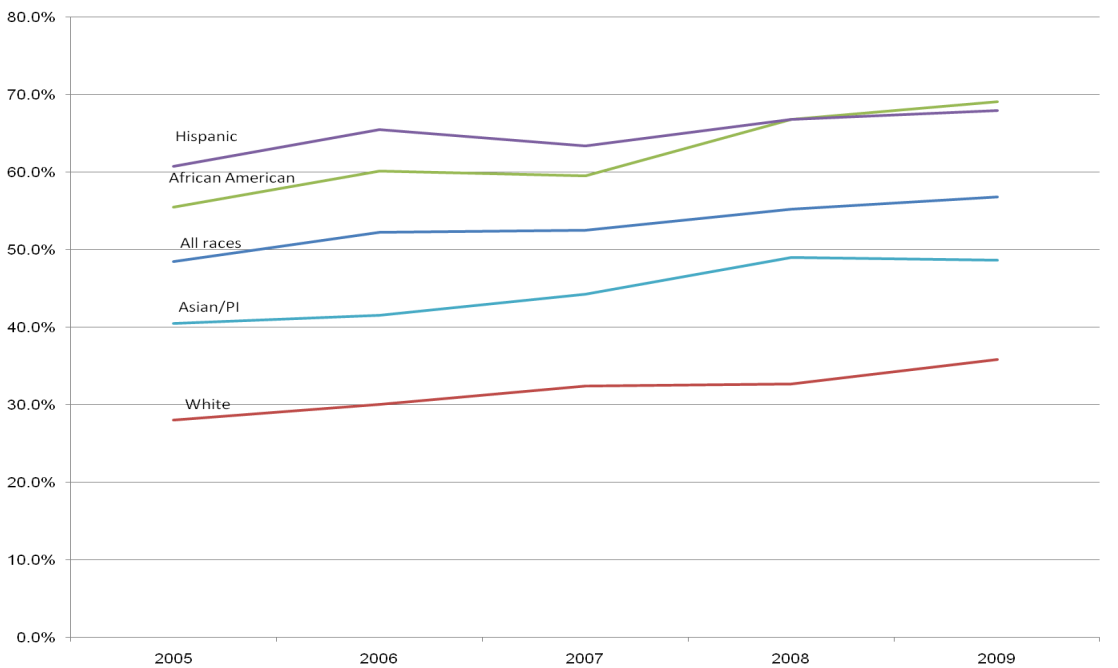
*Birth rate is number of live births per 1,000 population
Source: Department of Finance, 2009 & California and San Joaquin County Birth Data, 2000-2009.



Source of Payment for Prenatal Care and Deliveries

In SJC, Medi-Cal is the predominant payment source for prenatal care and deliveries, and the percentage of women using Medi-Cal continues to increase. From 2005-2009, the number of women using Medi-Cal or other government insurance as the source of payment for delivery of their baby in SJC steadily grew from 48.5% to 56.8%. As shown in Figure 7 below, during this time, Hispanics and African Americans in the county were utilizing Medi-Cal and other government insurance more than women of other races/ethnicities. In 2009, Medi-Cal was also the primary source of payment for mothers under 20 years of age. Among teen mothers, 79% relied on Medi-Cal for payment for delivery, compared to only 55.8% of mothers aged 20-34 and 41.6% of mothers 35 and older. Furthermore, evidence of disparities for teenage mothers are striking when comparing Medi-Cal usage by race/ethnicity. According to data from 2009, 82.4% of Hispanic teens used Medi-Cal compared to 68.7% of White teens. Likewise, for women aged 20-34 years, approximately two-thirds of Hispanics and African Americans used Medi-Cal for delivery payment, but only one-third of White women and approximately half of Asian women utilized Medi-Cal. Instead, private insurance was used for delivery payment by 60% of White women aged 20-34 years and almost half of Asian mothers, suggesting greater health insurance coverage via employer sponsored or spousal insurance. For women aged 35 years and older, Hispanic and African American women still had the highest percentage of Medi-Cal use for delivery payment than the other races/ethnicities. More than half of Hispanics and almost 40% of African American women in this age group utilized Medi-Cal compared to only 31.5% of Asians and 18% of White women.

Figure 7: Medi-Cal or Other Government Insurance as Payment for Delivery by Race/ Ethnicity, SJC, 2005—2009



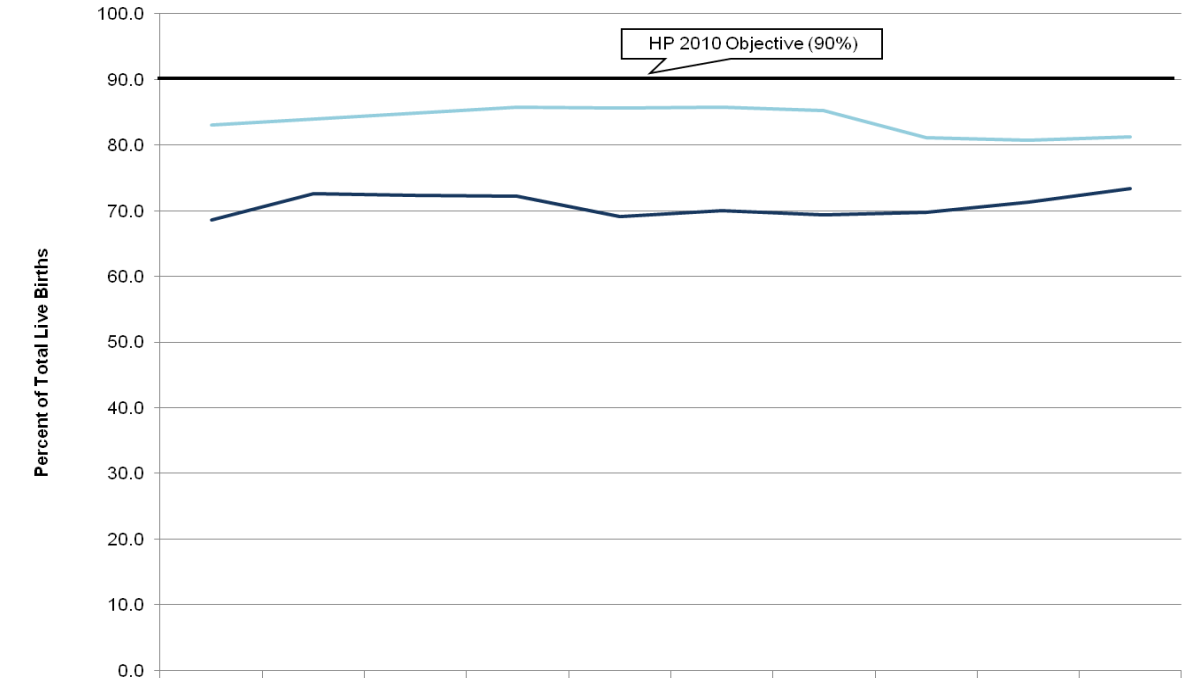
Source: San Joaquin County Birth Statistical Master Files, 2009

MATERNAL, CHILD, ADOLESCENT HEALTH

Prenatal Care

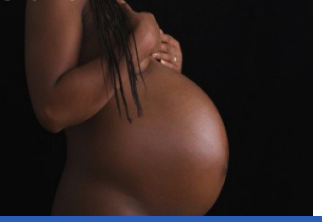
Studies have shown that a lack of adequate prenatal care early in pregnancy is associated with poor birth outcomes (Ratzon, Sheiner, & Shoham-Vardi, 2011). For pregnant women in SJC, access to and utilization of prenatal care in the first trimester of pregnancy has historically been low, and below the Healthy People (HP) 2010 objective of 90%. However, the data from 2009 show an increase in the overall percentage of women receiving prenatal care early (73.4%), the highest rate seen since 2001 (Figure 8). This increase may be a result of the "Go Before You Show" campaign initiated in 2007 by SJC PHS in conjunction with First 5 of San Joaquin County, which encourages women to see a doctor within the first three months of pregnancy. The message of this campaign has been delivered to the community in several ways, including an Internet website (gobeforeyoushow.com), radio announcements, and posters.

Figure 8: First Trimester* Prenatal Care, SJC and CA, 2000—2009



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
San Joaquin	68.6	72.6	72.3	72.2	69.1	70.0	69.4	69.8	71.3	73.4
California	83.1	84.0	84.8	85.8	85.6	85.8	85.2	81.1	80.7	81.3

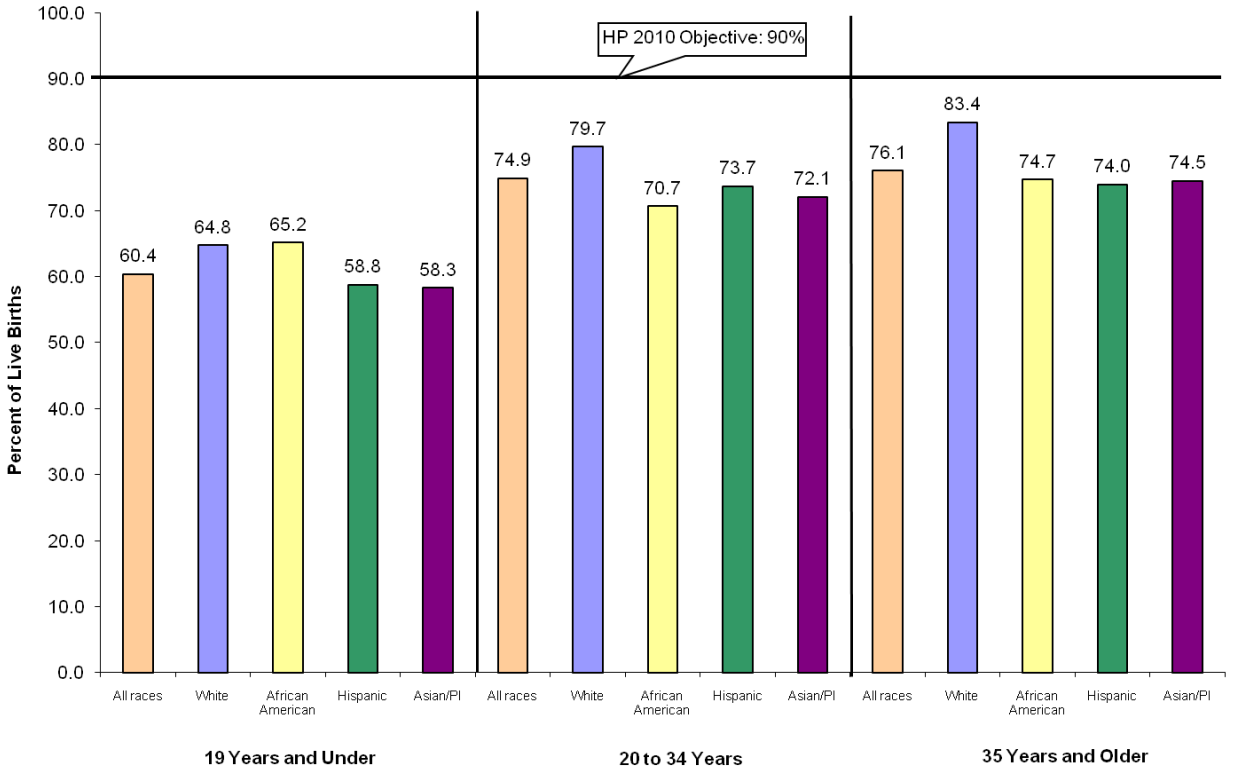
Source: San Joaquin County Birth Statistical Master Files, 2009
* First trimester = 0-13 weeks pregnant



MATERNAL, CHILD, ADOLESCENT HEALTH

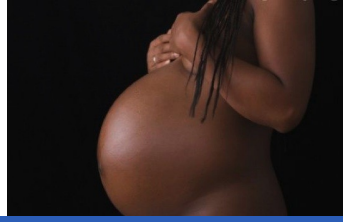
Looking at first trimester prenatal care data for year 2009, stratified by race/ethnicity and age, it is clear that the HP 2010 objective was not met by women of all ages and races/ethnicities in SJC (Figure 9). Of particular note, teen mothers are less likely to receive prenatal care in the first trimester than older age groups, and, except for women aged 19 years and under, women of color have a lower percentage of first trimester prenatal care than white women.

Figure 9: First Trimester Prenatal Care by Race/Ethnicity and Age of Mother, SJC, 2009



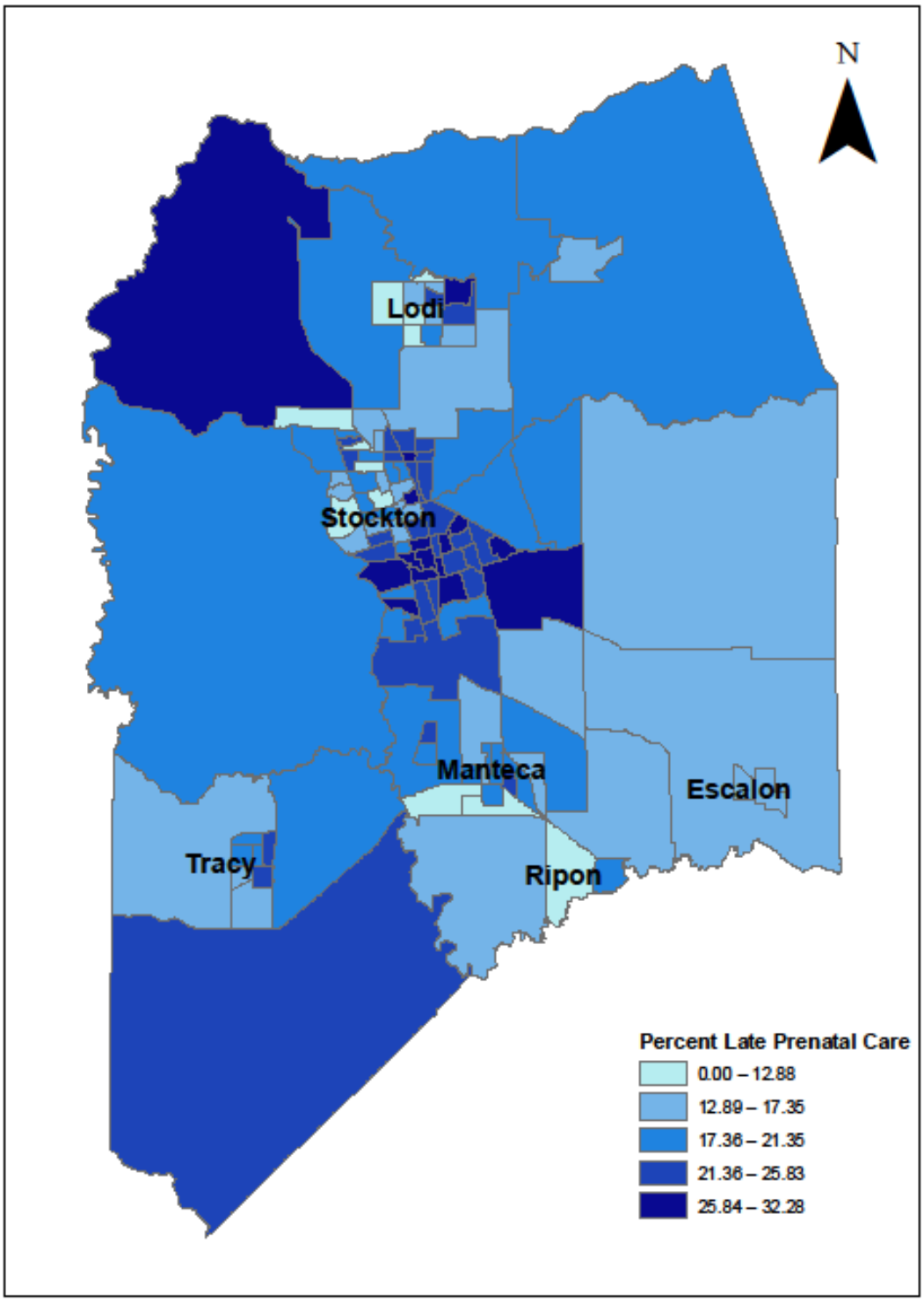
Source: San Joaquin County Birth Statistical Master Files, 2009

GIS mapping by census tract of the percent of women entering prenatal care late (Map 4), shows there are many census tracts in central and south Stockton with a high percentage of women who are not accessing prenatal care early. Not surprisingly, this distribution of census tracts follows the same pattern of tracts with low education and high poverty previously discussed in the Community Profile section of this report (Map 2 and 3). Focusing on the geographically concentrated areas with poor prenatal care would be cost-effective, and would target the segment of the population with the greatest need.

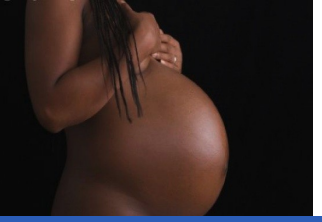


MATERNAL, CHILD, ADOLESCENT HEALTH

Map 4: Percent of Women with Late Entry* into Prenatal Care by Census Tract, SJC, 2006—2009



*Late entry = after 13 weeks pregnant



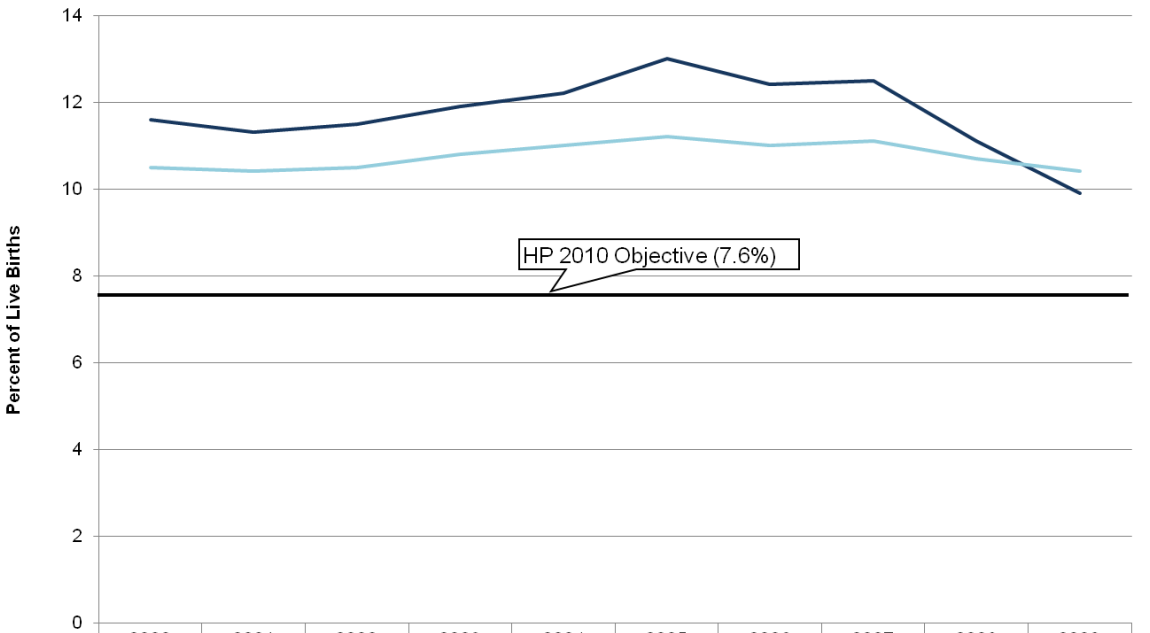
MATERNAL, CHILD, ADOLESCENT HEALTH

Preterm Birth

In SJC, the low rates of early prenatal care may be contributing to a relatively high percentage of preterm births (<37 weeks gestation) each year. Fortunately, in year 2009 the rate of preterm births in SJC improved dramatically to 9.9%, which is the lowest level for the time period from 2000-2009 (Figure 10). However, this is still significantly higher than the HP 2010 goal of 7.6%. In looking at the data stratified by race/ethnicity and mother's age (Figure 11), it is apparent that women of all age groups and races exceed the HP 2010 goal, and that rates are especially high for women in the 35 years and older age category. Studies have shown that women age 35 and older and teenage females are more likely than women of other ages to deliver prematurely (Berkowitz & Papiernik, 1993).

Preterm birth can have a lifelong impact on a child's health. Research shows that premature birth puts the fetus at greater risk for diabetes, coronary heart disease, and certain cancers as he/she ages (Barker, 1995). There are many other short- and long-term impacts of premature birth, including vision problems, cerebral palsy, and asthma. As many as half of all pediatric neurodevelopment problems can be attributed to preterm birth (Green et al., 2005).

