



HEALTH,
Santa Cruz County,

2012



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Cover photos:

- 1). http://www.watsonvillewetlandswatch.org/recent_events.htm#world_wetlands_day
- 2). <http://pulsd.com/san-francisco/deals/santa-cruz-beach-boardwalk/1-dollars-rides-and-food-at-santa-cruz-boardwalk>
- 3). <http://www.santacruzfarmersmarket.org/>
- 4). <http://skimonline.com/2010/05/la-selva-beach/>
- 5). https://scruzwiki.org/Big_Rock_Hole
- 6). <http://www.co.santa-cruz.ca.us/Portals/0/477/twinlakesbeach.jpg>

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Public Health Department Programs:

- California Children's Services
- Communicable Disease Unit
- Environmental Health Department
- HIV Prevention Program
- Immunization Program
- Health Education Programs
- Homeless Persons Health Project
- Family Health Resources
- Mental Health and Substance Abuse Services
- Vital Statistics

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- Community Foundation Santa Cruz County
- Community Assessment Project, Santa Cruz County
- Hospice of Santa Cruz County

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Public Health
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LETTER FROM THE HEALTH OFFICER

Dear Community,

As a former Santa Cruz County Health Officer, now serving again as the interim Health Officer, I have prepared and worked on county health reports as far back as 1988, and I am amazed at the progress and forward movement of this county in its overall health status. As a community, we have made incredible progress on many measures of health and welfare. Although some parts of the community still suffer from disparities, as an entire community we have strived to improve our health and to better our living conditions and the factors that influence them.

While smoking and other unhealthy lifestyle behaviors have decreased, we still suffer from the effects of unhealthy nutrition, inadequate exercise, insufficient medical care for all regardless of financial status, and lifestyle behaviors that hinder us in our efforts to achieve the objectives of Healthy People 2020.

It is imperative that we recognize our efforts and achievements in such diverse areas as smoking reduction, control of communicable diseases, nutrition education, prevention of teen pregnancy, support for the homeless, and provision of compassionate, cost-effective end-of-life care. At the same time, I challenge this community over the next few years to find more effective ways to encourage exercise, improve nutrition, raise vaccination rates, and reduce disparities in health insurance coverage, education, teen pregnancy, breastfeeding, and other areas.

Our community is fortunate in having many voluntary organizations that are actively working to improve the status of all, and Santa Cruz County is indeed a very special place. Our citizens care, and it shows throughout this report.

We are also fortunate in having a Board of Supervisors who care deeply about the community's health and support these efforts. I wish to acknowledge them, and to thank both the staff of the Health Service Agency who wrote and contributed to this report, and our Agency Director, Giang Nguyen, for her interest and steadfast support.

Everyone who lives in Santa Cruz County should be proud to be a member of our community.

Respectfully,

Ira Lubell, MD, MPH
Interim Health Officer, County of Santa Cruz

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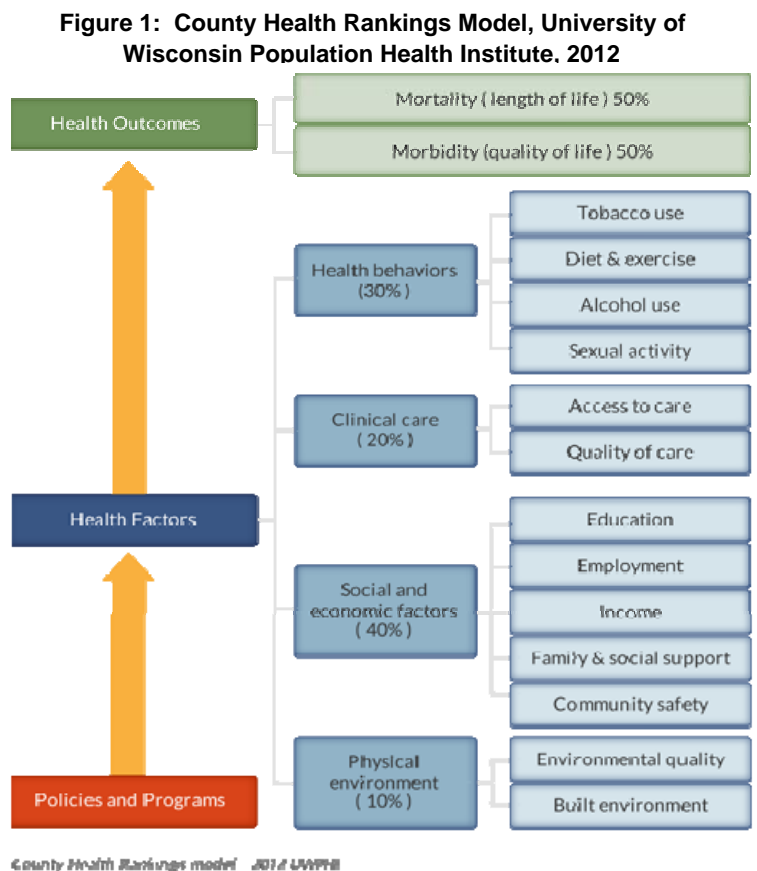
INTRODUCTION

In working towards Public Health Essential Service #1: "To monitor the health of the community," the Public Health Department of the Health Services Agency examines health-related data and publishes their collective findings biennially. The data and analyses are intended to portray and inform residents, providers, and policymakers about the health of Santa Cruz County residents.

Similar to previous editions, this report continues to draw from the national *County Health Rankings and Roadmaps* annual report which is based on a population health model that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play (see Figure 1 for model). The *Rankings* report is a key component of the Mobilizing Action Toward Community Health (MATCH) Project, a collaboration effort between the University of Wisconsin-Madison and the Robert Wood Johnson Foundation, with the goal that the information will be used to create and implement evidence-based programs and policies that will improve communities' health.

The Health Outcomes section measures how healthy a county is, based on: Mortality (how long people live) and Morbidity (how healthy they are while alive). While the Health Factors section evaluates the factors that can influence the health of a population: Health Behaviors, Clinical Care, Social and Economic Factors and Physical Environment. Of note, a fifth group of Health Factors that influences health, Genetics and Biology, is not addressed in this report.

In addition, *Rankings* compares the nation's 3,016 counties on a state-by-state basis, which allow us to compare ourselves with other counties in California using a standardized, weighted methodology showing that where we live, learn, work, and play influences how healthy we are and how long we will live. The Report Card in this report states where Santa Cruz County ranked in the state for each measure *Rankings* assesses.



In 2012, Santa Cruz County ranked 10th healthiest for both Health Outcomes and Health Factors, out of 56 California counties (two counties are not ranked due to small population size). This report, although structured similarly to *Rankings*, is a far richer document locally, delving deeper into the same factors and outcomes, while adding important categories like chronic diseases. When data is available, further analysis by race/ethnicity, gender, age, or sub-county geographies are also addressed.

The data presented is annotated and referenced and can be used to study critical issues and trends, and can uncover hopeful avenues for prevention and population health improvement. Good data is fundamental to good governance, not only because it informs decision-making and thoughtful use of scarce resources, but also because it helps people understand their own conditions and the contributions they can make towards improving their health and the health of the community.

REPORT CARD

<i>County Health Rankings, 2012</i> http://www.countyhealthrankings.org/		Years Data Collected	California	Santa Cruz County	95% Confidence Interval around Santa Cruz County Estimate	Health Ranking Order of 56 Counties in California* Green = Top 1/3 Red = Bottom 1/3
HEALTH FACTORS						
SOCIAL & ECONOMIC FACTORS						
1	High School Graduation ¹	2008 / 09	74%	77%	--	27 th
2	At Least Some College (Persons age 25+) ²	2006 - 2010	59.6%	63.7%	(61.3%, 66.1%)	16 th
3	Unemployment (Persons age 16+) ³	2010	12.4%	12.7%	--	24 th
4	Children in Poverty (Persons age <18) ⁴	2010	22%	19%	(15%, 23%)	22 nd
6	No Emotional or Social Support ⁵	2004 - 2010	25%	22%	(18%, 27%)	20 th (of 46)
7	Single-Parent Households ²	2006 - 2010	30%	28%	(25%, 31%)	18 th
8	Violent Crime Rate per 100,000 ⁶	2007 - 2009	500	494	--	38 ^{th**}
HEALTH BEHAVIORS						
9	Adult Smoking ⁵	2004 - 2010	14.0%	9.5%	(6.9%, 12.9%)	6 th (of 45)
10	Adult Obesity (BMI ≥ 30) ⁷	2009	23.5%	19.8%	(16.5%, 23.2%)	3 rd
11	Adult Physical Inactivity ⁷	2009	18%	12%	(10%, 15%)	1 st
12	Adult Excessive Drinking ⁵	2004 - 2010	17%	18%	(14%, 23%)	27 th (of 48)
13	Motor Vehicle Crash Death Rate per 100,000 ⁸	2002 - 2008	11.9	11.2	(9.7, 12.8)	12 th
14	Chlamydia Rate per 100,000 ⁹	2009	399	255	--	27 th
15	Teen Birth Rate (age 15-19) per 1,000 ⁸	2002 - 2008	40	31	(30, 32)	22 nd
CLINICAL CARE						
16	Uninsured Adults ¹⁰	2009	20.1%	18.1%	(16.7%, 19.5%)	23 rd
17	Primary Care Provider Ratio ¹¹	2009	847:1	644:1	--	9 th
18	Preventable Hospital Stays per 100,000 ¹²	2009	52	44	(41, 46)	16 th
19	Diabetic Screening ¹²	2009	79%	82%	(78%, 86%)	20 th
20	Mammography Screening ¹²	2009	62.5%	68.3%	(64%, 72%)	14 th
PHYSICAL ENVIRONMENT						
21	Air Pollution: Particulate Matter Days per Year ¹³	2007	16	0	--	Tied 1 st
22	Air Pollution: Ozone Days per Year ¹³	2007	51	0	--	Tied 1 st
23	Recreational Facilities Rate per 100,000 ¹⁴	2009	9	15.6	--	9 th
24	Limited Access to Healthy Foods ¹⁵	2006	5%	7%	--	29 th
25	Percent of Restaurants that are Fast-Food ¹⁴	2009	49%	41%	--	19 th
HEALTH OUTCOMES						
MORBIDITY						
26	Adult Poor or Fair Health ⁵	2004 - 2010	18%	17%	(13%, 22%)	28 th (of 51)
27	Adult Poor Physical Health Days in past 30 days ⁵	2004 - 2010	3.7	3.1	(2.4, 3.7)	Tied 5 th
28	Adult Poor Mental Health Days in past 30 days ⁵	2004 - 2010	3.6	3.7	(2.8, 4.7)	25 th
29	Low Birthweight ⁸	2002 - 2008	6.7%	5.7%	(5.4%, 5.9%)	Tied 9 th
MORTALITY						
30	Premature Death (years lost before age 75) ⁷	2006 - 2008	5,922	5,293	(4981, 5606)	10 th

*Rankings: the "ideal" position (the "healthiest" value) is ranked #1. Two of California's 58 counties (Alpine and Sierra) are not ranked, due to small population size. For some topics, more counties are excluded due to small numbers; where fewer than 56 counties are ranked, the actual number is shown. The 95% Confidence Intervals are shown when calculated by *County Health Rankings* and represent the range of values that contain the parameter for Santa Cruz County 95% of the time.

**Data misclassification by one city led to an inaccurately high reported violent crime rate for the County. Ranking reflects that inaccurate data; color key does not.

The original data sources are listed below. However, the data shown above were accessed through the County Health Rankings report.

- | | |
|--|--|
| 1) National Center for Education Statistics (NCES) | 9) CDC's National Center for Hepatitis, HIV, STD, and TB Prevention |
| 2) U.S. Census Bureau, American Community Survey (ACS) | 10) U.S. Census Bureau, Small Area Health Insurance Estimates |
| 3) Bureau of Labor Statistics, Local Area Unemployment Statistics (LAUS) | 11) Health Resources and Services Administration's Area Resource File (ARF) |
| 4) U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) | 12) Dartmouth Atlas of Health Care, using Medicare claims data |
| 5) Behavioral Risk Factor Surveillance System (BRFSS) | 13) CDC-EPA Collaboration, Public Health Air Surveillance Evaluation (PHASE) project |
| 6) Uniform Crime Reporting, FBI | 14) Census County Business Patterns |
| 7) National Center for Chronic Disease Prevention & Health Promotion, from BRFSS | 15) USDA, Food Environmental Atlas |
| 8) National Vital Statistics System (NVSS) | |

DEMOGRAPHICS

Figure 1 shows a map of Santa Cruz County. The County of Santa Cruz was one of the original counties of California, created in 1850 at the time of statehood. The county was originally named Branciforte, after the Spanish pueblo founded in 1797. Less than two months later, the name was changed to Santa Cruz, meaning “Holy Cross.”¹ According to the U.S. Census Bureau, the county has a land area of 445 square miles (second smallest in the state) and a population density of 589 people per square mile (tenth highest in the state).²

The April 2010 Census placed the total population of Santa Cruz County at 262,382 residents – 0.7% of the population of California.³ From 2000 to 2010, the county’s population grew only 2.7%, compared to statewide growth of 10%.⁴ By California standards, Santa Cruz is a mid-sized population county, ranking 24th among California’s 58 counties in 2010.⁴ But by national standards, it’s a large county, ranking 301st out of 3,194 counties in the U.S. in 2010.⁵

GENDER & AGE

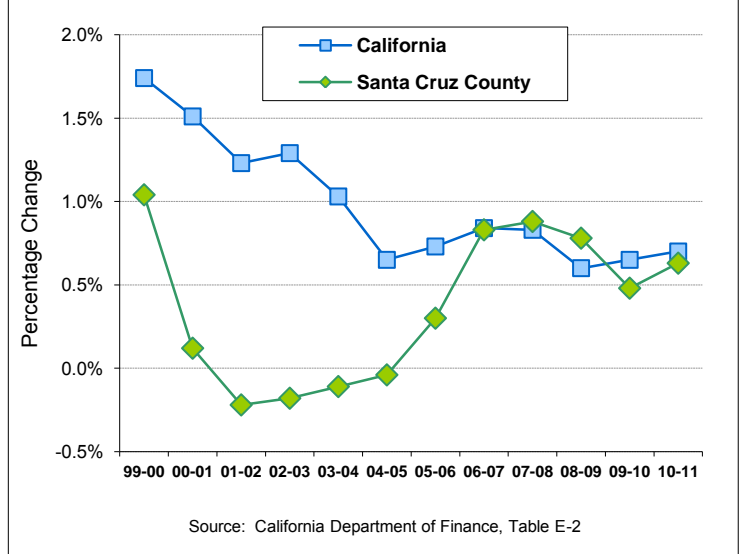
Nearly equal numbers of males and females reside in Santa Cruz County, with more females than males in the oldest age groups.³ There is a relatively large percentage of persons between the ages of 15 and 24, due to the large number of college students. The smaller population after age 25 might be related to the lack of job opportunities and the high cost of living here.

Based on the 2010 Census,³ Santa Cruz County’s “Age Dependency Ratio” is only 39.7%, compared to a statewide average of 46.8%.⁶ 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.

Figure 1: Map of Santa Cruz County, California



Figure 2: Annual Percentage Change in Population, California and Santa Cruz County, 1999-2011



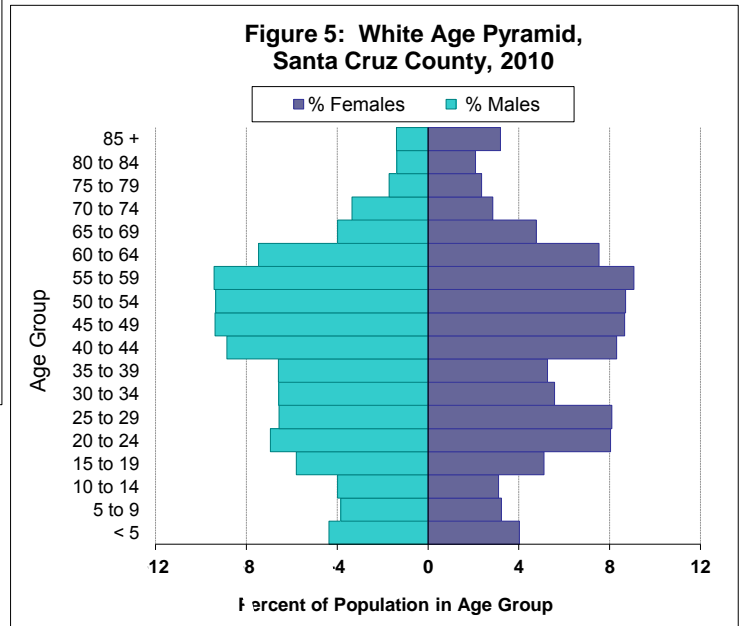
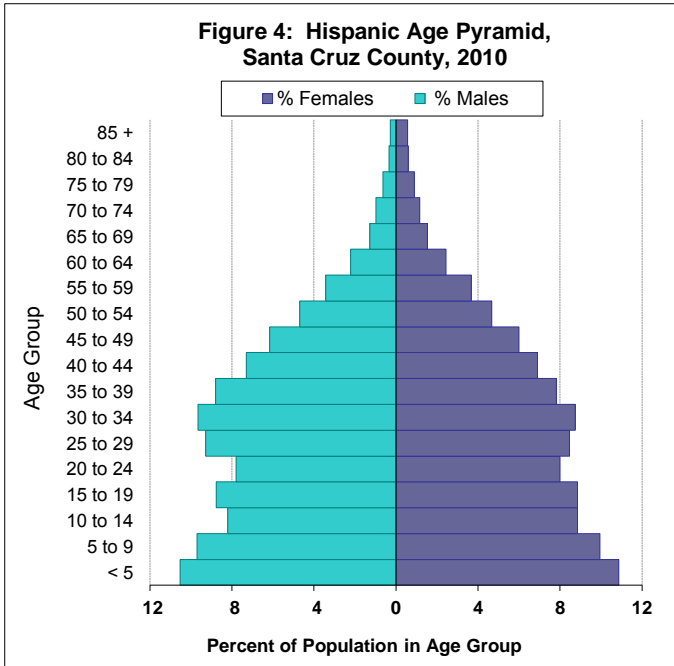
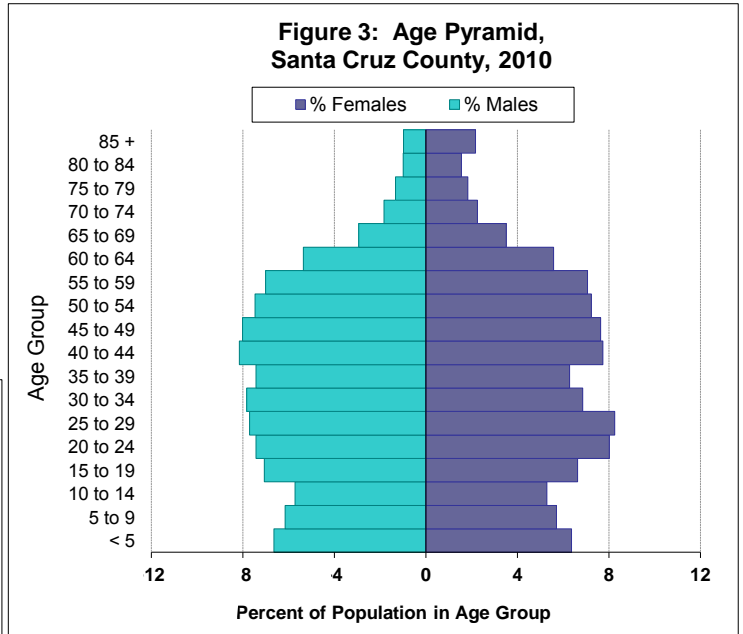
Source: California Department of Finance, Table E-2

Table 1. Santa Cruz County Demographics, 2010

		Number	Percent
Gender	Male	130,913	49.9
	Female	131,469	50.1
Age (Years)	0 - 4	15,045	5.7
	5 - 14	30,418	11.5
	15 - 24	46,225	17.6
	25 - 44	66,824	25.5
	45 - 65	74,712	28.4
	65 and older	29,158	11.1
Race & Ethnicity	White	151,745	57.9
	Hispanic	84,092	32
	Asian & Pacific Isl.	11,461	4.3
	Black	2,766	1.1
	Multirace	12,318	4.7
TOTAL		262,382	100

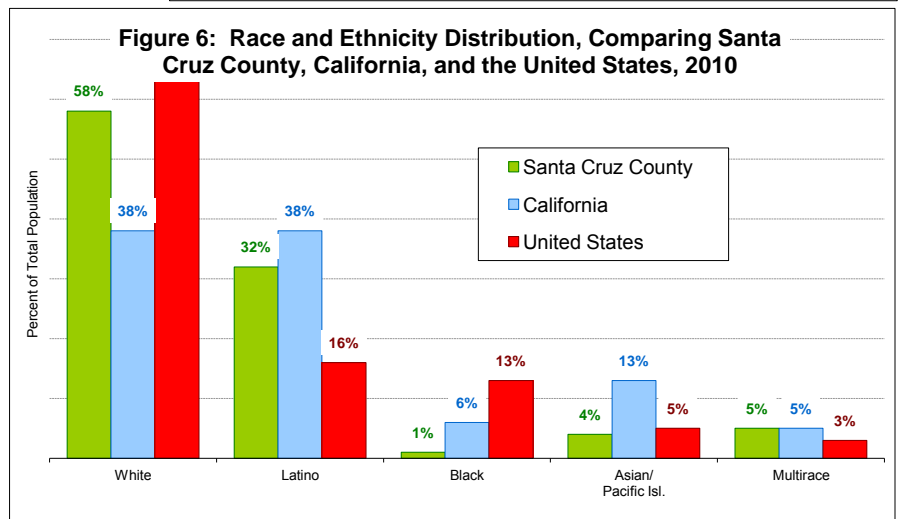
DEMOGRAPHICS

The Hispanic population of Santa Cruz County is younger than the White population. Figures 3-5 show the proportion of the population in each age group, by gender. Figure 3 shows the entire county population, while Figure 4 shows the Hispanic population and Figure 5 shows the White population. More Hispanics are under age 5 than are in any other 5-year age group, while the largest age category among Whites is ages 55 to 59.³



ETHNICITY & RACE

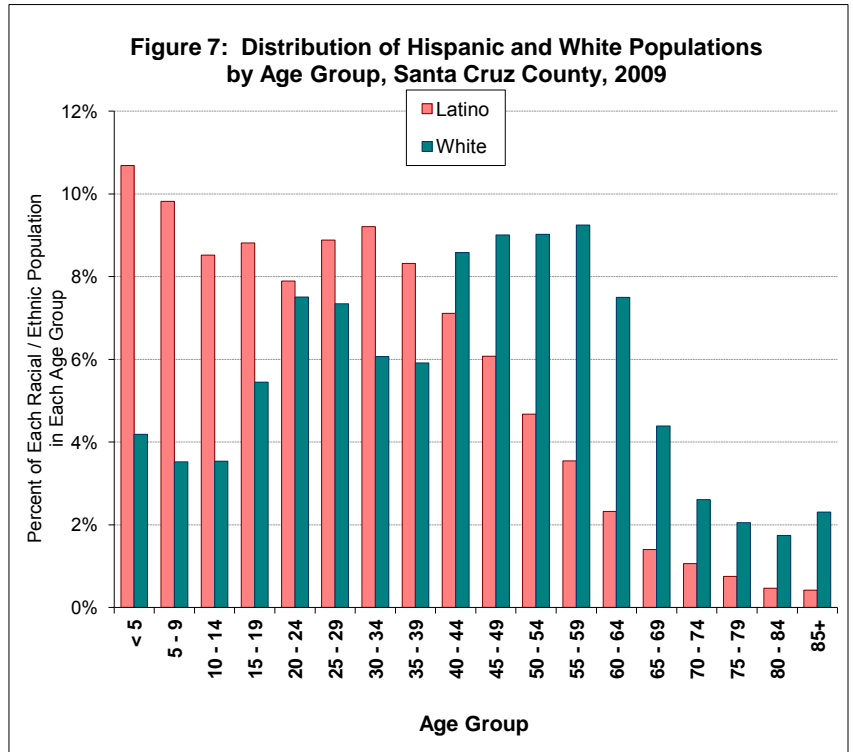
Figure 6 shows the race/ethnicity distribution in 2010 of Santa Cruz County compared to California and the United States. Santa Cruz County's population comprises 57.9% White, 32.0% Hispanic, 4.3% Asian or Pacific Islander, 1.1% Black, and 4.7% other or multiracial.³ Compared to Santa Cruz County, California has a smaller proportion of Whites, larger proportions of Blacks and Asians, and a slightly larger proportion of Hispanics. The United States has higher proportions of Whites and Blacks, a smaller proportion of Hispanics, and approximately the same proportion of Asians as Santa Cruz County.



DEMOGRAPHICS

The relative proportions of various racial/ethnic groups in the county have steadily changed in recent decades. In 1970, the county's population was more than 86% White and less than 10% Hispanic. By 2010, the Hispanic population proportion had increased to 32%, while the White proportion had decreased to 58%. The proportions of Asians, Blacks, and Native Americans have all increased since 1970, though not as rapidly as the Hispanic population, and they still remain relatively small proportions of the population.

Although more than 61% of the county's adults (age 18 years or older) are White and fewer than 30% are Hispanic,⁷ approximately half the births in the county are to Hispanics. Children make up a far 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 (Figure 7).⁷ The same basic pattern is true statewide.



Sources	<p>(1) California State Association of Counties. http://www.csac.counties.org/county-profile/santa-cruz-county.</p> <p>(2) U.S. Census Bureau, State and County QuickFacts. http://quickfacts.census.gov/qfd/index.html.</p> <p>(3) U.S. Census Bureau, American Fact Finder, Table DP-1, "Profile of General Population and Housing Characteristics." http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.</p> <p>(4) California Department of Finance. "Percent Change Rank: County, Total Population 2000 and 2010, Counties in California." http://www.dof.ca.gov/research/demographic/state_census_data_center/census_2010/documents/2010Census_Pop_Rankers.xls.</p> <p>(5) U.S. Census Bureau. "Population, Population Change, and Estimated Components of Population Change: April 1, 2010 to July 1, 2011," Table CO-EST2011-alldata. http://www.census.gov/popest/data/datasets.html.</p> <p>(6) California Department of Finance. Table E-2, California County Population Estimates and Components of Change; and Table E-6, Population Estimates and Components of Change by County, July 1 2010-2012. http://www.dof.ca.gov/research/demographic/reports/estimates/e-2/2000-10/documents/E-2_Report_July2000-2010_updated_with_2010_Census.xls; and http://www.dof.ca.gov/research/demographic/reports/estimates/e-6/documents/E-6_Report_July_2010-2012w.xls.</p> <p>(7) California Department of Finance. Race/Ethnic Population Projections with Age and Sex Detail, 2000-2050. Sacramento, CA, July 2007. Accessed but no longer available at http://www.dof.ca.gov/html/DEMOGRAP/Data/RaceEthnic/Population-00-50/RaceData_2000-2050.php.</p>
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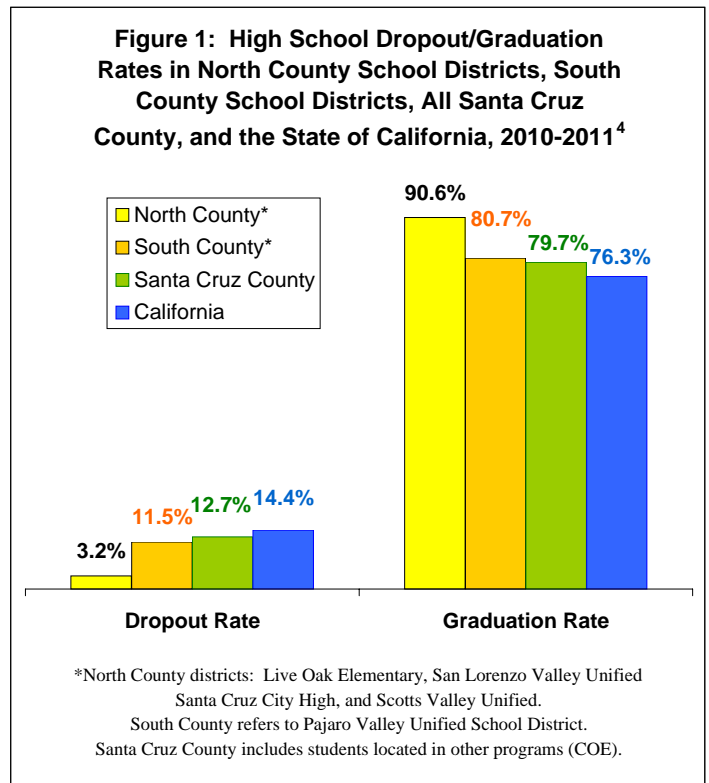
EDUCATION

Importance	Educational level is strongly correlated with health. There is an inverse relationship between level of education and many risk behaviors. Similarly, there is a positive association between increasing level of education and an increase in health-protective factors such as income level, economic security, and the accumulation of wealth. Educational attainment is a fundamental determinant of health. ^{1,2} Additionally, educational success has been correlated with supportive and enriched childhood development. Therefore, resources and policies that support programs such as Head Start and universal pre-school are a good investment for society. ²
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HIGH SCHOOL GRADUATION

There are 11 public school districts in Santa Cruz County, plus programs offered through the Santa Cruz County Office of Education (COE). The North County school districts with high school students are Live Oak Elementary, San Lorenzo Valley Unified, Santa Cruz City High, and Scotts Valley Unified. Pajaro Valley Unified, the only school district in South County, is the largest district, serving 50% (19,545) of the 38,974 public school students during the 2010-2011 school year.⁴ The remaining public school students (1,389) are served through programs overseen by the County of Santa Cruz Office of Education and located throughout the county.

In the 2010-2011 school year, both North County and South County school districts had higher rates of graduation than California as a whole, 90.6% and 80.7% vs. 76.3% respectively (Figure 1).⁴ The graduation and dropout rates for the County as a whole were not as good as either the North County or South County rate because of inclusion of other programs overseen by the COE. Notably, the dropout rate in South County was more than three times that of North County, 11.5% vs. 3.2% (Figure 1).⁴ Santa Cruz County's total dropout rate for the 2010-2011 school year was 12.7%, which was better than California's at 14.4%.⁴ (The graduation and dropout rates add up to less than 100% because students who "pass the General Education Development test, complete requirements necessary to obtain a special education certificate of completion, or remain enrolled in the 9-12 instructional system without a high school diploma" are not included in either the graduation rate or the dropout rate.)⁴



In 2010-2011, 39.9% of the 3,113 Santa Cruz County high school graduates had achieved the prerequisites for entrance into the University of California and California State University education systems.⁴ The percentages for South County and North County graduates were 43.3% and 42.3%, respectively.⁴

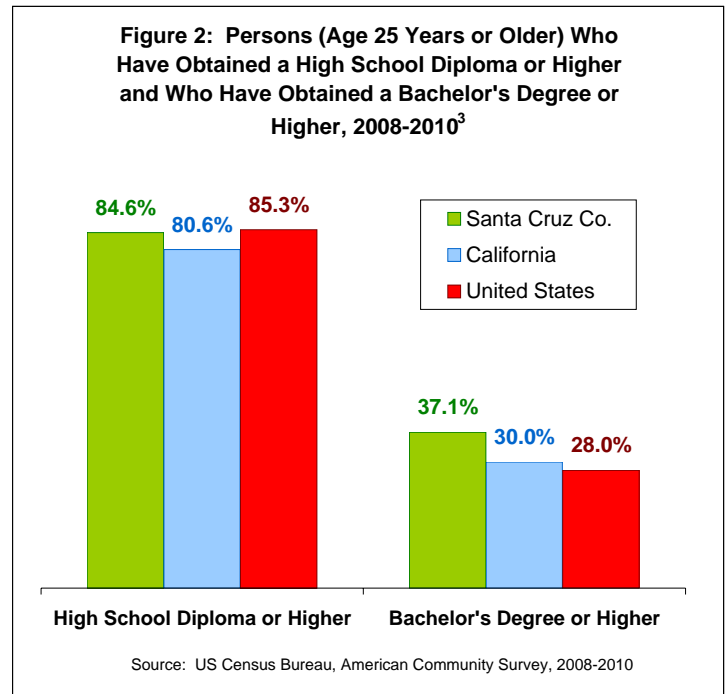
EDUCATION

According to the U.S. Census American Community Survey (2008-2010), 84.6% of Santa Cruz County residents (25 years and over) have obtained a high school degree or equivalent.³ By comparison, 80.6% of Californians and 85.3% of United States residents age 25 or older have obtained a high school diploma (Figure 2).³

COLLEGE DEGREES

The County of Santa Cruz is home to two major, mainstream higher education institutions: Cabrillo College and the University of California, Santa Cruz (UCSC). Cabrillo College is a community college that offers to most residents a cheaper and more accessible way to attain higher education or participate in vocational programs. UCSC is a local campus of the larger University of California that offers 4-year undergraduate degrees and Master's and Doctorates of Philosophy to most California residents.

According to the American Community Survey, 37.1% of county residents have earned a bachelor's degree or higher.³ By comparison, 30.0% of Californians and 28.0% of all Americans have obtained a bachelor's degree or higher (Figure 2).³



<p>Primary Prevention Activities</p>	<p>Pre-kindergarten Programs: Programs such as First 5 Santa Cruz County work to ensure all children have access to high-quality preschool that will prepare them for success in school.</p> <p>Career Academies: Vocational programs located within high schools that gear the students' education and offer applicable skills particular to the field of interest.</p>	
<p>Helpful Websites</p>	<p>Santa Cruz County Child Care Planning Council</p>	<p>www.childcareplanning.org</p>
<p>Sources</p>	<p>(1) University of Wisconsin Population Health Institute. <i>County Health Rankings 2012</i>. http://www.countyhealthrankings.org/health-factors/education. Accessed 14 May 2012.</p> <p>(2) Kawachi, I. et al. "Money, schooling, and health: Mechanisms and causal evidence." <i>Annals of the New York Academy of Sciences</i> 1186 (<i>The Biology of Disadvantage: Socioeconomic Status and Health</i>):56-58, 16 Feb 2010. http://onlinelibrary.wiley.com/doi/10.1111/j.1749-6632.2009.05340.x/full.</p> <p>(3) U.S. Census Bureau. American Community Survey 2008-2010. http://www.census.gov/acs/www/index.html. Accessed 14 May 2012.</p> <p>(4) California State Department of Education. May 2012. www.ed-data.k12.ca.us. Accessed 4 December 2012.</p>	

EMPLOYMENT

Importance	The relationship between unemployment and adverse health outcomes is complex, partly because of the bidirectional nature, meaning that unemployment contributes to ill health and ill health contributes to unemployment. Reviews of the literature provide evidence that unemployment has a direct effect on health, as well as the expected impacts on socioeconomic status, poverty, risk factors, and prior ill health. ¹
Definitions	<p><u>Labor Force</u>: Individuals age 16 and older who are able, available, and actively looking for work. This does not include the jobless who are not seeking work (such as full-time students, homemakers, retirees, and those who have given up on finding work).</p> <p><u>Unemployment Rate</u>: Percentage of unemployed individuals out of the total labor force.</p>

UNEMPLOYMENT

In July 2012, Santa Cruz County had an unemployment rate of 9.7% (an estimated 15,300 people), compared to 10.9% statewide and 8.3% nationwide.^{2,3} Over the past four years, the highest monthly rate was in February 2010, with a rate of 15.5% (see Figure 1).

At the sub-county level, unemployment rates in cities and Census Designated Places (CDP) vary greatly, with five areas having unemployment rates higher than 10% in July 2012: Watsonville, Interlaken, Amesti, Freedom and Boulder Creek (see Table 1). These five areas total an estimated 7,100 unemployed persons which is nearly half of the unemployed population in Santa Cruz County.² The lowest unemployment rates were in Felton, Corralitos, Aptos, and Aptos Hills/Larkin Valley, all with rates below 4% in July 2012.²

It is worth noting that a significant portion of the labor market in Santa Cruz County is agricultural and thus prone to seasonal fluctuations, as can be seen in Figure 1.

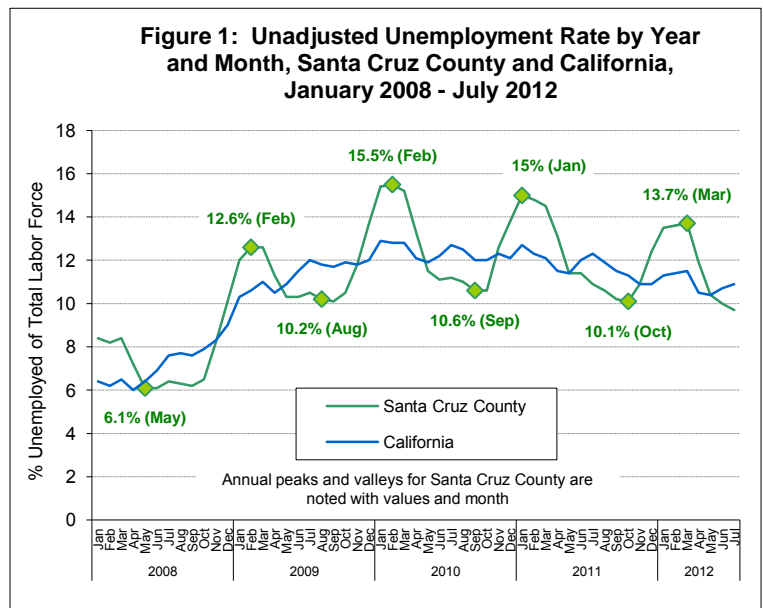


Table 1: Top 5 Cities or Census Designated Places (CDP) with the Highest Unemployment Rates, Santa Cruz County, July 2012

City / CDP	Unemployed Persons	Rate
Watsonville City	5,000	20.5%
Interlaken	900	20.5%
Amesti	300	17.6%
Freedom	600	17.5%
Boulder Creek	300	11.2%

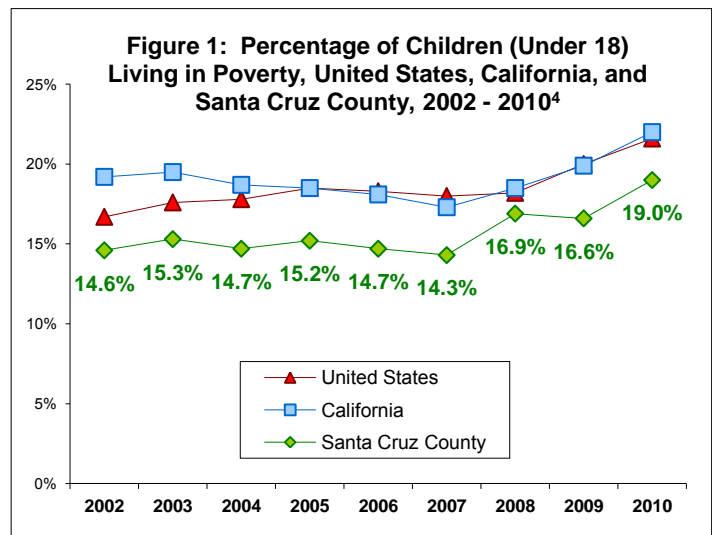
Helpful Websites	California Employment Development Department (EDD)	http://www.edd.ca.gov/
	U.S. Department of Labor, Bureau of Labor Statistics	http://www.bls.gov/
Sources	<p>(1) Mathers CD and Schofield, DJ (1998). "The health consequences of unemployment: the evidence." <i>The Medical Journal of Australia</i>, 168:178-182. http://www.mja.com.au/public/issues/feb16/mathers/mathers.html (subscription only).</p> <p>(2) State of California. Employment Development Department (EDD). http://www.labormarketinfo.edd.ca.gov.</p> <p>(3) U.S. Department of Labor, Bureau of Labor Statistics. Historical Data. A-1. "Employment status of the civilian noninstitutional population 16 years and over, 1977 to date." http://www.bls.gov/web/empsit/cpseea01.pdf.</p>	

INCOME

Importance	Poverty and ill health are inextricable. In general, poor countries tend to have worse health than wealthier countries. Also, within a given country, poor people tend to have worse health than wealthier people. This association reflects causality running in both directions: poverty breeds ill health, and ill health keeps poor people poor. ¹
Definitions	<p>Poverty: As defined by the U.S. Census Bureau,² when a family's total income is less than the family's defined poverty threshold, with 48 different values dependent upon family size and age composition; the family and every individual in the family is considered to be in poverty (visit link in source 2 for thresholds and more information).</p> <p>Homeless person: As defined by the U.S. Department of Housing and Urban Development,³ an individual who lacks a fixed, regular, and adequate nighttime residence, and who has a primary nighttime residence that is either:</p> <ul style="list-style-type: none"> - a supervised publicly or privately operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, and transitional housing for the mentally ill), or - an institution that provides a temporary residence for individuals intended to be institutionalized, or - a public or private place not designated for, or ordinarily used as, a regular sleeping accommodation for human beings.

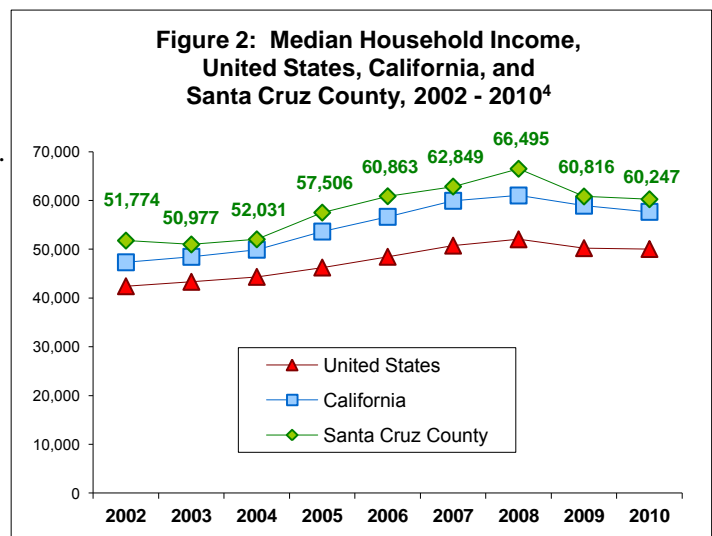
CHILDREN IN POVERTY

In 2010, an estimated 19.0% of Santa Cruz County children under age 18 were living in poverty, an estimated 10,308 children. The upward trend is consistent with California and the U.S., which had childhood poverty levels of 22.0% and 21.6% respectively in 2010 (see Figure 1).⁴



INCOME

The median household income in Santa Cruz County in 2010 was \$60,247, compared to \$57,644 statewide and \$50,046 nationally (see Figure 2).⁴



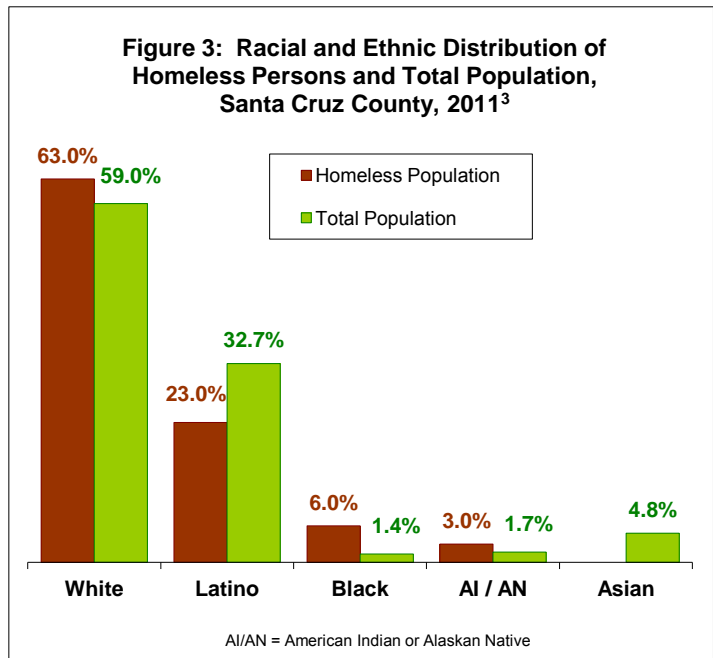
HOMELESSNESS

Homelessness has devastating effects on health. Nationally and locally, people who die while homeless have an average age of death that is approximately 30 years younger than the general U.S. population. A 2011 point-in-time enumeration effort counted 2,771 homeless persons in Santa Cruz County.³ Using a formula recommended by Applied Survey Research and the U.S. Department of Housing and Urban Development, the actual number of homeless persons in Santa Cruz County is estimated to be 9,041 persons, which is more than double the 2009 estimate of 4,624.

INCOME

Also in 2011, 52% of respondents said this was the first time they had been homeless, compared to 46% in 2009. Job loss was the most frequently cited cause of homelessness. The racial and ethnic distribution of homeless persons differs from the total population distribution with a higher percentage of Blacks being homeless (see Figure 3).³

Other findings of interest from the 2011 Santa Cruz County Homeless Census include: the majority were White males between the ages of 31 and 60, two-thirds were already living in Santa Cruz County when they most recently became homeless, more individuals were unsheltered than sheltered, 28% indicated that it had been more than three years since their last permanent housing situation, and 63% of all survey respondents said they had a disability condition.³



Primary Prevention Activities	Homeless Action Partnership: has the vision that all Santa Cruz County residents will have the stable housing and appropriate services they need to live in dignity and reach their highest potential.	
Secondary Prevention Activities	Homeless Services Center: dedicated to the coordinated provision of services, including both emergency and transitional services, to homeless individuals and families to enable clients to achieve self-sufficiency.	
Helpful Websites	County of Santa Cruz, Homeless Persons Health Project (HHPH)	http://www.santacruzhealth.org/phealth/2homeless.htm
	County of Santa Cruz, Planning Unit, Homeless Action Partnership	http://www.sccoplanning.com/html/housing/hap.htm
	National Alliance to End Homelessness	http://www.endhomelessness.org/
Sources	<p>(1) Wagstaff Adam. Poverty and health sector inequalities. Bull World Health Organ [serial on the Internet]. 2002 [cited 2013 Jan 08]; 80(2): 97-105. Available from: http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S0042-96862002000200004. http://dx.doi.org/10.1590/S0042-96862002000200004.</p> <p>(2) U.S. Census Bureau. Poverty. "How the Census Bureau Measures Poverty." http://www.census.gov/hhes/www/poverty/about/overview/measure.html.</p> <p>(3) Applied Survey Research. (2011) "2011 County Homeless Census." Watsonville, CA. http://www.appliedsurveyresearch.org/storage/database/homelessness/santacruz/2011SantaCruzHomelessReport.pdf.</p> <p>(4) United States Census Bureau. "Small Area Income and Poverty Estimates." http://www.census.gov/did/www/saipe/data/interactive/#.</p>	

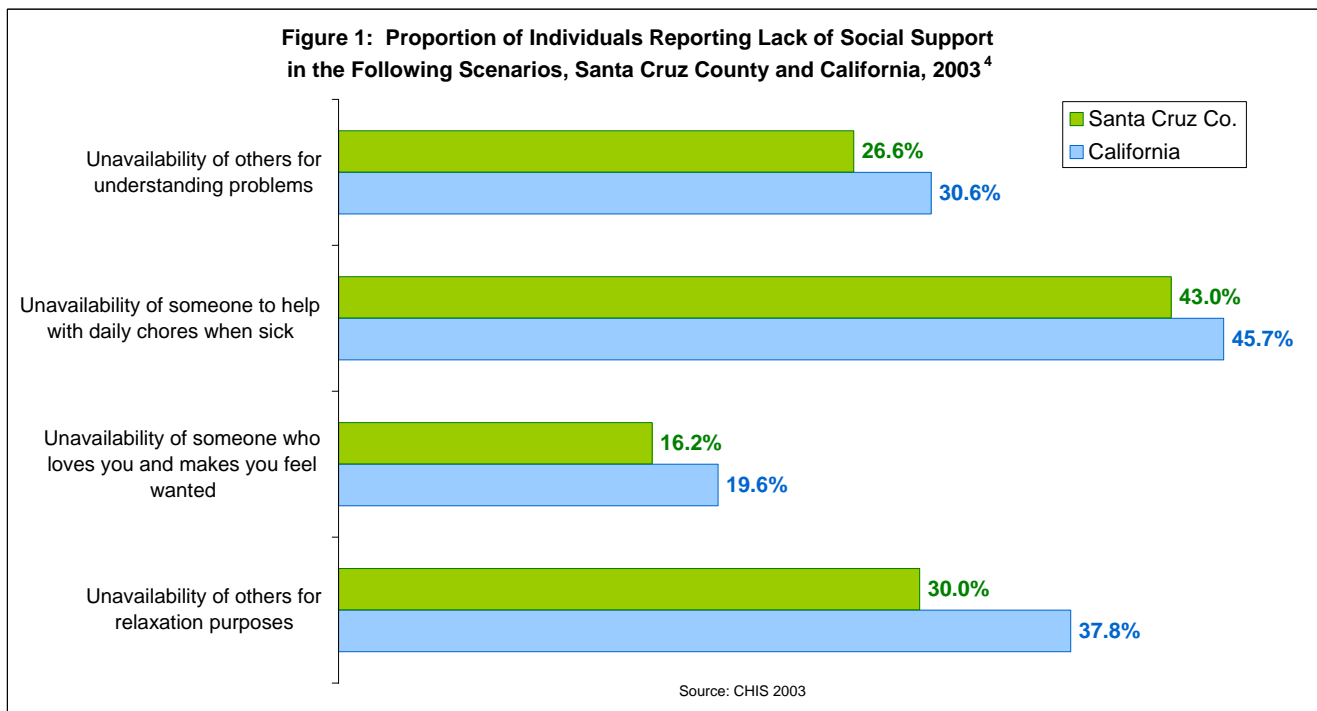
FAMILY AND SOCIAL SUPPORT

<p>Importance</p>	<p>Family and social support are important factors in supporting a healthy, long life. The lack of family and social support is adversely related to both mental and physical well-being. The effects of family and social support are present at any age, but are more apparent for the very young and the very old, who are often more dependent on others. The latter becomes more of a factor as our population ages and more older adults find themselves living alone without a care-giver or other source of adequate social support located nearby.¹ Poor family support, social isolation, and limited interaction with others in the community are all associated with increased morbidity and early mortality.² In a child's life, family support is usually the major source of support. Poor health outcomes such as increased rate of depression and illegal drug use are associated with a stressing of that support, such as having only one parent available.²</p>
<p>Definitions</p>	<p><u>Single householder</u>: A person living with a child under 18 and not living with a legal spouse of the opposite sex.³ For the purpose of this report, a single householder is equivalent to a <u>single parent</u>.</p>

INADEQUATE SOCIAL SUPPORT

According to the CDC's Behavioral Risk Factor Surveillance System (BRFSS), 22% of the Santa Cruz County adult population feel that they never, rarely, or only sometimes receive the social support they need, compared to 25% of all California adults; this percentage varies from county to county in California, between 12% and 31%.²

In 2003, the California Health Interview Survey (CHIS) asked adults four questions related to social support. The questions asked about the availability of others for relaxation purposes, of someone who loved the respondent and made them feel needed, of someone to help with daily chores when they were sick, and of others for understanding problems. Santa Cruz County residents less often than California residents answered that no one was available, or that someone was available only rarely or sometimes (Figure 1).⁴ Over 40% of adults in Santa Cruz County reported not having someone available to help with daily chores when they are sick, and over 16% reported not having someone who loves them and makes them feel welcome.⁴ Unfortunately, recent CHIS surveys have not asked respondents about social support for more recent comparisons.

