



HEALTH

Santa Cruz County

2008



ACKNOWLEDGEMENTS

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INTRODUCTION

Every local health department in California has the responsibility to gather health data on its residents, analyze that data, and report back to the community on their health status. This report, Health, Santa Cruz County, 2008, is the first such report in the history of this health department and represents an on-going commitment to monitor key health behaviors, outcomes, and socioeconomic and environmental factors that contribute to a community's health. We hope the information presented is useful in understanding health priorities, planning and improving services, and guiding health policy. Most importantly, though, we hope that community residents will learn about their collective health and join with the health department and its community partners to work together to improve the health of all of Santa Cruz County.

Data never stands alone. It must be comparative to be meaningful. We have chosen to include comparison data from the State of California and set our benchmarks on health goals described in Healthy People 2010. Healthy People 2010 is a comprehensive, nationwide health promotion and disease prevention agenda launched by the U.S. Department of Health and Human Services. It is a set of health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats, to be achieved over the first decade of the new century. It is designed to accomplish two overarching goals: Increase Quality and Years of Healthy Life, and Eliminate Health Disparities.

Healthy People 2010 challenges individuals, communities, and professionals, indeed all of us, to take specific steps to ensure that good health and a long life are enjoyed by all. Therefore, the Santa Cruz County Public Health Department has integrated Healthy People 2010 into this Health Status Report – specifically where the county data are compared to the objective so that readers can see how Santa Cruz County is doing with respect to the national objective.

We begin the report with a Health Report Card composed of Leading Health Indicators (LHI) selected in the Healthy People 2010 effort. These LHI reflect the major public health concerns in the United States and were selected based on the availability of data to measure progress, their relevance as broad public health issues, and their salience to communities. Santa Cruz Public Health commits to monitor these indicators on a biannual basis, monitoring trends, successes, and areas of concern.

Our Health Report Card reveals that we are faring better than the rest of California on most indicators but do not attain most of the Healthy People 2010 Objectives. Our report also reveals our uniqueness as a county, in that we are relatively well-off and non-diverse in comparison to other counties. We have marked successes, such as the rates of diabetes in adults and our significantly low rates of mortality from heart disease. However, there are two disturbing trends. First, when data are analyzed by age groups, children have worse outcomes than adults in a number of indices, such as smoking and overweight. Second, when data are analyzed by race/ethnicity, there is striking evidence of health disparities that are true health inequities because they are avoidable, preventable, and unjust.

HEALTH INEQUITIES

All health status, whether individually or among populations, is “unequal.” That is to be expected. Our genetic makeup, our ethnicity or race, our environmental beginnings, our social construct, our personal behaviors—all contribute to differing, unequal health status, even among like individuals. But within that universe of inequality, our health status is more particularly defined and made discrete by the emergence of a “moral dimension,” as for example when our health status is impacted by circumstances and forces that are unjust, unfair, avoidable, and not attributable to individual choice or behavior; these are *health inequities*.

Disparities, or differences, in health status that arise from unfair circumstances, beyond our choice or control, and are avoidable, reflect inequities in health status, and must be challenged and ultimately changed if we are to be true to the fundamental moral precepts of our society. An accumulation of negative social conditions and a lack of fundamental resources contribute to health inequities, and include economic and social insecurity, racial and gender inequality, lack of participation and influence in society, unfavorable conditions during childhood, absence of quality and affordable housing, unhealthy conditions in the workplace and lack of control over the work process, toxic environments, and inequitable distribution of public goods.

There are basic assumptions necessary to understand and to overcome health inequities:

- 1) Health is an end in itself, an asset or resource required by everyone and critical to human development and well-functioning communities.
- 2) Equity in health status benefits everyone.
- 3) Health is a social concept, not only a medical one, and therefore should be defined broadly – for example, demonstrating its connection to quality of life and well-being.
- 4) Population health outcomes are primarily the result of social and political forces, not individual lifestyles or behaviors.
- 5) Health is a collective public good, actively produced by institutions and social policies.

We hope that the publication of this report interests, activates, and energizes all of us to develop and implement policies, systems, and strategies to eliminate inequities in health outcomes so that all Santa Cruz County residents can enjoy long, healthy, and productive lives.

Sources

1. U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.
2. The National Association of County & City Health Officials and The Ingham County Health Department. *Tackling Health Inequities Through Public Health Practice: A Handbook for Action*. Washington, DC and Lansing, MI: W.K. Kellogg Foundation, 2007.

REPORT CARD

Healthy People 2010 Leading Health Indicators ⁰		Year Measured	HP 2010 Objective	US	CA	Santa Cruz County	Better or Worse than CA	HP 2010 Objective met?
PHYSICAL ACTIVITY								
1	Increase the proportion of adults who engage regularly in moderate* physical activity for 30+ minutes/day	2005	50%	30% ¹	53% ²	50% ³	Worse	Yes
2	Increase the proportion of adolescents who engage in vigorous* physical activity 3+ days/week for 20+ minutes/occasion	2005	85%	64% ⁴	66% ⁵	60% ⁵	Worse	No
OVERWEIGHT & OBESITY								
3	Reduce the proportion of adults who are obese	2005	15%	33% ⁶	21% ⁵	12% ⁵	Better	Yes
4	Reduce the proportion of children and adolescents who are overweight or obese	2006-7	5%	17% ⁶	32% ⁷	30% ⁷	Better	No
TOBACCO USE								
5	Reduce current cigarette smoking by adults	2005	12%	21% ¹	14% ⁸	16% ⁸	Worse	No
6	Reduce the proportion of adolescents who have smoked cigarettes within the last month	2006	16%	23% ⁴	15% ⁸	17% ⁸	Worse	No
SUBSTANCE ABUSE								
7	Decrease the percentage of adults who engaged in binge drinking (5+ alcoholic beverages at the same time or within a couple hours) in the past month	2005	13.4%	24% ⁹	18% ⁵	19% ⁵	Worse	No
8	Increase the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days	2005	91%	79% ⁹	70% ¹⁰	62% ¹⁰	Worse	No
RESPONSIBLE SEXUAL BEHAVIOR								
9	Increase the proportion of sexually active women (ages 18-44) who use condoms.	2002	50%	31% ¹¹	N/A	N/A	-	N/A
10	Increase the proportion of sexually active men (ages 18-44) who use condoms.	2002	54%	N/A	N/A	N/A	-	N/A
11	Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active.							
	Never had sexual intercourse.	2005	56%	53% ⁴	77% ⁵	82% ⁵	Better	Yes
	If sexually experienced, are not currently sexually active.	2007	30%	27% ⁴	N/A	N/A	-	N/A
	If currently sexually active (last 3 months), used a condom the last time they had sexual intercourse.	2007	65%	63% ⁴	N/A	N/A	-	N/A

Healthy People 2010 Leading Health Indicators ⁰		Year Measured	HP 2010 Objective	US	CA	Santa Cruz County	Better or Worse than CA	HP 2010 Objective met?
INJURY & VIOLENCE								
12	Reduce Homicides (per 100,000 population).	2004 [^]	2.8	5.9 ¹²	6.8 ¹²	2.8 ¹²	Better	Yes
13	Reduce deaths caused by motor vehicle crashes (per 100,000 population).	2004 [^]	8	14.7 ¹²	12.2 ¹²	10.7 ¹²	Better	No
ENVIRONMENTAL QUALITY								
14	Reduce the proportion of persons exposed to air that does not meet the U.S. EPA's health-based standards for ozone.	2008	0%	43% ¹³	83% ¹³	0% ¹³	Much Better	Yes
IMMUNIZATION								
15	Increase the proportion of young children (aged 19 to 35 months) who receive all vaccines that have been recommended for universal administration.	2006-2007	80%	80% ¹⁴	79% ¹⁴	N/A	-	N/A
16	Increase the proportion of non-institutionalized adults aged 65 years and older who are vaccinated annually against influenza.	2005	90%	60% ¹	66% ⁵	73% ⁵	Better	No
17	Increase the proportion of non-institutionalized adults aged 65 years and older who were ever vaccinated against pneumococcal disease.	2005	90%	56% ¹	63% ⁵	88% ⁵	Better	No
ACCESS TO HEALTHCARE								
18	Increase the proportion of persons (aged 65 and under) with health insurance.	2005	100%	83% ¹	85% ⁵	86% ⁵	Better	No
19	Increase the proportion of persons who have a specific source of ongoing care.	2005	96%	87% ¹	88% ⁵	88% ⁵	Same	No
20	Increase the proportion of pregnant women who receive prenatal care beginning in the first trimester of pregnancy.	2005	90%	84% ¹⁵	86% ¹⁶	90% ¹⁶	Better	Yes

* Vigorous is defined as large increases in breathing/heart rate for 20+ min. 3+ times per week.

Moderate is defined as small increases in breathing/heart rate for 30+ min. 5+ times per week.

[^] This year is the middle year of the three years that were averaged to obtain the values for the county and state.

N/A The Data is not available.

U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.

1 NHIS – National Health Interview Survey, CDC, NCHS

2 BRFSS – Behavioral Risk Factor Surveillance System, CDC, NCCDP

3 CAP – Community Assessment Project, ASR, United Way of Santa Cruz

4 YRBSS – Youth Risk Behavioral Surveillance System, CDC, NCCDP

5 CHIS – California Health Interview Survey, UC Los Angeles, CDPH

6 NHANES 2003-2006, CDC, NCHS

7 California Department of Education

8 CSTATS – California and Statewide Archive of Tobacco Statistics, CDHS (Santa Cruz County data includes Monterey and San Benito Counties)

9 NSDUH – National Survey on Drug Use and Health,

10 CHKS – California Healthy Kids Survey,

11 NSFG – National Survey of Family Growth, CDC, NCHS

12 California County Health Status Profiles, 2007, CDPH

13 Air Data, Air Quality Survey, EPA

14 NIS – National Immunization Survey, CDC, NCHS

15 NVSS – National Vital Statistics System, CDC, NCHS

16 FHOP – Family Health Outcomes Project, UC San Francisco

1. DEMOGRAPHICS

The California Department of Finance estimated the total population in Santa Cruz County to be 264,417 residents in 2007.¹ By California standards, Santa Cruz is a mid-sized population county, ranking 24th largest among California's 58 counties in 2006.² By national standards, Santa Cruz County is a large county, ranking 296th out of 3,192 counties in the United States in 2006.⁴ The county's population is stable in size; U.S. Census Bureau intercensal estimates show a slowly shrinking population in recent years, while California Department of Finance estimates show a slowly growing population.

GENDER & AGE

Nearly equal numbers of males and females reside in Santa Cruz County, with slightly more females than males in the older age groups. There is a relatively large percentage of persons between the ages of 15 and 24, due to the large number of college students. The decrease in population after age 25 might be related to the lack of job opportunities and the high cost of living here.

Based on 2007 estimates, Santa Cruz County's "Age Dependency Ratio" is only 37.5%, compared to a statewide average of 48.2%.⁵ The Age Dependency Ratio is the number of people who are in age groups that tend to be economically dependent (children age 0-14, and adults age 65 and over), divided by the number of people in the most economically productive age group (15-64). A low Age Dependency Ratio means more working people to take care of fewer dependent people, providing an economic advantage to a community.

ETHNICITY & RACE

Over 90% of the county's population is either White (58%) or Hispanic (33%).¹ The remaining groups account for much smaller fractions of the population: Asians and Pacific Islanders (5%), Blacks (1%), and Native Americans (less than 1%). California, by comparison, has a smaller proportion of Whites, a larger percentage of Blacks and Asians, and a slightly larger Hispanic population. The U.S. has higher proportions of Whites and Blacks, fewer Hispanics, and approximately the same proportion of Asians as Santa Cruz County (Figure 1.2).³

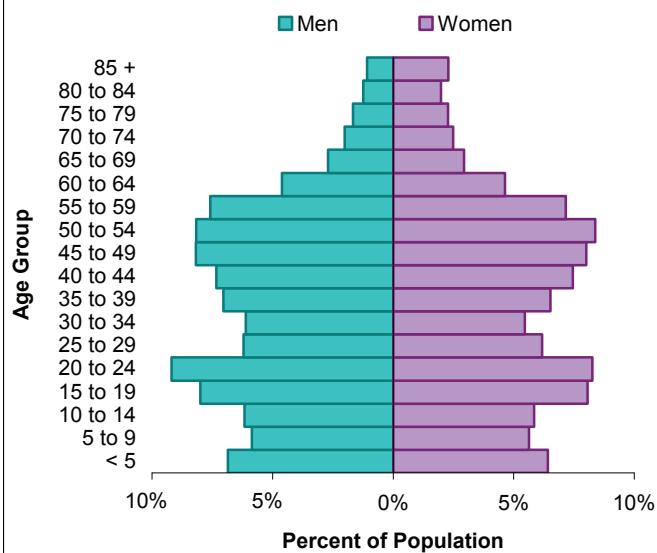
Table 1.1: Santa Cruz County Demographics, 2007

	Number	Percent
Gender		
Male	132,072	49.9
Female	132,345	50.1
Age		
Under 5	16,797	6.4
5 - 19	49,770	18.8
20 - 44	101,743	38.5
45 - 64	71,395	27.0
65 and Over	24,712	9.3
Ethnicity / Race		
Hispanic	88,512	33.5
White	153,830	58.2
Asian & P.I.	12,837	4.9
Black	2,553	1.0
Other	6,685	2.5
TOTAL	264,417	100

P.I. = Pacific Islander

Source: State of California, Department of Finance, 2007¹

Figure 1.1: Age Pyramid, Santa Cruz County, 2007



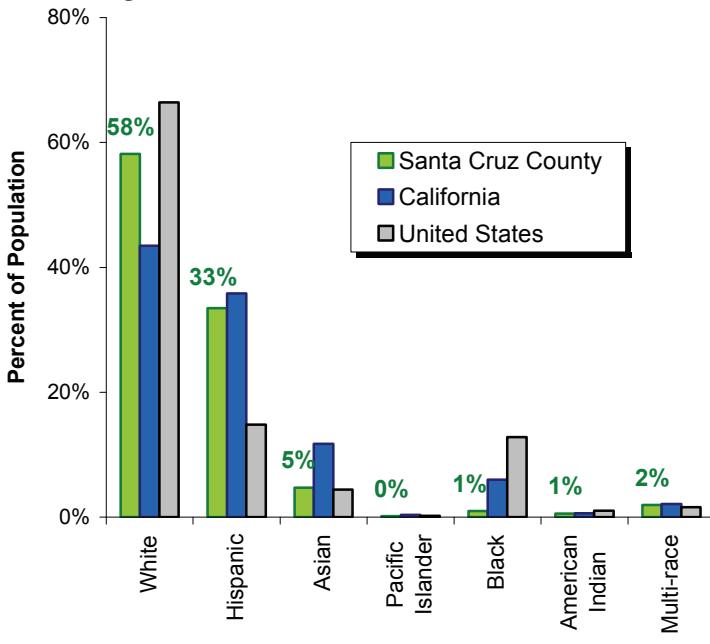
Source: State of California, Department of Finance, 2007¹

ETHNICITY & RACE (CONT)

The relative proportions of various racial and ethnic groups in the county have changed fairly steadily in recent decades. In 1970, the county population was more than 86% White and less than 10% Hispanic. By 2007, the Hispanic population proportion had increased to more than 33%, while the White proportion had decreased to approximately 58%.^{4,5} The proportions of Asians, Blacks, and Native Americans have all increased since 1970, though not as rapidly as Hispanics, and they remain relatively small proportions of the population (Figure 1.3).

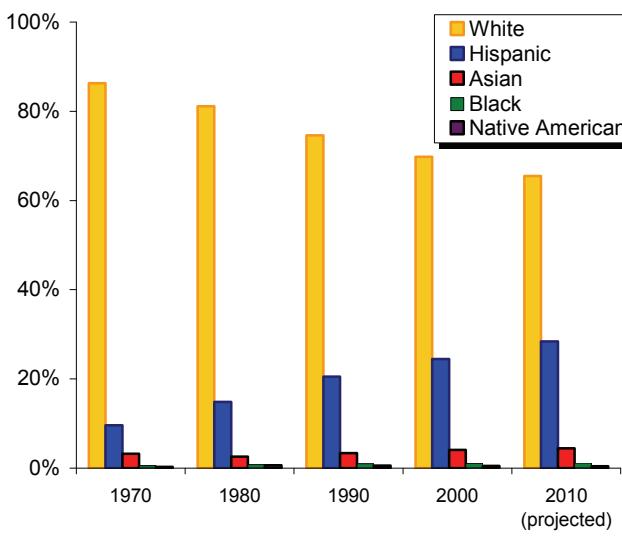
Although more than 64% of the county's population over 18 years old are White and fewer than 28% are Hispanic, approximately half the births in the county are to Hispanics.³ Children make up a larger proportion of the Hispanic population than of the White population, and this difference continues through every age group under 40. Conversely, every age group over 40 contains a larger proportion of the White population than of the Hispanic population.⁵ The same basic pattern is true statewide.

Figure 1.2: Ethnic/Racial Distribution, 2007



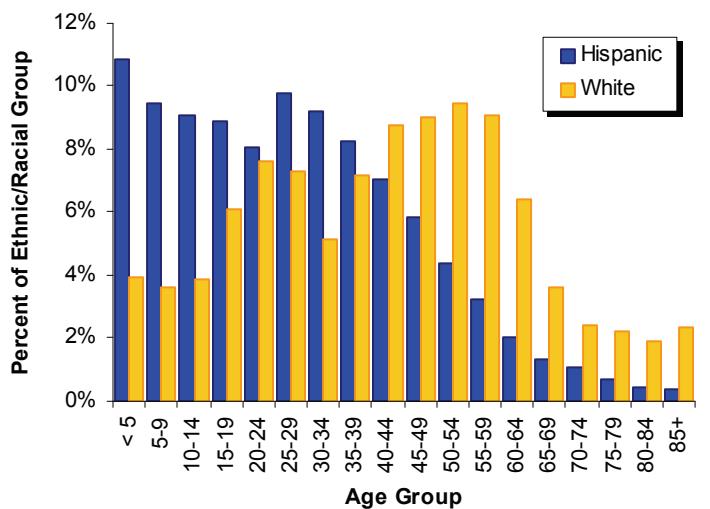
Source: California Department of Finance¹

Figure 1.3: Percentage of Population by Race & Ethnicity, Santa Cruz County, 1970 - 2010



Source: County Population U.S. Census Bureau⁴

Figure 1.4: Age Distributions of Hispanic and White Populations, Santa Cruz County, 2007



Source: State of California, Department of Finance, 2007¹

Sources

- State of California, Department of Finance, E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2007 and 2008. Sacramento, California, May 2008. http://www.dof.ca.gov/research/demographic/reports/estimates/e-1_2006-07/
- "California County Rankings by Size, Numeric and Percent Change: July 1, 2006 -July 1, 2007." Research and Demographics Unit. California Department of Finance. 5 Jun 2008 <http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/documents/Ranking%20Reports%20Jul07.xls>
- "State and County Data Tables." County and City Data Book: 2007. 28 Feb 2008. U.S. Census Bureau. 5 Jun 2008 http://www.census.gov/statab/ccdb/cc07_tabB1.pdf
- County population, population change and estimated components of population change U.S. Census Bureau. April 1, 2000 to July 1, 2007. <http://www.census.gov/popest/datasets.html>
- U.S. Census Bureau; "ACS Demographic and Housing Estimates: 2006"; American FactFinder; <<http://factfinder.census.gov>>; (15 July 2008).

2. SOCIAL DETERMINANTS

Social determinants represent the context in which people live their lives, i.e., their living and working situation. Social determinants such as income, adequate housing, school readiness and educational success, social networks and connectedness, and the relationship between these determinants constitute the major social conditions that affect the health of population groups.

Health and wealth are inextricably entwined. Many studies document the strong correlation between income and health outcomes. This makes sense, as financial resources allow a person to live in a healthier environment, pay for health care (usually through employment), and pay for food and other goods and services that will benefit health. Those who live in poverty usually live in impoverished, and even dangerous, neighborhoods, and tend to have more chronic illnesses with more frequent and severe disease complications. The level of education attained by an individual is positively related to their socioeconomic status. Study after study documents the protective nature of education in terms of positive health outcomes.

Stable housing is critical to good health. Homeless individuals experience the same chronic medical conditions as housed people, but with greater frequency and severity. This is due to many factors, including lack of shelter, exposure to the elements, poor nutrition, high rates of substance abuse and mental illness, increased contact with communicable diseases, and lack of primary medical care.

Transportation is a regional issue that affects one's ability to access work, medical care, healthy food, social networks, and physical activity in one's daily life. The types of transportation available to a person are based on many factors, but most importantly, economic status and location of residence.

While incarceration may have direct effects on health due to crowded conditions, etc., it is more likely to indirectly affect health by shaping employment, income, and marital trajectories. Additionally, if people have little social connectedness before incarceration, studies have shown that people who have been incarcerated develop a range of behaviors while incarcerated that set them apart from the rest of society.



ECONOMICS

INCOME

How are we doing in Santa Cruz County?

In 2006, the median *household* income in Santa Cruz County was \$62,193.¹ The same year, Santa Cruz County residents had a per capita income of \$45,194—ranking 95th highest among the 3,112 metropolitan statistical areas ranked.²

What inequities exist?

Census 2000 data is the most current source for county-level economic data stratified by race/ethnicity. In 1999, 75% of Hispanic residents earned less than \$25,000, compared to 44% of Whites (Figure 2.2).³ This difference demonstrates substantial income inequities in Santa Cruz County.

POVERTY

How are we doing in Santa Cruz County?

In 2005¹, 12% of all Santa Cruz County residents were living below the federal poverty threshold, compared to 13% statewide. During the same year, 15% of persons under age 18 were living in poverty in Santa Cruz County compared to 18% statewide. One explanation for why Santa Cruz County has lower poverty rates than the state is because the cost of living is higher and so lower income people cannot afford to live here. Also, area of residence is not factored in when determining a person's poverty status.

What inequities exist?

There are considerable economic inequities among Hispanics and Blacks when compared to other racial/ethnic groups in the county (Figure 2.3).² Hispanics and Blacks have the largest percentages of their populations living in poverty.

UNEMPLOYMENT

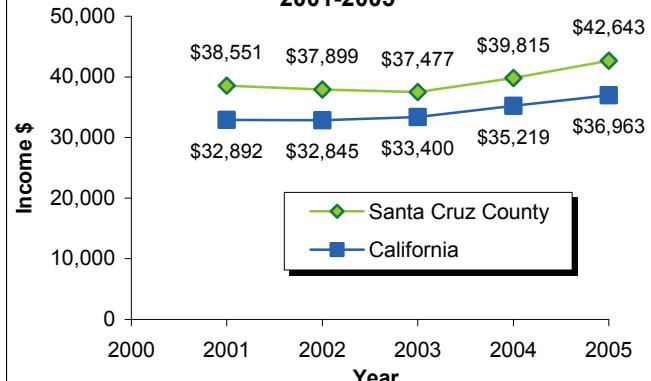
How are we doing in Santa Cruz County?

In 2007, Santa Cruz County had an unemployment rate of 5.9%, compared to California's rate of 5.4%.² The unemployment rate has increased 0.3% points since 2006 which accounted for 600 more people being unemployed in 2007 than in 2006.² This increase is expected to continue in 2008 and the following year, due to slowing of economic growth.⁴

What inequities exist?

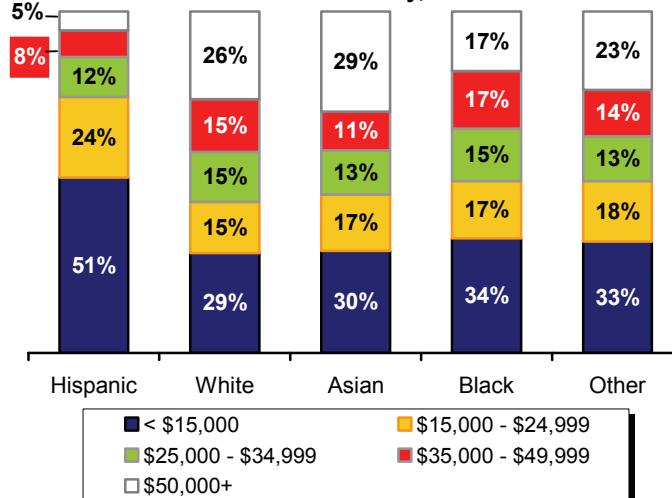
City-level unemployment rates in Santa Cruz County vary greatly. Watsonville employees had the highest unemployment rate in 2007 at 13%, compared to 5% in Santa Cruz city and 3% and 3% in Capitola and Scotts Valley respectively.⁵ It is of note that many Watsonville employees work in agriculture which is typically seasonal employment.

Figure 2.1: Per Capita Personal Income, 2001-2005



Source: Bureau of Economic Analysis via Community Assessment Project⁵

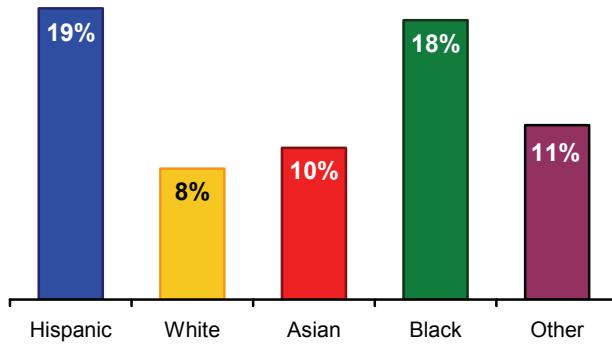
Figure 2.2: Percentage of Working Persons in Racial/Ethnic Groups by Amount of Earnings, Santa Cruz County, 1999



* Earnings represent the amount of income received regularly for people 16 years old and over before deductions for personal income taxes, social security, bond purchases, union dues, Medicare deductions, etc. For more details, go to: www.census.gov/prod/cen2000/doc/sf3.pdf

Source: US Census Bureau, Census 2000 EEO special tabulation³

Figure 2.3: Percentage of Individuals within Racial/Ethnic Groups living below the Federal Poverty Level, Santa Cruz County, 1999



Source: Census 2000²

HOMELESS

HOMELESS

How are we doing in Santa Cruz County?

In 2007,¹ the Homeless Persons Health Project (HPHP) and their community partners: Planned Parenthood, Santa Cruz Women's Health Center, Dientes Community Dental Clinic, the two County Clinics, and Janus served an unduplicated count of **5,961** homeless individuals, a 3% increase from 2006. However, the actual number of homeless persons is likely to be even higher, since some homeless persons do not use the above-mentioned services (i.e. agricultural workers, unaccompanied homeless youth, and those sheltering in outbuildings).

HPHP's on-site urgent and interim care clinic, the Coral Street Clinic in Santa Cruz, provides approximately 50 health care visits per week to homeless individuals. The clinic provides mid-level care and is staffed with nurses and physicians. There are also pharmaceutical dispensary services on-site. 10% of Coral Street Clinic visits are paid by MediCal or Medicare and the remaining 90% of visits are supported by the federal "Health Care for the Homeless" grant.

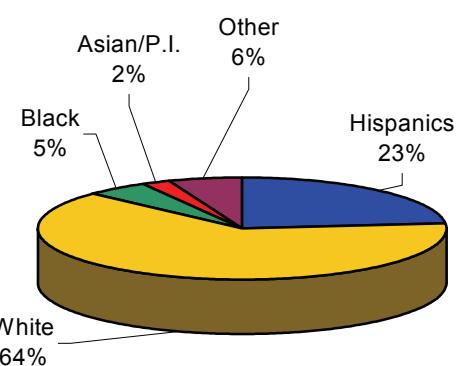
What inequities exist?