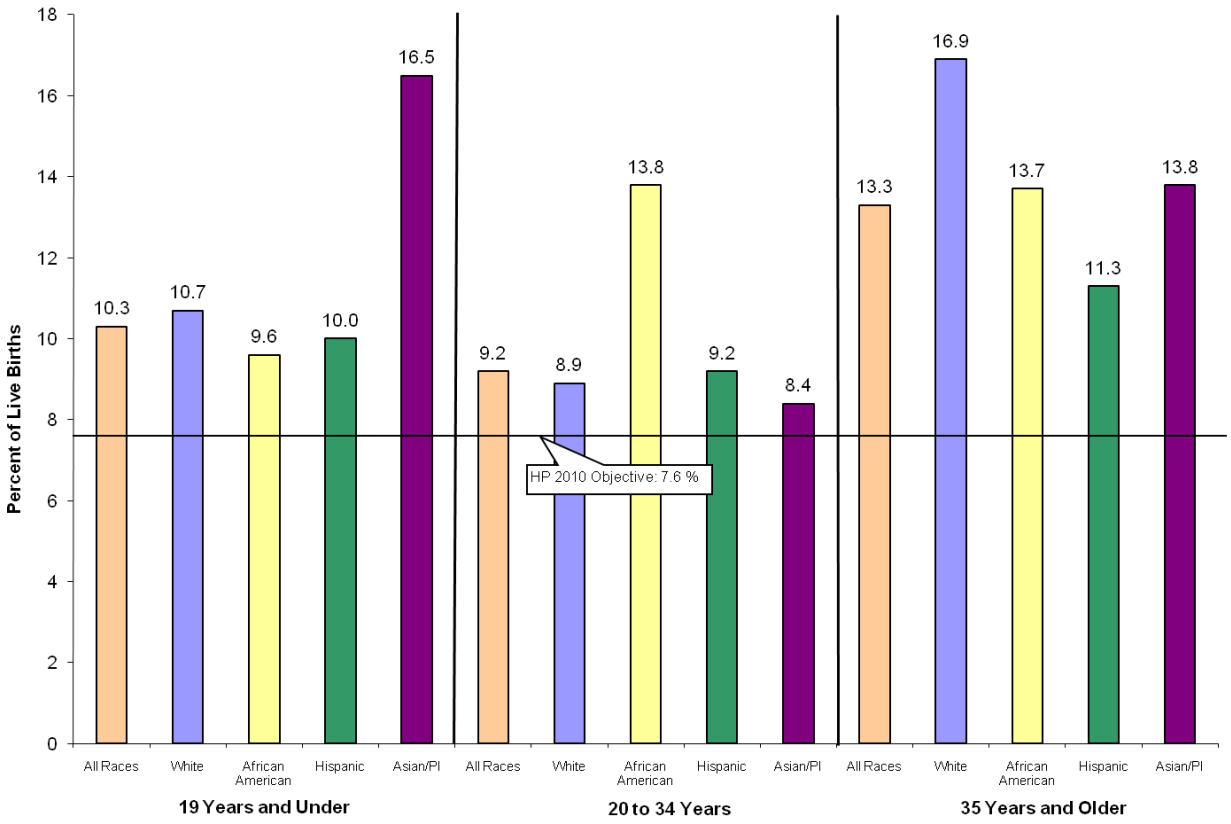
Figure 10: Percent of Live Births with Preterm Delivery, SJC and CA, 2000—2009



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
San Joaquin	11.6	11.3	11.5	11.9	12.2	13.0	12.4	12.5	11.1	9.9
California	10.5	10.4	10.5	10.8	11.0	11.2	11.0	11.1	10.7	10.4

Source: San Joaquin County Birth Statistical Master Files, 2009

Figure 11: Preterm Birth by Race/Ethnicity and Age of Mother, SJC, 2009

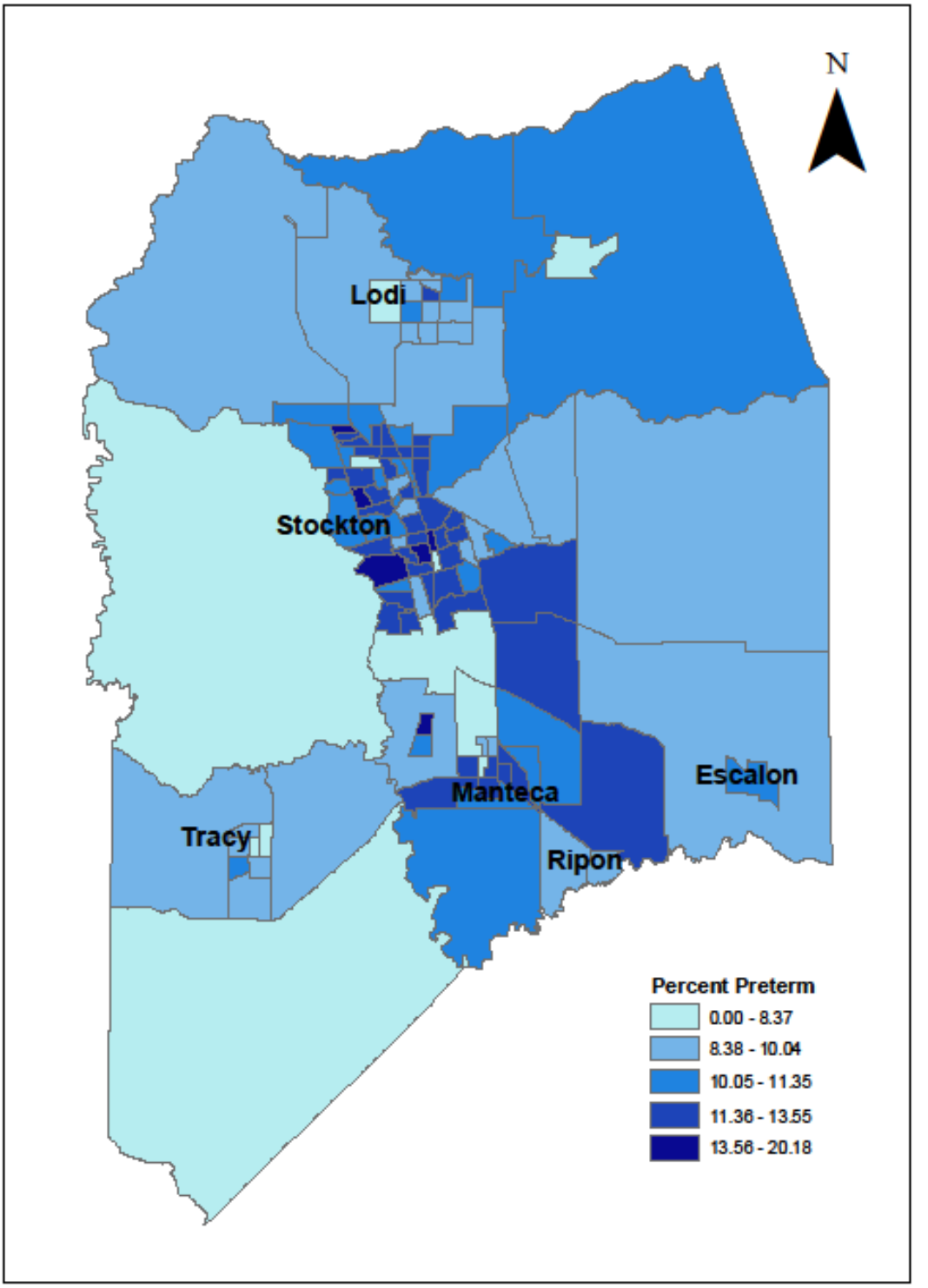


Source: San Joaquin County Birth Statistical Master Files, 2009

A map depicting the percentage of preterm births by census tract (Map 5) shows some clustering of high rates in the central Stockton area, similar to the map for late entry into prenatal care. However, other census tracts with high rates of preterm births, some of which are located in the more affluent areas of the county, are also evident in looking at the map. High rates in these areas could be due to the trend of older, more educated women choosing to have children later in life. As mentioned previously, women age 35 and older are more likely than younger women to deliver prematurely.

MATERNAL, CHILD, ADOLESCENT HEALTH

Map 5: Percentage of Preterm Births by Census Tract, SJC, 2000—2009

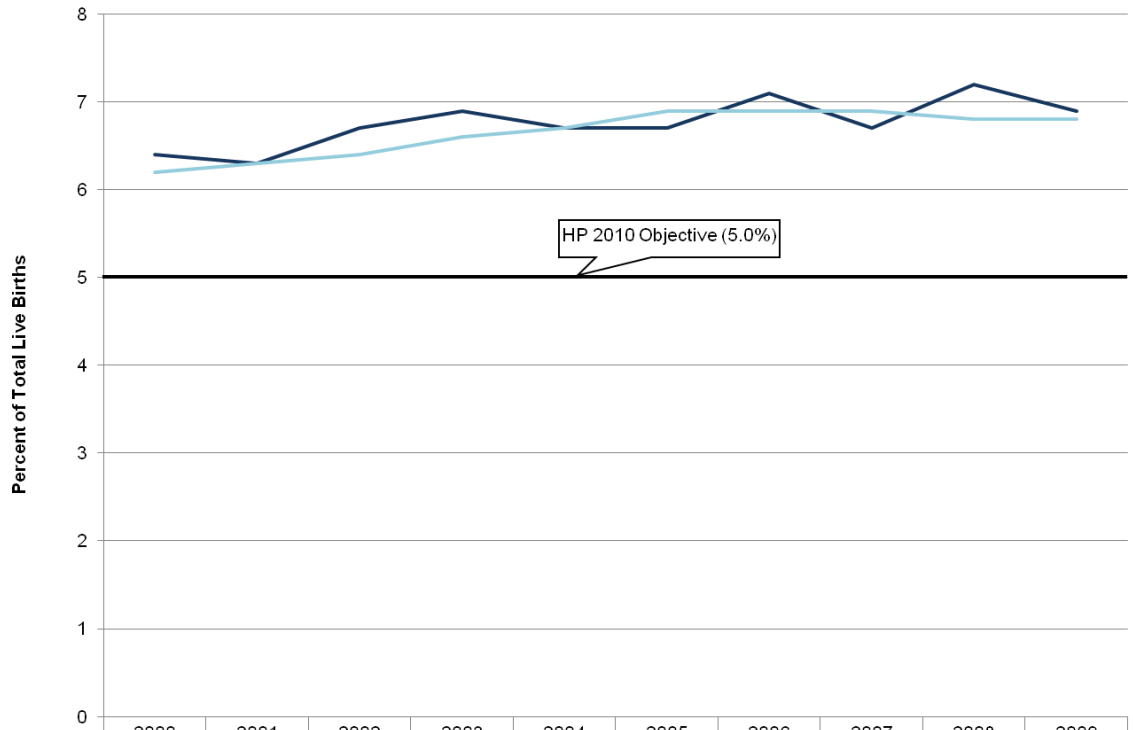


MATERNAL, CHILD, ADOLESCENT HEALTH

Low Birthweight

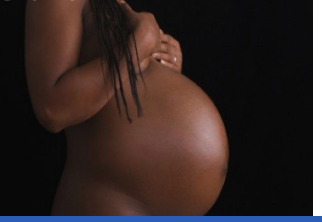
Similar to preterm births, low birth weight (<2500g) is correlated with low rates of early prenatal care. Maternal high blood pressure, and heart, lung, and kidney problems can also contribute to a reduced birthweight (Haram, Søftland, & Bukowski, 2006; Berghella, 2007). From 2000-2008, the percentage of births in SJC that were low birthweight steadily increased (Figure 12). In 2009, while the rate dropped to 6.9%, it was still above the HP 2010 objective of 5.0% of all births being low birthweight. When looking at the data stratified by maternal race/ethnicity and age, however (Figure 13), it is apparent that there are a lot of differences between the various races/ethnicities and ages. While Hispanic women of all ages either met the HP 2010 objective or were very close to meeting it, African Americans in all age groups exceeded the objective, especially women in the 20-34 age category. African-American women of all ages also have the highest rates of very low birth weight babies (<1500g).

Figure 12: Low Birthweight Infants, SJC and CA, 2000—2009



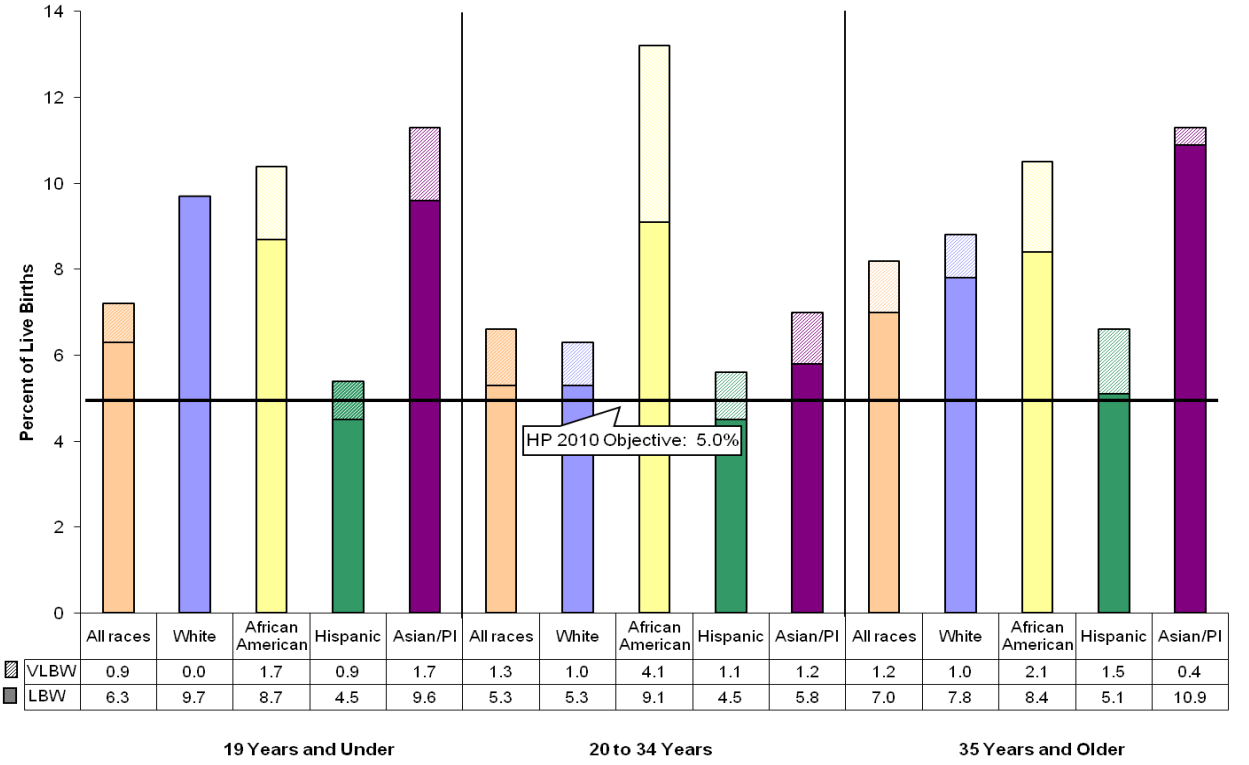
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
San Joaquin	6.4	6.3	6.7	6.9	6.7	6.7	7.1	6.7	7.2	6.9
California	6.2	6.3	6.4	6.6	6.7	6.9	6.9	6.9	6.8	6.8

Source: San Joaquin County Birth Statistical Master Files, 2009



MATERNAL, CHILD, ADOLESCENT HEALTH

Figure 13: Low and Very Low Birthweight Infants, SJC, 2009



	All races	White	African American	Hispanic	Asian/PI	All races	White	African American	Hispanic	Asian/PI	All races	White	African American	Hispanic	Asian/PI
VLBW	0.9	0.0	1.7	0.9	1.7	1.3	1.0	4.1	1.1	1.2	1.2	1.0	2.1	1.5	0.4
LBW	6.3	9.7	8.7	4.5	9.6	5.3	5.3	9.1	4.5	5.8	7.0	7.8	8.4	5.1	10.9

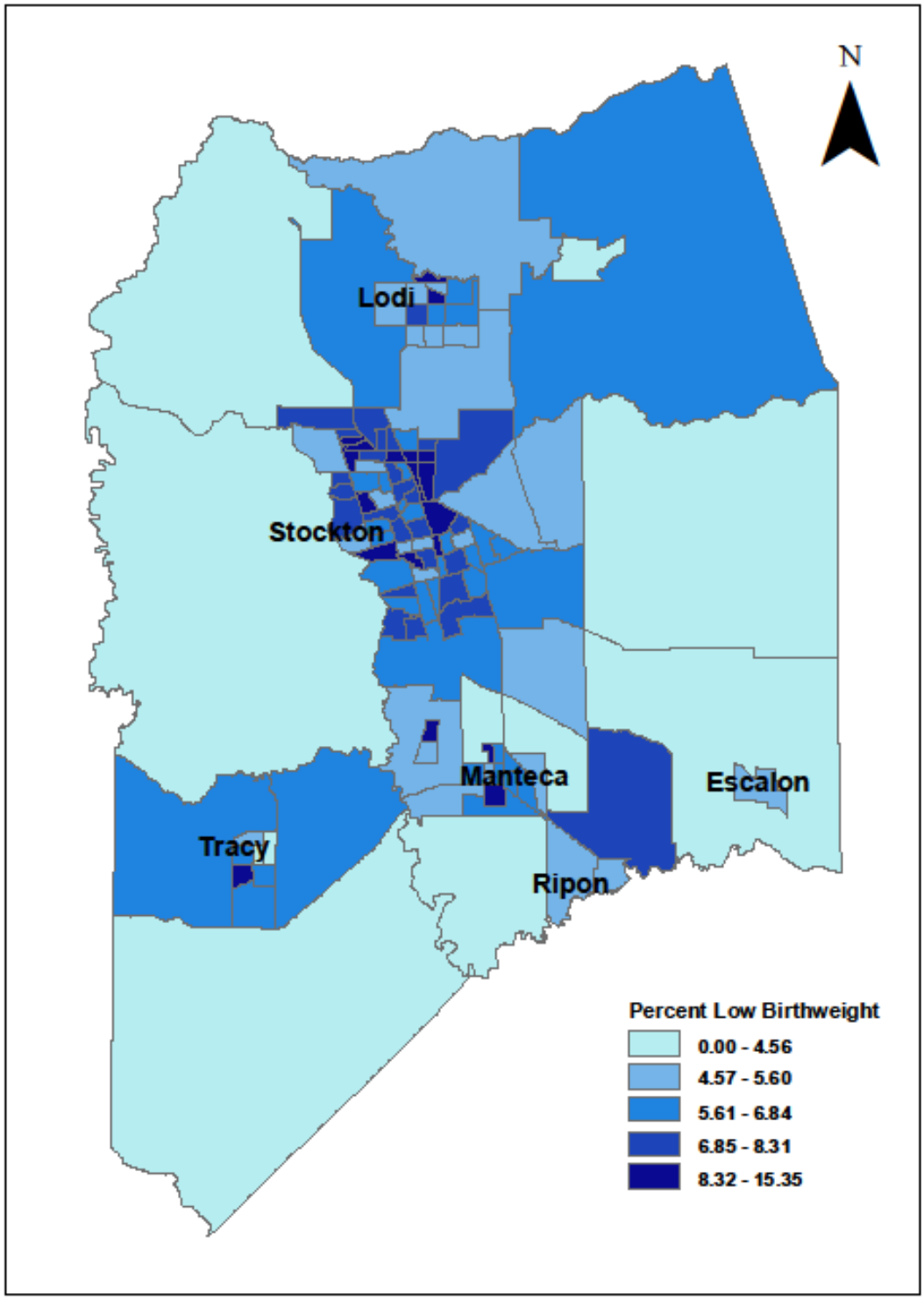
Source: San Joaquin County Birth Statistical Master Files, 2009

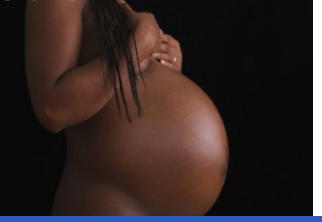
The GIS map of low birthweight births (Map 6), is similar to the map of preterm births previously discussed in terms of the geographic distribution of high rates. This is not surprising given that many preterm babies are also born at a low birthweight since they are not fully developed. Additionally, many of the geographic areas with high rates are also the same areas where a high percentage of Asians reside (Map 1). As shown previously in Figures 11 and 13, Asians have a high rate of low birthweight and preterm births in the county compared to other races/ethnicities.

It is evident in looking at the data for entry into prenatal care, low birthweight births, and preterm births, that the African American population in the county has poorer birth outcomes compared to the other races/ethnicities. As a result, SJC Public Health Services Maternal, Child, and Adolescent Health (MCAH) program has been the recipient of funding for a Black Infant Health (BIH) program. The goals of this program are to increase the number of first trimester prenatal care visits by pregnant African American women, reduce the number of deaths of African American infants, and foster the continuity of health care services during the perinatal and interconception periods for African-American women and their infants.

MATERNAL, CHILD, ADOLESCENT HEALTH

Map 6: Percentage of Low Birthweight Births by Census Tract, SJC, 2003—2009



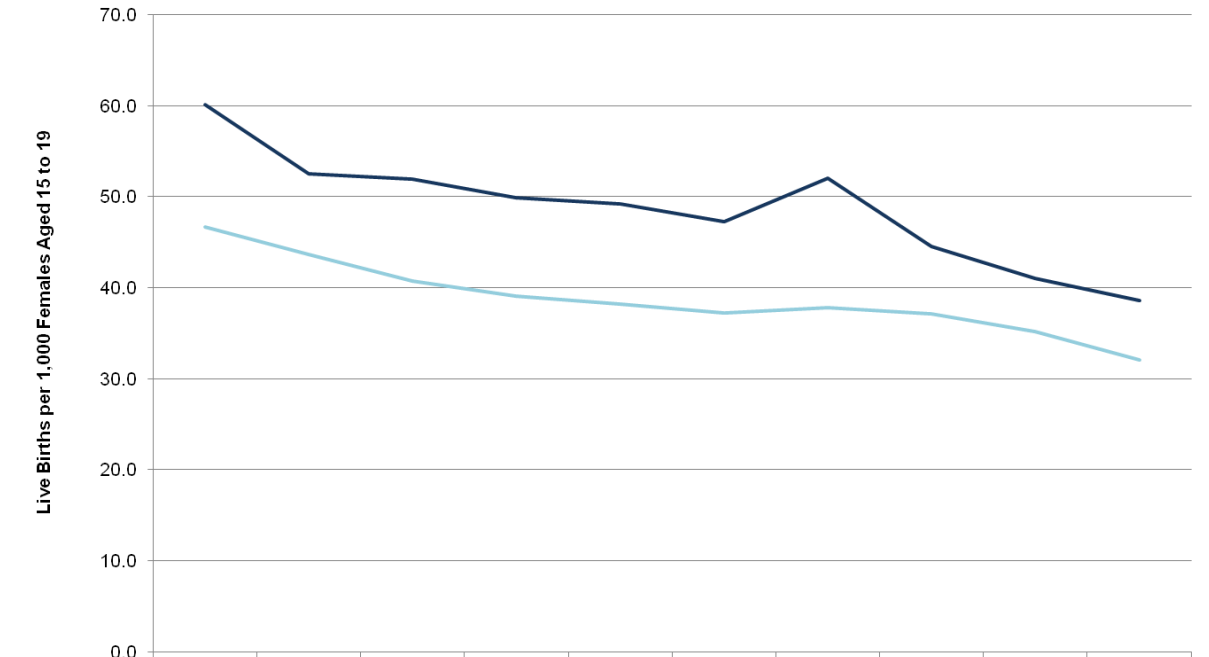


MATERNAL, CHILD, ADOLESCENT HEALTH

Teen Births

Teenage girls face a greater risk of delivering low birth weight babies than older mothers, and their babies also have a higher risk of death (Berkowitz & Papiernik, 1993). While SJC's teen birth rate among 15-19 year olds has been on a downward trend over the last 10 years, the rate in the county is still higher than the rate in CA (Figure 14). In looking at the teen birth rate by census tract for SJC from 2003-2009 (Map 7), it is evident that the census tracts with high rates of teen births are primarily in central and south Stockton. As will be discussed in the Communicable Disease section of this report, these geographic areas are the same areas in the county that have high rates of the sexually transmitted diseases gonorrhea and chlamydia, two diseases for which teens are also heavily impacted in SJC. Given the current economic situation, this geographic overlap allows for targeted efforts that can address both of these issues simultaneously.