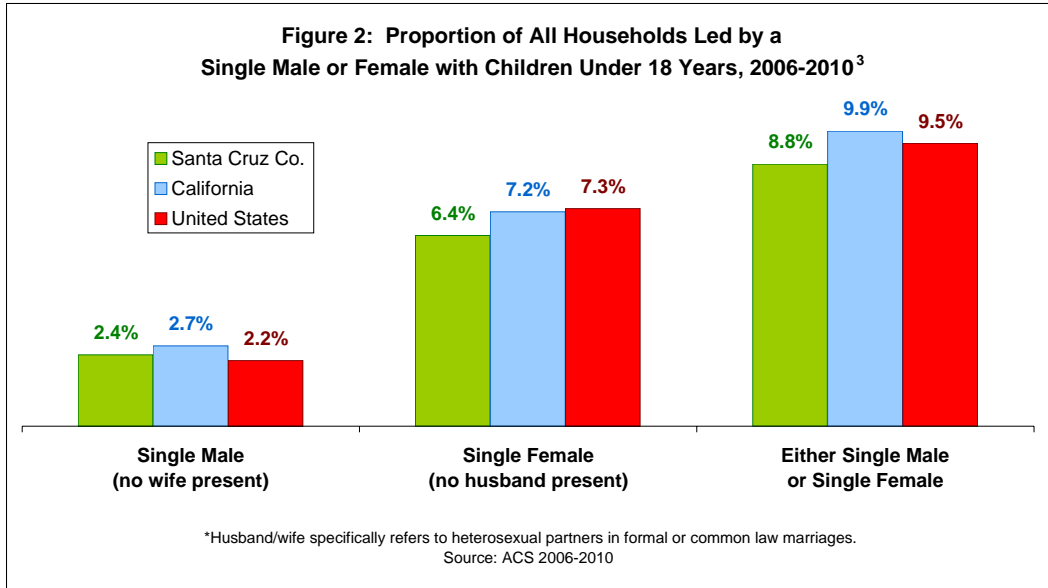


FAMILY AND SOCIAL SUPPORT

SINGLE-PARENT HOUSEHOLDS

Data collected between 2006 and 2010 showed that 28% of Santa Cruz County children lived in single-parent households, compared to 30% of all California children; the percentages varied by county throughout the state, from 21% to 45%.^{2,3}

The U.S. Census American Community Survey (ACS) identified a single householder as a person living with a child under 18 and not living with a legal spouse of the opposite sex.³ Using 2006-2010 ACS Data, the U.S. Census Bureau estimates that 2,214 (2.4%) of the 93,802 Santa Cruz County households were headed by a male single householder, and 6,034 households (6.4%) were headed by a female single householder.³



Helpful Websites	2-1-1	http://211bayarea.org/santa-cruz/
Sources	<p>(1) White AM et al. "Social Support and Self-Reported Health Status of Older Adults in the United States." <i>American Journal of Public Health</i> 99(10):1872-1878, 2009.</p> <p>(2) University of Wisconsin Population Health Institute (BRFSS data). <i>County Health Rankings 2012</i>. http://www.countyhealthrankings.org/.</p> <p>(3) U.S. Census Bureau, American Community Survey 2006-2010. http://www.census.gov/acs/www/index.html.</p> <p>(4) University of California, Los Angeles. California Health Interview Survey (CHIS). 2003. http://www.chis.ucla.edu.</p>	

COMMUNITY SAFETY

<p>Importance</p>	<p>Both violent crimes and incarceration have negative effects on the community and the individual. The negative effects of violent crimes vary from a victim experiencing post-traumatic stress disorder (PTSD) to residents of a community feeling unsafe.¹ Incarceration has both direct and indirect effects not only on the individual who is incarcerated but their families, their loved ones, and their communities.²</p>
<p>Definitions</p>	<p><u>Violent Crime:</u> Aggravated assault, forcible rape, robbery, or homicide.</p> <p><u>2011 Public Safety Realignment:</u> California legislation was implemented October 1, 2011 to alleviate overcrowding in California State Prisons to 137.5% of the prisons' design capacity, per Supreme Court ruling (Brown v. Plata), through various methods including <u>AB 109</u>, which allows non-violent, non-serious, and non-sex offenders to serve their sentences in county jails instead of state prisons.^{3,4}</p>

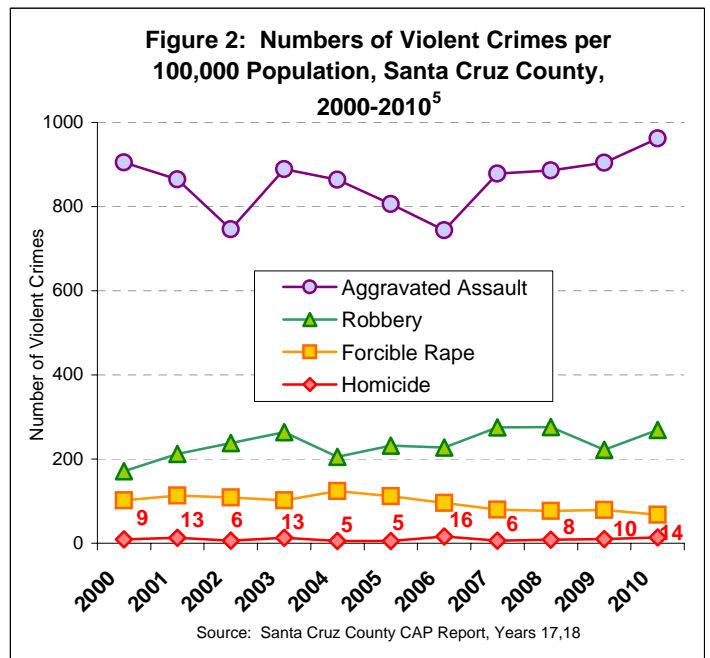
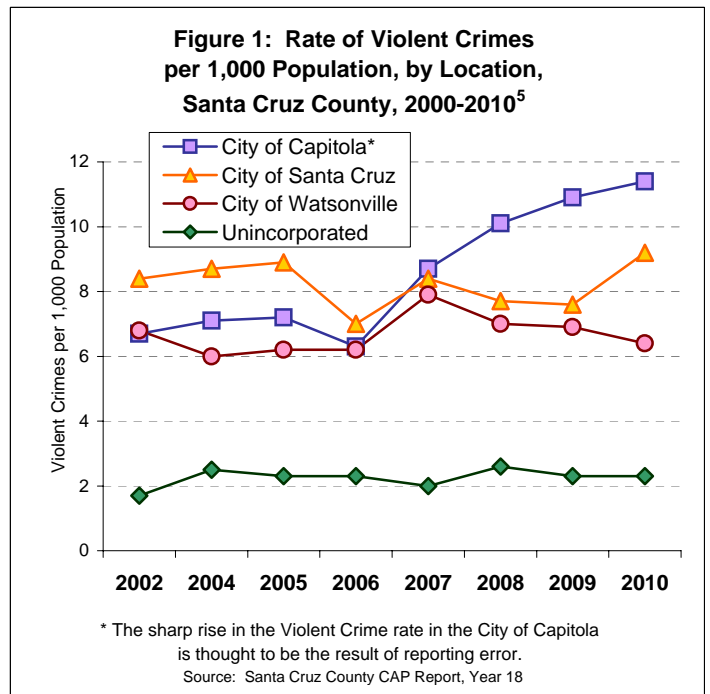
VIOLENT CRIME RATE

“High levels of violent crime compromise physical safety and psychological well-being. Crime rates can also deter residents from pursuing healthy behaviors such as exercising out-of-doors. Additionally, some evidence indicates that increased stress levels may contribute to obesity prevalence, even after controlling for diet and physical activity levels.”¹

The crime rate in Santa Cruz County in 2009 was 36.7 per 1,000 population, and the violent crime rate was 5.0 per 1,000 population.⁵ The City of Capitola recently investigated the sharp rise in their violent crime rate, and it is thought to be a reporting error. Future reported rates will reflect more accurate reporting, starting with 2011 data (Figure 1).⁵

In 2011, 65.2% of surveyed Santa Cruz County residents reported feeling safe in their neighborhood, varying from a low of 58.9% in South County to a significantly higher proportion, 86.1%, in San Lorenzo Valley.⁵ Additionally, in 2011, 36.1% of Santa Cruz County residents reported being "very concerned" about crime, varying from a low of 21.6% in San Lorenzo Valley residents to a significantly higher proportion, 46.5%, among South County residents.⁵ (South County refers to a set of zip codes – 95003, 95019, 95076, and 95077 – or a set of places – Watsonville, Aptos, Corralitos, Freedom, La Selva, and Pajaro.)

Between 2007 and 2009 the rate of violent crimes in Santa Cruz County averaged 494 per 100,000 population, while the rate in California averaged 500 per 100,000 population.¹



COMMUNITY SAFETY

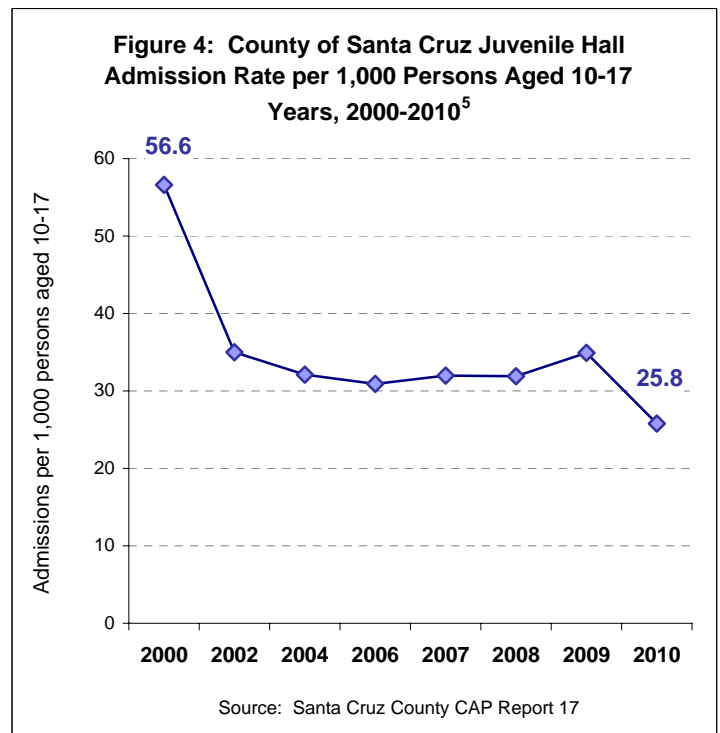
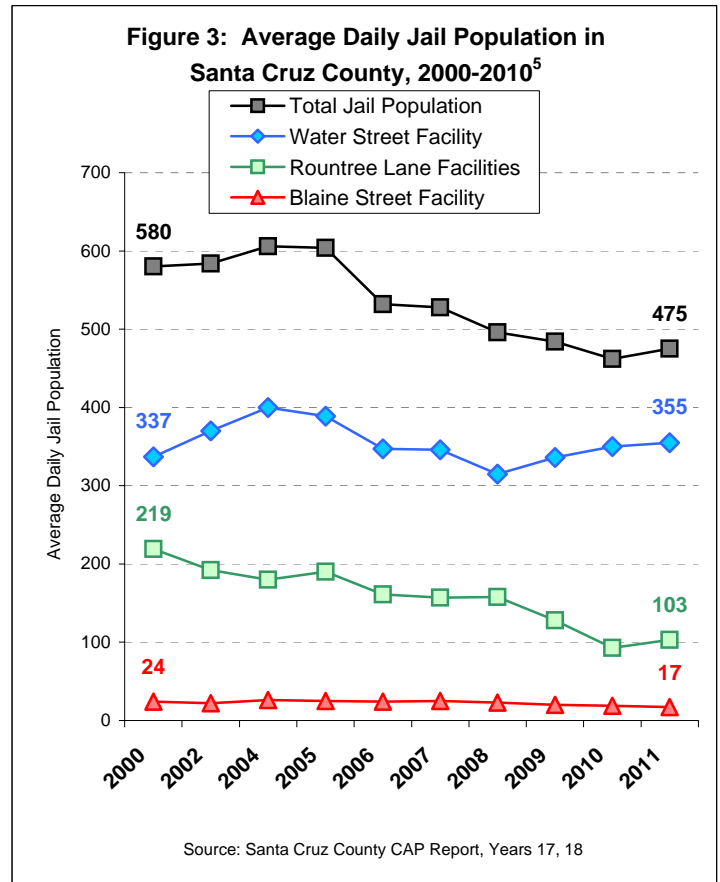
In Santa Cruz County, the most common reported violent crime is aggravated assault, with between 744 and 962 reports annually between 2002 and 2010.⁵ The number of aggravated assault reports is followed distantly by robbery, forcible rape, and homicide in that order (Figure 2).⁵

INCARCERATION

While incarceration may have direct effects on the health of an individual, “it is more likely to indirectly affect health by shaping employment, income, and marital trajectories.”² Studies have shown that people who have been incarcerated develop a range of behaviors that set them apart from the rest of society. These behaviors interfere with community adjustment and personal recovery after release.² Because certain segments of the population are at a higher risk for incarceration, those segments are disproportionately affected by the negative health effects associated with incarceration, in Santa Cruz County as well as elsewhere.

In total, the number of inmates in Santa Cruz County jails has decreased from 8,324 in 2002 to 7,674 in 2011.⁵ There are three facilities that house incarcerated adults in Santa Cruz County: Main Jail on Water Street, Rountree Men's Medium Security Facility, and Blaine Street Women's Facility.⁷ Black/African American inmates are over-represented in the jails compared to the entire population of Santa Cruz County. The percentage of Black inmates was five times the percentage of Blacks in the general population.^{5, 6}

The Santa Cruz County Juvenile Hall population is small compared to other jurisdictions throughout the nation. Juvenile Hall admissions decreased from 56.6 per 1,000 population in 2000 to 22.0 per 1,000 population in 2011 (Figure 4).⁵ This is likely attributable to changes initiated in 1997 when alternatives to incarceration, such as house arrest and job placements, were made available.⁸



COMMUNITY SAFETY

2011 Public Safety Realignment and AB 109

On October 1, 2011, as part of the 2011 Public Safety Realignment, AB 109 was put into effect to alleviate overcrowding in the state prison system. AB 109 allows non-violent, non-serious, non-sex offenders to serve their sentences in the county jail instead of a state prison.³ The Santa Cruz County Community Corrections Partnership is working with the County Sheriff's Office to mitigate the local effects of AB 109, such as crowding in jails and potential effects on public safety.⁹

<p>Primary Prevention Activities</p>	<p>Neighborhood Watch: A program utilized in neighborhoods throughout the nation, usually in cooperation with local law enforcement, that encourages residents to report suspicious or potentially criminal behavior to police or a neighborhood coordinator. Neighborhoods may also work together to solve problems and/or encourage residents to mark personal property with personal identifiers.</p>	
<p>Helpful Websites</p>	<p>2-1-1</p>	<p>http://211bayarea.org/santa-cruz/</p>
<p>Sources</p>	<p>(1) University of Wisconsin Population Health Institute. <i>County Health Rankings 2012</i>. http://www.countyhealthrankings.org/.</p> <p>(2) London, Andrew, and Myers, Nancy. "Race, Incarceration and Health: a Life-Course Approach." <i>Research on Aging</i> 28(3):409-422, May 2006. http://roa.sagepub.com/cgi/content/abstract/28/3/409.</p> <p>(3) California Department of Corrections and Rehabilitation. "Information Sheet: 2011 Public Safety Realignment." July 15, 2011. Accessed August 2012. http://www.cdcr.ca.gov/About_CDCCR/docs/Realignment-Fact-Sheet.pdf.</p> <p>(4) Brown v. Plata 563 U.S. (2011). http://www.supremecourt.gov/opinions/10pdf/09-1233.pdf. 22 August 2012.</p> <p>(5) Applied Survey Research. <i>Community Assessment Project, Santa Cruz County 2011/12, Years 17 and 18</i>. United Way of Santa Cruz, 2011. Accessed August 2012. http://www.santacruzcountycap.org and http://www.appliedsurveyresearch.org/projects_database/quality-of-life/santa-cruz-county-community-assessment-project-cap.html.</p> <p>(6) U.S. Census Bureau. Populations Estimate. County Characteristics: Vintage 2011. Spreadsheet CC-EST2011-6RACE-06. August 2012. http://www.census.gov/popest/data/counties/asrh/2011/index.html.</p> <p>(7) <i>Santa Cruz County Grand Jury 2011-2012 Final Report</i>. "Jails and Juvenile Hall Inspection Report: Status of Inmate Management in Santa Cruz County." Accessed August 2012. http://www.co.santa-cruz.ca.us/grandjury/GJ2012_final/Jails_And_Juvenile_Hall_Inspection_Report.pdf.</p> <p>(8) Santa Cruz County Probation. Santa Cruz Juvenile Detention Alternatives Initiative. 2008. Accessed August 2012. http://sccounty01.co.santa-cruz.ca.us/prb/index.asp.</p> <p>(9) Executive Committee of the Santa Cruz County Community Corrections Partnership. <i>Santa Cruz County Public Safety Realignment and Post Release Community Supervision 2011 Implementation Plan</i>. October 4, 2011. Accessed August 2012. http://sccounty01.co.santa-cruz.ca.us/prb/RealignmentPlan.pdf.</p>	

TOBACCO USE

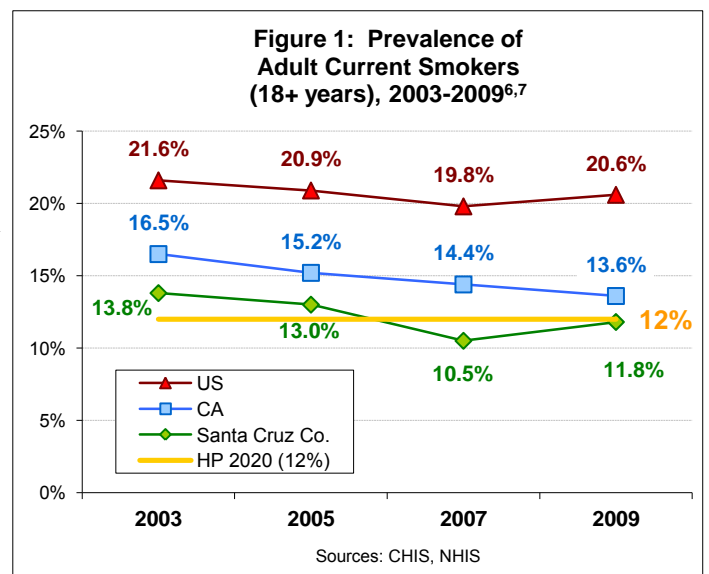
Importance	According to the Surgeon General, “Smoking harms nearly every organ of the body, causing many diseases and reducing the health of smokers in general.” ¹ Cigarette smoke contains over 4,000 chemicals, at least 250 of which are known to be toxins or carcinogens that harm not only the smoker but also those exposed to environmental smoke. ² In fact, non-smokers inhale many of the same chemicals as smokers, including side-stream smoke, which is unfiltered, unlike secondhand smoke exhaled by the smoker, and can contain benzene, arsenic, and numerous nitrogen compounds. ² Non-smokers are also exposed to “third hand smoke,” chemicals that attach to a smoker’s clothing, hair, and skin and are passed to a non-smoker through direct contact. This type of exposure is most harmful to infants and young children who may touch and/or place items in their mouths. ³ Overall, cigarette smoking and exposure to tobacco smoke resulted in at least 443,000 premature deaths per year in the United States from 2000 to 2004. ⁴ Fortunately, “[q]uitting smoking has immediate as well as long-term benefits, reducing risks for diseases caused by smoking and improving health in general.” ¹
Definitions	“Third Hand” Smoke: Chemicals that attach to the smoker’s clothing, hair, and skin and are passed to the non-smoker through direct contact. ³
Healthy People 2020 Objectives	<ul style="list-style-type: none"> - Reduce smokeless tobacco use (past 30 days) among adolescents to 6.9% - Reduce current cigarette use among adults to 12% - Reduce cigarette use (past 30 days) among adolescents to 16%

ADULT SMOKING

Since 1964, when the first surgeon general’s report on tobacco was presented, the prevalence of adult smoking in the U.S. has dropped from 42.4% to 19.3% in 2010.⁵ Residents of both Santa Cruz County and California continue to have healthier tobacco habits than the general U.S. population.^{6,7} Since 2007, Santa Cruz County adults have been at or below the HP 2020 goal of less than 12% currently smoking.⁶ Trends reflected in the California Health Information Survey and the National Health Information Survey indicate that the prevalence of adults who smoke continues to decrease (Figure 1).^{6,7} Based on repondants between 2004 and 2010 to the U.S. Behavioral Risk Factor Surveillance System (BRFSS), 9.5% of adults in Santa Cruz County are current smokers compared to 14% of Californians.⁸

Much of the improvement is attributable to legislation focused on preventing secondhand smoke-related health problems, and making smoking a less attractive habit. Approximately 18 years ago, Santa Cruz County helped lead the way to providing secondhand smoke protections when each county and city jurisdiction in Santa Cruz County passed an ordinance establishing smoke-free workplaces and enclosed public places. In 1995, the State of California established statewide protections.⁹ In January 2008, the State of California began enforcing a law that bans smoking in cars when children under the age of 18 are present.¹⁰

In recent years, there has been a movement to expand secondhand smoke protections to outdoor areas such as parks and beaches. In 2009, the cities of Santa Cruz and Capitola established smoke-free areas in public gathering areas such as the municipal wharf, outdoor dining areas, outdoor common areas in multi-unit housing facilities (only in the city of Santa Cruz), the West Cliff Drive recreational trail, Pacific Avenue, and the Esplanade.¹¹ Unfortunately, current smoke-free laws have not addressed smoking in the home; 6.5% of Santa Cruz residents are still exposed to secondhand smoke in their homes.⁶



TOBACCO USE

Most recently, the Watsonville City Council unanimously approved a new tobacco retailer licensing (TRL) ordinance on August 24th, 2010, effective January 1, 2011.¹² The County and City of Santa Cruz also adopted TRL ordinances in April 2011 and October 2012 respectively.¹³

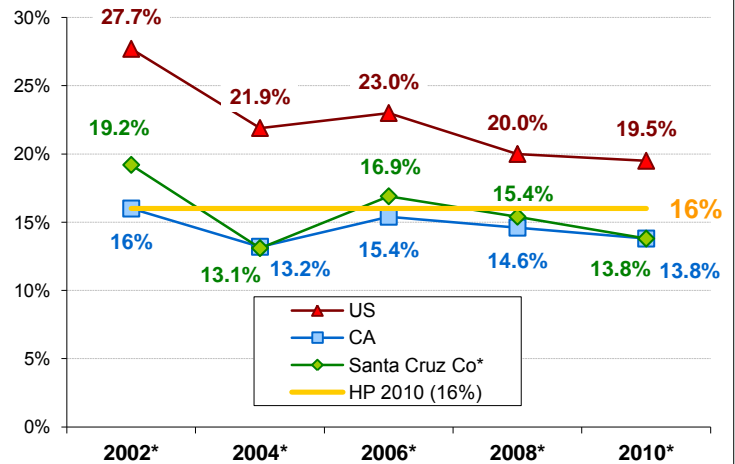
ADOLESCENT SMOKING

Many adult smokers are introduced to tobacco as adolescents, leading to a lifetime of exposure to cancer-causing chemicals not only for the smoker but for those around them as well. Fortunately, the prevalence of smoking among adolescents has decreased in the U.S. in recent years, and California and Santa Cruz County both have lower prevalences of adolescent smoking than the U.S. does.

In 2008, the prevalence of adolescents in the region (Santa Cruz, Monterey, San Benito, San Luis Obispo, Santa Barbara, and Ventura counties) who smoke reached the HP 2020 goal of 16%, and the rate continued to drop in 2010 to 13.8%, from 19.2% in 2002 (Figure 2).^{14,15} The prevalence of adolescents in the region who use smokeless tobacco has remained below the HP 2020 goal of 6.9%, though it increased from 3.4% in 2002 to 4.6% in 2010 (Figure 3).^{14,15}

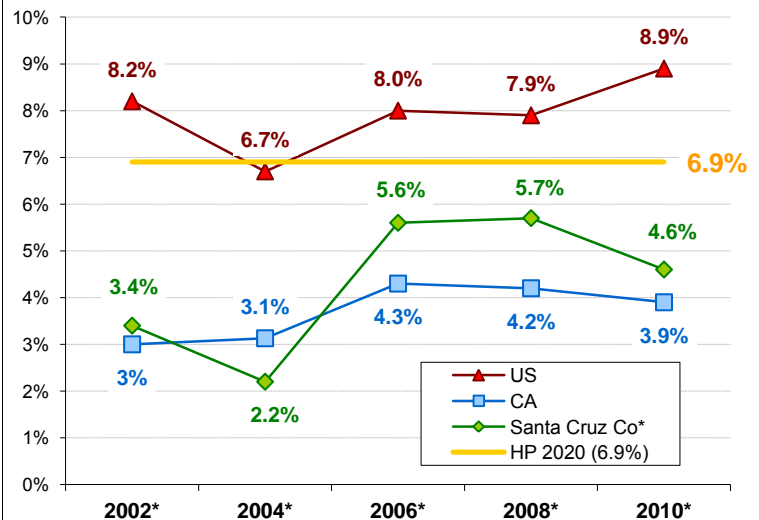
In 2012, the Surgeon General wrote a report focusing on tobacco use among youth and young adults. This report highlights the negative correlation between tobacco product prices and adolescent tobacco use. Products that can be sold cheaply become attractive to youth. One example is the development of cigarillos, which are cigars that are the size of cigarettes. Unlike cigarettes, however, cigarillos are not subject to the same strict tobacco legislation, so they are less heavily taxed and may be sold individually, making cigarillos more affordable for youth. Additionally, many cigarillos are designed to appeal to youth, often flavored and designed to look like candy (see Figure 4). Since 1990, cigars, including cigarillos, have become more popular for youth. In 2009, 28.6% of U.S. high school students had ever smoked cigars.¹⁶

Figure 2: Prevalence of Smoking in Adolescents in 9th through 12th Grades, 2002-2010^{14,15}



*Santa Cruz County information is grouped with Monterey, San Benito, San Luis Obispo, Santa Barbara, and Ventura counties. US information is for the year previous to the year noted. Sources: CStats, YRBSS

Figure 3: Prevalence of Smokeless Tobacco Usage Among Adolescents in 9th through 12th grades, 2002-2010^{14,15}



*Santa Cruz County information is for the region. U.S. prevalence is for the previous year. Sources: CStats, YRBSS

Figure 4: Cigarillos bought in the County of Santa Cruz, displayed with similar-looking candies.



TOBACCO USE

<p>Primary Prevention Activities</p>	<p>The Santa Cruz County Health Services Agency (HSA) staffs the <u>Tobacco Education Coalition</u>, an advocacy group that promotes a tobacco-free lifestyle and environment through education and legislation. HSA also provides self-help materials and a list of classes offered in Santa Cruz County. The Tobacco Education Program at HSA partners with the Santa Cruz County Tobacco Education Coalition to reduce youth smoking by reducing the influence of tobacco marketing and by making it more difficult for youth to buy tobacco.</p> <p>HSA is currently working to provide secondhand smoke protections to residents living in multi-unit housing facilities, in particular farmworker housing throughout the County.</p>	
<p>Helpful Websites</p>	<p>Santa Cruz County Tobacco Education Coalition</p>	<p>http://www.facebook.com/sctobaccoeducation and http://hsa/Interland/tobacco/index.htm</p>
<p>Sources</p>	<p>California Smokers' Helpline</p>	<p>http://www.californiasmokershelpline.org/ or call #1-800-NO-BUTTS</p>
<p>(1) U.S. Department of Health and Human Services. <i>The Health Consequences of Smoking: A Report of the Surgeon General</i>. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004. Available at http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/index.htm.</p> <p>(2) U.S. Department of Health and Human Services. <i>The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General</i>. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006. http://www.surgeongeneral.gov/library/reports/secondhandsmoke/index.html.</p> <p>(3) The Santa Cruz County Tobacco Education Coalition Newsletter, Vol. 1, Issue 1, January, 2009. Accessed September 2012. http://www.santacruzhealth.org/tobacco/pdfs/2010%2001%20TEC%20Newsletter.pdf.</p> <p>(4) Centers for Disease Control and Prevention. "Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses—United States, 2000-2004." <i>Morbidity and Mortality Weekly Report</i> 2008;57(45):1226–1228, November 14, 2008. Accessed September 2012. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm.</p> <p>(5) Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion. Accessed September 2012. http://www.cdc.gov/tobacco/index.htm.</p> <p>(6) UCLA Center for Health Policy Research. California Health Interview Survey. AskCHIS. 2001, 2003, 2005, 2007, 2009. Accessed September 2012 at http://www.chis.ucla.edu.</p> <p>(7) National Health Interview Survey (NHIS), CDC, NCHS. via CDC "Smoking & Tobacco Use: Trends in Current Cigarette Smoking Among High School Students and Adults, United States, 1965-2011." Accessed September 2012. http://www.cdc.gov/tobacco/data_statistics/tables/trends/cig_smoking/index.htm.</p> <p>(8) Behavioral Risk Factor Surveillance System. 2004-2010. via University of Wisconsin Population Health Institute. County Health Rankings 2012. http://www.countyhealthrankings.org/</p> <p>(9) "AB-13 Fact Sheet – California Workplace Smoking Restrictions." Cal/OSHA Consultation Service, October 1997. Accessed September 2012. http://www.dir.ca.gov/dosh/dosh_publications/smoking.html.</p> <p>(10) California Health and Safety Code §118947. http://www.leginfo.ca.gov/.</p> <p>(11) Santa Cruz County Tobacco Education Program. "Smoke-Free Outdoor Areas" fact sheet. Accessed September 2012. http://www.santacruzhealth.org/tobacco/pdfs/SMOKE-FREE%20OUTDOORS%20ORDINANCE-%20FACT%20SHEET.pdf.</p> <p>(12) City of Watsonville City Council Meeting Agenda, August 24, 2010. Section 6.4. Accessed September 2012. http://cityofwatsonville.org/download/City_Council/City_Council_Documents/2010/082410/Agenda_CC_082410.pdf.</p> <p>(13) County of Santa Cruz Council Meeting Minutes, April 5, 2011. Accessed September 2012. http://sccounty01.co.santa-cruz.ca.us/bds/Govstream/ASP/Display/SCCB_AgendaDisplayWeb.asp?MeetingDate=4/5/2011.</p> <p>(14) Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP. Accessed September 2012. http://www.cdc.gov/healthyyouth/yrbs/index.htm.</p> <p>(15) California Department of Public Health/California Tobacco Control Program C-STATS Website, "Current Youth Smokeless Tobacco Use," "Current Youth Cigarette Use." Accessed September 2012 at http://www.cstats.info/.</p> <p>(16) U.S. Department of Health and Human Services. <i>Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General</i>. Atlanta, GA: Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012. Accessed September 2012. http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf.</p>		

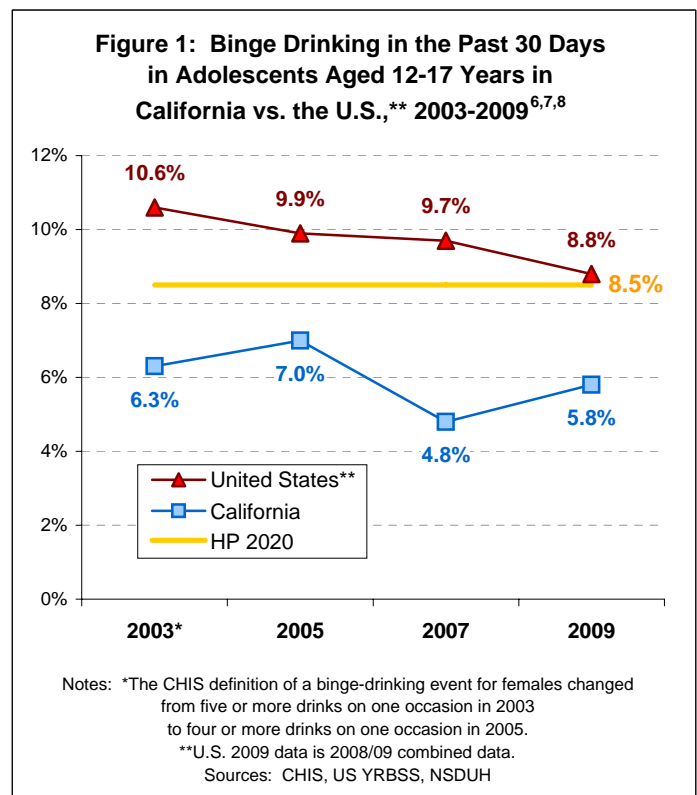
ALCOHOL USE

Importance	"[E]xcessive alcohol use is the third leading lifestyle-related cause of death for people in the United States each year." ^{1,2} Alcohol-related death or injury can occur during or immediately after alcohol use, in incidents such as vehicle collisions, drowning, and alcohol poisoning, or it can present later in life, often in the form of a chronic illness such as liver disease. "From 2001-2005, there were approximately 79,000 deaths annually in the United States attributable to excessive alcohol use." ^{1,3}
Definitions	<p>Binge Drinking: Drinking enough alcohol in 2 hours to raise the blood alcohol (BAC) levels of an individual to 0.8g/dL. This means drinking approximately five or more drinks on a single occasion for men, or approximately four or more drinks on a single occasion for women.⁴</p> <p>Heavy Drinking: For healthy adults in general: drinking more than 4 drinks on any single day OR more than 14 drinks per week for men; and more than 3 drinks in one day OR more than 7 drinks per week for women.⁴</p>
Healthy People 2020 Objectives	<ul style="list-style-type: none"> - Reduce adolescent binge drinking in the past month to 8.5% - Reduce adult binge drinking in the past 30 days to 24.4%

There are two measures of excessive alcohol use: binge drinking and heavy drinking (see definitions above).⁴ Binge drinking tends to be associated with the immediate negative implications of ingesting alcohol, whereas heavy drinking "can lead to increased risk of health problems such as injuries, violence, liver diseases, and cancer."¹

Although the minimum drinking age in California is 21 years, alcohol is still accessible to many adolescents and underage adults. When drinking, many underage drinkers binge drink, which often leads to health and social problems, including alcohol-impaired driving, physical fighting, poor school performance, unprotected sexual activity, and smoking.⁵ Binge drinking among adolescents has been declining nationwide (Figure 1).^{6,7,8} According to the California Health Interview Survey, the percentage of California teens between the ages of 12 and 17 who binge drink is lower than the percentage of US teens, and below the Healthy People 2020 goal of 8.5%.^{6,7,8} Due to small sample size, data for Santa Cruz County was statistically unreliable and therefore is not presented.

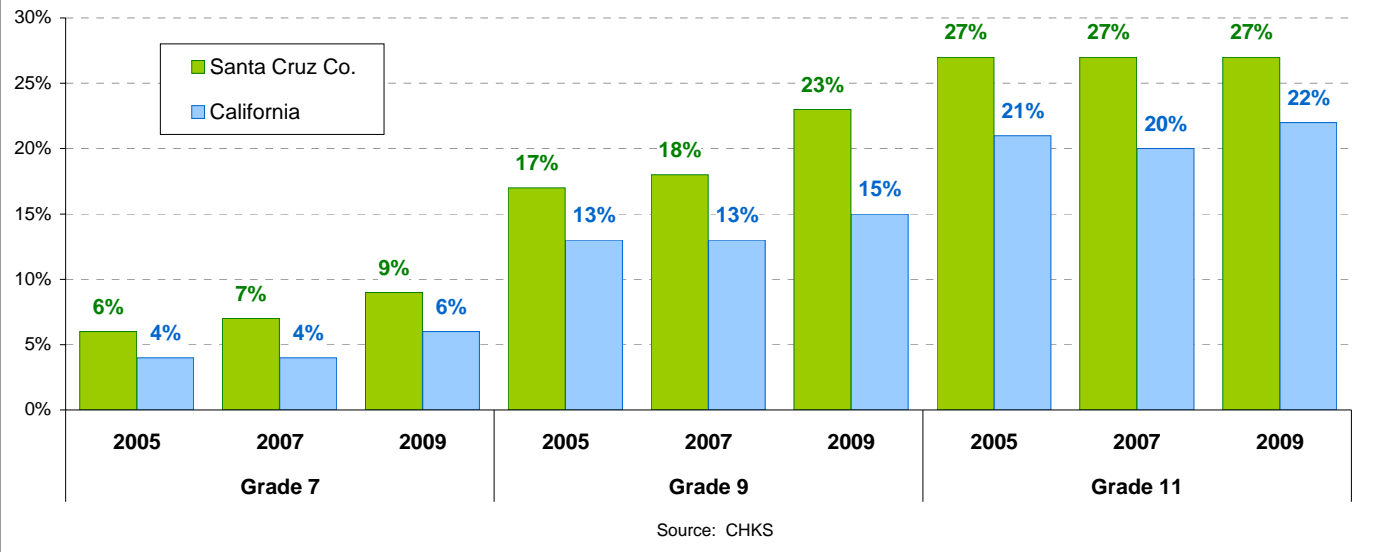
Students, both in Santa Cruz County and in California, reported a decrease in alcohol consumption in grades 9 and 11 between 2000-2001 and 2008-2009; however, the prevalence in Santa Cruz County continues to be higher than the state's (see Figure 2 on the next page).⁹



Additionally, 7th grade students' alcohol consumption has not changed in Santa Cruz and has increased slightly in California.⁹ This is highlighted in Figure 2, which shows that the proportions of 7th, 9th, and 11th-grade adolescents self-reporting binge drinking are consistently higher in Santa Cruz County than in California.¹⁰ For both the state of California and the county of Santa Cruz, the proportions of 7th and 9th grade adolescents reporting binge drinking increased in 2009, most notably in Santa Cruz 9th graders.¹⁰

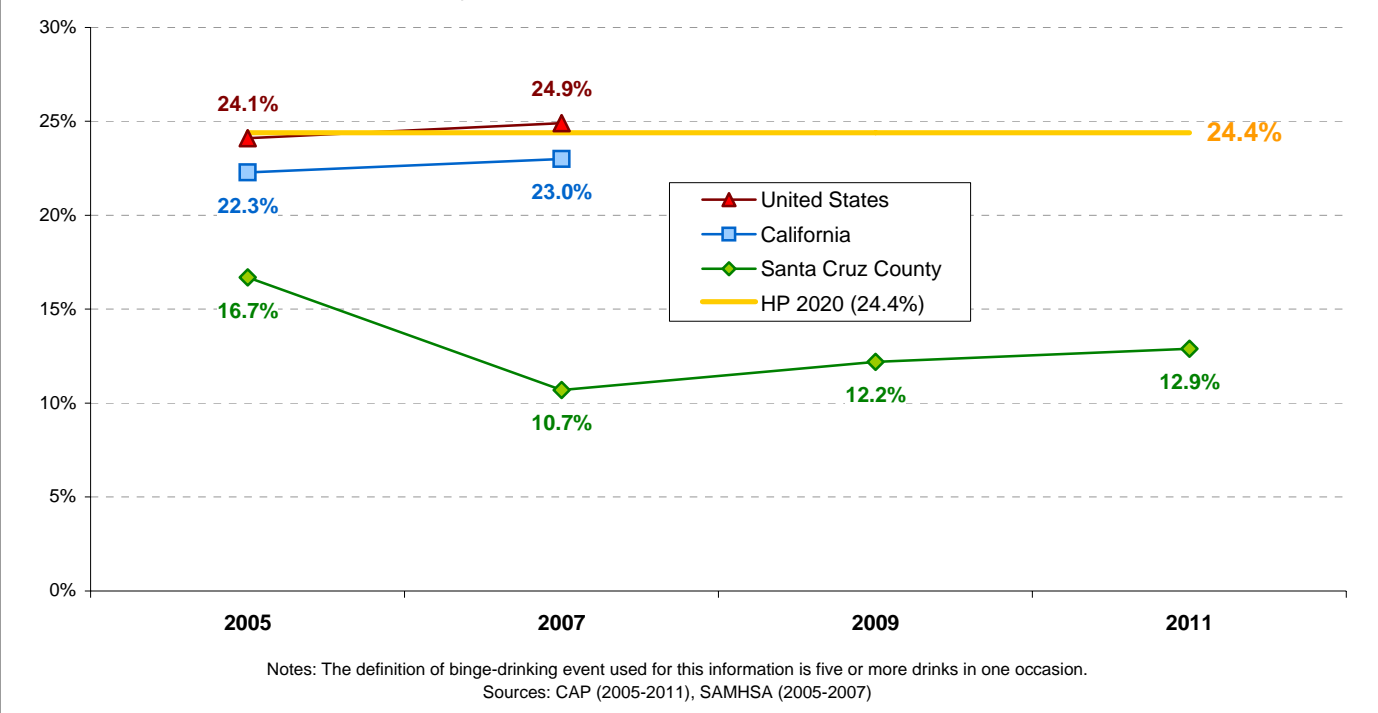
ALCOHOL USE

Figure 2: Binge Drinking in Adolescents in Grades 7, 9, and 11, Santa Cruz County and California, 2005 - 2009¹⁰



Binge drinking is not just a college phenomenon; most binge drinking episodes occur among adults aged 26 years and older.¹⁰ Between 2005 and 2007, California Health Information Survey (CHIS) data shows Santa Cruz County saw a decrease of binge drinking in adults, including under-age (18-21 year old) adult drinkers (Figure 3); Santa Cruz County's decrease may reflect random variation based on a smaller sample size. In contrast, California saw a slight increase in adult binge drinking between 2005 and 2007. Both Santa Cruz County and California met the HP 2020 goal of 24.4% in both years, while the US is near the HP 2020 goal.^{8, 9, 12, 13} Santa Cruz County continued to meet the HP 2020 goal in 2011.⁹

Figure 3: Binge Drinking in the Past 30 Days in Adults (18 and Over), Santa Cruz County (2005 - 2011), California, and the U.S. (2005 - 2007)^{8, 9, 12, 13}



ALCOHOL USE

<p>Primary Prevention Activities</p>	<p>Santa Cruz County Friday Night Live Partnership comprises the Friday Night Live (FNL) and Club Live (CL) programs. These programs are multi-cultural and youth-driven and -led, designed to prevent alcohol, tobacco, and other drug use among middle school and high school students.</p> <p>Project CURB (Communities United to Reduce Bingeing) has been working to reduce binge drinking among the youth of Santa Cruz County.¹⁴ Project CURB is led by Together for Youth/Unidos Para Nuestros Jovenes, a United Way of Santa Cruz County-led initiative. The goal of Project CURB was to reduce underage binge drinking rates by 50% by the year 2009.</p> <p>The University of California, Santa Cruz requires all freshmen and students under the age of 24 to complete an online education program about alcohol.¹⁵</p>	
<p>Helpful Websites</p>	<p>National Institute on Alcohol Abuse and Alcoholism (NIAAA)</p>	<p>http://www.niaaa.nih.gov/</p>
	<p>California Department of Alcohol and Drug Programs</p>	<p>http://www.adp.cahwnet.gov/</p>
	<p>Santa Cruz County HSA Mental Health and Substance Abuse Services</p>	<p>http://www.santacruzhealth.org/cmhs/2alcohol.htm</p>
<p>Sources</p>	<p>(1) Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion. "Alcohol & Public Health." 14 September 2012. Accessed September 2012. http://www.cdc.gov/alcohol/.</p> <p>(2) Mokdad AH, Marks JS, Stroup DF, Gerberding JL. "Actual causes of death in the United States, 2000." <i>JAMA</i> 2004; 291(10):1238–1245.</p> <p>(3) Centers for Disease Control and Prevention (CDC). "Alcohol-Related Disease Impact (ARDI)." Atlanta, GA: CDC. Accessed October 2012 http://www.cdc.gov/alcohol/ardi.htm.</p> <p>(4) National Institutes of Health (NIH). National Institute on Alcohol Abuse and Alcoholism (NIAAA). "Moderate and Binge Drinking." Accessed 29 August 2012. http://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking.</p> <p>(5) Miller JW, Naimi TS, Brewer RD, Jones SE. "Binge drinking and associated health risk behaviors among high school students." <i>Pediatrics</i> 119:76-84, 2006. Cited on CDC Alcohol webpage http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5939a4.htm?s_cid=mm5939a4_w, accessed September 2012.</p> <p>(6) UCLA Center for Health Policy Research. California Health Interview Survey. AskCHIS. 2001, 2003, 2005, 2007, 2009. http://www.chis.ucla.edu. Accessed October 2012.</p> <p>(7) Centers for Disease Control and Prevention, Youth Risk Behavioral Surveillance System. "Trends in the Prevalence of Alcohol Use, 1991-2011." http://www.cdc.gov/healthyyouth/yrbs/pdf/us_alcohol_trend_yrbs.pdf. Accessed 12 April 2010.</p> <p>(8) Substance Abuse and Mental Health Services Administration. <i>State Estimates of Substance Use and Mental Disorders from the 2008-2009 National Surveys on Drug Use and Health</i>, Table B.10. NSDUH Series H-40, HHS Publication No. (SMA) 11-4641. Rockville, MD, 2011. http://www.samhsa.gov/data/2k9State/Cover.htm.</p> <p>(9) Applied Survey Research. <i>Life in Santa Cruz County Community Assessment Project: Comprehensive Reports Years 12, 14, 17, and 18 (2006, 2008, 2011, ans 2012)</i>. San Jose, CA: United Way of Santa Cruz. http://www.santacruzcountycap.org/. Accessed December 2012.</p> <p>(10) West Ed / Healthy Kids. California Safe and Healthy Kids Program Office. "Santa Cruz County (California) Secondary Technical Report 2004/05-2005/06 (2006/07-2007/08 and 2008/09-2009/10)." Accessed October 2012. http://www.wested.org/cs/chks/print/docs/chks_home.html.</p> <p>(11) Naimi T, Brewer RD, Mokdad A, Serdula M, Denny C, Marks J. "Binge drinking among U.S. adults." <i>JAMA</i> 289:70–5, 2003. Via CDC Alcohol webpage. Accessed October 2012.</p> <p>(12) Hughes, A., Sathe, N., & Spagnola, K. (2009). <i>State Estimates of Substance Use from the 2006-2007 National Surveys on Drug Use and Health</i> (Office of Applied Studies, Substance Abuse and Mental Health Services Administration, NSDUH Series H-35, HHS Publication No. SMA 09-4362). Rockville, MD. http://oas.samhsa.gov/2k7state/2k7State.pdf.</p> <p>(13) SAMHSA. National Survey on Drug Use and Health (NSDUH). http://oas.samhsa.gov/.</p> <p>(14) Applied Survey Research. "The Status of Youth Drinking in Santa Cruz County, 2007." Project CURB. Accessed October 2012. http://www.project-curb.org/project.htm. http://www.project-curb.org/pdf/Final_CURB_Evaluation_Repor_%202007.pdf.</p> <p>(15) University of California, Santa Cruz, Student Health Center. http://healthcenter.ucsc.edu/shop/alcohol_edu.shtml. Accessed October 2012.</p>	