The proportion of homeless persons who are white is similar to the proportion in the general population; Hispanics are slightly under-represented and Blacks are over-represented in the homeless population (compare Figure 2.4 to Table 1.1).²

Nationally, nearly half (46%) of homeless individuals stated that they have a chronic health condition,³ such as hypertension, diabetes, or cancer, all of which require ongoing treatment. Approximately 80% indicated that they were experiencing a disabling condition, such as a physical disability, developmental disability, mental illness, Post-Traumatic Stress Disorder (PTSD), depression, substance abuse, HIV/AIDS, or other chronic health problems.

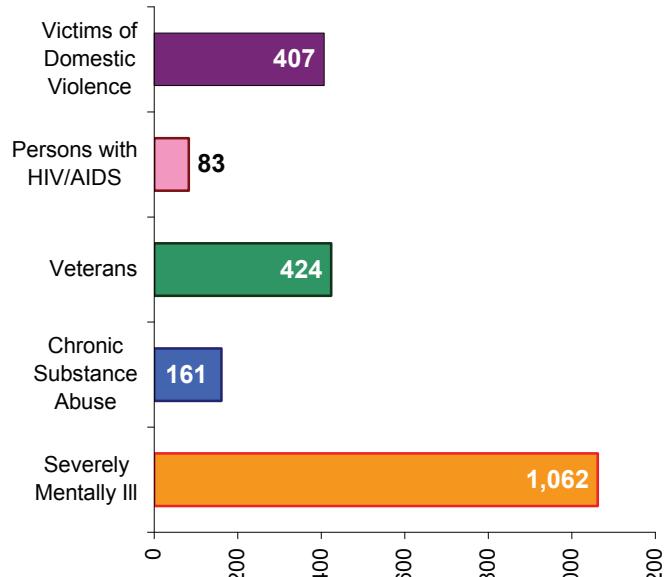
Dr. James O'Connell of the National Healthcare for Homeless Council stated, "Homeless individuals are 3 to 4 times more likely to die than the general population."³

Figure 2.4: Racial/Ethnic Distribution of the Homeless Population, Santa Cruz County, 2007



Source: Homeless Census and Survey 2007²

Figure 2.5: Homeless Subpopulation, 2007



Source: Homeless Census and Survey 2007²

EDUCATION

EDUCATION

How are we doing in Santa Cruz County?

There are 11 public school districts in Santa Cruz County. Pajaro Valley Unified is the largest district, serving just over 50% (19,162) of the 38,062 public school students in Santa Cruz County during the 2006-2007 school year.¹

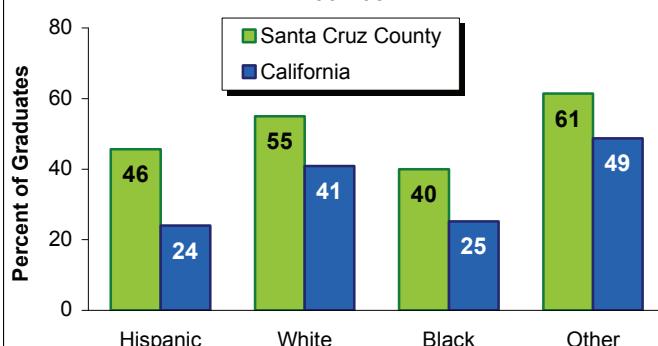
There are also 27 private schools with an enrollment of 6 or more students, serving 4,635 students (11% of K-12 students in Santa Cruz).² In the 2004-05 school year, 52% of Santa Cruz County Public Schools' high school graduates met admission requirements necessary to attend a CSU or UC, compared to 35% of all California public high school students (Figure 2.6).¹

What inequities exist?

By the end of their senior year in high school, 30% of Hispanic students are expected to drop out, compared to 16% of Blacks, 9% of Whites, and 9% of other/multiple race groups.¹ The high dropout rate of Hispanic public high school students likely contributes to the low level of educational attainment in Hispanic adults 25 years and older (Figures 2.7).³

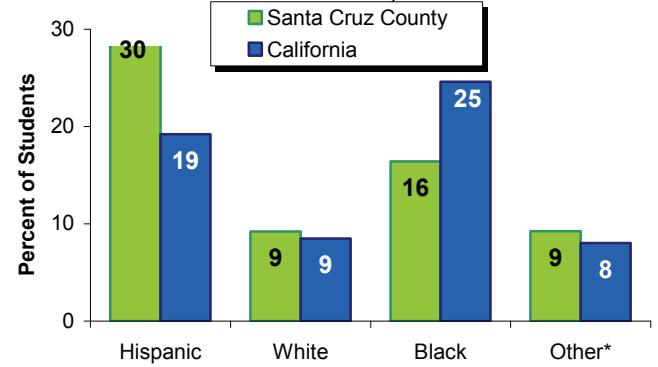
Only 45% of Hispanics over 25 years of age have attained a high school diploma or the equivalent, compared to 94% of Whites, 88% of Blacks, and 86% of other/multiple race groups (Figure 2.8).³

Figure 2.6: High school graduates who have met UC/CSU Admission Criteria by Race/Ethnicity, Santa Cruz County Public Schools, 2004-05



Source: California Department of Education, Ed-Data 04-05¹

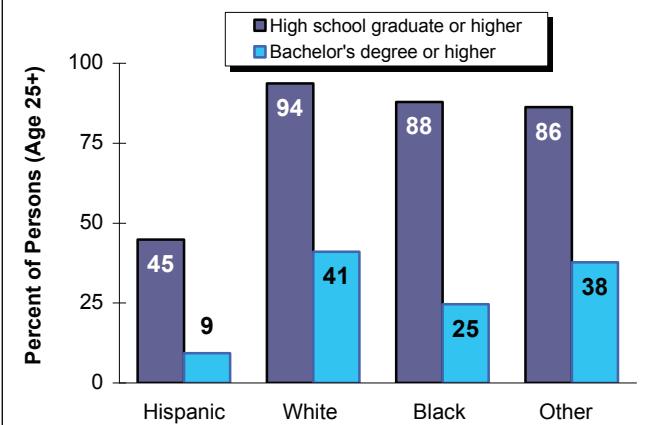
Figure 2.7: Four-Year Dropout Rate by Ethnicity/ Race, Santa Cruz County Public Schools,



* Other includes: Asian, Pacific Islander, Filipino, Native American, multiple races, and non-respondents

Source: California Department of Education Ed-Data 05-06¹

Figure 2.8: Education Attainment of Residents over 25 years old, Santa Cruz County, 2000



Source: 2000 American Community Survey, U.S. Census Bureau³

TRANSPORTATION

TRANSPORTATION

How are we doing in Santa Cruz County?

The transit system in Santa Cruz County is concentrated in the city centers and is less available as a primary source of transportation in more rural parts of the county. However, additional transportation options (e.g., Liftline) exist for seniors and person with disabilities.¹

In Santa Cruz County, 3.1% of working individuals commute to work by bicycle, which is higher than both California and the United States (Figure 2.9).² Notably, the City of Santa Cruz was designated a Silver Level Bicycle-Friendly Community by the League of American Bicyclists in early 2008.³ To improve safe bicycling practices in the county, the Community Traffic Safety Coalition (CTSC) developed a Bicycle Traffic Safety School in 2007 for bicycle traffic offenders.

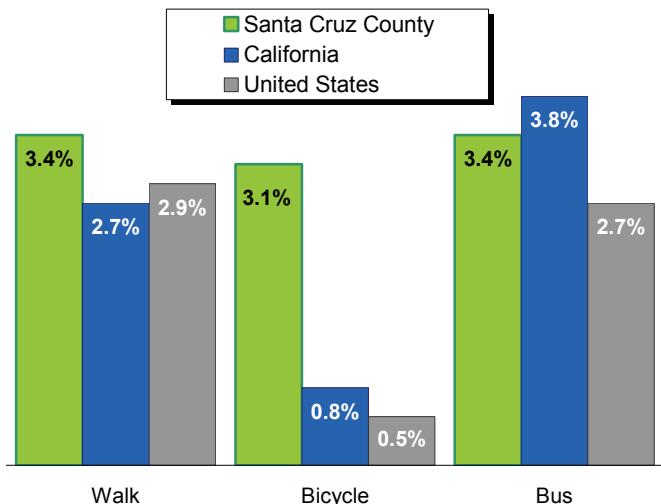
Pedestrian facilities in Santa Cruz County range from large sidewalks in city centers with conveniently located businesses to rural roads without sidewalks. Unfortunately, poor driving behaviors and poorly maintained or absent sidewalks often affect community walkability in Santa Cruz County.^{4,5}

The proportion of working individuals who walk or bike to work is significantly higher in Santa Cruz County than in California or the United States, while the proportion of Santa Cruz County commuters who use the bus is higher than in the United States but lower than in California (Figure 2.9).²

What inequities exist?

When alternatives are limited and a car is unavailable, access to work, nutritious food, necessary medical care, and social networks may be restricted, resulting in negative health effects.

Figure 2.9: Percentage of Working Individuals Who Commuted to Work by Walking, Bicycle or Bus, 2006



Source: U.S. Census Bureau, American Community Survey, 2006²



INCARCERATION

INCARCERATION

How are we doing in Santa Cruz County?

There are 3 facilities that house incarcerated adults in Santa Cruz County (see Figure 2.10). At the Water Street Jail, the percentage of adult inmates who were repeat offenders decreased from 87% in 1997 to 70% in 2006. The percentage of alcohol-related bookings at the Water Street Jail facility has also decreased over the past ten years, from 59% of bookings in 1997 to 39% in 2006.¹

The Santa Cruz County Juvenile Hall is small compared to national facilities. This is likely attributable to changes initiated in 1990 when alternatives to incarceration, such as house arrest and job placements, were made available.²

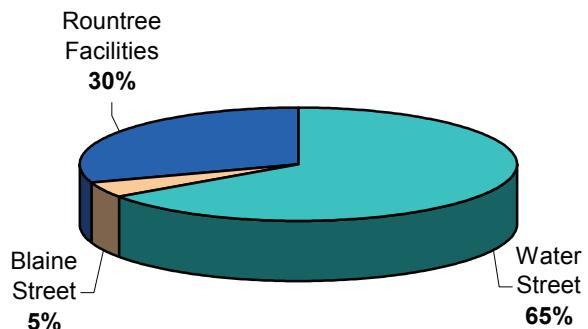
What inequities exist?

Hispanic and Black inmates are over-represented in the jails compared to the general population in Santa Cruz County. For example, the percentage of Black inmates was 4.5 times the percentage of Blacks in the general population, and the percentage of Hispanic inmates was 1.3 times the percentage in the general population, whereas the percentage of Whites was only 0.9 times the percentage of Whites in the general population.¹

In Juvenile Hall, there were 3 male intakes for every female intake in 2007. Between July and December of 2007, 63% of male inmates were Hispanic, 27% were White, 7% were Black and 1% were of another race. Compared to the total population of Santa Cruz County juveniles (aged 12-17 years), the percentage of Black teenage males in the Juvenile Hall population was 7.8 times more than the percentage in the general population, and the percentage of Black females in Juvenile Hall was 4.7 times more than in the general juvenile population.

Another inequity in the Juvenile Hall is the average length of stay (LOS) by racial/ethnic groups. In 2007, the average LOS was 5.4 days longer for Hispanic intakes than for White intakes and 2.9 days longer for Black teens than for White teens (Figure 2.11). One factor that affects a person's LOS is the lack of a responsible parent or guardian at home, which is often due to parents working long hours (such as agricultural work) or because they are already occupied caring for younger children and other family members.¹

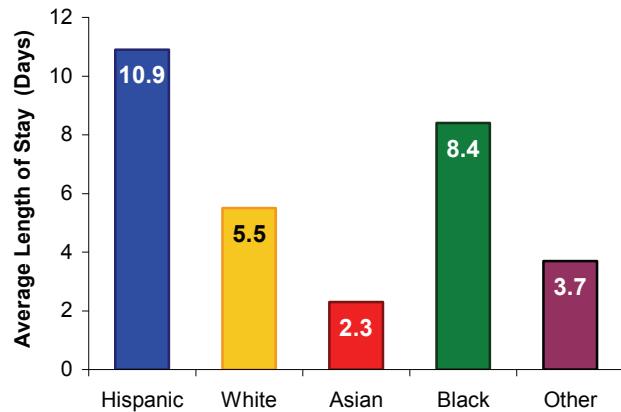
Figure 2.10: Average Daily Jail Population, Santa Cruz County, 2006



Note: The Water Street Facility figure includes pre-trial sentenced men and women; Blaine Street Facility figure includes sentenced women only in medium security; Rountree Lane Facility figure includes sentenced men in medium and minimum security.

Source: Santa Cruz County Sheriff's Office 2007³

Figure 2.11: Average Length of Stay among Juvenile Hall Inmates by Ethnicity/Race, Santa Cruz County, 2007



Source: CLASP Juvenile Hall Quarterly Report 2007⁴

PUBLIC SAFETY

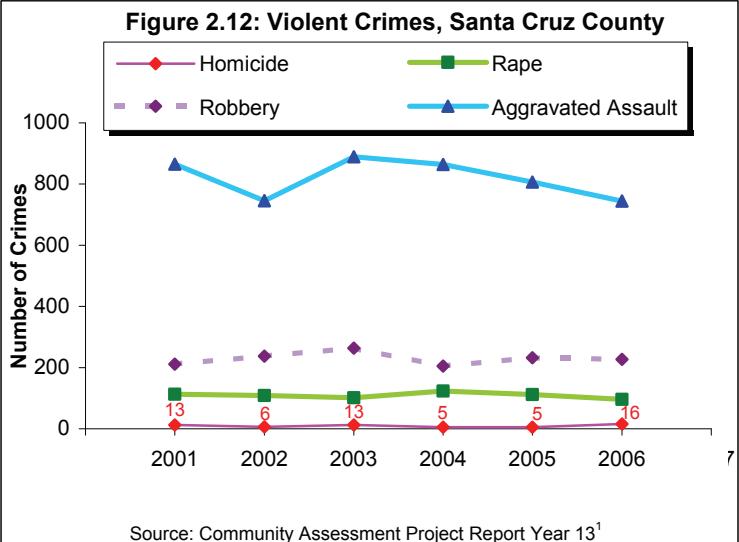
PUBLIC SAFETY

How are we doing in Santa Cruz County?

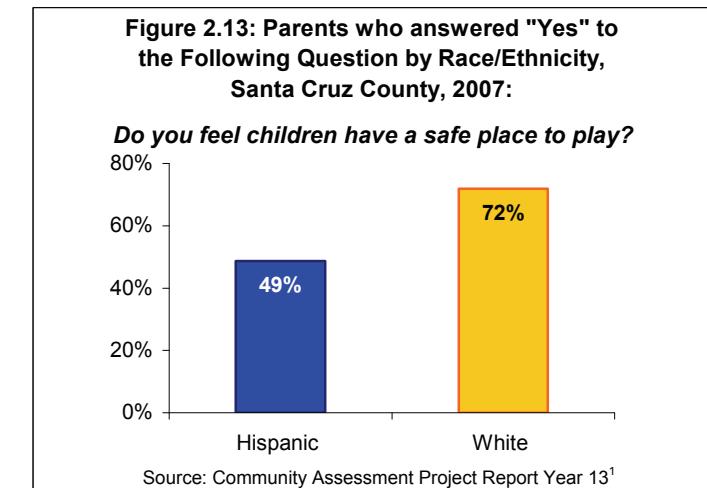
From 1997 to 2006, the overall crime rate in the County decreased from 46 crimes per 1,000 residents to 42.5 crimes per 1,000 residents. The number and rate of violent crimes in Santa Cruz County also decreased during the same time period, from 5.2 crimes per 1,000 residents in 1997 to 4.1 crimes per 1,000 in 2006 (see Figure 2.12 for number of violent crimes by type).¹

What inequities exist?

From 1995 to 2007, the percentage of surveyed Santa Cruz County residents who felt that children had a safe place to play in their neighborhood decreased. In 1995, 84% of respondents felt neighborhood children had a safe place to play, but by 2007 the percentage was 67%. South County residents and Hispanics had the lowest percentage of respondents who felt their neighborhood had a safe place for children to play. Also, those earning \$65,499 or less were significantly more likely to respond that they were very concerned about public safety than those earning \$65,500 or more. This demonstrates that there are disparities between regions, ethnic groups, and income brackets.¹



Source: Community Assessment Project Report Year 13¹



Source: Community Assessment Project Report Year 13¹

Sources:

Economics

1. [2006 American Community Survey](http://factfinder.census.gov/home/saff/main.html?_lang=en). "Santa Cruz County, California." U.S. Census Bureau. <http://factfinder.census.gov/home/saff/main.html?_lang=en>
2. Bureau of Economic Analysis (BEA). "Per Capita Personal Income by County for 2006." US Department of Congress. <<http://www.bea.gov/regional/reis/criss.cfm>>
3. Equal Employment Opportunity (EEO). 1/10/2006. U.S. Census Bureau, Housing and Household Economic Statistics Division. <<http://www.census.gov/eeo2000/>>
4. California Employment Development Department, Santa Cruz County 2006-2008 <<http://www.labormarketinfo.edd.ca.gov/?PAGEID=94>>
5. Labor Market Info. The State of California: Employment Development Department (EDD). <<http://www.labormarketinfo.edd.ca.gov/?pageId=4>>
6. Applied Survey Research, Community Assessment Project, Santa Cruz County. Year 13. Capitola, CA: United Way of Santa Cruz, 2007. <<http://www.santacruzcountycap.org>>

Homeless

1. S. Department of Health and Human Services . Health Resources and Services Administration.2007 Uniform Data Standards (USD) Report. 2007.
2. [2007 Santa Cruz County Homeless Census and Survey ASR](http://www.appliedsurveystudy.org/www/products/2007_Santa_Cruz_Homeless_Report.pdf), Watsonville, CA, 2007. <http://www.appliedsurveystudy.org/www/products/2007_Santa_Cruz_Homeless_Report.pdf>

3. [Homelessness and Health](#), National Health Care for the Homeless Council 2007 Policy Statement.

Education

1. [Ed-data](http://www.ed-data.k12.ca.us/). California Department of Education. <http://www.ed-data.k12.ca.us/>.
2. Enrollment and Staff In California Private Schools 2006-07, California Department of Education. <http://www.cde.ca.gov/ds/si/ps/documents/prvtschlsca0607.pdf>.
3. Fact Sheet for a Race, Ethnicity or Ancestry Group. 2000 American Community Survey. "Santa Cruz County, California." U.S. Census Bureau, Summary File 2 (SF 2) and Summary File 4 (SF 4). http://factfinder.census.gov/home/saff/main.html?_lang=en

Transportation

1. [Guide to Specialized Transportation Services for Seniors & People with Disabilities](#), 2007. The Santa Cruz County Regional Transportation Commission (SCCRTC). March 2007 <<http://www.sccrtc.org/pdf/GUIDE.pdf>>.
2. U.S. Census Bureau, [American Community Survey: Economic Characteristics](#), 2006 Estimates. 15 May 2006. <<http://factfinder.census.gov/>>.
3. [Bike Friendly Community Designation](#), 2007. League of American Bicyclists. 01 May 2008. <<http://www.bikeleague.org/media/press/>>.
4. [Taking a Step in the Right Direction! Placing a Premium on Health by Promoting More Walkable Central Coast Communities](#). The Nutrition and Fitness collaborative of the Central Coast. August 2007. <<http://www.co.monterey.ca.us/health/CommunityHealth/pdfs/TakingAStep.pdf>>.
5. [1999 Santa Cruz County Walk-ability Survey](#). The Nutrition and Fitness collaborative of the Central Coast.

Incarceration

1. Applied Survey Research, Community Assessment Project, Santa Cruz County. Year 13. Capitola, CA: United Way of Santa Cruz, 2007. <<http://www.santacruzcountycap.org>>
2. Quarterly Report For Juvenile Hall. [ClaSP Program](#), 2007. Santa Cruz County Data. Unpublished Data.
3. Santa Cruz County Sheriff's Office Corrections. [Jail Review](#), 2005.<http://www.co.santa-cruz.ca.us/grandjury/GJ2005_final/3%20-%20201%20CJ%20-%20Jail%20Review.htm>

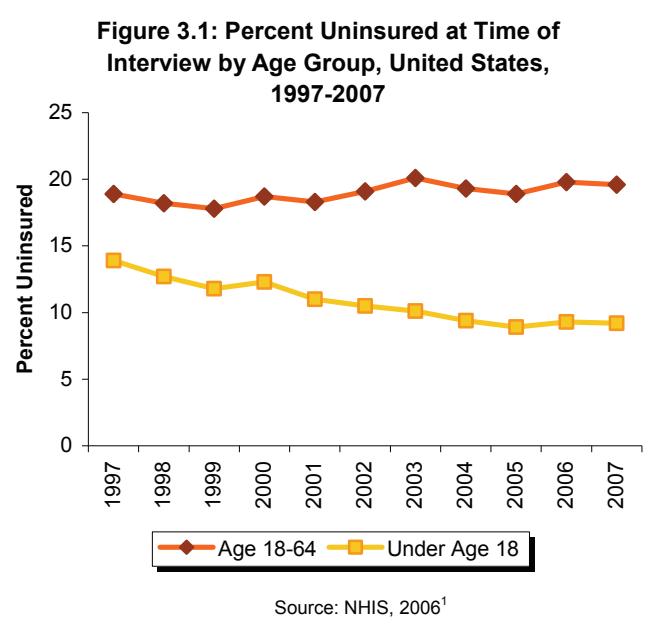
3. HEALTH CARE

Importance	Access to health care is one of the important determinants of good health, and health insurance is a fundamental determinant of access to care. Health care costs are rising much faster than incomes, and faster than other costs of living, making health care increasingly unaffordable for those without insurance. Lack of health insurance leads people to forgo preventive medical care, resulting not only in worse health outcomes but also in greater monetary costs ultimately borne by society as a whole. Moreover, uninsured persons are more likely to seek expensive care at emergency rooms rather than using less expensive primary care practitioners.
How are we doing in Santa Cruz County?	<ul style="list-style-type: none"> ▪ Santa Cruz County has made the choice to insure young children, and 96% of children below age 5 are now covered.⁴ ▪ Uninsured rates among adults in Santa Cruz County are similar to statewide rates at approximately 13% in 2005.⁴ ▪ Although race/ethnicity-specific insurance coverage rates among White and Hispanic adults in California were higher than national levels between 2004 and 2006, overall rates in California were lower than national values during the same time period. This discrepancy is due to the large Hispanic population in California.³ ▪ 23% of Hispanic adults in California were uninsured in 2005, compared to 7% of White adults.⁴ ▪ Lack of dental insurance is common in Santa Cruz County, and DentiCal coverage is threatened with elimination from the State budget.
What inequities exist?	<ul style="list-style-type: none"> ▪ Being Hispanic is the factor most strongly associated with a lack of health insurance coverage. In the United States, Hispanics are 3 times more likely than Whites to be uninsured.
Definitions	<p>Uninsured: Usually refers to those <i>currently</i> without health insurance when asked; sometimes refers to those who were uninsured <i>at some point during the past year</i>.</p> <p>Underinsured: Persons who spent at least 10% of their income on health care (5% for low-income persons), or at least 5% of their income on health insurance deductibles</p>
Healthy People 2010	The Healthy People 2010 goal is health insurance coverage for 100% of the population.

INSURANCE COVERAGE

Since 1997 there has been no significant change in the proportion of Americans between the ages of 18 and 64 living without health insurance.¹ However, children (under age 18) are increasingly likely to be insured; children's uninsured rates have dropped fairly steadily from 14% in 1997 to under 10% in recent years.

Young adults (ages 18 to 24) are the most likely age group to be uninsured (see Figure 3.2). In fact, the percentage of uninsured persons decreases in each successive age group, from 30% in the 18-24 age group to 13% in the 45-64 age group.¹ This may reflect both a lesser perceived need for insurance among young adults and a lesser ability to pay for insurance.



INSURANCE COVERAGE (CONT)

Young men are more likely to be uninsured than young women. The difference is approximately 10% in the 18 to 24 age group, and shrinks in each successive age group until it almost disappears (1%) in the 45 to 64 age group.¹

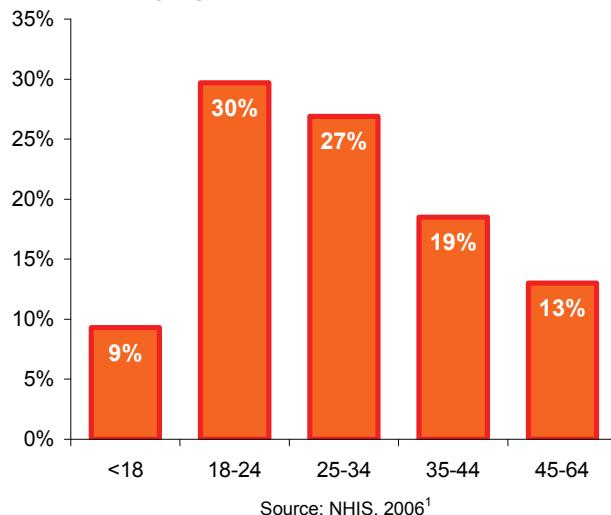
Hispanics are 3 times as likely as Whites to be uninsured – 32% compared to 10% – while the rate among Blacks is 16% (see Figure 3.3).¹

California has a higher proportion of uninsured persons than most other states. Averaged over the years 2004-2006, 19% of California residents were without coverage; the rate for the US as a whole was just 15%, and only five states had higher rates than California.³ Those states were Texas, New Mexico, Florida, Arizona, and Oklahoma, all states with large Hispanic populations. California's high overall rate is partially explained by its high proportion of Hispanics, who have very high uninsured rates. The percentage of White persons in California without insurance was actually lower than the percentage nationwide, and the percentage of Hispanic Californians without insurance was also lower than the national average!³

Santa Cruz County uninsured rates in most age groups are similar to statewide rates, averaging about 20% for ages 0-64, and about 25% for ages 19-64.⁴ However, children age 18 and under in Santa Cruz County have much lower uninsured rates than children statewide: 6%, compared to 11% (Figure 3.4).⁵

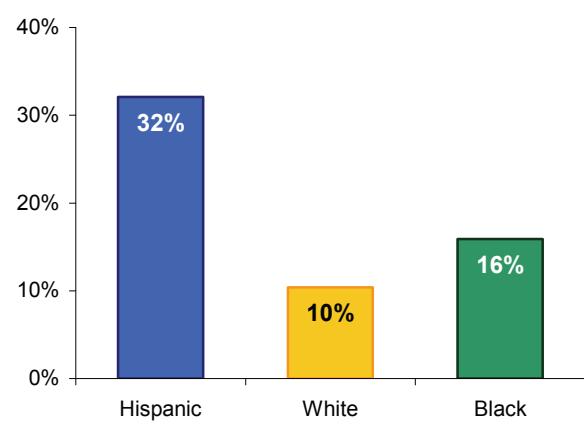
Unfortunately, many people's health insurance coverage does not adequately protect them from high medical expenses. As of 2007, there were an estimated 25 million "underinsured" adults in the United States, a 60 percent increase since 2003.⁶ Underinsured persons are those who spent at least 10% of their income on health care (5% for low-income persons), or at least 5% of their income on health insurance deductibles. Being underinsured is a problem that goes beyond the poor; even among those with annual incomes of \$40,000 to \$59,000, the underinsured percentage reached double digits in 2007. More than half of underinsured persons went without needed care, including not seeing a doctor when sick, not filling prescriptions, and not following up on recommended tests or treatment.