Figure 14: Live Birth Rate for 15—19 Year Olds, SJC, 2000—2009

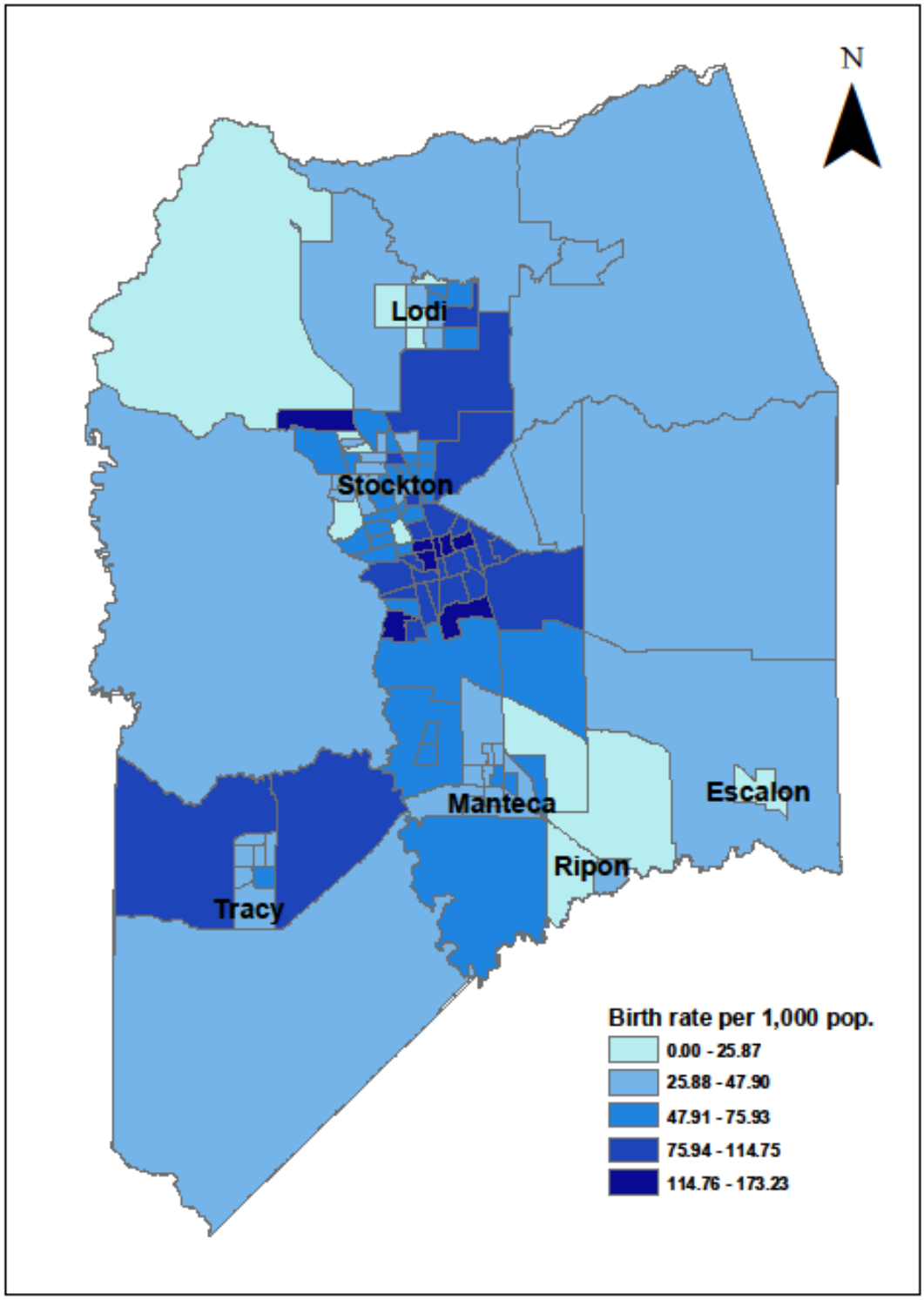


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
San Joaquin	60.1	52.5	51.9	49.9	49.2	47.3	52.0	44.5	41.0	38.6
California	46.7	43.7	40.7	39.1	38.2	37.2	37.8	37.1	35.2	32.1

Source: San Joaquin County Birth Statistical Master Files, 2009

MATERNAL, CHILD, ADOLESCENT HEALTH

Map 7: Live Birth Rate for 15—19 Year Olds by Census Tract, SJC, 2003—2009



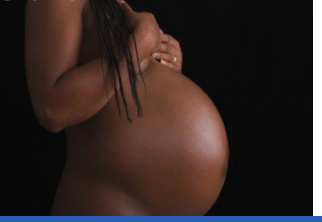
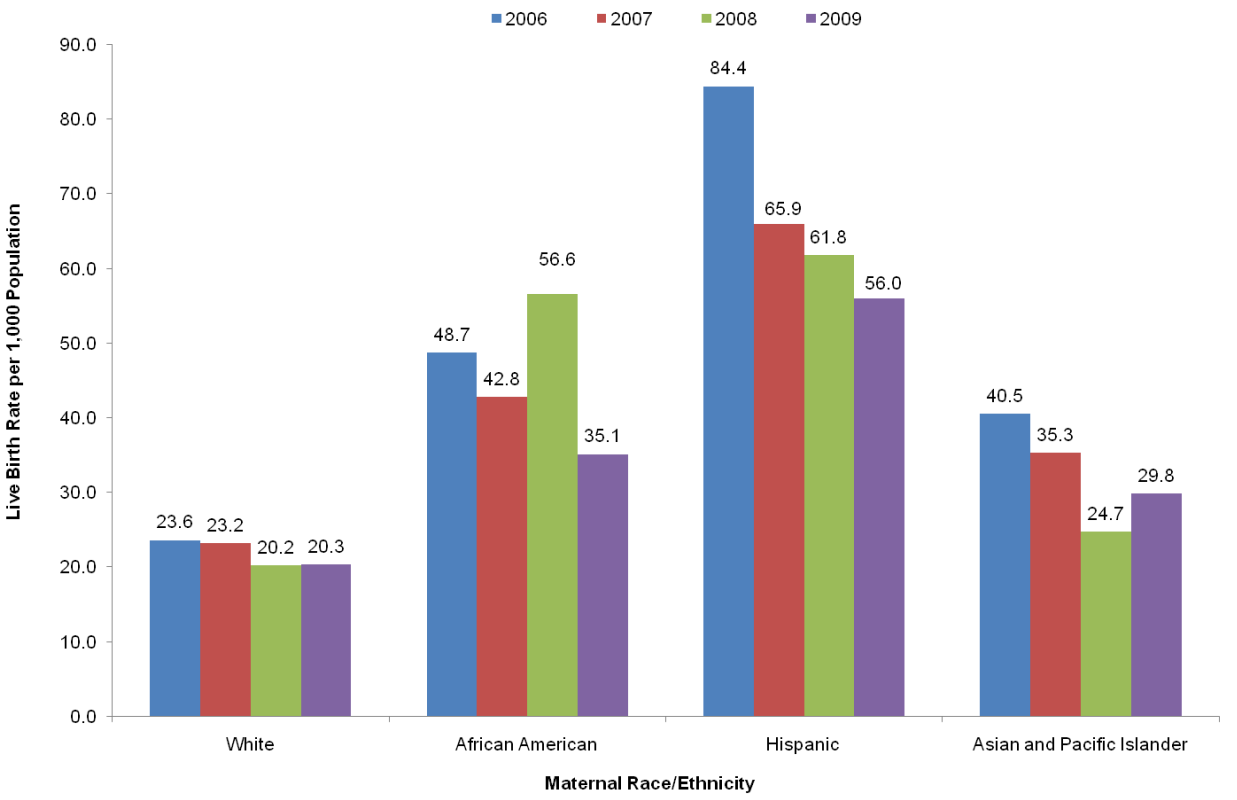


Figure 15: Live Birth Rate for 15—19 Year Olds by Maternal Race/Ethnicity, SJC, 2006—2009



Source: San Joaquin County Birth Statistical Master Files, 2009

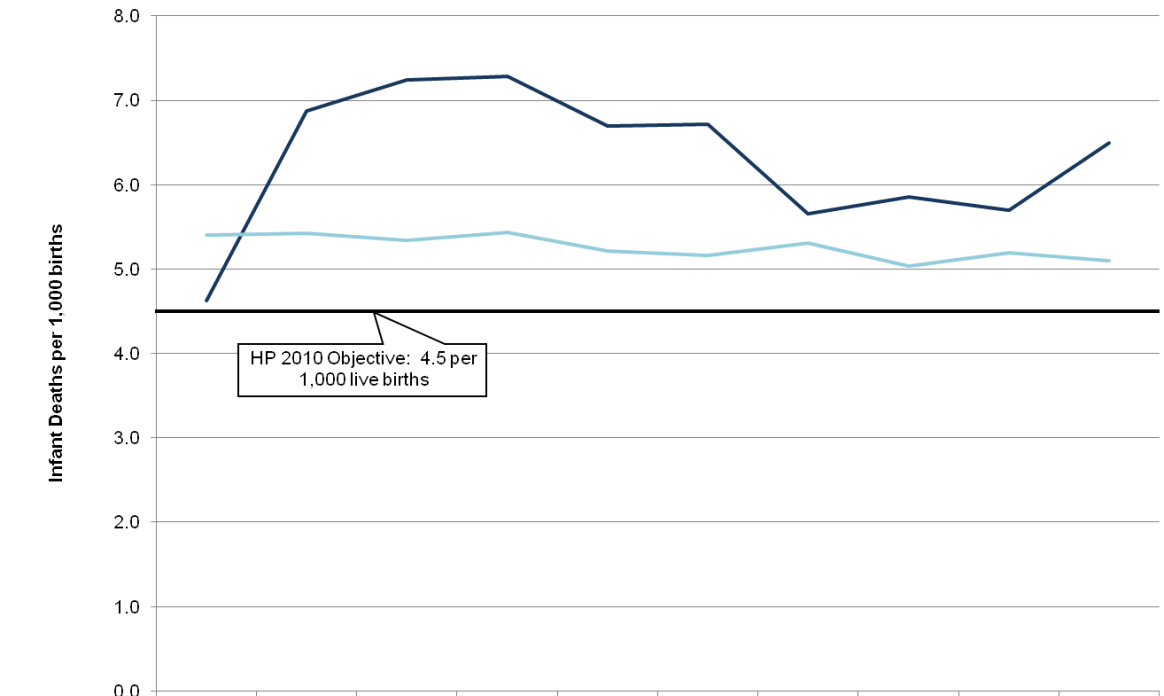
Figure 15 shows that Hispanic women in SJC have a teen birth rate that is approximately three times higher than the rate for White women. African Americans in SJC also have significantly higher rates of teenage births than White adolescents in the county. Given that there are currently limited resources in SJC to address the teen birth rate on a broad scale, efforts that specifically target these two higher risk populations could have an impact on reducing the overall county rate. However, some outreach still needs to be targeted to both the White and Asian/Pacific Islander adolescents in the county, as the teen birth rate is no longer decreasing among young White females, and actually increased from 2008 to 2009 in Asian/Pacific Islander adolescents.

MATERNAL, CHILD, ADOLESCENT HEALTH

Infant Mortality

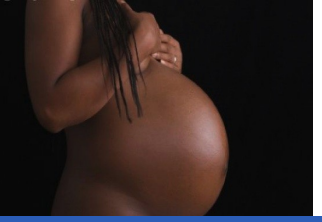
Poor birth outcomes, such as preterm birth and low birth weight can increase the risk of infant mortality. When looking at trends in infant mortality for the county from 1999-2008 (Figure 16), the rate was elevated from 2000-2004, decreased from 2004 to 2005 and was fairly constant from 2005-2007 before increasing again in 2008. The SJC rate at times has been close to the California rate, and not far from reaching the HP 2010 Objective. However, in looking at infant mortality stratified by maternal race/ethnicity (Figure 17), it is evident that there are racial disparities, with African Americans being the most disproportionately affected. In the time period from 2000-2008, the infant mortality rate for African Americans in SJC was 16.1. This is over three times the rate for White and Asian infants and more than 2.5 times the rate for Hispanic infants.

Figure 16: Infant Mortality Rate, SJC and CA, 1999—2008



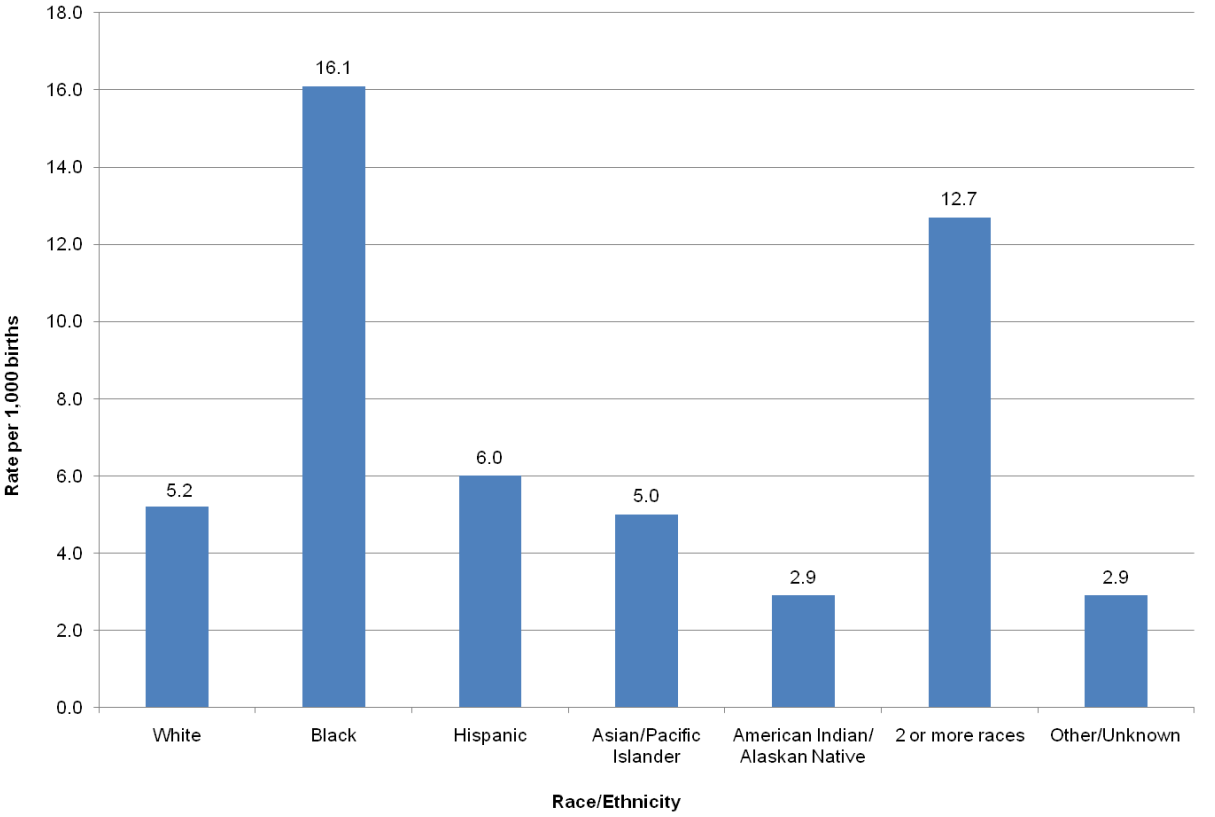
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
San Joaquin	4.6	6.9	7.2	7.3	6.7	6.7	5.7	5.9	5.7	6.5
California	5.4	5.4	5.3	5.4	5.2	5.2	5.3	5.0	5.2	5.1

Source: San Joaquin County Death Statistical Master Files, 1999-2008



MATERNAL, CHILD, ADOLESCENT HEALTH

Figure 17: Infant Mortality by Maternal Race/Ethnicity, SJC, 2000—2008



Source: San Joaquin County Death Statistical Master Files, 2000-2008

MATERNAL, CHILD, ADOLESCENT HEALTH

Breastfeeding

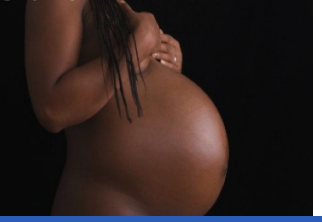
Studies show that mother's who exclusively breastfeed when they are in the hospital, are more likely to continue to breastfeed after discharge (Kurinij & Shiono, 1991; Gagnon, Leduc, Waghorn, Yang, & Platt, 2005). In-hospital breastfeeding rates for both any breastfeeding and exclusive breastfeeding in SJC in 2009 were lower than the state rates (Table 5). Based on the 2009 data, San Joaquin County ranked 41 among the 46 counties with available data for exclusive breastfeeding during the hospital stay (California WIC Association & UC Davis Human Lactation Center, 2011). The SJC Public Health Breastfeeding Initiative, funded by First 5 San Joaquin, is working with all six maternity hospitals in the county to improve these rates. Since August 2008, hospital representatives from Dameron Hospital, Doctor's Hospital of Manteca, Lodi Memorial Hospital, San Joaquin General Hospital, St. Joseph's Medical Center, and Sutter Tracy Community Hospital, have met monthly for training and discussion on strategies to implement model breastfeeding policies in their own facilities.

The U.S. Surgeon General (2011) has issued a "Call to Action to Support Breastfeeding", that urges nationwide support for the removal of barriers to breastfeeding. The Surgeon General strongly encourages hospitals and healthcare systems to adopt evidence-based practices as outlined in the Baby-Friendly Hospital Initiative to support new mothers with breastfeeding. Studies have shown that infants who are breastfed exclusively (when babies receive only breast milk) have a lower risk of becoming overweight as children and obese as adults than formula-fed infants (Armstrong, Reilly, & Child Health Information Team, 2002; Tabacchi, Giammanco, La Gaurdia, & Giammanco, 2007).

Table 5: In-Hospital Breastfeeding by Maternal Race/Ethnicity, SJC and CA, 2009*

Race/Ethnicity of Mother	SAN JOAQUIN COUNTY		CALIFORNIA	
	Any Breastfeeding	Exclusive Breastfeeding	Any Breastfeeding	Exclusive Breastfeeding
African American	72.4%	28.6%	78.9%	43.2%
Asian	77.1%	26.7%	91.8%	51.6%
Hispanic	88.8%	35.7%	89.0%	43.0%
White	83.9%	50.1%	92.3%	70.8%
All races	84.5%	36.5%	89.6%	51.9%

*This data cannot be compared to previous years as the survey has changed
Source: CA Newborn Screening Form Data, 2009



MATERNAL, CHILD, ADOLESCENT HEALTH

Childhood Nonfatal Hospitalized Injuries

As shown in Tables 6, 7, and 8, falls were the leading cause of nonfatal hospitalized injuries for children 0-14 years of age in SJC from years 2002-2006. However, while falls are the most common cause of nonfatal injuries in SJC, the rates for the county are much lower than the statewide rates for children of the same age. Rates for other nonfatal hospitalized injuries listed are fairly similar for SJC and CA as a whole, with the exception of poisonings in children <1 year of age (infants) and children aged 1-4 years, for which children in SJC have much higher rates.

Table 6: Leading Causes of Nonfatal Hospitalized Injuries Among Children <1 Year of Age, SJC, 2002-2006

Rank in SJC	Cause of Injury	Number^ of Injuries, SJC	SJC Rate*	Number of Injuries, CA	CA Rate*
1	Falls	43	77.2	2,462	114.9
2	Other	34	61.0	1,404	65.5
3	Poisoning	23	41.3	506	23.6
4	Burn, Hot Object/ Substance	20	35.9	672	31.4
5	Suffocation	16^	28.7	673	31.4

*Rates are per 100,000 population
^Rates may be unstable for categories with numbers fewer than 20
Source: EPICenter, 2002-2006

Table 7: Leading Causes of Nonfatal Hospitalized Injuries Among Children 1—4 Years of Age, 2002—2006

Rank in SJC	Cause of Injury	Number of Injuries, SJC	SJC Rate*	Number of Injuries, CA	CA Rate*
1	Falls	182	77.3	10,643	100.9
2	Poisoning	109	46.3	3,288	31.2
3	Other	63	26.8	3,181	30.2
4	Burn, Hot Object/ Substance	55	23.4	2,481	23.5
5	Natural/Environmental	52	22.1	1,805	17.1

*Rates are per 100,000 population
Source: EPICenter, 2002-2006

Table 8: Leading Causes of Nonfatal Hospitalized Injuries Among Children 5—14 Years of Age, SJC, 2002—2006

Rank in SJC	Cause of Injury	Number of Injuries, SJC	SJC Rate*	Number of Injuries, CA	CA Rate*
1	Falls	322	55.4	21,054	75.6
2	MVT^, Occupant	130	22.4	4,530	16.3
3	Struck by Object	94	16.2	4,230	15.2
4	MVT, Pedestrian	68	11.7	3,367	12.1
5	Bicyclist, Other	67	11.5	3,569	12.8

*Rates are per 100,000 population
^Motor Vehicle Transport (MVT)
Source: EPICenter, 2002-2006

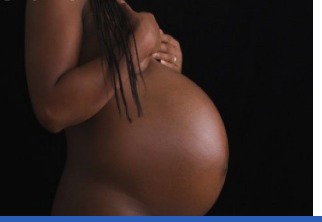
Childhood Unintentional Fatal Injuries

According to Safe Kids Worldwide (2009), young children, especially children under age one, are at greatest risk for all forms of airway obstruction injury which includes suffocation. As shown in Table 9 below, the leading cause of unintentional fatal injuries in SJC from 2003-2007 in children less than one year old was suffocation. In SJC, drowning was the number one cause of unintentional fatal injuries in children 1-4 years old from 2003-2007 (Table 10). Children four and younger have the highest drowning death rate (two times greater than other age groups) and account for 80% of home drownings (Safe Kids USA, 2009). Finally, in looking at Table 11, it is evident that for children aged 5-14 in SJC, motor vehicle transport accounts for the greatest number of unintentional injury-related deaths.