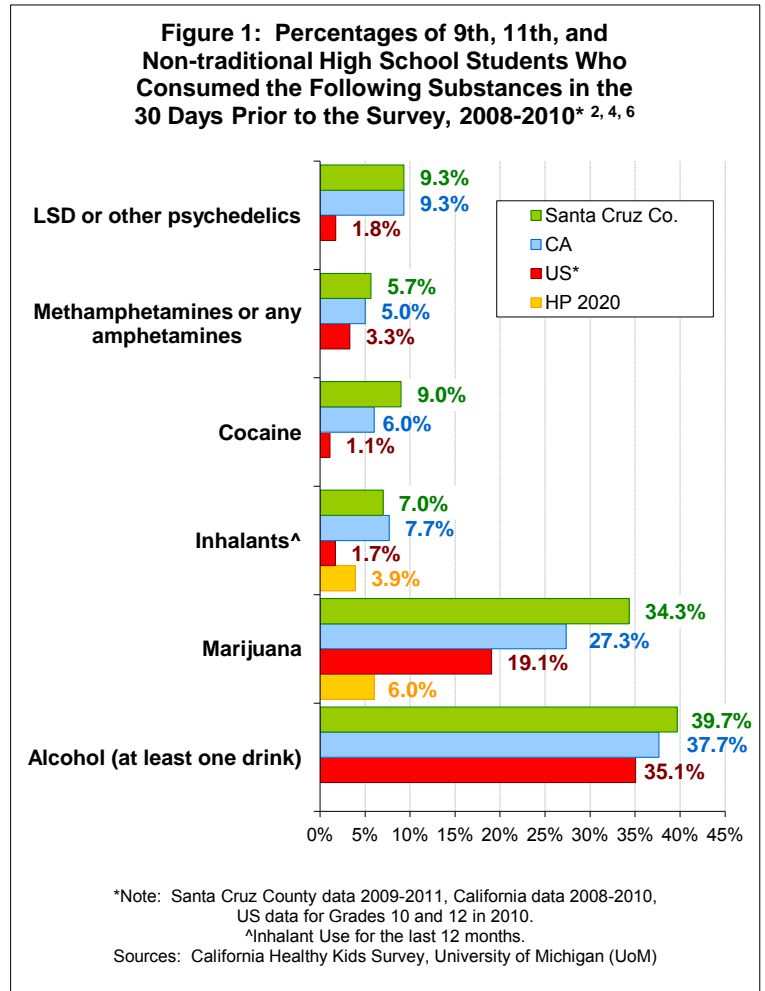
OTHER SUBSTANCE USE

<p>Importance</p>	<p>The impact of illicit drug use and addiction is far-reaching. Cardiovascular disease, stroke, cancer, HIV/AIDS, hepatitis, and lung disease can all be associated with and/or affected by drug abuse, as can fatal and nonfatal overdose and other diseases associated with high-risk behavior and sexual transmission. There is a body of literature and research that details the complex and sometimes reciprocal linkages between illegal drug use and negative health and social experiences.¹</p>
<p>Healthy People 2020 Objectives</p>	<ul style="list-style-type: none"> - Decrease the proportion of adolescents using inhalants in the past year to 3.9% - Decrease the proportion of adolescents using marijuana in the past month to 6.0% - Decrease the proportion of adolescents using an illicit drug in the past month to 7.1%

Some drugs with abuse potential have been shown to alter gene expression and brain circuitry, and consequently may permanently affect human behavior. When drug abuse occurs, a person's ability to exert self-control becomes seriously impaired. Brain imaging studies from drug-addicted individuals show physical changes in areas of the brain that are critical to judgment, decision-making, behavior control, and learning and memory. Scientists believe that these changes alter the way the brain works, and may help explain the compulsive and destructive behaviors of addiction. Some of these effects occur only when drugs are used at high doses or after prolonged use; however, some may occur after just one use.¹

Adolescents are especially at risk for the negative and often life-long impacts of drug abuse, because their brains are still maturing – specifically, “the prefrontal cortex – the part of the brain that enables us to assess situations, make sound decisions, and keep our emotions and desires under control. The fact that this critical part of an adolescent’s brain is still a work-in-progress puts them at increased risk for poor decisions (such as trying drugs or continued abuse). Thus, introducing drugs while the brain is still developing may have profound and long-lasting consequences.”¹

The proportions of high school students in Santa Cruz County who have recently used illicit substances are similar to the statewide rates, except for marijuana and cocaine usage, for which Santa Cruz County rates are notably higher, 26% and 50% respectively, than California rates (Figure 1).^{2,4,6}



While the U.S. data represented in Figure 1 comes from a different source (10th and 12th grade, 2010 data from UoM⁶) and may not be dependably comparable with the source used for Santa Cruz County and the state of California (9th and 11th grade data collected between 2008 and 2010 from CHKS), it is worth noting that Inhalants, LSD or other psychedelics, and Cocaine usage are 4.5, 5.1, and 8.2 times higher in Santa Cruz County than in the U.S., respectively.^{2,4,6} Both inhalant and marijuana use in Santa Cruz County are far higher than the 2020 national objectives (Figure 1).^{2,4,6}

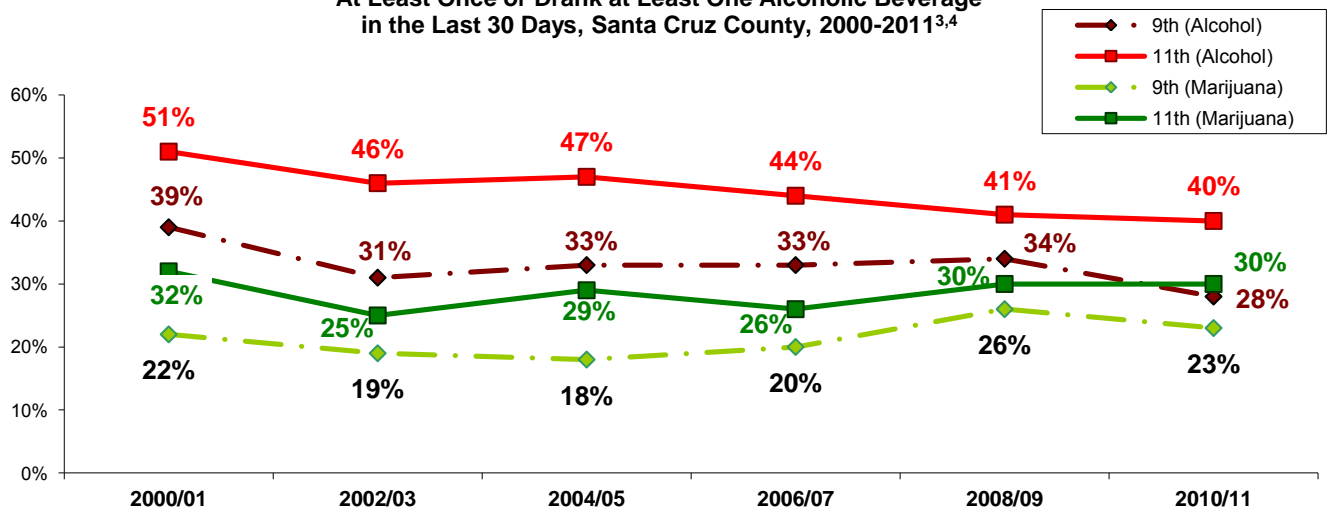
OTHER SUBSTANCE USE

Between the 2000/01 and 2010/11 school years, there has been little or no reduction in the proportions of 11th graders who have used drugs in the last 30 days, with the exception of an 11% decrease in alcohol consumption. The proportion of 9th graders who have used has increased or stayed the same for every substance asked about, except alcohol. A higher proportion of 9th graders than 11th graders reported using methamphetamines and inhalants in the 2010/11 school year (Figures 2 to 6).^{3,4}

In addition to alcohol and illegal drugs, abuse of prescription and over-the-counter drugs for nonmedical uses is an increasing issue. In 2011, 15.2% of high school seniors in the United States reported nonmedical use of prescription and over-the-counter medicines in the past year.⁵ It is worth noting that improper use of prescription drugs, even for medical purposes, is a major cause of poisoning and death (see the Mortality Chapter).

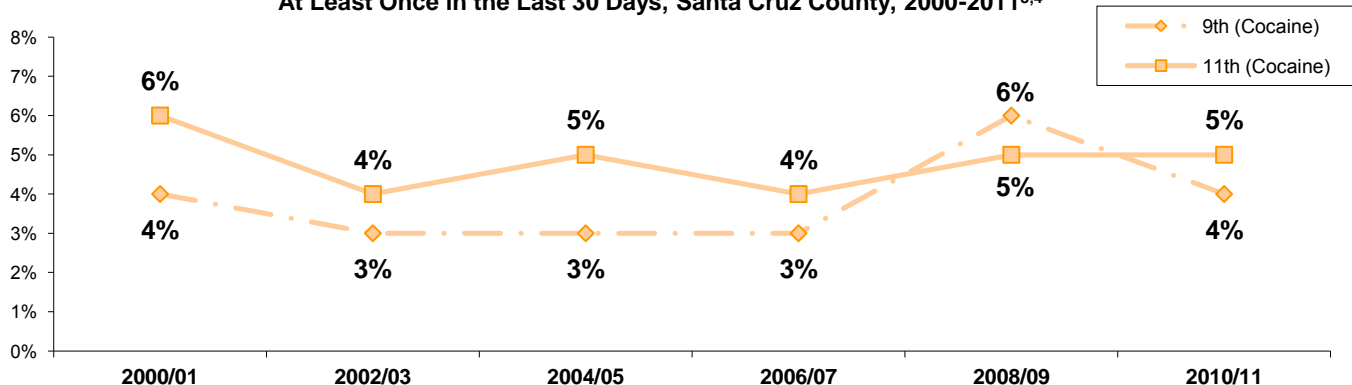
Drugs such as synthetic marijuana (a.k.a. K2/Spice), Salvia, and "bath salts" are emerging on the market, and since they are new, they are under- or unregulated and can be sold in head shops, gas stations, and via the Internet. Often they are falsely considered "safer" than illicit drugs because they are sold legally. In 2011, 11.4% of high school seniors reported using K2/Spice in the past year nationwide.⁵

Figure 2: Percentages of 9th and 11th Grade Students Who Used Marijuana At Least Once or Drank at Least One Alcoholic Beverage in the Last 30 Days, Santa Cruz County, 2000-2011^{3,4}



Note: Data are weighted based on gender, ethnicity, and location.
Source: California Healthy Kids Survey via CAP, 2012

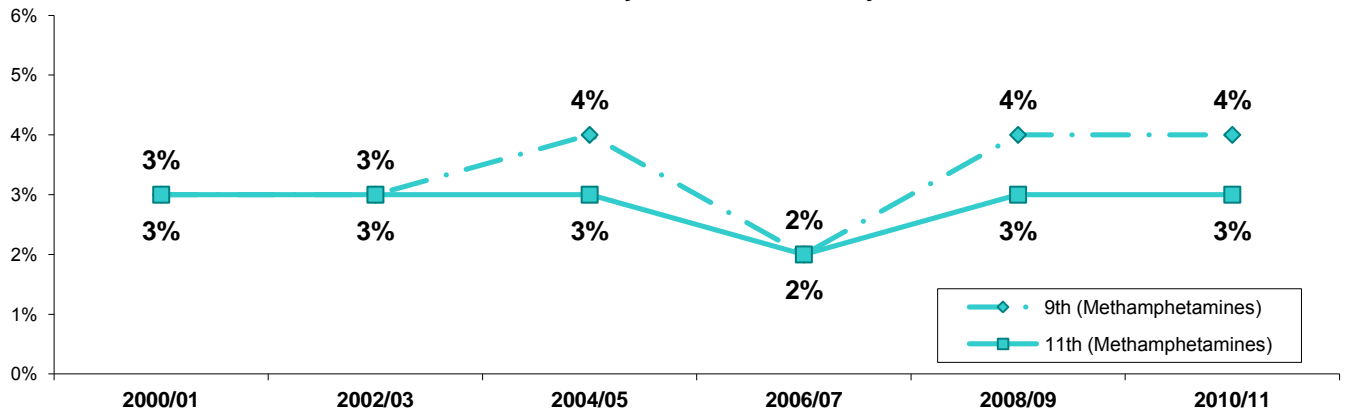
Figure 3: Percentages of 9th and 11th Grade Students Who Used Cocaine At Least Once in the Last 30 Days, Santa Cruz County, 2000-2011^{3,4}



Note: Data are weighted based on gender, ethnicity, and location.
Source: California Healthy Kids Survey via CAP, 2012

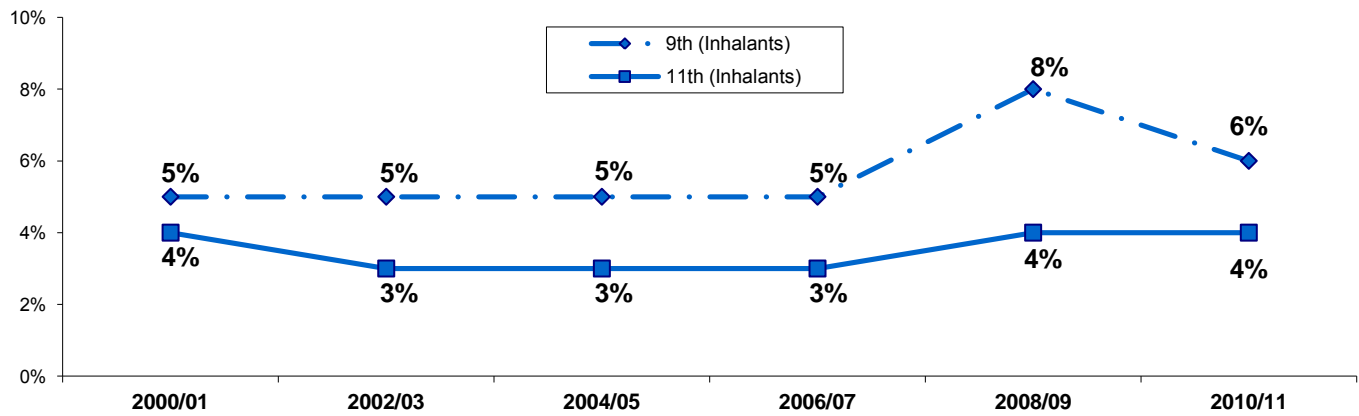
OTHER SUBSTANCE USE

Figure 4: Percentages of 9th and 11th Grade Students Who Used Methamphetamines* At Least Once in the Last 30 Days, Santa Cruz County, 2000-2011^{3,4}



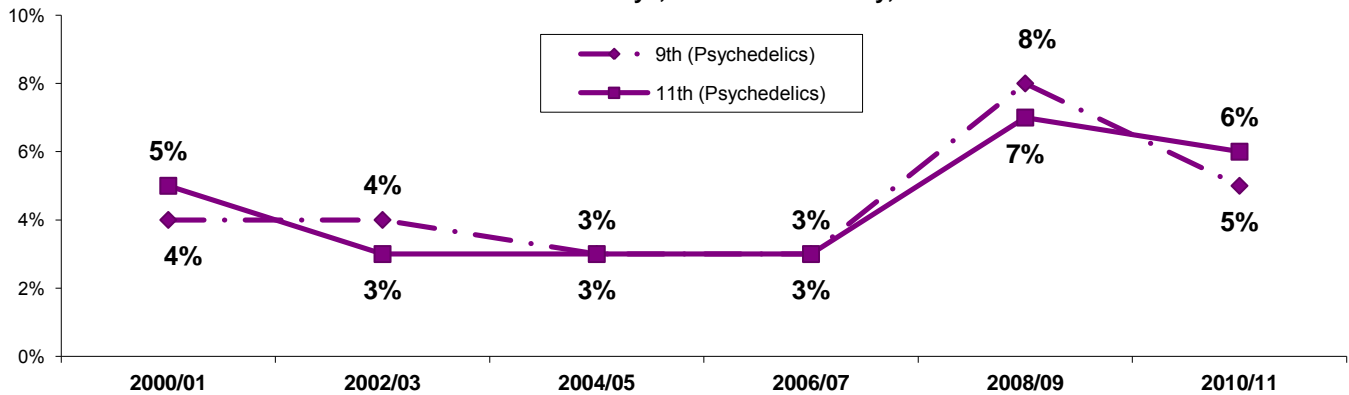
Notes: Data are weighted based on gender, ethnicity, and location. *Includes other amphetamines.
Source: California Healthy Kids Survey via CAP, 2012

Figure 5: Percentages of 9th and 11th Grade Students Who Used Inhalants At Least Once in the Last 30 Days, Santa Cruz County, 2000-2011^{3,4}



Notes: Data are weighted based on gender, ethnicity, and location.
Source: California Healthy Kids Survey via CAP, 2012

Figure 6: Percentages of 9th and 11th Grade Students Who Used Psychedelics* At Least Once in the Last 30 Days, Santa Cruz County, 2000-2011^{3,4}



Notes: Data are weighted based on gender, ethnicity, and location. *Includes Ecstasy, LSD, or other psychedelics.
Source: California Healthy Kids Survey via CAP, 2012

OTHER SUBSTANCE USE

<p>Primary Prevention Activities</p>	<p>Santa Cruz County Friday Night Live Partnership: comprises the Friday Night Live (FNL) and Club Live (CL) programs. These programs are multi-cultural and youth-driven and -led, designed to prevent alcohol, tobacco, and other drug use among middle school and high school students.</p>	
<p>Helpful Websites</p>	<p>National Institute on Drug Abuse (NIDA)</p>	<p>http://www.drugabuse.gov/</p>
	<p>Substance Abuse and Mental Health Services Administration (SAMHSA)</p>	<p>http://www.samhsa.gov/</p>
<p>Sources</p>	<p>(1) National Institute on Drug Abuse (NIDA), National Institutes of Health (NIH), U.S. Department of Health and Human Services. "Drugs, Brains, and Behavior: The Science of Addiction," published April 2007, revised August 2010. http://www.drugabuse.gov/publications/science-addiction.</p> <p>(2) Health and Human Development Program for the California Department of Education. Santa Cruz County. California Healthy Kids Survey, 2009-11: Main Report San Francisco: WestEd. http://www.wested.org/cs/chks/print/docs/chks_home.html.</p> <p>(3) Applied Survey Research. <i>Life in Santa Cruz County, Year 15 (2009), Year 18 (2012): Community Assessment Project: Comprehensive Report</i>. San Jose, CA: United Way of Santa Cruz, 2012.</p> <p>(4) Health and Human Development Program for the California Department of Education. Weighted Statewide. California Healthy Kids Survey, 2008-10: Main Report San Francisco: WestEd. http://www.wested.org/cs/chks/print/docs/chks_home.html.</p> <p>(5) National Institute on Drug Abuse (NIDA), National Institutes of Health (NIH), U.S. Department of Health and Human Services. "DrugFacts: High School and Youth Trends" webpage. July 2012. Accessed October 2012. http://www.drugabuse.gov/infofacts/HSYouthtrends.html.</p> <p>(6) Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2012). Monitoring the Future – National Results on Adolescent Drug Use: Overview of Key Findings 2011. Ann Arbor: Institute for Social Research, University of Michigan Institute for Social Research. http://monitoringthefuture.org/pubs/monographs/mtf-overview2011.pdf</p>	

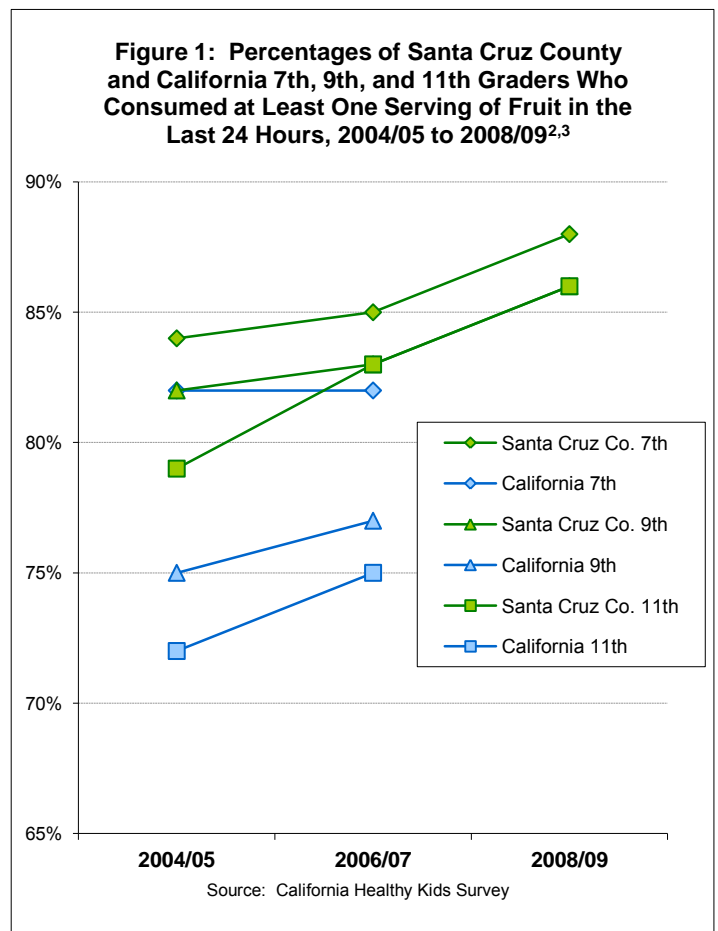
DIET AND EXERCISE

<p>Importance</p>	<p>Regular physical activity and eating a healthy diet are key to maintaining and improving one’s health, and preventing and controlling chronic diseases. Both efforts 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 anxiety and depression; and is associated with fewer hospitalizations, physician visits, and medications.</p>
<p>Healthy People 2020 Objectives</p>	<p><u>Nutrition:</u></p> <ul style="list-style-type: none"> - Increase the contribution of fruits to the diets of the population aged 2 years and older to 0.9 cups per 1,000 calories. - Increase the contribution of vegetables to the diets of the population aged 2 years and older to 1.1 cups per 1,000 calories. <p><u>Physical Activity:</u></p> <ul style="list-style-type: none"> - Increase the proportion of adolescents who meet current federal physical activity guidelines for aerobic physical activity of 60 minutes per day in the last seven days to 20.2%. - Increase the proportion of adults who engage in aerobic physical activity of at least moderate intensity for at least 150 minutes/week, or 75 minutes/week of vigorous intensity, or an equivalent combination to 49.7%

NUTRITION

A balanced diet is necessary for proper growth and development of children as well as for maintaining a healthy body and preventing chronic disease in everyone. According to the National Health and Nutrition Examination Survey (NHANES), 2001-2004, Americans consumed 0.5 cups of fruits per 1,000 calories consumed and 0.8 cups of vegetables per 1,000 calories consumed, which is lower than the Healthy People 2020 goals of 0.9 cup of fruit and 1.1 cups of vegetables per 1,000 calories consumed.¹ When asked in the California Healthy Kids Survey in the 2008-2009 school year, 86% to 88% of 7th, 9th, and 11th graders reported consuming at least one serving of fruits in the last 24 hours.^{2,3} 79%-86% of Santa Cruz County 7th, 9th, and 11th graders reported consuming at least one serving of vegetables.^{2,3} Consistently, a higher percentage of Santa Cruz County teens than California teens reported eating at least one serving of fruit or one serving of vegetables (see Figures 1 and 2).^{2,3}

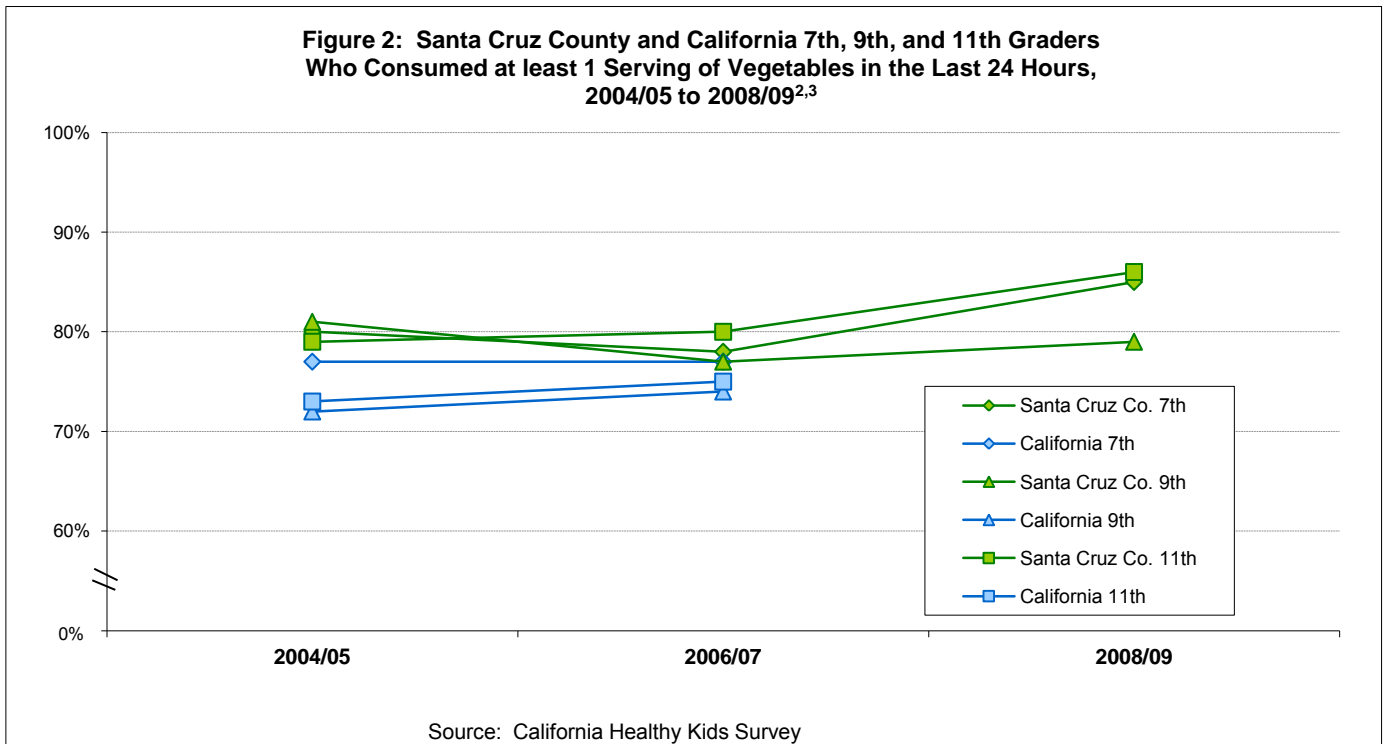
A separate survey, the California Health Interview Survey, focused on whether respondents consumed 5 servings of fruits and vegetables.⁴ Results from the 2005 survey showed that more Santa Cruz County adults (57.3%) than California adults (48.7%) ate the recommended 5 fruits and vegetables in the last 24 hours.⁴



In the 2009 survey, 56.8% of Santa Cruz County children (under 12) and 48.4% of California children ate the recommended 5 servings of fruits and vegetables; these numbers were not significantly different from one another (Figure 3).⁴

DIET AND EXERCISE

Figure 2: Santa Cruz County and California 7th, 9th, and 11th Graders Who Consumed at least 1 Serving of Vegetables in the Last 24 Hours, 2004/05 to 2008/09^{2,3}



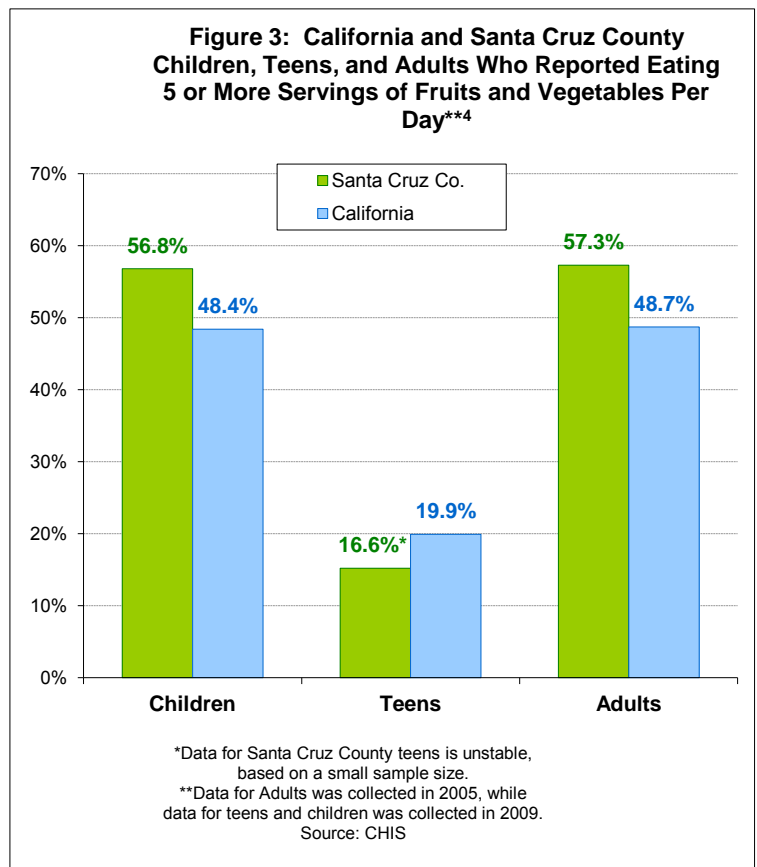
Nutrition Program

The County of Santa Cruz Health Services Agency Public Health Department (PH) and the Human Services Department (HSD) have partnered to reach out to communities within the county to provide coordinated nutrition education messages across USDA nutrition assistance programs, to reach SNAP (CalFresh) population at the local level and implement community-level nutrition interventions.

With a goal to empower communities to work together to improve their neighborhoods to become healthier places to live, work, and play, the nutrition program began in April of 2012 with neighborhood assessment of the population health (such as prevalence of obesity) and the built environment, such as unhealthy vs. healthy food sources (see Figure 5).⁵

The PH/HSD partnership intervention sites include but are not limited to social services, faith/churches, community-based organizations, community events, community youth organizations, parks and recreation centers, WIC sites, public/community health centers, food banks, and low-resource schools.

Figure 3: California and Santa Cruz County Children, Teens, and Adults Who Reported Eating 5 or More Servings of Fruits and Vegetables Per Day^{4}**



DIET AND EXERCISE

The Public Health Department and community partners promote healthy communities by providing nutrition education classes to empower consumers, encouraging community participation in determining how to obtain the community's nutrition needs, provide community education events, promote healthy communities utilizing local media, and provide trainings and workshops to leaders in the community.

Using Healthy Food Options strategies, the primary educational methods emphasize childhood obesity prevention, chronic disease and obesity prevention, and dietary quality and healthier eating practices based on the 2010 Dietary Guidelines for Americans.

PHYSICAL ACTIVITY

Regular physical activity reduces the risk of dying from coronary heart disease and of developing high blood pressure, colon cancer, and diabetes, helps maintain healthy bones, muscles and joints, helps control weight, can help reduce blood pressure in some people with hypertension, reduces symptoms of anxiety and depression, and fosters improvements in mood and feelings of well-being.⁶ While vigorous activity is recommended for a healthy cardiovascular system, an inactive person can benefit from even a small increase of physical activity.⁶

Despite the proven benefits of physical activity, more than 50% of American adults do not get enough physical activity to attain health benefits.⁷ Additionally, 25.4% of American adults had no leisure-time physical activity in 2008, slightly more than California, where 23.5% of adults had no leisure-time physical activity.⁸ Nationally, in 2010, 47.1% of adults engaged in aerobic physical activity of at least moderate intensity for at least 150 minutes/week, or 75 minutes/week of vigorous intensity, or an equivalent combination.⁹

Between 2000 and 2007, the proportion of Santa Cruz County adults who participated in 30 minutes of moderate activity five or more days per week increased from 33% to 50%, which is higher than U.S. adults but slightly less than California adults at 53% (Figure 6).^{3, 10}

Figure 4: Nutrition Program focus area in Watsonville. Map developed by the County of Santa Cruz using CX³ (5)

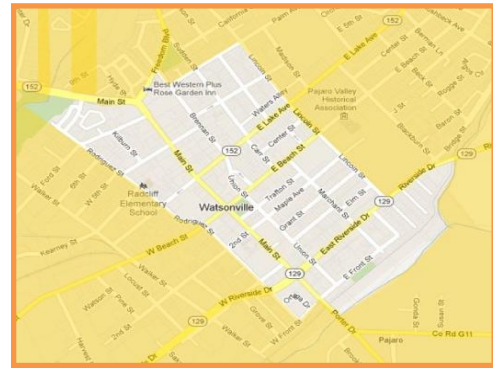


Figure 5: Healthy Food Sources vs. Unhealthy Food Sources in a Nutrition Program Focus Area in Watsonville⁵

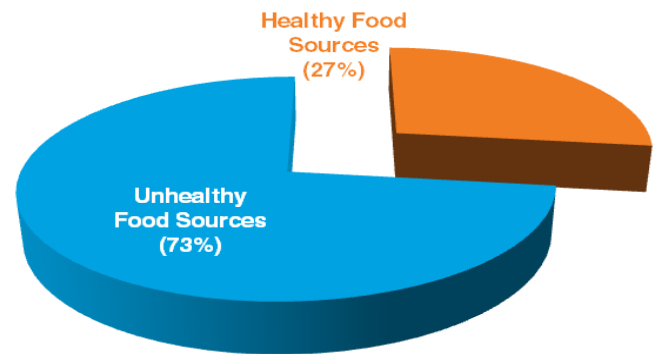
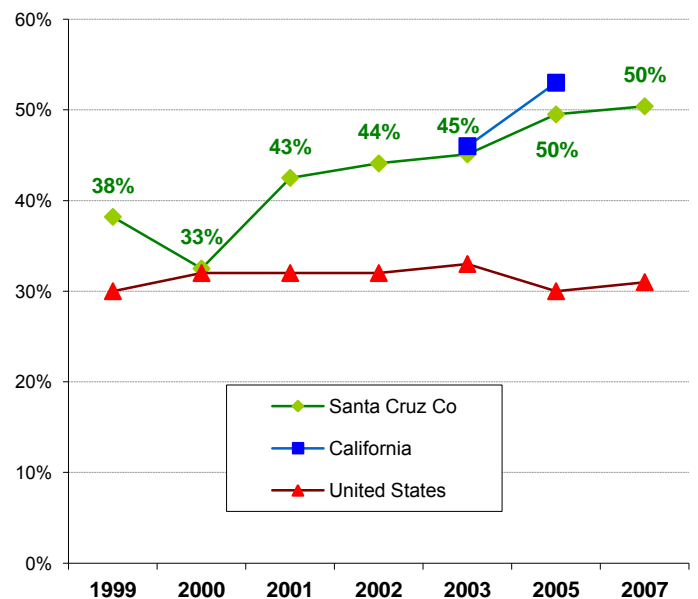


Figure 6: Adults Participating in 30 Minutes of Moderate Activity Five or More Days per Week^{3,10}

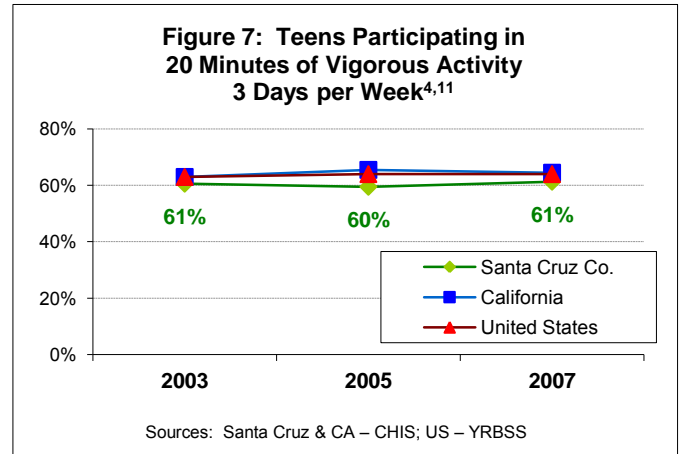


Sources: Santa Cruz Co. – CAP Year 14; CA & US – BRFSS

DIET AND EXERCISE

Additionally, income level is positively related to physical activity.¹² In 2011, of Santa Cruz County adults reporting an income level of \$65,000 or more, 94.3% reported engaging in a physical activity such as brisk walking or gardening for a combined total of 30 minutes or more, while only 86.2% of adults reporting an income of \$34,999 or less reported engaging in similar activities.³

Physical activity is a key factor for children and adolescents to maintain a healthy weight and develop healthy habits that will help prevent chronic disease as they become adults. An HP 2020 goal is to increase the proportion of adolescents who meet current federal physical activity guidelines for aerobic physical activity of 60 minutes per day in the last seven days to 20.2%. In 2009, 15.2% of California teens reported at least 60 minutes of physical activity 7 days a week, excluding PE. Santa Cruz County data was unstable due to small sample size.⁴



The proportion of Santa Cruz County teens who participate in at least three days of vigorous intensity physical activity is consistently near 60%, while California and U.S. teens improved slightly to 65% and 64% in 2007 (see Figure 7).^{4,11}

<p>Primary Prevention Activities</p>	<p>The Santa Cruz County Public Health Department is a partner in the Go For Health Collaborative, a local childhood obesity prevention coalition focusing on the Pajaro Valley.</p> <p>Nutrition and Fitness Collaborative of the Central Coast, a regional coalition, focuses on reducing childhood obesity, increasing physical activity levels, and increasing access to affordable, nutritious food.</p>	
<p>Helpful Websites</p>	<p>Go For Health Collaborative</p>	<p>http://www.unitedwaysc.org/go-health</p>
<p>Sources</p>	<p>(1) National Health and Nutrition Examination Survey (NHANES), CDC, NCHS via Healthy People 2020. http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=29#146172.</p> <p>(2) California Healthy Kids Survey Report 2004-2005 & 2005-2006 & 2008-2009, Santa Cruz County Technical Report Module A: Core. Accessed 27 November 2012. http://www.wested.org/cs/chks/print/docs/chks_home.html.</p> <p>(3) Applied Survey Research. <i>Community Assessment Project Report: Years 13-16. 2007-2010.</i> http://www.appliedsurveyresearch.org/projects/cap.html.</p> <p>(4) California Health Interview Survey 2001, 2003, 2005, 2007, 2009. Accessed October 2012. http://www.chis.ucla.edu/.</p> <p>(5) County of Santa Cruz, Health Services Agency. Unpublished data utilizing CX3 and GIS software. 2012.</p> <p>(6) US Department of Health and Human Services (HHS), Office of Disease Prevention and Health Promotion. 2008 Physical activity guidelines for Americans. Washington: HHS; 2008.</p> <p>(7) "Prevalence of Physical Activity, Including Lifestyle Activities Among Adults — United States, 2000-2001." <i>MMWR</i> 52(32):764–769, August 15, 2003.</p> <p>(8) "2001-2008 State Physical Activity Statistics," Division of Nutrition, Physical Activity and Obesity, CDC. Last update 2 Feb 2010. Accessed 27 November 2012. http://apps.nccd.cdc.gov/PASurveillance/StateSumV.asp.</p> <p>(9) NHIS (CDC, NCHS) via Healthy People 2020. http://www.healthindicators.gov/Indicators/Adultaerobic150minweekmoderateor75minutesweekvigorousphysicalactivity_1319/Profile/Data.</p> <p>(10) Behavioral Risk Factor Surveillance system (BRFSS), CDC, NCCDP. http://wonder.cdc.gov/data2010/.</p> <p>(11) Youth Risk Behavioral Surveillance System (YRBSS), CDC, NCCDP, via Healthy People 2010. Accessed April-May 2010. http://wonder.cdc.gov/data2010/.</p> <p>(12) Centers for Disease Control and Prevention. "Physical Activity for Everyone." Accessed 23 April 2010. http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html.</p>	

OVERWEIGHT AND OBESITY

<p>Importance</p>	<p>Local, state, and national rates of overweight and obesity have skyrocketed in recent decades. Obesity, in combination with physical inactivity, is second only to smoking as a cause of death in the United States. Overweight or obese individuals are at greater risk for many major causes of morbidity and mortality: hypertension, coronary heart disease, stroke, type 2 diabetes, asthma, gallbladder disease, arthritis, sleep apnea, and certain cancers.¹ Diabetes rates closely follow obesity rates, with about a ten-year lag time, and childhood diabetes rates are exploding along with obesity rates.</p> <p>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.¹</p>
<p>Definitions²</p>	<p><u>Body Mass Index (BMI)</u>: 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><u>Obese</u>: in an adult, having a BMI greater than or equal to 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><u>Overweight</u>: in an adult, having a BMI of at least 25 but less than 30; 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> <p><u>Healthy Fitness Zone</u>: in a child, the healthy BMI range between underweight and overweight</p> <p><u>Healthy Weight</u>: in an adult, having a BMI of at least 18.5 but less than 25.</p>
<p>Healthy People 2020 Objectives³</p>	<ul style="list-style-type: none"> ▪ Increase the proportion of adults age 20 and over who are at a healthy weight: 33.9% ▪ Reduce the proportion of adults age 20 and over who are obese: 30.6% ▪ Reduce the proportion of children and adolescents age 2-19 who are obese: 14.6%

ADULTS

The percentage of obese individuals has been rapidly increasing throughout the United States since 1970⁴ (map series available at Reference 4). This “obesity epidemic” is widely regarded as one of the greatest threats to Americans’ health, and 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 obesity.⁵

Obesity Trends* Among U.S. Adults
BRFSS, 1990
 (*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)

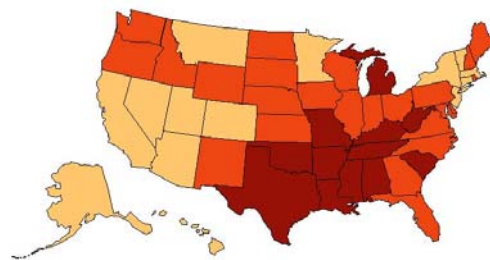


Legend for 1990 map: No Data, <10%, 10%-14%

Source: Behavioral Risk Factor Surveillance System, CDC.



Obesity Trends* Among U.S. Adults
BRFSS, 2010
 (*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



Legend for 2010 map: No Data, <10%, 10%-14%, 15%-19%, 20%-24%, 25%-29%, ≥30%

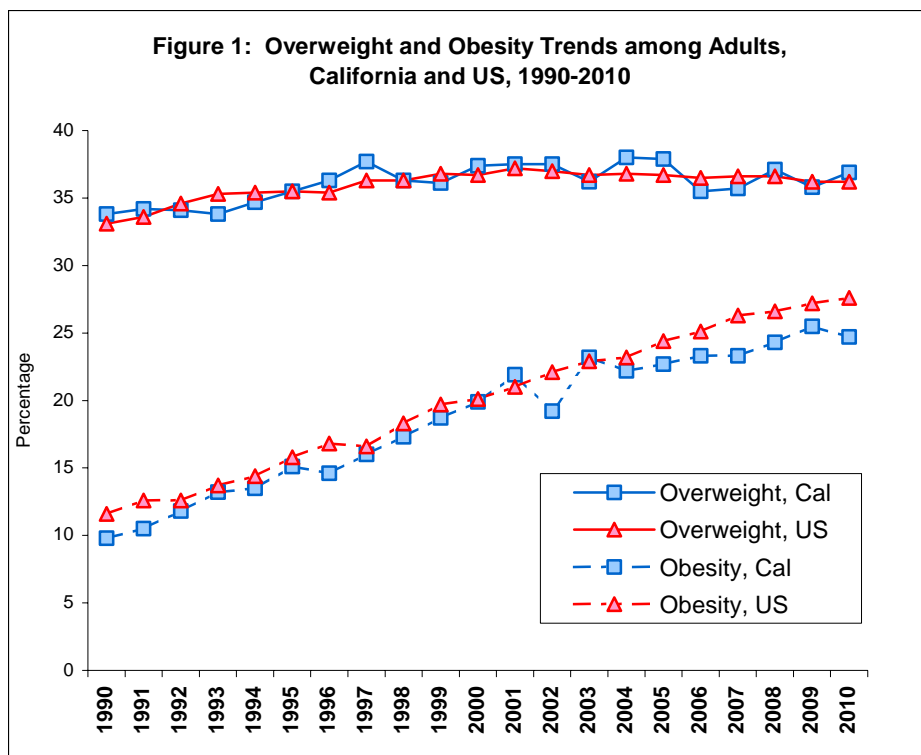
Source: Behavioral Risk Factor Surveillance System, CDC.



OVERWEIGHT AND OBESITY

Santa Cruz County and California are not exceptions to the trend. Data from the Behavioral Risk Factor Surveillance System (BRFSS) show that California's adult overweight and obesity rates have very closely followed the national trends over the past two decades (although California has generally had slightly lower obesity rates than the nation as a whole).⁶

There are not many sources for good county-level data on adult weight. However, the CDC has published estimates⁷ of the prevalence of adult obesity (age 20 and over) for each county in the United States, based on probability modeling of BRFSS data. The CDC estimated the rate of obesity in Santa Cruz County adults in 2009 as 19.5%, among the lowest in the state (trailing only Marin and San Francisco Counties), and among the lowest in the entire nation. CDC estimated that 24.0% of California adults were obese in 2010, which ranked California better than all but ten states and the District of Columbia.⁸



The California Health Interview Survey (CHIS) is one of the few other sources of local information on adult overweight. The most recent CHIS data, from 2009,⁹ support the BRFSS estimates and indicate that Santa Cruz County adults have lower rates of obesity than other California adults do: 20.2% for the county, compared to 22.7% statewide. There was a striking disparity by ethnicity: only 15.5% of White adults were obese, compared to 34.4% of Hispanics. This was a much greater disparity than was found statewide (21.1% of White adults obese, compared to 29.9% of Hispanics).