Figure 3.2: Percent Uninsured Persons under 65 by Age Group, United States, 2006



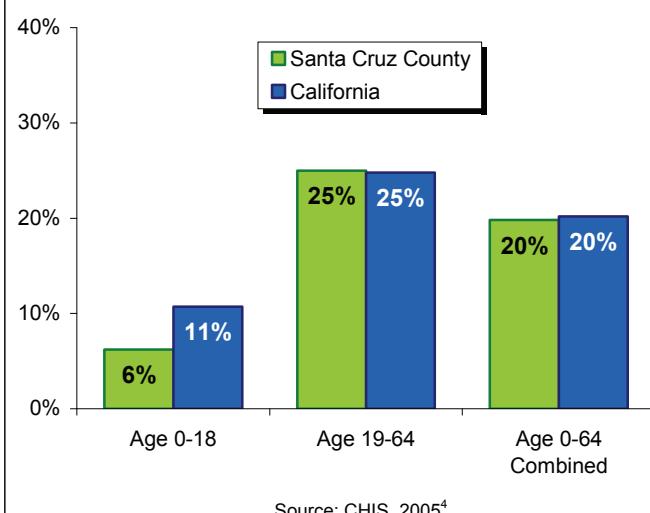
Source: NHIS, 2006¹

Figure 3.3: Persons of All Ages Without Health Insurance, by Race and Ethnicity, United States, 2006



Source: NHIS, 2006¹

Figure 3.4: Percentage of People Without Health Insurance by Age Group, 2005



Source: CHIS, 2005⁴

DENTAL CARE

Dental health is important in its own right, but also contributes in important ways to overall health. Research has pointed to possible associations between chronic oral infections and cardiovascular disease, stroke, fatal heart attacks, bacterial pneumonia, and premature birth, as well as making the control of diabetes more difficult.⁷ In addition, attentive oral health care can contribute to early detection of a wide variety of other illnesses. A thorough oral examination can detect signs of nutritional deficiencies as well as a number of systemic diseases, including microbial infections, immune disorders, injuries, and some cancers.⁷

Dental health is a challenge in Santa Cruz County, particularly due to the county's inability as yet to establish a drinking water fluoridation program. Lack of dental health insurance coverage is more widespread than lack of medical health insurance. The percentage of children (aged 2 to 10) without dental insurance was higher in Santa Cruz County (27%) than statewide (21%).⁸ Some of the same nutritional issues that contribute to overweight and obesity also contribute to poor dental health.

The Dientes program provides emergency, preventive, and restorative services to uninsured and MediCal (DentiCal) patients. Dientes provides over 16,000 visits annually to over 5,000 individual patients. One fourth of the patients are children; the majority of the rest are in the 40-64 age group. Half are MediCal patients, and 10% have Healthy Kids/Healthy Families coverage; others pay sliding rates, typically 10-25% of the Usual and Customary Rates ordinarily charged by dentists to insured or self-paying patients. The County of Santa Cruz also provides some funding through the Homeless Persons Health Project and the Human Services Department.

Unfortunately, Dientes' resources are limited. Of the 37,000 MediCal enrollees in the county, Dientes can only provide service to about 10%. Moreover, there is virtually no other source of specialized dental care in the county for underinsured patients; those needing root canals and other special services must usually travel out of the county when Dientes does not have sufficient resources to serve them. Making matters worse, the State budget proposes to eliminate the DentiCal benefit entirely, which would take \$1.2 million from Dientes' revenues, a substantial majority of their operating budget.



Sources:

1. NHIS. Early Release of Selected Estimates Based on Data from the 2006 National Health Insurance Survey. <http://www.cdc.gov/nchs/data/nhis/earlyrelease/insur200706.pdf>
2. United States Census Bureau. Historical Table HIA-1, Health Insurance Coverage by Race and Hispanic Origin: 1999 to 2006. <http://www.census.gov/hhes/www/hlthins/historic/hihist1.html>
3. United States Census Bureau. Current Population Survey, 2005-2007 Annual Social and Economic Supplements.
4. California Health Interview Survey 2005. <http://www.chis.ucla.edu/main/default.asp?timeout=1>
5. UCLA Center for Health Policy Research. *Santa Cruz County Health Insurance Coverage, the Lack of Coverage, and Demographic Characteristics*. March 2007. Based on CHIS 2005 data. <http://www.healthpolicy.ucla.edu/pubs/files/SantaCruzCounty.pdf>
6. C. Schoen, S. R. Collins, J. L. Kriss, and M. M. Doty. "How Many Are Underinsured? Trends Among U.S. Adults, 2003 and 2007." *Health Affairs* Web Exclusive, June 10, 2008. <http://content.healthaffairs.org/cgi/content/abstract/hlthaff.27.4.w298>
7. US Department of Health and Human Services, US DHHS, National Institute of Dental and Craniofacial Research, NIH. *Oral Health in America: A Report of the Surgeon General*. 2000. <http://www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/sgr/>
8. Children Now. *2007 California County Data Book*. 2008. http://publications.childrennow.org/publications/invest/cdb07/databook_2007.cfm

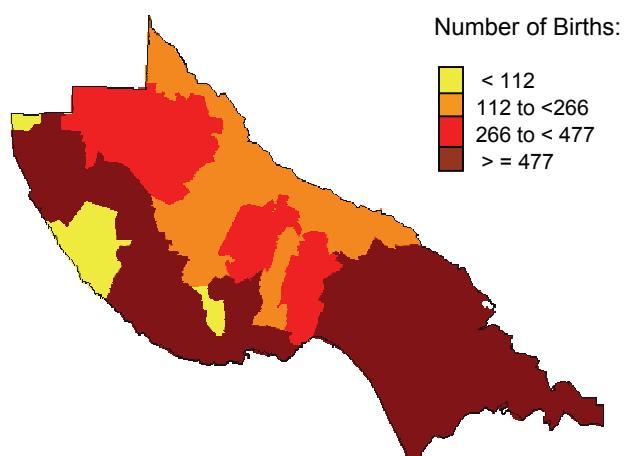
4. MATERNAL & INFANT HEALTH

Importance	"The health of mothers, infants, and children is of critical importance, both as a reflection of the current health status of a large segment of the U.S. population and as a predictor of the health of the next generation." ¹
How are we doing in Santa Cruz County?	<ul style="list-style-type: none"> ▪ In 2006, Santa Cruz County's teen birth rate of 30.7 births per 1,000 female teens (ages 15-19) ranked 36th highest among California's 58 counties.² ▪ Both early and adequate prenatal care rates have been significantly increasing over time. Between 2003 and 2005, Santa Cruz County ranked 5th and 6th for the greatest proportion of mothers receiving early and adequate care, respectively.³ ▪ Infant mortality rates in Santa Cruz County have not changed significantly between 1994 and 2005, while statewide rates have significantly improved.⁴ ▪ The percentage of low birth-weight babies born in Santa Cruz County is significantly lower than in the state and nation, although we have not met the 2010 national objective.³ ▪ In 2006, 96% of Santa Cruz County babies born in hospitals were breastfed at the time of their birth, compared to the statewide rate of 87%.⁵
What inequities exist?	<ul style="list-style-type: none"> ▪ In 2006, 87% of teen births (ages 15-19) were among Hispanic teenage girls.⁶ ▪ Between 2001 and 2005, the average proportion of teen births among Hispanic teens was more than 10 times the proportion among White teens.⁴ ▪ Birth rates among White teenagers continuously declined from 1997 to 2005, while birth rates among Hispanic teenagers did not change significantly between 2000 and 2005.⁴ ▪ Initial exclusive breastfeeding rates are much lower among Hispanic infants than White infants, at 57% versus 85% respectively.⁵
Healthy People 2010 Objectives	<p>Prenatal Care:</p> <ul style="list-style-type: none"> - 90% of all pregnant women should receive prenatal care in the first trimester of pregnancy - 90% of all pregnant women should receive early and adequate prenatal care <p>Mortality:</p> <ul style="list-style-type: none"> - Infant Mortality: 4.5 deaths per 1,000 births <p>Birth Weight:</p> <ul style="list-style-type: none"> - Low Birth Weight Births: 5% - Very Low Birth Weight Births: 0.9%

There were 3,570 births to Santa Cruz County residents in 2007, for a crude birth rate of 13.5 births per 1,000 total population. The Santa Cruz County crude birth rate has been lower than the California rate since 1994, and both rates have decreased significantly since then. However, Hispanic birth rates are significantly higher in Santa Cruz County than statewide. Although both state and local rates decreased significantly from 1994 to 1999, the state trend has continued to decrease, while the Santa Cruz County trend has remained unchanged.⁴ Figure 4.1 shows the geographical distribution of the total number of births among Santa Cruz County mothers by their ZIP code. The largest number of births tends to be in the areas of the county where the population is denser.

Of note, fertility rates among women aged 40 to 49 have significantly increased in both Santa Cruz County and California between 1994 and 2005.⁴

Figure 4.1: Total Number of Births by Mother's ZIP Code, Santa Cruz County, 2003 - 2005



Source: IPODR-CCPR Santa Cruz, December 10, 2007⁸

TEEN BIRTHS (AGE 15-19)

According to a report on teen births in California by the Public Health Institute (2008),² the annual total net cost to taxpayers for teen births in California was \$1.7 billion between 2004 and 2006. This calculation covers costs such as public assistance, costs for increased foster placement and incarceration, and lost tax revenues from lower future incomes. The total annual net cost to society was estimated to be \$3.8 billion, which also includes estimated losses in earnings of teen mothers, fathers, and children when they reached young adulthood, as well as privately paid medical costs. In Santa Cruz County alone, the annual total net cost to taxpayers was estimated to be \$11 million annually for the same time period, and \$23 million per year in societal costs.

In 2006, Santa Cruz County had a rate of 30.7 live births per 1,000 teenage women (aged 15 to 19).² Between 1994 and 1997,⁴ both Santa Cruz County and the state saw significant decreases in teen births. Although rates continued to decline statewide until 2003, teen births in Santa Cruz County remained steady since 1998.

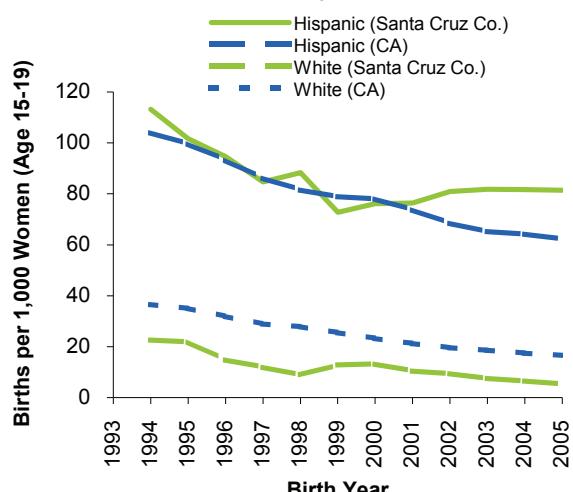
Like overall birth rates, Hispanic teen birth rates are much higher than White teen birth rates.⁴ The Hispanic teen birth rate in Santa Cruz County has stabilized at 68.5 births per 1,000 teens, while the White teen birth rate has continued to steadily decline with 7.3 births per 1,000 teens in 2007. Thus, the disparity in teen birth rates by ethnicity has actually increased since 1998. This contrasts with the rest of California, which has successfully reduced Hispanic teen birth rates from 81.6 in 1998 to 62.2 births per 1,000 teens in 2005.

There are few social demographics that define a future life for an adolescent girl as significant as having a baby as a teenager. Teen mothers are significantly less likely to graduate from high school, go to college, and become self-sufficiently employed. Teenage motherhood is a significant contributor to continuing a cycle of poverty from one generation to the next. This is a health outcome for which prevention is crucial for the future of children, families, and society.

PREGNANCY CARE

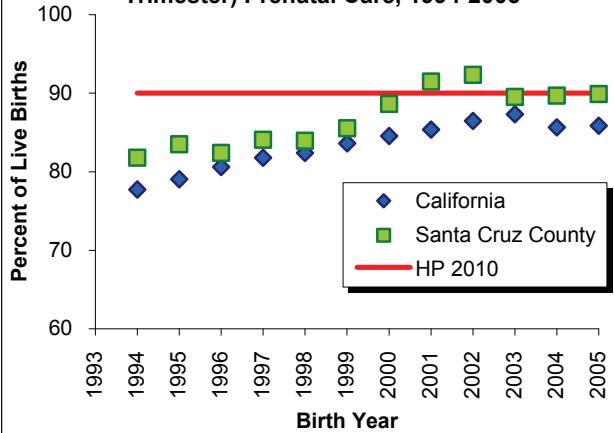
Santa Cruz County has seen a significant increase in the percentage of new mothers who received prenatal care in the first trimester of pregnancy,⁴ from 82% in 1994 to 90% in 2005 (see Figure 4.3). Santa Cruz County has reached the Healthy People 2010 objective and is doing significantly better than the state overall. The Santa Cruz County upward trend is significant among White, Hispanic, Asian, and Black women. However, the trend among Hispanic women has leveled off since 2002 and has remained below the national objective between then.

Figure 4.2 Teen Birth Rates by Race/Ethnicity, 1994-2005



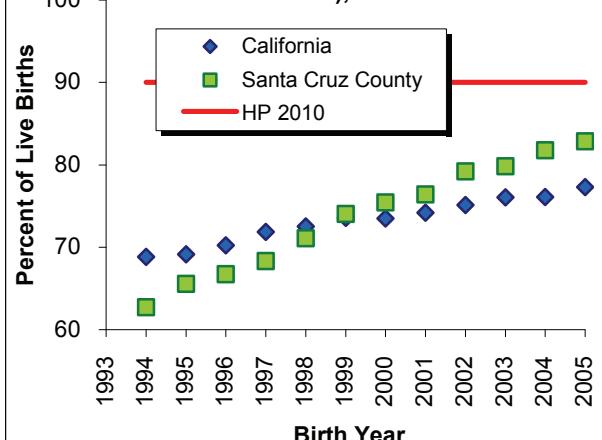
Source: UC San Francisco, FHOP, accessed June 2008⁴

Figure 4.3: Mothers Who Received Early (1st Trimester) Prenatal Care, 1994-2005



Source: UC San Francisco, FHOP, accessed June 2008⁴

Figure 4.4: Mothers Who Received Adequate Prenatal Care (using the Kotelchuk Index), 1994-2005



Source: UC San Francisco, FHOP, accessed June 2008⁴

PREGNATAL CARE (CONT)

Adequate prenatal care is measured using the Kotelchuk Index, which is based on the month prenatal care began and the number of visits attended, as recommended by the American College of Obstetrics and Gynecology. In 1994,⁴ Santa Cruz County had a significantly lower percentage of women receiving adequate prenatal care than the rest of the state (see Figure 4.4). However, since then Santa Cruz County has seen an increasing trend, with rates surpassing California rates since 1999. Although this upward trend can be seen in all racial and ethnic groups of Santa Cruz County, approximately 10% fewer Hispanic females receive adequate prenatal care compared to White females.

INFANT MORTALITY

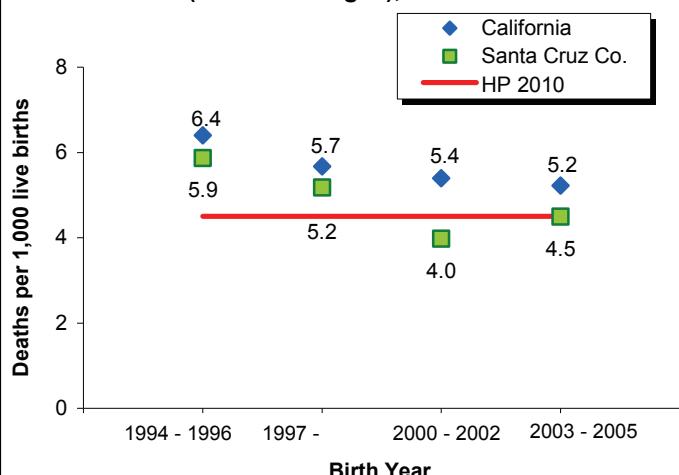
Infant mortality is an important measure of a nation's health and a worldwide indicator of health status and social well-being. Since 1994-1996,⁴ both California and Santa Cruz County have seen a downward trend in infant mortality (see Figure 4.5). In fact, the three-year average rates in Santa Cruz County have met the 2010 national objective since 2000-2002. Sudden Infant Death Syndrome (SIDS) is a traumatic cause of infant mortality. Between 1999 and 2004, 3 infant deaths due to SIDS occurred in Santa Cruz County.⁹

LOW & VERY LOW BIRTH WEIGHT

Low birth weight babies start out life with greater odds of having health problems during the newborn period as well as later in life, with greater risk of neurological problems, learning disabilities, and both acute and chronic disease. Many of these babies require specialized care in a neonatal intensive care unit. Serious medical problems are most common in babies born at very low birth weight.

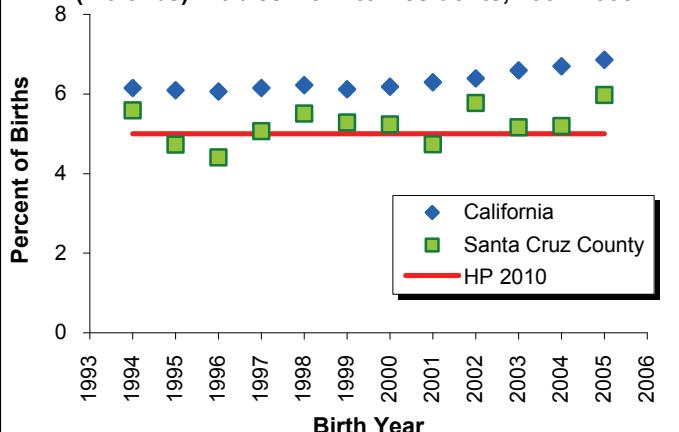
In Santa Cruz County,⁴ the proportion of low and very low birth weight babies born has fluctuated above and below the Healthy People 2010 objectives over the years. The low birth weight rates in Santa Cruz County have remained lower than the state overall, and the very low birth weight rates have been more variable over the years (Figure 4.6 and 4.7).

**Figure 4.5: Infant Mortality Rates
(3 Year Averages), 1994-2005**



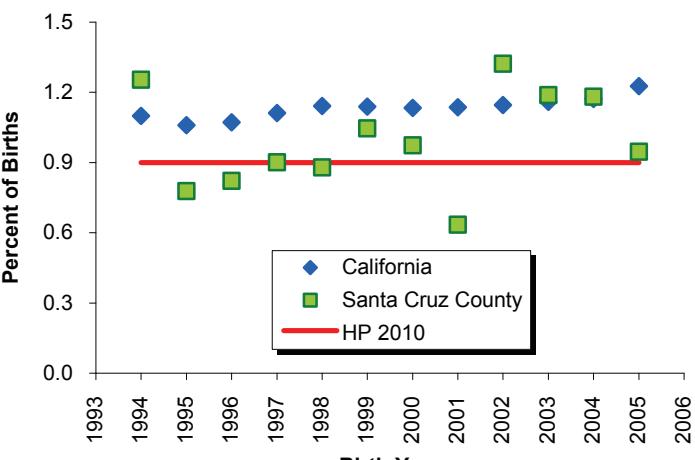
Source: UC San Francisco, FHOP, accessed June 2008⁴

Figure 4.6: Percentage of Low Birth Weight



Source: UC San Francisco, FHOP, accessed June 2008⁴

Figure 4.7: Percentage of Very Low Birth Weight



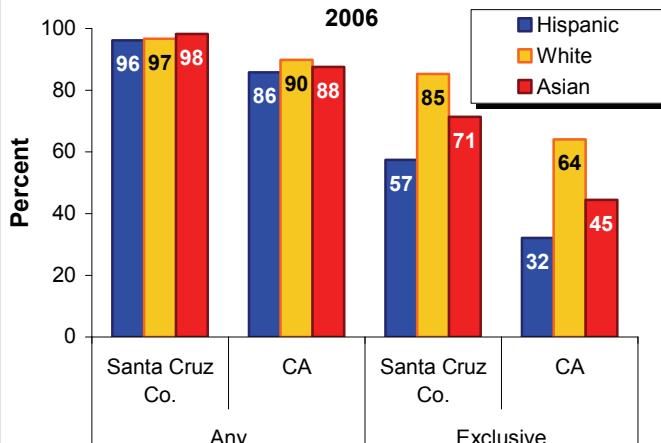
Source: UC San Francisco, FHOP, accessed June 2008⁴

BREASTFEEDING

The California Women Infants and Children Association and the University of California, Davis Human Lactation Center¹⁰ assert that breastfeeding is an important first step in improving health throughout life for both the mother and child. Studies have shown that breastfed children have a lower risk for acute infections, overweight, and chronic diseases (e.g., diabetes and asthma). The benefits of breastfeeding are greatest when babies are breastfed *exclusively*, compared to *any* breastfeeding (i.e., supplemented with additional foods and/or fluids).¹ Santa Cruz County has very high rates of *any* initial breastfeeding at 96% of births in local hospitals,⁵ and the rates by ethnicity/race do not differ significantly. However, when assessing *exclusive* breastfeeding rates at initiation, rates are much lower among Hispanic women at 57% compared to White women at 85% (Figure 4.8).

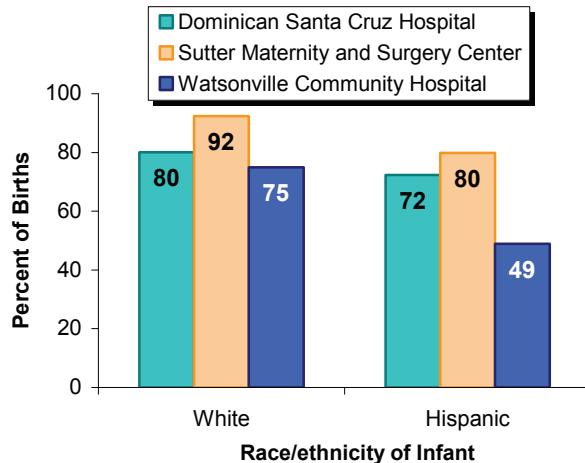
The location where the child is born also seems to make a difference in exclusive breastfeeding rates; this is likely a combination of hospital practices and the socioeconomic and cultural differences among patients. In Santa Cruz County,⁵ the overall rates of exclusive breastfeeding were highest among mothers at Sutter Maternity and Surgery Center, followed by Dominican Santa Cruz Hospital and then Watsonville Community Hospital, at 88%, 77%, and 50% respectively in 2006. When viewing the rates by race/ethnicity, the order of rates stays the same, but the difference between Whites and Hispanics becomes more apparent. The differential of rates within Watsonville Community Hospital is largest (see Figure 4.9).

Figure 4.8: "Any" versus "Exclusive" Breastfeeding Initiation Rates among In-Hospital Births by Newborn's Ethnicity/Race, 2006



Source: CDPH⁵

Figure 4.9: "Exclusive" Breastfeeding Rates at Initiation by Hospital, Santa Cruz County, 2006



Source: CDPH⁵

Sources:

- U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.
- Constantine, Norman. Public Health Institute . Center for Research on Adolescent Health and Development. No Time for Complacency: Teen Births in California. 2008.
- "CHSP County Sheets." County Health Status Profiles 2007. California Department of Public Health (CDPH). 17 Jun 2008 <<http://www.cdph.ca.gov/programs/OHIR/Pages/CHSPCountySheets.aspx>>
- "California County MCAH Data, Santa Cruz County." Family Health Outcomes Project 2007. University of California, San Francisco. 4 Jun 2008 <http://www.ucsf.edu/fhop/_htm/ca_mcah/counties/44santacruz.htm>
- California. Department of Public Health. California In-Hospital Breastfeeding as Indicated on the Newborn Screening Test Form Statewide, County and Hospital of Occurrence by Race/Ethnicity: 2006. Sacramento: 2007.
- County of Santa Cruz. Maternal and Child Health. Birth Certificate Summary & Perinatal Indicators 2006. Santa Cruz, CA: 2007.
- County of Santa Cruz, Vital Statistics. 2007 Birth Files (unpublished).
- "IPODR - California County Profile Report." Santa Cruz County. 2005. California Dept. of Public Health. 4 Jun 2008 <<http://ipodr.org/087/vs/index.html>>
- "SIDS Facts." California SIDS Program. September 2006. California Dept. of Health Services, MCAH/OFP Branch. 4 Jun 2008 <<http://www.californiasids.com/UploadedFiles/forms/County%20Data%201999-2001.xls>>
- A Policy Brief on California Breastfeeding and Hospital Performance. California WIC Association and the UC Davis Human Lactation Center. November 2007.

5. TOBACCO, ALCOHOL & SUBSTANCE ABUSE

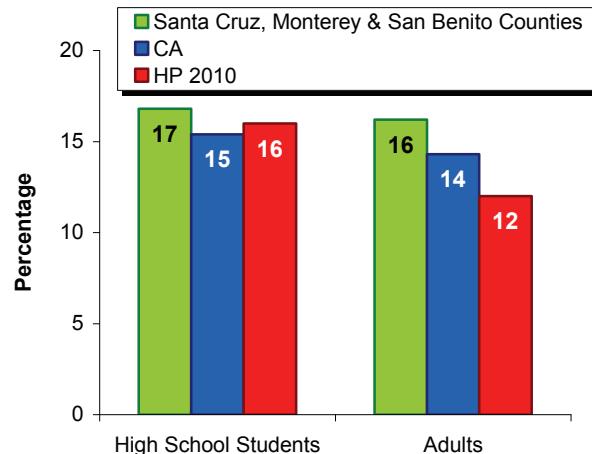
Importance	Alcohol, tobacco, and illegal drug use threaten users with many negative health-related consequences—not only cancers, cardiovascular diseases, cirrhosis, and stroke, but also fatal and nonfatal overdose, hepatitis, bacterial endocarditis, HIV infection and AIDS, and other diseases associated with high-risk behavior and sexual transmission. It is difficult to assess all of the complex and sometimes reciprocal linkages between illegal drug use and negative health and social experiences, but there is little doubt that illegal drug use contributes to a disproportionate probability of arrest, conviction, and incarceration for members of racial/ethnic minority populations in the United States and to associated health and social disparities.
What inequities exist?	<ul style="list-style-type: none"> ▪ Binge drinking (more than 5 drinks during the same occasion) is nearly twice as prevalent among adult males as among adult females.¹ ▪ In California, 21% of Hispanics reported binge drinking, as opposed to 18% of Whites.¹
How are we doing in Santa Cruz County?	<ul style="list-style-type: none"> ▪ Both Santa Cruz County teens and adults have higher smoking rates than their statewide counterparts.² ▪ In 2006, smokeless tobacco use among adolescents increased more than two times the rate in 2004.² ▪ Substance abuse rates in Santa Cruz County are similar to rates statewide for adolescents.³
Healthy People 2010 Objectives	<p>Tobacco</p> <ul style="list-style-type: none"> ▪ Reduce current cigarette use among adults to 12% ▪ Reduce current cigarette use among high school students to 16% ▪ Reduce current smokeless tobacco use among high school students to 1% <p>Alcohol</p> <ul style="list-style-type: none"> ▪ Reduce adolescent binge drinking in the past month to 3.1% ▪ Reduce adult binge drinking in the past month to 13.4% <p>Substance Abuse</p> <ul style="list-style-type: none"> ▪ Inhalant Use of Adolescents 2.2% ▪ Adolescent past month use of marijuana 0.7% ▪ Adult past month use of an illicit drug 3.2%

TOBACCO

According to the American Lung Association,⁴ cigarette smoking has been identified as the most important source of preventable morbidity and premature mortality worldwide. Smoking-related diseases claim an estimated 438,000 American lives each year (18% of all U.S. deaths), including those affected indirectly, such as babies born prematurely due to prenatal maternal smoking, and victims of “environmental” exposure to tobacco carcinogens.

Although tobacco is a legal product, it contains a physically addicting chemical, nicotine. Cigarette smoke contains over 4,800 chemicals, 69 of which are carcinogens that harm not only the smoker but also those exposed to environmental smoke. Side-stream smoke is unfiltered, unlike secondhand smoke, and can contain such things as benzene, arsenic, and numerous nitrogen compounds.

Figure 5.1: Percent of Current* Cigarette Smoking Among High School Students and Adults, 2006



* Current is defined differently for adults and H.S. students. For H.S. students, it is defined as smoking on 1+ days of the 30 days prior to the survey. For adults, it is defined as the percentage of adults who report ever having smoked 100+ cigarettes in their entire life and who now smoke either every day or some days.