Table 9: Leading Causes of Unintentional Fatal Injuries Among Children <1 Year of Age, SJC, 2003—2007

Rank	Cause of Injury	Number of Injuries
1	Suffocation	4
2	MVT*, Unspecified	1

*Motor Vehicle Transport (MVT)
Source: EPICenter, 2002-2006



MATERNAL, CHILD, ADOLESCENT HEALTH

Table 10: Leading Causes of Unintentional Fatal Injuries Among Children 1—4 Years of Age, SJC, 2003—2007

Rank	Cause of Injury	Number of Injuries
1	Drowning / Submersion	4
2	MVT*, Pedestrian	3
3	Pedestrian, Other	2
3	Other	2
4	Burn, Fire/Flame	1
4	Fall	1
4	MVT, Occupant	1
4	MVT, Unspecified	1
4	Transport, Other	1

*Motor Vehicle Transport, MVT
Source: EPICenter, 2002-2006

Table 11: Leading Causes of Unintentional Fatal Injuries Among Children 5—14 Years of Age, SJC, 2003—2007

Rank	Cause of Injury	Number of Injuries
1	MVT*, Occupant	6
2	Burn, Fire/Flame	5
2	MVT, Pedestrian	5
3	Drowning / Submersion	3
4	Struck by Object	2
4	MVT, Unspecified	2
5	Bicyclist, Other	1
5	Fall	1
5	MVT, Bicyclist	1
5	MVT, Motorcyclist	1
5	Machinery	1
5	Suffocation	1
5	Pedestrian, Other	1
5	Transport, Other	1
5	Other	1

*Motor Vehicle Transport (MVT)
Source: EPICenter, 2002-2006

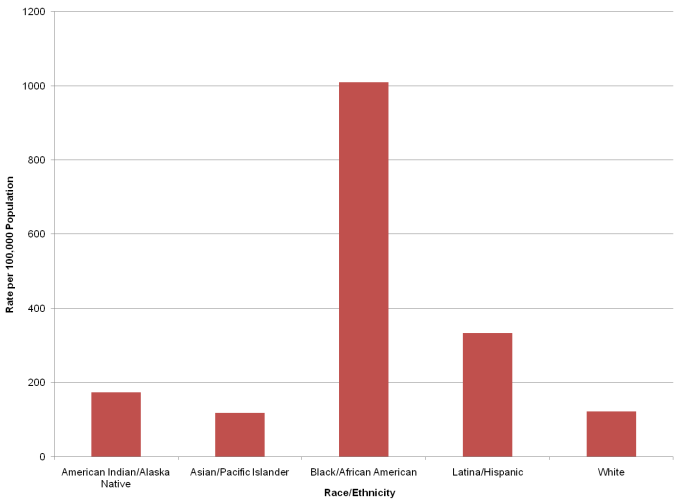
COMMUNICABLE DISEASE

Overview

Communicable diseases can be spread from person to person, from animals to humans, through contaminated food or water, via inanimate objects, or by vectors such as mosquitoes and ticks. In California, health care providers are required under Title 17 of the California Code of Regulations to notify the local health authority of the diagnosis, detection, or suspicion of over 80 communicable diseases and conditions. Some of the highest morbidity communicable diseases reported in SJC are shown in Table 12. SJC PHS conducts surveillance on cases of these reportable diseases to detect outbreaks. Public Health also investigates cases to determine the possible source of the disease, to stop further transmission, and to identify contacts that might benefit from preventive treatment. Public Health is also tasked with reducing the prevalence of communicable disease health disparities, many of which exist due to larger societal issues such as poverty, low educational attainment, and other social factors.

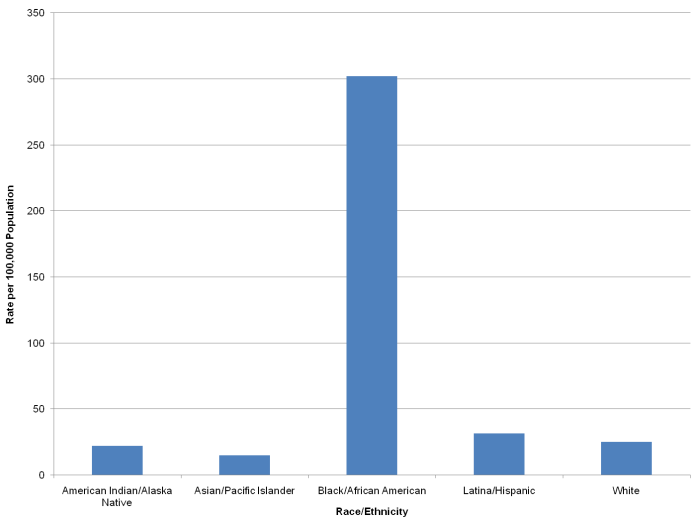
There are many examples of health disparities amongst the communicable diseases that are reported, with differential rates of sexually transmitted diseases by race/ethnicity representing some of the greatest health disparities. According to Mocello, Samuel and Smith (2008), in California, while only 1 out of 17 Californians is African American, well over 1 of 2 reported gonorrhea cases, and over 1 of 4 reported chlamydia cases were in African Americans in 2007. These disparities continue to exist as evidenced by data from 2009, shown in Figures 18 and 19. Although the race/ethnicity data for chlamydia and gonorrhea in SJC is limited, data that are available suggest similar disparities exist locally. Disparities are apparent for HIV/AIDS cases as well. Among persons living with AIDS in California, as of May 2008 about 1 in 5 were African American (Mocello, Samuel, & Smith, 2008). Similarly in SJC, while African Americans comprise approximately 7% of the county's population, they represent roughly 25% of the cumulative AIDS cases and nearly 30% of the cumulative HIV cases.

Figure 18: Chlamydia Rate by Race/Ethnicity, California, 2009



Source: California Department of Public Health, STD Control Branch, 2010

Figure 19: Gonorrhea Rate by Race/Ethnicity, California, 2009



Source: California Department of Public Health, STD Control Branch, 2010

COMMUNICABLE DISEASE

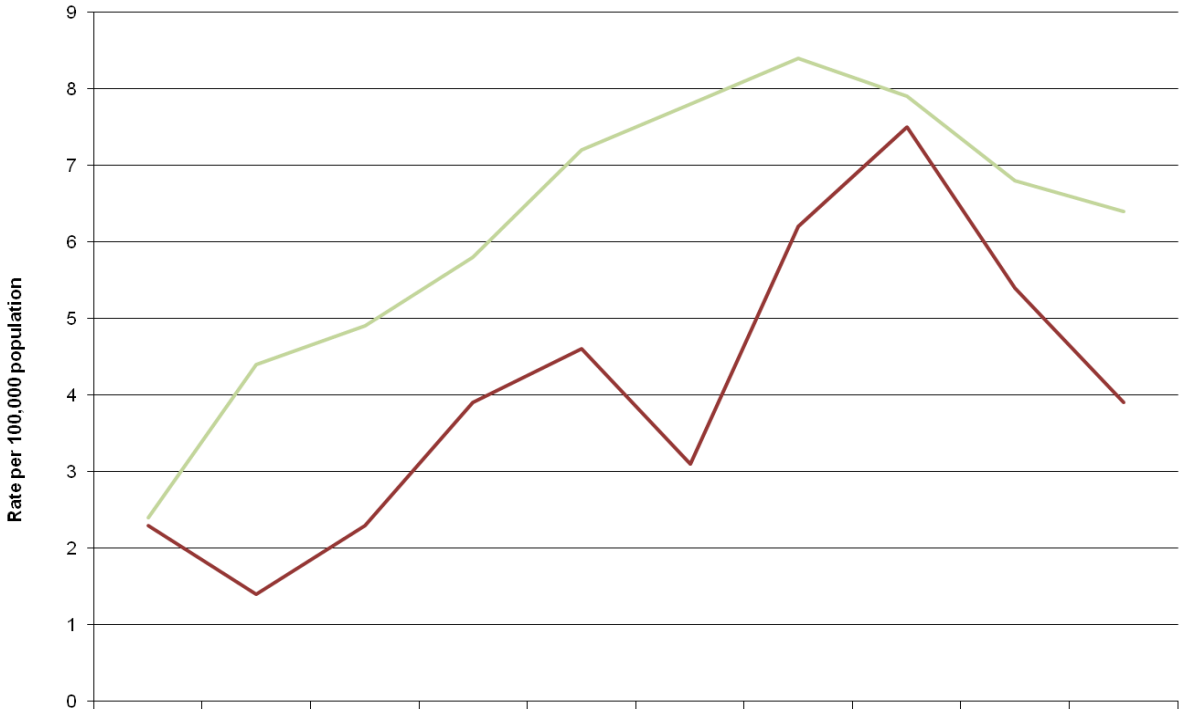
Table 12: Number of Reported Selected Infectious Diseases, SJC, 2005—2009

Disease	2005	2006	2007	2008	2009
AIDS	39	58	59	66	75
Amebiasis	3	4	9	6	5
Campylobacteriosis	150	153	160	137	135
Coccidioidomycosis	20	42	52	37	27
Chlamydial Infections	2798	3193	3530	3523	3481
E. coli O157:H7 Infections	9	18	9	10	11
Giardiasis	94	108	66	62	60
Gonococcal Infections	757	790	1010	695	561
Hepatitis A	31	9	9	10	7
Hepatitis B, Acute	11	16	6	8	14
Hepatitis C, Chronic	965	622	931	1794	1443
Meningitis, Viral	10	20	25	21	39
Meningococcal Infections	7	4	5	5	3
Pertussis	13	38	11	6	7
Rabies - Animal	7	3	3	6	1
Rabies - Human	0	1	0	0	0
Salmonellosis	80	121	96	91	119
Shigellosis	39	30	15	37	19
Syphilis (primary, secondary, early latent)	6	11	16	19	36
Tuberculosis	63	78	51	66	76
Typhoid Fever	1	1	1	5	2
Vibrio Infections	3	4	0	1	1
West Nile Virus	36	8	10	15	13
Yersiniosis	14	7	10	8	6

Coccidioidomycosis

Coccidioidomycosis, also known as Valley Fever, is a fungal disease caused by a *Coccidioides* species. The rate of reported cases of coccidioidomycosis in San Joaquin County generally increased over the last decade (Figure 20). There was a large spike in cases in 2006 and 2007 which was also seen statewide. It is thought that the cause of the spike was a particularly wet winter which caused increased growth of the organisms in the soil. Then during the subsequent dry months the fungal spores were carried in the dust from the dry soil and caused disease.

Figure 20: Coccidioidomycosis Rate, SJC and CA, 2000—2009

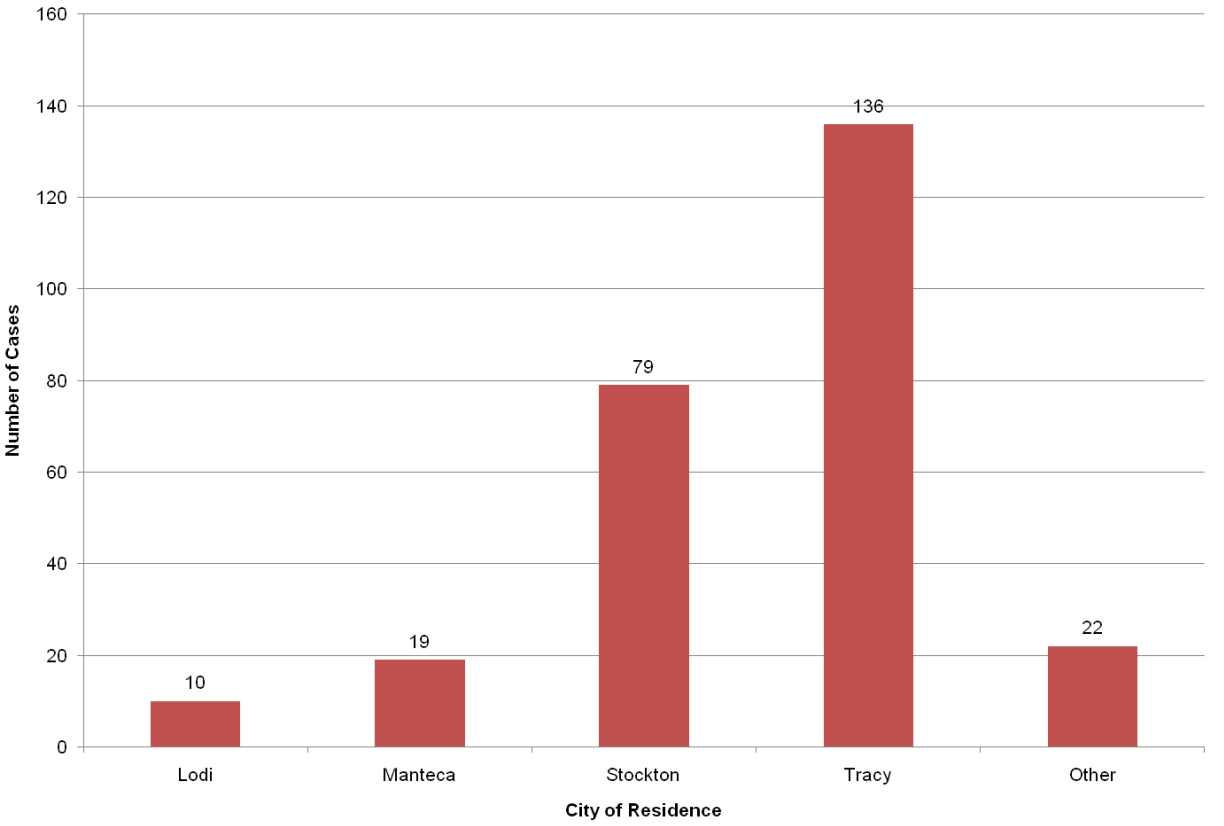


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
SJC Rate	2.3	1.4	2.3	3.9	4.6	3.1	6.2	7.5	5.4	3.9
CA Rate	2.4	4.4	4.9	5.8	7.2	7.8	8.4	7.9	6.8	6.4

Coccidioides organisms live in the soil of semiarid areas of the southwestern United States, parts of Mexico and South America. In California it is primarily found in the San Joaquin Valley. Within SJC it is presumed to be in the soil in the southwestern part of the county around Tracy, accounting for the high number of cases reported from that city (Figure 21). Based on information from case investigations, it is believed that this fungus is found in other parts of the county as well.

COMMUNICABLE DISEASE

Figure 21: Coccidioidomycosis Cases by Residence, SJC, 2000—2009



People living in or visiting endemic areas get infected with *Coccidioides* by inhaling the fungal spores in airborne dust from soil that has been disturbed. This can be from activities such as construction, agriculture, wind storms, and earthquakes. It is not transmitted person to person. Only a small percent of people develop severe disease when infected. People at higher risk of severe disease include those who are immunocompromised, the elderly, persons of African American, Hispanic, or Filipino descent, and pregnant women in their third trimester (Heymann, 2008).

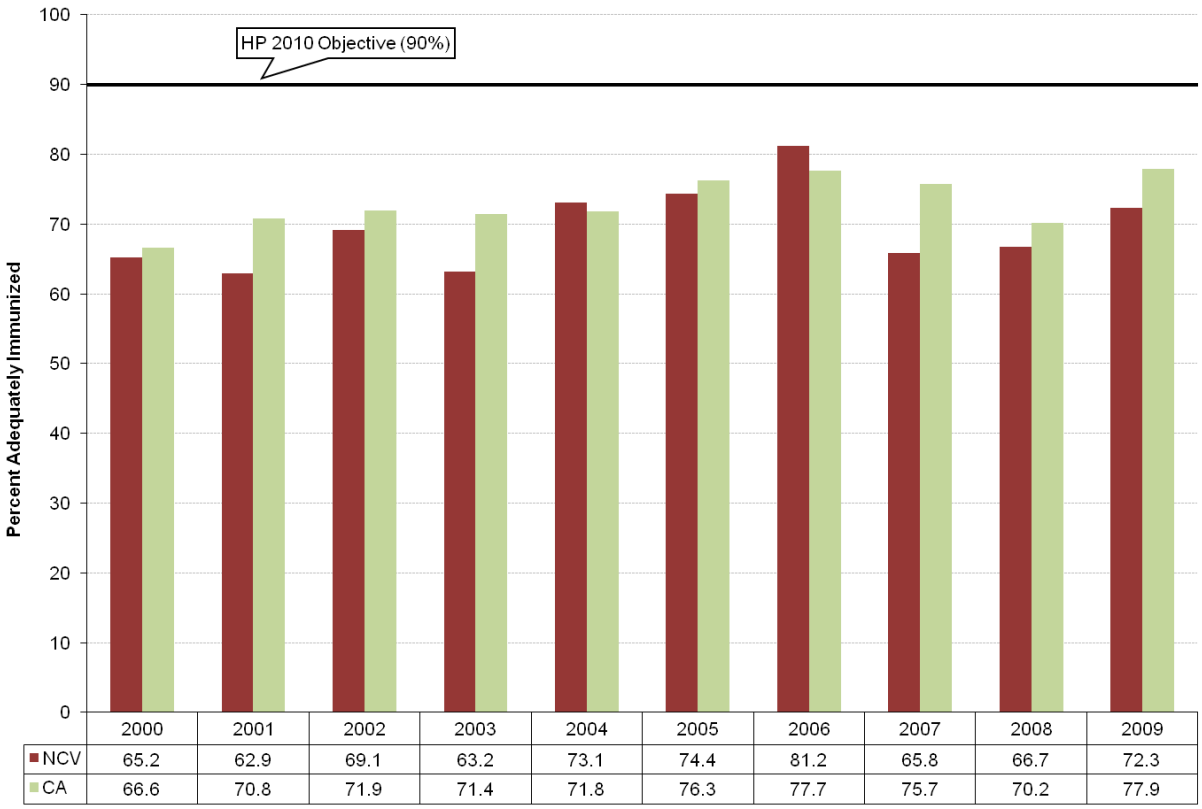
The best prevention is to avoid exposure to dust clouds in areas where *Coccidioides* is endemic in the soil. This may include wearing a respirator or dust mask if exposed to dust when working outdoors.

Adequately Immunized Two-Year Olds

Immunization is one of the most effective ways to prevent the spread of communicable diseases. A high rate of immunization in the population not only prevents the disease in those immunized, but also decreases transmission to those who are not. Low rates of immunization can lead to outbreaks of disease.

Figure 22 represents the percentage of adequately immunized* two-year olds in the Northern Central Valley (NCV)^ Region, which includes SJC, and compares it to California as a whole from 2000-2009. The region lags behind California in most years. In 2009, only 72.3% of two-year olds were adequately immunized, far below the HP 2010 objective of 90%.

Figure 22: Percent of Two-Year Olds Adequately Immunized*, Northern Central Valley Region and CA, 2000—2009



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
NCV	65.2	62.9	69.1	63.2	73.1	74.4	81.2	65.8	66.7	72.3
CA	66.6	70.8	71.9	71.4	71.8	76.3	77.7	75.7	70.2	77.9

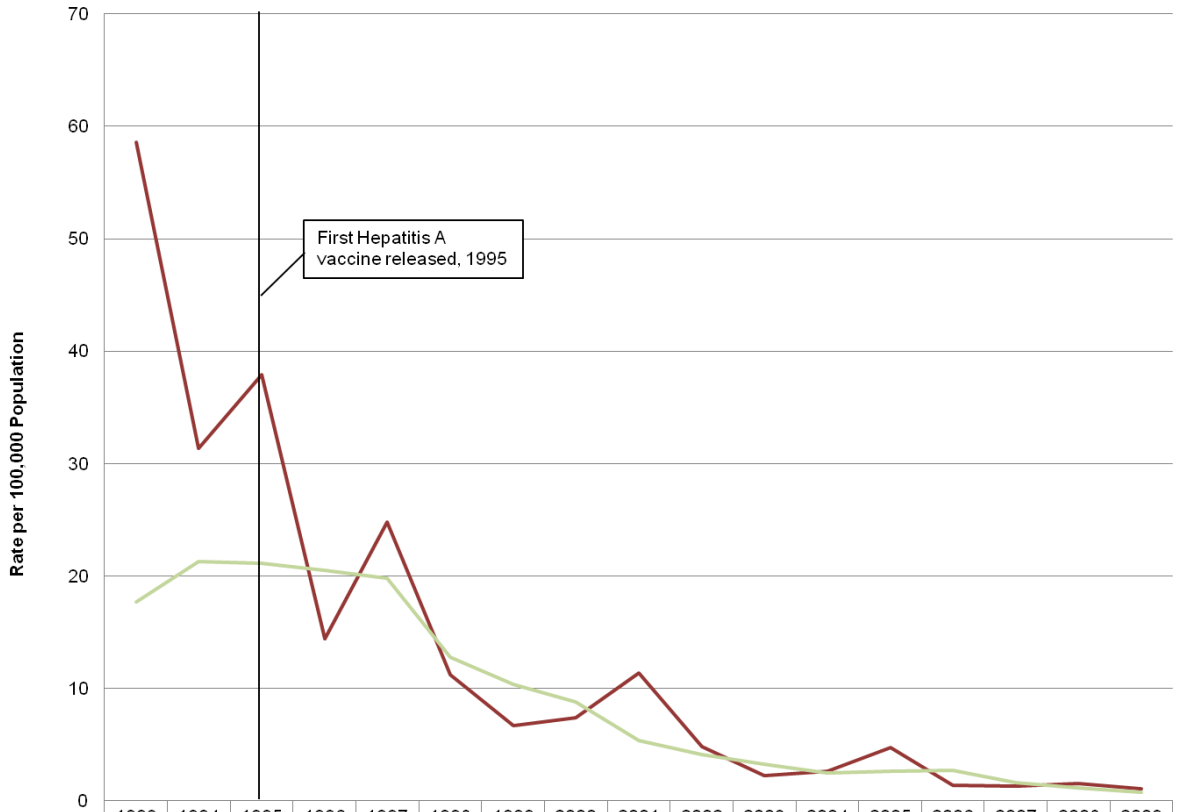
Note: *Adequately immunized means 4 doses of DTP, 3 doses of Polio, and 1 dose of MMR.
^ NCV=Northern Central Valley Region (includes Sacramento, San Joaquin, and Stanislaus Counties)
Source: California Department of Public Health, Immunization Branch, 2000-2009

COMMUNICABLE DISEASE

Viral Hepatitis—Hepatitis A

Hepatitis A is an acute liver disease caused by the hepatitis A virus. Rates of hepatitis A in the United States are the lowest they have been in 40 years. Figure 23 shows the rate of hepatitis A in SJC and California from 1993 to 2009. During this time, the rate of hepatitis A decreased dramatically in SJC from 58.6 to 1.0 per 100,000 persons. Much of this success is attributable to the introduction of the hepatitis A vaccine, which was first released in 1995. Health professionals now routinely vaccinate all children, travelers to certain countries, and persons at high risk for the disease.