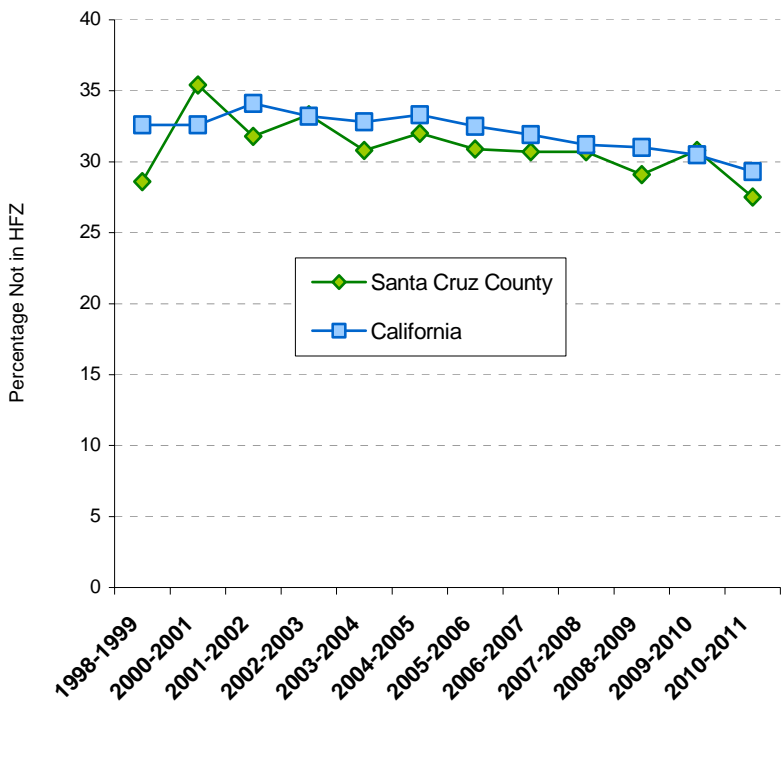
The obesity data present only part of the problem; **overweight** is even more common than **obesity**. In addition to the 22.7% of California adults whom CHIS identified as obese, another 33.6% were overweight; and in addition to the 20.2% of Santa Cruz County residents who were obese, another 31.2% were overweight. In 2010, BRFSS found that 62% of California adults and 64% nationally were either overweight or obese. The 2011 Community Assessment Project survey¹⁰ reported that 57% of Santa Cruz County adults were either overweight or obese.

CHILDREN AND ADOLESCENTS

The best information about childhood weight in Santa Cruz County comes from the California Department of Education's (DoE) annual Physical Fitness Testing Report.¹¹ Each year, most children in grades 5, 7, and 9 are evaluated on a variety of fitness characteristics, including measurements of Body Mass Index (BMI). During the 2010-2011 school year, the percentages of children in Santa Cruz County whose BMI fell outside the "Healthy Fitness Zone" were 46%, 42%, and 37% in grades 5, 7, and 9 respectively. These percentages were slightly better than the statewide averages: 48%, 46%, and 41%, respectively. Because of substantial changes in the definitions used, the state and county rates are much higher than in previous years. However, when the current data were evaluated by the criteria used in previous years, the state and the county each had the best rates seen since the Physical Fitness Testing program began in the 1998-1999 school year, continuing a decade-long trend of very slow improvement (see Figure 2).¹¹ (The numbers include not only overweight but also underweight children, who generally are about 2-3% of the total.)

OVERWEIGHT AND OBESITY

Figure 2: Percentage of Children Not in the Healthy Fitness Zone, Santa Cruz County and California, 1999-2011



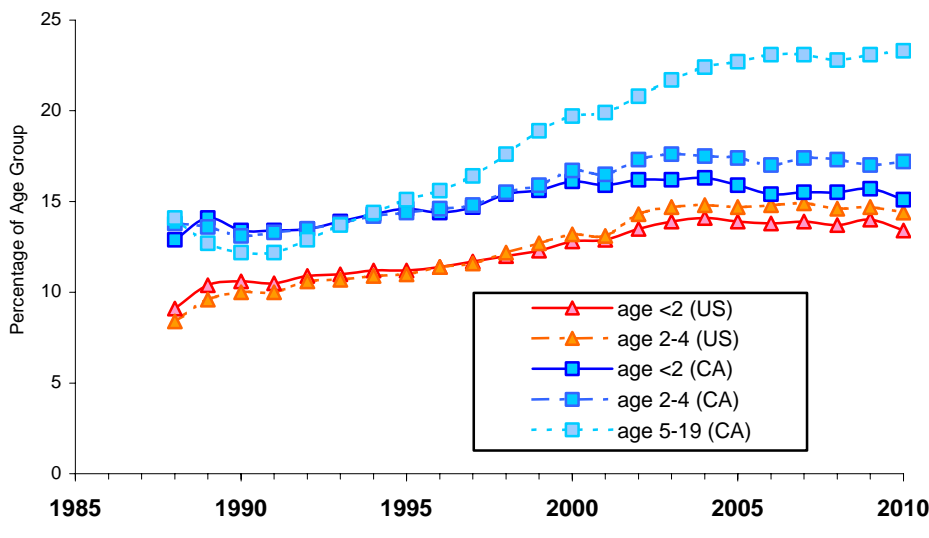
The DoE Physical Fitness Report shows a dramatic disparity between Hispanic and White children. In 2010-2011, the proportion of White children outside the Healthy Fitness Zone was about 31% in Santa Cruz County and 34% statewide, compared to 52% for Hispanic children both locally and statewide. (These 2011 numbers are based on the new criteria, whereas Figure 2 shows the 2011 data as evaluated against the previous criteria, for consistency with earlier years.)

Every two years the California Healthy Kids Survey provides data on a large proportion of children in the 7th, 9th, and 11th grades. The most recent BMI data, from 2008-2010, show statewide obesity rates of 14%, 12%, and 12% in grades 7, 9, and 11 respectively, and overweight percentages of 18%, 16%, and 15% respectively (combined overweight and obesity rates of 32%, 28%, and 27%).¹² However, these data are based on self-report rather than on measurement, and may be less reliable. And unfortunately, due to budget cuts, Santa Cruz County schools are no longer participating in this portion of the survey, so no recent local data are available.

CHIS⁹ reports on children (through age 11) and teens (ages 12-17) as separate groups. Among children in Santa Cruz County in 2009, CHIS reported that 14% were overweight for age, compared to 11.5% statewide. Among Santa Cruz County teens, 12.9% were obese and another 8.9% were overweight; the statewide averages were 11.9% and 16.7%. These numbers are based on small sample sizes and are much less dependable than the data cited above.

CHIS⁹ reports on children (through age 11) and

Figure 3: Percentage of Low-Income Children Overweight, by Age Group, US and California, 1988-2010



According to the CDC's Pediatric Nutrition Surveillance System (PedNSS), California has nearly the highest percentage of overweight young low-income children (age 0-4) in the nation, ranking 45th out of the 46 states reporting in 2010¹³. However, PedNSS looks only at high-risk low-income children getting government assistance, who are not representative of the broader population. California's PedNSS population includes a much higher percentage of non-Whites than the national PedNSS population does¹⁴, which may help to explain California's higher obesity rate in this group. Santa Cruz County's obesity rates among young PedNSS children in 2010 were lower than state and national rates,¹⁵ which was a striking improvement from recent years.

OVERWEIGHT AND OBESITY

<p>Primary Prevention Activities</p>	<p>In 2011, Santa Cruz County’s Health Services Agency and the Human Services Agency received funding to implement a comprehensive public health nutrition program to promote the 2010 dietary guidelines and increase fruit and vegetable consumption and physical activity among the population eligible for the Supplemental Nutrition Assistance Program, known as CalFresh in California. A combination of strategies is being used to reach the target population, including direct nutrition education, community engagement, and peer-to-peer education. In addition, HSA is promoting ReThink Your Drink, a healthy beverage initiative that promotes decreasing the consumption of sugary beverages. A county nutrition action plan has been developed in partnership with WIC, local family resource centers, United Way, schools, Second Harvest Food Bank, and others, with the mission of reducing overweight and obesity. Implementation will begin in late 2012.</p> <p>Santa Cruz County Health is a member of the Go for Health! collaborative, which includes over 150 organizations working to reduce childhood overweight in Santa Cruz County. Go for Health! works with schools, parents, health care professionals, local media, local businesses, city planners, and local and state policy-makers. Go for Health! has adopted the 5210 social marketing program, which advocates at least 5 servings of fruits and vegetables per day, no more than 2 hours of screen time (television, video games, etc.) per day, at least 1 hour of vigorous activity per day, and 0 sodas or other sugar drinks.</p> <p>The State of California passed legislation in 2008 requiring chain restaurants to provide information on calories, saturated fat, carbohydrates, and sodium on their menus and indoor menu boards. The national Affordable Care Act adopted similar requirements, which went into effect in January 2011.</p>
<p>Sources</p>	<p>(1) Centers for Disease Control. "Overweight and Obesity: Health Consequences". http://www.cdc.gov/obesity/causes/health.html.</p> <p>(2) Ogden CL, Flegal KM. "Changes in Terminology for Childhood Overweight and Obesity". <i>National Health Statistics Report</i> no. 25. National Center for Health Statistics. 2010. http://www.cdc.gov/nchs/data/nhsr/nhsr025.pdf.</p> <p>(3) U.S. Department of Health and Human Services. "Healthy People 2020 Objectives." http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx.</p> <p>(4) Centers for Disease Control and Prevention. "U.S. Obesity Trends 1985-2006". http://www.cdc.gov/obesity/data/trends.html.</p> <p>(5) Olshansky et al. "A Potential Decline in Life Expectancy in the United States in the 21st Century." <i>New England Journal of Medicine</i> 352:1135-1135, 2005.</p> <p>(6) Behavioral Risk Factor Surveillance System. Prevalence and Trends Data – Overweight and Obesity. http://apps.nccd.cdc.gov/brfss.</p> <p>(7) Centers for Disease Control. "Estimated County-Level Prevalence of Diabetes and Obesity – United States, 2007." <i>MMWR</i> 58(45):1259-1263, November 20, 2009. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5845a2.htm and http://apps.nccd.cdc.gov/ddt_strs2/CountyPrevalenceData.aspx?StatelD=6.</p> <p>(8) Centers for Disease Control. Overweight and Obesity. http://www.cdc.gov/obesity/data/adult.html.</p> <p>(9) California Health Interview Survey 2009. http://www.chis.ucla.edu/main/default.asp?timeout=1.</p> <p>(10) Santa Cruz County Community Assessment Project, 2009. www.santacruzcountycap.org.</p> <p>(11) California Department of Education. 2010-2011 California Physical Fitness Report – Summary of Results. http://www.cde.ca.gov/ta/tg/pf/.</p> <p>(12) California Healthy Kids Survey Statewide Secondary Main Report 2008-2010. http://www.wested.org/cs/chks/print/docs/chks_home.html.</p> <p>(13) Centers for Disease Control. Pediatric Nutrition Surveillance System, Table 6D. http://www.cdc.gov/pednss/pednss_tables/index.htm.</p> <p>(14) Centers for Disease Control. Pediatric Nutrition Surveillance System, Table 4D. http://www.cdc.gov/pednss/pednss_tables/index.htm.</p> <p>(15) California Department of Health Care Services. PedNSS Table 6B. http://www.dhcs.ca.gov/services/chdp/Pages/PedNSS2010.aspx.</p>

TEEN & YOUNG ADULT SEXUAL ACTIVITY

Importance	Sexual activity behavior choices among teens and young adults may increase their risk of adverse outcomes, such as transmission of sexually transmitted infections and unintended pregnancy.
Healthy People 2020 Objectives	<u>Teen Births:</u> Reduce pregnancy rates among adolescent females: - Aged 15 to 17 years to 36.2 pregnancies per 1,000 females (FP-8.1) - Aged 18 to 19 years to 105.9 pregnancies per 1,000 females (FP-8.2)

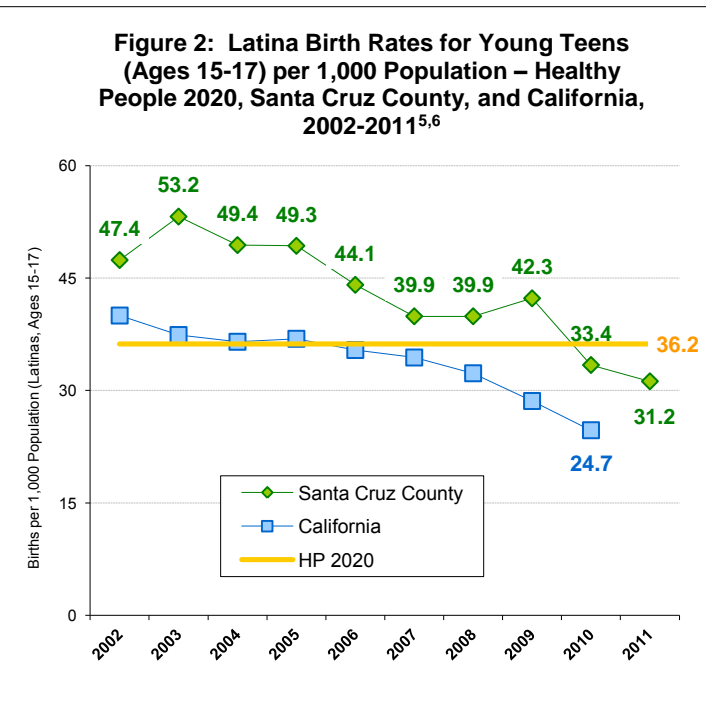
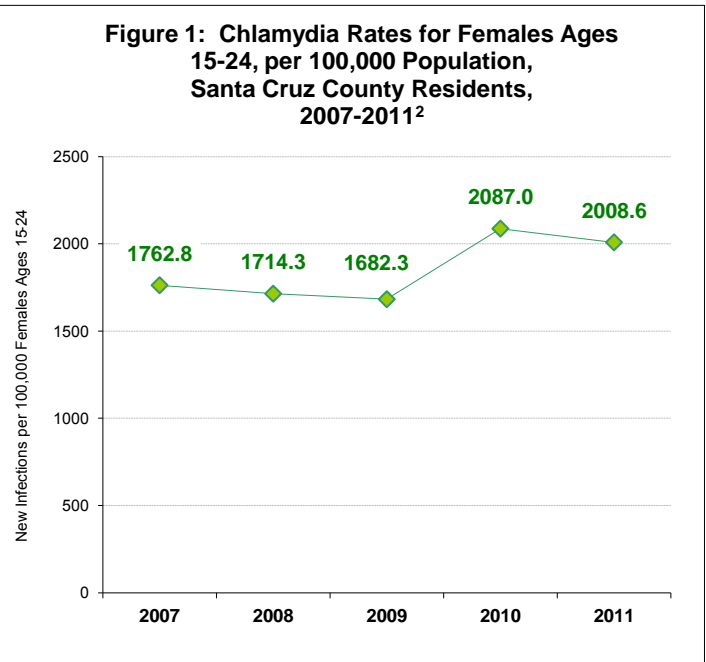
CHLAMYDIA

A chlamydia infection can damage a woman's reproductive organs, sometimes irreversibly causing infertility. Chlamydia can be transmitted during vaginal, anal, or oral sex.¹ Any sexually active person can get chlamydia, and a treated person can easily be re-infected if their partner does not also get treated. Santa Cruz County chlamydia rates increased significantly among females ages 15-24 in 2010, and remained high in 2011 (see Figure 1). For more sexually transmitted disease data, see the Communicable Disease section.

TEEN BIRTHS

Teen pregnancy prevention is of paramount importance to the health and quality of life for our youth. Unintended pregnancies are serious and costly. Teen mothers typically have higher school dropout rates and are more likely to require public assistance and live in poverty compared to their peers. Children born to teen parents are at a higher risk for poor birth outcomes (e.g., low birthweight), child abuse and neglect, as well as long-term poverty themselves. Some of the known risk markers for teen pregnancy include lack of after-school programs and enrichment activities for youths, lack of positive role models, substance use, low self-esteem, and low household income.

In 2011, the U.S. teen birth rate was 31.3 births per 1,000 females ages 15-19 – which was a record low.³ California also experienced record lows in 2010, with a rate of 32.1 births per 1,000 females ages 15-19. Overall, Santa Cruz County rates are similar to the entire state. However, when examining a sub-population of teens (younger Latinas age 15-17), Santa Cruz County rates have been approximately 30% higher than state rates over the past ten years (see Figure 2).^{5,6}



TEEN & YOUNG ADULT SEXUAL ACTIVITY

Primary Prevention Activities	<p>Teen Health Outreach (THO) Program: is a school-based pregnancy prevention program providing classroom presentations about reproductive health, individualized counseling, and referrals to various youth-oriented services within the community. The program helps teens enroll in Family PACT and get STD testing. The program also provides pregnancy and HIV testing onsite at the school. Additionally, Santa Cruz County Health Services Agency participates in a capacity building effort to support youth-serving agencies countywide in their teen pregnancy prevention efforts. These services are provided through grants from the California Wellness Foundation, Lucille Packard Foundation, and Santa Cruz County.</p>	
	<p>Sexually Transmitted Disease (STD) Community Interventions Program (SCIP): provides STD prevention info, youth development, teen pregnancy prevention, and alcohol, drug use, and violence prevention services.</p>	
	<p>Communicable Disease (CD) Unit: The CD Unit attempts to interview and ensure appropriate treatment for all chlamydia cases age 19 and under. Assists in referrals for STD testing and treatment, and also provides education on safe sex.</p>	
Helpful Websites	County of Santa Cruz, Teen Health Outreach	http://www.santacruzhealth.org/phealth/2teenoutreach.htm
	California Department of Public Health, Adolescent Sexual Health Workgroup	http://www.cdph.ca.gov/programs/mcah/Pages/ASHWG-HomePage.aspx
	The National Campaign to Prevent Teen and Unplanned Pregnancy	http://www.thenationalcampaign.org/
	Centers for Disease Control and Prevention	http://www.cdc.gov/TeenPregnancy/index.htm
	U.S. Department of Health and Human Services, Office of Adolescent Health	http://www.hhs.gov/ash/oah/oah-initiatives/tpp
Sources	<p>(1) CDC. Chlamydia -- CDC Fact Sheet. http://www.cdc.gov/std/chlamydia/stdfact-chlamydia.htm.</p> <p>(2) California Department of Public Health, STD Control Branch. "Chlamydia, Cases and Rates, California Counties and Selected City Health Jurisdictions, 2007–2011 Provisional Data." http://www.cdph.ca.gov/data/statistics/Documents/STD-Data-Chlamydia-Provisional-Tables.pdf.</p> <p>(3) CDC. About Teen Pregnancy. http://www.cdc.gov/TeenPregnancy/AboutTeenPreg.htm (last updated March 12, 2012).</p> <p>(4) CDPH. "California's Teen Birth Rate Drops to Record Low." http://www.cdph.ca.gov/Pages/NR12-012.aspx.</p> <p>(5) CDPH Health Information and Strategic Planning. Vital Statistics Query System. http://www.apps.cdph.ca.gov/vsq/Default.asp.</p> <p>(6) County of Santa Cruz Vital Statistics. Automated Vital Statistics System birth certificate records as of 7 Feb 2012 (unpublished data).</p>	

BREASTFEEDING

<p>Importance</p>	<p>Breastfeeding is the normal way of providing infants with the nutrients they need for healthy growth and development. Virtually all women can breastfeed if they have accurate information and support from their family, the health care system, and society at large.¹ In 2012, the American Academy of Pediatrics reaffirmed its recommendation of exclusive breastfeeding for the first six months of life, followed by continuous breastfeeding for at least one year as complementary foods are introduced.²</p>
<p>Definitions</p>	<p><u>Exclusive breastfeeding</u>: giving nothing but breast milk.</p>
<p>Healthy People 2020 Objectives</p>	<p>Increase the proportion of infants who were breastfed:</p> <ul style="list-style-type: none"> - Ever to 81.9% (MICH-21.1) - At 6 months to 60.6% (MICH 21.2) - At one year to 34.1% (MICH 21.3) - Exclusively through 3 months to 46.2% (MICH 21.4) - Exclusively through 6 months to 14.1% (MICH 21.5)

In 2011, the U.S. Surgeon General released a Call to Action to Support Breastfeeding, including that “everyone can help make breastfeeding easier.”³ Although hospitals are not intended to be the only place a mother receives support for breastfeeding, hospitals do provide a unique and critical link between breastfeeding support before and after delivery. Therefore, the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) have sponsored the Baby-Friendly Health Initiative (BFHI) as a global program designed to encourage and recognize hospitals and birthing centers that offer an optimal level of care for infant feeding.⁴

There are three hospitals in Santa Cruz County; two are designated “Baby-Friendly” (Sutter Maternity & Surgery Center and Dominican Hospital), and the third is currently going through the application process (Watsonville Community Hospital) at the time of this report’s publication.

County-level breastfeeding data is only collected in the hospital, usually within 24-48 hours following birth, so it is unknown how long breastfeeding continues after hospital discharge. Hospital staff must select from the following three categories to describe all feeding since birth: human milk only (i.e., exclusive), formula only, or human milk and formula. In 2010, 98.2% of infants residing in Santa Cruz County were given at least some breast milk, compared to 90.8% statewide.⁵ However, *exclusive* breastfeeding is the recommendation, and only 75.5% of infants in Santa Cruz County were given human milk only, compared to 56.8% statewide. Differences by ethnicity can be seen locally and statewide, with approximately 33% higher rates for White infants compared to Latinos.

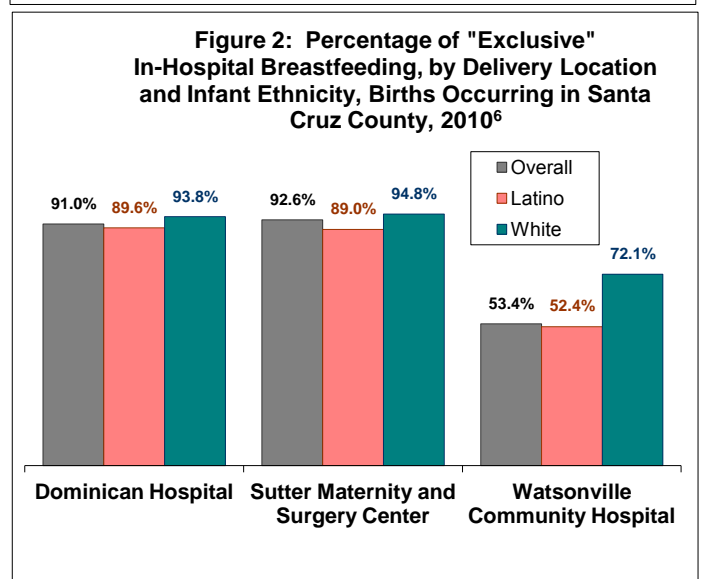
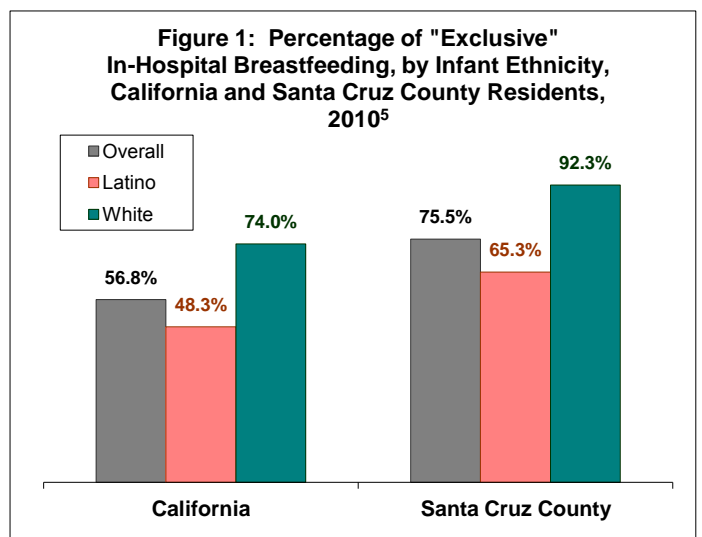


Figure 1 shows exclusive breastfeeding percentages overall and among two ethnic groups for both Santa Cruz County and California. Figure 2 compares exclusive breastfeeding percentages at the three hospitals in Santa Cruz County overall and among two ethnic groups.⁶

BREASTFEEDING

Primary Prevention Activities	<p>Baby-Friendly Hospital Initiative (BFHI): a global program sponsored by the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) to encourage and recognize hospitals and birthing centers that offer an optimal level of care for infant feeding. The BFHI assists hospitals in giving mothers the information, confidence, and skills needed to successfully initiate and continue breastfeeding their babies or to feed formula safely, and gives special recognition to hospitals that have done so.</p>	
	<p>Comprehensive Perinatal Services Program (CPSP): Health care practitioners in the community provide prenatal care that also includes assessments, education, childbirth education classes, support, and referrals for other needed services. All pregnant Central California Alliance for Health members and pregnancy-only Medi-Cal recipients are eligible to receive CPSP services when attending a CPSP provider for prenatal care.</p>	
	<p>Women, Infants and Children Program (WIC): The California WIC Program promotes, supports, and protects exclusive breastfeeding for approximately the first six months of life and continued breastfeeding for at least the first year. In Santa Cruz County, there is a Regalo De Amor Lactation Center for WIC participants.</p>	
	<p>Hospital Lactation Consultants: A certified lactation consultant can facilitate the breastfeeding experience while in the hospital.</p>	
	<p>Nursing Mother’s Council (NMC): NMC is a non-affiliated, non-profit organization whose mission is to support the personal breastfeeding goals of mothers with free, one-on-one assistance and education by highly trained volunteer counselors who have also breastfed.</p>	
	<p>La Leche League: An organization with the mission of helping mothers worldwide to breastfeed through mother-to-mother support, encouragement, information, and education, and to promote a better understanding of breastfeeding as an important element in the healthy development of the baby and mother.</p>	
Helpful Websites	County of Santa Cruz Health Services Agency	http://www.santacruzhealth.org/phealth/family/3breastfeeding.htm
	California Department of Public Health, Women, Infants & Children (WIC) Program	http://www.cdph.ca.gov/programs/wicworks/Pages/WICBreastfeeding.aspx
	Centers for Disease Control and Prevention	http://www.cdc.gov/breastfeeding/
	World Health Organization	http://www.who.int/topics/breastfeeding/en/
Sources	<p>(1) <i>Pediatrics</i> 129(3), pp. e827-e841, March 1, 2012 (doi: 10.1542/peds.2011-3552).</p> <p>(2) World Health Organization (WHO). Nutrition. "Exclusive Breastfeeding". http://www.who.int/nutrition/topics/exclusive_breastfeeding/en/index.html. June 12, 2012.</p> <p>(3) U.S. Department of Health and Human Services. News Release: "Everyone Can Help Make Breastfeeding Easier, Surgeon General Says in 'Call to Action'" on Jan. 20, 2012. Accessed on June 13, 2012. http://www.hhs.gov/news/press/2011pres/01/20110120a.html.</p> <p>(4) BHF1 USA, "About the BHF1." Last modified 2010. Accessed June 13, 2012. http://www.babyfriendlyusa.org/</p> <p>(5) California Department of Public Health. "California In-Hospital Breastfeeding as Indicated on the Newborn Screening Test Form; Statewide and Maternal County of Residence by Race/Ethnicity: 2010." http://www.cdph.ca.gov/data/statistics/Documents/MO-BFP-CountyofResidence-RaceEthnicityReport-2010.pdf.</p> <p>(6) California Department of Public Health. "California In-Hospital Breastfeeding as Indicated on the Newborn Screening Test Form; Statewide, County and Hospital of Occurrence: 2010." http://www.cdph.ca.gov/data/statistics/Documents/MO-BFP-HospitalTotalsReport-2010.pdf.</p>	

IMMUNIZATIONS

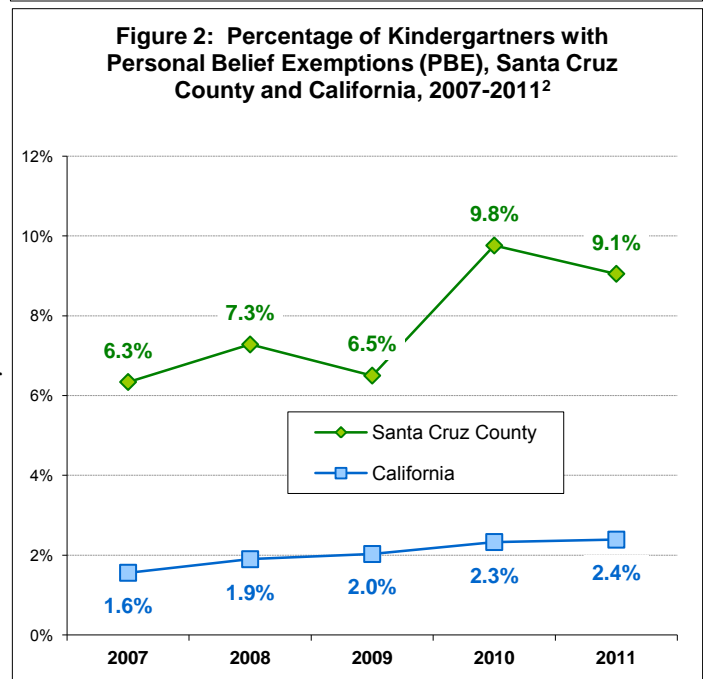
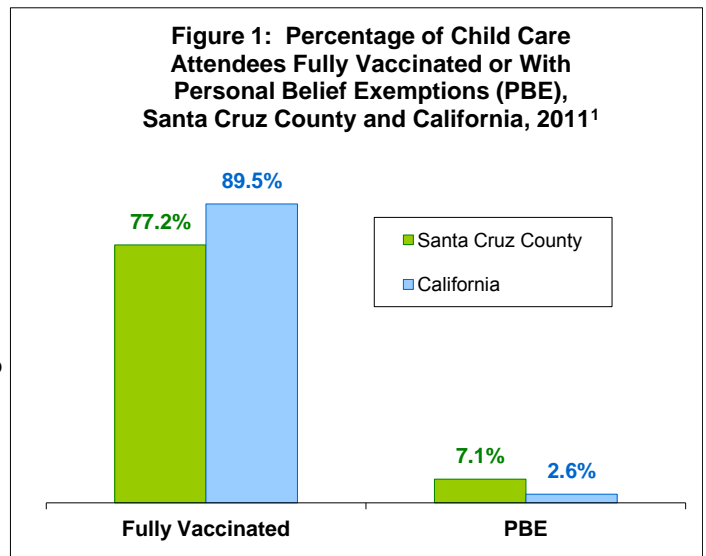
Importance	Disease prevention is the key to public health. It is always better to prevent a disease than to have to treat it. Vaccines prevent disease both directly, in the people who receive them, and indirectly, by reducing the number of infected people who could otherwise transmit infection. Vaccines are responsible for the control of many infectious diseases that were once common in this country.
Definitions	<p>Fully Immunized: being up-to-date on required vaccinations</p> <ul style="list-style-type: none"> - CHILD CARE ATTENDEE REQUIREMENTS: 4+ DTP (diphtheria, tetanus, and pertussis), 3+ Polio, 1+ MMR (measles, mumps and rubella, or 2+ doses of MMR for kindergartners), 1+ Hib (Haemophilis influenza type B, not required for kindergarten), 3+ Hepatitis B, and 1+ varicella (or physician-documented varicella disease). - KINDERGARTEN ATTENDEE REQUIREMENTS: 4+ DTP, 3+ Polio, 2+ MMR, 3+ Hep B, and 1+ varicella or physician-documented varicella disease). <p>Personal Belief Exemption (PBE): a form that parents can choose to sign upon registering their child in daycare or kindergarten that exempts the child from some or all of the required immunizations for school entry based on personal / philosophical reasons.</p>

VACCINATION COVERAGE

High vaccination coverage in children by age 2 has resulted in historically low levels of most vaccine-preventable diseases in the United States, but coverage must be maintained to reduce the burden of disease further and prevent a resurgence of these diseases, particularly in populations with lower vaccination coverage.

In the fall of 2011, 89.5% of children entering licensed child care in California were fully immunized, compared to 77.2% of Santa Cruz County children ages 2 years to 4 years, 11 months.¹ In Santa Cruz County, 7.1% of attendees were not fully vaccinated because of a personal belief exemption (PBE); the remainder were either conditional entrants or medical condition exemptions. Only one-third of children in this age group are estimated to attend child care centers, so the data may not be representative of the entire population of children in this age group.

Among kindergartners, 91.0% had received all required immunizations statewide in the fall of 2011, compared to 83.5% in Santa Cruz County. The difference is primarily due to higher PBE rates in Santa Cruz County, with 9.1% not being fully vaccinated in 2011 (see Figure 2).² PBE rates in Santa Cruz County vary greatly within the county, with schools in the south part of the county (Watsonville or Freedom) reporting 0.6% PBE in 2011, compared to 15.0% PBE in the rest of the county. Parents considering non-medical exemptions for their children should be aware of the risk for disease both for their children and the public.



IMMUNIZATIONS

Helpful Websites	County of Santa Cruz, HSA Immunizations and Vaccines	http://www.santacruzhealth.org/phealth/cd/3immunize.htm
	CDPH, Immunizations Branch	http://www.cdph.ca.gov/programs/immunize/Pages/Default.aspx
	CDC, Vaccines	http://www.cdc.gov/vaccines/
Sources	<p>(1) California Department of Public Health. Childcare Assessment Results -- California, 2011 - 2012. http://www.cdph.ca.gov/programs/immunize/Documents/ChildCareAssessmentReport2011-2012.pdf.</p> <p>(2) California Department of Public Health. Kindergarten Assessment -- California, 2007-2011 http://www.cdph.ca.gov/programs/immunize/Pages/ImmunizationLevels.aspx. (pre-2010 data accessed locally)</p>	

HEALTH INSURANCE & ACCESS TO CARE

<p>Importance</p>	<p>Access to health care is one of the fundamental determinants of good health, and in this country, 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, leaving many people unable to afford medical care. 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 present with more severe illness and to seek care at emergency rooms rather than using less expensive primary care practitioners to whom they have no access.</p>
<p>Definitions</p>	<p><u>Uninsured</u>: 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><u>Underinsured</u>: 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>
<p>Healthy People 2020 Objective</p>	<p>The Healthy People 2020 goal is health insurance coverage for 100% of the population. The county, the state, and the nation all fall far short of that goal. However, the recent health insurance reform bill is expected to bring the nation far closer to meeting the objective.</p>

HEALTH INSURANCE REFORM

The passage of the Affordable Care Act in 2010 has already had a considerable impact on health insurance coverage, even though many of its most important provisions have not yet come into effect. The ACA will dramatically reduce the number of Americans without health insurance. The law mandates that most people obtain coverage, provides subsidies to those who need financial assistance, prohibits the denial of coverage on the basis of pre-existing conditions, prohibits rescission of coverage as a result of getting ill, expands eligibility for Medicaid (Medi-Cal), allows parents to maintain their children on their insurance plan through age 25, creates an incentive for employers to provide insurance, eliminates lifetime coverage caps, prohibits co-pays for preventive services, closes the prescription drug benefit hole, and makes many other changes to broaden insurance coverage. Many of these provisions will not go into effect for years, but they are eventually expected to extend health insurance coverage to 32 million of the estimated 40 million Americans currently without coverage. On the other hand, since the cost of employer-provided family coverage is in the range of \$8000 per year, while the fine imposed under the new law for employers failing to provide coverage is only \$2000 per year, it is likely that many employers will stop providing insurance, and there will be extensive and painful dislocations until the mandated regulations actually take effect and equalize access to care. Moreover, the ACA does not extend coverage to non-citizens.

Section 1115 of the ACA is often called the Bridge to Reform. It allows states to take early steps toward implementation of the ACA and provides federal matching funds to develop the program and to enroll some previously uninsured patients. California's Bridge to Reform implementation program is called the Low Income Health Plan. Santa Cruz County is one of the early adopters; our local plan is called MediCruz Advantage. Since January 1, 2012, the County has already enrolled more than 2000 patients with annual income below the Federal Poverty Level who did not qualify for other coverage.

HEALTH INSURANCE & ACCESS TO CARE

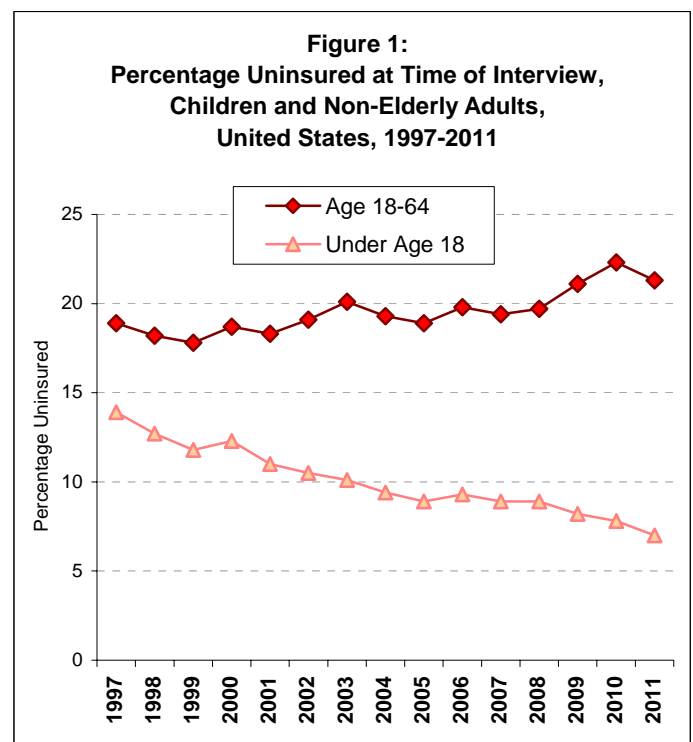
HEALTH INSURANCE PROGRAMS

Santa Cruz County residents may qualify for a wide variety of public health insurance programs. Most people age 65 or older are eligible for Medicare, which offers excellent coverage at little or no cost. Santa Cruz County is served by the Central California Alliance for Health, a locally governed nonprofit managed care health plan for the poor that also serves Monterey and Merced Counties. The Alliance (CCAH) facilitates operation of the Medi-Cal, Healthy Kids, and Healthy Families programs. Medi-Cal uses state and federal funds to cover adults and children. Medi-Cal enrollees must re-apply each year in order to maintain coverage. For those with unsatisfactory documentation, Medi-Cal covers only pregnancy and emergency services. Santa Cruz County also funds its own indigent care program, called Medi-Cruz. Medi-Cruz only provides episodic care for specific medical conditions and does not provide on-going preventive care; enrollees must re-apply every 2-3 months to retain coverage. The Healthy Families program uses state and federal money to provide coverage to children under 19 years of age. The Healthy Kids program uses county funds to extend similar coverage to children who are not eligible for Healthy Families coverage, including children with unsatisfactory documentation status. HSA's Children's Medical Services includes two programs, CCS and CHDP, that help cover undocumented children and youth. California Children's Services (CCS) operates as a State-County partnership that provides diagnosis, treatment, and case management for children under age 21 with certain eligible major medical conditions (approximately 1600 each year); 77% of the covered children are Medi-Cal eligible, so their treatment is paid by State and federal funds; treatment for the other 23% is funded by a mix of County, State, and federal funds. CCS also provides physical and occupational therapy at no cost to children with qualifying medical conditions. The Children's Health and Disability Prevention Program (CHDP) confers presumptive Medi-Cal eligibility from the date of application through the following calendar month, covering early and periodic screening, diagnosis and treatment. Also called CHDP Gateway, the program is intended as a bridge to Medi-Cal or Healthy Families programs. Santa Cruz County CHDP Gateway leads the State in success: each year, 55%-65% of Gateway children become benefited under Medi-Cal, Healthy Families, or Healthy Kids. Finally, the new MediCruz Advantage program uses county funds and matching federal funds to offer coverage for a limited number of adult (ages 19-64) U.S. citizens who have lived in the county for at least six months.

HEALTH INSURANCE COVERAGE RATES

From 1997-2008 there was no substantial change in the proportion of non-elderly adult Americans (ages 18-64) living without health insurance (Figure 1).¹ The economic crash in 2008 led to a jump in the number of uninsured adults. But children (under age 18) are increasingly likely to be insured; children's uninsured rates nationally have dropped fairly steadily from 14% in 1997 to 7% in 2011.¹

The 2010 U.S. Census estimated Santa Cruz County's uninsured rate among adults aged 18-64 at 21.9%, better than the statewide rate of 25.3%.² The 2011 CAP survey found a rate of 19.7% in the county; the White rate was only 10.5%, while the Hispanic rate was 49%.¹⁰ The Census estimated rates for children age 18 and under at 7.9% for Santa Cruz County and 9.5% statewide.² CHIS' 2009 survey reported the same rate, 7.9%, for children under age 18 in Santa Cruz County, but found a rate of just 4.9% for children statewide.³



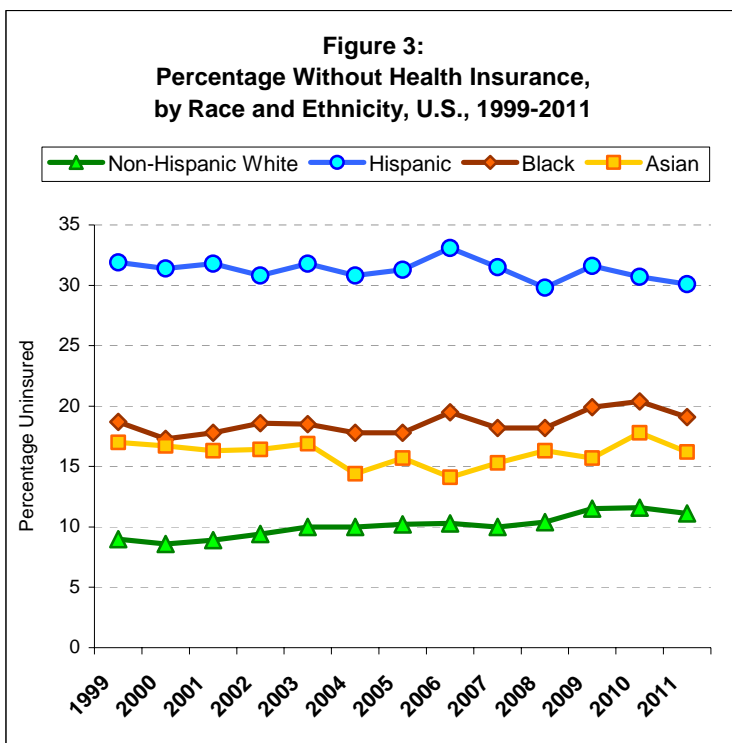
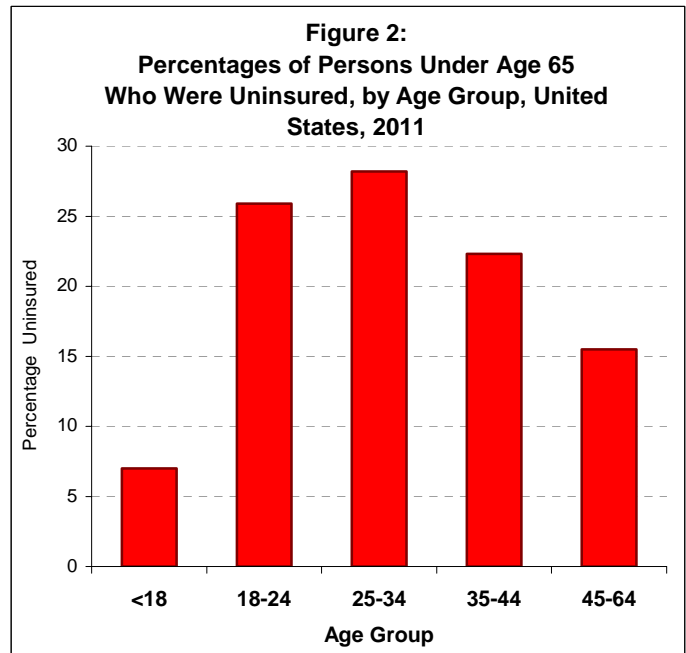
HEALTH INSURANCE & ACCESS TO CARE

Until recently, young adults (ages 18 to 24) were the age group most likely to be uninsured. This may have reflected both a lesser perceived need for insurance among young adults and a lesser ability to pay for insurance. However, the Affordable Care Act's provision allowing children to be maintained on their parents' insurance through age 25 has changed that. In each of the older age groups, the percentage uninsured has increased since the economic crash, but in the 18-24 age group the percentage uninsured actually dropped in spite of the recession (Figure 2).¹

Men are more likely than women to be uninsured. Nationally, the difference is more than 9% in the 25-34 age group, but less than 2% in the 45-to-64 age group.¹ In California, Medi-Cal provides coverage for pregnancy; it is not clear how big a role pregnancy plays in the disparity by sex.

Nationwide, Hispanic ethnicity is very strongly associated with a lack of health insurance coverage. In the U.S., Hispanics are almost three times as likely as non-Hispanic Whites to be uninsured – 30% compared to 11% in 2011¹ – while the rates among Blacks and Asians are 19% and 16% respectively (Figure 3).

California has a higher proportion of uninsured persons than most other states. In 2010, the U.S. Census found that 19.4% of all California residents were without coverage; the rate for the U.S. as a whole was 16.3%, and only seven states had higher rates than California.⁵ In 2011, the Behavioral Risk Factor Surveillance System reported uninsured rates of 18.4% for California and 17.7% for the nation.⁶ California's high proportion of uninsured persons can be explained by its high proportion of Hispanics (tied for second highest among all states),⁷ who have very high uninsured rates.⁴ California Hispanics, non-Hispanic Whites, and non-Hispanic Blacks each have uninsured rates fairly similar to national rates for those groups, respectively.^{2,4}



UNDERINSURANCE

Unfortunately, many people's health insurance coverage does not adequately protect them from large medical expenses. As of 2010, there were an estimated 29 million "underinsured" adults in the United States, an 80% increase since 2003.⁸ 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 \$60,000, 16% were underinsured in 2010. 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.

HEALTH INSURANCE & ACCESS TO CARE

DENTAL INSURANCE COVERAGE

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.⁹ 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.⁹

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 much more widespread than lack of medical health insurance. According to CHIS, 47% of county adults and 13% of children were without dental insurance for all or part of 2007, similar to the statewide rates of 41% and 20%.⁷ Santa Cruz County's Community Assessment Project reported that 43% of county adults had no dental coverage in 2011.¹⁰ Some of the same nutritional issues that contribute to overweight and obesity also contribute to poor dental health.

State budget cuts eliminated Denti-Cal coverage for nearly all adult services, beginning July 1, 2009. The majority of dentists no longer accept Denti-Cal even for children, because of the low reimbursement rates.

The Dientes program, a community voluntary agency, provides emergency, preventive, restorative, and rehabilitative services to uninsured and publicly insured patients (e.g., Medi-Cal, Healthy Families, and Healthy Kids). Over 40% of Dientes patients are uninsured, and over 96% live at or below the Federal Poverty Level. Dientes provided over 18,600 visits to more than 6,400 individual patients in 2009. Dientes brings services to the Women, Infants, and Children center in Watsonville, to children in eight elementary schools across the county, and to elderly and disabled persons in skilled nursing facilities. Unfortunately, Dientes' resources are limited. Patients who do not have Denti-Cal or Healthy Kids/Healthy Families coverage pay on a sliding fee scale, with rates typically 50% of those ordinarily charged by dentists in private practice. The County of Santa Cruz provides some funding through the Homeless Persons Health Project and the Human Services Department.

There is virtually no other source of specialized dental care in the county for uninsured or publicly insured patients; individuals needing a licensed pedodontist, root canals, or other special services must usually travel out of the county when Dientes does not have sufficient resources to serve them.