Source: C-STATS, 2006²

TOBACCO (CONT)

Smoking⁴ is directly responsible for approximately 90 percent of lung cancer deaths and 80-90 percent of Chronic Obstructive Pulmonary Disease (COPD). Smoking is also a significant contributor to heart disease, infertility, and low birth weight babies.

The State of California has developed and enforced a series of anti-smoking laws that prevent smoking in public and semi-private areas, including restaurants, bars, and workplaces. Anti-smoking legislation is seen as a way to prevent second-hand smoke-related health problems, and makes smoking a less attractive habit.

In Santa Cruz County, Monterey and San Benito counties,² both adults and adolescents are more likely to be current smokers compared to the state as a whole. In fact, neither age group has met the Healthy People 2010 objectives as of 2006 (Figure 5.1). Also of note, is the sharp increase in smokeless tobacco use among adolescents (Figure 5.2).

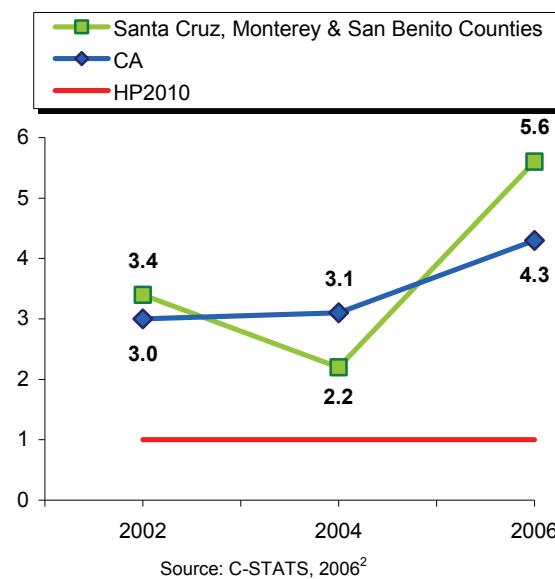
ALCOHOL

Drinking alcohol has immediate effects that can increase the risk of many harmful health conditions.⁵ Excessive alcohol use, either in the form of heavy drinking (drinking more than two drinks per day on average for men or more than one drink per day on average for women), or binge drinking (drinking 5 or more drinks during a single occasion for men or 4 or more drinks during a single occasion for women), can lead to increased risk of liver disease, certain cancers, overweight/obesity, and intentional or unintentional injuries.

According to national surveys,⁵ over half of the adult US population drank alcohol in the past 30 days. Approximately 5% of the total population drank heavily, while 15% of the population binge drank. From 2001-2005, there were approximately 79,000 deaths annually in the United States attributable to excessive alcohol use. In fact, excessive alcohol use is the third leading lifestyle-related cause of death for people in the United States each year.

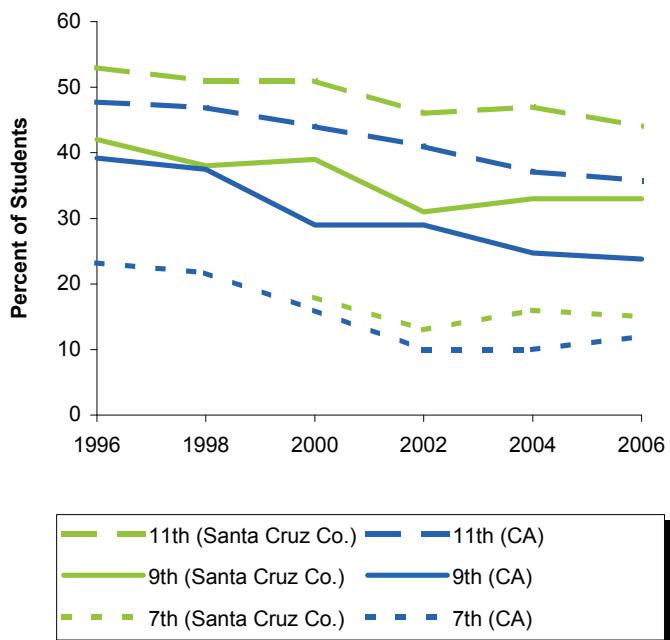
Between 2002 and 2006,⁶ there were 17 fatalities and 631 injuries due to vehicle collisions in Santa Cruz County in which a law enforcement officer described driving under the influence of alcohol and/or drugs as the main cause of the collision.

Figure 5.2: Smokeless Tobacco Prevalence Among High School Students, 2002-2006



Source: C-STATS, 2006²

Figure 5.3: Percent of 7th, 9th, and 11th graders who reported using Alcohol in the last 30 days, 1996-2006



Source: The American Drug and Alcohol Survey and The California Healthy Kids Survey via CAP 2007⁹

ALCOHOL (CONT)

Statewide rates of alcohol consumption among adolescents have been decreasing.³ However, Santa Cruz County's reductions in alcohol consumption have been smaller than the state's, and Santa Cruz County has had higher alcohol consumption rates than the state for each grade (7th, 9th, and 11th) in all the years surveyed between 1998 and 2006 (see figure 5.3). Note the percentage of students regularly consuming alcohol increases with age/grade.

Locally, Project CURB (Communities United to Reduce Bingeing) has been working to reduce binge drinking among the youth of Santa Cruz County.⁷ Project CURB is led by Together for Youth/Unidos Para Nuestros Jovenes (TYF/UPNJ), a United Way of Santa Cruz County-led initiative. The goal of Project CURB is to reduce underage youth binge drinking rates by 50% by the year 2009. Supporting policies to alter the environment and culture in Santa Cruz County in regards to underage use of mind-altering or harmful substances is crucial.

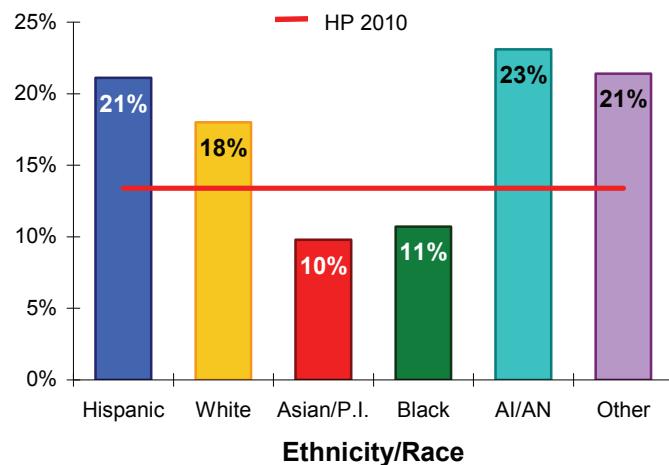
Among adults, the proportion who binge drink decreases with age. Also, men are nearly twice as likely as women to have been binge drinking in the last 30 days. These trends are seen in Santa Cruz County and statewide. In California, differences in binge drinking rates can be seen when stratifying by racial/ethnic groups. For example, Hispanics are significantly more likely to binge drinking than White, Asian/Pacific Islander, and Black adults. American Indians/Alaska Natives and other/multiple race groups have the highest proportions of binge drinkers.

SUBSTANCE ABUSE

Although initial drug use might be voluntary, drugs of abuse have been shown to alter gene expression and brain circuitry, and consequently affect human behavior. When drug abuse takes over, a person's ability to exert self-control can become seriously impaired. Brain imaging studies from drug-addicted individuals show physical changes in areas of the brain that are critical to judgment, decision making, learning and memory, and behavior control.

The impact of addiction can be far-reaching. Cardiovascular disease, stroke, cancer, HIV/AIDS, hepatitis, and lung disease can all be affected by drug abuse. Some of these effects occur when drugs are used at high doses or after prolonged use; however, some may occur after just one use.

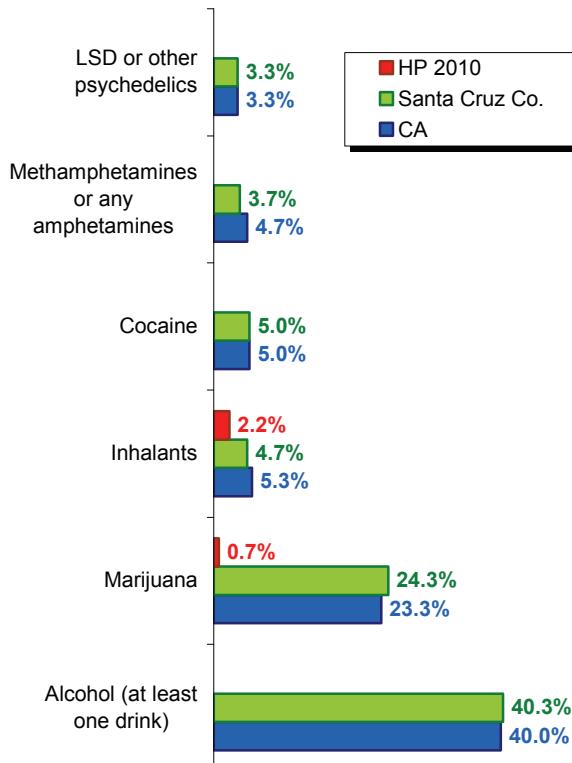
Figure 5.4: Percent of Adults* who Binge Drank during the previous 30 days, California, 2005



*Adults who have ever had more than a few sips of alcohol.

Source: CHIS, 2005¹

Figure 5.5: Percent of 9th, 11th and Non-traditional High School Students who Consumed the Following Substances in the 30 days prior to the survey, 2004-2006



Source: California Healthy Kids Survey, 2004-2006³

SUBSTANCE ABUSE (CONT)

Scientists believe that these changes alter the way the brain works, and may help explain the compulsive and destructive behaviors of addiction.

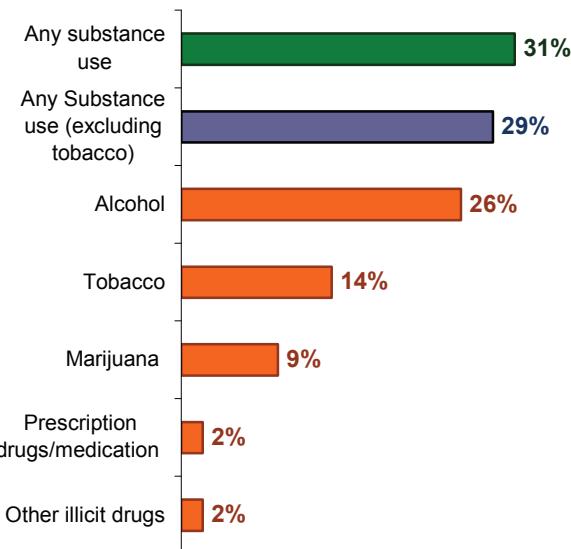
The proportion of high school students in Santa Cruz County³ who have recently used illicit substances is similar to that which is seen statewide. However, both substance use and alcohol consumption rates are far from the 2010 national objectives.

PREGNATAL ALCOHOL & SUBSTANCE ABUSE

When a pregnant woman drinks alcohol, smokes cigarettes, or uses drugs, so does her unborn baby. Prenatal exposure to alcohol can cause physical, mental, behavioral, and/or learning disabilities with possible lifelong implications. There is no known safe amount of alcohol to drink while pregnant, and there does not appear to be a safe time to drink during pregnancy. It is recommended that women abstain from drinking alcohol while pregnant. Smoking cigarettes while pregnant is significantly associated with lower birth weight. Babies born to substance-abusing mothers need early identification and intervention.

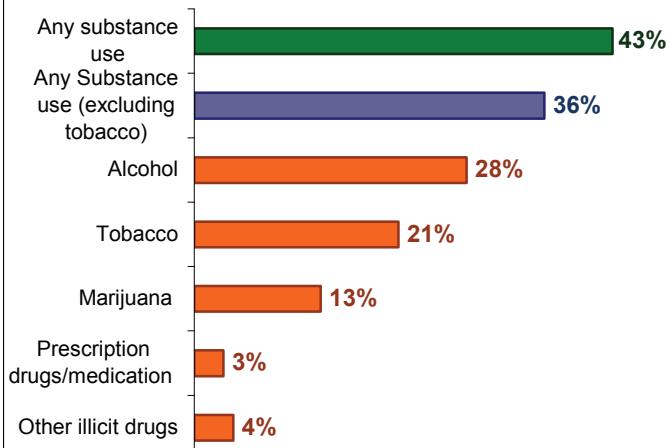
In Santa Cruz County, among the 1,117 pregnant women who were screened for substance abuse between November 2006 and March 2008, 31% consumed alcohol, tobacco, and/or illicit drugs within the month prior to learning they were pregnant. Of those 351 women who reported using a substance prior to knowing they were pregnant, 153 women (43%) continued to use alcohol, tobacco, and/or illicit drugs after knowing they were pregnant (see Figures 5.5 and 5.6).

Figure 5.6: Substance Abuse Rates among 1,117 Women Before Knowledge of Pregnancy Status, Santa Cruz County, Nov. 2006 - Mar. 2008



Source: County of Santa Cruz, MCH Program, 4 P's Plus Screening Tool, 2006-2008

Figure 5.7: Continued Substance Abuse Rates among the 351 Women with Positive Screens*, Santa Cruz County, Nov. 2006 - Mar. 2008



* Positive Screens are initial screens where any substance was used in the month prior to knowing pregnant.

Source: County of Santa Cruz, MCH Program, 4 P's Plus Screening Tool, 2006-2008

Sources:

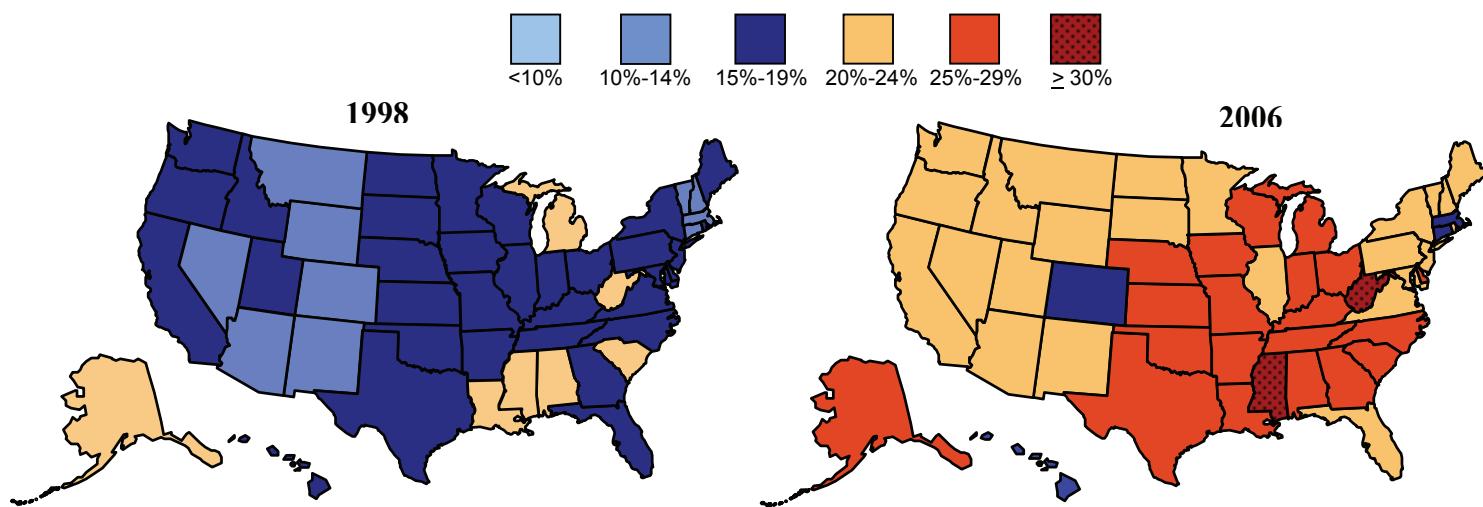
1. "2005 California Health Interview Survey." AskCHIS. 2005. UCLA Center for Health Policy Research. 23 Jul 2008 <<http://www.chis.ucla.edu>>.
2. California Department of Public Health/California Tobacco Control Program- C-STATS Website, "Youth (and adult) Smoking Prevalence". <http://www.estats.info/> (accessed June 15, 2008)
3. "Santa Cruz County Technical Report 2004-2005 & 2005-2006." [West Ed / Healthy Kids](http://www.wested.org/chks/pdf/rpts_dl/0406s_44_44.pdf). 17 Apr 2008. California Safe and Healthy Kids Program Office. 30 May 2008 <http://www.wested.org/chks/pdf/rpts_dl/0406s_44_44.pdf>.
4. "Trend in Tobacco Use." June 2007. American Lung Association. 30 May 2008 <http://www.lungusa.org/atf/cf%7B7A8D42C2-FCCA-4604-8ADE-7F5D5E762256%7D/TREND_TOBACCO_JUNE07.PDF>.
5. "Alcohol & Public Health." 02 Apr 2008. Centers for Disease Control and Prevention; Health Resources and Services Administration. 15 Jun 2008
6. "2006 Annual Report of Fatal and Injury Motor Vehicle Traffic Collisions." [CHP - Statewide Integrated Traffic Records System \(SWITRS\)](http://www.chp.ca.gov/switrs/index.html). 2008. California Highway Patrol. 30 May 2008 <<http://www.chp.ca.gov/switrs/index.html>>.
7. Applied Survey Research. "The Status of Youth Drinking in Santa Cruz County, 2007." Project CURB <http://www.projectcurb.com>. 29 May 2008 <http://www.appliedsurveystudy.org/www/products/Final_CURB_Evaluation_Report_2007.pdf>
8. County of Santa Cruz. Maternal and Child Health.4 P's Plus Screening Tool 2006-2008. (not published): 2008.
9. Applied Survey Research. [Life in Santa Cruz County, Year 13, 2007: Community Assessment Project: Comprehensive Report](http://www.appliedsurveystudy.org/www/products/Final_CURB_Evaluation_Report_2007.pdf). 13. San Jose, CA: United Way of Santa Cruz, 2007.

6. OBESITY & OVERWEIGHT

Importance	Local, state, and national rates of overweight and obesity have skyrocketed in recent decades. Overweight or obese individuals are at greater risk for hypertension, coronary heart disease, stroke, type 2 diabetes, asthma, gallbladder disease, arthritis, sleep apnea, and certain cancers. In addition, overweight children are at higher risk for developing hypertension, asthma, orthopedic problems, gallstones, low self-esteem, poor body image, and depression. Overweight children are twice as likely to become obese adults.
How are we doing in Santa Cruz County?	<ul style="list-style-type: none"> Among low-income children, Santa Cruz County had nearly the highest rates of overweight in the state in 2006. Among children under two years old, we ranked 48th out of the 61 health jurisdictions in California for the highest percentage of overweight children; among children two to four years old, we ranked 57th for at risk of being overweight and 60th for percent overweight. However, among children in general, overweight rates were similar to statewide rates. Santa Cruz County adults have relatively low rates of overweight and obesity.
What inequities exist?	<ul style="list-style-type: none"> In middle school, Hispanic children are nearly twice as likely as White children to be outside the “Healthy Fitness Zone.”
Definitions	<p>Body Mass Index (BMI): a person’s weight (in kilograms) divided by the square of their height (in meters) – used as a measure of overweight or underweight</p> <p>“Healthy Fitness Zone”: in children, the healthy BMI range between underweight and at risk of overweight.</p> <p>Obese: in an adult, having a BMI greater than or equal to 30</p> <p>Overweight: in an adult, having a BMI of at least 25 but less than 30; in a child, having a BMI in at least the 95th percentile of CDC’s May 30, 2000 BMI-for-age-and-sex chart</p> <p>At Risk of Overweight: in a child, having a BMI in the 85th to 95th percentile of CDC’s May 30, 2000 BMI-for-age-and-sex chart</p>
Healthy People 2010 Objectives	<p>Increase the proportion of adults (18 and over) who are at a healthy weight: 60%</p> <p>Reduce the proportion of adults (20 and over) who are obese: 15%</p>

The percentage of overweight and obese individuals has been significantly increasing throughout the United States since 1970.¹ This “obesity epidemic” is widely regarded as one of the greatest threats to Americans’ health; some experts believe that the current generation of children may be the first generation in American history to have a shorter life expectancy than their parents – primarily because of being overweight.²

Figure 6.1: Percent of U.S. Adults who are Obese by State, 1998 and 2006
(* BMI ≥ 30, or about 30 lbs. overweight for a 5'4" person)

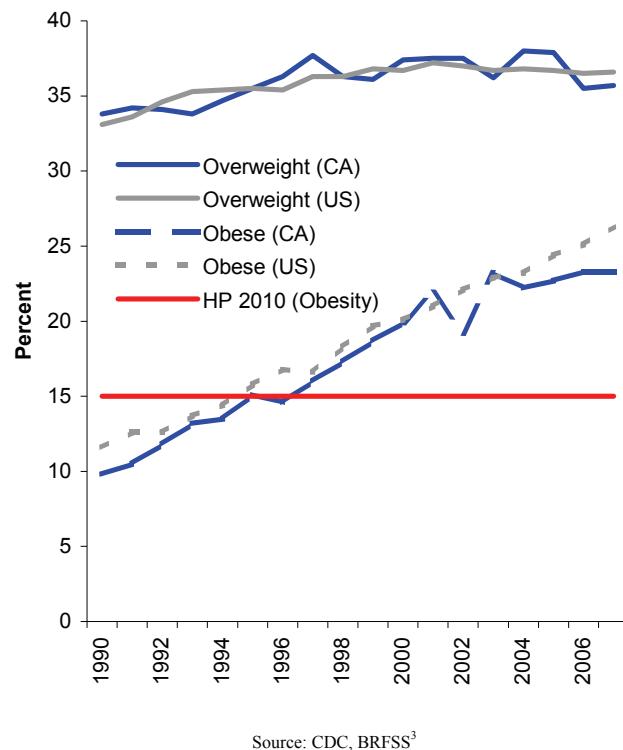


Santa Cruz County and California are not exceptions to the trend. State and national data from the Behavioral Risk Factor Surveillance System show that California's adult overweight and obesity rates have closely followed national trends over the past two decades (see Figure 6.2).³

The most extensive information about childhood overweight in Santa Cruz County comes from the California Department of Education's annual Physical Fitness Report.⁴ Each year, most children in grades 5, 7, and 9 are evaluated on a variety of fitness characteristics. During the 2006-2007 school year, the percentages of children falling outside the "Healthy Fitness Zone" (underweight, overweight and "at risk for overweight") in Santa Cruz County were 32% for grades 5 and 7, and 28% for students in grade 9. The corresponding statewide percentages were similar: 32%, 32%, and 31% for grades 5, 7, and 9 respectively. The Physical Fitness Report showed a disparity between White and Hispanic children, both in Santa Cruz County and statewide. The percentage of children outside of the Healthy Fitness Zone was just above 20% for White children, but close to 40% for Hispanic children.

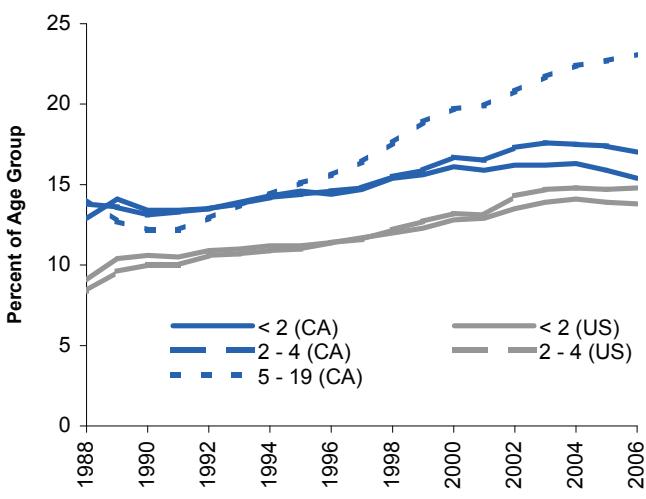
According to the CDC's Pediatric Nutrition Surveillance System (PedNSS), California has nearly the highest rate of overweight children in the nation, ranking 38th out of the 40 participating states each year from 2004 to 2006.⁵ PedNSS exclusively surveys low-income, high-risk children receiving government assistance. In 2006, this population of children in Santa Cruz County was among the heaviest in the state. Santa Cruz County ranked 48th out of the 61 local health jurisdictions in California among overweight children under age 2, 57th for children ages 2 to 4 who are at risk of overweight, and 60th for children ages 2 to 4 who are overweight (Figure 6.3).

Figure 6.2: Overweight and Obesity Trends among Adults, California and US, 1990-2007



Source: CDC, BRFSS³

Figure 6.3: Percent of Overweight Children by Age Group, 1988-2006



Source: CDC, PedNSS⁵

The California Health Interview Survey (CHIS) is one of the few sources of local information on adult obesity in Santa Cruz County. The most recent CHIS data,⁶ from 2005, indicate that Santa Cruz County adults have lower rates of obesity than California adults do: 12% for the county, compared to 21% statewide. Again, there was a disparity by ethnicity: only 9% of non-Hispanic adults were obese, compared to 20% of Hispanics. (A similar disparity was found statewide, with 18% of non-Hispanics obese, compared to 27% of Hispanics.)

Among adults, CHIS found much higher rates of *overweight* (ranging from 33% to 39%) than *obesity*, but with only modest differences between state and county rates and between Hispanic and non-Hispanic rates.

CHIS also interviews young children and teens separately, although the sample size is smaller than the adult sample. Unlike the Physical Fitness Test results and the PedNSS results, CHIS found a lower rate of overweight among young children in Santa Cruz County than the statewide average – 6% compared to 13%. Again, Hispanic rates were higher than non-Hispanic rates – 9% versus 4%.

“Breastfeeding is a low-cost, low-tech intervention that, according to the American Academy of Pediatrics and CDC, can reduce children’s risk for overweight. Low-income children – who are at greatest risk for overweight – are also least likely to be breastfed.”⁷⁻⁹

Sources:

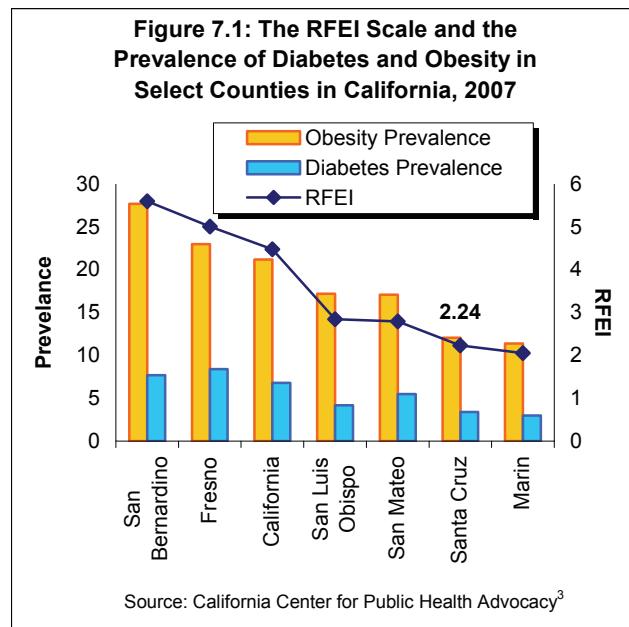
1. Centers for Disease Control. U.S. Obesity Trends 1985–2006. <http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/>
2. Olshansky et al. “A Potential Decline in Life Expectancy in the United States in the 21st Century.” *New England Journal of Medicine* 352:1135-1135. 2005.
3. Behavioral Risk Factor Surveillance System. Prevalence Data – Overweight and Obesity. <http://apps.nccd.cdc.gov/brfss>
4. California Department of Education. 2006-07 California Physical Fitness Report – Summary of Results. <http://www.cde.ca.gov/ta/tg/pf/>
5. Centers for Disease Control. Pediatric Nutrition Surveillance System. Tables 16B, 18C, 18D. <http://www.dhcs.ca.gov/services/chdp/Pages/PedNSS2006.aspx> and http://www.cdc.gov/pednss/pednss_tables/index.htm
6. California Health Interview Survey 2005. <http://www.chis.ucla.edu/main/default.asp?timeout=1>
7. Gartner LM, et al., American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk. *Pediatrics*. 2005; 115:496-506.
8. Shealy KR, Li R, Benton-Davis S, Grummer-Strawn LM. Centers for Disease Control and Prevention. *The CDC Guide to Breastfeeding Interventions*. Atlanta: Department of Health and Human Services. 2005.
9. California WIC Association and the UC Davis Human Lactation Center. *A Policy Brief on California Breastfeeding and Hospital Performance*. November 2007.