Figure 23: Hepatitis A Rate, SJC and CA, 1993—2009



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
SJC Rate	58.6	31.3	37.9	14.4	24.8	11.2	6.7	7.4	11.3	4.8	2.2	2.6	4.7	1.3	1.3	1.5	1.0
CA Rate	17.7	21.3	21.1	20.5	19.8	12.7	10.3	8.8	5.3	4.1	3.2	2.4	2.6	2.7	1.6	1.1	0.7

COMMUNICABLE DISEASE

Pertussis

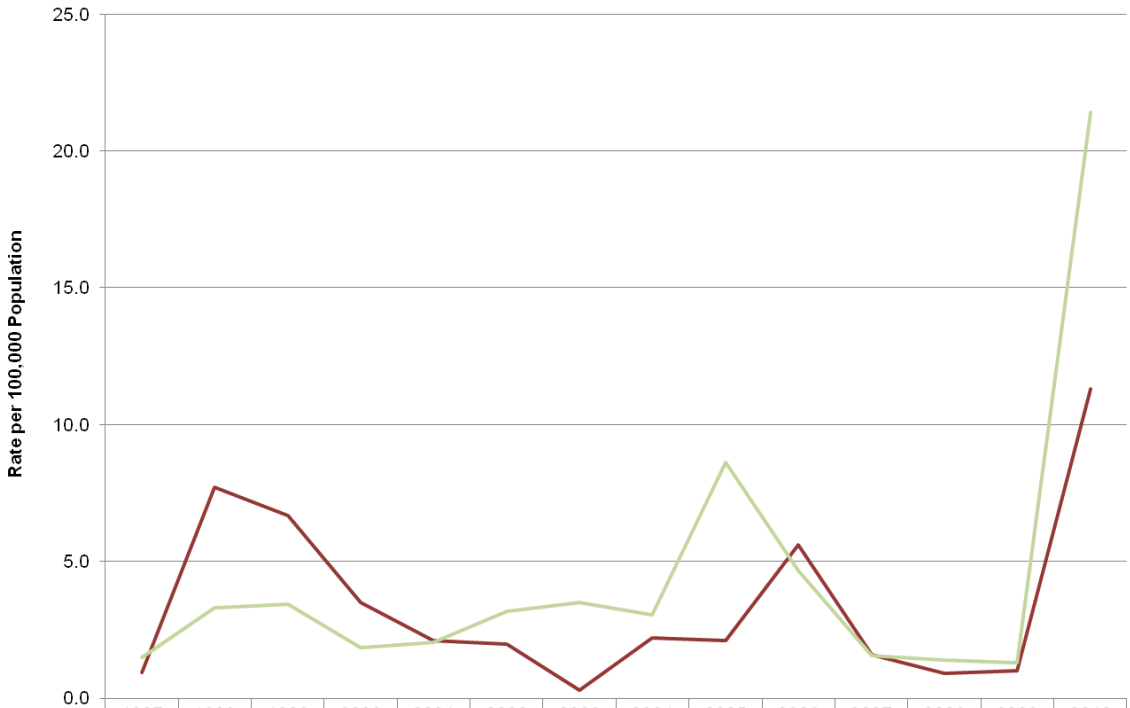
Pertussis, also known as "whooping cough", is a respiratory disease caused by the bacteria *Bordetella pertussis*. Pertussis can cause serious illness in infants, children and adults, and can be especially life-threatening in infants. More than half of infants less than 1 year of age who get pertussis must be hospitalized (CDC, 2010).

Figure 24 shows SJC and California pertussis rates from 1997 through 2010. During 2010, due to a statewide outbreak, SJC experienced an increase from just 7 cases in 2009 to 82 cases in 2010*. Since the 1980's, there has been an increase in the number of reported cases of pertussis in the U.S., especially among 10-19 year olds and infants younger than 6 months of age (CDC, 2010).

Until 2005 there was no adolescent or adult vaccine, however, a new vaccine called Tdap is now available for adolescents and adults. To prevent the spread of this disease, a new state law requires that 7th-12th graders be vaccinated with Tdap prior to the 2011-2012 school year, and, the California Department of Public Health (CDPH) is recommending that all people over seven years of age receive the Tdap vaccine to boost their immunity. Immunizing the rest of the population protects infants who can not be fully vaccinated because of their age.

*2010 cases include confirmed, probable, and suspect cases.

Figure 24: Pertussis Rate, SJC and CA, 1997—2010



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
San Joaquin	0.9	7.7	6.7	3.5	2.1	2.0	0.3	2.2	2.1	5.6	1.6	0.9	1.0	11.3
California	1.5	3.3	3.4	1.9	2.0	3.2	3.5	3.0	8.6	4.7	1.6	1.4	1.3	21.4

COMMUNICABLE DISEASE

Tuberculosis

Tuberculosis (TB) is caused by a bacterium, *Mycobacterium tuberculosis*, which is spread via the respiratory route. Tuberculosis disease primarily occurs in the lungs, although *M. tuberculosis* can also cause disease in most other parts of the body. Despite an overall decline in TB rates in SJC, California, and the U.S. over the last 10 years, the rate of TB in SJC is still significantly higher than the state and national rates. In 2009, the TB rate for SJC was 11.0 cases per 100,000 residents, compared to a rate of 6.4 in California, and 3.8 in the U.S (Figure 25) Additionally, in 2009 SJC was one of only three counties in California that had a greater than 10% increase in its TB rate (Westenhouse, Allen, Johnson, Kanowitz, & Waldow, 2010). In 2010 however, the number of cases in the county dropped to only 46, for a rate of 6.2

Racial/ethnic disparities in TB rates exist in SJC, as a large percentage of cases are Hispanic or Asian. In particular, Filipinos and southeast Asians (Cambodian, Laotian, Hmong, and Vietnamese) are disproportionately affected compared to the percentage of the county's population they comprise. Many of these cases are in individuals born in countries with high rates of TB, which accounts for the large percentage of foreign-born TB cases in the county (Figure 26).

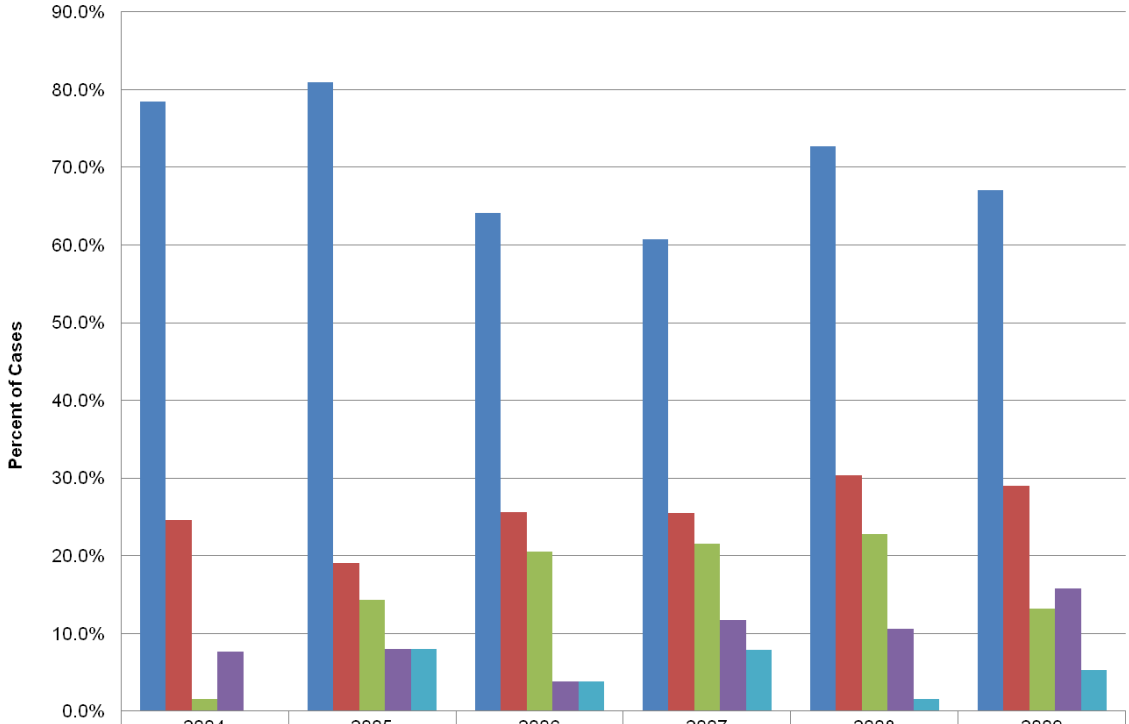
Figure 25: Tuberculosis Rates, SJC, CA and the U.S., 2000—2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
SJC TB Rate	12.7	8.8	8.7	11.2	10.3	9.6	11.6	7.4	9.7	11.0
CA TB Rate	9.7	9.6	9.0	9.0	8.2	7.9	7.4	7.2	7.0	6.4
U.S. Rate	5.8	5.6	5.2	5.1	4.9	4.8	4.6	4.4	4.2	3.8

In the past several years there has been an increase in U.S.-born TB cases in SJC, especially in the homeless population and children less than 15 years of age (Figure 26). TB in these populations can be indicative of ongoing transmission of TB in the community. An outbreak of TB in a Stockton homeless shelter began in 2006 and as of December 2010 has resulted in 61 cases. A homeless shelter screening program was implemented shortly after the detection of the outbreak to identify cases earlier and prevent further spread of disease.

Analyses of TB cases in SJC also show a significant number coinfected with AIDS. On average from 2005-2009, 5.3% of TB cases in SJC were co-infected with AIDS (Figure 26). Managing these cases requires a multi-pronged approach. Individuals co-infected with TB and AIDS require complex treatment regimens, as well as numerous medical, social and other services. TB cases in SJC also have high rates of substance abuse (Figure 26).

Figure 26: Characteristics of Tuberculosis Cases, SJC, 2005—2009



	2004	2005	2006	2007	2008	2009
Foreign Born	78.5%	81.0%	64.1%	60.8%	72.7%	67.1%
Substance Abusers^	24.6%	19.0%	25.6%	25.5%	30.3%	28.9%
Homeless	1.5%	14.3%	20.5%	21.6%	22.7%	13.2%
Children*	7.7%	7.9%	3.8%	11.8%	10.6%	15.8%
AIDS	0.0%	7.9%	3.8%	7.8%	1.5%	5.3%

^Including Intravenous Drug User (IVDU), Non-Intravenous Drug User (NIVDU), and/or Alcohol abuser (ETOH)
*Children 0-14 years old

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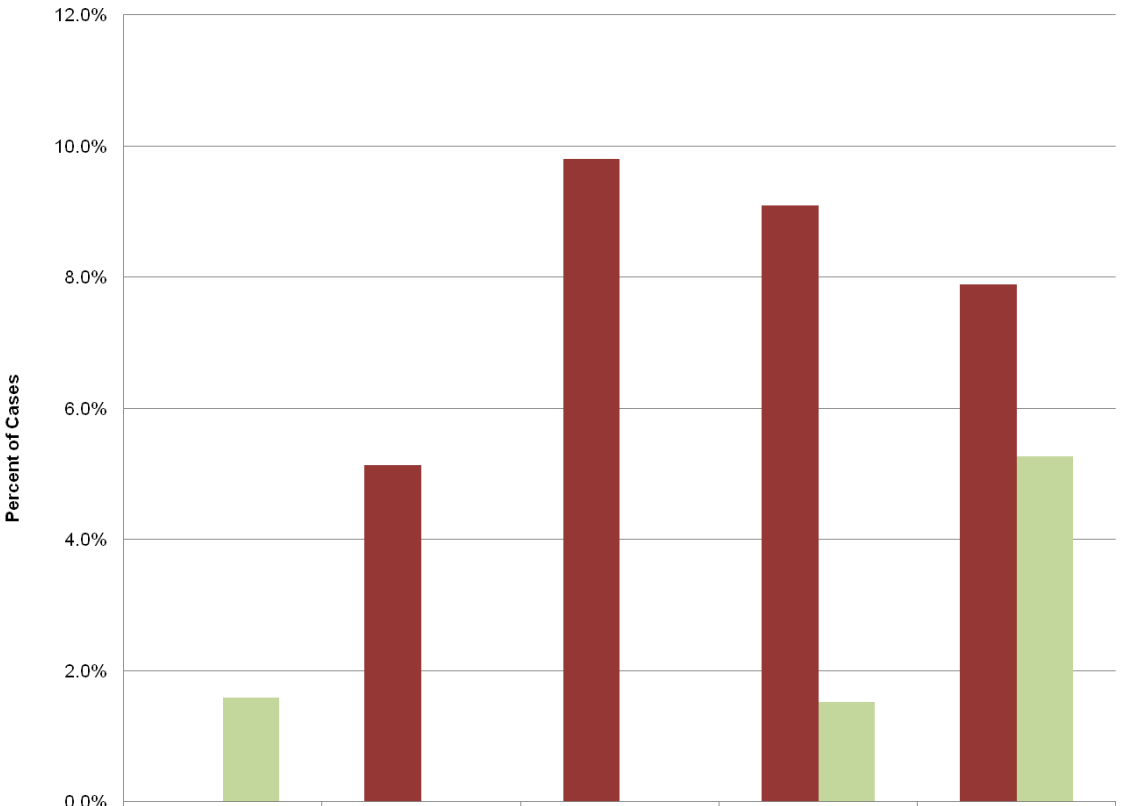
The high frequency of isoniazid (INH) resistance in SJC is of concern, as it is one of the primary drugs used to treat TB (Figure 27). Multi-drug resistant TB, defined as resistance to the most powerful TB drugs, INH and Rifampin (RIF), increased dramatically from 2008 to 2009 (Figure 27).

Figure 27: Drug Resistant Tuberculosis, SJC, 2005—2009



	2005	2006	2007	2008	2009
INH Resistant*	0.0%	5.1%	9.8%	9.1%	7.9%
Multi-Drug Resistant**	1.6%	0.0%	0.0%	1.5%	5.3%

*Isoniazid (INH) resistance includes only individuals in whom drug susceptibility testing was performed, INH is one of the first-line TB drugs
**Multi-Drug Resistance is resistance to INH and rifampin (RIF), which are the two first-line TB drugs

HIV/AIDS

Overview

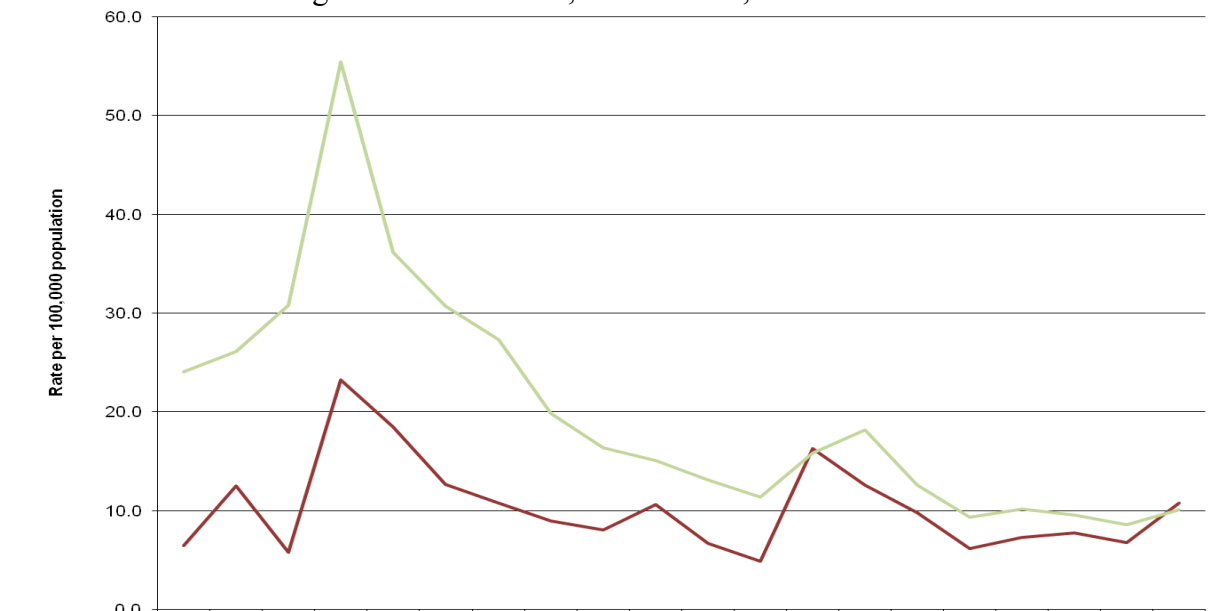
Since the beginning of the HIV/AIDS epidemic in the U.S., over 1.7 million people are estimated to have been infected with Human Immunodeficiency Virus (HIV), including the 1.1 million estimated to be living with the disease today and over 600,000 who have died (Kaiser Family Foundation, 2011). Although overall HIV and Acquired Immune Deficiency Syndrome (AIDS) incidence has decreased over time, the epidemic continues to have a disproportionate impact on certain populations, particularly racial and ethnic minorities and gay and bisexual men.

Rates

The AIDS rates in SJC from 1990-2009 followed the same trend as the state's rates, except the county rates were much lower (Figure 28). The peak in the rates in 1993 is due to a change in the AIDS surveillance case definition, which expanded to allow all HIV-infected persons with severe immunosuppression, pulmonary TB, recurrent pneumonia, or invasive cervical cancer to be counted as AIDS cases. As a consequence, an increase in AIDS case reports was seen in both California and SJC. During the mid-1990's there was a significant decrease in AIDS cases in response to new medications which helped to slow down the progression of HIV infection to AIDS.

Mandated reporting of HIV cases by non-name code began in California in July of 2002 (AIDS has been reportable in CA since 1981). The implementation of HIV reporting also enhanced identification of AIDS cases not previously reported. Beginning in April 2006, all HIV cases had to be reported with the patient's name. This led to another increase, albeit much smaller, in AIDS case reporting. SJC recorded an increase again in HIV/AIDS cases in 2009. This may be partially explained by an outbreak of syphilis in this county, as this could have lead to more HIV testing.

Figure 28: AIDS Rate, SJC and CA, 1990—2009



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
San Joaquin	6.5	12.6	5.8	23.2	18.5	12.6	10.8	8.9	8.1	10.6	6.7	4.9	16.3	12.6	9.8	6.2	7.3	7.8	6.8	10.8
California	24.1	26.2	30.8	55.4	36.2	30.8	27.3	19.8	16.4	15.1	13.1	11.4	15.8	18.1	12.6	9.3	10.2	9.6	8.6	10.1

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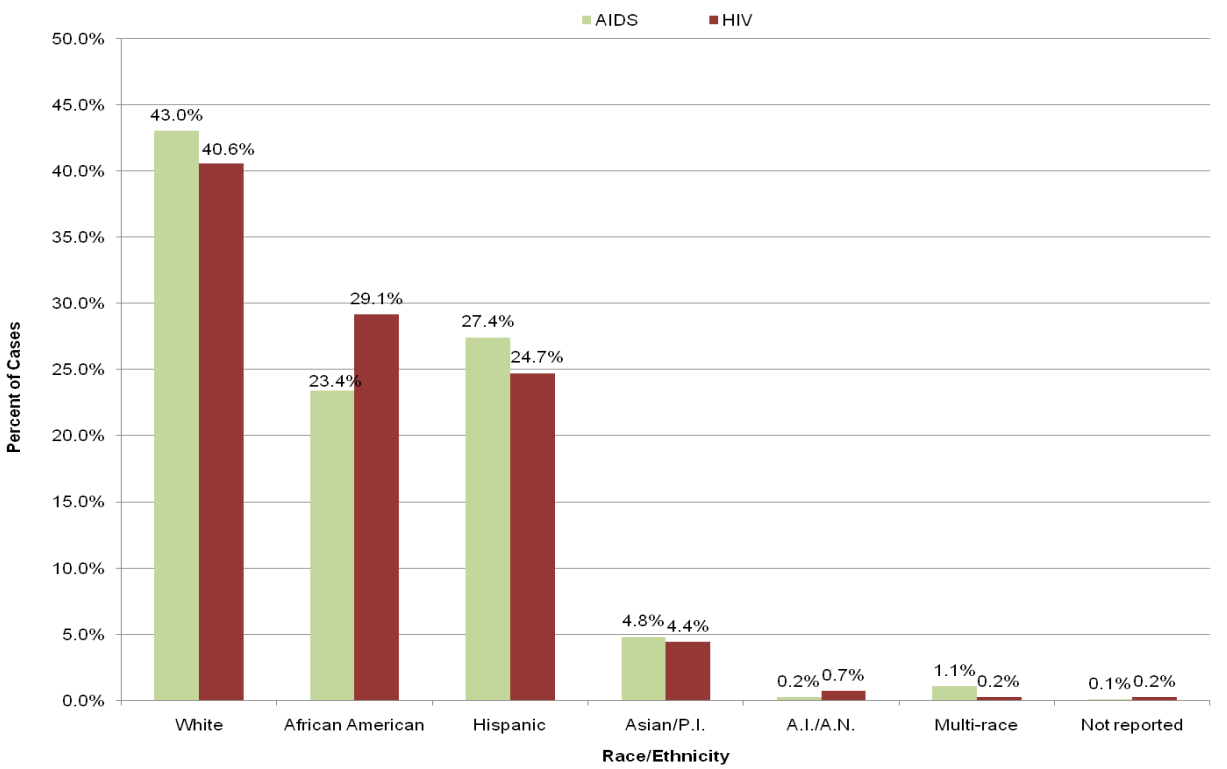
Cases by Race/Ethnicity

HIV cases indicate more recent exposure, while AIDS cases indicate more distant exposure (it usually takes approximately 10 years for HIV to progress to AIDS). In SJC, Whites, Hispanics, and Asians all show a greater proportion of AIDS cases than HIV cases, which indicates a greater number of older infections versus more recently acquired infections (Figure 29). Of great concern are the figures for African Americans, which show the reverse -- a greater proportion of HIV cases than AIDS cases. This indicates that a greater number of new infections with HIV are occurring in the African American population. In addition, HIV/AIDS disproportionately affects African Americans. They comprise only 7% of the population in SJC, yet account for 30% of all HIV cases and nearly 25% of AIDS cases (Figure 29). This indicates an important need for targeted intervention.