PRIMARY CARE PROVIDER RATE

The primary care provider (PCP) rate is the number of practicing primary care physicians per 100,000 persons; a high number indicates ready availability of primary care, while too low a number indicates a shortage of primary health care providers. High PCP rates are strongly correlated with high life expectancies. According to one source, PCP rates (including OB/GYNs) varied in 2009 from as few as 18 per 100,000 in Glenn County to as many as 249 per 100,000 in San Francisco, while Alpine and Sierra had no PCPs at all. The statewide average PCP rate was 118, and Santa Cruz County's rate was 155, ranking the county 8th best in the state.¹¹

However, the California Healthcare Foundation (CHCF) reported¹² a 2008 PCP rate of just 58 per 100,000 for Santa Cruz County, with a statewide rate of 59; and unpublished work by Santa Cruz County's Health Improvement Partnership (HIP) generated county numbers that are closely in line with CHCF's data. The CHCF and HIP data did not include OB/GYNs, did not count "inactive" physicians (retirees, administrators, physicians who practice only in other counties, etc.), and only included physicians who accept Medi-Cal patients; it's not clear whether that explains the very large difference between those sources and the County Health Rankings results.

Finally, the American Association of Medical Colleges calculated a rate of 90.8 active primary care physicians per 100,000 population in California in 2010, essentially identical to their calculated national rate of 90.5.¹³

HEALTH INSURANCE & ACCESS TO CARE

A low PCP rate makes it difficult for patients, whether insured or not, to gain access to primary care, preventive care, and referrals when they need them. There is evidence that good access to primary care can reduce overall demand for medical care, probably through enhanced coordination of care and a preventive care focus.¹⁴ Yet many PCPs in California already are not accepting any new patients, and the problem is expected to get worse: the population continues to grow, but the number of new physicians remains fairly constant; a large proportion of physicians are nearing retirement age, while only a limited number of new physicians will be available to replace them; and we can expect an increased demand for medical care as a result of health care reform.¹⁵

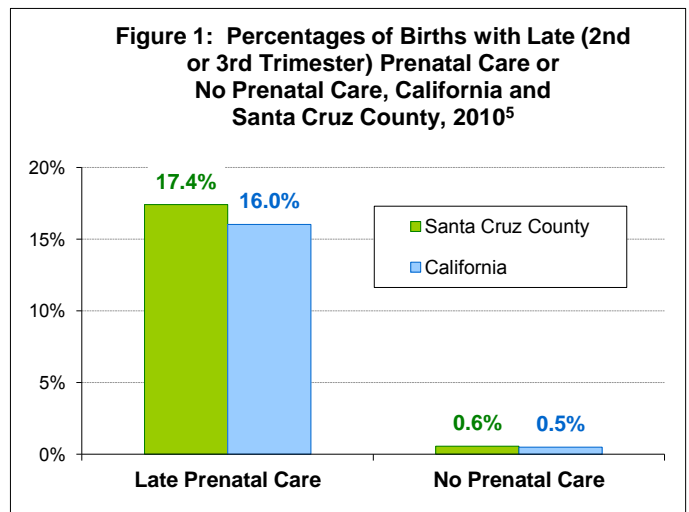
<p>Primary Prevention Activities</p>	<p>Santa Cruz County’s MediCruz Advantage program is designed to create a medical home for each patient, integrating mental and behavioral health care with physical health care. This is expected to reduce the need for expensive hospital visits and admissions, a very large proportion of which are attributable to alcohol, drug, and mental health issues.</p>
<p>Sources</p>	<p>(1) Centers for Disease Control, NHIS. Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, 2011. http://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201206.pdf.</p> <p>(2) United States Census Bureau. Small Area Health Insurance Estimates. Interactive Data Tool. http://www.census.gov/did/www/sahie/data/interactive/.</p> <p>(3) California Health Interview Survey. http://ask.chis.ucla.edu/main/default.asp.</p> <p>(4) United States Census Bureau. Historical Table HIB-1, Health Insurance Coverage by Race and Hispanic Origin: 1999 to 2010. http://www.census.gov/hhes/www/hlthins/data/historical/HIB_tables.html.</p> <p>(5) United States Census Bureau. Current Population Survey, 2011 Annual Social and Economic Supplements, Table HI06. http://www.census.gov/cps/data/. Accessed September 2012.</p> <p>(6) Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Health Care Access/Coverage. http://apps.nccd.cdc.gov/BRFSS/. Accessed September 2012.</p> <p>(7) United States Census Bureau. The Hispanic Population: 2010. Table 2. May, 2011. http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf.</p> <p>(8) C. Schoen, M. Doty, R. Robertson, and S. Collins. “Affordable Care Act Reforms Could Reduce the Number of Underinsured U.S. Adults by 70 Percent.” <i>Health Affairs</i> 30(9):1762-71, Sept. 2011. Summary available at http://www.commonwealthfund.org/Publications/In-the-Literature/2011/Sep/Reduce-Uninsured.aspx.</p> <p>(9) US Department of Health and Human Services, US DHHS, National Institute of Dental and Craniofacial Research, NIH. <i>Oral Health in America: A Report of the Surgeon General</i>. 2000. http://www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/sgr/.</p> <p>(10) Applied Survey Research. <i>Community Assessment Project, Santa Cruz County, Year 18, 2012</i>. United Way of Santa Cruz, 2012. Accessed September 2012. http://www.appliedsurveyresearch.org/storage/database/quality-of-life/santacruzcap/cap18_2012/CAP_Year18_CompleteReport.pdf.</p> <p>(11) University of Wisconsin Population Health Institute. <i>County Health Rankings 2012</i>. http://www.countyhealthrankings.org/.</p> <p>(12) California Healthcare Foundation. <i>Fewer and More Specialized: A New Assessment of Physician Supply in California</i>. June 2009.</p> <p>(13) Association of American Medical Colleges. <i>2011 State Physician Workforce Data Book</i>. November 2011. https://www.aamc.org/download/263512/data/statedata2011.pdf.</p> <p>(14) Kravet SJ et al. “Health Care Utilization and the Proportion of Primary Care Physicians.” <i>American Journal of Medicine</i> 121:142-148, 2008.</p> <p>(15) California Healthcare Foundation. <i>California Health Care Almanac – California Physician Facts and Figures</i>. July 2010.</p>

QUALITY OF CARE

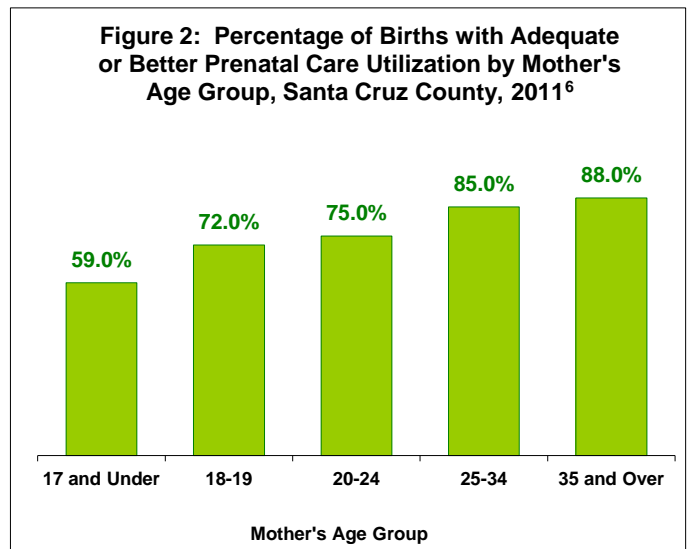
Importance	The Institute of Medicine defines health care quality as "the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge." ¹ The goal of improving quality of care is to decrease the rates of complication, morbidity, and mortality, and the cost of care.
Definitions	<p><u>Preventable Hospital Stays / Ambulatory Care Sensitive Conditions (ACSC)</u>: Preventable hospital stays are also known as ACSC – conditions for which good outpatient care can prevent the need for hospitalizations or for which early intervention can prevent complications or more severe disease.²</p> <p><u>Prevention Quality Indicators (PQIs)</u>: PQIs are a set of conditions used with hospital inpatient discharge data to evaluate quality of care for ACSC.²</p> <p><u>Diabetic Screening Rate</u>: The percentage of diabetic Medicare patients whose blood sugar control was screened in the past year by testing their glycated hemoglobin (HbA1C) levels.³</p> <p><u>Hospice</u>: Hospice provides support to patients at the end of life, and to their families. The goal of hospice care is to provide the patient the best quality of life possible in the final stage of life. The philosophy of hospice is to provide support for the patient's emotional, social, and spiritual needs as well as addressing medical symptoms as part of treating the whole person.⁴</p>

PRENATAL CARE

It is recommended that women seek prenatal care as soon as they suspect or know they are pregnant — ideally within the first trimester. Prenatal care allows for monitoring of the baby's health and the mother's health; early provider visits can also be helpful and informative regarding nutrition, alcohol, tobacco or substance abuse, parenting, family changes, and much more. In Santa Cruz County, 82.0% of mothers received early prenatal care in 2010, compared to 83.5% statewide. Figure 1 shows the percentage of births with late (2nd or 3rd trimester) prenatal care or no prenatal care.⁵



Prenatal care is often measured using the Kotelchuck Index, which is the ratio of actual prenatal visits to the number of visits recommended by the American Congress of Obstetrics and Gynecologists. Attending 80% or more of recommended prenatal care visits is considered adequate or better. In 2011, 82% of births to Santa Cruz County mothers followed an adequate or better number of prenatal care visits. Younger mothers are less likely to receive adequate prenatal care, as can be seen in Figure 2.⁶ For more birth data, check out the link in source 6.



QUALITY OF CARE

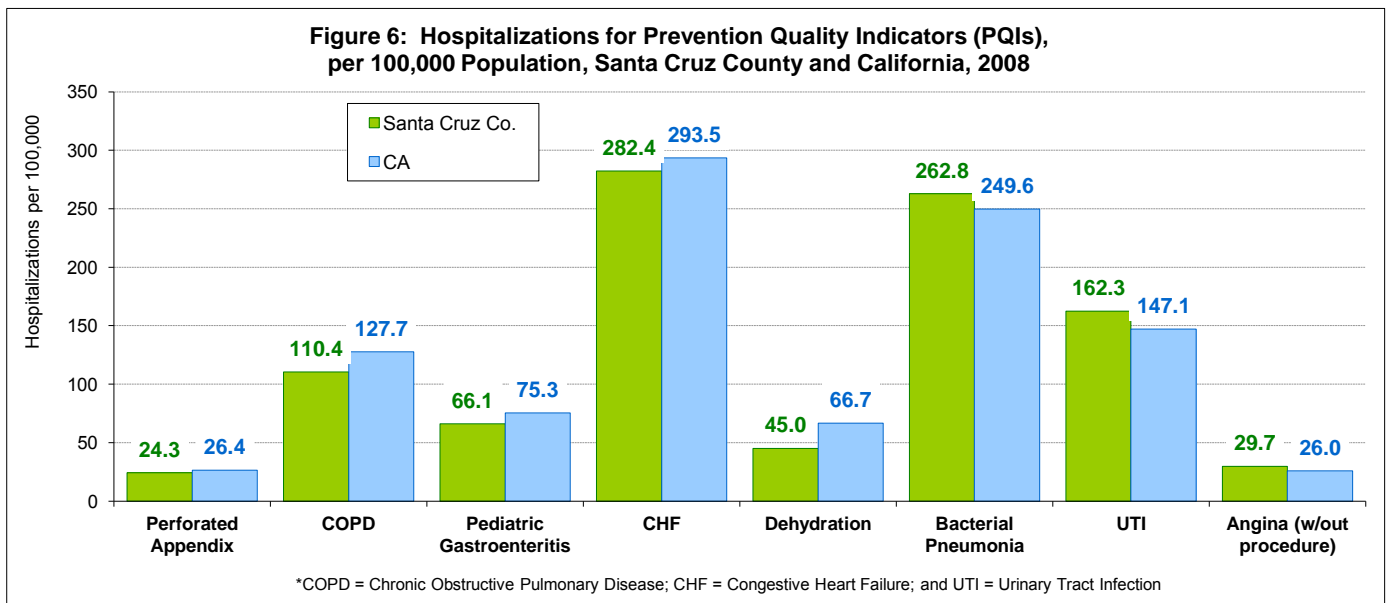
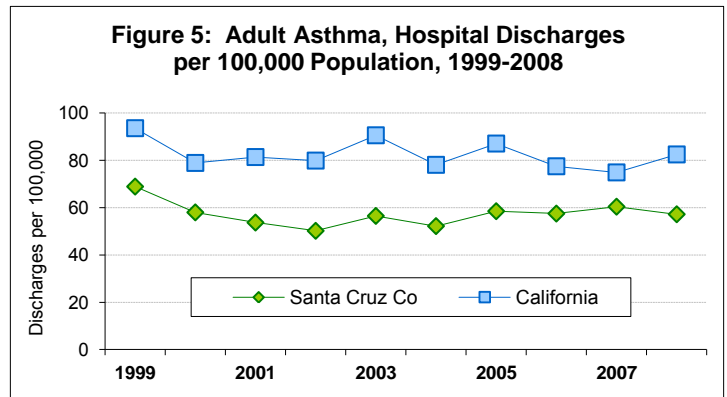
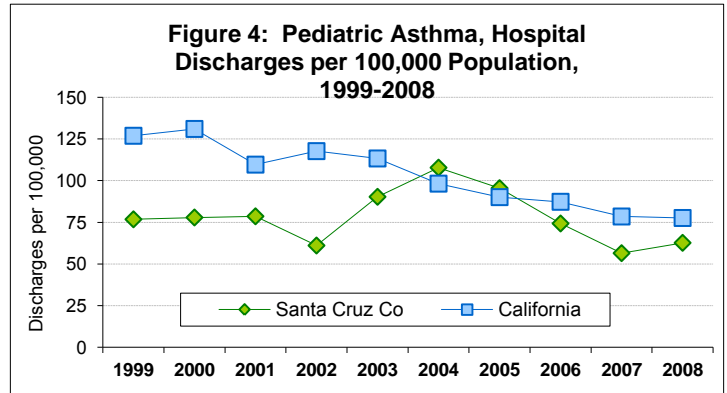
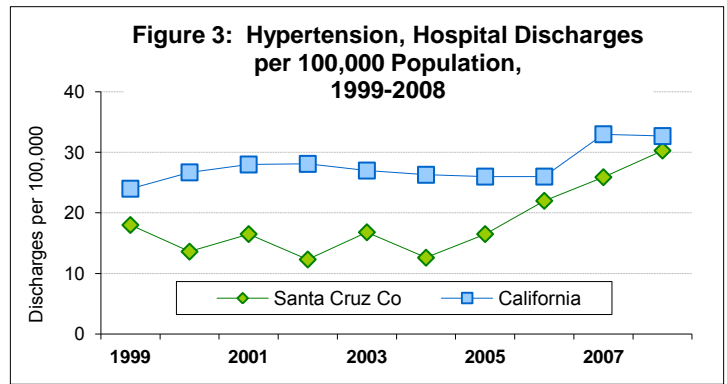
PREVENTABLE HOSPITAL STAYS

Certain chronic medical conditions (e.g., asthma, diabetes, and hypertension) can often be managed with timely and effective treatment in an outpatient setting, thereby preventing hospitalizations; these conditions are known as Prevention Quality Indicators (PQIs). With high-quality community-based primary care, hospitalizations for these illnesses can often be avoided.

Based on Medicare claims data, the Dartmouth Atlas of Healthcare shows that in 2009, Santa Cruz County had 44 preventable hospital stays per 1,000 Medicare enrollees, while California had 52 per 1,000 enrollees.⁷

Figures 3, 4, and 5 compare state and county hospitalization rates (discharges per 100,000 population) for selected PQIs from 1998 to 2008.² Santa Cruz County rates were consistently better than statewide rates for the PQIs shown here.

Figure 6 compares the 2008 state and county hospital admission rates for PQIs not shown in trend charts on this or the next page.² County rates do not differ a great deal from state rates for most PQIs, given the year-to-year variation shown in the trend charts (the County's low rate of admissions for dehydration is the major exception), but these data may reveal areas where the County could improve.



QUALITY OF CARE

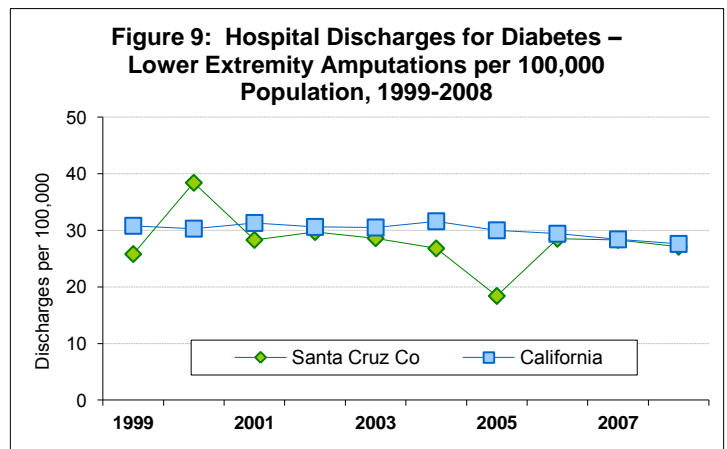
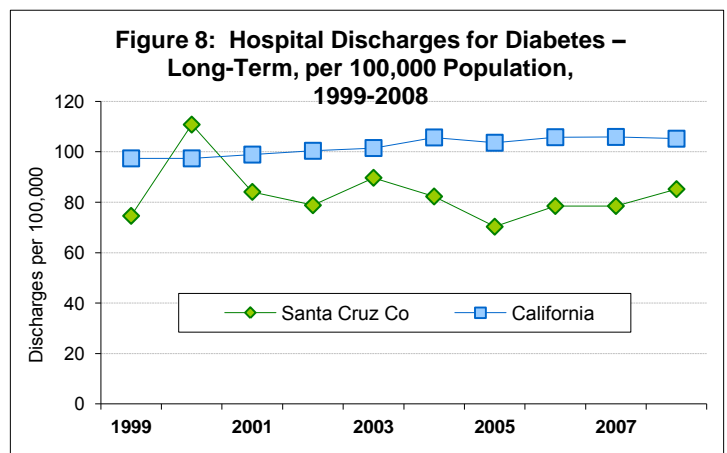
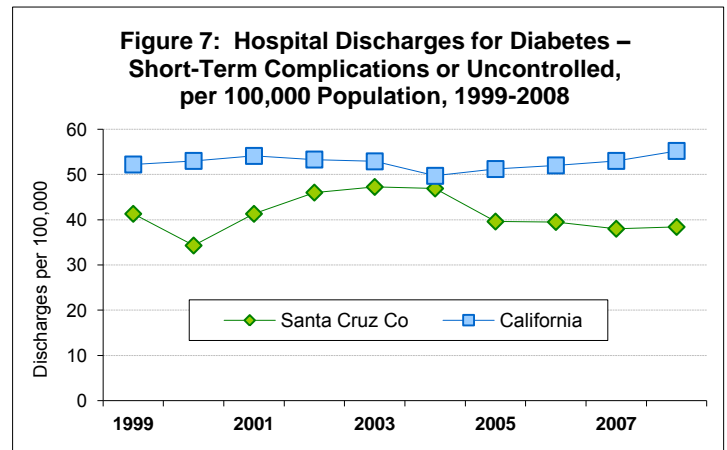
DIABETIC SCREENING & MANAGEMENT

Control of blood glucose, blood pressure, and blood lipid levels helps to prevent serious complications of diabetes such as blindness, limb amputations, and heart disease and strokes.

The diabetic screening rate is the percentage of diabetic patients whose blood sugar control was screened in the past year by testing their glycated hemoglobin (HbA1c) levels. Based on Medicare claims data, the Dartmouth Atlas of Healthcare shows that 82% of the Medicare diabetic population in Santa Cruz County received HbA1c screening in 2009, slightly better than the rate of 79% for the Medicare diabetic population throughout California.⁷

Figures 7, 8, and 9 compare the Santa Cruz County and statewide rates of hospitalizations due to lower extremity amputations as well as other short-term and long-term diabetes complications among diabetic patients in 1999-2008.² Over that period, state and county rates for short-term complication admissions were essentially unchanged, and the county rates were distinctly better than state rates; county rates for long-term complication admissions improved somewhat, while state rates got somewhat worse, so that county rates were generally better than state rates; and state and county rates for amputations both improved slightly, with county rates improving a bit faster.

The costs for treating diabetes are rising: direct medical expenditures in 2002 were estimated at \$92 billion, compared with \$44 billion in 1997.⁷ The breakdown of costs included 44% inpatient hospital care, 15% nursing home care, and 11% physician office visits. Health care costs for people with diabetes are much higher than for those without diabetes. In 2002, medical expenditures totaled \$13,243 for people with diabetes, compared to \$2,560 for people without diabetes. The population with diabetes tends to be older than those without; but even after age-adjustment, health care expenditures were 2.4 times greater for people with diabetes.³



The Affordable Care Act provides health coverage only for U.S. citizens, while Santa Cruz County supplements state and federal health insurance coverage for undocumented residents. As the obesity epidemic creates a large number of diabetic patients, the cost implications for the County are unknown.

QUALITY OF CARE

HOSPICE

Hospice provides support to patients at the end of life, and to their families. The goal of hospice care is to provide the patient the best quality of life possible in the final stage of life. The philosophy of hospice is to provide support for the patient's emotional, social, and spiritual needs as well as addressing medical symptoms as part of treating the whole person.⁴ Hospice team members are experts in managing symptoms that come with serious illness. The goal is to enable patients to be comfortable and free of pain, so that they can live each day as fully as possible. Care extends to the entire family and is provided wherever the patient lives, usually in their own home but also in nursing homes or assisted living facilities. Hospice serves terminally ill people with all types of progressive illness and becomes available when the person is believed to have six months or less to live.

Most hospice patients are aged 61 and older, and the number of California residents age 65 and older is projected to triple from 2000 to 2050.⁴ Persons aged 61 and older accounted for 88.7% of hospice patients in Santa Cruz County in 2010 (Figure 10).⁸ As the population ages, the demand for hospice services will likely increase.

Nationally, between 1999 and 2009, the number of hospice patients more than doubled.⁹ According to the Office of Statewide Health Planning and Development (OSHPD), between 2000 and 2010, the number of hospice patients in Santa Cruz County nearly doubled, from 398 patients in 2000 to 790 patients in 2010 (Figure 11).⁸

According to Hospice Market Atlas, in 2010, 77% of Medicare patients who died in Santa Cruz County were enrolled in hospice care within their last six months of life, ranking Santa Cruz County first among all California counties; statewide, only 57% were enrolled in hospice.¹⁰ The majority of those patients were seen by Hospice of Santa Cruz County, while a smaller but growing percentage of hospice patients are served by Heartland Hospice Services, Inc.¹⁰

Figure 10: Hospice Use by Age, Santa Cruz County, 2010⁸

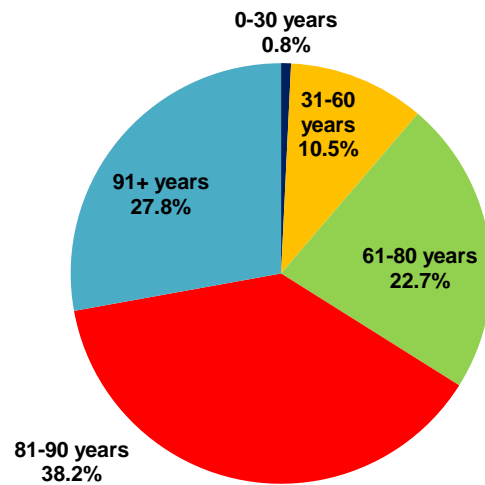
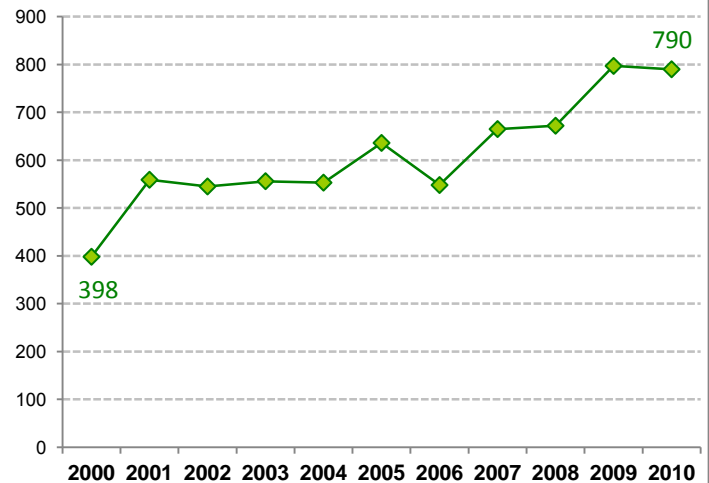


Figure 11: Patients of Hospice, Santa Cruz County, 2000-2010⁸



Source: OSHPD

The large percentage of patients receiving hospice care in their last 6 months of life may be one reason why Santa Cruz County health care costs are relatively low, according to the Dartmouth Atlas, despite one of the highest cost-of-living indexes in the country. Medicare remains the dominant payer source for hospice services in California.

QUALITY OF CARE

<p>Primary Prevention Activities</p>	<p>Comprehensive Perinatal Services Program (CPSP): Health care practitioners in the community provide prenatal care that also includes assessments, education, childbirth education classes, support, and referrals for other needed services. All pregnant Central Coast Alliance for Health members and pregnancy-only Medi-Cal recipients are eligible to receive CPSP services.</p> <p>Pregnancy Outreach and Education (POE): Program provides education, information, referrals, and coordination to assist pregnant women in obtaining early and comprehensive prenatal health care and other needed services. In particular, program assists pregnant women with substance use and/or mental health concerns.</p> <p>Hospice of Santa Cruz County (HSCC): <i>Hospice care</i> addresses the medical, social, emotional, and spiritual needs of patients and families. Teams of physicians, nurses, home health aides, social workers, chaplains, and trained volunteers provide professional medical care and practical support to people in the last months of life. Hospice care is covered by Medicare, Medi-Cal, and most private insurance providers. <i>Transitions care</i> links individuals confronted with life-limiting illness who are not yet ready or eligible for hospice and their family with essential resources and offers care coordination, volunteer assistance, and education around care options. <i>Grief Support</i> provides support specific to the needs of children, adults, and seniors, recognizing that grief is very personal and is influenced by experience, family, culture, and spiritual beliefs and practices. <i>The H.U.G Program</i> provides direct grief education and support to help children and adolescents give voice to their loss through individual or family counseling, group work, and school programs.</p>	
<p>Helpful Websites</p>	<p>womenshealth.gov, Prenatal Care</p>	<p>http://www.womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.cfm</p>
<p>Sources</p>	<p>(1) Institute of Medicine. <i>Medicare: A Strategy for Quality Assurance, Volume I</i>. Washington, DC: The National Academy Press, 1990.</p> <p>(2) Office of Statewide Health Planning and Development. Preventable Hospitalizations in California: Statewide and County Trends in Access to and Quality of Outpatient Care, Measured with Prevention Quality Indicators (PQIs), 1999-2008. 2010.</p> <p>(3) Hogan P and Dall T. "Economic costs of diabetes in the U.S. in 2002." <i>Diabetes Care</i>. 2003;26:917-932.</p> <p>(4) Medicare Home Health Agency Utilization, Calendar Year 2003-07. www.cms.hhs.gov/DataCompendium/16_2008_Data_Compendium.asp#TopOfPage.</p> <p>(5) State of California, Department of Public Health, Vital Statistics Query System. http://www.apps.cdph.ca.gov/vsq/Default.asp.</p> <p>(6) County of Santa Cruz, Public Health Department. <i>Births, Santa Cruz County, 2011</i>. Santa Cruz County, CA. May 2012. http://www.santacruzhealth.org/pdf/2011%20Birth%20Data.pdf.</p> <p>(7) University of Wisconsin Population Health Institute. County Health Rankings 2012. http://www.countyhealthrankings.org/.</p> <p>(8) Office of Statewide Health Planning and Development. OSHPD Annual Hospital Financial & Utilization Disclosure Reports. http://www.oshpd.ca.gov/. http://www.oshpd.ca.gov/HQAD/Hospital/financial/hospAF.htm. http://www.oshpd.ca.gov/HQAD/Hospital/hosputil.htm.</p> <p>(9) Centers for Medicaid and Medicare Services. http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/Hospice/Medicare_Hospice_Data.html. Accessed November 2012.</p> <p>(10) Hospice Market Atlas prepared for Hospice of Santa Cruz County by Health Planning & Development, LLC based on data by Centers for Medicare and Medicaid Services (CMS), 2012.</p>	

ENVIRONMENTAL HEALTH

Importance	We depend on the natural environment for all of the most fundamental necessities for life and health. Environmental degradation threatens the air we breathe, the water we drink, the food we eat, the atmosphere that shelters us from radiation and weather extremes, and the ecological network of species that constitutes our entire life support system.
Definitions	<p><u>Air Quality</u>: Air pollution is any undesirable substance that enters the atmosphere. Pollutants include various gases and tiny particles (particulates) that can harm human health or damage the environment.</p> <p><u>Water Quality</u>: Water pollution is any undesirable substance that enters water, whether the water is fresh or salt, surface or underground or elsewhere.</p>
Healthy People 2020 Objectives³	<ul style="list-style-type: none"> - Objective EH-1: Reduce the number of days the Air Quality Index (AQI) exceeds 100. (Target: 10 days) - Objective EH-4: Increase the proportion of persons served by community water systems who receive a supply of drinking water that meets the regulations of the Safe Drinking Water Act. (Target: 91% of persons served by a community to receive safe drinking water) - Objective EH-5: Reduce waterborne disease outbreaks arising from water intended for drinking among persons served by community water systems. (Target: 2 outbreaks per year from community water systems)

AIR QUALITY

Unhealthy air remains a threat to the lives and the health of millions of people in the United States, despite great progress. Air quality continues to improve nationwide, but over 127 million Americans (41%) still live in counties with unhealthy ozone or particulate pollution levels.¹ Ozone (O₃) is an extremely reactive gas and is the primary contributor to the formation of smog. Ozone can cause lung inflammation, even at very low exposure levels. It is estimated that over 3,700 American deaths per year can be attributed to ozone.¹ Particulate matter (PM) pollution refers to tiny solid and liquid particles in the air. Fine particulate pollution increases the risk of death from heart disease as well as respiratory illnesses.

In 2008-2010, Santa Cruz County air ranked among the cleanest counties in the nation for both ozone and particulates.¹ Table 1 depicts the ambient air quality in Santa Cruz County, 2009-2011, compared with state and national standards.^{4,5} California is known for its smog, but Santa Cruz County has consistently had lower levels of ozone and particulate pollution than the rest of the state.⁵

Table 1: Ambient Air Quality, Santa Cruz County, 2009-2011, vs. State and National Air Quality Standards ^{4,5}		
	Ozone	Particulate Matter (PM2.5)
Santa Cruz County, 2009-2011*	0.055 ppm	6.2 ug/m ³
California Standards **	0.070 ppm	35 ug/m ³
United States Standards **	0.075 ppm	35 ug/m ³
** Ambient Air Quality Standards: PM = 24 hours, ozone = 8 hours		
* Air Quality Measurements in Santa Cruz County, average, 2009-2011		

ENVIRONMENTAL HEALTH

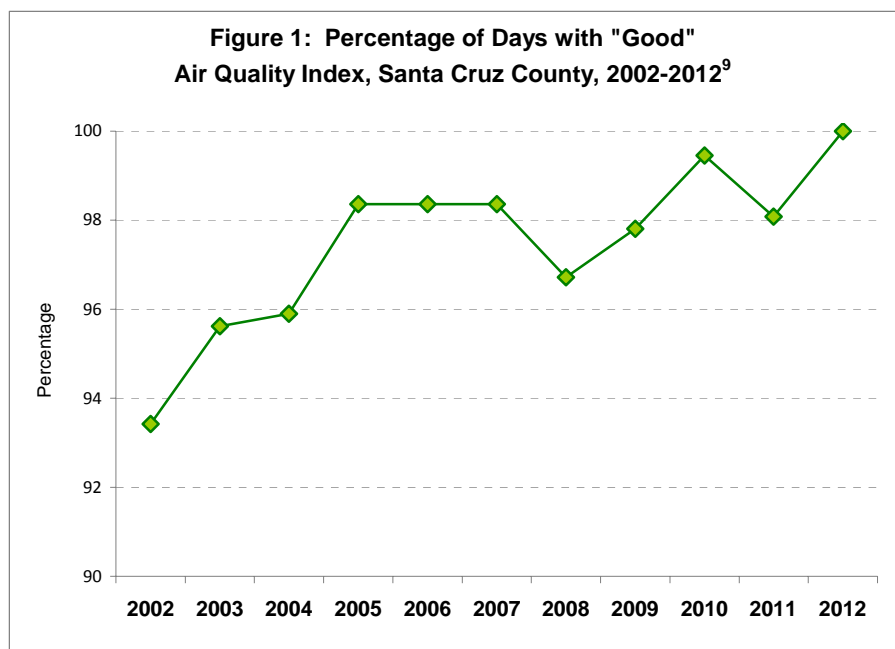
The U.S. EPA calculates a summary Air Quality Index⁶ (AQI), with numerical scores that EPA places into categories: Good, Moderate, Unhealthy for Sensitive Groups, Unhealthy, and Very Unhealthy. Figure 1 shows the percentage of days, from 2002 through late 2012, on which Santa Cruz County fell in the “Good” category. The chart shows a clear improvement over the last decade. Interestingly, the median daily AQI – that is, the score for which half the days of the year were better and half the days were worse – has not varied much or shown any trend during that time. That suggests that what’s happening is mainly a reduction in the number of less-than-good days – which is probably the most important health-protection measure.

The city of Santa Cruz generates enough renewable energy to account for 33% of the energy used by the city. Santa Cruz also purchases 13% renewable energy from PG&E. This clean energy keeps dirty fossil-fuel emissions out of the air.

WATER QUALITY

Table 2 evaluates the safety of our beaches in Santa Cruz County, using a letter grade system. Heal the Bay is a nonprofit organization based in Santa Monica. Its Beach Report Card tracks and reports coastline water quality from the Canadian border to the Mexican border.⁷ More than 650 beaches are monitored weekly, and assigned a letter grade from A to F. The grades are based on the health risks of swimming or surfing at that location; the worse the grade, the greater the risk of getting sick. All standards are set by the California

Department of Health Services’ Beach Bathing Water Standards. The beach report card provides grades for both dry and wet weather, to allow a clear analysis of the water quality at any given monitoring location. Water quality significantly drops during and immediately after a storm, because of runoff from land into rivers into the ocean. Grades for dry weather are based on samples collected on days at least three days after it last rained. Grades for wet weather pertain to samples collected on days with rain, or within three days after rain.



	2002		2003		2004		2005		2006		2007		2008		2009	
	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet
Santa Cruz Main Beach Boardwalk	A	F	A	F	A	F	B	D	A	A	A	D	B	C	A	B
Seacliff State Beach	A	F	B	F	A+	C	A	D	A+	A	A+	B	A	A	A	A
Seabright Beach	A+	F	A	F	A	D	A	F	A+	A	A+	D	A	B	A	D
Twin Lakes Beach	A	F	A	F	A+	D	A	F	A	A	A	B	A+	A	A+	B
Capitola Beach West of Jetty	F	F	F	F	B	F	B	F	C	C	C	F	A	D	C	F
Natural Bridges State Beach	A	F	A+	F	A+	A+	A+	A	A+	A	A+	A	A	A	A+	B
New Brighton Beach	A	F	B	F	A	D	A	F	A+	A	A+	C	A	A	A	C
Rio Del Mar Beach	C	F	B	F	F	F	A	F	A	B	A+	C	A	B	A	B

ENVIRONMENTAL HEALTH

<p>Primary Prevention Activities</p>	<p>Bike to Work Week is an inexpensive, healthy, and fun way to encourage exercise, reduce automotive traffic, and reduce air pollution.</p> <p>In 2000, the City of Santa Cruz adopted a Water Conservation Plan, the goal of which was to reduce water demand systemwide by 282 million gallons per year in 2010. Through plumbing fixture and appliance rebate programs, technical assistance, regulations, and other strategies, residential and commercial customers have saved over 217 million gallons of water per year so far.</p>
<p>Sources</p>	<p>(1) American Lung Association. <i>State of the Air 2012</i>. http://www.stateoftheair.org/2012/assets/state-of-the-air2012.pdf.</p> <p>(2) Land Trust of Santa Cruz County, Our Water. www.landtrustsantacruz.org.</p> <p>(3) U.S. Department of Health and Human Services. Healthy People 2020. http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx.</p> <p>(4) California Environmental Protection Agency, California Air Resources Board. http://www.arb.ca.gov/adam/topfour/topfour1.php.</p> <p>(5) United States Environmental Protection Agency (EPA), Airdata. http://www.epa.gov/airdata/ad_reports.html. Accessed December 6, 2012.</p> <p>(6) United States Environmental Protection Agency (EPA), Airdata, AQI. http://www.epa.gov/airdata/ad_rep_aqi.html. Accessed December 6, 2012.</p> <p>(7) Heal the Bay, Santa Monica Bay Restoration. Beach Report Card. http://www.healthebay.org.</p>

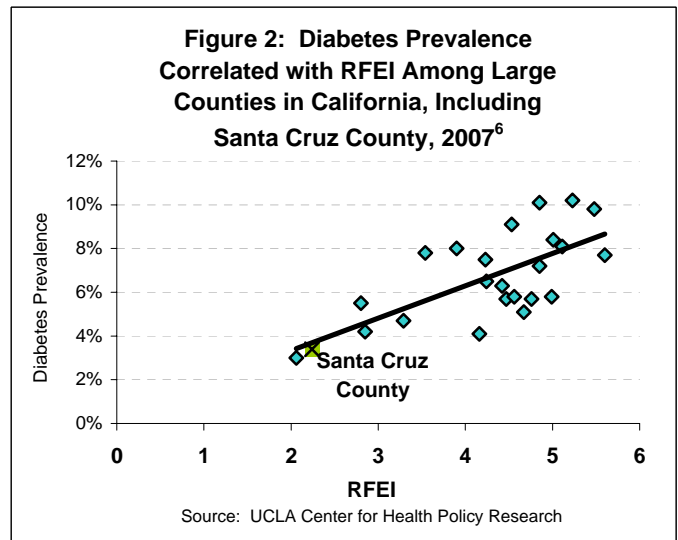
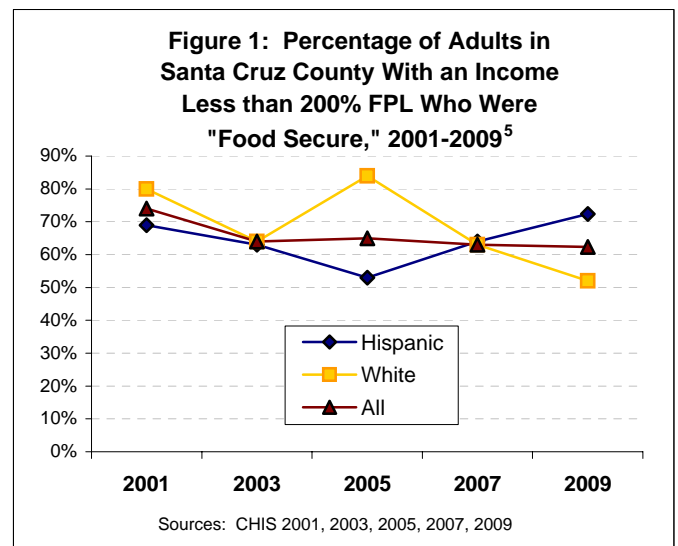
BUILT ENVIRONMENT

Importance	The environment in which we live often shapes the choices we make. If our built environment offers mainly fast food restaurants and liquor stores and we have limited transportation, our ability to make healthy choices is limited. Transportation is also a factor in a person's ability to access healthcare and employment.
Definitions	<p>* Retail Food Environment Index (RFEI): The number of fast-food restaurants and convenience stores, divided by the number of supermarkets, produce stores, and farmers' markets. A community with twice as many fast-food restaurants and convenience stores will have an RFEI of 2.0. A low RFEI shows good access to healthy food. In California, county RFEI scores range from 2.06-5.60.¹</p> <p>Food Security: Access, at all times, to enough nutritious food for an active, healthy life.²</p> <p>Alcohol Outlet: An establishment where alcohol is sold for consumption off premises, called an "off-sale establishment" (supermarkets, liquor stores, etc.), or where alcohol is consumed on the premises (bars, restaurants, etc.).³</p>
Healthy People 2020 Objectives	Decrease the proportion of households that are food insecure (thereby reducing hunger) to 6%

ACCESS TO HEALTHY FOODS

Food security, or being able to afford a complete and balanced diet, is a very important measure of health. The Healthy People 2020 goal is to decrease the proportion of food insecure households to 6%. Nationally, the proportion of food insecure households in 2008 was 14.6%.⁴ The California Health Interview Survey (CHIS) asked persons with incomes below 200% of the Federal Poverty Level (FPL) about their food security.⁵ From 2001 to 2009, the percentage of all Santa Cruz adults with incomes below 200% FPL who were food secure ranged between 62% and 74% (Figure 1).⁵ In 2009, 52% of low-income White adults reported being food secure, compared to 72% of Latino adults.⁵ However, due to the small number of low-income people surveyed, the differences in the data are not reliable or statistically significant.

The availability of nutritious food affects the food decisions that children, teens, and adults make. If healthy options are not available, then healthy options cannot be selected. Based on data from the 2005 CHIS and the 2005 InfoUSA Business File, the Retail Food Environment Index (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 around the respondent's home address (a half-mile in urban areas, one mile in smaller cities and suburban areas, and five miles in rural areas). These individual RFEI's were then averaged for the entire county.



As can be seen in Figures 2 and 3, higher RFEIs are positively correlated with the prevalence of diabetes and obesity within a county.⁶

BUILT ENVIRONMENT

Santa Cruz County had an RFEI of 2.2 (Figures 2 and 3), which means 2.2 fast food or convenience stores for each grocery store, produce stand, or farmer's market.⁶ That was the second best RFEI out of the 24 California counties with populations greater than 250,000.⁶

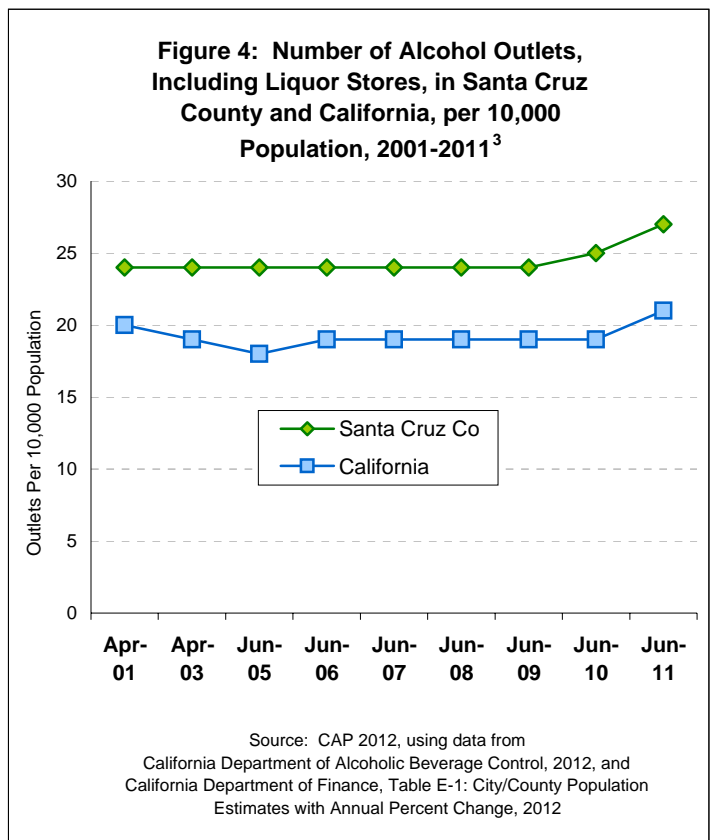
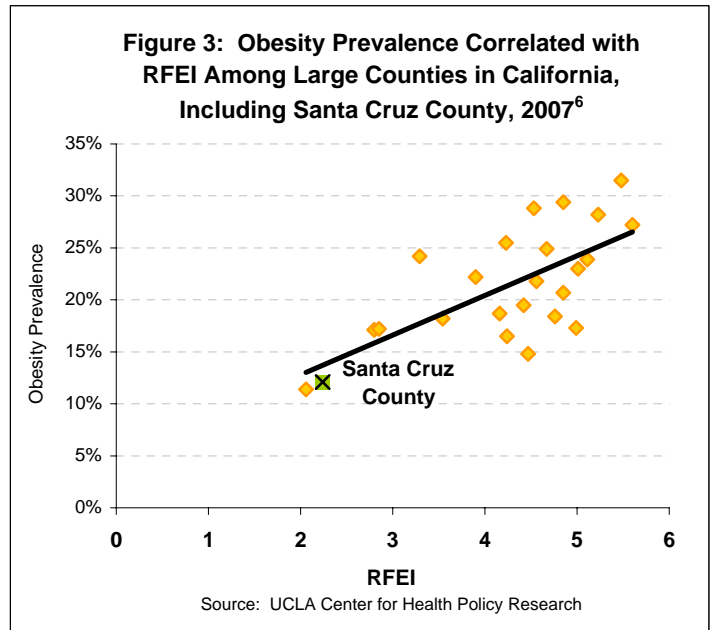
As part of a recent nutrition program, the County Public Health Department utilized the CX³ mapping program to assess the ratio of healthy food sources, such as supermarkets, large grocery stores, and farmers markets, to unhealthy food sources, such as fast-food outlets and convenience stores, in three Santa Cruz County neighborhoods. Only 19%-35% of the food sources available in these neighborhoods were considered healthy food sources.⁷

LIQUOR STORE DENSITY

The presence of liquor outlets, including liquor stores, restaurants, and supermarkets, is associated with increased underage drinking, binge drinking, violence, and poor health outcomes such as high mortality rates due to liver cirrhosis.^{8,9,10} In Santa Cruz County and in California, alcohol outlet density has changed very little recently; the county's rate rose from 24 to 27 outlets per 10,000 population in 2011, while California's rate stayed between 18 and 21 outlets per 10,000 population from 2001-2011 (Figure 4).³ Nationally, in 2006 37.5% of 18-20 year olds who reported drinking alcohol in the past 30 days also reported purchasing alcohol themselves or obtaining alcohol that was purchased by another underage person.¹¹ Locally, law enforcement officials work to decrease alcohol sales to minors by conducting "minor decoy operations" where minors, working with law enforcement officials, attempt to purchase alcohol from local businesses.