7. NUTRITION & PHYSICAL ACTIVITY

Importance	A healthy diet and regular physical activity substantially reduce the risk of dying from coronary heart disease, decrease the risk for stroke, colon cancer, diabetes, and high blood pressure, and help prevent overweight and obesity. Physical activity also contributes to healthy bones, muscles, and joints; reduces falls among older adults; helps to relieve the pain of arthritis; reduces symptoms of anxiety and depression; and is associated with fewer hospitalizations, physician visits, and medications.
What inequities exist?	<ul style="list-style-type: none"> In Santa Cruz County, only 53% of Hispanic adults with an income \leq 200% Federal Poverty Level responded “Yes” they were able to afford enough food (food secure), compared to 84% of their White counterparts.¹ 40% of Hispanic teenagers engaged in vigorous physical activity 3 or more days per week, compared to 75% of White teens in Santa Cruz County.¹ 74% of Hispanic adults engaged in moderate or vigorous physical activity 3 or more days per week, compared to 89% of White adults.¹
How are we doing in Santa Cruz County?	<ul style="list-style-type: none"> In 2007, 55% of surveyed residents said they eat five or more servings of fruits and vegetables daily—down from 61% in 2005.² Out of 24 California counties with populations of at least 250,000, Santa Cruz County had the 2nd best ratio of available fresh fruits and vegetables compared to fast-food restaurants and convenience stores.³
Definitions	<p>Retail Food Environment Index (RFEI): The ratio of the number of fast-food restaurants and convenience stores divided by the number of supermarkets, produce stores, and farmers’ markets. A low RFEI shows good access to healthy food. A community with twice as many fast-food restaurants and convenience stores will have an RFEI of 2.0.⁴</p> <p>Food Security: Access, at all times, to enough nutritious food for an active, healthy life⁵</p>
Healthy People 2010 Objectives	<ul style="list-style-type: none"> Minimum percentage of teens that participate in vigorous physical activity at least 3 days per week is 85% Minimum percentage of adults that participate in moderate activity 5 or more days per week is 30%

NUTRITION

Santa Cruz County ranks second best for Retail Food Environment Index (RFEI) out of the 24 California counties with populations greater than 250,000. Based on data from the 2005 California Health Interview Survey and 2005 InfoUSA Business File, the RFEI was calculated for each adult CHIS respondent by dividing the total number of fast-food restaurants and convenience stores by the total number of grocery stores and produce vendors within a given radius (a half-mile in urban areas, one mile in smaller cities and suburban areas, and five miles in rural areas) around the respondent’s home address. These RFEI’s were then averaged for each county. Santa Cruz County had an RFEI of 2.2, which can be interpreted as 2.2 fast food or convenience stores for each grocery store, produce stand, or farmer’s market.³ As can be seen in figure 7.1, higher RFEIs are positively correlated with higher percentages of obesity within the county.



NUTRITION (CONT)

Food security, or being able to afford a complete and balanced diet, is a very important measure of health. The cited survey only asked persons with incomes below 200% of Federal Poverty Level (FPL) about food security. In 2005, 84% of White adults reported being food secure, compared to 53% of Hispanic adults in Santa Cruz County (see figure 7.2).¹ Of concern is the difference in food security between White and Hispanic adults; the inequity is much larger within Santa Cruz County than within the state of California.¹

In 2005, only 11% of Santa Cruz teenage males ate 5 or more servings of fruits or vegetables per day, compared to 24% of teenage males statewide.¹ Other than on this measure, Santa Cruz County teens did not differ greatly among themselves or from California teens. Overall, 81% of teens reported not eating 5 or more servings of fruits or vegetables per day in Santa Cruz County.¹

PHYSICAL ACTIVITY

Despite the proven benefits of physical activity, more than 50% of American adults do not get enough physical activity to attain health benefits, and 25% of adults are not active at all in their leisure time.⁶

Santa Cruz County adults met the 2010 national objective in 2005, with 50% of adults engaging in moderate physical activity for at least 5 days per week. California adults were higher at 53%, but the nation overall was much lower at 30% (see Figure 7.3).^{2,7,8}

While more Santa Cruz County adults (85%) report engaging in physical activity than California adults (74%), Santa Cruz County Hispanic adults were less likely to engage in physical activity (either moderate or vigorous) than White adults, 70% versus 89% in 2005 (see Figure 7.5).¹

More Santa Cruz adults (57%) than California adults (48.7%) eat 5 or more fruits or vegetables a day; this difference is present in Santa Cruz Whites (58%) compared to California Whites (50%).¹

Figure 7.2: The Percentage of Adults with an Income less than 200% FPL who are "Food Secure," 2005

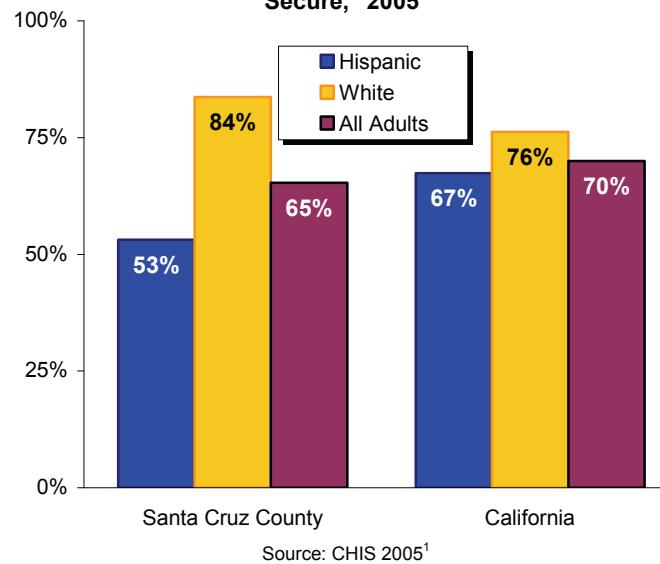
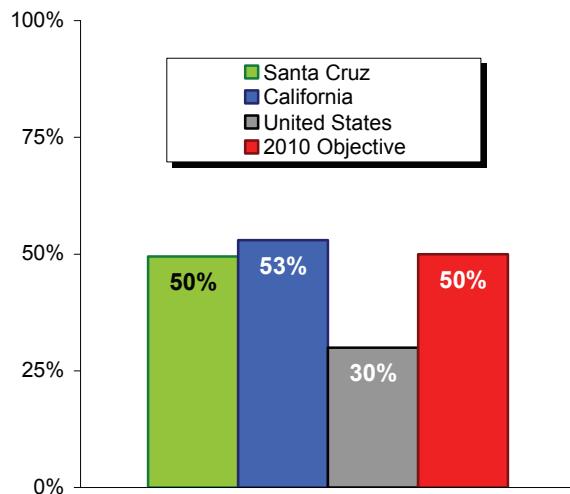


Figure 7.3: Adults Participating in 30 Minutes of Moderate Activity 5 or more days per week, 2005



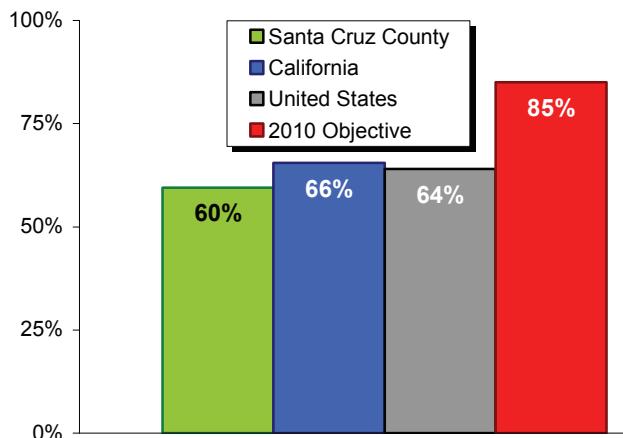
Source: CHIS, 2005¹

PHYSICAL ACTIVITY (CONT)

Fewer Santa Cruz County teenagers engaged in vigorous activity in 2005 (60%), compared to California teens (66%) and U.S. teens (64)—all of which are far below the 2010 national objective (85%) (see figure 7.4).^{1,9}

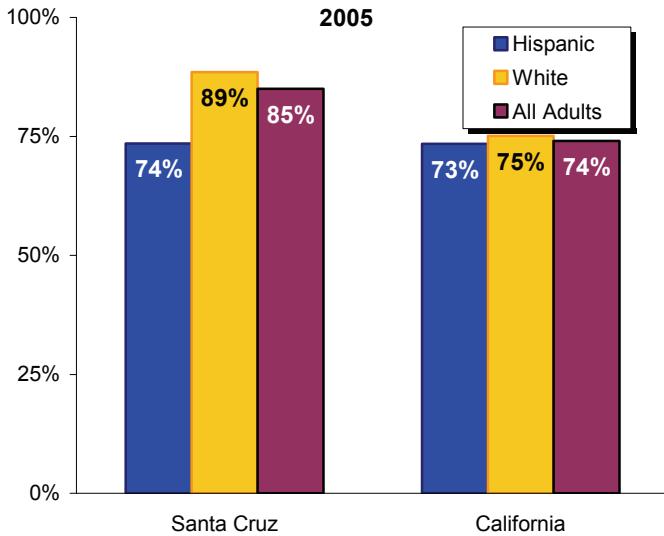
In Santa Cruz County in 2005, 40% of Hispanic teenagers participated in vigorous physical activity 3 or more days per week, compared to 75% of White teenagers. The statewide disparity between Hispanic and White teenagers for the same time period was much smaller (see figure 7.6).¹

Figure 7.4: Teens Participating in 20 Minutes of Vigorous Activity 3 days per week, 2005



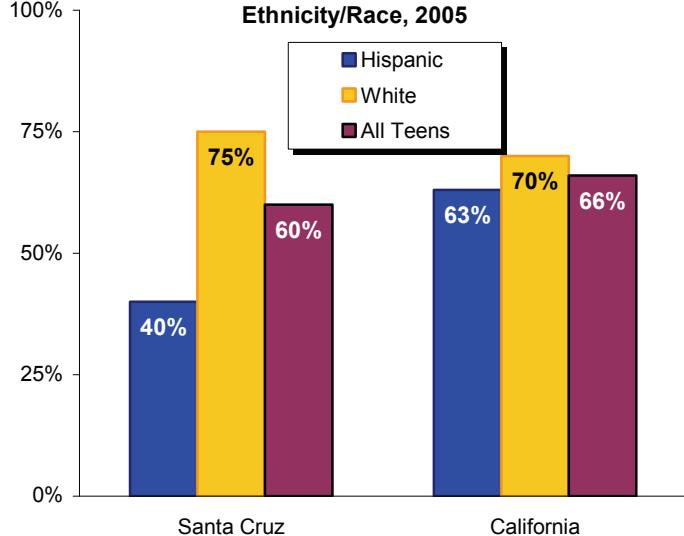
Source: CHIS, 2005, YRBSS^{1,9}

Figure 7.5: Percentage of Adults Engaging in Moderate or Vigorous Activity by Ethnicity/Race, 2005



Source: CHIS, 2005¹

Figure 7.6: Percentage of Teenagers Engaging in Vigorous Physical Activity 3+ Days/Week by Ethnicity/Race, 2005



Source: CHIS, 2005¹

Sources:

1. California Health Interview Survey 2005. <http://www.chis.ucla.edu/main/default.asp?timeout=1>
2. Applied Survey Research, Community Assessment Project Report. Year 13. Capitola: United Way, 2007.
3. "Designed For Disease: The Link Between Local Food Environments and Obesity and Diabetes. (County RFEI Tables)" 29 Apr 2008. UCLA Center for Health Policy Research. <http://www.publichealthadvocacy.org/PDFs/RFEI_countycharts.pdf>
4. California Center for Public Health Advocacy. "Searching for Healthy Food: The Food Landscape in California Cities and Counties." January 2007
5. "Food Security Resources." United States Food and Agriculture Food and Nutrition Service. United States Department of Agriculture. 3 Jul 2008 <<http://www.fns.usda.gov/fsec/>>.
6. "Physical Activity and Good Nutrition: Essential Elements to Prevent Chronic Diseases and Obesity." Chronic Disease Prevention. 04 Apr 2008. Centers for Disease Control and Prevention; Health Resources and Services Administration. 19 Jun 2008 <<http://www.cdc.gov/nccdphp/publications/aag/dnpa.htm>>.
7. National Health Interview Survey (NHIS), CDC, NCHS
8. Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDP
9. Youth Risk Behavioral Surveillance System (YRBSS), CDC, NCCDP

8. ENVIRONMENTAL HEALTH INDICATORS

Importance	The impact of the environment on human health is paramount. Protecting the environment has long been a foundation of public health practice. Environmental Health Services' efforts to ensure safe supplies of water and food contribute greatly to improvements in health in Santa Cruz County.
How are we doing in Santa Cruz County?	<ul style="list-style-type: none">▪ A health risk assessment conducted between 2003 and 2004 indicated an average incidence of illness resulting from swimming of 3.8%, based on interviews of 2,143 swimmers in Santa Cruz County.▪ Relative to the national objective for residential water use of 101 gallons-per-person-per-day and the state figure of 130 g/p/d, the Santa Cruz County average is just 70 g/p/d – 31% and 46% less, respectively.▪ During 2007, 98.9% of days in Santa Cruz County had a good Air Quality Index (AQI)-- meaning air quality was considered satisfactory and air pollution posed little or no risk (for more information, see Definition below).
What inequities exist?	Not Applicable.
Definitions	<p>Air Quality Index (AQI): is a 500-point scale issued by the U.S. Environmental Protection Agency (EPA) to describe daily air quality. The AQI is based on ground level ozone, particulate matter, and other pollutants. The higher the AQI value, the greater the level of air pollution and the greater the health concerns. AQI for any given geographic area is designated as “Good” when the score is between 0 and 50. The categories progress to Moderate (51-100), Unhealthy for Sensitive Groups (101-150), Unhealthy (151-200), Very Unhealthy (201-300), and Hazardous (301-500).</p> <p>Ozone: The “ozone layer” in the earth’s stratosphere protects us by absorbing 97.99% of the sun’s damaging high-frequency ultraviolet light. Ground-level ozone, on the other hand, can be harmful when inhaled. Cars and trucks are the largest source of emissions that produce ozone.</p>
Healthy People 2010 Objective	<ul style="list-style-type: none">▪ Water quality:<ul style="list-style-type: none">○ Increase safe drinking water to 95%,○ Improve water conservation by 10%.▪ Air quality: Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency’s health-based standards for harmful air pollutants.

WATER QUALITY

Clean safe water is essential to good health. Water must be safe, whether it is a recreational body of water or a source of drinking water. Drinking water comes from a variety of sources, including rivers, lakes, streams, ponds, reservoirs, springs, and wells. Potential sources for water contamination in Santa Cruz County include road construction, agricultural runoff, sewage/septic system leach fields, and recreation related disturbances.¹ Generally, fresh and marine water beaches in Santa Cruz County are clean and safe for swimming.

However, to ensure public health and safety, the County of Santa Cruz Environmental Health Services (EHS) regularly tests these waters for contamination. If problems are found, the public is notified with posted signs, and steps are taken to control the source of contamination. In spite of the heavy recreational water use in Santa Cruz County, there have been very few reports of illnesses linked to water contact. Water-borne illnesses such as cholera and bacterial meningitis that have life-threatening impacts in other countries have not been shown to be a problem at local swimming areas.

WATER QUALITY (CONT)

EHS samples 11 major beaches on a weekly basis throughout the year. Figure 8.1 demonstrates the total number of beach-days when beaches were posted due to not meeting standards. This amounts to posting only 1-3% of the time. EHS typically receives 5-8 reports per year of illness from swimming or surfing in the ocean. A health risk study conducted in 2003-04 indicated an average incidence of illness resulting from swimming of 3.8%, based on interviews of 2,143 swimmers.¹

CONSERVATION

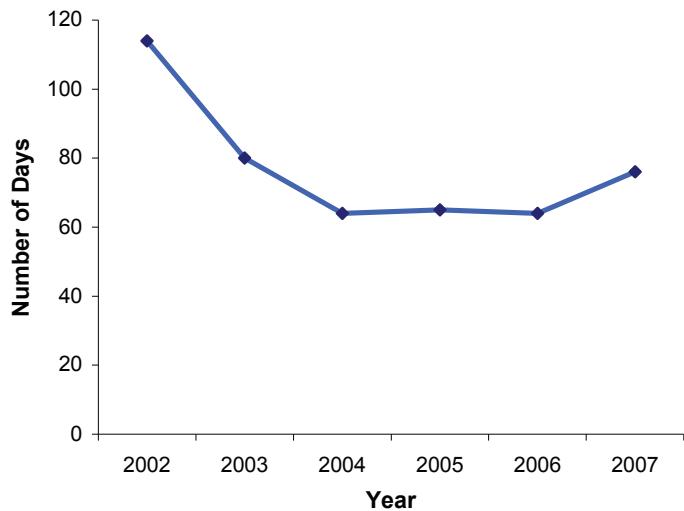
The County of Santa Cruz participates with other local water agencies in a water conservation committee that promotes water conservation throughout the county. These measures have been very successful. From 1997 to 2006, annual non-agricultural water usage in the county dropped by 14%.² Relative to the national residential water use of 101 gallons-per-person-per-day (g/p/d) and the state figure of 130 g/p/d, the Santa Cruz County average is just 70 g/p/d -- 31 and 46% less, respectively. Santa Cruz County is continuing with these efforts and is seeking a further 15% reduction.

The 2007 CAP Survey found that 86% of survey respondents were making active efforts to reduce their water consumption.² The most frequently taken steps were using a hose end nozzle or timers when watering, installing low-flow showerheads and toilets, planting low-water-use landscaping, and upgrading to low-flow appliances. Most water districts reported a reduction in daily water use since 1996, even though all had an increase in service connections.

AIR QUALITY

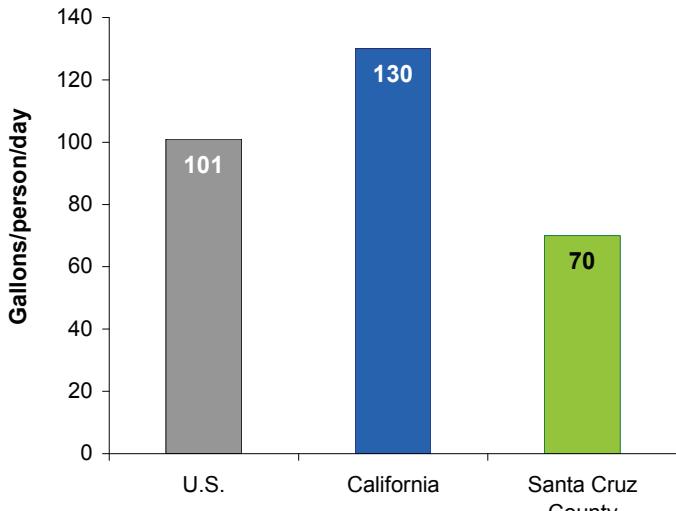
The quality of the air, both indoors and outside, has a direct impact on our health. The average person breathes approximately 8 million cubic feet of air throughout a lifetime. It's no wonder there is a direct link between the air we breathe and the overall health of our bodies.

Figure 8.1: Total number of beach-days when beaches were posted due to not meeting standards, 2002-2007



Source: County of Santa Cruz, Environmental Health Dept.¹

**Figure 8.2: Residential Water Use
Gallons/Person/Day, 2007**

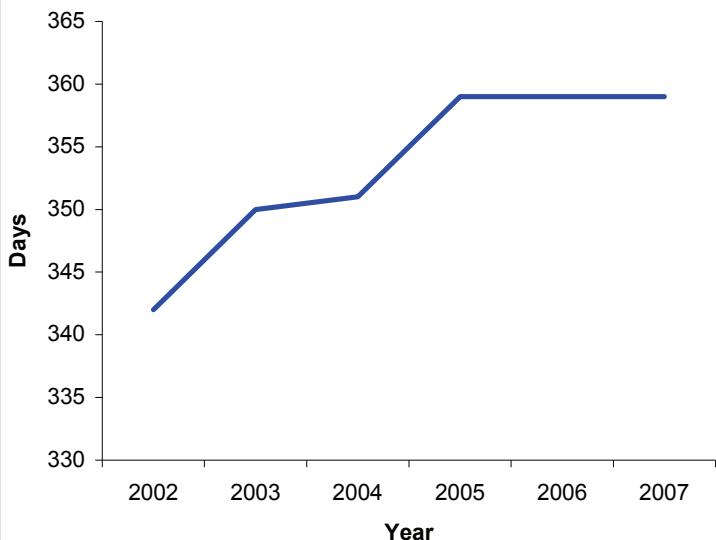


Source: County of Santa Cruz, Environmental Health Dept.¹

Poor air quality is associated with a number of health issues, including asthma, allergies, and chronic obstructive pulmonary disease, and is especially harmful to anyone who is already in poor health. To check the daily AQI for any geographic area, visit www.airnow.gov.

During 2007, Santa Cruz County had 98.9% “good” AQI days³ and the remaining percentage of days were “moderate.” Since 2002, Santa Cruz County’s AQI was designated at “good” overall, where on average 354 days of the year have had an AQI score between 0-50. Compared to the national AQI, Santa Cruz County’s air quality is very good. Location is a big factor, but also residents’ efforts to make use of alternative means of transportation has an effect on air quality. Based on these results, the goal for reducing the proportion of persons exposed to air that does not meet the US EPA health-based standards for harmful air pollutants can be easily attained.^{3,4}

Figure 8.3: Number of Days in the Year with Air Quality Index Designated as "Good," Santa Cruz County, 2002-2007



Air Quality Index www.EPA.gov

Sources:

1. County of Santa Cruz, Environmental Health Services. Santa Cruz, California. <<http://sccounty01.co.santa-cruz.ca.us/eh/ehhome.htm>>
2. Applied Survey Research, Community Assessment Project, Santa Cruz County. Year 13. Capitola, CA: United Way of Santa Cruz, 2007 <<http://www.santacruzcountycap.org>>.
3. "Air Quality Index Report." AirData. 2007. U.S. Environmental Protection Agency. 20 Aug 2008 <<http://iaspub.epa.gov/airsdata/adaqqs.aqi?geotype=co&geocode=06087&geoinfo=co%7E06087%7ESanta+Cruz+Co%2C+California&year=2007&sumtype=co&fd=gname&fld=gcode&fld=stabbr&fld=regn&rpp=25>>.
4. Monterey County APCD, Monterey, California, 2007. <www.mbuapcd.org/>

9. IMMUNIZATIONS

Importance	High immunization coverage levels in early childhood are the chief way to prevent and/or limit the spread of vaccine-preventable diseases (VPD) ¹ in both children and adults. Although immunization levels are currently the highest recorded nationwide, each new cohort of children needs to be vaccinated with the required and recommended number of doses in order to maintain protection for all age groups.
How are we doing in Santa Cruz County?	<ul style="list-style-type: none">▪ Santa Cruz County immunization rates among kindergartners fell to 84% in 2007. Vaccination coverage levels of 90% are considered sufficient to prevent circulation of viruses and bacteria causing vaccine-preventable diseases.^{2,3}▪ In 2007, Santa Cruz County had the 7th highest Personal Belief Exemption (PBE) rate among kindergartners, at 6.3%, compared to the other 60 local health jurisdictions in California at 1.6%.²▪ Children attending public kindergartens in the Pajaro Valley School District during the 06-07 school year had much higher rates of fully vaccinated students, at 92%, compared to schools in the remaining areas of Santa Cruz County at 79%.²▪ PBE rates were nearly double among private school kindergartners, at 10.1%, compared to public school enrollees at 5.8%.²
What inequities exist?	<ul style="list-style-type: none">▪ In Santa Cruz County there are no inequities for vaccination, but there are disparities, and these disparities are based on personal choice, <i>not</i> lack of access.▪ There were disparities among students in private and public kindergartens in 2007 by type of required vaccine. There was clearly a lower vaccination rate among students who attend private schools when compared to public schools.²
Definitions	<p>Conditional Entrant: When a physician temporarily exempts a child from required immunizations for school entry due to a temporary medical condition.</p> <p>Personal Belief Exemption (PBE): a form that parents can choose to sign upon registering their child in day care or kindergarten; the form exempts the child from the required immunizations for school entry.</p> <p>Permanent Medical Exemption (PME): when a physician permanently exempts a child from required immunizations for school entry due to a medical condition.</p> <p>Universally Recommended Vaccines: The following doses of each vaccine: 4 DTaP (Diphtheria, Tetanus & acellular Pertussis), 3 polio, 1 MMR (measles, mumps & rubella), 3 Hib (<i>Haemophilus influenza</i> type B), 3 Hepatitis B, and 1 Varicella.</p>
Healthy People 2010 Objectives	<ul style="list-style-type: none">▪ Increase the proportion of young children who receive <i>all</i> vaccines that have been recommended for universal administration (for at least 5 years) to 80%▪ Increase and maintain <i>individual</i> vaccine coverage levels of universally recommended vaccines among children aged 19-35 months to 90%▪ Maintain vaccination coverage levels of DTaP, MMR and polio vaccines for children in licensed day care facilities and children in kindergarten through first grade at 95%.

A 2001 study⁴ done in the U.S. found that routine childhood immunizations saved \$9.9 billion in direct costs and \$43.3 billion in societal costs. In the United States, vaccines have reduced or eliminated many infectious diseases that once routinely killed or harmed many infants, children, and adults. However, the viruses and bacteria that cause vaccine-preventable disease and death still exist and can be transmitted to people who are not protected by vaccines.

In recognition of the impact of vaccinations, the Santa Cruz County Immunization (IZ) Program is funded by a state grant with the purpose of assisting county efforts to monitor and maintain effective levels of immunizations, primarily among children. This grant requires conducting annual assessments of licensed childcare centers and kindergartens to evaluate compliance with the California School Immunization Law.

COVERAGE

According to California school immunization laws, there are three recorded reasons why a child may not be fully immunized: either they are a conditional entrant, or they have a permanent medical exemption (PME) or personal belief exemption (PBE). The percentage of students who are “PBEs” is troubling, since this population has chosen not to get the vaccine, which puts them, other children, and pregnant women at risk.⁵

In 2007, Santa Cruz County kindergartners had the 7th highest PBE rate in the state at 6.3%, whereas the overall state PBE rate was 1.6% (Figure 9.4). In 2005 and 2006, Santa Cruz County kindergartners had the 4th and 3rd highest PBE rates in the state, respectively. The six counties with the higher PBE rates in 2007 totaled only 424 PBE students combined, compared to 208 PBE students for just Santa Cruz County.