Figure 29: Cumulative Adult and Pediatric AIDS (1983—2009) and HIV (2006—2009) Cases by Race/Ethnicity, SJC



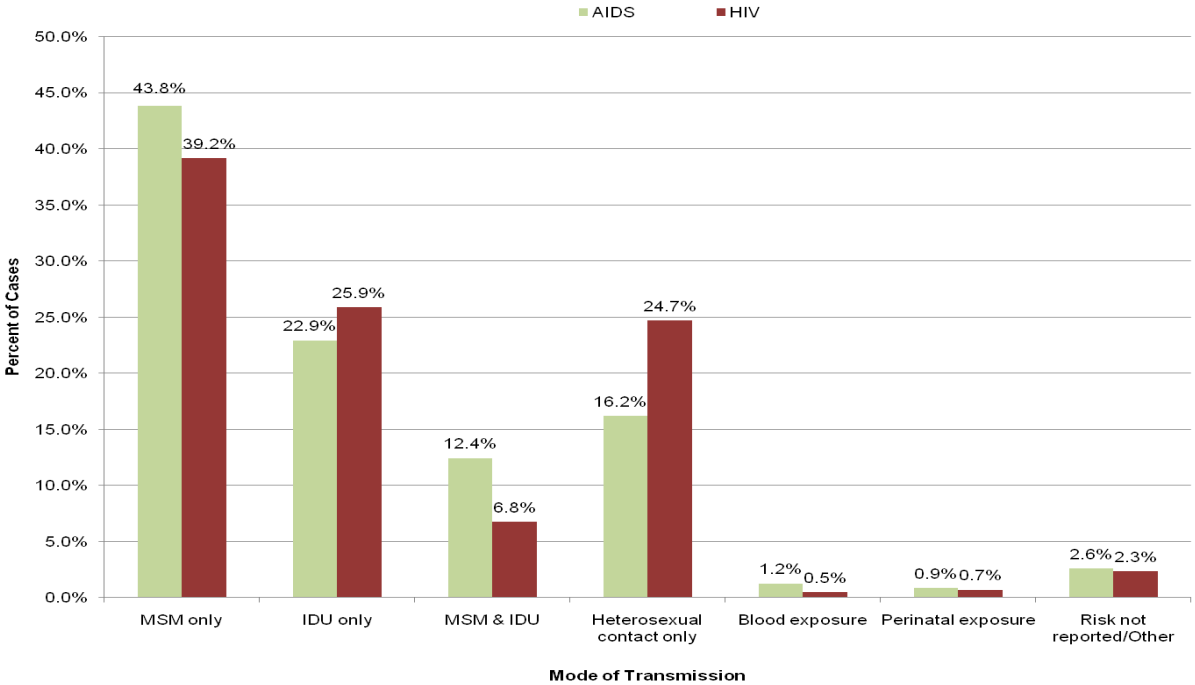
Cases by Mode of Transmission

The majority of HIV in the U.S. is transmitted through sexual behaviors and intravenous drug use (IDU). Less common is transmission though oral sex, or from mother to infant (perinatal exposure). HIV in this country is rarely acquired through exposure to infected blood, transfusions of infected blood, blood products, or organ transplantation, because of rigorous testing of the blood supply and donated organs.

In SJC for both HIV and AIDS, the greatest proportion of cases occur among gay and bisexual men (men who have sex with men, or MSM) (Figure 30). Although the Centers for Disease Control and Prevention (CDC) estimates that MSM comprise only about 2% of the overall U.S. population 13 years and older, MSM in SJC make up nearly 44% of all AIDS cases and 39% of all HIV infections (CDC, 2010). MSM need ongoing HIV education and outreach, including the development of new approaches, to prevent HIV in this population.

Data in Figure 30 reflect a shift in the mode of transmission of HIV in SJC. Heterosexual contact and IDU are the primary modes of transmission for recent infections, as both account for a higher proportion of HIV cases compared to AIDS cases. Of note, heterosexual transmission accounts for nearly 1.5 times as many HIV cases than AIDS cases. So while HIV/AIDS is most prevalent among MSM, heterosexual transmission is increasing and warrants specific intervention efforts.

Figure 30: Cumulative Adult and Pediatric AIDS (1983—2009) and HIV (2006—2009) Cases by Transmission Category, SJC



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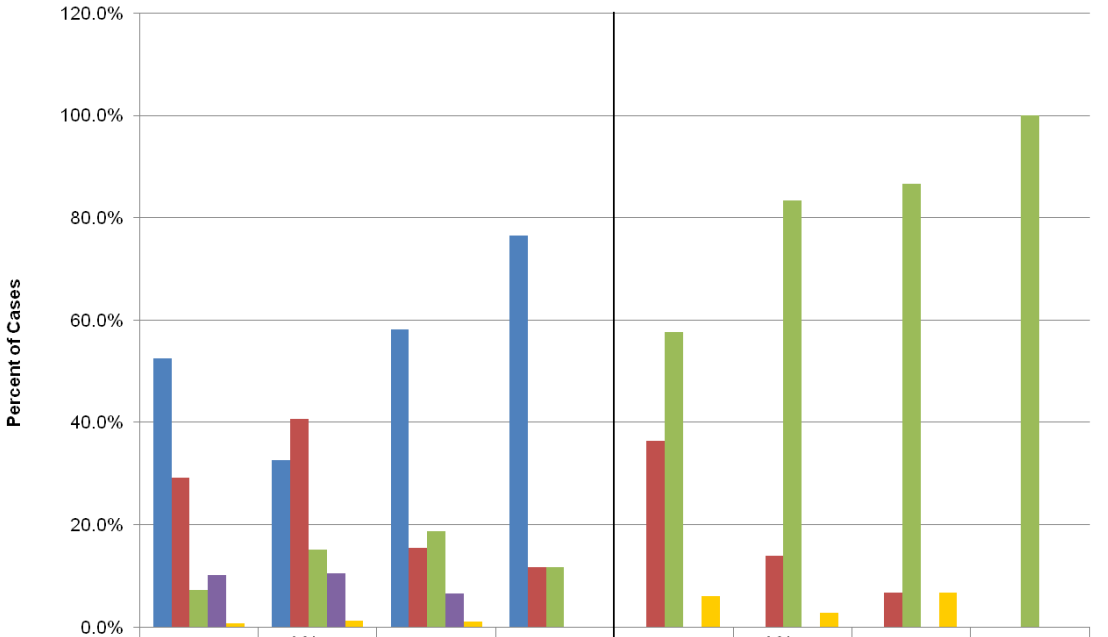
HIV/AIDS Transmission by Race/Ethnicity and Gender

When looking at the risk factors for HIV and AIDS among males, different patterns are seen by race/ethnicity. For African American males with HIV and AIDS, IDU accounts for the highest percentage of cases (Figures 31, 32). For males of other racial/ethnic groups, the highest proportion of infected individuals is MSM. Among Asian men, the proportion of cases who identify themselves as MSM is much higher for HIV cases than AIDS cases (77% versus 47%).

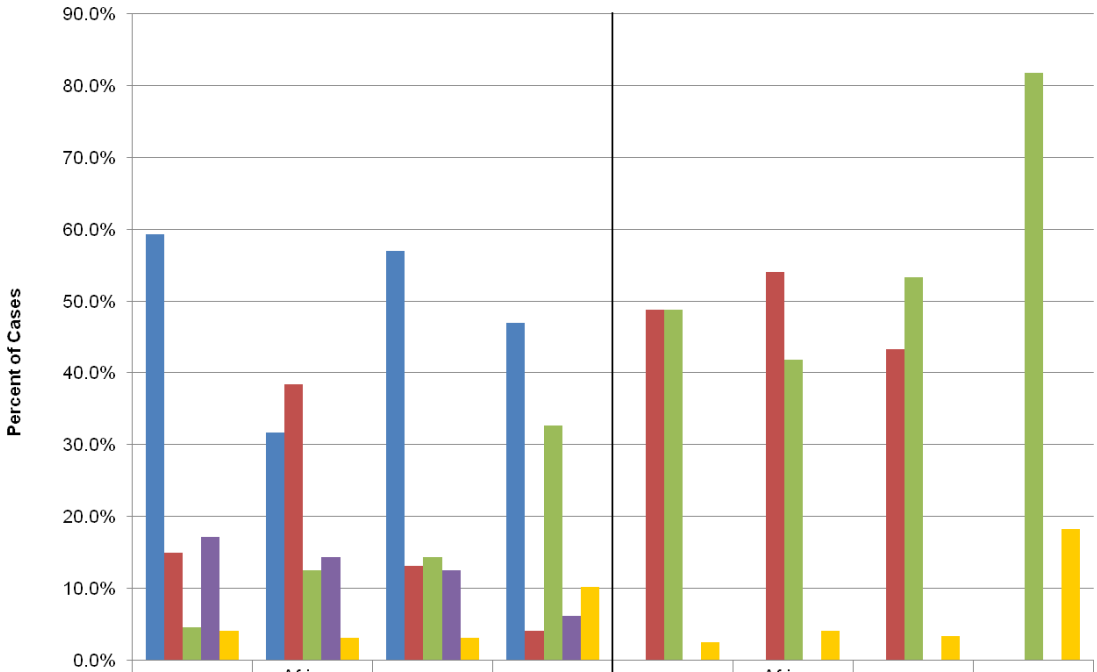
In females of all races/ethnicities, HIV transmission is primarily via heterosexual contact (Figure 31). While IDU transmission is common among female AIDS cases, it accounts for a smaller percentage of HIV cases (Figure 31 and 32). However, it should be noted that a substantial proportion of White females continue to report IDU as a risk factor for HIV.

Figure 31: Name-Based Adult HIV Cases by Transmission Category, Gender and Race/ Ethnicity, SJC, 4/17/2006—12/31/2009 (n = 417)



	Male				Female			
	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI
MSM only	52.6%	32.6%	58.2%	76.5%	0.0%	0.0%	0.0%	0.0%
IDU only	29.2%	40.7%	15.4%	11.8%	36.4%	13.9%	6.7%	0.0%
Heterosexual contact only	7.3%	15.1%	18.7%	11.8%	57.6%	83.3%	86.7%	100.0%
MSM & IDU	10.2%	10.5%	6.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Risk not reported/Other	0.7%	1.2%	1.1%	0.0%	6.1%	2.8%	6.7%	0.0%

Figure 32: Cumulative Adult AIDS Cases by Transmission Category, Gender and Race/ Ethnicity, SJC, 1983—2009 (n = 1258)



	Male				Female			
	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI
MSM only	59.3%	31.7%	57.0%	46.9%	0.0%	0.0%	0.0%	0.0%
IDU only	15.0%	38.4%	13.1%	4.1%	48.8%	54.1%	43.3%	0.0%
Heterosexual contact only	4.5%	12.5%	14.3%	32.7%	48.8%	41.9%	53.3%	81.8%
MSM & IDU	17.1%	14.3%	12.5%	6.1%	0.0%	0.0%	0.0%	0.0%
Risk not reported/Other	4.1%	3.1%	3.1%	10.2%	2.4%	4.1%	3.3%	18.2%

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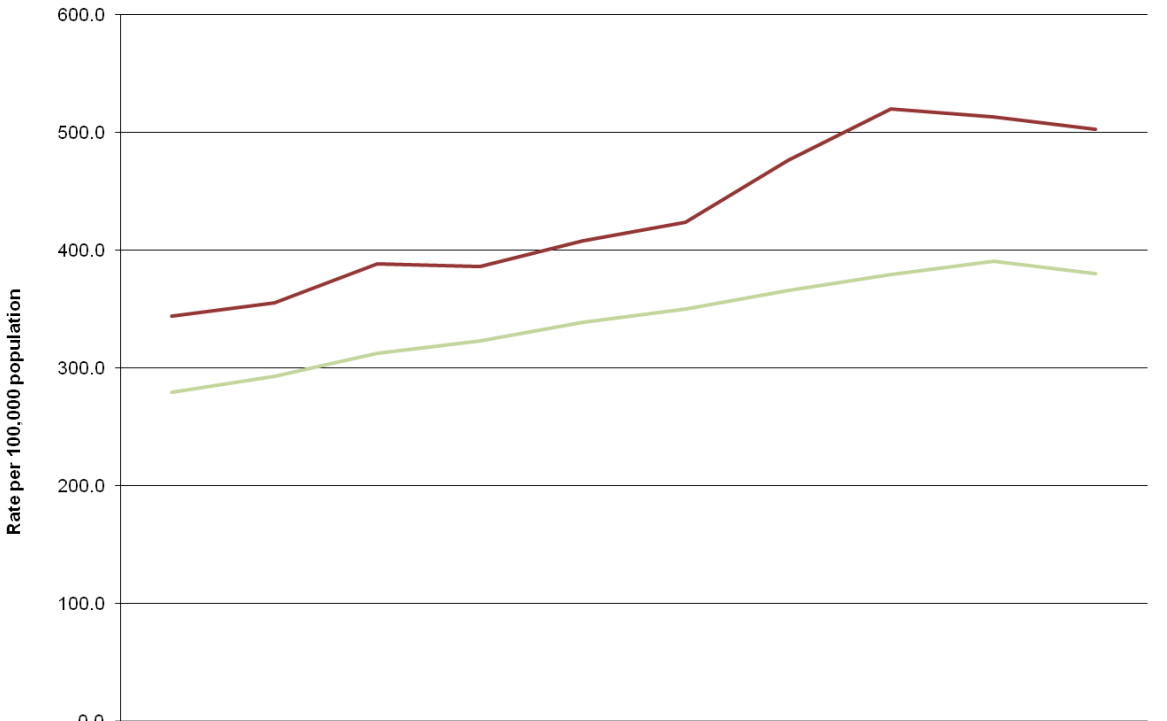
Sexually Transmitted Diseases

Chlamydia

By the early 1990s, chlamydia had replaced gonorrhea as the most common bacterial sexually transmitted disease (STD). It is now the most reported infectious disease in SJC, California, and the U.S. Rates of chlamydia in both SJC and California had been on an increasing trend since the year 2000 until recently, when rates stabilized (Figure 33).

More than 30% of chlamydia infections are "silent" or without symptoms, and the CDC estimates that about half of these infections go unreported. Many clinics now offer a urine test that can screen for chlamydia as well as gonorrhea. Complications such as infertility can develop without treatment, particularly among females. People infected with chlamydia can also more easily contract HIV (Fleming & Wasserheit, 1999). Risk factors for chlamydia infection include a history of multiple sex partners, a new sex partner, low rates of contraceptive use, and a history of an STD.

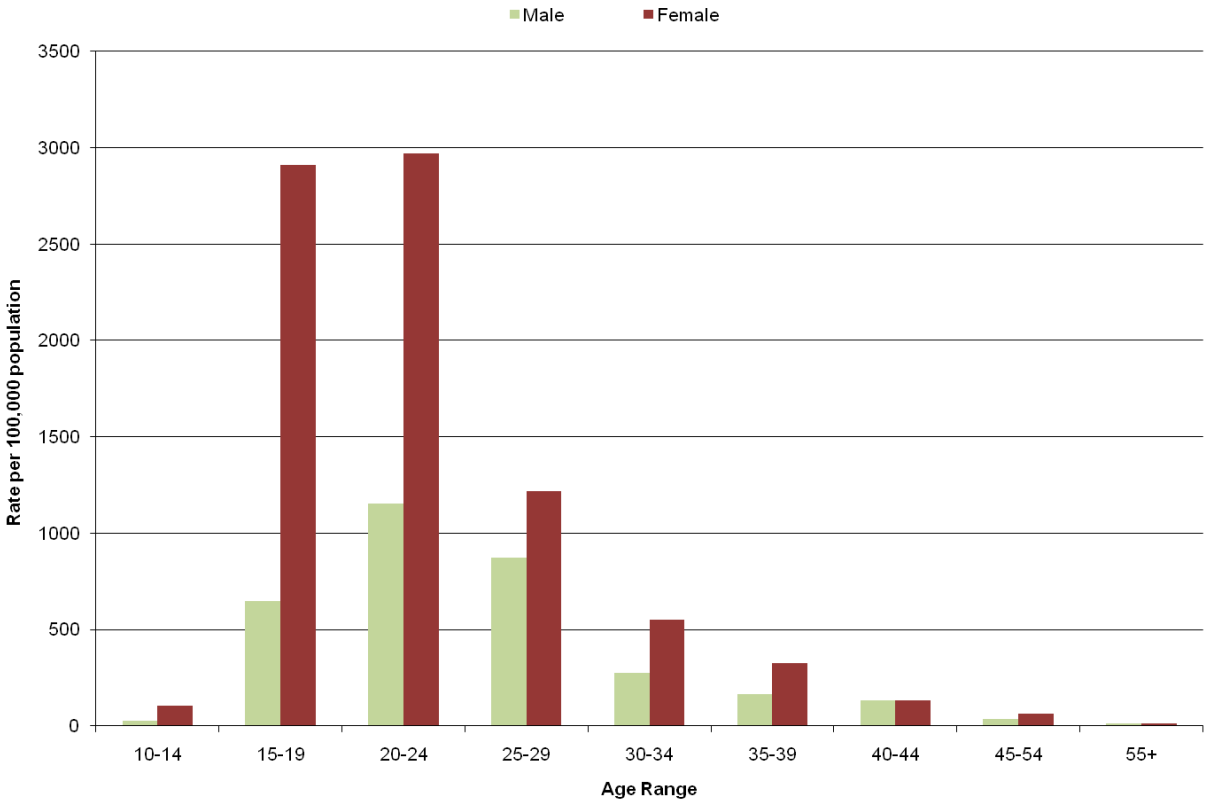
Figure 33: Chlamydia Rate, SJC and CA, 2000—2009



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
San Joaquin	343.9	355.2	388.6	386.1	408.3	423.9	476.7	519.9	513.4	502.9
California	279.9	292.8	312.9	323.4	338.7	350.0	365.7	379.2	390.9	380.5

Chlamydia is largely a disease of young people. As shown in Figure 34, the highest rates of chlamydia for males and females in SJC are in 15-29 year olds. Some of this can be explained by greater use of laboratory testing, particularly among young women, for whom routine screening has been recommended since 1989. Also, the cervix of teenage girls and young women is not fully mature and therefore more susceptible to infection, so they are particularly at risk for acquiring chlamydia (CDC, 2010).

Figure 34: Chlamydia Rate by Age Group and Gender, SJC, 2009



In looking at chlamydia data for 1999-2009 displayed by residence (Map 8), the mapped data shows that certain census tracts in Stockton have the highest rates of infection in the county, especially tracts in central and south Stockton. The identification of these high prevalence areas allows for health education and control activities to be directed at the locations that are most affected.

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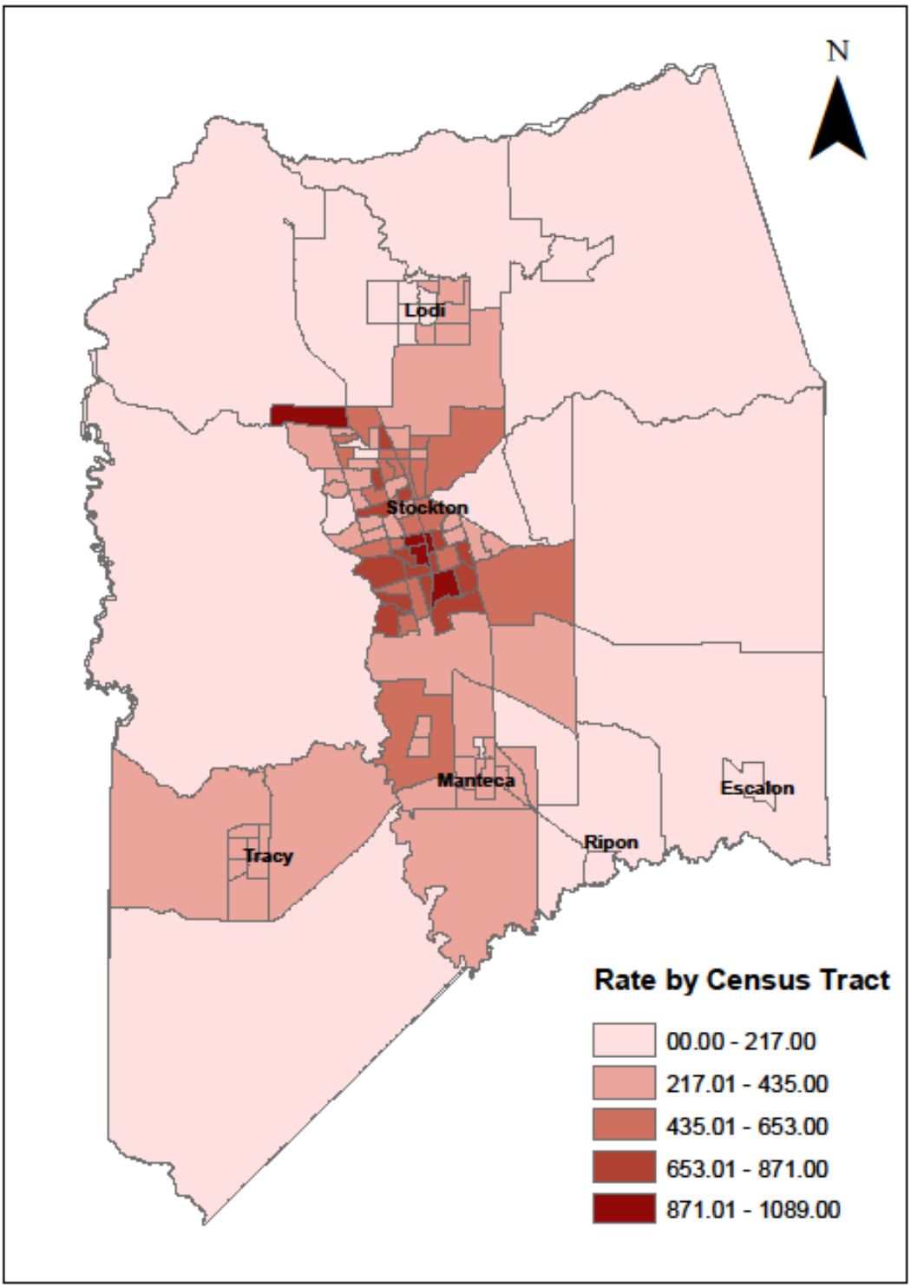
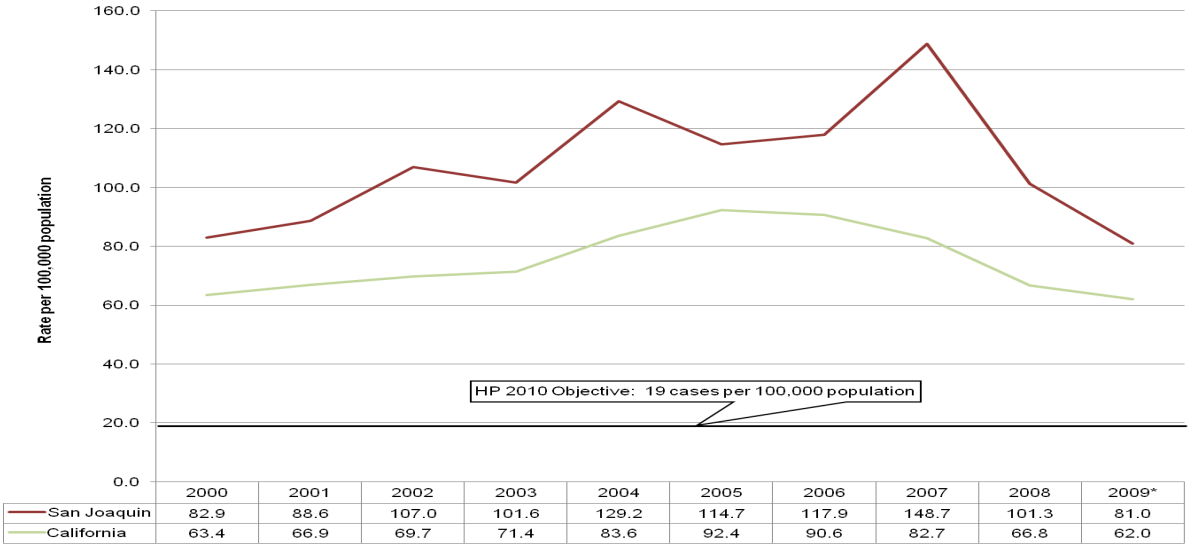
Map 8: Chlamydia Rate by Census Tract, SJC, 1999—2009



Gonorrhea

Gonorrhea is the second most common bacterial STD, and the third most common reported disease in SJC after chlamydia and chronic hepatitis C. While gonorrhea rates in the U.S. have been fairly stable since the late 1990's, California and SJC rates were on an increasing trend until 2005 and 2007, respectively (Figure 35) . In more recent years, rates in the county and the state have declined.