TRANSPORTATION

Santa Cruz County residents use alternative modes of transportation to work more often than residents of California and the United States. In 2010, 2.6% of working individuals in Santa Cruz County rode their bikes to work, which is a much higher rate than either California or the United States (Figure 7).¹² Local, state, and national biking rates all appear to have increased slightly from 2005 to 2010. Notably, the City of Santa Cruz was designated a Silver Level Bicycle-Friendly Community by the League of American Bicyclists in early 2008.¹³

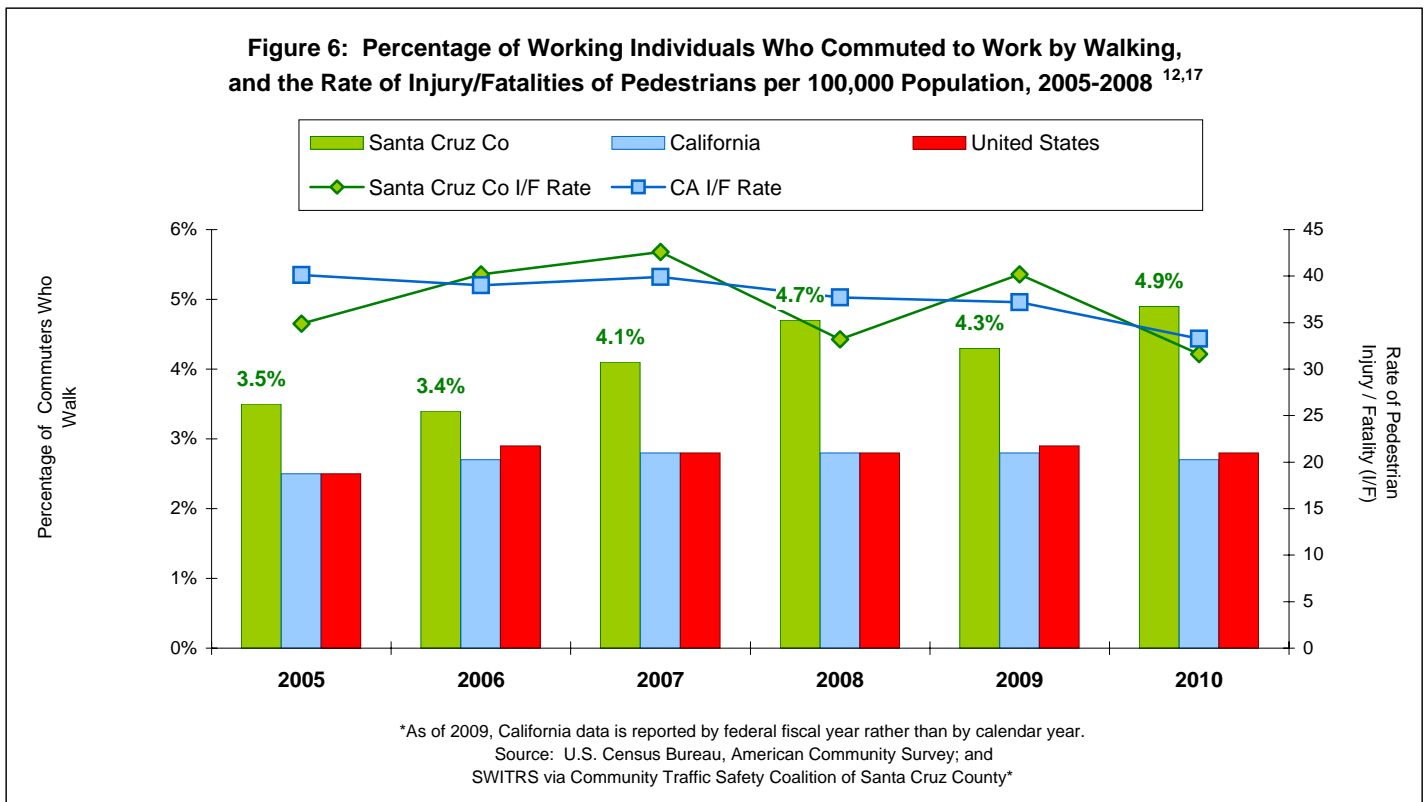
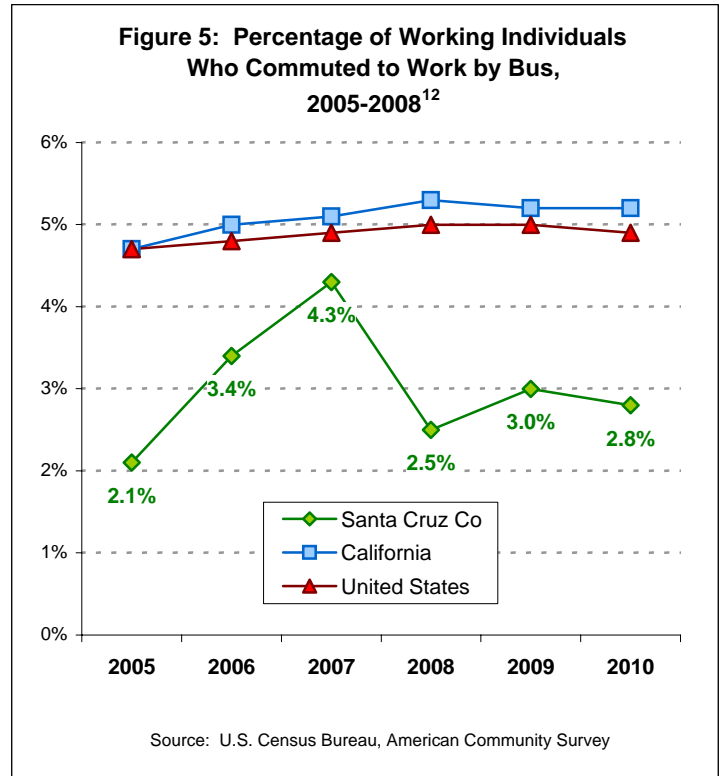


BUILT ENVIRONMENT

The percentage of working individuals who walked to work in Santa Cruz County increased from 3.5% in 2005 to 4.9% in 2010; state and national rates (2.7% statewide and 2.8% nationwide in 2010) didn't rise much (Figure 6).¹²

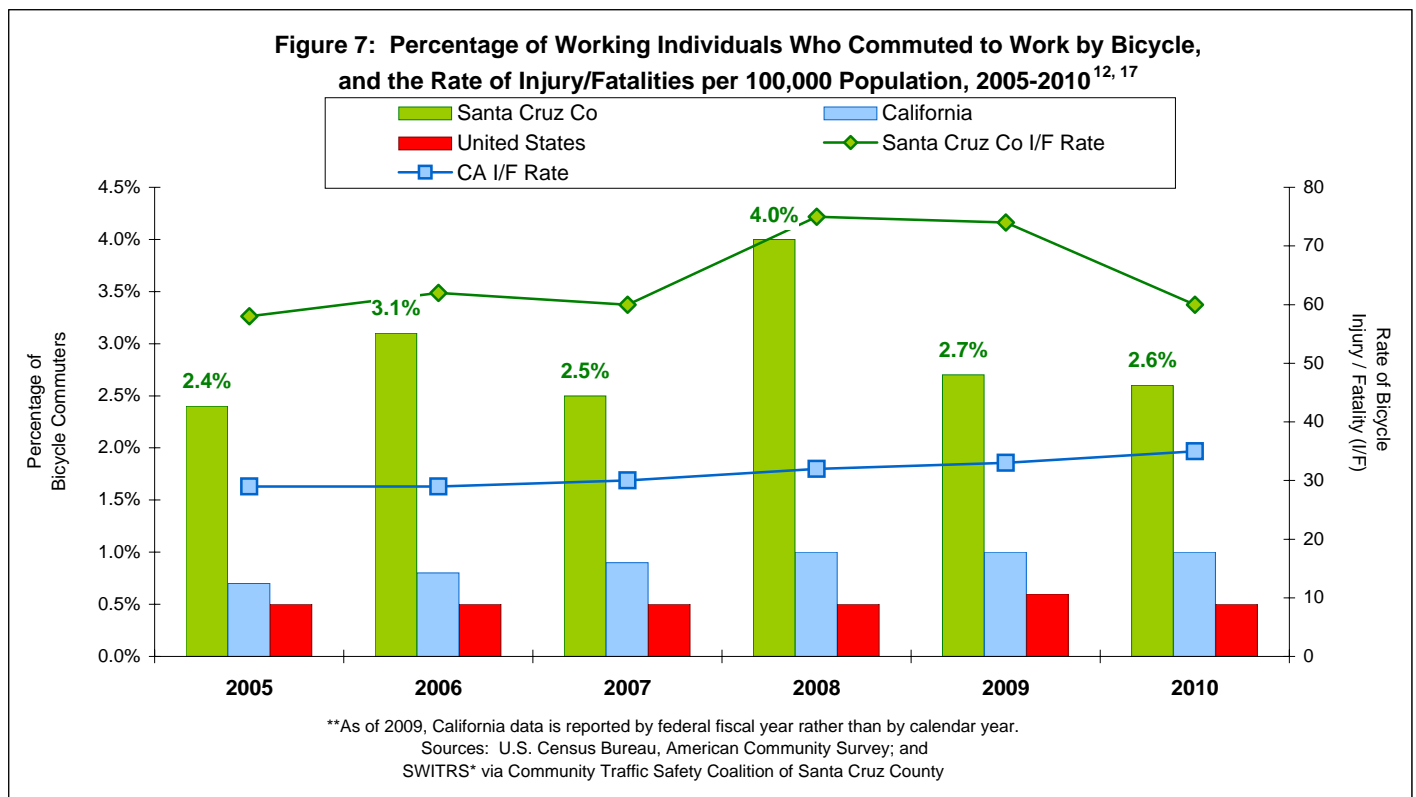
Although the proportion of working individuals who walk or bike to work is significantly higher in Santa Cruz County than in California or the United States, the proportion of county commuters who use the bus is lower than in the United States and California (Figure 5).¹² Bus ridership statewide and nationwide increased slightly from 2005 to 2010; county rates varied considerably and showed no clear trend.¹²

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.^{14,15} Programs such as Pace Car and Ride 'n' Stride Bicycle and Pedestrian Safety Program have been initiated to improve transportation conditions for all members of the community.¹⁶



BUILT ENVIRONMENT

While walking and bicycling to commute to work are considered health-conscious modes of transportation, a pedestrian or bicyclist faces a different set of dangers and requires a different set of safety precautions than a driver does. In the United States, 32,885 people were killed in traffic accidents in 2010; of those, 4,280 (13%) were pedestrians and 618 (2%) were pedalcyclists (includes bicycles, tricycles, etc.).¹⁸ The national *pedestrian injury/fatality* rate for 2008 was 21.4 per 100,000 population.¹⁸ In California the 2008 *pedestrian fatalities* rate was 1.7 fatality per 100,000 population, while Santa Cruz County's was 1.1 fatality per 100,000 population.¹⁷ The injury/fatality rate for *bicyclists* in Santa Cruz was 60 per 100,000 population, almost twice that of California (35 per 100,000 population) (Figure 7).¹⁷ The number of bicyclists injured and killed in Santa Cruz County dropped from 189 in 2009 to 158 in 2010; the number increased in Capitola while decreasing in all other jurisdictions throughout the county.¹⁷ There were no bicyclist fatalities in 2010 in Santa Cruz County.¹⁷ The combined pedestrian injury/fatality rate fluctuates in Santa Cruz County due to small numbers, but the 2010 rate was lower than the 2005 rate, even though commuting to work by walking has continued to increase (Figure 7).^{17,18}



<p>Primary Prevention Activities</p>	<p>- To improve safe bicycling practices in the county, the Community Traffic Safety Coalition (CTSC) developed a Bicycle Traffic Safety School in 2008 for bicycle traffic offenders.¹⁶</p> <p>- Programs such as Pace Car and Ride 'n' Stride Bicycle and Pedestrian Safety Program have been initiated to improve transportation conditions for all members of the community.¹⁶</p>	
<p>Helpful Websites</p>	<p>Community Traffic Safety Coalition of Santa Cruz County</p>	<p>http://www.sctrfficsafety.org/index.html</p>

BUILT ENVIRONMENT

Sources

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HEALTH-RELATED QUALITY OF LIFE

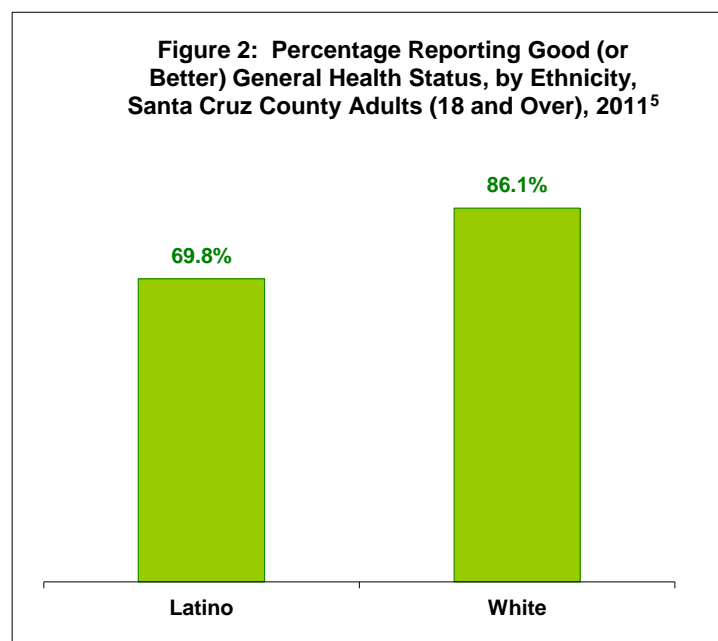
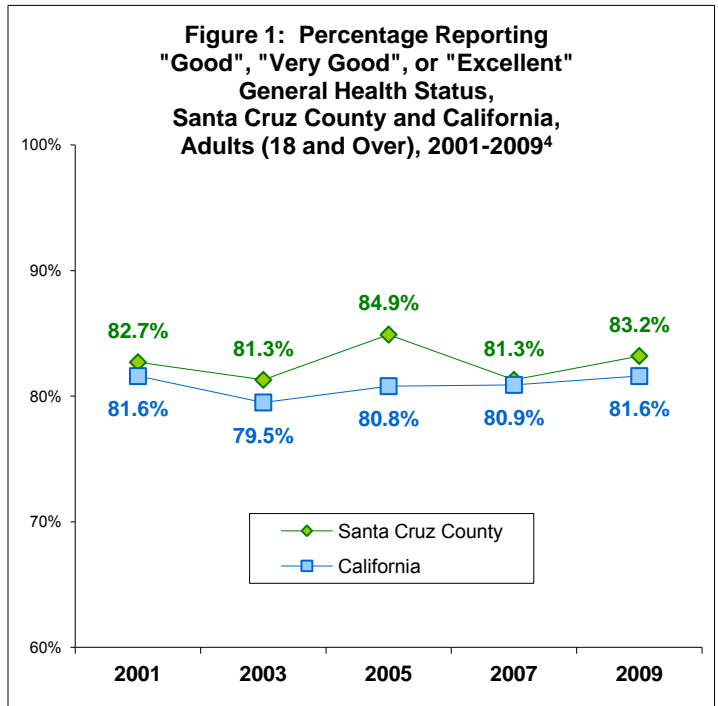
Importance	"Health is a state of complete physical, mental, and social well-being -- not merely just the absence of disease or infirmity," as defined by the World Health Organization in 1948. ¹ Traditionally, health data has been presented in the negative, and what is measured is ill health and its severe manifestations. Measuring health-related quality of life is intended to more adequately assess health beyond morbidity and mortality. The national <i>Healthy People 2020</i> organization has identified quality of life improvement as one of the central public health goals for the nation. ²
Definitions	Health-Related Quality of Life (HRQOL): an individual's or group's perceived physical and mental health over time, as defined by the CDC ¹

Quality of life is a broad and subjective concept, and it means something different for nearly every person. Health-Related Quality of Life (HRQOL) includes measures that clearly affect quality of life, such as physical and mental health. The CDC spent several years developing and validating a compact set of measures to assess HRQOL, known as the "Healthy Days Measures." They assess a person's perceived sense of well-being based on four questions: 1) self-rated health, 2) number of recent days when physical health was not good, 3) number of recent days when mental health was not good, and 4) number of recent activity limitation days because of poor physical or mental health; "recent" is defined as within 30 days.

Since 1993, the national Behavioral Risk Factor Surveillance System (BRFSS) survey has included these questions. BRFSS asks people, "In general, would you say that your health is excellent, very good, good, fair, or poor?" Between 2004 and 2010, 83% of adults in Santa Cruz County said their health was good, very good, or excellent, compared to 81% of adults statewide.³

This question is also asked regularly through the statewide California Health Interview Survey (CHIS), and again, Santa Cruz County consistently fares a little higher than California (see Figure 1).

Santa Cruz County also has a countywide survey called the Community Assessment Project (CAP), and in 2011 this question was added to the survey. CAP similarly found that 83% of adults reported good (or better) general health. However, Latinos were significantly less likely than Whites to report good (or better) general health (69.8% versus 86.1%) (see Figure 2).



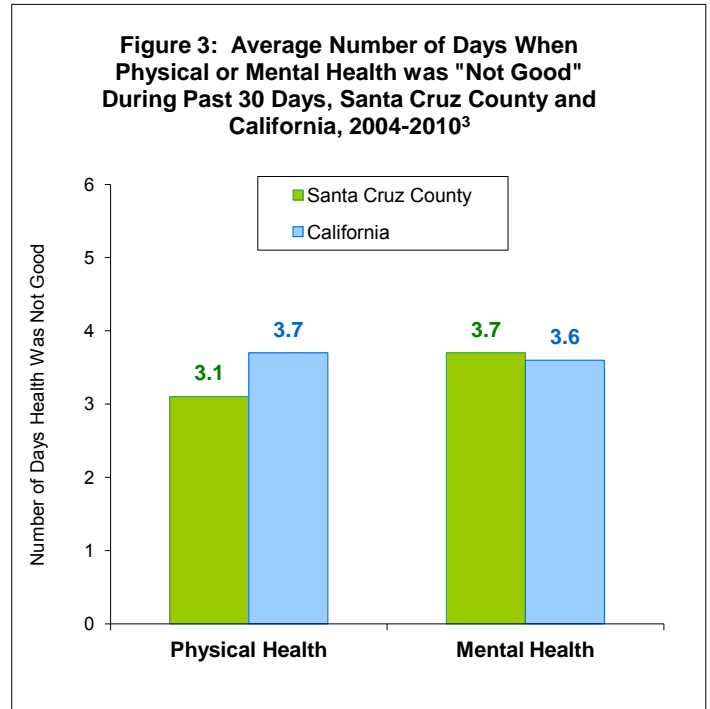
HEALTH-RELATED QUALITY OF LIFE

PHYSICAL HEALTH

BRFSS asks respondents how many of the past 30 days their physical health was not good. Santa Cruz County residents reported 3.1 days, compared to 3.7 days statewide, between 2004 and 2011 (see Figure 3). Santa Cruz County ranked in the top quartile statewide. The national benchmark (90th percentile county) is 2.6 days.³

MENTAL HEALTH

BRFSS also asks, "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" Santa Cruz County residents reported 3.7 days, compared to 3.6 days statewide, between 2004 and 2011 (see Figure 3). The national benchmark (90th percentile county) is 2.3 days.³



Helpful Websites	Healthy People	http://www.healthypeople.gov/2020/about/qolwbbabout.aspx
	Centers for Disease Control and Prevention:	http://www.cdc.gov/hrqol/
Sources	<p>(1) CDC. "Measuring Healthy Days. Population Assessment of Health-Related Quality of Life." November 2000. http://www.cdc.gov/hrqol/pdfs/mhd.pdf.</p> <p>(2) U.S. Department of Health and Human Services. Healthy People 2020. <i>Health-Related Quality of Life and Well-Being</i>. http://www.healthypeople.gov/2020/about/qolwbbabout.aspx.</p> <p>(3) University of Wisconsin Population Health Institute. <i>County Health Rankings</i>. http://www.countyhealthrankings.org/health-factors/education.</p> <p>(4) California Health Interview Survey. UCLA Center for Health Policy Research. http://www.chis.ucla.edu/.</p> <p>(5) Applied Survey Research. <i>Community Assessment Project Report: Year 18 (2012)</i>. http://www.appliedsurveyresearch.org/storage/database/quality-of-life/santacruzcap/cap18_2012/CAP_Year18_CompleteReport.pdf.</p>	

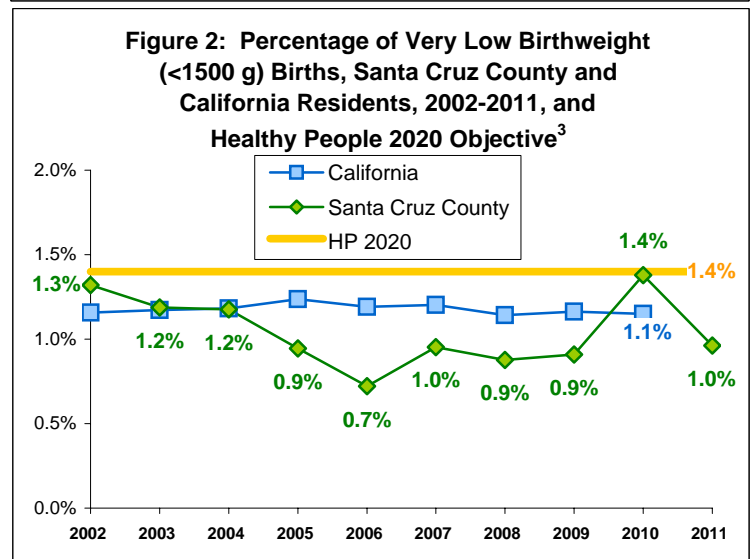
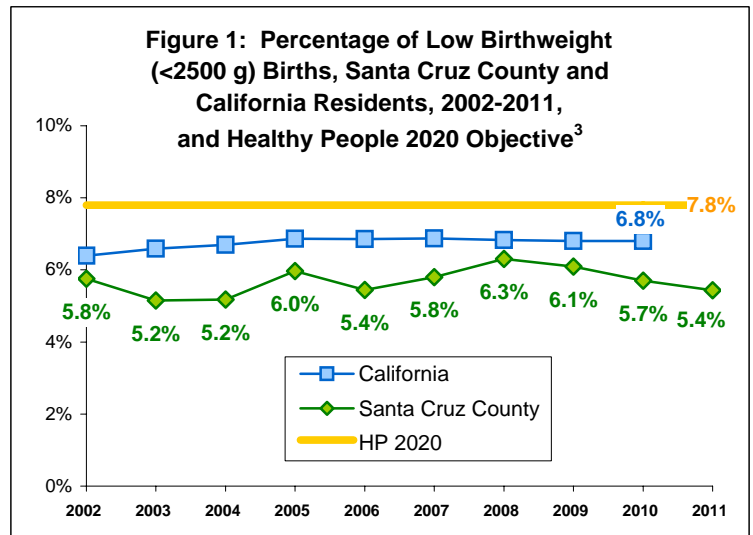
LOW BIRTHWEIGHT

Importance	Low birthweight (LBW) reflects both the infant's current and future morbidity as well as maternal exposure to health risks. For the infant, LBW indicates whether a child has had a "healthy start" because LBW is a predictor of mortality and morbidity over the life course. For example, LBW has been associated with developmental and growth problems, a higher risk of cardiovascular disease later in life, and a greater rate of respiratory problems. Maternal exposures of concern includes the mother's health behaviors, access to health care, and the social and economic environment to which she is exposed. ¹
Definitions	<p><u>Low Birthweight (LBW)</u>: weight less than or equal to 2500 grams (5 lbs 8 oz).</p> <p><u>Very Low Birthweight (VLBW)</u>: weight less than or equal to 1500 grams (3 lbs 5 oz).</p>
Healthy People 2020 Objectives	<p>Reduce:</p> <ul style="list-style-type: none"> - Low Birthweight to 7.8% (MICH 8.1) - Very Low Birthweight to 1.4% (MICH 8.2)

The primary cause of low birthweight (LBW) is being born premature (<37 weeks gestation), which means the baby had less time to grow and gain weight. Another cause of LBW is intrauterine growth restriction (IUGR), which occurs when the baby does not grow well during pregnancy due to the mother's health, placental problems, or birth defects.² Full-term babies with IUGR may be physically mature, but tend to be small and weak. Premature babies with IUGR are both very small and physically immature. Smaller babies have a more difficult time eating, gaining weight, fighting infections, and meeting developmental milestones. Other factors associated with the risk of LBW include race, mother's age, multiple births (e.g. twins), and mother's health. For example, Black babies are twice as likely to be LBW compared to White babies, teen mothers are at a higher risk of having a LBW baby, twins are often premature, and babies born to mothers who used drugs or who had poorer prenatal care are at an increased risk for being LBW.²

Prenatal care is a key factor in preventing premature and LBW babies. During prenatal care visits, the health of the mother and fetus can be monitored. It is also recommended that pregnant women eat a healthy diet, gain the proper amount of weight, and avoid alcohol, tobacco, and other drugs to prevent LBW.

Over the last ten years, the percentage of LBW babies born to Santa Cruz County residents has been lower than the state, and both the county and the state have been better than the new Healthy People 2020 Objective (see Figure 1). Very low birthweight (VLBW) rates are more variable at the county level, due to small numbers, but state rates are more stable, and both have consistently been lower than the Healthy People 2020 Objective (see Figure 2). In 2011, 70% of the county's LBW babies were also premature (<37 weeks gestations). Among the 116 multiple births in 2011, 45% were premature, and of those, 79% were LBW.³



LOW BIRTHWEIGHT

<p>Primary Prevention Activities</p>	<p>Comprehensive Perinatal Services Program (CPSP): A statewide program that provides enhanced reimbursement for a wide range of services to Medi-Cal eligible pregnant and post-partum women. Assessments, reassessments, treatments, interventions, and referrals are provided in the areas of obstetrics, nutrition, health education, and psychosocial services.</p> <p>Pregnancy Outreach and Education (POE): Program providing education, information, referrals, and coordination to assist pregnant women in obtaining early and comprehensive prenatal health care and other needed services. In particular, the program assists pregnant women with substance use and/or mental health concerns.</p>	
<p>Helpful Websites</p>	<p>March of Dimes</p>	<p>http://www.marchofdimes.com/professionals/medicalresources_lowbirthweight.html</p>
	<p>Lucile Packard Children's Hospital at Stanford</p>	<p>http://www.lpch.org/DiseaseHealthInfo/HealthLibrary/hrnewborn/lbw.html</p>
	<p>Centers for Disease Control and Prevention (PedNSS)</p>	<p>http://www.cdc.gov/pednss/how_to/interpret_data/case_studies/low_birthweight/what.htm</p>
	<p>A.C.O.G. ("Start Strong" Initiative)</p>	<p>http://www.acog.org/About_ACOG/News_Room/News_Releases/2012/ACOG_Supports_Start_Strong_Initiative</p>
<p>Sources</p>	<p>(1) County Health Rankings and Roadmaps. BIRTH OUTCOMES. http://www.countyhealthrankings.org/health-outcomes/birth-outcomes.</p> <p>(2) Lucile Packard Children's Hospital at Stanford. Low Birthweight. http://www.lpch.org/DiseaseHealthInfo/HealthLibrary/hrnewborn/lbw.html.</p> <p>(3) AVSS: Automated Vital Statistics System, Birth Certificate Data Request (unpublished), County of Santa Cruz, Health Services Agency, Public Health Department. 2011 Jan 1 - 2011 Dec 31, data extracted on 2012 Feb 7.</p>	

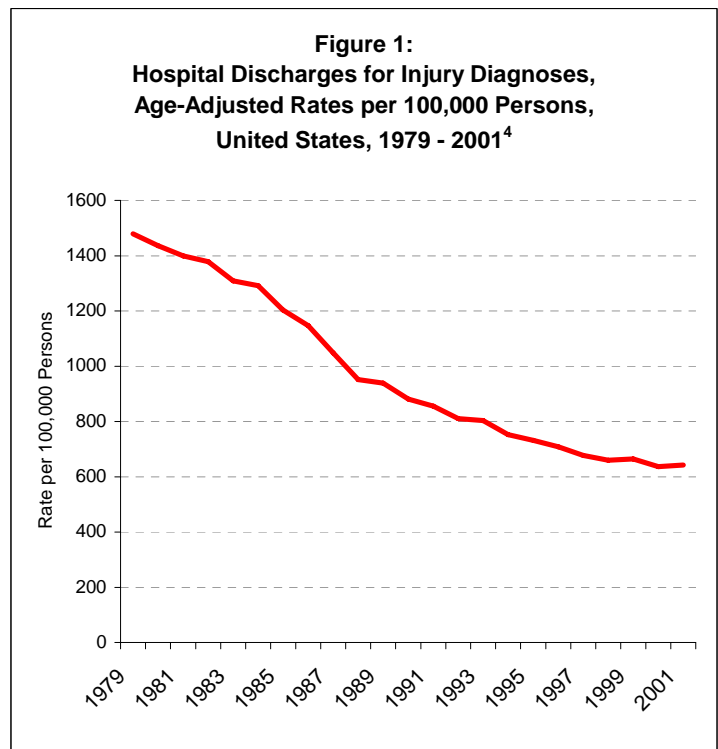
NONFATAL INJURIES

Importance	Nonfatal injuries are responsible for disability, lost productivity, pain and suffering, and medical costs. They also serve as an indicator of risk for fatal injuries. About 50 million Americans are medically treated for injuries every year, and over 2.8 million are hospitalized. ¹ Injuries cost over \$400 billion per year in medical expenses and lost productivity. ²
Definitions	Nonfatal 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.
Healthy People 2020 Objectives	<ul style="list-style-type: none"> ▪ Reduce hospitalization for nonfatal injuries to 555.8 per 100,000 population. ▪ Reduce emergency department visits for nonfatal injuries to 7533.4 per 100,000 population. ▪ Reduce nonfatal unintentional injuries to 8,297.4 per 100,000 population. ▪ Reduce nonfatal motor vehicle crash-related injuries to 694.4 per 100,000 population. ▪ Prevent an increase in nonfatal poisonings above 304.4 per 100,000 population. ▪ Reduce nonfatal firearm injuries to 18.6 per 100,000 population.

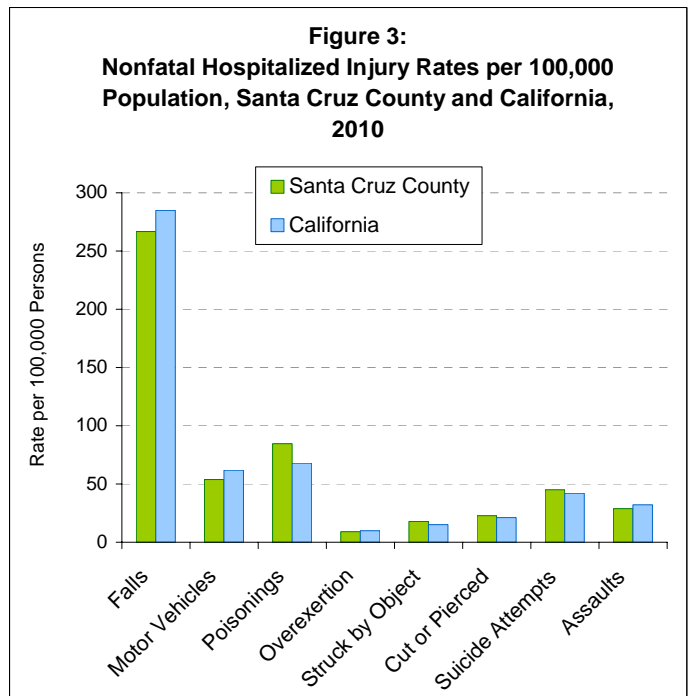
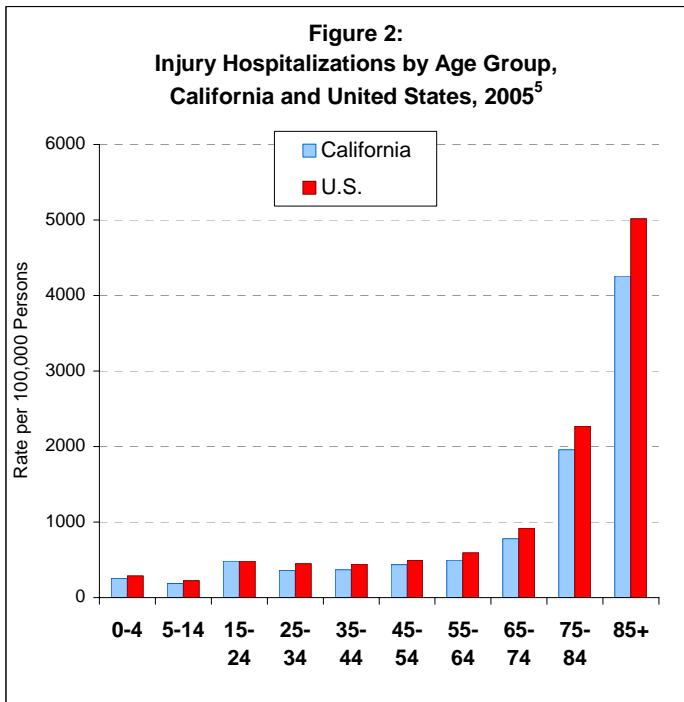
National data on nonfatal injuries is limited, because about half of the states don't have a reporting requirement for nonfatal injuries.³ Data on local injury rates is particularly limited. Even the federal government has released few reports on nonfatal injuries in recent years.

Nonfatal injuries are at least ten times as common as fatal injuries.³ National rates of hospital discharge for injury diagnoses decreased steadily from 1979 through 2001 (Figure 1), dropping by an average of 4.3% per year⁴; the age-adjusted rate fell from 1480 per 100,000 persons in 1979 to 642 in 2001.⁴ The rate stayed essentially unchanged from the late 1990s through 2005.³ In 1979 the rate among males was 44% higher than the rate among females, but rates have fallen faster among males than among females, and they are no longer much different from one another.⁴ Rates among black women have dropped slightly below those among white men and women, while rates among black men remain elevated.⁴

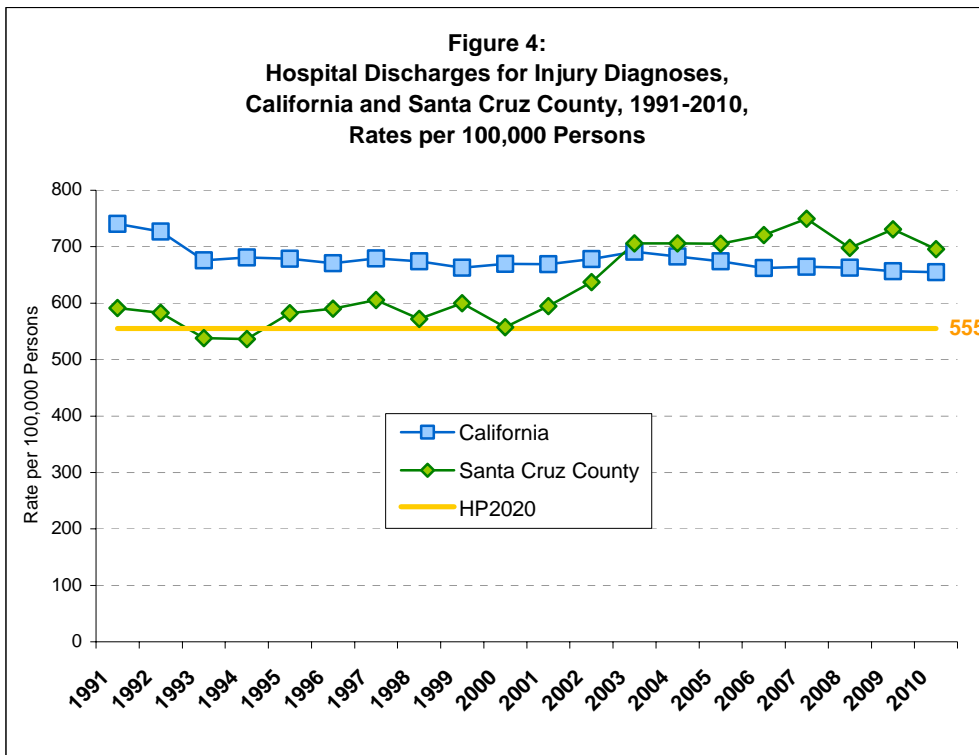
The rate of nonfatal injury hospitalizations is strongly linked to age, varying more than 20-fold between the 5- to 14-year-old age group and the very elderly (Figure 2).⁵ This may have much more to do with the fragility of the elderly than with a higher propensity for accidents, but both are probably important factors.



NONFATAL INJURIES



Californians in 2005 incurred a total of 183,962 injury hospitalization episodes,⁵ with an age-adjusted rate of 527.2 per 100,000 persons, which ranked the state 13th-best among the 33 states that provided data, comparing favorably to the overall U.S. rate of 605.3. California had very low rates of hospitalization due to poisonings (55.1, 4th-best) and attempted suicides (29.6, 3rd-best). On the other hand, our rate of assault injury was 36.1, almost half again the national average, and ranked 30th out of 33 reporting states. The state's rates of 227.9 for falls and 76.6 for motor vehicle injuries were similar to the national rates, and ranked in the middle of the reporting states. Firearms injuries, fire injuries, and drowning hospitalizations represented relatively small fractions of all nonfatal injuries.



Nationwide and statewide, falls are by far the most common cause of nonfatal injuries requiring either hospitalization or emergency department visits.^{6,7} In California, in 2010, the next most common causes of injuries requiring *hospital admission* were motor vehicle accidents and poisoning.⁶ The next most common causes of injuries requiring *emergency department visits*, but not hospital admission, were striking or being struck by an object, overexertion, motor vehicle accidents, and cuts or piercings.⁶

NONFATAL INJURIES

Santa Cruz County’s overall nonfatal hospitalized injury rate in 2010 (not age-adjusted) was 528.7 per 100,000 population, similar to the statewide rate of 534.9.⁸ The county had higher rates than the state for poisonings, being struck by objects, cuts or piercings, and suicide attempts, and lower rates for motor vehicle accidents, assaults, overexertion, and falls (Figure 3).

California’s rate of nonfatal hospitalized injuries has dropped, slowly but steadily, for two decades.⁸ Santa Cruz County’s rate was well below the state’s rate throughout the 1990s, but climbed during the early 2000s and has remained higher (Figure 4). Neither the county nor the state meets the Healthy People 2020 objective for nonfatal injury hospitalizations.

<p style="text-align: center;">Primary Prevention Activities</p>	<p>Santa Cruz County Public Health maintains a traffic injury prevention program that encompasses automotive, bicycle, and pedestrian safety. The Child Passenger Safety Outreach and Education Program performs education and training about the installation and use of child car seats, and assists low-income families in obtaining car seats.</p> <p>Safe Kids Santa Cruz County is a coalition of the County Health Department, local police and fire departments, hospitals, family service organizations, health and child care providers, and others, which performs public education and advocacy and implements child passenger safety programs and services.</p> <p>The Trust for America’s Health¹ identified ten key injury prevention indicator measures, such as seat belt laws, mandatory helmet laws, prescription drug monitoring programs, car seat/booster seat laws, and youth sports concussion laws. The Trust evaluated each state as to how many of those indicators the state has achieved. California and New York were the only two states that have achieved nine of the ten indicators.</p>
<p style="text-align: center;">Sources</p>	<p>(1) Trust for America’s Health. <i>The Facts Hurt: A State-by-State Injury Prevention Policy Report</i>. May 2012. http://healthyamericans.org/reports/injury12/.</p> <p>(2) Finkelstein EA, Corso PS, Miller TR, Associates. <i>Incidence and economic burden of injuries in the United States</i>. New York, NY: Oxford University Press; 2006. cited at http://www.cdc.gov/injury/, accessed October 5, 2012.</p> <p>(3) Centers for Disease Control, National Center for Health Statistics. <i>Injury in the United States: 2007 Chartbook</i>. 2008. http://www.cdc.gov/nchs/data/misc/injury2007.pdf.</p> <p>(4) Centers for Disease Control, National Center for Health Statistics. <i>National Trends in Injury Hospitalizations 1979-2001</i>. March 2005. http://www.cdc.gov/nchs/injury/injury_chartbook.htm.</p> <p>(5) Centers for Disease Control, National Center for Injury Prevention and Control. State Injury Indicators Report, Fourth Edition – 2005 Data. http://www.cdc.gov/Injury/indicators2005.html.</p> <p>(6) California Department of Health Services, EPICenter. http://epicenter.cdph.ca.gov/ReportMenus/DataSummaries.aspx.</p> <p>(7) 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 – 2010.” http://www.cdc.gov/injury/wisqars/LeadingCauses.html.</p>

COMMUNICABLE DISEASES

Importance	Monitoring diseases and preventing their spread by educating the public and promoting health decreases the impact of infectious diseases in the community.
Definitions	Communicable Diseases (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 2020	Reduce: <ul style="list-style-type: none"> - Tuberculosis to 1.0 new case per 100,000 population (IID-29) - Gonorrhea Rates Among Females (Age 15-44) to 257 per 100,000 population (STD-6.1) - Gonorrhea Rates Among Males (Age 15-44) to 198 per 100,000 population (STD-6.2)

California law mandates that health care providers and laboratories report all known or suspected cases of specified conditions to their local health authority, which is the source of Santa Cruz County's data.¹

TUBERCULOSIS

Tuberculosis (TB) is an airborne bacterial infection that has afflicted humans for thousands of years. From 2008 to 2010, there was an average of 8 active TB cases each year among Santa Cruz County residents, for an incidence rate of 3.0 per 100,000 population, compared to statewide and nationwide rates of 6.5 and 3.8 per 100,000, respectively (see Figure 1).² The majority of Santa Cruz County cases are born outside of the United States, but about 25% are born in the United States. Over the past couple of years, about 15% of cases have been homeless, adding significant costs during periods of isolation. The number of active cases does not fully reflect the workload that tuberculosis imposes on public health agencies. There are at least 10 to 20 times as many persons who need some level of follow-up to rule out active tuberculosis, and case and contact management are very labor intensive. Yet, studies have consistently shown that the resources spent on TB are necessary to keep TB under control.

SEXUALLY TRANSMITTED DISEASES

Sexually transmitted diseases (STDs) account for the largest number of reported diseases among Santa Cruz County residents. The combined case counts of chlamydia, gonorrhea, and infectious syphilis increased 17% from 2008-09 to 2010-11 (see Figure 2).

Figure 1: Crude Rate of New Active Tuberculosis Cases per 100,000 Population, Santa Cruz County, California, and U.S., 2008-2010²

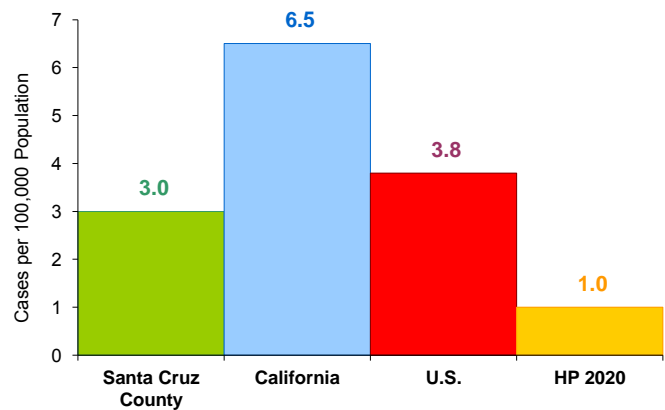
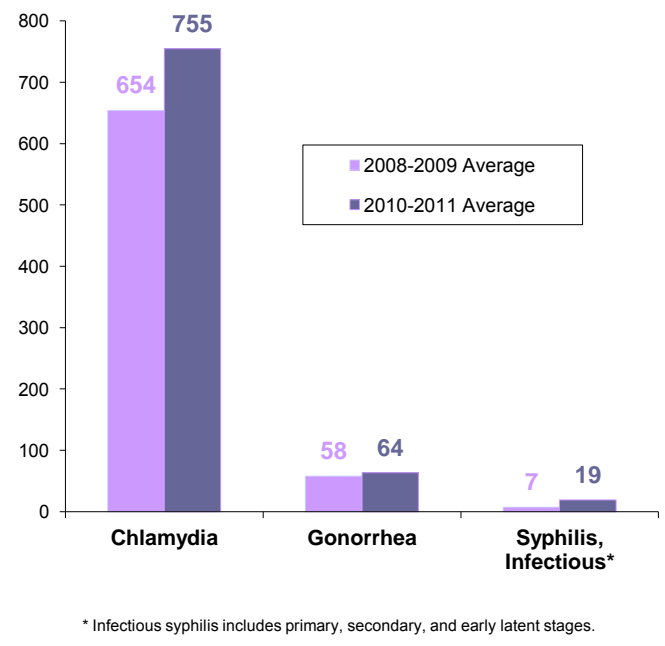


Figure 2: Average Annual Number of Selected Reportable STDs, Santa Cruz County Residents, 2008-2009 and 2010-2011¹



COMMUNICABLE DISEASES

Cases of infectious syphilis (primary, secondary, or early latent) continue to rise, with 28 cases in 2012 (see Figure 3). Among the cases in 2012, 96% are male, when known, 96% of the males have had sex with men, 32% of cases have had a prior syphilis infection, and 56% are co-infected with HIV. Efforts are underway to increase community knowledge about the rise in morbidity and recommended responses.

HIV & AIDS

HIV is costly to treat, preventable, and a very complex health issue. The majority of infections are among men who have sex with men (MSM). Homophobia and stigma contribute to poor mental health and unhealthy behaviors, such as substance abuse, risky sexual behaviors, and suicide attempts. As of the end of 2012, 431 Santa Cruz County residents were known to be living with HIV; 256 (59%) of them have AIDS.³ Between 2007 and 2011, there was an average of 18 new HIV cases each year (6.9 new cases per 100,000 population); see Figure 4. Of the new HIV cases diagnosed between 2007 and 2011, 36% were diagnosed with AIDS within one year of HIV diagnosis. Locally, late HIV diagnosis cases tend to have limited HIV education and poor access to HIV testing, and are often MSM who don't identify as gay or bisexual.

ENTERICS

Enteric (intestinal) illnesses enter the body through the mouth and intestinal tract and are usually spread through contaminated food and water or by contact with vomit or feces. Locally, the top six infectious agents causing enteric illnesses in 2010 and 2011 caused nearly 120 reportable cases per year (see Figure 5 for the top six conditions and their relative contributions to the case counts).¹

Cases with enteric illnesses are investigated by the Communicable Disease (CD) Unit to identify potential sources of illness and prevent further spread in the community. Prevention includes identifying cases who work in sensitive occupations, such as a restaurant; such persons are often restricted from working until they are no longer contagious.

Figure 3: Number of Infectious Syphilis Cases (Primary, Secondary and Early Latent) by Year, Santa Cruz County, 2007-2012¹

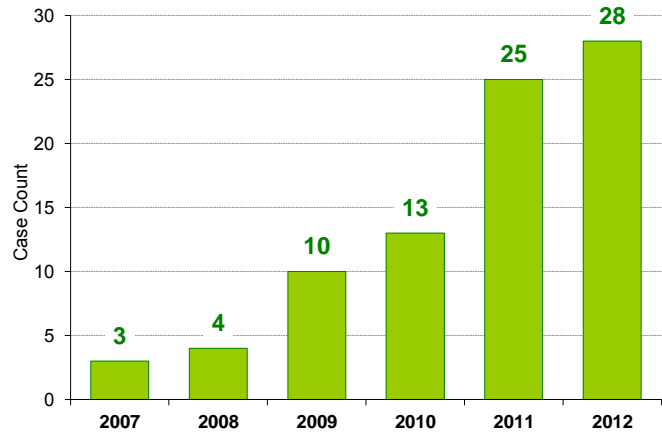


Figure 4: Number of New HIV Cases, With or Without AIDS, by Year of HIV Diagnosis, Santa Cruz County Residents, 2007-2011²

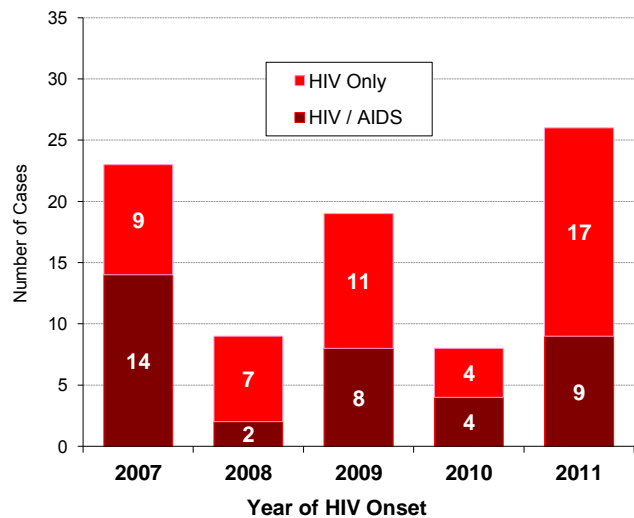
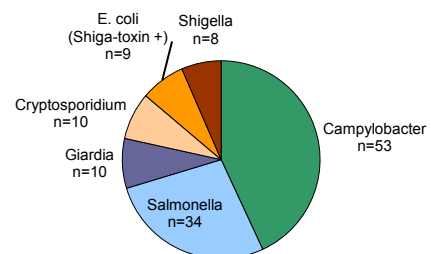


Figure 5: Average Annual Number of Cases of Enteric Illnesses for the Six Most Common Etiologic Agents, Santa Cruz County Residents, 2010-2011¹



COMMUNICABLE DISEASES

VACCINE PREVENTABLE DISEASES

Disease prevention is the key to public health; it is always better to prevent a disease than to try to treat it and its consequences. Vaccines prevent disease in two ways – directly, in the people who receive them, and indirectly, by reducing the number of infected people who could otherwise transmit infection. Vaccines often dramatically reduce disease incidence (see the Measles example in Figure 6).