A PBE survey done in Santa Cruz County in 2006⁵ concluded that parents chose not to vaccinate “out of concern for their child’s well-being rather than for reasons of convenience.” Additionally, 50% of these parents chose to partially vaccinate their children. Three-quarters of the respondents to this survey were college-educated, two-thirds were 35 years or older, and over half had an annual income of \$75,000 or higher. This survey supports the data in figures 9.4 and 9.5, where lower vaccine rates are seen among populations similar to survey respondents who had signed PBE forms (e.g., parents who send their kids to private school and those who live in the north part of the county).²

CHILDCARE ASSESSMENT

(Ages: 2 – 4 YEARS)

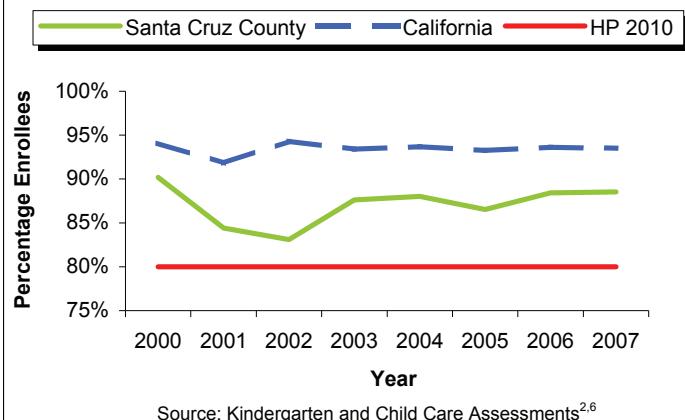
In the fall, every licensed childcare facility self-reports the number of children enrolled and the number of required immunizations each child has received (Figure 9.1).²

KINDERGARTEN ASSESSMENT

(AGES: 4 – 6 YEARS)

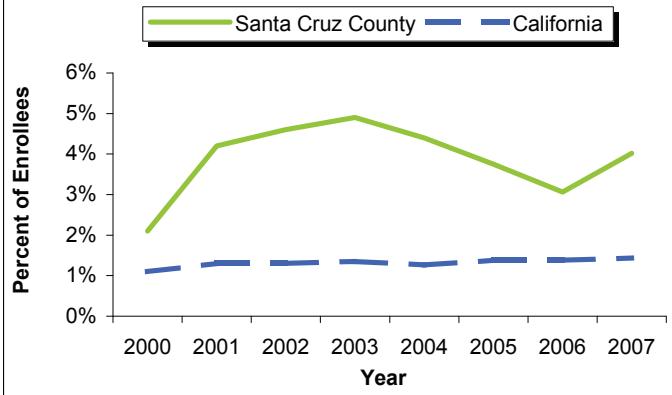
Similarly, in the fall, kindergarten health clerks and school nurses self-report immunization status among their students (see Figure 9.3).²

Figure 9.1: Childcare Enrollees with All Required Immunizations, 2000-2007



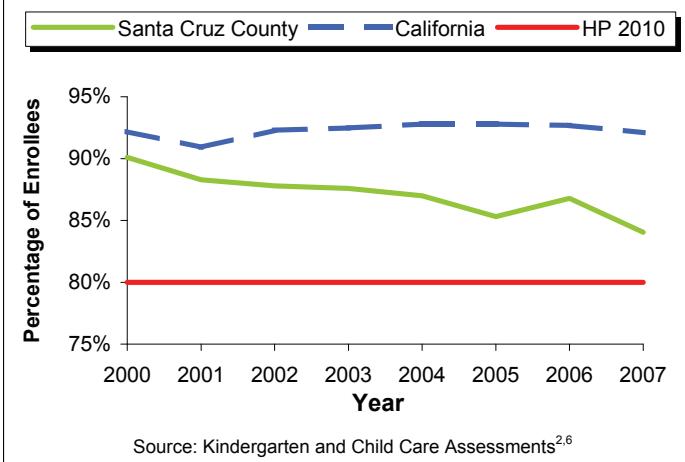
Source: Kindergarten and Child Care Assessments^{2,6}

Figure 9.2: Personal Belief Exemption (PBE) Childcare Assessment, 2000-2007



Source: Kindergarten and Child Care Assessments^{2,6}

Figure 9.3: Kindergarten Enrollees with All Required Immunizations, 2000-2007

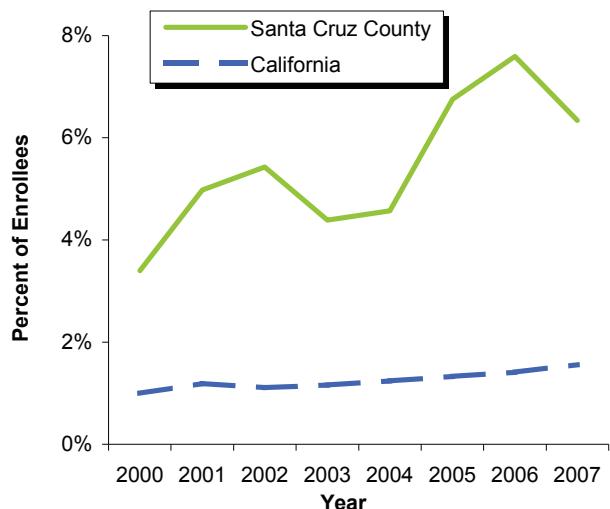


Source: Kindergarten and Child Care Assessments^{2,6}

DISPARITIES

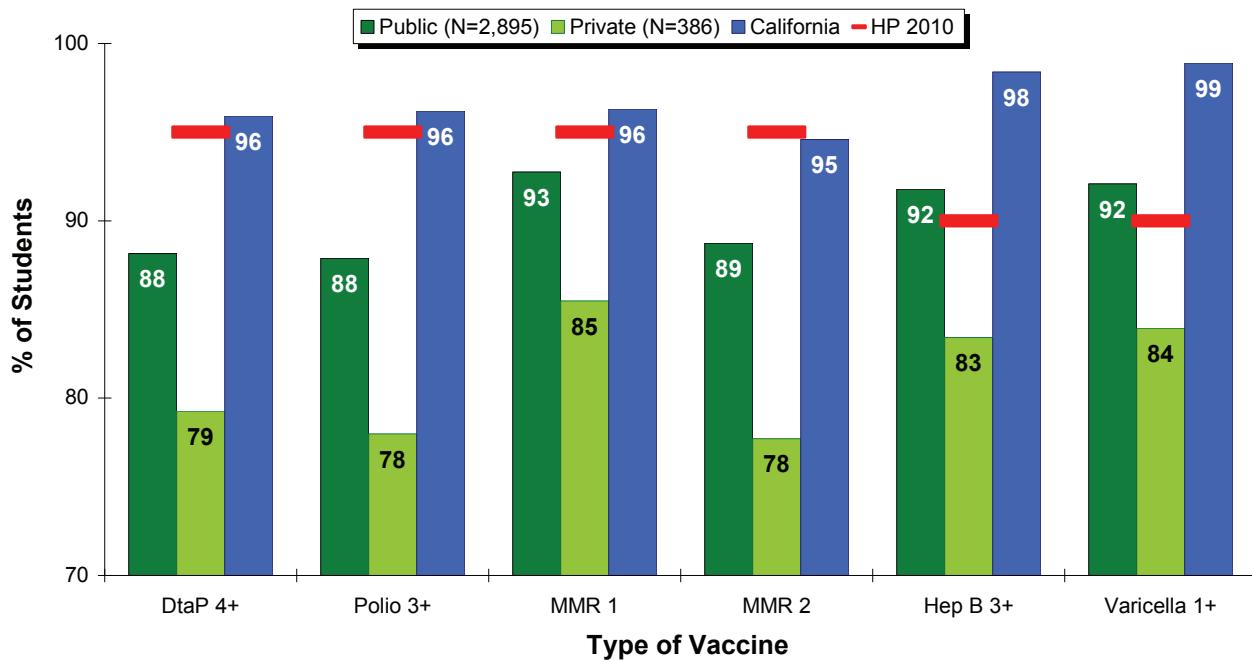
Figure 9.5 illustrates the self-reported immunization coverage among students in private and public kindergartens in 2007 by type of required vaccine. There is clearly a lower vaccination rate among students who attend private schools when compared to public schools. Figure 9.6 compares the differences between north and south county school district PBE rates in kindergartens. There are five school districts represented in figure 9.6, four of which are in the north part of the county (Santa Cruz, Scotts Valley, Soquel and San Lorenzo Valley), and one school district, Pajaro Valley, represents the south county. Smaller districts (Bonny Doon, Mountain, Pacific and County Office of Education, etc.) were omitted from this analysis due to their very small number of kindergarten students and highly unstable rates.²

Figure 9.4: Personal Belief Exemption (PBE), Kindergarten Assessment, 2000-2007



Source: Kindergarten and Child Care Assessments^{2,6}

Figure 9.5: Percent of Kindergartners Immunized by Type of Vaccine and Type of School, Santa Cruz County and California, Fall 2007



Source: Kindergarten and Child Care Assessments 2007^{2,6}

INFLUENZA

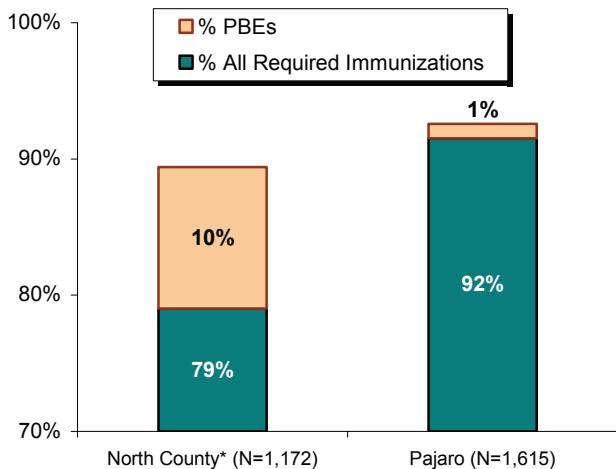
The Immunization Program received an allocation of 5,290 doses of influenza vaccine from the California Department of Public Health (CDPH) Immunization Branch in Fall 2007, of which 4,738 were given to county residents.⁷ As of 12/12/07, private providers within the county had purchased 47,240 doses of flu vaccine. It is unknown how many of these doses were actually given to clients.

While influenza is not a reportable disease in California, CDPH has a surveillance program, which utilizes sentinel physicians' reports of lab-confirmed influenza cases. This past flu season proved to be a mild one and there were no shortages of influenza vaccine.

The Immunization Program distributed 5,290 doses of flu vaccine to community health centers such as Salud Para La Gente, Planned Parenthood, the Public Health Clinics in Santa Cruz and Watsonville, the Homeless Persons Health Project, and other clinics and facilities that serve populations who are uninsured or underinsured, are Medi-Cal or Medi-Cruz patients, or who may otherwise be eligible for free influenza vaccine.

The Public Health Emergency Preparedness Unit sponsors a community clinic/emergency preparedness drill yearly at Ramsey Park in Watsonville. This drill tests the Public Health Department's ability to quickly set up a mass vaccination site and deliver vaccine to a large number of residents in a short time frame. They were able to vaccinate 1,077 residents in less than 4 hours. See Figure 9.7 for more information on Public Health's flu vaccine doses given from 2004 through 2008.

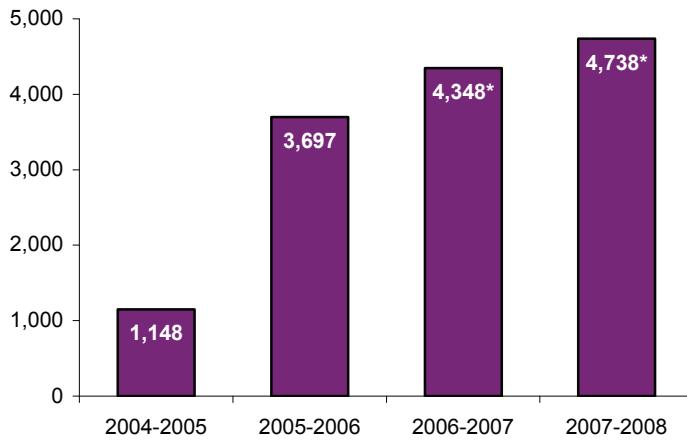
Figure 9.6: Percent of Kindergartners who are Fully Immunized or PBE by Public School District, Santa Cruz County, Fall 2007



* Includes Live Oak, San Lorenzo Valley, Santa Cruz City, Scotts Valley and Soquel school district

Source: Kindergarten and Childcare Assessment^{2,6}

Figure 9.7: Santa Cruz County Public Health Flu Vaccine Doses Given



* Includes Emergency Preparedness Drill

Source: County of Santa Cruz⁷

Sources:

1. The Importance of Childhood Immunizations. National Center for Immunization and Respiratory Disease. 09 Nov 2006. Centers for Disease Control and Prevention. <<http://www.cdc.gov/vaccines/vac-gen/importance.htm>>
2. Larez, Elisha. "2007 Kindergarten Assessment Results." Immunization Levels in Child Care and Schools. 07 February 2008. California Department of Public Health. 15 May 2008 <<http://www.cdph.ca.gov/programs/immunize/Pages/ImmunizationLevels.aspx>>
3. U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.
4. Fangjun, Zhou. "Economic Evaluation of the 7-Vaccine Routine Childhood Immunization Schedule in the United States." Archives of Pediatric and Adolescent Medicine 12(2005): 1136-1144.
5. LePage, J. *2006 Personal Belief Exemption Survey*. Unpublished manuscript. County of Santa Cruz Health Services Agency.
6. "Vaccine-Preventable Diseases and Immunization Coverage in California, 2001-2006." Immunization Branch, California Department of Public Health. 15 May 2008 <<http://www.cdph.ca.gov/programs/immunize/Pages/VaccinePreventableDisease.aspx>>.
7. County of Santa Cruz. Health Services Agency - IZ Program. Unpublished Data. 2008.

10. COMMUNICABLE DISEASES

Importance	Monitoring, investigating, and potentially preventing the spread of communicable diseases protects the health of the entire population by reducing the risk of further transmission.
How are we doing in Santa Cruz County?	<ul style="list-style-type: none">▪ Hispanics and Asians are disproportionately more likely to be diagnosed with active Tuberculosis than Whites and Blacks.¹▪ Santa Cruz County has increasing rates of gonorrhea that surpassed the national objectives in 2003.²
What inequities exist?	<ul style="list-style-type: none">▪ Tuberculosis incidence is much higher among populations with low socioeconomic status and among immigrants from TB-endemic countries.¹
Definitions	Communicable Disease (CD): Diseases that are transmitted directly through contact with an infected individual or animal, or indirectly through a vector (such as a mosquito or tick), contaminated food or water, or fomites (contaminated surfaces, such as a tissue, blanket, or needle).
Healthy People 2010	<ul style="list-style-type: none">▪ Chlamydia: 300 new cases per 100,000 population.▪ Gonorrhea: 19 new cases per 100,000 population.▪ Pelvic Inflammatory Disease (PID): 5 new cases per 100,000 population.▪ Syphilis: 0.2 primary and secondary cases per 100,000 population

California mandates healthcare providers and laboratories to report any knowledge or suspicion of 86 specified communicable diseases (CD), disease outbreaks, and unusual occurrences to their local health authority.³ This reporting method is how the CD Unit collects data, such as that which is presented in this section. Therefore, the accuracy of the data presented is limited by the quality and completeness of the disease reporting process. Additionally, since providers and labs can only report on patients who seek care and receive appropriate testing, data regarding persons who do not see a provider nor complete lab tests are not included in the statistics below, which skews the results towards the type of people who seek health care and are able to receive it.

TUBERCULOSIS

Tuberculosis (TB) is an airborne infection that has been known to afflict humans for thousands of years. Although one third of the world's population is believed to be infected with the TB germ, only 5-10% of those persons will go on to develop active (or contagious) TB. Nonetheless tuberculosis continues to be one of the leading causes of death due to infectious disease in the world.

In Santa Cruz County the rate of tuberculosis is quite low² (10 or fewer new cases reported per year between 2003 and 2007). However, preventing further spread from each case requires labor-intensive efforts. For example, every case has a public health nurse assigned to conduct a contact investigation, ensure appropriate follow-up, and ensure that the patient completes the group of prescribed medications, which must be taken for a minimum of 6 months. In addition to the confirmed cases, the CD staff also works with approximately 40-50 suspect cases per year until TB has been definitively ruled out. For these reasons the amount of time, effort, and expense dedicated to TB control is considerable.

It is well documented that tuberculosis occurs at higher rates in lower socio-economic populations and among immigrants from TB-endemic countries.¹ The lower access to medical care for this group is compounded by the difficulty in diagnosing the disease, and often leads to delays in diagnosis--which can perpetuate the spread of TB.

In 2007,¹ the TB rate in foreign-born persons in the United States was 9.7 times higher than the rate in US-born persons. In Santa Cruz County from 2003-2007, a significantly disproportionate number of active TB cases occurred among Asians and Pacific Islanders and Hispanics (18% of all cases were Asian/PI and 55% were Hispanic).¹ This disparity is in line with national TB trends, where the percentage of active TB cases in recent immigrants is increasing, even while the overall number of cases is decreasing.

Fortunately, there has only been one case of drug-resistant (DR) TB reported in Santa Cruz County since 2003. DR TB is vastly more difficult and expensive to treat, requiring a minimum of 18 months of treatment with multiple medications that can cause severe side effects. Drug-resistant TB can arise in a patient who is inadequately treated and then the resistant strain can go on to infect close contacts to that case.

One group of active TB cases that deserves special mention is the homeless population. Homelessness is a known risk factor for progressing to active TB disease once the person is infected. Public health staff spends additional time working with clients in this group in order to get them into a stable environment to complete the prescribed therapy and be cured of TB. Locating and testing contacts in this group is particularly challenging. In 2007, there was a cluster of four active TB cases and one suspect TB case among homeless persons, which demanded markedly more resources for TB control than in previous years.

The public health interventions described above help keep the number of cases in our county low. Studies over the years have shown that resources spent on TB control are money well spent. This deadly disease requires such long and costly treatment that prevention is very cost-effective. In the 1970s and early 1980s, TB control efforts were decreased throughout the U.S., which led to a resurgence of active TB cases between 1985 and the early to mid 1990's. Santa Cruz County was no exception, with cases increasing during that period to a peak of 31 cases in 1994. However, with increased funding and attention to the TB problem, we have seen a steady decline in the number of persons with TB since then.

HIV & AIDS

HIV, or Human Immunodeficiency Virus, is a virus that can only be transmitted through contact with HIV-infected blood, semen, vaginal secretions, or mother's milk. HIV is the causative agent of AIDS, or Acquired Immunodeficiency Syndrome; only persons previously infected with HIV can progress to the more severe syndrome known as AIDS.

There are currently 468 persons living with either HIV or AIDS⁴ who were diagnosed while residing in Santa Cruz County. This number is likely underestimated by approximately 60 cases, because the HIV database is still being backfilled after the change to name-based reporting in 2006. Incidence, or new cases, of AIDS have been decreasing since the early 1990s; however, there have still been an average of 15 newly diagnosed cases of AIDS and 13 cases of HIV reported annually between 2004 and 2007.⁵

Of the persons living with HIV or AIDS in Santa Cruz County, approximately 85% are male. The majority of cases were diagnosed between the ages of 30 and 49. Black persons are more likely to be diagnosed with either HIV or AIDS than all other racial/ethnic groups – a trend that is seen nationwide. In Santa Cruz County, a larger percentage of cases have been among Hispanics in recent years compared to early years.⁴

When examining risk factors associated with HIV and AIDS, between 80% and 90% of male cases have classified themselves as men who have had sex with men. However, the proportion of cases in this risk group has been slowly declining over time, and the proportion of cases reporting heterosexual contact as their likely risk factor has been steadily increasing, both for males and for females. Injection drug use is the second most common risk factor cited among both male and female cases. For more information on HIV and AIDS in Santa Cruz County, see the annual HIV/AIDS report.⁵

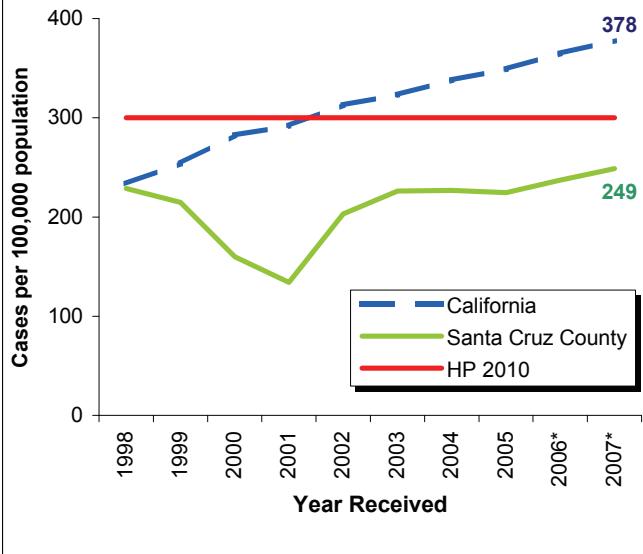
SEXUALLY TRANSMITTED DISEASES

Sexually transmitted diseases (STDs)² account for the largest number of reported diseases among Santa Cruz County residents; an average of 600 chlamydia infections, more than 80 gonorrhea infections, nearly 30 pelvic inflammatory disease (PID) cases, and approximately six cases of infectious syphilis have been reported annually between 2003 and 2007.

Although Santa Cruz County has maintained chlamydia rates below the 2010 national objective, 2007 rates of gonorrhea, PID, and syphilis were more than twice the 2010 national objectives.² In women, untreated chlamydia or gonorrhea infections can spread into the uterus or fallopian tubes and cause PID, which can result in permanent damage to the reproductive organs and lead to chronic pelvic pain, infertility, and potentially fatal ectopic pregnancy. In men, untreated gonorrhea can cause epididymitis, a painful condition that can lead to infertility.

In Santa Cruz County,² women are three times more likely than men to be diagnosed with chlamydia, whereas men are 1.5 times more likely than women to be reported with a gonorrhea infection. Persons ages 20-24 have the highest rates of chlamydia and gonorrhea; however, persons older than 25 may be underrepresented in the data because STD screening is recommended for sexually active adults aged 15-25. Rates for chlamydia and gonorrhea are highest among Blacks, followed by Hispanics and then Whites.

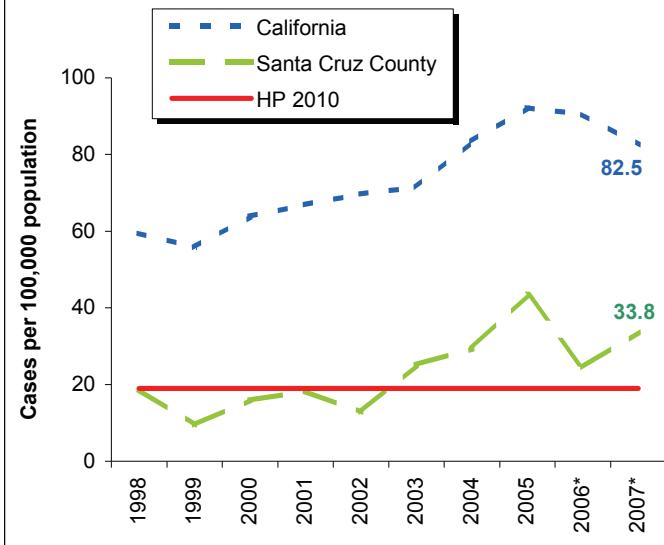
Figure 10.1: Chlamydia Incidence, 1998-2007



* Data are provisional

Source: County of Santa Cruz, CD Unit² & CDPH STD Branch⁶

Figure 10.2: Gonorrhea Incidence, 1998-2007



* Data are provisional

Source: County of Santa Cruz, CD Unit² & CDPH STD Branch⁷

VACCINE-PREVENTABLE DISEASES

Disease prevention is the key to public health. It is always better to prevent a disease than to treat it. Vaccines prevent disease in the people who receive them and protect those who come into contact with unvaccinated individuals. Vaccines help prevent infectious diseases and save lives. Vaccines are responsible for the control of many infectious diseases that were once common in this country, including polio, measles, diphtheria, pertussis (whooping cough), rubella (German measles), mumps, tetanus, and Haemophilus influenzae type b (Hib).

Vaccine-preventable diseases have many social and economic costs: sick children miss school and can cause parents to lose time from work. These diseases also result in doctor's visits, hospitalizations, and even premature deaths.

OTHER COMMUNICABLE DISEASES

ENTERICS

Enteric illnesses are those that are transmitted by mouth, usually through ingestion of contaminated food and/or water. The CD Unit begins an investigation of an enteric illness by finding out if the case works in a sensitive occupation or situation (SOS) such as a cook in a restaurant. Persons who are SOS are often restricted from working until they are no longer infectious. The CD Unit also investigates whether the illness has occurred in any of the case's close contacts. If so, those persons are also assessed for whether or not they need to be restricted.

Enforcing restrictions is one of the most obvious ways to protect the public's health. In fact, between 2003 and 2007, 79 persons were restricted from working or attending situations in which further spread of the illness might have resulted (e.g. working in a daycare or restaurant).² During the same time period, it was found that enteric illnesses were 3 times more likely to occur in children under 4 years old compared to all other age groups combined. Also, enteric illnesses were about 50% more likely to occur among Hispanics compared to Whites.

Table 10.1: Vaccine-Preventable Diseases (VPD), Santa Cruz County, 2003-2007

VPD	Count
Viral Hepatitis A	22
Hepatitis B, acute	16
Measles (Rubeola)	1
Mumps	11
Pertussis	182
TOTAL	232

Source: County of Santa Cruz, CD Unit²

Table 10.2: Enteric Illnesses, Santa Cruz County, 2003-2007

Enteric Illnesses	Count
Amebiasis	8
Campylobacteriosis	280
Cryptosporidium	10
Cysticercosis	4
E. coli O157	21
Giardia	98
Hepatitis A	22
Listeria	9
Salmonella	183
Scombroid Fish Poisoning	1
Shigella	113
Typhoid Fever	4
Vibrio infections	8
Yersiniosis	5
TOTAL	766

Source: County of Santa Cruz, CD Unit²

HEPATITIS

Hepatitis is a general term to describe an inflammation of the liver. It can be acute or chronic and has a number of different causes. It can be caused by a group of viruses known as the hepatitis viruses, including A, B, C, D, and E – although other viruses may also be the culprit.⁵ These five hepatitis viruses can be transmitted in different ways. For example, hepatitis A is transmitted through ingestion, and will not be discussed in this section because it is already addressed in the above section. The other two most common hepatitis viruses are B and C. Hepatitis B can be spread through sexual contact, blood transfusions, and needle sharing. Hepatitis C is usually spread through contact with blood or contaminated needles. Since Hepatitis B is vaccine-preventable, that data is presented in the Immunization and Vaccine-Preventable Disease section.

An average of 478 previously un-reported cases of hepatitis C per 100,000 population were reported annually in Santa Cruz County between 2003 and 2007.² Men are more than twice as likely as women to have hepatitis C virus. The majority of cases were between the ages of 45 and 64 when they were reported to the CD Unit, although in most cases the initial infection occurred decades ago. The rate in Hispanics is 35% lower than the rates in Whites and Blacks, and Asians have even lower rates.

MRSA

In response to a national increase of MRSA (methicillin-resistant *Staphylococcus aureus*) infections, the California Department of Public Health amended the list of reportable diseases. On February 14, 2008, severe cases of *Staphylococcus aureus* infections, including MRSA, were added to the list of diseases that must be reported by healthcare providers to local health departments, based on the following case definition:

“*Staphylococcus aureus* infection (only a case resulting in death or admission to an intensive care unit of a person who has not been hospitalized or had surgery, dialysis, or residency in a long-term care facility in the past year, and did not have an indwelling catheter or percutaneous medical device at the time of culture).”³

In the past year, Santa Cruz County investigated one outbreak of MRSA and reported one death due to MRSA.²



OUTBREAKS

The Santa Cruz County CD Unit investigated 21 reported outbreaks between July 2007 and June 2008.² Of these outbreaks, 1 was attributed to MRSA, 5 were caused by vaccine-preventable diseases (chicken pox), 9 were either suspected or confirmed to be caused by norovirus (AKA “stomach flu”), and the remaining outbreaks were caused by either streptococcus, head lice, a rash, or respiratory illnesses.