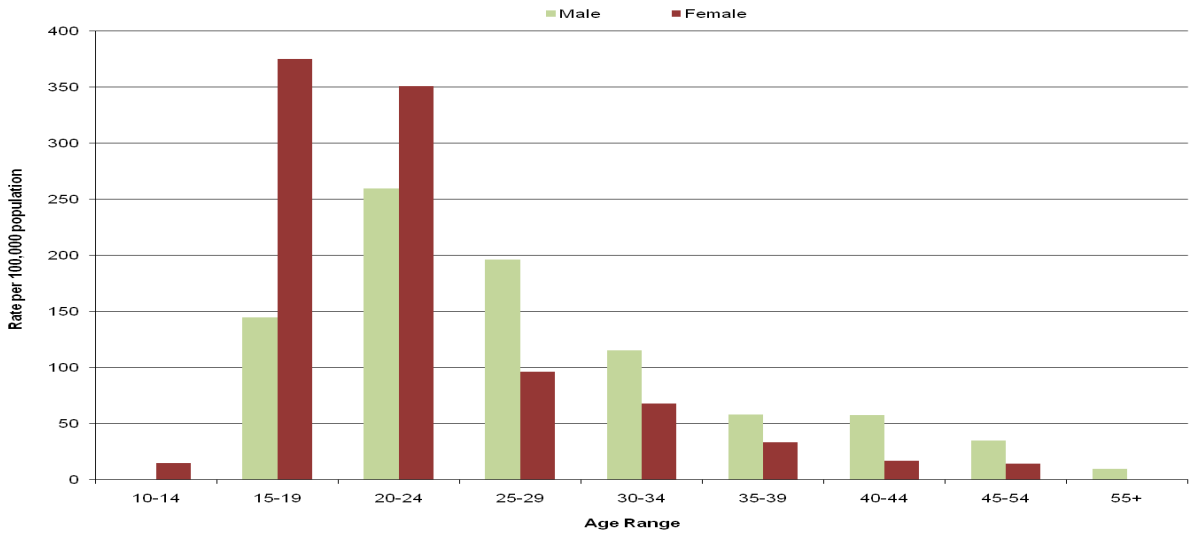
Figure 35: Gonorrhea Rate, SJC and CA, 2000—2009



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009*
San Joaquin	82.9	88.6	107.0	101.6	129.2	114.7	117.9	148.7	101.3	81.0
California	63.4	66.9	69.7	71.4	83.6	92.4	90.6	82.7	66.8	62.0

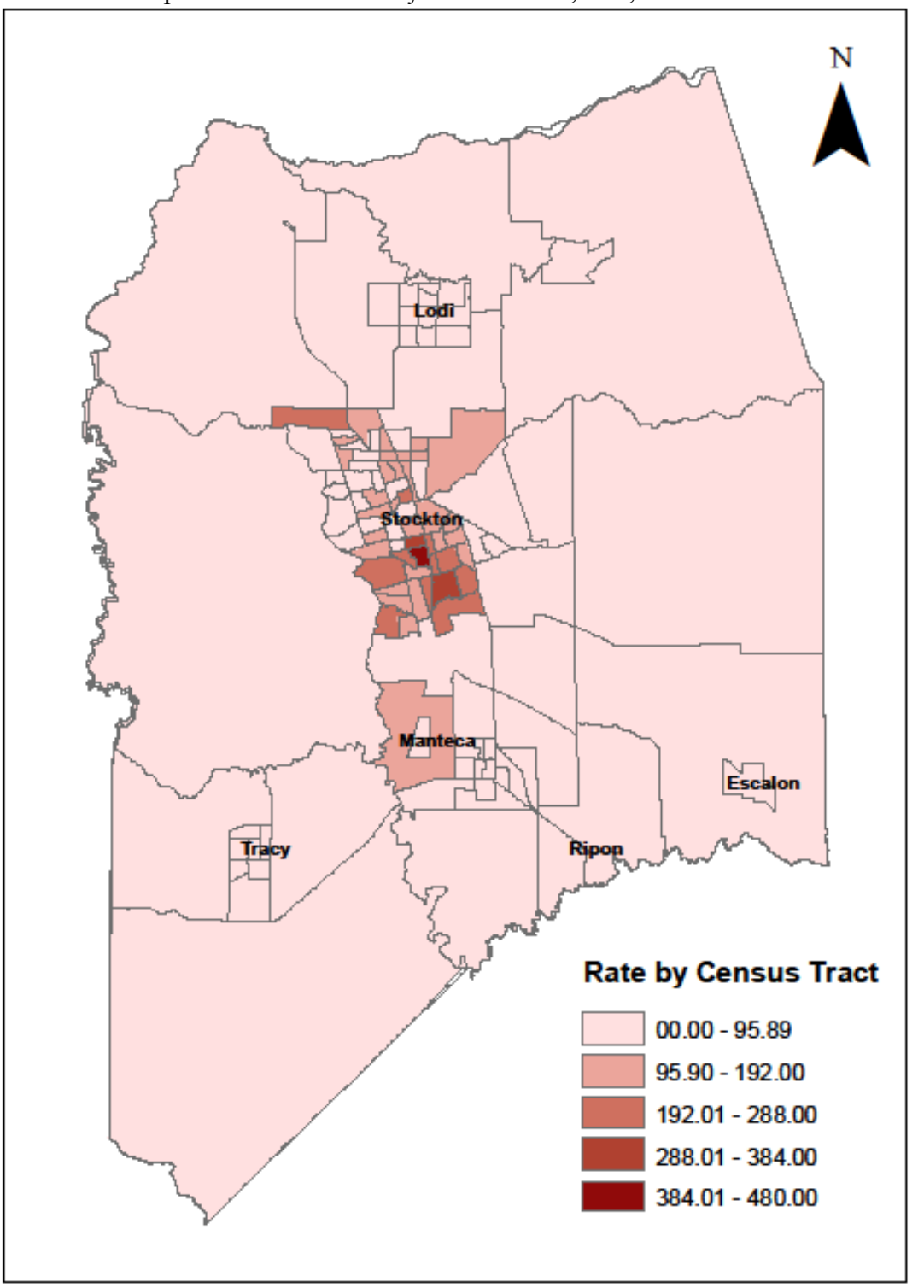
Like chlamydia, gonorrhea rates are highest for young people in their teens and twenties (Figure 36). Also, risk factors for gonorrhea are similar to chlamydia and infected individuals can more easily contract HIV (Fleming & Wasserheit, 1999). Similar to chlamydia, census tracts in central and south Stockton have the highest rates of gonorrhea infection in the county (Map 9).

Figure 36: Gonorrhea Rate by Age Group and Gender, SJC, 2009



Communicable Disease

Map 9: Gonorrhea Rate by Census Tract, SJC, 1999—2009

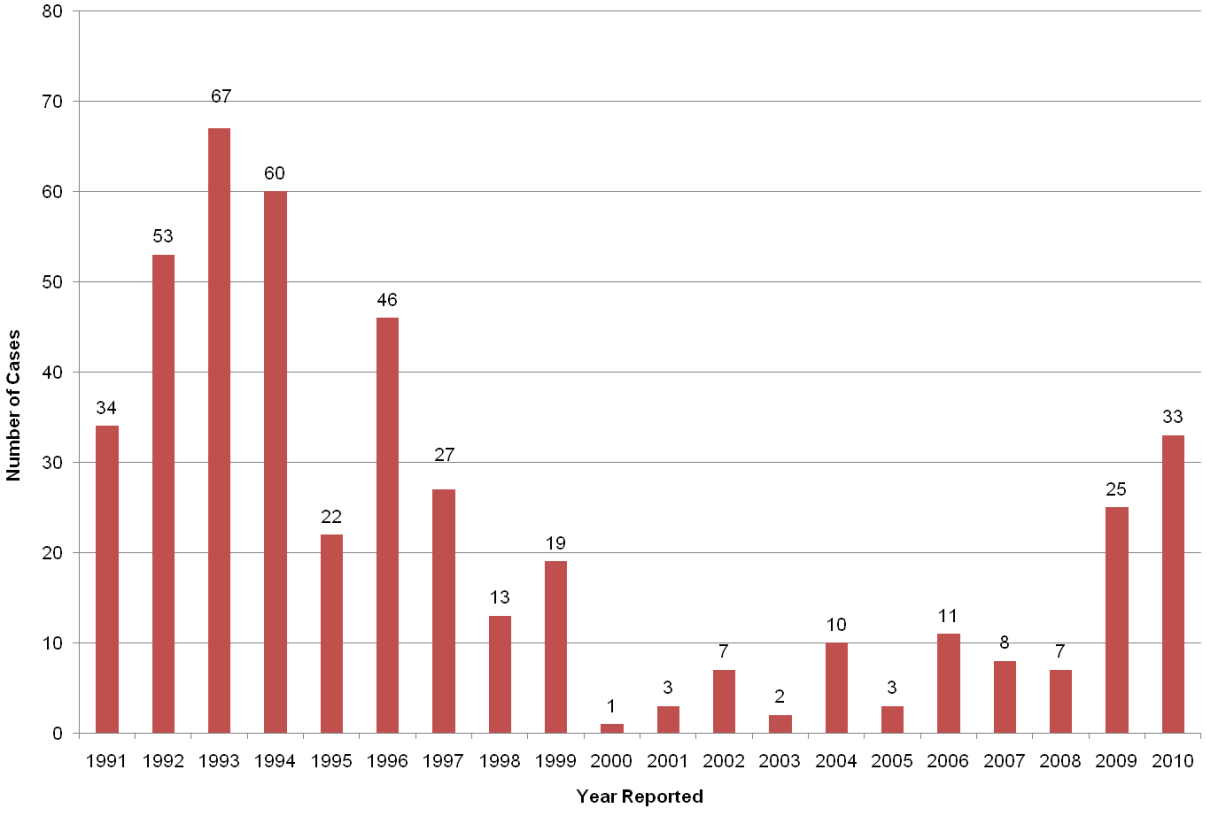


Syphilis

Syphilis is the third most common bacterial STD in SJC, after chlamydia and gonorrhea. Syphilis escalated in many parts of the US, including SJC, during the crack cocaine epidemic of the 1980s-1990s. By 2000, syphilis had reached its lowest level since reporting began in 1941. Despite nationwide elimination efforts, rates began to rise after 2000. Much of the increase has occurred among MSM, and is attributed to increased rates of unsafe sexual practices.

In SJC, the number of very infectious primary and secondary (P&S) stage cases increased more than three-fold between 2008 and 2009 (from 7 to 25 cases). Cases increased to 33 in 2010, the greatest number seen since 1996 (Figure 37). Year 2009 and 2010 P&S cases in SJC were nearly 90% male, among whom 80% identified themselves as MSM. Approximately 40% of these cases were co-infected with HIV. Many reported receptive anal intercourse ("bottom" partner), which carries a higher risk for acquiring HIV and other STDs. In terms of race/ethnicity of the P&S cases, while Whites and Hispanics have the highest percentage of cases, African Americans are disproportionately affected.

Figure 37: Primary and Secondary Syphilis Cases, SJC, 1991—2010



CHRONIC DISEASE

Overview

In January 2011, the CDC released a report entitled "CDC Health Disparities and Inequalities Report—United States, 2011". This report highlighted some of the health disparities that exist in the U.S., including those for chronic diseases. For example, nationally African American men and women are much more likely to die from heart disease and stroke than their white counterparts. Coronary heart disease and stroke account for the largest proportion of inequality in life expectancy between Whites and African Americans, despite the existence of low-cost, highly effective preventive treatment. Another finding of the report is that hypertension is by far most prevalent among African Americans, while control of the disease is lowest for Mexican Americans. Chronic disease disparities also exist in SJC. For example, the rate of age-adjusted asthma hospitalizations for African Americans in SJC is more than three times higher than for Whites, Hispanics, and Asians, and the rate of emergency department visits by African Americans for asthma is 3-4 times higher than the other race/ethnicities (California Breathing, 2010). Data in the following pages show that African American women have higher rates of smoking during the first trimester of pregnancy, and both African American and Hispanic women have higher rates of being overweight and obese prior to pregnancy compared to Whites and Asians. This impacts the health of women and their babies.

To combat these disparities, as well as the high prevalence and associated mortality of chronic diseases in SJC, an Obesity & Chronic Disease Prevention Taskforce was established in the county in August 2009. The Taskforce builds upon previous coalition efforts to address obesity, diabetes, and asthma. The goal of the Taskforce is to decrease the incidence and prevalence of obesity, chronic disease, and the related risk factors through a combined and expanded effort involving more than 40 community agencies and individual members of the Taskforce.

Chronic Disease Prevalence

Chronic diseases not only are the leading causes of death in the U.S., they are also the leading causes of disability. Chronic diseases cause major limitations in daily living for almost 1 out of 10 Americans (National Center for Chronic Disease Prevention and Health Promotion, 2009). As shown in Table 13, the prevalence of asthma, heart disease and diabetes in SJC is above the statewide rates for California.

Table 13: Prevalence of Chronic Conditions, SJC and CA, 2007

Chronic Condition	SJC Prevalence	CA Prevalence
Asthma (All Ages)	16.7%	13.6%
Asthma (≥18 Years of Age)	15.0%	13.0%
Asthma (<12 Years of Age)	16.9%	13.4%
Heart Disease	8.0%	6.3%
Diabetes (≥18 Years of Age)	8.7%	7.8%
Type II Diabetes (≥18 Years)*	83.8%	87.1%

*Percent of total cases of diabetes
Source: California Health Interview Survey , 2007

Cancer Incidence

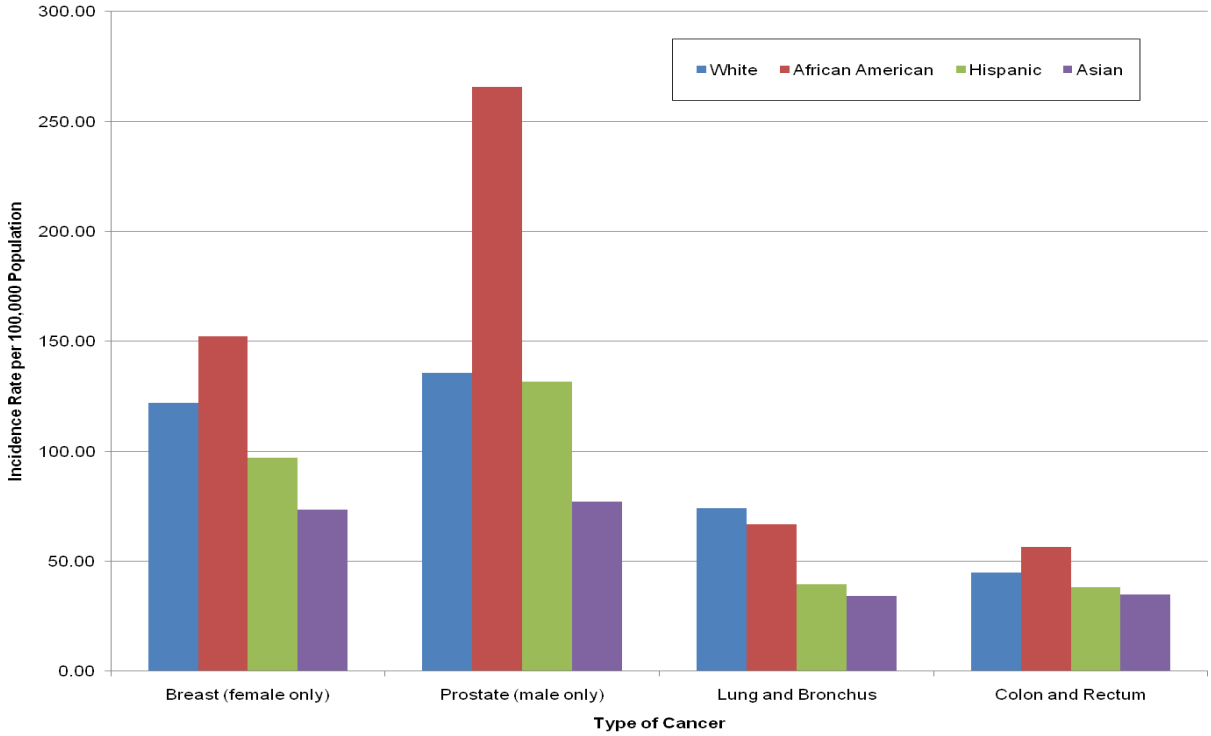
In California, it is estimated that approximately 157,000 people developed cancer in 2010 (California Cancer Registry, 2004-2008). The vast majority of these newly diagnosed cancers were breast cancer in women, prostate cancer in men, and lung and colon cancer for all individuals. In SJC, although breast cancer rates are marginally lower compared to California (Table 14), there are differences in rates across racial/ethnic groups. From 2004-2008 African American females in SJC had the highest incidence of breast cancer (Figure 38). Other racial/ethnic disparities for cancer exist in SJC. While SJC has comparable colon cancer incidence rates compared to California, African Americans have the highest rates in the county. Also, African American males in SJC have almost twice the prostate cancer incidence rate of White males and almost 3.5 times the rate of Asian males. Higher rates of smoking compared to the rest of the state and poor air quality are most likely factors that contribute to the county's high incidence rates of lung and bronchus cancer.

Table 14: Invasive Cancer Incidence Rates, SJC and CA, 2008

Type of Cancer	SJC Rate	CA Rate
Female Breast	107.90	123.11
Colon	28.65	30.24
Prostate	135.18	126.67
Lung & Bronchus	56.14	47.36

Note: All rates are per 100,000 population, Rates are age-adjusted to the 2000 US Standard Million Population
Source: California Cancer Registry, 2008

Figure 38: Cancer Incidence Rates by Race/Ethnicity, SJC, 2004—2008



Source: California Cancer Registry, 2004-2008

CHRONIC DISEASE

Contributing Factors

Much of the chronic disease burden is preventable and/or controllable with a healthy lifestyle and an environment that supports healthy choices. Physical inactivity and unhealthy eating contribute to obesity and a number of chronic diseases, including cardiovascular disease, stroke, osteoporosis, Type II diabetes, and some cancers. Sixty-five percent of adults in SJC are overweight or obese, and more than 33% of children (in grades 5, 7, and 9) are overweight or obese (Table 15). Other factors that contribute to chronic disease rates include blood pressure levels and smoking. Almost 30% of adults in SJC have high blood pressure, and more than 15% of county residents smoke. However, the smoking rates in both SJC and California are the only rates shown in table 15 that were close to meeting the HP 2010 objective.

Table 15: Factors Contributing to Chronic Disease, SJC and CA

Contributing Factors	SJC Prevalence	CA Prevalence	HP 2010 Objective
Overweight (≥18 Years of Age)	36.1%	34.4%	n/a
Obese (≥18 Years of Age)	28.9%	22.7%	15.0%
Overweight or Obese (5-11 Years of Age)†	22.8%	24.1%	5.0%
Overweight or Obese (Grades 5, 7, 9)*	33.4%	31.2%	5.0%
High Blood Pressure	28.3%	26.1%	16.0%
Current Smoker	15.4%	13.3%	12.0%

Overweight = Body Mass Index (BMI) > 25.0 - 29.9 kg/m^2 Obese = BMI ≥ 30.0 kg/m^2

Source: California Health Interview Survey, 2007, unless noted otherwise
†2007 Pediatric Nutrition Surveillance System
* California Department of Education, 2007-08 California Physical Fitness Report

Maternal Smoking

Cigarette smoking during pregnancy adversely affects the health of both mother and child. Mothers who smoke during pregnancy are at increased risk for early term delivery, premature rupture of membranes, placenta previa and stillbirth (CDC, 2004). Infants born to mothers who smoke during pregnancy are often born prematurely and at lower birthweights, key predictors for infant mortality (CDC, 2004). Children whose mothers smoked during pregnancy are especially vulnerable to asthma, more likely to have learning disorders, behavioral problems and lower IQs ((Lynm, Glass, & Torpy, 2005).