From January to October of 2010, California experienced an epidemic of pertussis, with the highest number of reported cases (9,394) since 1947, and the highest rate of cases (23.4/100,000 population) since 1958.⁴ In Santa Cruz County, the rate was even higher than the state, at 32.5 cases per 100,000 population – possibly because Santa Cruz County has relatively low vaccination rates. Fortunately, pertussis rates have subsided significantly since October, 2010.

OUTBREAKS

In 2011, the Santa Cruz County CD Unit investigated fifteen disease outbreaks.¹ Eight of the fifteen were classified as acute gastroenteritis, or sudden onset of diarrhea and/or vomiting; see Table 1 for the numbers of outbreaks and combined numbers ill by type of disease. Acute gastroenteritis and respiratory infections are often very contagious, as can be seen by the number ill.

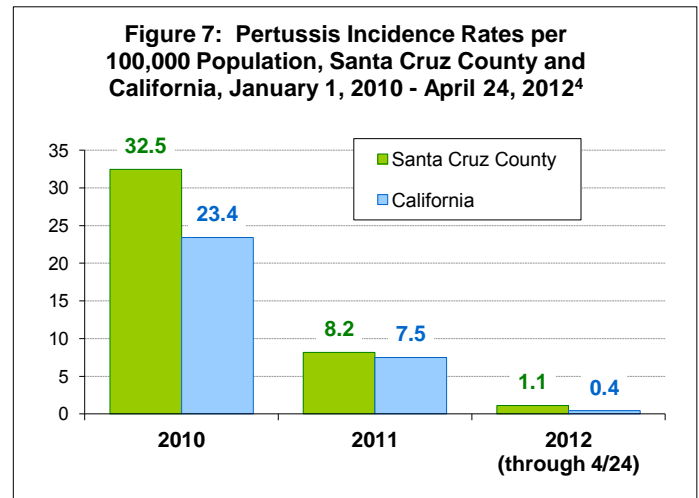
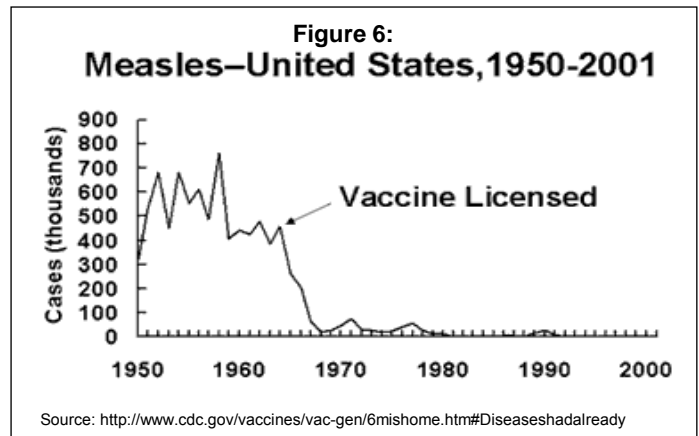


Table 1: Outbreaks by Type and Number Ill, Santa Cruz County, 2011¹

Type	# of locations	Combined # ill
Acute Gastroenteritis	8	260
Respiratory	5	211
Other (Rash, Waterborne)	2	11
Total	15	482

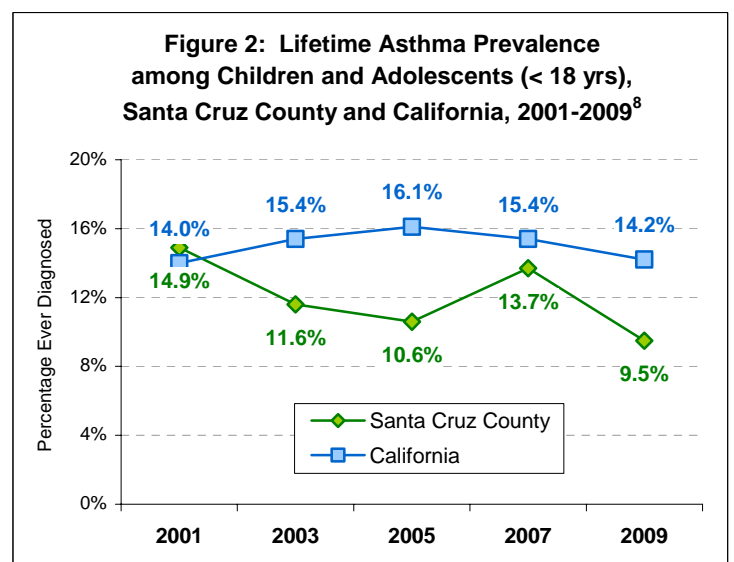
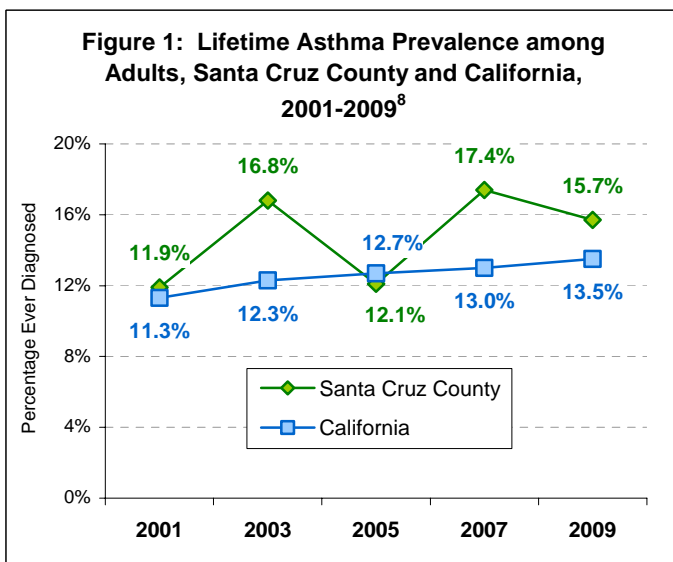
Primary Prevention Activities	CD Unit Investigations: Interviewing cases to identify potential sources, providing education to reduce spread, facilitating vaccinations or other treatments to mitigate illness, and imposing work or other restrictions to help prevent further morbidity.	
Helpful Websites	County of Santa Cruz, Communicable Disease Unit:	http://www.santacruzhealth.org/phealth/cd/3communicable.htm
	CDPH, Center for Infectious Diseases:	http://www.cdph.ca.gov/programs/cid/Pages/default.aspx
	Centers for Disease Control and Prevention:	http://www.cdc.gov
Sources	<p>(1) County of Santa Cruz, Public Health Department, Communicable Disease Unit (unpublished data). Accessed through CalREDIE on October 12, 2012.</p> <p>(2) California Department of Public Health and Conference of Local Health Officers. County Health Status Profiles 2012. http://www.cdph.ca.gov/programs/ohir/Pages/CHSP.aspx. April 2012.</p> <p>(3) California Department of Public Health, Office of AIDS. eHARS Data File for Santa Cruz County, 4th Quarter, 2012 (unpublished).</p> <p>(4) California Department of Public Health. Pertussis Report: April 24, 2012. http://www.cdph.ca.gov/programs/immunize/Documents/PertussisReport2012-04-24.pdf.</p>	

CHRONIC DISEASE ~ ASTHMA

<p>Importance</p>	<p>Asthma is one of the most common chronic diseases in the United States; 18.7 million adults (8.2%) and 7.0 million children (9.4%) currently have asthma.^{2,3} Approximately 3.7 million adults (13.7%) and 1.7 million children (13.3%) in California have been diagnosed with asthma at some point in their lives.¹ From 1997-2007, the prevalence of asthma increased, but severe outcomes from asthma decreased.¹ Asthma is the most common chronic condition among children.⁶ Nearly 5 million asthma sufferers are under age 18. It is the most common chronic childhood disease. Racial and ethnic differences in asthma prevalence, morbidity, and mortality are associated with poverty and inadequate medical care. Nine people die each day from asthma, and asthma costs our nation \$56 billion per year to treat and manage.³</p>
<p>Definitions</p>	<p><u>Asthma</u>: Asthma is a chronic inflammatory lung condition characterized by irregular periods of breathlessness, wheezing, coughing, and chest tightness.¹</p>
<p>Healthy People 2020 Objective</p>	<ul style="list-style-type: none"> Reduce asthma deaths. (Targets: No target set for children, 6.0 deaths per million for adults aged 35 to 64, and 22.9 deaths per million for adults aged 65 and older)⁷ Reduce hospitalizations for asthma. (Targets: 18.1 per 10,000 for children under age 5, 8.6 per 10,000 for children and adults aged 5 to 64, and 20.3 per 10,000 for adults aged 65 and older)⁷ Reduce hospital emergency department visits for asthma. (Targets: 95.5 per 10,000 for children under age 5, 49.1 per 10,000 for children and adults aged 5 to 64, and 13.2 per 10,000 for adults aged 65 and older)⁷

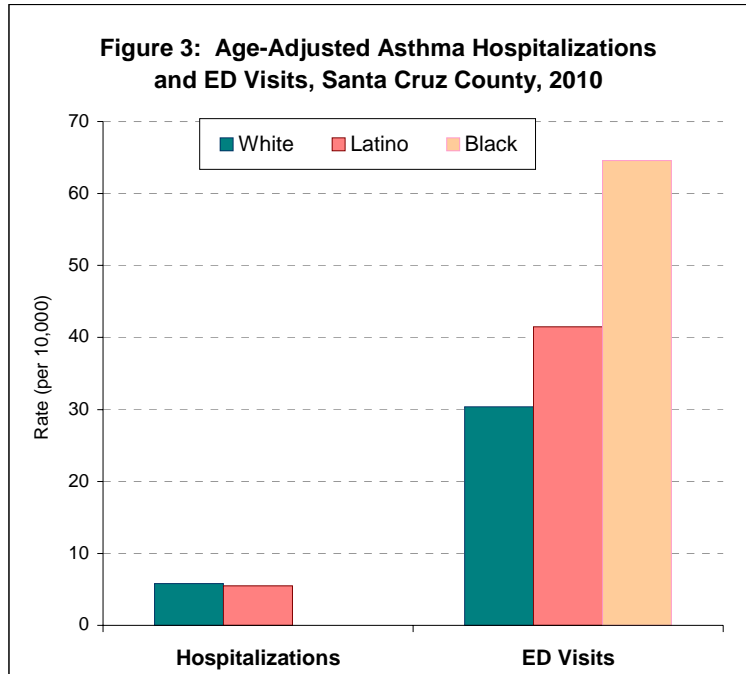
The California Health Interview Survey (CHIS) asked adults (ages 18 and older) if they had ever been diagnosed with asthma. From 2001 to 2009, Santa Cruz County rates varied, but were usually higher than California rates (see Figure 1).⁸ Both the state and county rates appeared to be trending upward, in keeping with the national trend. In 2009, about 8.9% of county residents (all ages) said that they currently have asthma after diagnosis by a physician, compared to 13.7% of all Californians.

Figure 2 shows lifetime prevalence of asthma diagnosis among children and adolescents (under 18 years old) for the state and county. Statewide levels show no trend from 2001-2009; local rates show much greater fluctuation, as is expected due to smaller sample sizes at the county level, but have generally been lower than the state and suggest a downward trend.⁸



ASTHMA

Figure 3 shows racial and ethnic disparities in the impact of asthma in Santa Cruz County.⁴ Blacks have the highest prevalence of asthma, significantly higher than other race and ethnicity groups.^{8,11} Although asthma occurs among people at all socioeconomic levels, it disproportionately affects low-income Californians, who miss more days of work and school, are more likely to have frequent asthma symptoms, and are more likely to go to the emergency department or be hospitalized for asthma care.⁹ 8.7% of Californians with incomes below 200% of the Federal Poverty Level (FPL) have current asthma, compared to 7.8% of those with incomes at or above 400% FPL.⁹ 31.9% of low-income California adults with current asthma experience asthma symptoms at least once a week, compared to just 19.3% of their higher-income counterparts.⁹ Low-income Californians with current asthma are more likely to be children and people of color.⁹



Tables 1 and 2 summarize the numbers of hospitalizations and emergency department (ED) visits due to asthma. In 2005, there were 144,945 asthma ED visits in California that did not result in an inpatient hospitalization.¹ This translates to an estimated yearly rate of 39.1 ED visits per 10,000 residents.¹ African-Americans have the highest rate of asthma ED visits (106.9 per 10,000, compared to Whites at 34.9 per 10,000).¹ Rates of asthma ED visits decrease with age, with the highest rate in the youngest age group, at 92.6 per 10,000.¹ From 1995-2005 there were over 38,000 asthma hospitalizations per year.¹ Of the people who were hospitalized for asthma in 2005, 13% were hospitalized more than once (repeat hospitalizations).¹ Asthma hospitalization rates in California have decreased slightly in the past decade and have been consistently lower than national rates.¹

African-Americans have consistently higher rates of asthma hospitalizations than any other race or ethnicity.¹ Asthma hospitalization rates are highest among children 0 to 4 years of age. In 2009, the most recent year for which data are available, asthma accounted for 3,388 deaths in the United States, 479,300 hospitalizations, 1.9 million ER visits, and 8.9 million visits to physicians' offices, the CDC said. The estimated costs to society were \$50.1 billion per year due to medical expenses, \$3.8 billion resulting from missing work and school, and \$2.1 billion from premature deaths.^{3,10}

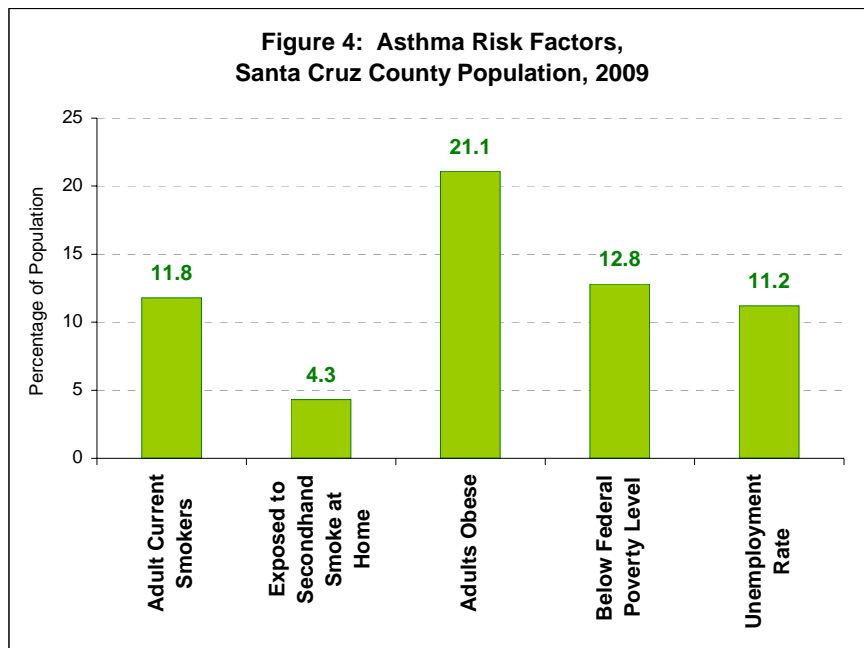
Age	Santa Cruz County		California	
	Count	Rate	Count	Rate
Children (0-4 years)	26	16.1	6,554	24.5
(5-17 years)	17	-	4,881	7.2
Total (0-17 years)	43	7.3	11,435	11.9
Adults (18-64 years)	64	3.4	13,376	5.8
(65+ years)	38	14.2	8,082	19.6
Total (18+ years)	102	5.2	21,818	8.1

ASTHMA

Age	Santa Cruz County		California	
	Count	Rate	Count	Rate
Children (0-4 years)	167	103.7	27,462	103.1
(5-17 years)	181	43.0	37,877	55.2
Total (0-17 years)	348	59.3	65,339	68.0
Adults (18-64 years)	427	23.8	84,589	35.9
(65+ years)	63	23.6	14,406	35.1
Total (18+ years)	490	23.8	98,995	35.8

ASTHMA RISK FACTORS

Some factors associated with development of asthma or triggering of asthma attacks are tobacco smoke exposure (either active smoking or secondhand smoke), obesity, poverty, and unemployment.¹ In Santa Cruz County in 2009, 11.8% of adults said that they currently smoked, while 4.3% of adults and children were exposed to second-hand smoke.⁴ 21.1% of adults were obese.⁴ 12.8% of residents had household incomes below the Federal Poverty Level.⁴ The unemployment rate in Santa Cruz County was 11.2%.



ASTHMA MANAGEMENT PLAN

National guidelines recommend that health care providers give all their patients with asthma a written self-management plan.⁴ In Santa Cruz County, 21.1% of people with asthma have **NOT** received an asthma management plan from a health care provider.⁴

ASTHMA

<p>Primary Prevention Activities</p>	<p>California Asthma Partner is managed and supported by California Breathing, a program of the California Department of Public Health. The California Department of Public Health sponsored the development of The Strategic Plan for Asthma in California, 2008-2012. The purpose of the plan is to set a direction for asthma and help make a difference in the lives of people who have asthma over the next five years.¹¹</p>	
<p>Helpful Websites</p>	<p>California Breathing</p>	<p>www.californiabreathing.org</p>
<p>Sources</p>	<p>(1) Milet M, Tran S, Eatherton M, Flattery J, Kreutzer R. <i>The Burden of Asthma in California: A Surveillance Report</i>. Richmond, CA: California Department of Health Services, Environmental Health Investigations Branch, June 2007.</p> <p>(2) Pleis JR, Lucas JW, Ward BW. Summary health statistics for U.S. adults: National Health Interview Survey, 2008. National Center for Health Statistics. <i>Vital Health Stat</i> 10(242), 2009. Centers for Disease Control and Prevention. http://www.cdc.gov/asthma/.</p> <p>(3) Santa Cruz County Asthma Profile, May 2011. www.californiabreathing.org.</p> <p>(4) Balmes J, Becklake M, Blanc P, et al. Environmental and Occupational Health Assembly, American Thoracic Society. American Thoracic Society. <i>Am J Respir Crit Care Med</i>. 2003;167:787-797.</p> <p>(5) California Department of Public Health, Environmental Health Investigations Branch, California Environmental Health Tracking Program (CEHTP). 2009. http://www.ehib.org/page.jsp?page_key=24.</p> <p>(6) U.S. Department of Health and Human Services. <i>Healthy People 2020</i>. Washington, DC: U.S. Government Printing Office. 2nd ed. 2000.</p> <p>(7) California Health Interview Survey (CHIS). http://www.chis.ucla.edu/.</p> <p>(8) Wolstein J, Meng YY, Babey SH. <i>Income Disparities in Asthma Burden and Care in California</i>. Los Angeles, CA: UCLA Center for Health Policy Research 2010.</p> <p>(9) National Health Interview Survey, National Center for Health Statistics, CDC, 2012.</p> <p>(10) California Department of Public Health. <i>Strategic Plan for Asthma in California 2008-2012</i>. February 2008. Accessed at http://www.asthmapartners.org/ (free registration required).</p>	

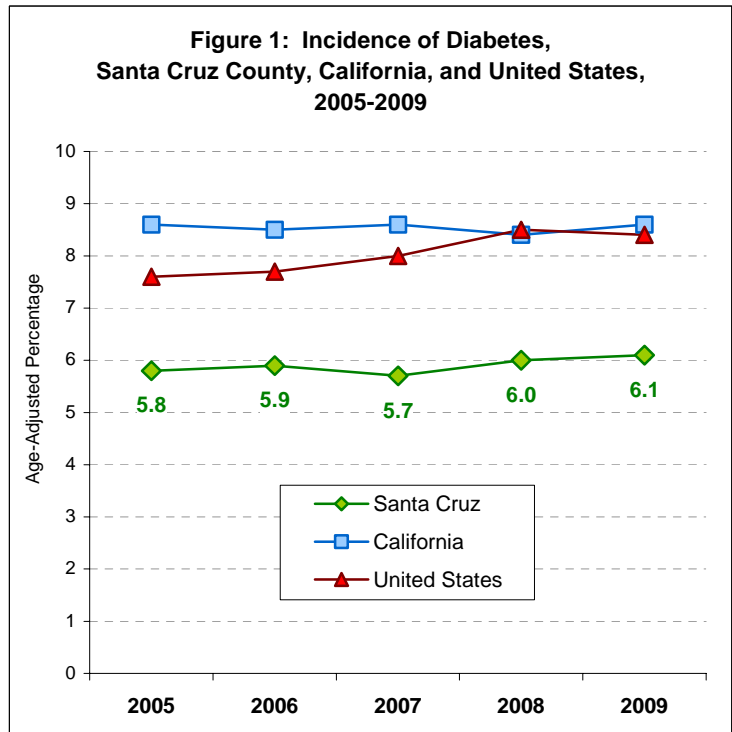
CHRONIC DISEASE ~ DIABETES

<p>Importance</p>	<p>Diabetes is the seventh leading cause of death in the United States.¹ It is a major cause of heart disease and stroke.¹ It is the leading cause of kidney failure, non-traumatic lower limb amputations, and adult-onset blindness.¹ The economic cost of diabetes in the U.S. in 2007 was estimated at \$174 billion.²</p>
<p>Definitions</p>	<p><u>Diabetes</u>: Diabetes is a group of diseases marked by high levels of blood glucose resulting from defects in insulin production, insulin action, or both.</p> <p><u>Type 1 diabetes</u>: Type 1 diabetes is usually diagnosed after sudden onset among children or young adults. It was previously called juvenile diabetes or insulin-dependent diabetes. Type 1 diabetes stems from inability to produce enough insulin. About 5-10% of American diabetes cases are Type 1.</p> <p><u>Type 2 diabetes</u>: Type 2 diabetes is usually diagnosed among adults. It tends to have gradual onset. It was previously called adult-onset diabetes or non-insulin-dependent diabetes mellitus (NIDDM). It usually begins as insulin resistance, a disorder in which the cells do not use insulin properly. As the insulin level rises, the pancreas gradually loses the ability to produce it.² Type 2 diabetes is associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical activity, and race/ethnicity.² In adults, type 2 diabetes accounts for about 90% to 95% of diagnosed cases.²</p> <p><u>Gestational diabetes</u>: Diabetes occurs during about 2-5% of all pregnancies. This type usually resolves after delivery, but frequently precedes development of Type 2 diabetes.</p>
<p>Healthy People 2020 Objective</p>	<p>“Through prevention programs, reduce the disease and economic burden of diabetes, and improve the quality of life for persons who have or are at risk for diabetes.”⁵</p> <ul style="list-style-type: none"> ▪ Reduce the annual number of new cases of diagnosed diabetes in the population to 7.2 new cases per 1,000 population aged 18 to 84 years.⁵ ▪ Reduce the diabetes death rate to 65.8 deaths per 100,000 population.⁵ ▪ Increase the proportion of persons with diagnosed diabetes who receive formal diabetes education to 62.5 percent.⁵

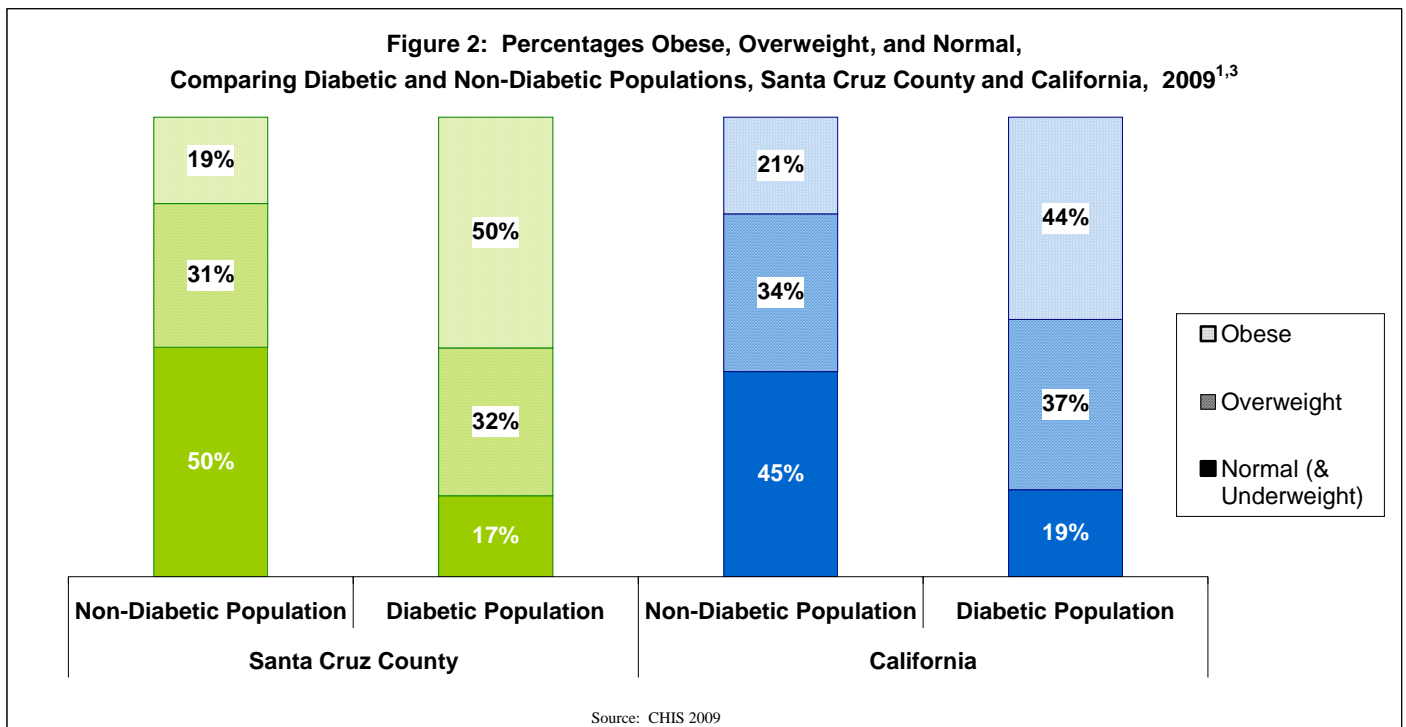
It is estimated that 25.8 million people of all ages in the United States (8.3%) have diabetes, an increase of more than 3 million in two years.¹ In 2010, nearly 1.9 million new cases of diabetes were diagnosed in people ages 20 years or older.¹ It was estimated that in 2010 there were 79 million Americans aged 20 years or older with prediabetes.¹ If the diabetes trend continues unchanged, one out of three children born in 2000 will develop diabetes.² Type 2 diabetes used to be uncommon in children, but the frequency of diagnosis of type 2 diabetes in children and adolescents is increasing at an alarming rate. The incidence of type 2 diabetes in adolescents has increased 10-fold over the last decade.²

DIABETES

Figure 1 illustrates the trends in diabetes incidence rates among adults (≥ 20 years) from 2005 to 2009 on a national, state, and local level. Rates in Santa Cruz County have consistently been lower than state and national rates. The nation is in the midst of an unprecedented epidemic of diabetes. Far more adults and children have the disease than ever before.⁶ The increase in diabetes among adults and the emergence of type 2 diabetes in children are associated with the dramatic rise in obesity and overweight in recent years.⁶ From 1991 to 2001, obesity among adults rose 74% nationally; by 2001, 65% of adults in the U.S. were overweight or obese, including 59% of Californians.^{8,9} The risk of developing diabetes increases with weight; a gain of 11 to 18 pounds doubles the risk of developing diabetes.^{8,9} Of people diagnosed with type 2 diabetes, 80 to 90 percent are overweight or obese.² Figure 2 compares the percentages of overweight and obesity among diabetic populations versus non-diabetic populations.



The prevalence of diabetes may be up to twice as high in low-income populations as in high-income populations.⁷ In patients with diabetes, low income is associated with an increased rate of hospitalizations for acute diabetes-related complications.⁷



DIABETES

Figure 3 compares the health status among the diabetic population and the general population in Santa Cruz County. Data was obtained by the California Health Interview Survey (CHIS) 2005. Many diabetic complications (35-75%) can be attributed to hypertension.¹⁰ The prevalence of hypertension among diabetics is twice as high as among non-diabetics.^{10,11} Successful management of hypertension reduces the progression of diabetic renal disease and vascular disease.¹⁰

Figure 4 describes general risk factors for the development of diabetes. A recent study showed that as smoking increased, the rates of diabetes had also increased for both men and women.¹³ Smoking more than two packs of cigarettes per day increased the diabetes rate by 45% for men and 74% for women.¹³ Moreover, adults with less than a high school education had a higher rate (13.0%) of developing diabetes than any other educational level.¹⁴ Overweight or obese adults were 7.37 times more likely to develop diabetes than adults with normal weight.¹⁴ Obesity and diabetes among U.S. adults continue to rise in both sexes, all ages, all races, all educational levels, and all smoking levels.¹⁴ Both obesity and type 2 diabetes are preventable. Changes in lifestyle are effective in preventing both diabetes and obesity. Increasing physical activity, improving diet, and sustaining these lifestyle changes can reduce both body weight and the risk of developing diabetes.¹⁴

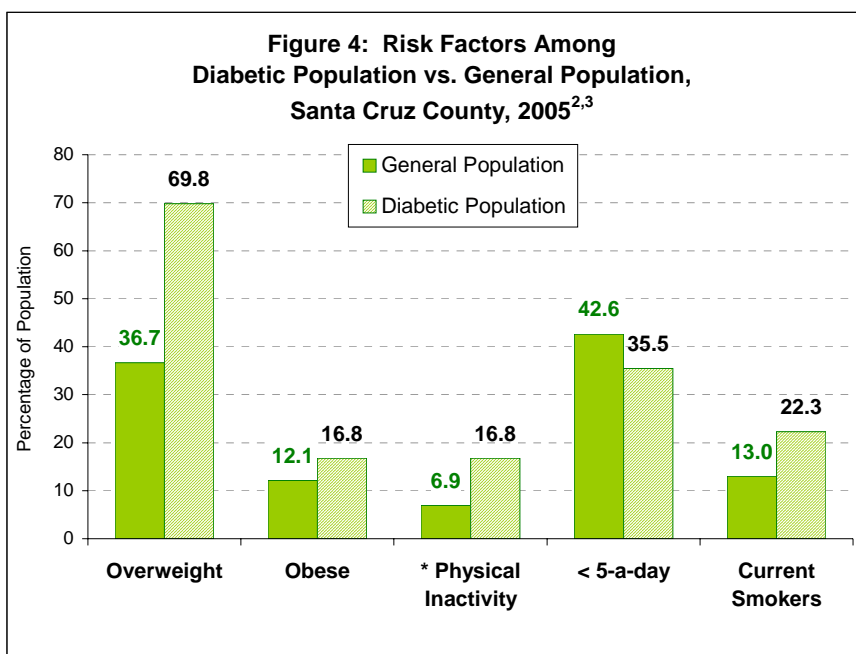
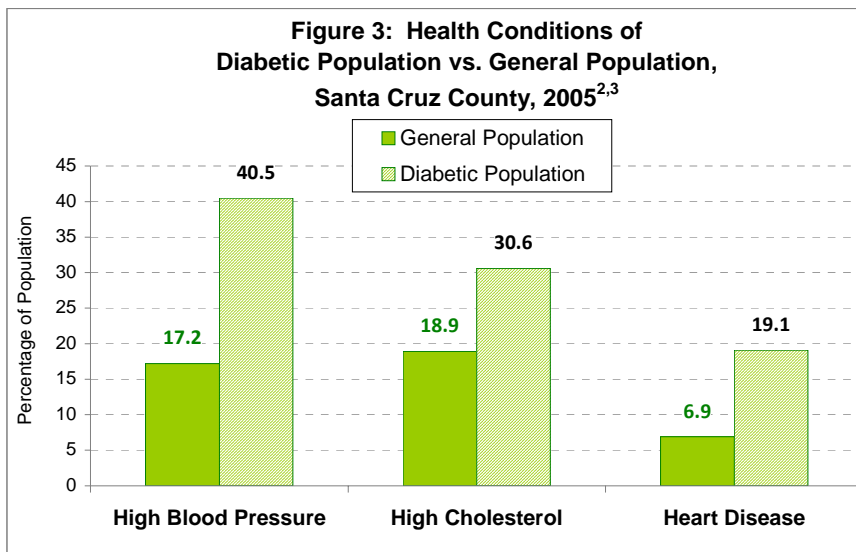


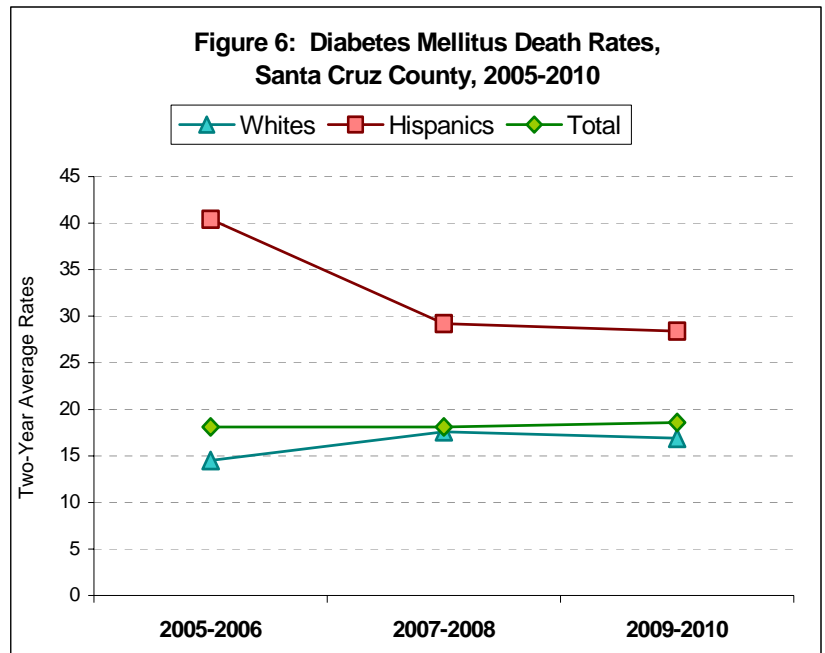
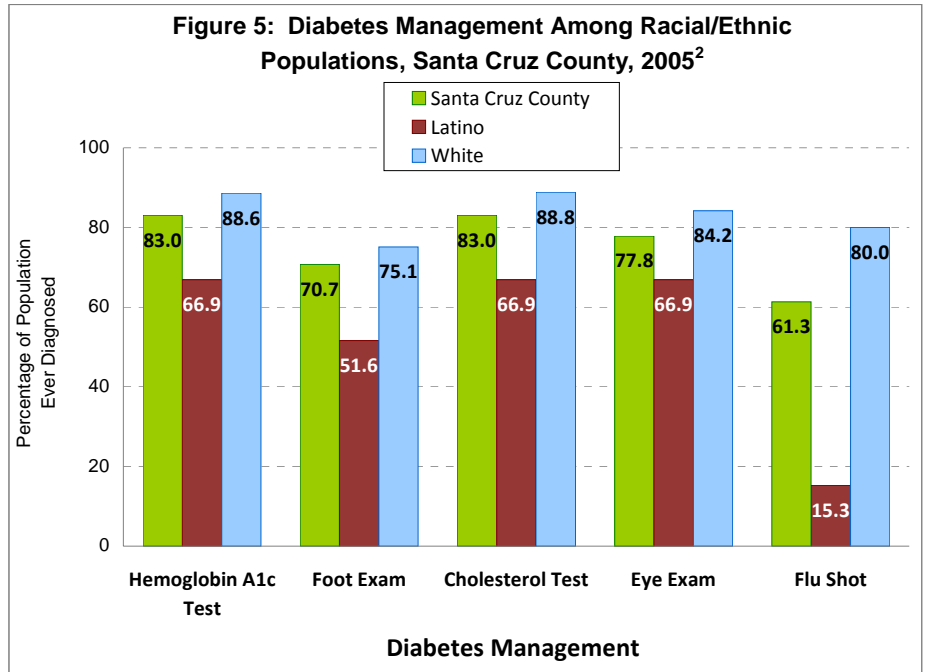
Figure 5 reflects quality of health care for diabetic patients, by race/ethnicity, showing the proportions of diabetic patients who receive the medical exams and tests they should under the proper standards of care.

DIABETES

CHIS survey data from 2003-2009 show an average prevalence of lifetime diagnosed diabetes of 3.6% among non-Hispanic White Santa Cruz County adults (at least 20 years of age), compared to 8.6% among Hispanics.³ Statewide rates were higher, averaging 6.3% for Whites and 9.5% for Hispanics. Nationwide, Hispanics are 1.7 times more likely to develop diabetes than non-Hispanic Whites.¹⁶ Hispanics have a higher prevalence of diabetes, more complications, and worse outcomes than non-Hispanic Whites.¹⁸ Diabetes is the seventh leading cause of death nationwide, but it's the fifth leading cause of death among Hispanics in the United States, with death rates 60% higher than among non-Hispanic Whites.^{1,2} Appropriate health care for diabetes among the Hispanic population is essential, since they are disproportionately affected by diabetes and tend to have more serious complications with worse health outcomes. Moreover, Hispanic diabetics reported poorer health-related quality of life than non-Hispanic White diabetics.¹⁸

COMPLICATIONS OF DIABETES

Figure 6 illustrates death rates from diabetes. Diabetes can lead to blindness, kidney damage, cardiovascular disease, and lower-limb amputations.³ Diabetes is the leading cause of new cases of blindness among adults.^{1,3,22} Diabetes is the leading cause of kidney failure, accounting for 44% of all new cases in 2005.^{1,3,22} More than 60% of non-traumatic lower-limb amputations occur in people with diabetes.^{1,4,19} Persons with poorly controlled diabetes (A1c > 9%) were three times more likely to have severe periodontitis than those without diabetes.^{1,3,22} Diabetics are more likely to die with pneumonia or influenza than people who do not have diabetes.^{1,3} People with diabetes are three times as likely to die of cardiovascular diseases. Smoking and diabetes together make a person 11 times more likely to die of a heart attack or stroke.^{12,22} Diabetes mellitus (DM) has been associated with increased rates of infection, which may be partially explained by a decreased T cell-mediated immune response.²⁰ People with diabetes can lower the occurrence of these and other diabetes complications by controlling blood glucose, blood pressure, and blood lipids.²



DIABETES

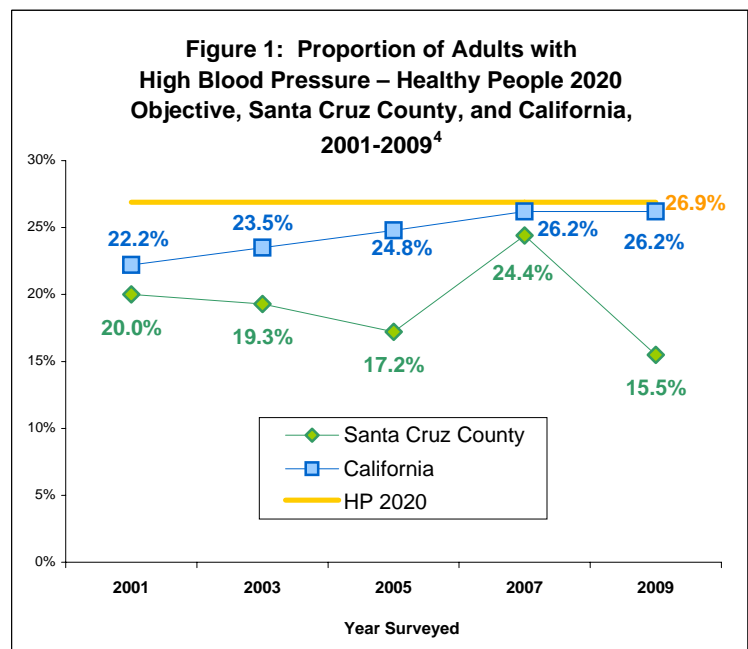
<p>Primary Prevention Activities</p>	<p>Regional Diabetes Collaborative (RDC). The mission of the RDC is to promote, support, and coordinate efforts to prevent and manage diabetes in Santa Cruz, San Benito, and Monterey Counties. The Regional Diabetes Collaborative was founded in 2002. For more information, please consult their website: www.pyhealthtrust.org.²⁰</p> <p>Go for Health! is a broad-based collaborative in Santa Cruz County with over 150 members. The collaborative was first convened in August 2003 by the United Way of Santa Cruz County, the Children’s Network, the Children’s Food and Fitness Coalition, and the Pajaro Valley Health Trust to address the childhood obesity crisis in Santa Cruz County. Go for Health’s goal is to increase healthy eating and regular physical activity among children and youth in Santa Cruz County.²¹</p>
<p>Sources</p>	<ol style="list-style-type: none"> 1. CDC’s Division of Diabetes Translation. National Diabetes Surveillance System. http://www.cdc.gov/diabetes/statistics. 2. Centers for Disease Control and Prevention. “National diabetes fact sheet: national estimates and general information on diabetes and pre-diabetes in the United States, 2011.” Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011. 3. California Health Interview Survey (CHIS). http://ask.chis.ucla.edu/. 4. California Diabetes Program (a partnership between the California Department of Public Health and the University of California San Francisco). “Diabetes in California Counties.” 2009. www.caldiabetes.org. 5. US Department of Health and Human Services. <i>Healthy People 2020: Understanding and Improving Health</i>. 2nd ed. Washington, DC, 2000. http://www.healthypeople.gov/document/html/objectives/19-02.htm. 6. California Center for Public Health Advocacy. http://www.publichealthadvocacy.org/resources_diabetes.html. 7. Rabi, D.M., Edwards, A.L., Southern, D.A., et al. “Association of socio-economic status with diabetes prevalence and utilization of diabetes care services.” <i>BMC Health Services Research</i>. 2006; 6:124 8. CDC, <i>Physical Activity and Good Nutrition, 2003</i>. 9. CDC, <i>MMWR</i>. August 22, 2003; Vol 52:No. SS-8. 10. Saydah, S.H., Fradkin, J., Cowie, C.C. “Poor Control of Risk Factors for Vascular Disease Among Adults with Previously Diagnosed Diabetes.” <i>JAMA</i> 2004; 291(3):35-342. 11. Epstein, M, Sowers, J.R. “Diabetes Mellitus and Hypertension.” <i>Hypertension</i> 1992; 19:403-418. 12. American Diabetes Association. http://www.diabetes.org/diabetes-basics/diabetes-statistics/. 13. Will, J.C., Galuska, D.A., Ford, E.S. et al. “Cigarette Smoking and Diabetes Mellitus: Evidence of a Positive Association from a Large Prospective Cohort Study.” <i>International Journal of Epidemiology</i>. 2001; 30: 540-546. 14. Mokdad, A.H., Ford, E.S., Bowman, B.A., et al. “Prevalence of Obesity, Diabetes, and Obesity-Related Health Risk Factors.” 2001. <i>JAMA</i>; 2003; 289(1):76-79. 15. DATA2010 (May 2008), Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP. 16. National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Statistics, 2007 fact sheet. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, 2008. 17. US Department of Health and Human Services Office of Minority Health. http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=3&lvlid=62. 18. Mainous, A.G., Diaz, V.A., Koopman, R.J., Everett, C.J. “Quality of care for Hispanic adults with diabetes.” <i>Fam Med</i> 2007; 39(5):351-6. 19. Muller, L.M.A.J., Gorter, K.J., Hak, E. et al. “Increased Risk of Common Infections in Patients with Type 1 and Type 2 Diabetes Mellitus.” <i>Clinical Infectious Diseases</i>, 2005;41:281-8. 20. Pajaro Valley Community Health Trust, Regional Diabetes Collaborative. 2002. http://www.pyhealthtrust.org/rdc.php. 21. Community Assessment Project of Santa Cruz County. 2003. http://www.santacruzcountycap.org/Health-ObesityGoal.html. 22. Diabetes Monitor. Information, education, support for people with diabetes. http://www.diabetesmonitor.com/b56.htm. 23. California Department of Public Health, Vital Statistics Query System. http://www.apps.cdph.ca.gov/vsq/default.asp.

CHRONIC DISEASE ~ HEART DISEASE & STROKE

<p>Importance</p>	<p>In the United States, more than 1 in 3 adults, or 81.1 million people, are living with one or more types of cardiovascular disease. Not only are heart disease and stroke the first and third leading causes of death, but they can also result in serious illness and disability, decreased quality of life, as well as hundreds of billions of dollars in economic loss every year – an estimated \$500 billion in 2010 alone.¹ Approximately every 25 seconds, an American has a coronary event, and approximately every minute, someone dies of one; approximately every 40 seconds, someone in the United States has a stroke.²</p>
<p>Definitions³</p>	<p><u>Hypertension</u>: also known as high blood pressure (the force of pressure upon artery walls as blood circulates throughout the body), is measured in two parts: the first number (systolic) represents the pressure when your heart beats, and the second number (diastolic) represents the pressure when your heart rests between beats. High blood pressure is systolic ≥ 140 mmHg or diastolic ≥ 90 mmHg.</p> <p><u>CARDIOVASCULAR DISEASE (CVD)</u>: heart and blood vessel diseases, also called heart disease. Common cardiovascular diseases include:</p> <ul style="list-style-type: none"> - <u>Coronary artery disease (CAD)</u>: also called coronary heart disease (CHD), the most common cause of CVD, occurs when plaque builds up in the arteries that supply blood to the heart (atherosclerosis). Plaque is made up of cholesterol deposits, which can accumulate in the arteries. - <u>Cerebrovascular Disease or Stroke</u>: occurs when blood vessels that feed the brain are either blocked (ischemic stroke, the most common type) or when a blood vessel bursts (hemorrhagic stroke, usually caused by hypertension). - <u>Heart Failure</u>: occurs when the heart is not pumping blood as well as it should. - <u>Arrhythmia</u>: abnormal rhythm of the heart; irregular (fast or slow) heartbeats. - <u>Heart Valve Problems</u>: valves do not open enough for proper blood flow.
<p>Healthy People 2020</p>	<p>Reduce:</p> <ul style="list-style-type: none"> - Coronary heart disease-related deaths to 100.8 per 100,000 population, age-adjusted (HDS-2) - Stroke deaths to 33.8 per 100,000 population, age-adjusted (HDS-3) - Proportion of adults with hypertension to 26.9% (HDS-5)

Heart disease and stroke are among the most widespread and expensive health problems in the nation today. Fortunately, they are also among the most preventable, due to their modifiable risk factors: high blood pressure, high cholesterol, cigarette smoking, diabetes, unhealthy diet, physical inactivity, and obesity. All persons can lower their risk of heart disease and stroke by addressing these risk factors.

Hypertension, or high blood pressure, is a serious condition that can lead to cardiovascular disease. Every other year since 2001, the California Health Interview Survey has asked California adults, "Has a doctor ever told you that you have high blood pressure?" Santa Cruz County residents have been consistently less likely than their statewide counterparts to respond "yes" (see Figure 1).⁴



HEART DISEASE & STROKE

HEART DISEASE

The term heart disease refers to several types of heart conditions. In the United States, coronary artery disease (also known as coronary heart disease) is the most common type of heart disease, which can lead to a heart attack, angina, heart failure, or arrhythmias. State and County rates of hearts disease appear to have been trending downward between 2001 and 2009 (see Figure 2).