One outbreak occurred in November 2007 at a local food establishment with over 1,000 persons exposed in less than a week. There were 134 cases identified during this outbreak, which includes approximately 1/3 of the facility’s food handling staff (servers, cooks, buspersons and bartenders). All ill food handlers were excluded from working until at least 24 hours after their symptoms subsided. This outbreak was suspected to be caused by norovirus (see table 10.3).²

Table 10.3: Reported Disease Outbreaks*, Santa Cruz County, July 2007 – June 2008

Date	Facility	Type of Outbreak	~ # ILL
Jul-07	Long Term Care (LTC) Facility	Norovirus – suspected	35
“	Hospital / Clinic	Norovirus – confirmed	36
Aug 07	LTC Facility	Respiratory - unknown	10
Sep 07	LTC Facility	Respiratory – rhinovirus	8
Oct 07	Corrections	MRSA	6
Nov 07	Restaurant	Norovirus – suspected	134
Dec 07	Childcare Facility	Rash – unknown	9
Jan 08	LTC Facility	Norovirus – confirmed	3
“	LTC Facility	Norovirus – confirmed	46
“	School	Head lice	6
Feb 08	LTC Facility	Norovirus – suspected	18
“	LTC Facility	Respiratory – unknown	14
“	School	Norovirus – suspected	18
“	LTC Facility	Norovirus – confirmed	9
Mar 08	School	Streptococcus	11
Apr 08	School	Chicken Pox	43
“	School	Chicken Pox	6
May 08	School	Chicken Pox	6
“	School	Chicken Pox	5
“	School	Chicken Pox	16
Jun 08	School	Norovirus – suspected	16
TOTAL		21	455

* Data are provisional

Source: County of Santa Cruz, CD Unit²

Sources:

1. "Trends in Tuberculosis --- United States, 2007." *Morbidity and Mortality Weekly* 57.1121 MAR 2008 281-285. 9 Jul 2008 <<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5711a2.htm>>.
2. County of Santa Cruz, Public Health Department, Communicable Disease Unit; 2007 Provisional Data (May 2008).
3. California Department of Public Health. "Title 17, California Code of Regulations (CCR) §2500, §2641-2643, and §2800-2812 Reportable Diseases and Conditions." 27 May 2008. <http://www.cdph.ca.gov/HealthInfo/discond/Documents/SSS_Reportable_Diseases.pdf>
4. County of Santa Cruz, Public Health Department, HIV/AIDS Unit; Provisional Data as of May 2008.
5. "Annual AIDS and HIV Surveillance Report, 2007" Santa Cruz County Health Services Agency. <http://www.santacruzhealth.org/resources/categories/3health_statistics_and_reporting.htm#statistics>
6. "Chlamydia, Cases and Rates, California Counties & Selected City Health Jurisdictions, 2003–2007. Provisional Data." California Department of Public Health. 18 August 2008. <<http://ww2.cdph.ca.gov/data/statistics/Documents/STD-Data-Chlamydia-Provisional-Tables.pdf>>
7. "Gonorrhea, Cases and Rates, California Counties & Selected City Health Jurisdictions, 2003–2007. Provisional Data." California Department of Public Health. 18 August 2008. <<http://ww2.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx>>

11. CHRONIC DISEASES

Importance	Eight of the first eleven causes of death in both Santa Cruz and California residents in 2004 were chronic diseases (see “Mortality”). Many of these deaths can be prevented with healthy lifestyle choices and successfully managed and/or treated if caught early.
How are we doing in Santa Cruz County?	<ul style="list-style-type: none">▪ Santa Cruz County’s death rate from heart disease was 134.7 deaths per 100,000 population between 2003 and 2005—which is substantially lower than California, the U.S., and the 2010 objective.¹▪ 12% of Santa Cruz County residents had ever been diagnosed with asthma in 2005.²▪ In 2005, Santa Cruz County’s adult diabetes prevalence was 3.5% while California’s prevalence was 6.8%; however, Santa Cruz has still not met the 2010 objective of 2.5%.^{3,4}▪ While the death rate, 2003 through 2005, from all cancers is lower in Santa Cruz County than the rest of the nation; the Santa Cruz County rate (171.7 deaths per 100,000) is higher than California and the 2010 objective.¹
What inequities exist?	<ul style="list-style-type: none">▪ In 2001, Hispanics with diabetes reported receiving fewer foot exams than Whites, 51% and 94% respectively.⁵▪ In 2006, asthma related Emergency Department visits among Blacks were 94 per 10,000 population compared to 16 for Hispanics, 25 for Whites and 32 for other racial groups.⁶
Definitions	A1C test: also called glycated hemoglobin, or HbA1c; tests average glucose levels for a 2-3 month period to better determine an individual’s average glucose levels. ⁷
Healthy People 2010	<ul style="list-style-type: none">▪ Diabetes: Prevalence less than 2.5%▪ Heart Disease Mortality: Deaths per 100,000 population less than 162▪ Cancer Mortality: Deaths per 100,000 population less than 158.6▪ Asthma: Hospitalizations of persons <5 years per 10,000 population less than 25 Hospitalizations of persons 5-64 years per 10,000 population less than 8 Hospitalizations of persons 65+ years per 10,000 population less than 11

In 2003, 45% of Santa Cruz County adults and 18% of children reported having one or more chronic conditions, compared to 45% of California adults and 22% of California children.⁸ Within the Santa Cruz County homeless population, 34% reported suffering from a chronic health condition in 2007.⁹

Strokes, heart disease and all types of cancers are the leading causes of death in California and the US. Not only are these chronic conditions costly to treat, they are usually preventable with healthy lifestyle choices such as a healthy diet, avoiding or stopping the use of tobacco products and engaging in physical activities.¹⁰ Additionally, many chronic diseases are easier to manage and/or treat if caught early.

In California there are often health disparities between the White and Black communities. For example, obesity, high blood pressure, smoking and inadequate physical activities are all more prevalent in Blacks than Whites in California.^{5,10} Although Santa Cruz County Blacks report more physical activity than Whites, this measure may be skewed by the small size of the Black Community.^{5,10}

The small size of the Santa Cruz County Black community also means the number of Blacks affected with any particular ailment may not be statistically measurable or may be too small to maintain an individuals’ confidentiality. However, the lack of numbers should not imply a lack of disparity.



DIABETES

Based on 2001 and 2003 survey data, 52% of adults in the central coast area, which includes Santa Cruz County, with all types of diabetes were White, 36% were Hispanic, and 12% are another race/ethnicity.⁸ Additionally, 35% of Santa Cruz County residents with diabetes were classified as low income (0-199% Federal Poverty Level).⁸

Excess body weight, physical inactivity and a diet with fewer than 5 fruits or vegetables per day are all risk factors linked to type 2 diabetes. Santa Cruz County ranked favorably in 2001 compared to other counties in California, at 7th in overweight, 5th in obesity, 3rd in physical activity, and 1st for residents eating 5 or more fruits and vegetables.⁵ The favorable rates of overweight, obesity, physical activity and fruit and vegetable consumption are all correlated with Santa Cruz County's relatively low type 2 diabetes prevalence in adults at 3.4% in 2005 while California's prevalence was 6.8% but has still not met the 2010 objective of 2.5% (Figure 11.1).^{2,4}

Controlling type 2 diabetes risk factors is necessary to keep prevalence low in the future. In 2001, the rate of obesity in Santa Cruz Blacks (45%) was more than three times that of Whites (12%), while of Hispanics (23%) was nearly twice that of Whites.⁵ Hispanics reported the lowest physical activity with 78% reporting inactivity compared to 60% of Whites and 44% of Blacks (Figure 11.2).⁵

Once an individual develops any type of diabetes, regular management and care are necessary to ensure a good quality of life for the individual. A1C tests and foot exams are two ways for a doctor to monitor a diabetic patient's health status and determine any changes are needed in treatment plans. Santa Cruz ranked 4th among all California counties for administering A1C tests and foot exams in 2001.⁵ In Santa Cruz County, Hispanics with diabetes reported receiving a fewer foot exams than Whites, 51% and 94% respectively (Figure 11.2).⁵ Sub-optimal management of diabetes in Hispanics throughout California is linked to a lack of insurance or regular source of care, both of which can result from language barriers, low income or non-citizen status.¹¹ In Santa Cruz County the rate of diabetes associated deaths was 15.8 per 100,000 per year from 2000 through 2002.¹²

Figure 11.1: Age-Adjusted Prevalence of Diabetes, 2005

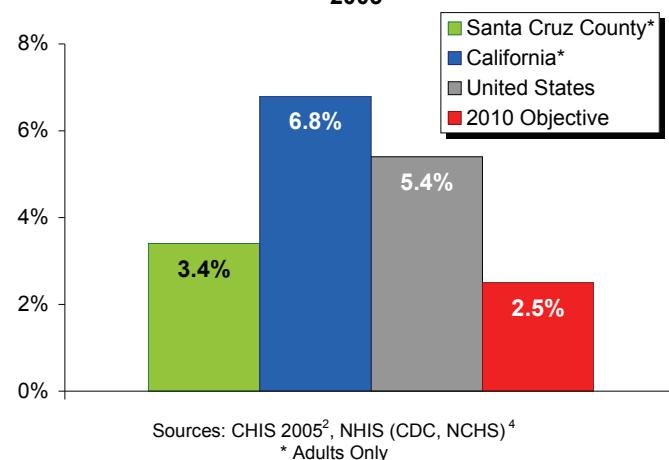
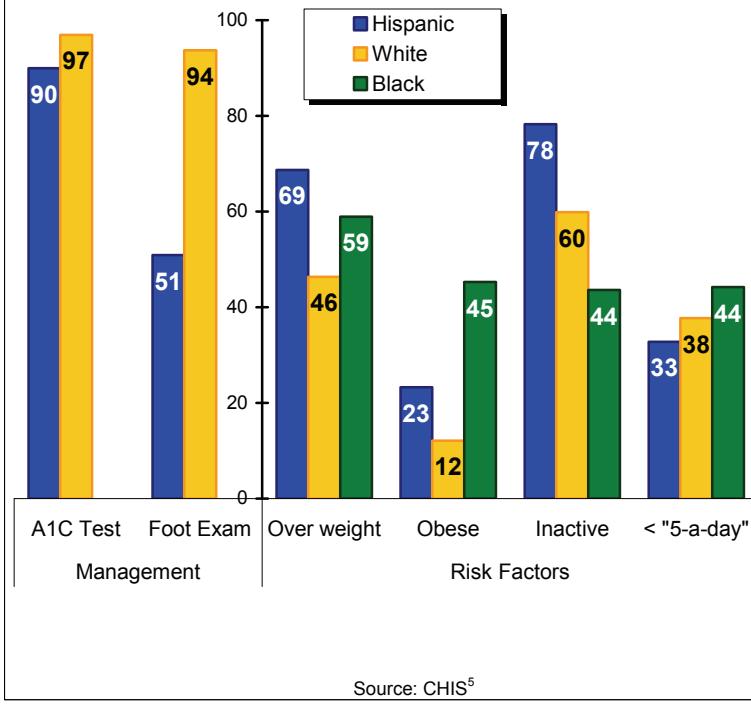


Figure 11.2: Management of, and Risk Factors for Diabetes in Santa Cruz County, 2001



HEART DISEASE

Heart disease is the leading cause of death in Santa Cruz County, in California and in the U.S. Fortunately, the rate of heart disease deaths in Santa Cruz County is lower than California and the US and meets the 2010 objective.¹

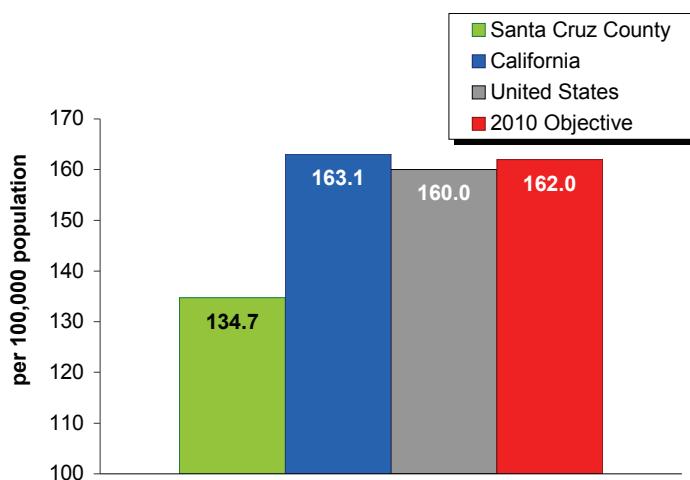
In 2005, there were not significantly more adults in Santa Cruz County with heart disease than in California, 7% and 6% respectively.² Additionally, 34% of adults with heart disease are from low-income households 0-199% of the Federal Poverty Level (FPL) and 53% are aged 65 and older (2003, 2005).² In 2005, 17% of Santa Cruz County adults reported having hypertension compared to 25% of California adults; 34% of Santa Cruz adults with hypertension are from low-income households (0-199%FPL) and 40% are aged 65 and older.² Diagnosis of heart disease occurs disproportionately more often in Whites; 93% of Santa Cruz men and 76% of Santa Cruz women diagnosed with heart disease are White, while the county's overall White population is 64%.²

CANCER

In the U.S., tobacco usage, diet and obesity cause approximately 60% of all cancer deaths.¹³ In the Greater Bay Area, which includes Santa Cruz County, lung cancer, 85% of which is caused by cigarette smoking, was the number one cause of cancer deaths from 2001 to 2005 among both men and women regardless of race/ ethnicity.^{13,14} In women, breast cancer was the 2nd leading cause of cancer deaths followed by colorectal cancer.¹⁴ In men, prostate and colorectal cancer were part of the top 3 causes of cancer related deaths, though order varied by ethnicity and race. In Asian men liver cancer deaths replaced prostate cancer deaths at number 3.¹⁴ Colorectal, prostate, and breast cancer prevention, along with the prevention of many other cancers, lies in healthy personal habits such as avoiding tobacco use, limiting alcohol intake, maintaining a healthy weight, eating a healthy diet, and adopting a physically active lifestyle.¹³

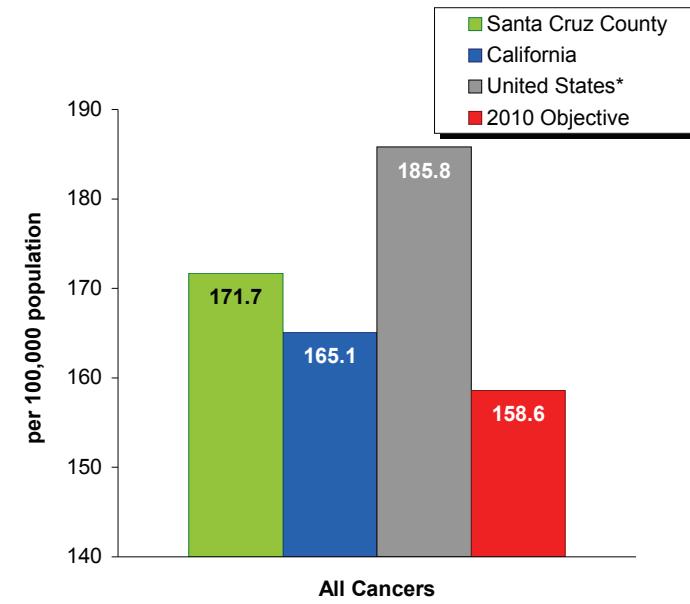
In 2005, 10% of Santa Cruz adults had ever been diagnosed with any type of cancer, compared to 8.3% of Californian adults.² While the rate of total cancer deaths for 2003-2005 in Santa Cruz County was lower than in the United States, the rate is above both the California rate and the 2010 objective of 158.6 per 100,000 population (Figure 11.4).¹

Figure 11.3: Coronary Heart Disease Deaths per 100,000 population, 2003-2005 Average



*United States Data is based on 2004 data
Source: CDPH¹

Figure 11.4: All Cancer Deaths per 100,000 population, 2003-2005 Average



*United States Data is based on 2004 data
Source: CDPH¹

CANCER (CONT)

Santa Cruz County has not yet achieved the 2010 objectives for the lung, prostate, female breast or colorectal cancers from 2003 to 2005; however, Santa Cruz has a lower incidence of colorectal cancer deaths than California and a lower incidence of lung cancer deaths than the nation (Figure 11.5).¹

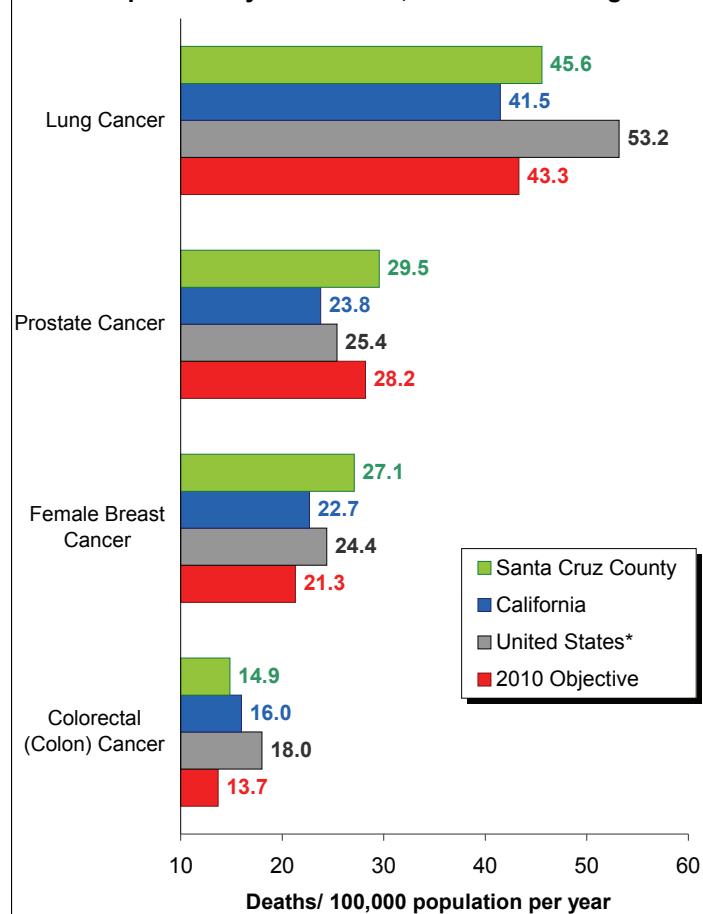
ASTHMA

In 2005, 12% of Santa Cruz residents ages one and older had been diagnosed with asthma at some point in their lives, compared to 13.6% of Californians.² 12% of Santa Cruz County adults have ever been diagnosed with asthma; 23% are in low income households (0-199% FPL).² 11% of Santa Cruz County children have ever been diagnosed with asthma.²

Californians with active asthma in low-income households are less likely to have health insurance.¹⁶ In 2005, 40.8% of Californian children that visited the ER for asthma are uninsured part or all of the year while 29.3% of children are in Medical/Healthy Families and 16.6% of children are in employment based health insurance for the full year visited the ER for asthma.¹⁷ Californians with active asthma from low income households are also less likely to have a usual source of care or receive an asthma management plan, and they are more likely to report asthma triggers such as smoking or the presence of cockroaches in their home.¹⁶ Exposure to asthma triggers vary by ethnicity/race. Among Californians suffering from active asthma in 2003, 22% of Blacks reported smoking in their home compared to 5% of Hispanics and 10% of Whites, and cockroaches were reported by 25% of Hispanics, 18% of Asians, 13% of Blacks and 9% of Whites.¹⁸

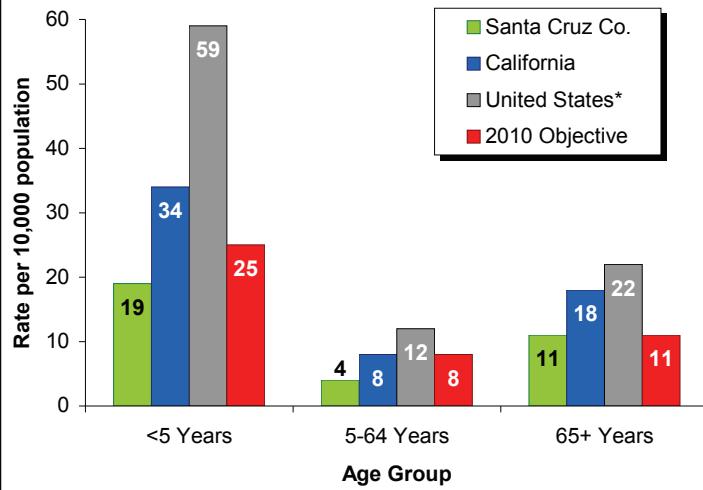
Lack of health insurance, disease management options and the presences of triggers such as cigarette smoke and cockroaches can cause an individual with active asthma to visit the emergency room and possibly lead to hospitalization or death. Santa Cruz County has better age-adjusted asthma hospitalization rates than California and the US, and meets or surpasses the 2010 objectives (Figure 11.6).^{4,19} In 2006, when emergency department visits in Santa Cruz County were broken down by ethnicity/race, Blacks have a visit rate of 94 per 10,000 population compared to 16 for Hispanics, 25 for Whites, and 32 for other racial groups (Figure 11.7).⁶ In Santa Cruz County the age-adjusted rate of asthma deaths for 2000-2004 was 16.5 per 1,000,000 (n=20) and it was 15.5 in California.¹⁹

Figure 11.5: Average Cancer Deaths/ 100,000 Population by Cancer Site, 2003-2005 Average



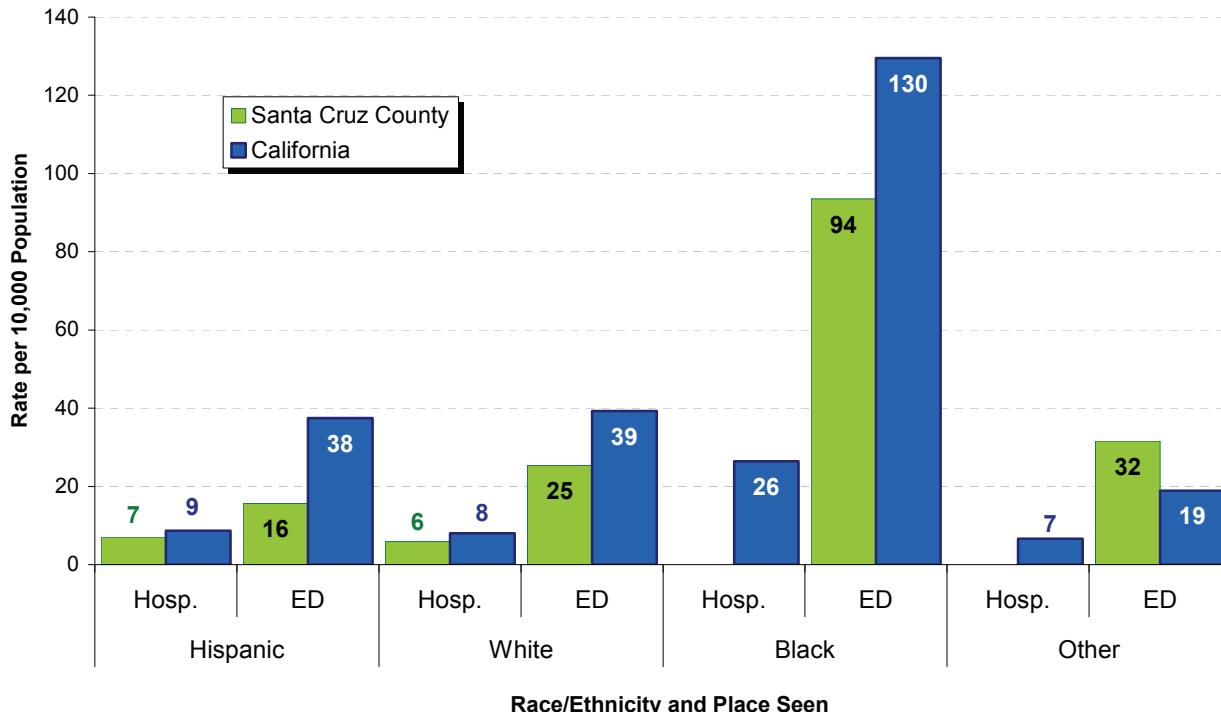
*United States Data is based on 2004 data
Source: CDPH¹

Figure 11.6: Asthma Hospitalization Rates By Age Group, 2001-2003 Average



*United States Data is based on 2002 data
Sources: California Breathing, CDC Wonder^{4,6}

Figure 11.7: Asthma-Related Hospitalizations (Hosp.) and Emergency Department Visits (ED) per 10,000 Population by Ethnicity/Race, 2006



Sources:

1. "CHSP County Sheets." *County Health Status Profiles 2007*. California Department of Public Health (CDPH). 17 Jun 2008 <<http://www.cdph.ca.gov/programs/OHIR/Pages/CHSPCountySheets.aspx>>.
2. "2001-2005 California Health Interview Survey." *AskCHIS*. 2005. UCLA Center for Health Policy Research. 23 Jul 2008 <<http://www.chis.ucla.edu>>.
3. Diamant, Allison L., Susan H. Babey, Theresa A. Hastert and E. Richard Brown. "Health Policy Research Brief: Diabetes: The Growing Epidemic." Aug 2007 17 Jun 2008 <http://www.healthpolicy.ucla.edu/pubs/files/Diabetes_Epidemic_PB_082207.pdf>.
4. "CDC Wonder Data 2010 - Homepage." *CDC Wonder*. 28 May 2008. CDC. 17 Jun 2008 <<http://wonder.cdc.gov/data2010/>>.
5. California Diabetes Program, California, *Diabetes in California Counties: Prevalence, Risk Factors and Resources* (2005) <http://www.caldiabetes.org/content_display.cfm?contentID=413&ProfilesID=22&CategoriesID=0>.
6. "Asthma Data: County Asthma Profiles." *California Breathing*. CDPH. 17 Jun 2008 <http://www.californiabreathing.org/index.php?option=com_content&task=view&id=52&Itemid=113>.
7. "A1C Test - All About Diabetes - American Diabetes Association." American Diabetes Association. 17 Jun 2008 <<http://www.diabetes.org/type-1-diabetes/a1c-test.jsp>>.
8. Jhawar, MPH, Mona, Steven P. Wallace, PhD. "Chronic Conditions of Californians: Findings from the 2003 California Health Interview Survey." Dec 2005 <http://www.healthpolicy.ucla.edu/pubs/files/chron_cond05_report.pdf>.
9. Applied Survey Research, "2007 Santa Cruz County Homeless Census and Survey." 17 Jun 2008 <http://www.appliedsurveystudy.org/www/products/2007_Santa_Cruz_Homeless_Report.pdf>.
10. "Chronic Disease - California: Leading Causes of Death." 14 November 2005. Centers for Disease Control and Prevention (CDC). 17 Jun 2008 <<http://www.cdc.gov/nccdphp/publications/factsheets/ChronicDisease/california.htm>>.
11. Chawla, MPH, Neetu, Michael A. Rodriguez, MD, MPH, Susan H. Babey, PhD, and E. Richard Brown, PhD. "Health Policy Fact Sheet: Diabetes among Latinos in California: Disparities in Access." Sep 2003 <http://www.healthpolicy.ucla.edu/pubs/files/LatinoDiabetes_FactSheet.pdf>.
12. "Diabetes Deaths in California, 2002." *California Diabetes Program*. 3 June 2008. Center for Health Statistics. <http://www.caldiabetes.org/content_display.cfm?contentID=216&CategoriesID=31>.
13. California Cancer Registry, *California: Cancer Facts & Figures, 2008* (2008) <<http://www.ccrccal.org/PDF/ACS2008.pdf>>.
14. Cresswell, M.P.H., Sheena, Scarlett L. Gomez, Ph.D., et al.. "Annual Report Cancer Incidence and Mortality in the Greater Bay Area, 1988-2005." 23 Apr 2008. Northern California Cancer Center. 15 Jul 2008 <<http://www.nccc.org>>.
15. "Health Snapshots - UCLA Center for Health Policy Research." UCLA Center for Health Policy Research. 17 Jun 2008 <<http://www.healthsnapshots.org/default.asp>>.
16. Babey, Susan H., Theresa A. Hastert, Ying-Ying Meng and E. Richard Brown. "Health Policy Research Brief: Low-Income Californians Bear Unequal Burden of Asthma." Feb 2007 17 Jun 2008 <http://www.healthpolicy.ucla.edu/pubs/files/Low-Income_Asthma_PB_022707.pdf>.
17. Brown, PhD, E. Richard, Shana Alex Lavarreda, MPP, Ninez Ponce, PhD, MPP, Jean Yoon, MHS, Janet Cummings, BA, Thomas Rice, PhD. "The State of Health Insurance in California Findings From the 2005 California Health Interview Survey." July 2007 <http://www.healthpolicy.ucla.edu/pubs/files/SHIC_RT_072807.pdf>.
18. Meng, Ying-Ying, Susan H. Babey, Theresa A. Hastert and E. Richard Brown. "Health Policy Research Brief: California's Racial and Ethnic Minorities More Adversely Affected by Asthma." Feb 2007 <http://www.healthpolicy.ucla.edu/pubs/files/Minorities_Asthma_PB_022707.pdf>.
19. Milet M, Tran S, Eatherton M, Flattery J, Kreutzer R. "The Burden of Asthma in California: A Surveillance Report." Richmond, CA: California Department of Health Services, Environmental Health Investigations Branch, June 2007. <<http://www.californiabreathing.org/images/stories/publications/asthmaburdenreport.pdf>>.