Fortunately, in SJC the vast majority of pregnant women are not smoking during their first trimester of pregnancy (Table 16). Nevertheless, there are women who continue to smoke throughout their pregnancies. In particular, African American and White women have higher rates of smoking compared to Hispanic and Asian women.

Table 16: Mothers' Smoking Rates during the First Trimester of Pregnancy, by Number of Cigarettes Smoked per day and Race/Ethnicity, SJC, 2007-2008

Ethnicity	None	1-5	6-10	11-20	21-40
White	90.30%	4.70%	2.90%	1.40%	0.30%
African American	88.60%	7.30%	1.90%	1.10%	0.30%
Hispanic	97.70%	1.40%	0.30%	0.20%	0.10%
Asian	97.40%	1.80%	0.40%	0.20%	0.00%

Source: San Joaquin County Birth Statistical Master Files, 2007-2008
* 10 cigarettes = 1/2 pack, 20 cigarettes = 1 pack

Physical Activity & Nutrition

Physical inactivity has been found to contribute to obesity and increases the risk of chronic diseases such as cardiovascular disease and Type II diabetes. The level of physical activity among youth and teenagers in SJC is below the statewide rate, and, only 14.2% of adults in the county engage in a healthy amount of physical activity compared to 17.4% for California (Table 17).

Table 17: Physical Activity, SJC and CA, 2007

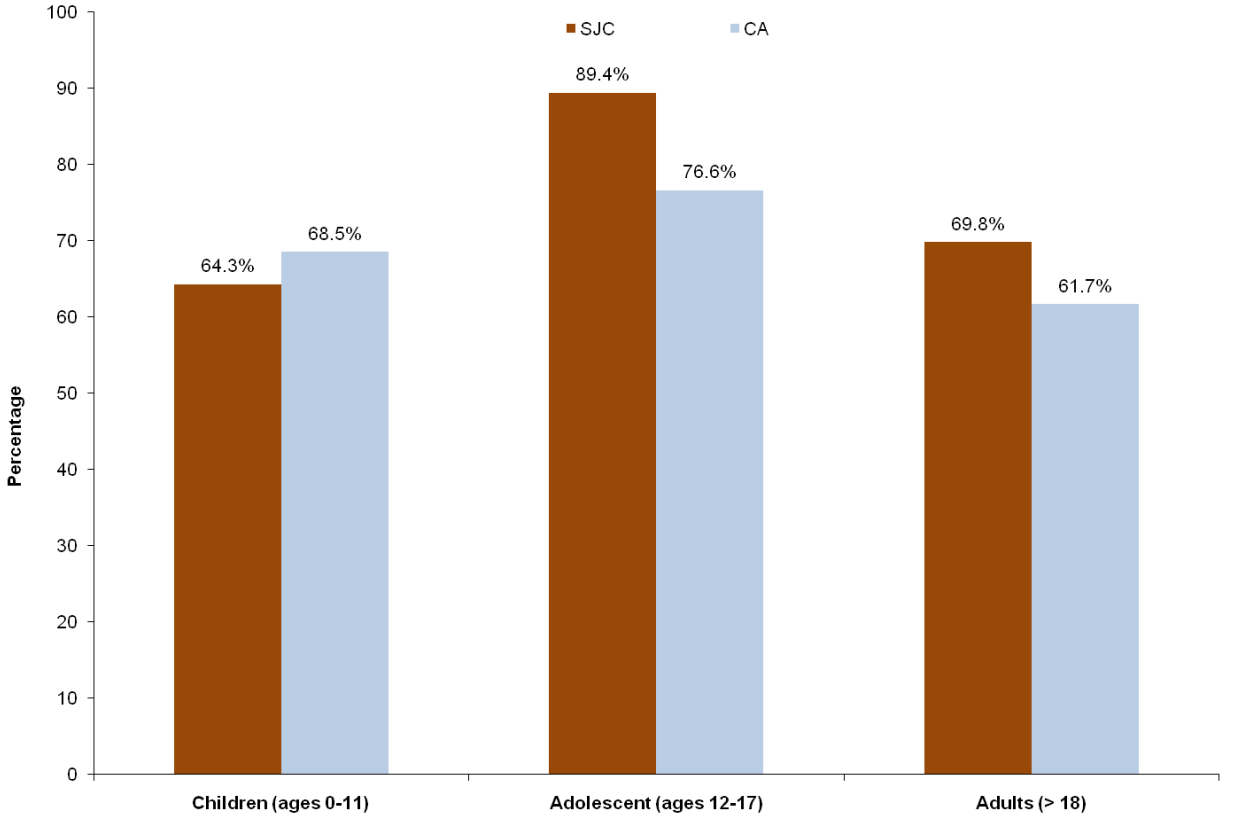
Type of Physical Activity	SJC Prevalence	CA Prevalence
Vigorous Activity at least 3 days/week for **60** min/ day (<12 Years of Age)	68.6%	70.1%
Vigorous Activity at least 3 days/week for **60** min/ day (12-17 Years of Age)	62.1%	64.7%
Vigorous Activity at least 3 days/week for **20** min/ day (≥18 Years of Age)	14.2%	17.4%

Source: 2007 California Health Interview Survey

In SJC, more than 89% of adolescents report having eaten fast food in the last week (Figure 39), and more than 77% consume at least one soda per day (Figure 40), both of which are factors that have been shown to increase the risk of obesity. These percentages for SJC adolescents are also higher than those for California as a whole. Furthermore, the consumption of one or more sodas per day for SJC teens aged 12-17 is the highest when compared to the other 57 California counties (CHIS, 2005).

CHRONIC DISEASE

Figure 39: Percentage of Children, Adolescents, and Adults that Consumed Fast Food One or More Times in the Past Week, SJC and CA, 2007

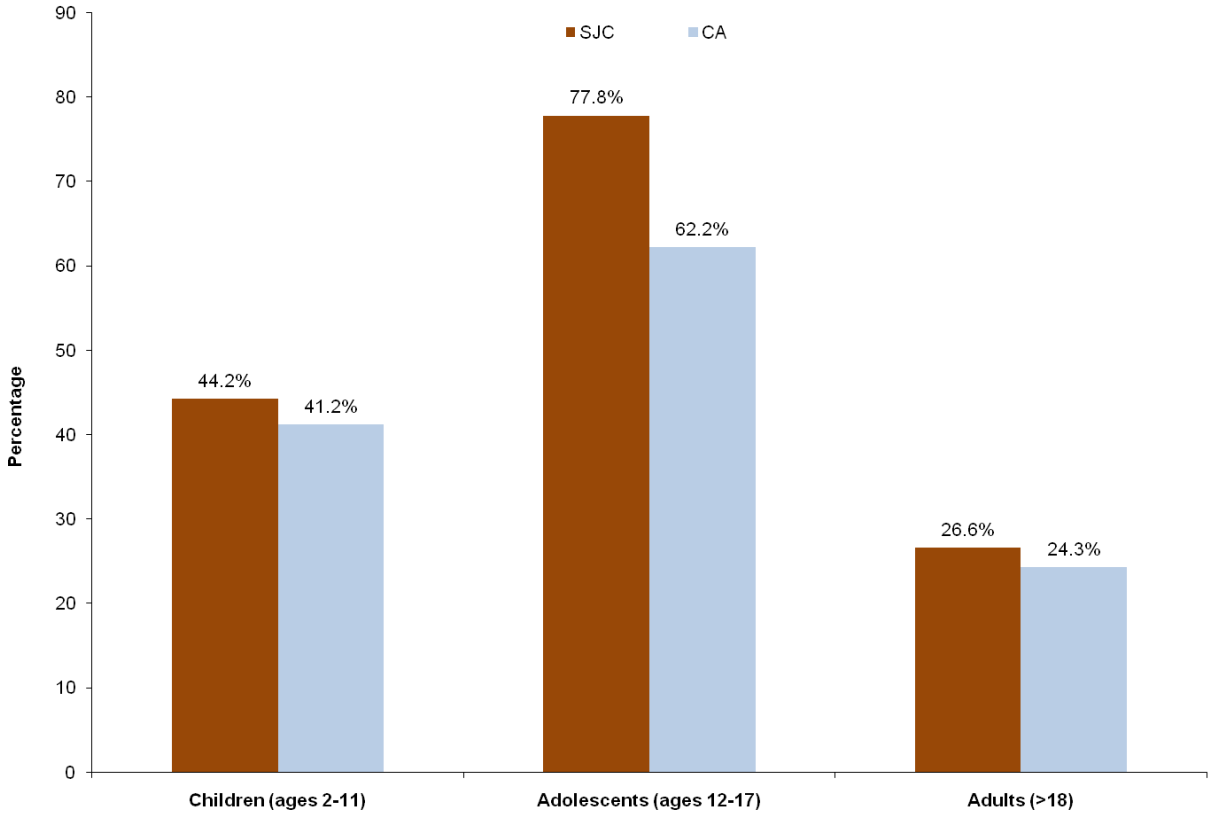


Source: California Health Interview Survey, 2007

Sugar-Sweetened Beverages

Scientific evidence linking consumption of sugar-sweetened beverages with weight gain is stronger than for any other food category (Ludwig, et al, Malik, et al, Schulze, et al, Giammattei, et al). In California, the prevalence of overweight and obesity is higher among adolescents who drink sugar-sweetened beverages than those who do not (Babey, Jones, Yu, & Goldstein, 2009). In an effort to address the local challenge, the San Joaquin County Obesity and Chronic Disease Prevention Taskforce initiated a county-wide Sugar Sweetened Beverage Campaign. The campaign is being led by the Community Partnership for Families, in partnership with Public Health Services. The goal is to strengthen the foundation for policy changes aimed at reducing the consumption of sugar sweetened beverage in San Joaquin County. The project will work to empower youth and youth-based organizations to advocate for and develop policies to decrease availability of sugar-sweetened beverages and improve the accessibility of healthy beverages throughout the county.

Figure 40: Percentage of Children, Adolescents, and Adults Drinking One or More Sodas per Day, SJC and CA, 2005



Source: California Health Interview Survey, 2005

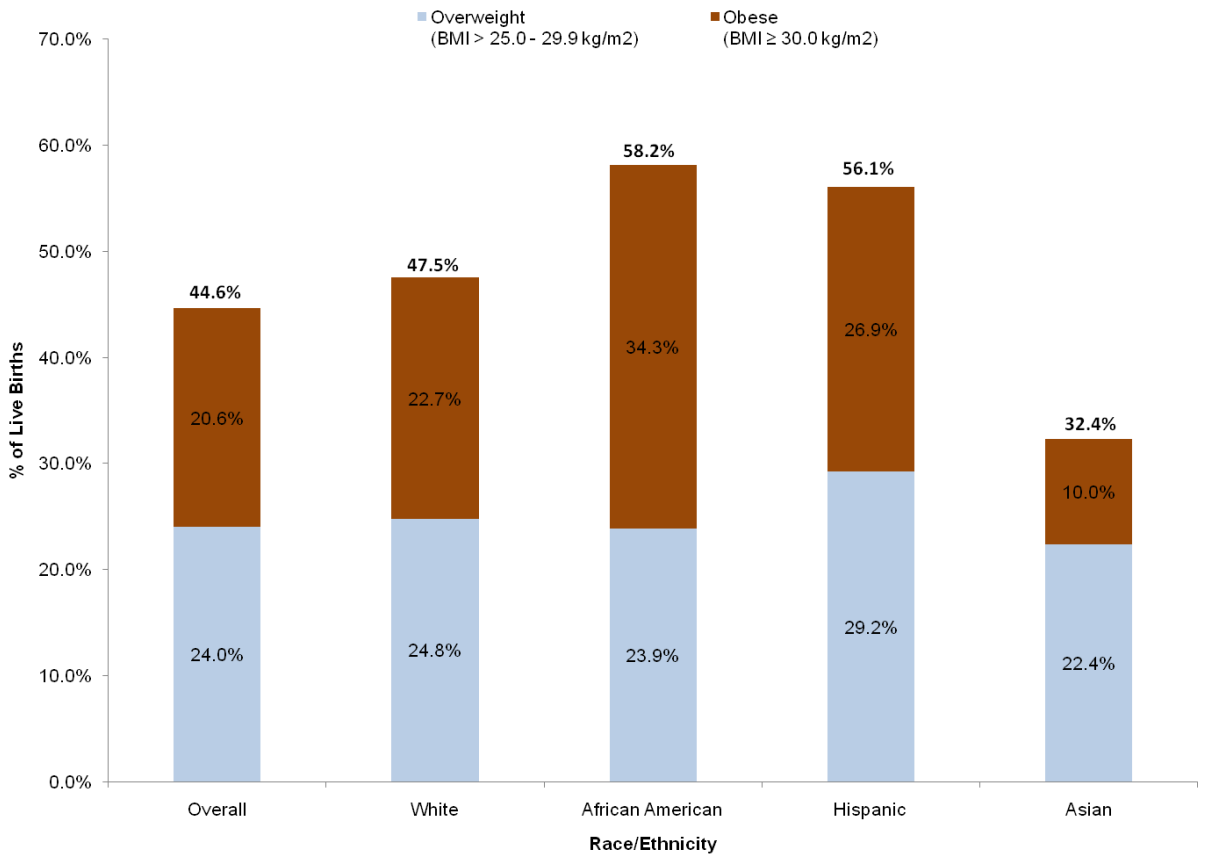
Obesity During Pregnancy

According to the CDC, maternal obesity during pregnancy is associated with many complications such as cesarean delivery, macrosomia (fetal weight >4,000 grams), gestational hypertension, preeclampsia (development of hypertension during pregnancy), gestational diabetes mellitus, fetal death, and possible birth defects. Maternal obesity also increases the long-term risks for the fetus, as children born to obese mothers are twice as likely to be obese and to develop Type II diabetes later in life (National Center for Chronic Disease Prevention and Health Promotion, 2009).

CHRONIC DISEASE

Currently 1 out of 5 women in the United States (20%) is obese at the beginning of pregnancy (National Center for Chronic Disease Prevention and Health Promotion, 2009). This rate is similar among SJC women overall but much higher in African-American and Hispanic women (Figure 41). The CDC recommends that efforts to prevent obesity and maintain a healthy weight in women of childbearing age should be a public health priority.

Figure 41: Percent of Mothers that were Overweight or Obese Prior to Pregnancy by Race/ Ethnicity, SJC, 2009



Source: San Joaquin County Birth Statistical Master File, 2009

MORTALITY

Overview

For 10 years, the mortality rate in the United States has been dropping and reached an all time low in 2009. Additionally, overall life expectancy in the U.S. increased slightly from 78 years to 78.2 years between 2008 and 2009. Although life expectancy for U.S. residents increased, life expectancy for African Americans remained unchanged and the disparity between Whites and African Americans is now 4.3 years (Kochanek, Xu, Murphy, Miniño, & Kung, 2011).

In SJC, the mortality rate has similarly been declining. Between 2006-2008, the age-adjusted mortality rate (per 100,000 persons) decreased from 881.6 to 798.7 (SJC Death Statistical Master Files, 2006-2008). However, the county's 2008 rate is significantly higher than the California rate of 650.1 and also slightly higher than the national rate of 758.7 (Kochanek et al., 2011). To reduce this gap, significant investment in prevention strategies will be needed to address factors contributing to high rates of chronic diseases, as they are the leading causes of death in our county, state and nation.

Leading Causes of Death

Chronic diseases account for 70% of all deaths in the U.S., with heart disease, cancer, and stroke together accounting for more than 50% of all deaths each year (National Center for Chronic Disease Prevention and Health Promotion, 2009). Similarly, in SJC, 56% of deaths in 2007 were due to heart disease, cancer and stroke (Table 18).

Table 18: Ten Leading Causes of Death, SJC, 2007

Cause of Death	Number of Deaths	Percent
Diseases of the Heart	1288	27.8%
Malignant Neoplasms (Cancer)	1022	22.1%
Accidents (Unintentional Injures)	285	6.2%
Chronic Lower Respiratory Disease	270	5.8%
Cerebrovascular Disease (e.g. Stroke)	257	5.6%
Diabetes Mellitus	199	4.3%
Alzheimer's Disease	141	3.0%
Pneumonia & Influenza	139	3.0%
Chronic Liver Disease & Cirrhosis	92	2.0%
Mental Disorders	67	1.4%
All Other Causes	867	18.7%
Total Deaths	**4627**	**100.0%**

Source: Death Statistical Master Files, 2007

MORTALITY

Deaths by Gender

In 2007, of the 10 leading causes of death in males and females in SJC, the proportion of deaths due to chronic diseases is extremely high: 65.5% for males and 75.6% for females (Table 19). Heart disease and cancer are the top two leading causes of death for both males and females. Unintentional injuries constitute a much greater proportion of deaths for men than women. For example, motor vehicle accidents account for 43% of injury deaths in men, but only 25% in women. Men are also much more likely to die from homicide and suicide than women. For women, mental illnesses such as Alzheimer's disease are more prevalent than in men. Similar to California, deaths due to chronic lower respiratory disease, cerebrovascular disease and diabetes are common among both men and women in SJC.

Table 19: Ten Leading Causes of Death by Gender, SJC, 2007

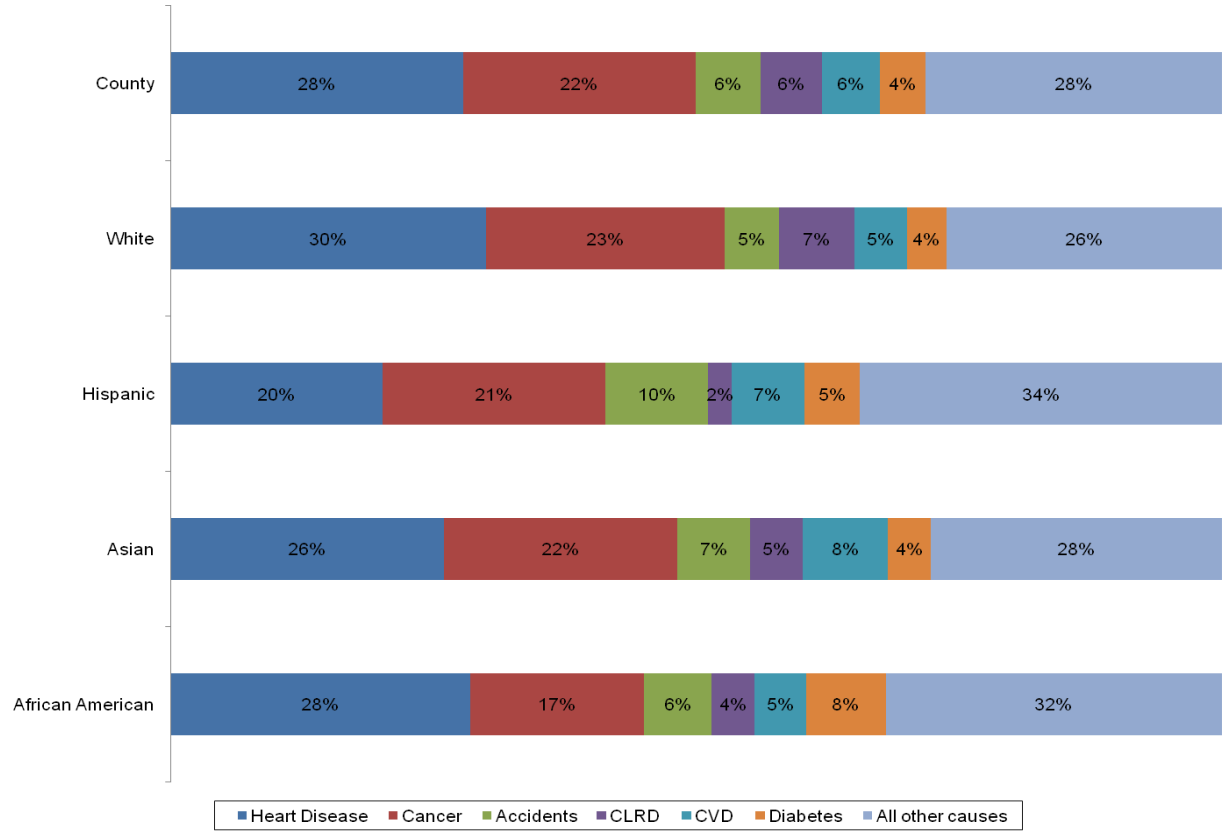
	Males			Females		
Cause of Death	**Rank**	**Number**	**Percent**	**Rank**	**Number**	**Percent**
Diseases of the Heart	1	636	26.7%	1	649	28.9%
Malignant Neoplasms (Cancer)	2	532	22.3%	2	490	21.8%
Accidents (Unintentional Injuries)	3	200	8.4%	7	85	3.8%
Cerebrovascular Disease (e.g. Stroke)	4	115	4.8%	4	142	6.3%
Diabetes Mellitus	5	108	4.5%	6	91	4.1%
Chronic Lower Respiratory Disease	6	107	4.5%	3	163	7.3%
Chronic Liver Disease and Cirrhosis	7	65	2.7%	—	29	1.3%
Suicide	8	50	2.1%	—	12	0.5%
Influenza and Pneumonia	9	49	2.1%	8	48	2.1%
Assault (Homicide)	10	48	2.0%	—	4	0.2%
Alzheimer's Disease	—	47	2.0%	5	94	4.2%
Mental Disorders	—	31	1.3%	9	36	1.6%
Primary Hypertension and Hypertensive Renal Disease	—	20	0.8%	10	31	1.4%
All Other Causes	—	373	15.7%	—	372	16.6%
Total Deaths	—	2381	100.0%	—	2246	100.0%

Source: Death Statistical Master Files, 2007

Deaths by Race

In looking at the leading causes of death for SJC in 2007 by race/ethnicity, there are some distinct differences (Figure 42). While African Americans had the highest proportion of deaths due to diabetes than any other racial/ethnic groups, they had the lowest percentage of cancer deaths. This is in contrast to the high incidence of cancer in African Americans highlighted in the chronic disease section of this report. Hispanics had the highest percentage of deaths due to accidents (unintentional injuries) but the lowest due to heart disease.

Figure 42: Leading Causes of Death by Race/Ethnicity, SJC, 2007



Note: CLRD - Chronic Lower Respiratory Disease, CVD - Cerebrovascular Disease
Source: Death Statistical Master Files, 2007

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