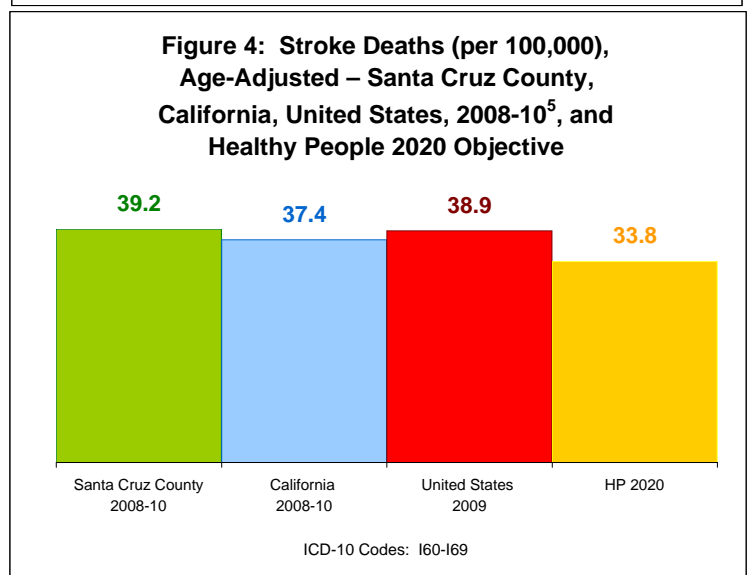
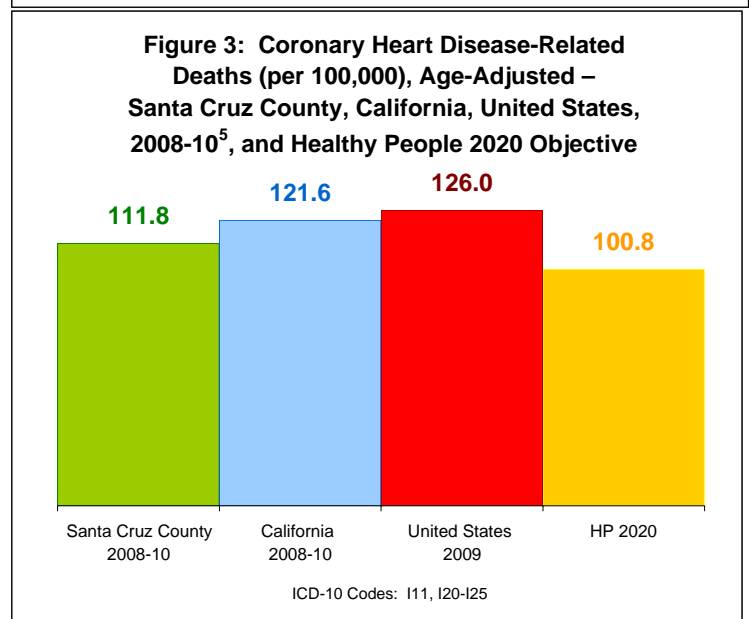
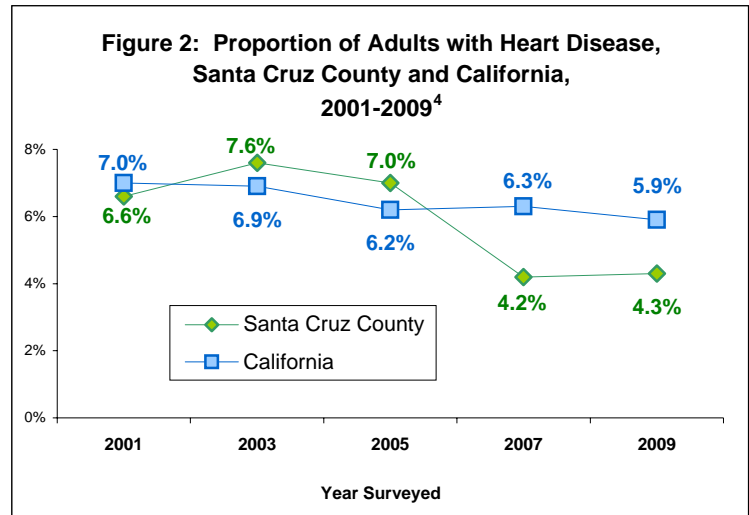
Heart disease is the leading cause of death in Santa Cruz County, California, and the nation.¹ From 2008 to 2010, an average of 265 Santa Cruz County residents per year died of heart disease.⁵ Santa Cruz County ranked 32nd out of 58 counties in the state for the lowest coronary heart disease death rate, although the county's rate was lower than the statewide rate. Figure 3 shows higher rates in California and the United States, and shows that none of the three geographies have reached the Healthy People 2020 objective.

STROKE

Stroke, or cerebrovascular disease, sometimes called a brain attack, can cause death, disability (such as paralysis), speech difficulties, and sometimes emotional problems. Although stroke risk increases with age, strokes can occur at any age.

In Santa Cruz County, there was an average of 89 deaths due to stroke per year from 2008 to 2010.⁵ Santa Cruz County had the 33rd lowest stroke death rate out of 58 counties in the state. Figure 4 shows similar rates in California and the United States, and again none of the three geographies has reached the Healthy People 2020 objective.

For most detailed information on cardiovascular diseases, source number 2 is highly recommended. It is published every year and covers risk factors, morbidity, and mortality data.



HEART DISEASE & STROKE

Primary Prevention Activities	Million Hearts: a national initiative to prevent 1 million heart attacks and strokes over five years. Million Hearts brings together communities, health systems, nonprofit organizations, federal agencies, and private-sector partners from across the country to fight heart disease and stroke.	
Helpful Websites	CDPH, Heart Disease and Stroke Prevention Program	http://www.cdph.ca.gov/programs/cvd/Pages/default.aspx
	American Heart Association	http://www.heart.org/HEARTORG/
	National Heart Lung and Blood Institute; Heart Disease	http://www.nhlbi.nih.gov/health/health-topics/topics/hd/
	CDC, Division for Heart Disease and Stroke Prevention:	http://www.cdc.gov/dhdsp/
Sources	<p>(1) Heart Disease and Stroke - Healthy People 2020. 5 Dec., 2012. http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=21.</p> <p>(2) Roger VL, et al. "Heart Disease and Stroke Statistics--2011 Update: A Report From the American Heart." <i>Circulation</i>. 2011; 123:e18-e209. doi: 10.1161/ CIR.0b013e3182009701 http://circ.ahajournals.org/content/123/4/e18.full.pdf+html.</p> <p>(3) American Heart Association. "What is Cardiovascular Disease (Heart Disease)?" http://www.heart.org/HEARTORG/Caregiver/Resources/WhatisCardiovascularDisease/What-is-Cardiovascular-Disease-Heart-Disease_UCM_301852_Article.jsp.</p> <p>(4) California Health Interview Survey 2001-2009. "Ask CHIS." http://www.chis.ucla.edu.</p> <p>(5) California Department of Public Health and California Conference of Local Health Officers. <i>County Health Status Profiles 2012</i>. http://www.cdph.ca.gov/programs/ohir/Pages/CHSP.aspx. April 2012.</p>	

CHRONIC DISEASE ~ CANCER

Importance	Cancer is the second leading cause of death among adults in the United States. ^{1,2} In the United States, men have slightly less than a 1 in 2 lifetime risk of developing cancer, while the risk for women is a little more than 1 in 3. ² The National Cancer Institute estimates that approximately 12 million Americans with a history of cancer were alive in January 2008. ² About 1,638,910 new cancer cases were expected to be diagnosed in 2012, and approximately 577,190 Americans were expected to die of cancer. ^{2,3,4} In the United States, cancer accounts for nearly 1 in 4 deaths. ^{2,3,4}
Definitions	<p>Cancer: A term for diseases in which abnormal cells divide without control and can invade other tissues. Cancer cells can spread to other parts of the body through the blood and lymph systems.⁷ There are more than 100 different types of cancer.⁷ There are several main categories of cancer. Carcinomas are cancers that begin in the skin or in tissues that line or cover internal organs. Sarcomas are cancers that begin in bone, cartilage, fat, muscle, blood vessels, or other connective or supportive tissue. Leukemias are cancers that start in the blood-forming tissues such as the bone marrow, and cause large numbers of abnormal blood cells to be produced and enter the blood. Lymphomas and multiple myelomas are cancers that begin in the cells of the immune system. Central nervous system cancers begin in the tissues of the brain and spinal cord.⁷</p> <p>Lifetime risk: The likelihood of an event occurring at any point in a person's entire lifetime.⁸</p>
Healthy People 2020 Objective⁹	<p>"Reduce the number of new cancer cases as well as the illness, disability, and death caused by cancer."</p> <ul style="list-style-type: none"> ▪ Reduce the overall cancer death rate. (Target 160.6 deaths per 100,000 population, a 10% improvement) ▪ Increase the proportion of cancer survivors who are living 5 years or longer after diagnosis. (Target 72.8%, a 10% improvement)

Over 1.2 million Californians have a history of cancer, presently living either with cancer or with no evidence of cancer.⁸ In 2012, about 144,800 Californians will be diagnosed with cancer (more than 16 new cases every hour), and 55,415 people (one in every four deaths) will die of the disease.⁸ Almost 94,120 (about two out of three) Californians who get cancer this year will be alive five years after diagnosis.⁸ The relative five-year survival rate for all cancers combined is 65%.⁸

Table 1 describes the annual incidence of new cancer cases and cancer deaths in California and Santa Cruz County between 2007 and 2009.¹⁰ Santa Cruz County has low rates for lung and colon cancer incidence, ranking among the 8 lowest rates of the 47 counties/county-areas. However, Santa Cruz County ranks 5th worst in the state for deaths from breast cancer and 3rd worst in the state for new cases of prostate cancer.¹⁰

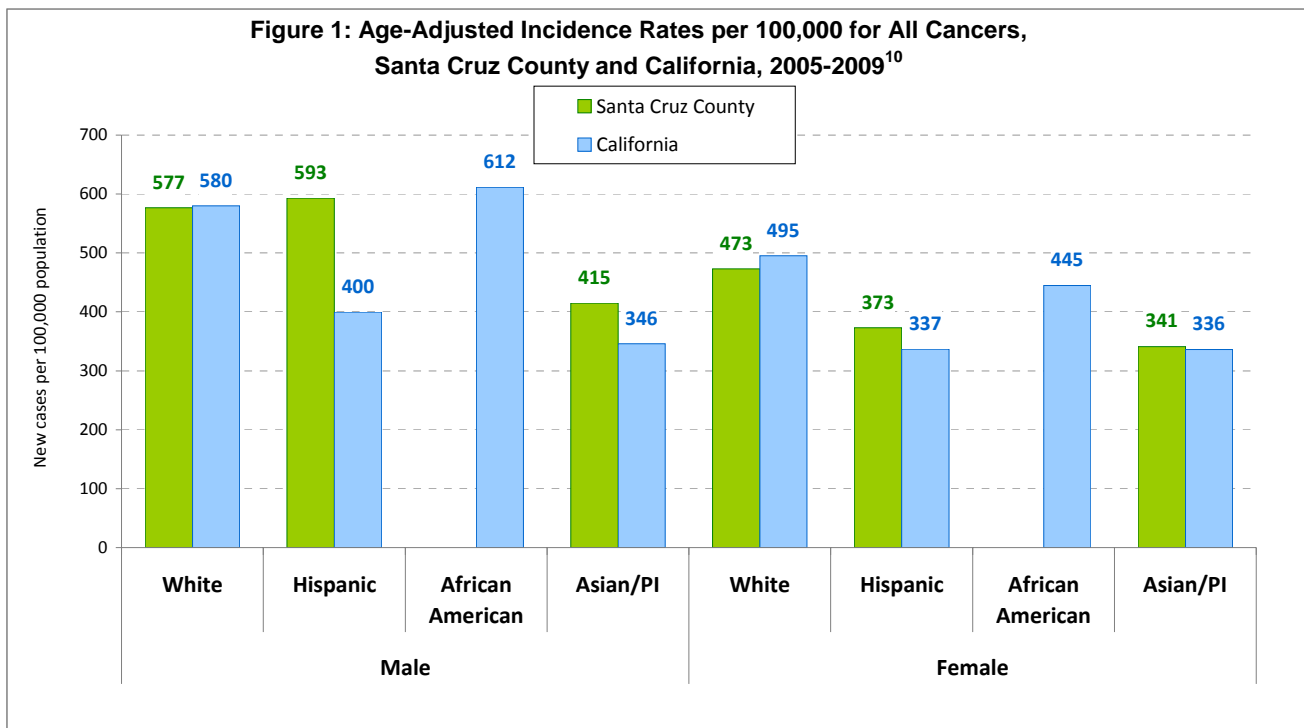
	Incidence Rate per 100,000				Mortality Rate per 100,000			
	Prostate	Breast*	Lung	Colon	Prostate	Breast*	Lung	Colon
Santa Cruz County	188.7	149.8	45.3	39.1	18.8	25.7	36.6	13.2
California	141.7	154.4	51.2	45.3	22.7	21.9	38.7	14.7
State Rank (among 47 counties and county groups)	45	24	4	8	5	43	13	14

*Breast=female breast cancer only

CANCER

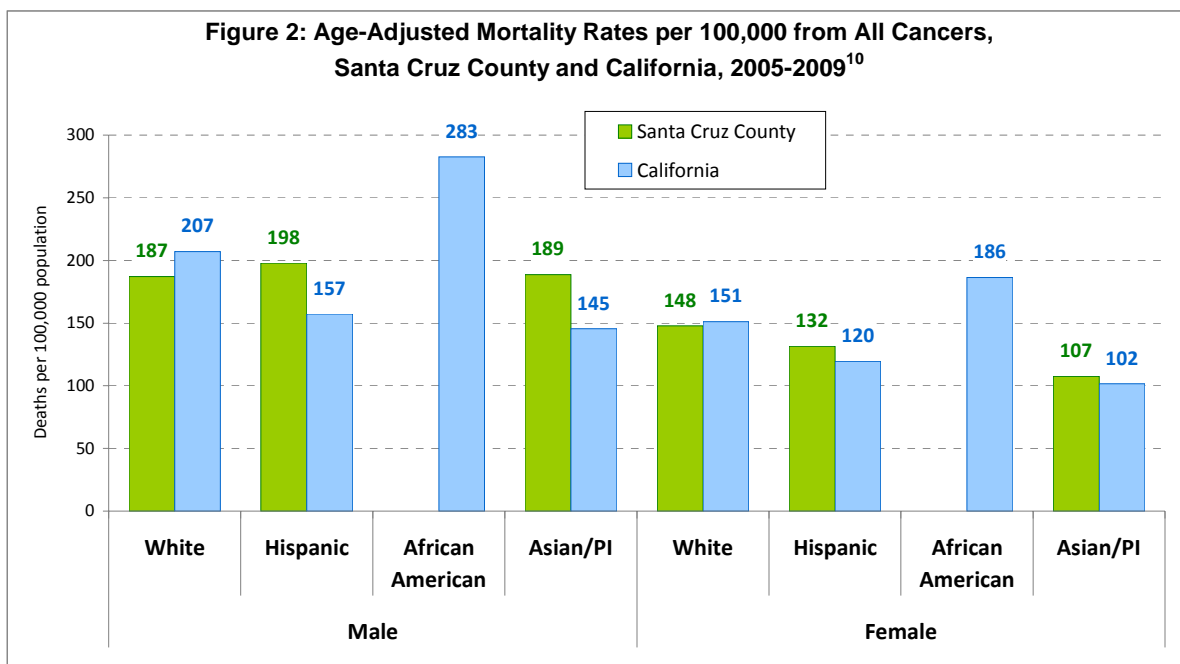
The female breast cancer incidence rate in California decreased by 7% from 1988-2009, and mortality decreased by 30%.⁸ New diagnoses of prostate cancer increased by 72% from 1988 to 1992, with the rapid growth of PSA testing, but have since declined almost to the 1988 level; prostate cancer mortality, on the other hand, declined substantially throughout the period from 1988 to 2009.⁸ The incidence rates of colon and rectal cancers are declining in most racial/ethnic groups.⁸ The most commonly diagnosed cancers among men are cancers of the prostate, lung and bronchus, and colon and rectum, accounting for about half of new cancer cases in men.¹¹ Prostate cancer accounts for 29% of all newly diagnosed cancer cases among men. The most commonly diagnosed cancers among women are cancers of the breast, lung and bronchus, and colon and rectum, accounting for about half of new cancer cases in women.¹¹ Breast cancer accounts for 29% of all newly diagnosed cancer cases among women.¹¹

California's all-cancers incidence rate declined by 11% from 1988-2009.⁸ Incidences of most types of cancer in California are about the same as or lower than elsewhere in the United States.⁸ In 2005-2009, all-cancers incidence rates in Santa Cruz County were higher than state rates among Hispanics and Asians, but slightly lower than state rates among non-Hispanic Whites¹⁰ (Figure 1). Rates were much higher among males than among females. There are too few African Americans in Santa Cruz County to generate meaningful local cancer incidence data. California cancer incidence rates for Asian/Pacific Islanders, African Americans, and Whites were 1-3% lower than the corresponding national rates. Hispanics in California had a nearly 9% lower incidence rate than Hispanics nationwide.⁸



CANCER

Figure 2 presents all-cancers mortality rates for Santa Cruz County and California from 2005-2009. Cancer mortality rates were higher among males than among females. Santa Cruz County cancer mortality rates were higher than statewide rates for Hispanics and Asians, but slightly lower than statewide rates for Whites. There are too few African Americans in Santa Cruz County to generate meaningful local cancer incidence data. From 1988 to 2009, cancer mortality rates declined by 23%, and declined for all four major racial/ethnic groups in the state.⁹ Cancer incidence and mortality rates vary considerably among racial and ethnic groups.¹¹ Nationwide, for all cancer sites combined, between 2004-2008, African American men had a 15% higher incidence rate and a 33% higher mortality rate than White men, whereas African American women had a 6% lower incidence rate but a 16% higher mortality rate than White women.¹¹ For specific cancer sites, incidence and mortality are consistently higher in African Americans than in Whites, except for cancers of the breast and lung among women, and kidney among both men and women.¹¹



CANCER DISPARITIES

Factors that contribute to cancer mortality racial disparities vary by cancer site and include differences such as income, exposure to risk factors, access to regular screening, and timely diagnosis and treatment.¹¹ For all cancer sites combined, residents of poorer counties (those where at least 20% of the population is below the poverty line) have cancer death rates 13% higher in men and 3% higher in women compared with more affluent counties.¹² Differences in cancer survival account for part of this disparity. Socioeconomic factors such as poverty, inadequate education, and lack of health insurance appear to be far more important than biological differences. In 1991, the director of the US National Cancer Institute (NCI) declared, “Poverty is a carcinogen.”¹² Socioeconomic factors influence cancer risk factors, such as tobacco use, poor nutrition, physical inactivity, and obesity. Income, education, and health insurance coverage influence access to appropriate early detection, treatment, and palliative care.¹²

Table 2, on the next page, describes the estimated numbers of cases and deaths expected in California and Santa Cruz County during 2012. For Santa Cruz County, almost 600 new cases and 200 deaths from prostate, breast, lung, and colon cancer are expected to occur in 2012. For California, about 75,000 new cases and 25,500 deaths from those four cancers are expected to occur in 2012.

CANCER

These estimates serve as a way to anticipate the future cancer burden.⁸ These numbers can be reduced by utilizing cancer prevention and screening methods. The reduction in overall cancer death rates since 1990 in men and since 1991 in women translates to the avoidance of about 1,024,400 deaths from cancer so far.¹¹

	Expected New Cases of Cancer				Expected Deaths by Cancer			
	Prostate	Breast**	Lung	Colon	Prostate	Breast**	Lung	Colon
Santa Cruz County (8)	215	175	100	85	20	35	90	35
California (8)	20,195	23,280	16,540	14,530	3,085	4,335	13,045	5,120

* These projections are offered as a rough guide and should not be regarded as definitive
 **Breast=female breast cancer only

Primary Prevention Activities	<p>American Cancer Society: Free transportation for cancer patients to doctor appointments in Santa Cruz County. www.cancer.org Available 24/7 1-800-227-2345</p> <p>WomenCARE: Their mission is to provide free cancer advocacy, resources, education, and support to women, their families, and health care practitioners for all types of cancer. http://www.womencaresantacruz.org/.</p> <p>Katz Cancer Resource Center: Among their many services, they provide support and classes facilitated by certified oncology nurses to patients, their families, and their friends at no charge. http://www.dominicanhospital.org/cancercare.</p> <p>Santa Cruz County Prostate Cancer Support Group: They hold meetings at 7pm the last Tuesday of every month, except for December, for men with prostate cancer and their loved ones. http://www.scprostate.org/.</p>
Sources	<p>(1) Centers for Disease Control and Prevention, Lance Armstrong Foundation. <i>A National Action Plan for Cancer Survivorship: Advancing Public Health Strategies</i>.</p> <p>(2) American Cancer Society. <i>Cancer Facts and Figures 2012</i>. Atlanta: American Cancer Society; 2012.</p> <p>(3) Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds.). <i>SEER Cancer Statistics Review, 1975-2009 (Vintage 2009 Populations)</i>, National Cancer Institute. Bethesda, MD. http://seer.cancer.gov/csr/1975_2009_pops09/, based on November 2011 SEER data submission, posted to the SEER web site, April 2012.</p> <p>(4) US Cancer Statistics Working Group. <i>United States Cancer Statistics: 1999-2006</i>. Incidence and Mortality Web-Based Report. Department of Health & Human Services, Center for Disease Control and Prevention and National Cancer Institute; 2010. http://www.cdc.gov/uscs.</p> <p>(5) Cancer Trends Progress Report – 2011/2012 update, National Cancer Institute, NIH, DHHS, Bethesda, MD, August 2012. http://progressreport.cancer.gov.</p> <p>(6) California Prevention Institute of California. <i>2010 Report: The State of Cancer in the Greater Bay Area</i>. http://www.cpic.org/2010ReportGBA.</p> <p>(7) National Cancer Institute, United States National Institutes of Health. http://www.cancer.gov/cancertopics/what-is-cancer.</p> <p>(8) American Cancer Society, California Department of Public Health, California Cancer Registry. <i>California Cancer Facts and Figures 2012</i>. Oakland, CA: American Cancer Society, California Division, September 2011. http://www.ccrca.org/pdf/Reports/ACS_2012.pdf.</p> <p>(9) Healthy People 2020. http://www.healthypeople.gov/2020/default.aspx.</p> <p>(10) California Cancer Registry. Cancer Incidence and Mortality Rates in California, 2005-2009. http://www.cancer-rates.info/ca, accessed November 2012.</p> <p>(11) Siegel, R., Naishadham, D., Ahmedin. "J. Cancer Statistics, 2012. CA: A Cancer Journal for Clinicians. 2012; 62; 10-29. http://onlinelibrary.wiley.com/doi/10.3322/caac.20138/pdf.</p> <p>(12) Ward, E., Jemal, A., Cokkinides, V. et al. "Cancer Disparities by Race/Ethnicity and Socioeconomic Status," 2004. <i>A Cancer Journal for Clinicians</i>. 54;78-93.</p>

MORTALITY

<p>Importance</p>	<p>The mortality rate is one of the fundamental measures of the health of a population. Examining the frequencies of the various causes of death in a population can help us identify opportunities for intervention to reduce illness, injury, and death. Years of Potential Life Lost is an especially useful indicator of early mortality. Infant mortality is an important measure of a nation's health and a worldwide indicator of health status and social well-being.</p>
<p>Definitions</p>	<p><u>Years of Potential Life Lost</u>: the number of years between a person's age at death and an age (often set at 75) 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 impact of death at early age.</p> <p><u>Unintentional injury</u>: an accidental injury – one that is not inflicted by deliberate means and not intended to harm anyone, regardless of whether the injury was inflicted by oneself or by another person: e.g., motor vehicle crashes, drownings, fires, falls, poisonings, and accidental firearm fatalities. Does not include intentional injuries such as homicides and suicides. Cases of unknown or undetermined intent are usually classified as unintentional injuries.</p>
<p>Healthy People 2020 Objectives</p>	<ul style="list-style-type: none"> ▪ Reduce motor vehicle accident fatalities to 12.4 per 100,000 population (age-adjusted). ▪ Reduce drug-induced deaths to 11.3 per 100,000 population (age-adjusted). ▪ Reduce homicides to no more than 5.5 per 100,000 population (age-adjusted). ▪ Reduce suicides to no more than 10.2 per 100,000 population.

In Santa Cruz County, the age-adjusted rate of death from all causes was 676.7 deaths per 100,000 population, for the period 2008 through 2010.¹ The rate was significantly higher than the state rate of 632.7 deaths per 100,000, but significantly better than the 2009 national rate of 741.1 per 100,000.² The county's mortality rates were not significantly different from statewide rates for any major cause of death, even though the rate for all causes combined was elevated. Mortality rates continue to drop nationwide, statewide, and in the county, but over the past decade, state and national rates have dropped much faster than Santa Cruz County rates.

The leading cause of death in the United States is heart disease,³ primarily coronary heart disease. In Santa Cruz County in 2008-2010, the age-adjusted rate of death from coronary heart disease (111.8 per 100,000 population) was better than the statewide rate (121.6) and significantly better than the national rate (126.0).²

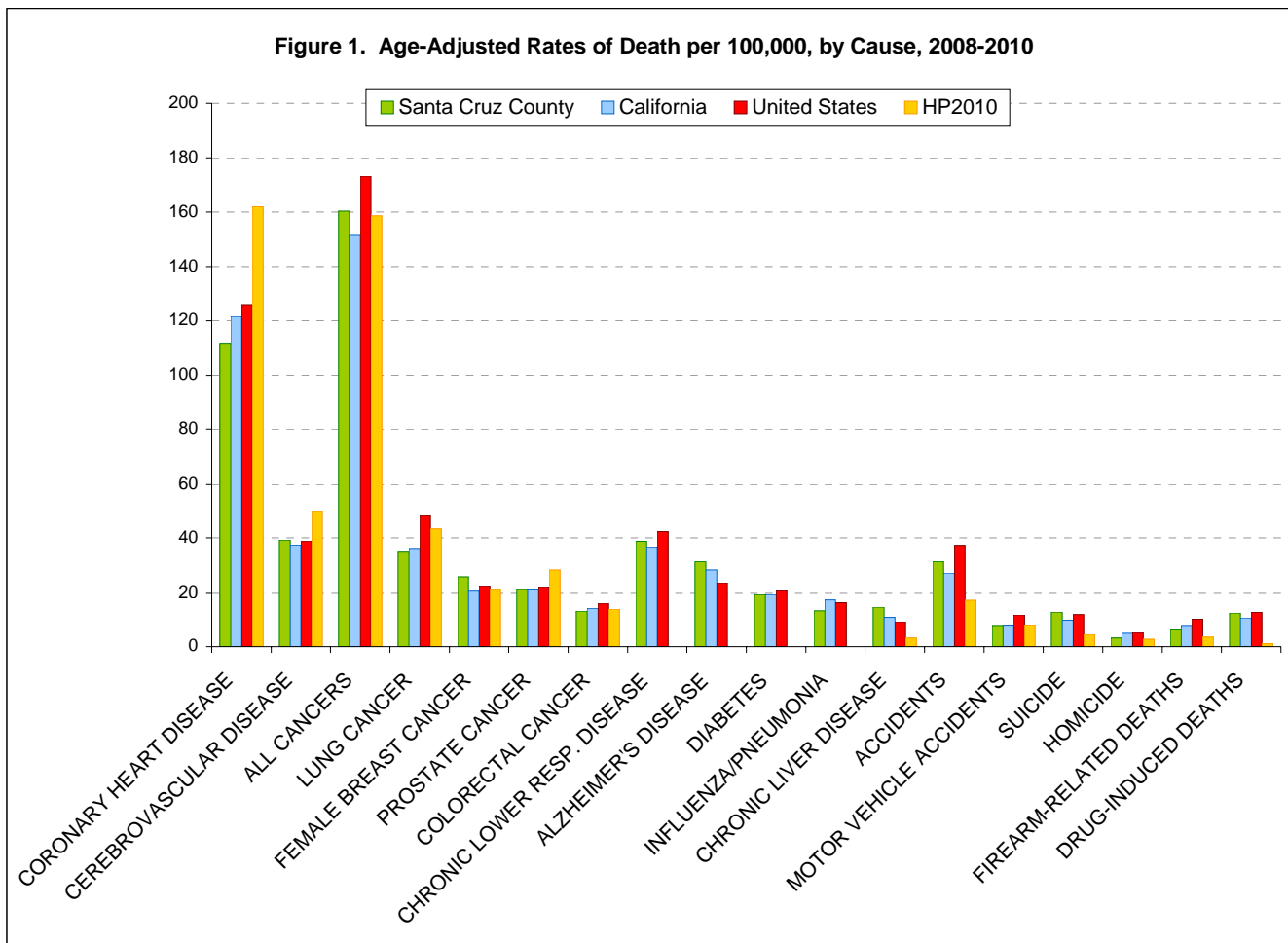
The second leading cause of death in the U.S. is cancer.³ The county's rate of death from all types of cancer combined was higher than the statewide rate, but lower than the national rate, and not significantly different from either.²

Over the years, county rates of death from suicide and drug-induced injury have generally been higher than state rates, while deaths from homicide and motor vehicle accidents have tended to be quite low; these differences have generally not been statistically significant in any given three-year period, but they have been consistent over a much longer period of time.

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.

MORTALITY

Figure 1. Age-Adjusted Rates of Death per 100,000, by Cause, 2008-2010



The single greatest actual cause of death in developed countries is tobacco.⁴ 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. The third greatest is alcohol, which contributes heavily to liver disease, to deaths by accident, homicide and suicide, and to certain cancers. Each of these major actual causes of death involves personal lifestyle choices that are ripe for public health intervention. Reductions in tobacco and alcohol usage and improvements in diet and physical activity are keys to improving health and extending lifespans in the 21st century.

YEARS OF POTENTIAL LIFE LOST

“Years of Potential Life Lost” (YPLL) is a widely used measure of a community’s health. YPLL is the number of years of potential life lost due to premature mortality. It is measured by calculating the difference between the actual age of death (only for deaths occurring before a selected age) and the selected age; the age selected is usually either 65 or 75. For example, if the selected age is 75, then a death occurring at age 60 would contribute 15 YPLL; a death occurring at age 20 would contribute 55 YPLL. YPLL is usually presented as an age-adjusted rate of YPLL per 100,000 persons.

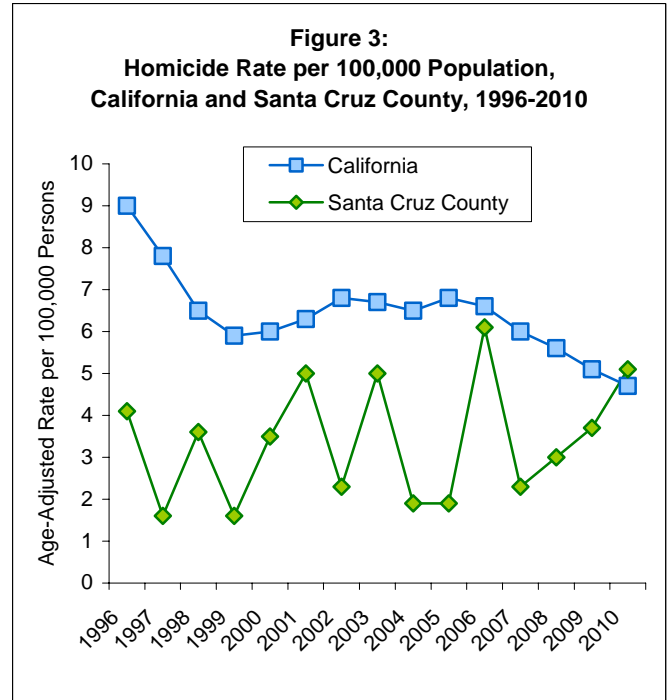
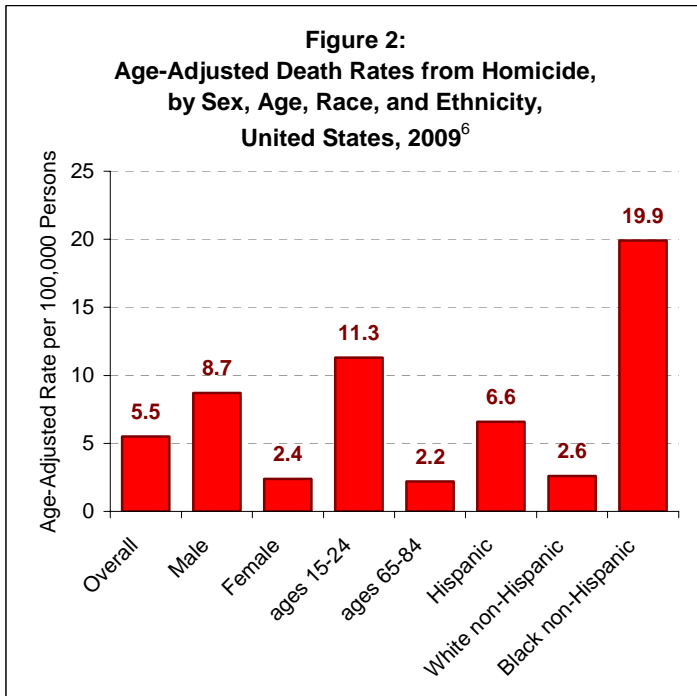
The National Vital Statistics System calculated the YPLL rate (with a selected age of 75) for each individual county in the United States for the years 2006-2008.^{5,6} The national YPLL rate for those years was 7083. California’s statewide rate was 5922, 8th best in the nation. Santa Cruz County ranked tenth best among all 58 California counties, with a YPLL of just 5293. However, in recent years the county’s rate has not been improving nearly as fast as the statewide rate.

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HOMICIDE

The United States had an age-adjusted homicide rate of 5.5 per 100,000 in 2009,⁷ more than double the rate of most industrialized countries. U.S. homicide rates in 2009 were highest among Blacks (over 7.5 times the rate among non-Hispanic Whites) and Hispanics (2.5 times the rate among Whites), adolescents and young adults (over five times the rate among the elderly), and males (over 3.5 times the rate among females) (Figure 2).

Over the past 15 years, Santa Cruz County has consistently had homicide rates lower than statewide and national rates. County rates were significantly lower in most years, averaging less than half of state rates over the period shown in Figure 3.⁸ California rates have dropped considerably during that time, while the county's have not, and California's rate dipped below the county rate in 2010.

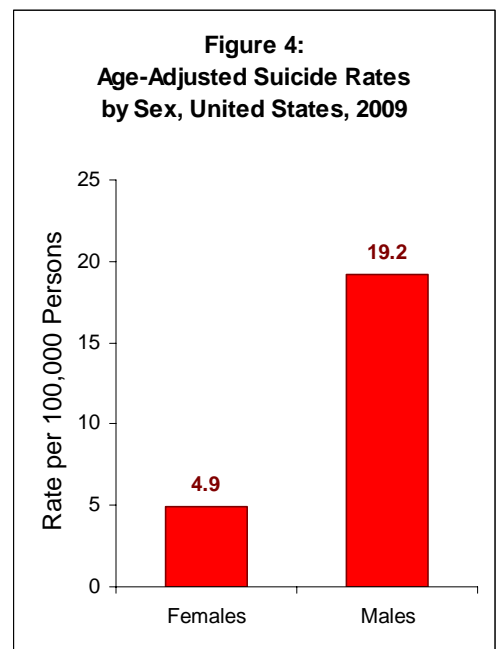


Close to two thirds of homicides are committed by someone who knows the victim. Over two thirds of homicides are committed with firearms. Homicide rates have historically been thought to be higher in urban areas than in rural areas,^{9,10} but some sources suggest that rural homicide rates are actually higher.

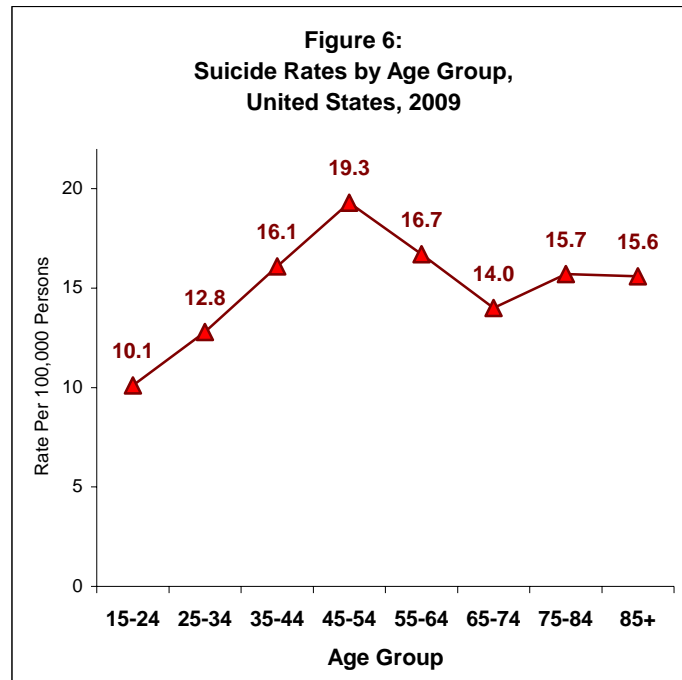
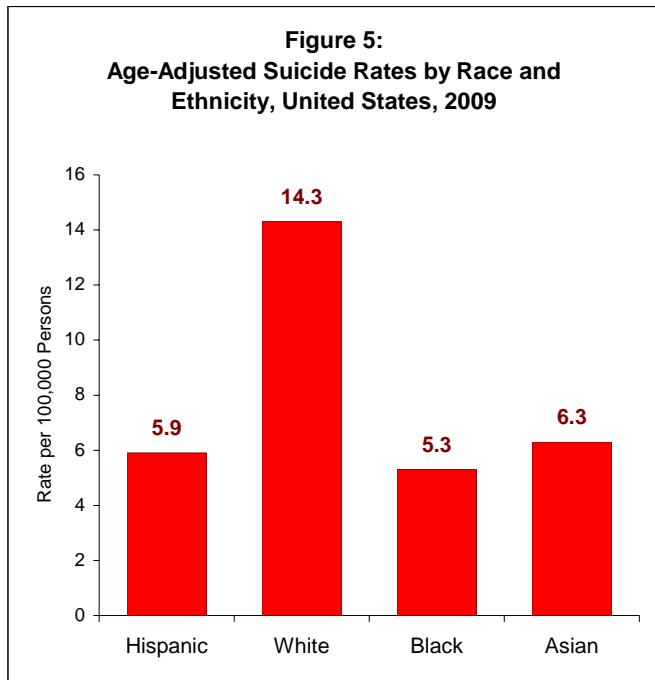
SUICIDE

Suicide is the 10th leading cause of death nationally, taking the lives of over 33,000 people per year, almost 1.5% of all deaths in the United States – twice as many American deaths as homicide in 2009⁷.

Suicide rates are strongly linked to sex, age, race, and ethnicity. Suicide rates are four times as high among men as among women⁷ (Figure 4) (although women are more likely to *attempt* suicide). Suicide rates among Whites are more than double those among Blacks, Asians, and Hispanics (see Figure 5).



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Suicide rates increase with age; the rate per 100,000 rises from about 10 in the 15-24 age group to a peak of almost 20 in the 45-54 age group, drops off in the 55-64 and 65-74 age groups, and then climbs back up to about 16 in the oldest age groups (Figure 6). 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.

For the years 2008-10, the age-adjusted rate of death by suicide in Santa Cruz County was 12.7 per 100,000 persons, compared to the statewide rate of 9.7 and the 2009 national age-adjusted rate of 11.8.² Santa Cruz ranked 34th out of 58 California counties.¹ Santa Cruz County's suicide rates since 1980 have consistently been somewhat higher than state rates.

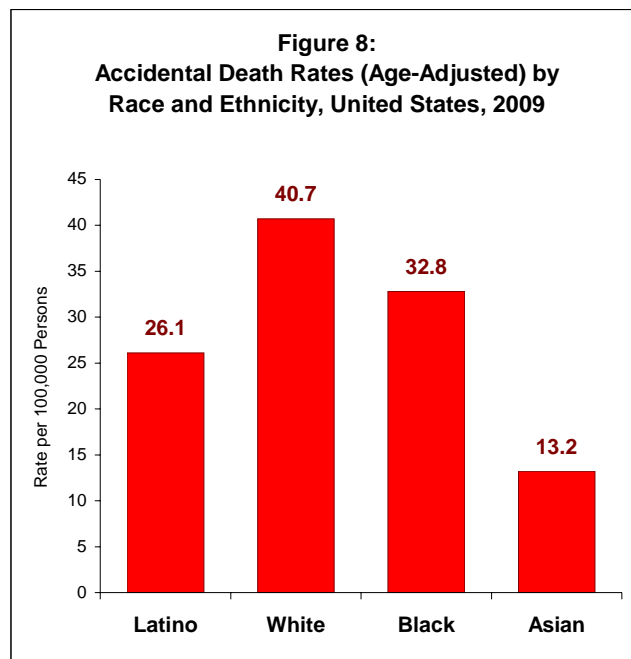
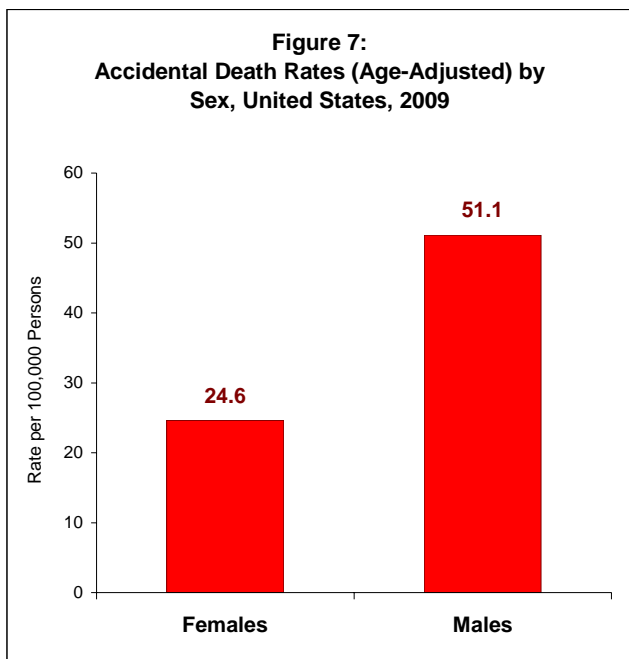
Suicide *attempts* are far more frequent than actual suicides.¹¹ Although suicide rates generally increase with age, the rate of suicide *attempts* decreases with age. The number of suicide attempts compared to completed suicides may be as high as 200 to 1 among 15 to 24 year olds, and drop to as low as 4 to 1 among adults over age 65.¹²

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.

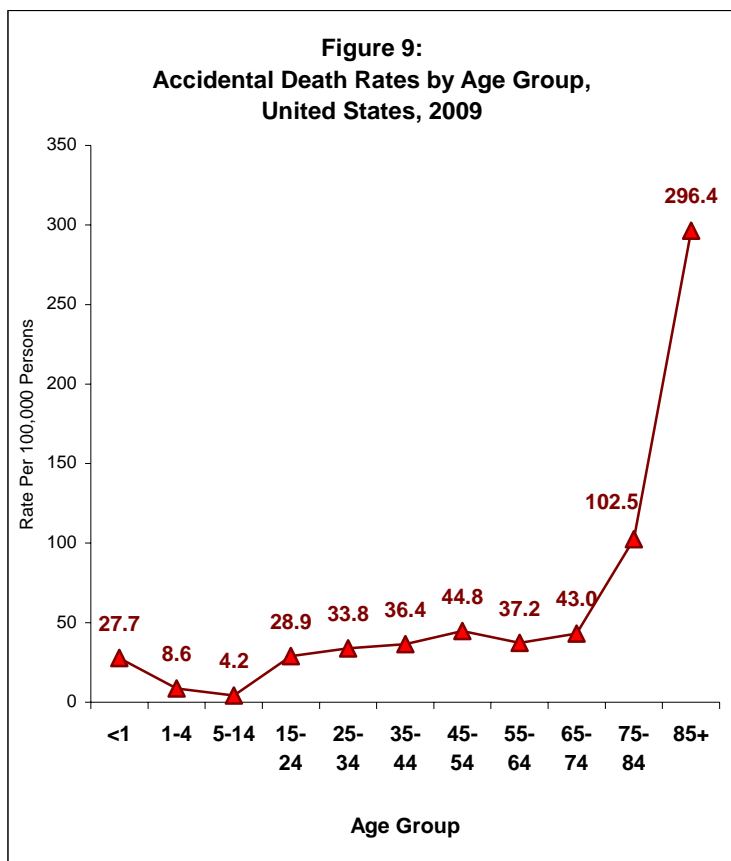
Suicide is associated with depression, an illness treatable both by psychotherapy and by medication. Training physicians to identify and treat depression, and increasing the availability of mental health resources, could reduce the incidence of suicide. Other interventions could include steps to reduce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

MORTALITY



UNINTENDED FATAL INJURIES (ACCIDENTAL DEATHS)

Unintended injuries are the fifth leading cause of death in the United States, with an age-adjusted death rate of 37.1 per 100,000 persons, accounting for 118,000 deaths in 2010, or 4.8% of all deaths.³ In 2009, males were more than twice as likely as females to die in accidents (Figure 7).⁷ Age-adjusted death rates varied strikingly by race and ethnicity, with non-Hispanic Whites having a rate three times as high as that among Asians (Figure 8). Accidental death rates are very low in middle childhood and very high among the elderly (Figure 9). Unintended injuries are the leading cause of death in all groups below age 45.



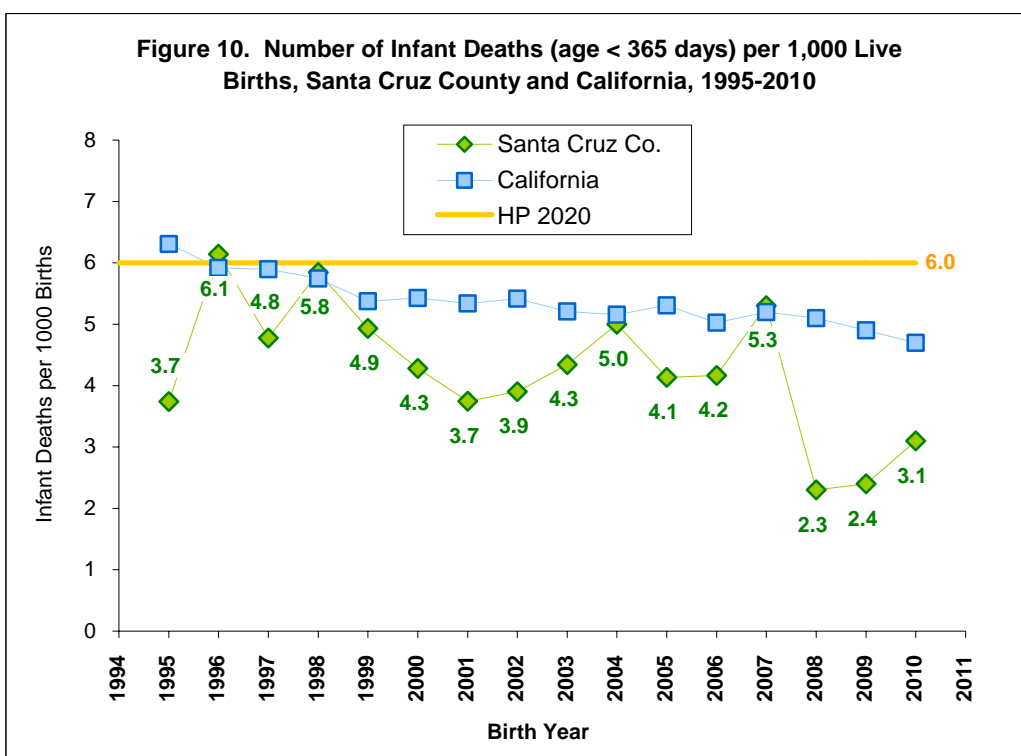
During the period 2008-2010, Santa Cruz County ranked 22nd among California counties, with an average annual age-adjusted mortality rate from unintentional injuries of 31.6 per 100,000 persons. That was better than the national rate of 37.3, but worse than California's rate of 27.1, and not significantly different from either. The state and the county both met the Healthy People 2020 objective of 36 per 100,000.¹

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INFANT MORTALITY

Infant mortality is an important measure of a nation's health and a worldwide indicator of health status, social well-being, and availability of adequate prenatal care. Local, state, and national infant mortality rates have improved fairly steadily for many decades. Santa Cruz County rates are more variable (see Figure 10), due to our smaller population, but show a similar improving trend.¹³ The county's rates usually are well below statewide rates, even farther below national rates, and meet the HP2020 objective.

The three leading causes of infant mortality (congenital malformations, disorders related to short gestation and low birth weight, and sudden infant death syndrome) accounted for approximately 43% of all infant deaths in the United States in 2005.¹⁴



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