12. INJURIES

Importance	Injuries are responsible for death, disability, pain and suffering, medical costs, and lost productivity.
How are we doing in Santa Cruz County?	<ul style="list-style-type: none">▪ National rates of non-fatal injuries have been decreasing steadily over the past few decades.⁴▪ Santa Cruz County's overall nonfatal injury rate in 2005 was 705.5 per 100,000 population, higher than the statewide rate of 674.2 per 100,000.⁵▪ During the period 2003-2005, Santa Cruz County ranked 10th best among California counties, with an average annual age-adjusted mortality rate of unintentional fatal injuries of 29.3 per 100,000 persons.⁴
What inequities exist?	Non-fatal injury rates are higher among Black men than among women or White men.
Definitions	Non-fatal injury: usually defined as an injury that requires hospitalization but does not cause death. Includes both intentional injuries (assault and attempted suicide) and unintentional injuries such as falls, motor vehicle accidents, etc. Unintended fatal injury: a fatal injury that is not inflicted by deliberate means or not intended to harm anyone, regardless of whether the injury was inflicted by oneself or by another person. Cases of unknown or undetermined intent are usually classified as unintentional injuries.
Healthy People 2010	<ul style="list-style-type: none">▪ Reduce hospital emergency department visits caused by injuries to 126 per 1,000 population.▪ Reduce nonfatal injuries caused by motor vehicle crashes to 933 per 100,000 population.▪ Reduce nonfatal poisonings to 292 per 100,000 population.▪ Reduce nonfatal firearm injuries to 8.6 per 100,000 population.

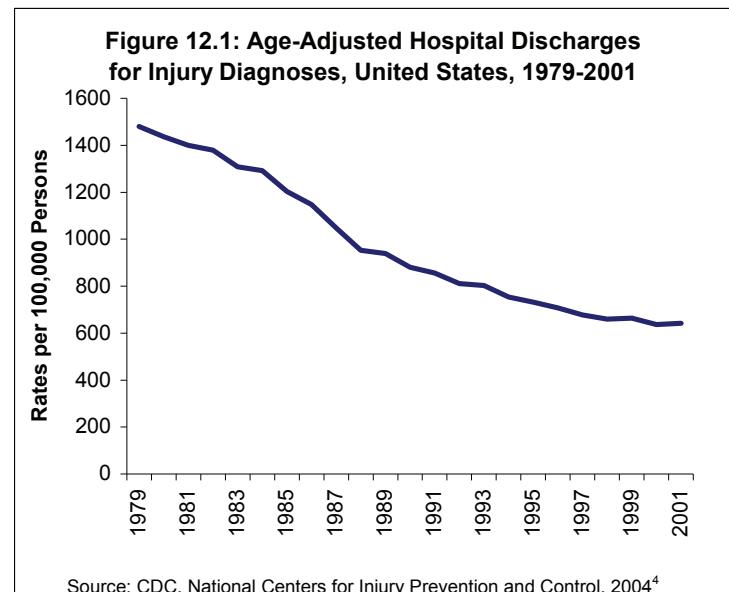
NON-FATAL INJURIES

Non-fatal injuries are far more common than fatal injuries. National rates of hospital discharges from injury diagnoses have fallen steadily, dropping an average of 4.3% per year; the age-adjusted rate per 100,000 persons dropped from 1,480 in 1979 to 642 in 2001.² Rates have fallen faster among males than females, and male and female rates are no longer significantly different. Rates among Black women are similar to those among White men and women, but rates among Black men remain elevated.

In general, the rate of non-fatal injury hospitalizations is strongly correlated to age, varying more than 20-fold between 5-14 year-olds and the very elderly (85+ years).² This may have more to do with the fragile state of elderly persons than with a higher propensity for accidents, but both are probably important factors.

In 2004, Californians incurred a total of 185,137 injury hospitalization episodes, with an age-adjusted rate of 536.7 per 100,000 persons, ranking the state 12th best among the 32 states that provided data.³

Falls are by far the most common cause of non-fatal injuries nationally, followed by striking or being struck by an object⁴. Overexertion and motor vehicle accidents are the third and fourth most common causes. Firearms injuries, fire injuries, and drowning hospitalizations represented relatively small fractions of all injuries.¹



NON-FATAL INJURIES (CONT)

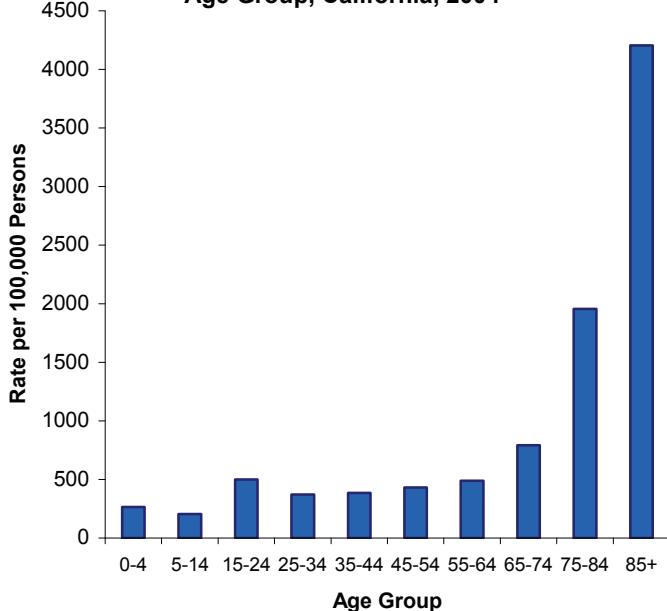
In California, in 2005, the most common causes of non-fatal injuries were falls, motor vehicle accidents, suicide attempts, assaults, and poisonings.¹ Santa Cruz County's overall nonfatal injury rate in 2005 was 705.5 per 100,000 population, higher than the statewide rate of 674.2.⁵ The major contributor was a higher rate of fall injuries in Santa Cruz County, 298.6 compared to 276.8 statewide. The county had a low rate of motor vehicle injuries (69.7 compared to 88.8), and barely half the statewide rate of assault injuries (see Figure 12.3).¹

UNINTENDED FATAL INJURIES

Unintended injuries are the fifth leading cause of death in the United States, with an age-adjusted death rate of 39.1 per 100,000 persons, accounting for 117,000 deaths in 2005, or 4.8% of all deaths.⁶ Rates have been gradually increasing since a low of 33.2 in 1992. Males were 2.2 times as likely as females to die in accidents in 2005. Whites and Blacks had similar age-adjusted death rates due to unintended injuries, 25% higher than the rate among Hispanics. Mortality rates by age group varied from 35-46 per 100,000 among persons aged 15-74, then doubled to 106 among 75-84 year-olds, and then doubled again to 280 among those over 85. Rates among children under 14 are lower than for other age groups.³ Unintended injuries are the leading cause of death in all groups below age 45.⁷

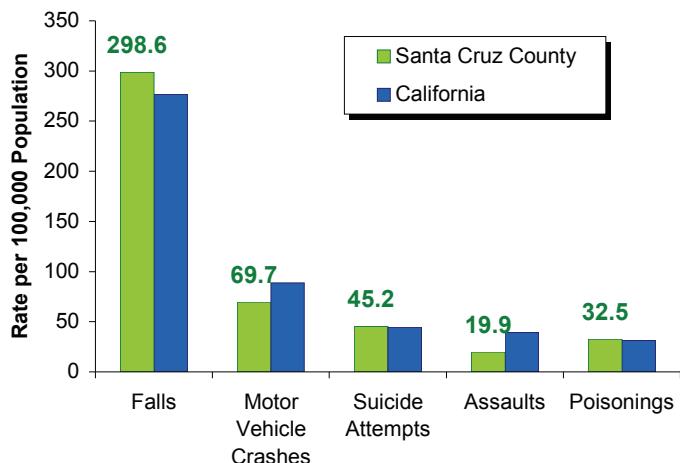
During the period 2003-2005, Santa Cruz County ranked 10th best among California counties, with an average annual age-adjusted mortality rate from unintentional injuries of 29.3 per 100,000 persons. The rate was significantly better than the 2004 national rate of 37.7, but not significantly different from California's rate of 30.0. The Healthy People 2010 objective is 17.1 per 100,000; no county in California has attained the objective.⁸

Figure 12.2: Hospitalizations for All Injuries, by Age Group, California, 2004



Source: CDC, State Injury Indicators Report, 3rd Ed.³

Figure 12.3: Nonfatal Injury Rates per 100,000 Population, 2005



Source: CDHS, EPI Center¹

Sources:

1. California Department of Health Services, EPICenter. http://www.applications.dhs.ca.gov/epicdata/content/sum_topfive.htm
2. Centers for Disease Control, National Center for Health Statistics. National Trends in Injury Hospitalizations 1979-2001. March 2005.
3. Centers for Disease Control, National Center for Injury Prevention and Control. State Injury Indicators Report, Third Edition – 2004 Data. http://www.cdc.gov/ncipc/profiles/core_state/State_Injury_Indicators_Report.pdf
4. Centers for Disease Control, National Center for Injury Prevention and Control. National Estimates of the 10 Leading Causes of Nonfatal Injuries Treated in Hospital Emergency Departments, United States, 2004. <ftp://ftp.cdc.gov/pub/ncipc/10LC-2004/PDF/10lc-2004-nonfatal.pdf>
5. California Department of Health Services. EPICenter. http://www.applications.dhs.ca.gov/epicdata/content/tb_nonfatal.htm
6. Deaths: Final Data for 2005. *National Vital Statistics Reports* 56(10). April 24, 2008.
7. Centers for Disease Control, National Center for Injury Prevention and Control. 10 Leading Causes of Death by Age Group, United States -- 2003. <ftp://ftp.cdc.gov/pub/ncipc/10LC-2003/PDF/10lc-2003.pdf>
8. California Department of Public Health and California Conference of Local Health Officers. *County Health Status Profiles 2007*. December 2007.

13. MORTALITY

Importance	Unintentional injuries, suicide, and homicide are the 5 th , 11 th , and 15 th leading causes of death in the United States. Moreover, fatal injuries may be considered as particularly important causes of death since they tend to affect a young population and thus cause a disproportionate share of Years of Potential Life Lost. Completed suicides are also an indicator for suicide attempts, which constitute a major injury category, and for emotional distress, which is a strong indicator of the well-being of the population. Examination of the frequencies of the various causes of death in a population can help to identify opportunities for intervention to reduce illness, injury, and death.
What inequities exist?	<ul style="list-style-type: none">▪ In the United States, homicide death rates are highest among Blacks (8 times the rate among Whites) and Hispanics (almost 3 times the rate among Whites).³▪ Homicide death rates are 4 times higher among males than females.³▪ Suicide rates among Whites are more than double those among Blacks, Asians, and Hispanics.⁴
How are we doing in Santa Cruz County?	<ul style="list-style-type: none">▪ The 2003-2005 average age-adjusted death rate was lower in Santa Cruz County than the state of California and the nation, primarily because of a significantly lower rate of coronary heart disease deaths.¹▪ The county's death rate from diabetes was significantly lower than the state rate.▪ The county's homicide rate was significantly lower than the statewide rate.▪ The county's suicide rate was 38% higher than the statewide rate.
Definitions	Unintentional injuries: incidents in which bodily harm or death is sustained as a result of unintended events: motor vehicle crashes, drownings, fires, falls, poisonings, and accidental firearm fatalities. Does not include intentional injuries such as homicides and suicides. Years of Potential Life Lost: the number of years between a person's age at death and an age to which they might have been expected to live had they not died of their actual cause of death – a measure of mortality that emphasizes the importance of death at early age.
Healthy People 2010 Objectives	Reduce deaths from unintentional injuries to 17.1 per 100,000 persons (age-adjusted). Reduce homicides to no more than 2.8 per 100,000 population (age-adjusted). Reduce suicides to no more than 4.8 per 100,000 population (age-adjusted).

In Santa Cruz County, the age-adjusted death rate from all causes was 700 deaths per 100,000 population on average between 2003 and 2005. The rate compares favorably to both the state and national rates of 717 and 801 deaths per 100,000 respectively. In fact, the Santa Cruz County rate was significantly less than the national rate.¹

CAUSES OF DEATH

The leading cause of death in the United States is coronary heart disease.⁴ In Santa Cruz County, the age-adjusted death rate from heart disease was 135 per 100,000 population, which is significantly lower than the statewide rate of 163 and the national rate of 160.¹ It is also even lower than the county's rate of deaths from all cancers combined. Santa Cruz County death rates were significantly lower than statewide rates for diabetes (15.5 in the county, versus 22.3 statewide) and for homicide (2.8 versus 6.8). The county did not have rates significantly higher than statewide rates for any leading cause of death.



CAUSES OF DEATH (CONT)

The rate of death from cancer was 171.7, higher than the statewide rate of 165.1, but lower than the national rate of 185.8, and not significantly different from either. County rates of other leading causes of death, such as cerebrovascular disease, chronic lower respiratory disease, and unintentional injuries, were lower than state rates but not significantly different from them. Rates for Alzheimer's disease, pneumonia and influenza, and motor vehicle crashes were also lower than state rates but not significantly different. Suicide rates were higher than state rates but not significantly different.

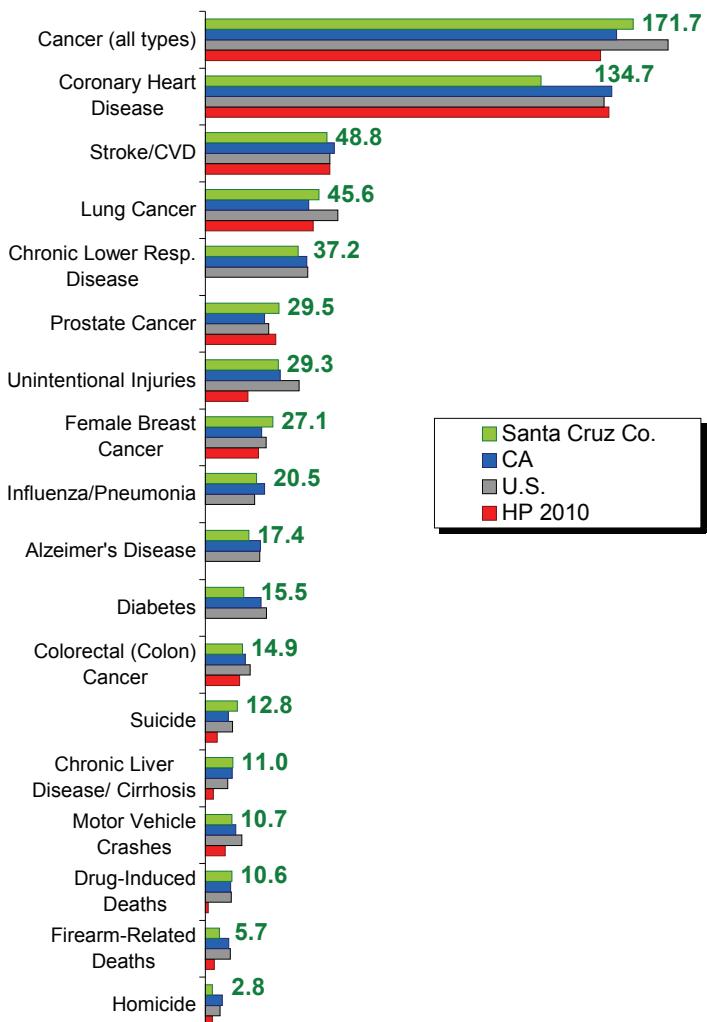
In the last 100 years, public health advances such as improved sanitation, refrigeration, vaccinations, and antibiotics have greatly reduced the death toll from infectious disease. Nowadays, changes in lifestyle can substantially reduce most of the major causes of death due to chronic diseases, such as heart disease, cancer, stroke, chronic lower respiratory disease, diabetes, and cirrhosis of the liver. The single greatest actual cause of death in developed countries is tobacco. The second greatest is the combination of poor diet and physical inactivity; in the U.S., that combination threatens to overtake tobacco as the leading cause of death. Reductions in tobacco usage and improvements in diet and physical activity will be the keys to improving health and extending life spans in the 21st century.

HOMICIDE

The United States had a homicide rate of 6.1 per 100,000 in 2005,⁵ almost double the rate of any other industrialized country. Homicide death rates were highest among males (almost 4 times the rate among females), adolescents and young adults (6 times the rate among the elderly), Blacks (8 times the rate among Whites), and Hispanics (almost 3 times the rate among Whites) (Figure 13.2).

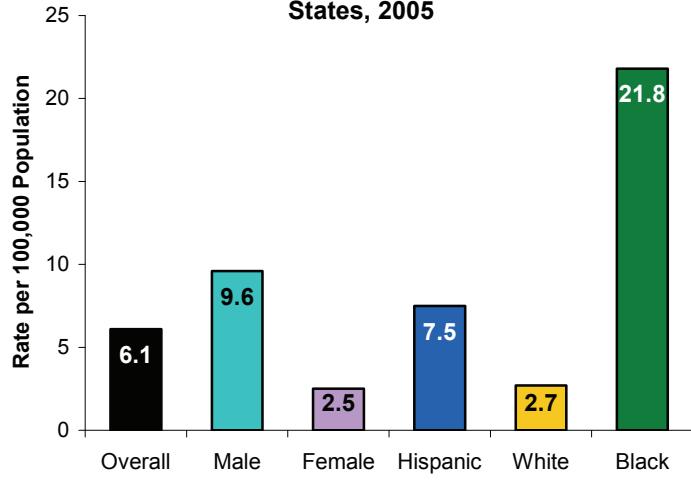
Most homicides are committed by someone who knows the victim. Two thirds of homicides are committed with firearms. Homicide rates vary between urban and rural settings.⁷ The highest rates are found in cities with populations of at least 100,000. Rates are lowest in rural areas, higher in small cities, and still higher in suburban areas, but all have rates that are less than half of the rates in large cities.

Figure 13.1: Age-Adjusted Death Rate (per 100,000) by Cause of Death, 2004



Source: National Vital Statistics Report, 2004⁴

Figure 13.2: Age-Adjusted Death Rates from Homicide, by Sex and Race/Ethnicity, United States, 2005



Source: National Vital Statistics Report 2005⁵

HOMICIDE (CONT)

Over the past 15 years, Santa Cruz County has consistently had homicide rates lower than statewide and national rates.² County rates were significantly lower in most years, averaging less than half of state rates over the period shown in Figure 13.3.³ Homicide rates, along with other violent crime rates, track with economic conditions. California homicide rates dropped during the economic boom of the 1990s and have rebounded somewhat during the economic slump of the last several years.³ The period shown does not include the more severe economic downturn that began in 2006; there may be reason to expect a further upswing in homicide rates if economic conditions continue to worsen.

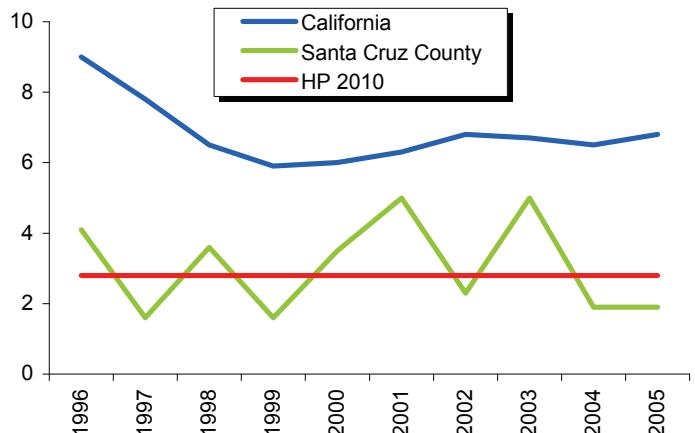
SUICIDE

Suicide is the 11th leading cause of death nationally, taking the lives of about 32,000 people per year, about 1.4% of all deaths in the United States.⁴ Suicide causes 1.8 times as many American deaths as homicide does.

Suicide rates are strongly linked to sex, age, race, and ethnicity. Suicide rates are nearly four times as high among men as among women (although women are more likely to *attempt* suicide). Suicide rates increase with age; the rate per 100,000 rises from about 10 in the 15-24 age group to a peak of about 15 in the 45-54 age group, drops to about 13 in the 55-64 and 65-74 age groups, and then climbs to a higher peak of about 16-19 in the oldest age groups (Figure 13.7). Suicide rates among Whites are more than double those among Blacks, Asians, and Hispanics.⁴ Other risk factors for suicide include depression, substance abuse, availability of firearms in the home, family violence, family history of suicide or mental illness, social isolation, rural residence, stress, and lack of mental health care.

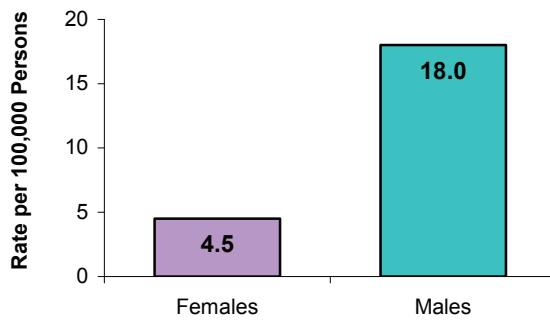
The age-adjusted rate of death by suicide for the years 2003-2005 in Santa Cruz County was 12.8 per 100,000 persons, compared to the statewide rate of 9.3.¹ The national age-adjusted rate in 2004 was 10.9 per 100,000.⁴

Figure 13.3: Homicides per 100,000 Population, 1996-2005



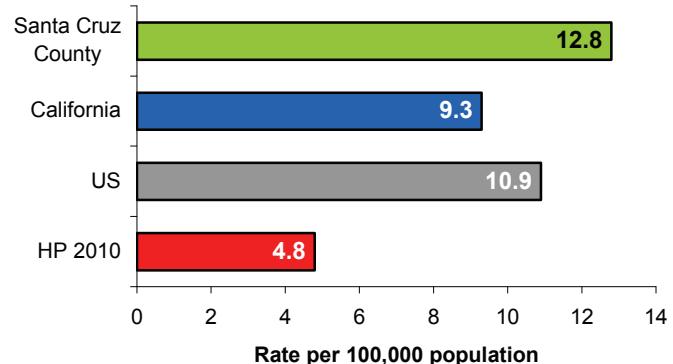
Source: Cal. Attorney General³

Figure 13.4: Age-Adjusted Suicide Rates by Sex, United States, 2004



Source: National Vital Statistics Report, 2004⁴

Figure 13.5: Three Year Average Age-Adjusted Suicide Death Rate, 2003-2005



Sources: CDPH, CCLHO; National Vital Statistics Report 2004^{1,4}

SUICIDE (CONT)

Santa Cruz ranked 36th among the 58 California counties.¹ Santa Cruz County's suicide rates since 1980 have been fairly typical for a partly urban and partly rural county with a mid-sized population.

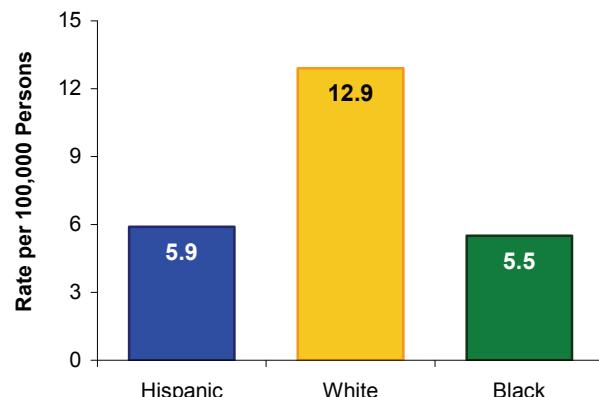
Suicide *attempts* are many times more frequent than actual suicides. Although suicide rates generally increase with age, the rate of suicide *attempts* decreases with age. The number of suicide attempts compared to completed suicides may be as high as 200 to 1 among 15 to 24 year olds, and drop to as low as 4 to 1 among adults over age 65.⁶

A failed suicide attempt is one of the strongest predictors of subsequent attempts and completed suicide. Development of an effective tracking system for suicide attempts could facilitate targeted intervention that might significantly reduce the incidence of suicide.

About half of all suicides in this country involve firearms. In Santa Cruz County since 1991 the proportion has been lower, just over 40%. Nevertheless, reduced access to firearms would probably reduce the incidence of suicide.

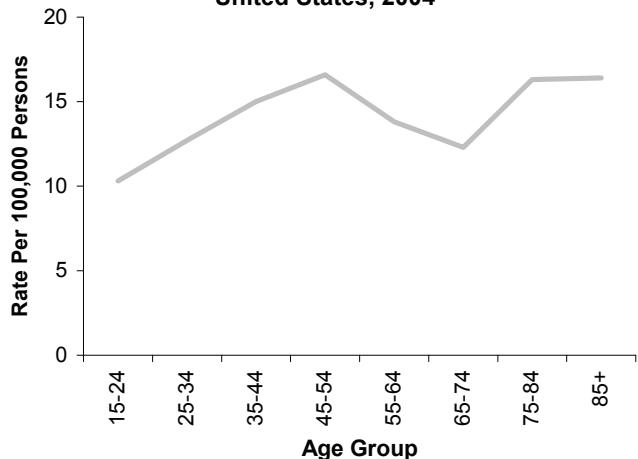
Suicide is associated with depression, an illness treatable both by psychotherapy and by medication. Training physicians to identify and treat depression, and increasing the availability of mental health resources, could reduce the incidence of suicide. Other interventions could include steps to reduce substance abuse, prevent social isolation, and reduce the incidence of chronic diseases.

Figure 13.6: Age-Adjusted Suicide Rates by Race and Ethnicity, United States, 2004



Source: National Vital Statistics Report 2004⁴

Figure 13.7: Suicide Rates by Age Group, United States, 2004



Source: National Vital Statistics Report 2004⁴

Sources:

1. California Department of Public Health and California Conference of Local Health Officers. *County Health Status Profiles 2007*. December 2007.
2. California Department of Health Services. *County Health Status Profiles*. 1998 - 2007.
3. California Office of the Attorney General. Table 14. Homicide Crimes, 1996-2005, by County. <http://ag.ca.gov/cjsc/publications/homicide/hm05/tabs/14.pdf>
4. Deaths: Final Data for 2004. *National Vital Statistics Reports* 55(19). August 1, 2007.
5. Deaths: Final Data for 2005. *National Vital Statistics Reports* 56(10). April 24, 2008.
6. Nonfatal Self-Inflicted Injuries Among Adults Aged 65 Years – United States, 2005. *Morbidity and Mortality Weekly Report* 56(38). September 28, 2007.
7. U.S. Department of Justice, Bureau of Justice Statistics. *Changes in homicide trends have been driven by changes in the number of homicides in large American cities*. <http://www.ojp.usdoj.gov/bjs/homicide/city.htm>