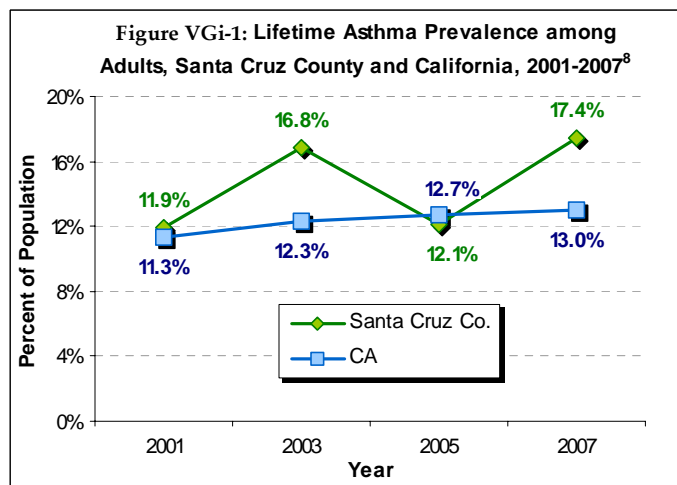


G-i. CHRONIC DISEASE (ASTHMA)

<p>Importance</p>	<p>Asthma is one of the most common chronic diseases in the United States; 16.4 million adults (7.3%) and 7.0 million children (9.4%) currently have asthma.^{1,2,3} 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 In the past 10 years, the prevalence of asthma has increased, but severe outcomes from asthma have decreased.¹ Children make up a large part of the asthma burden.¹ On average, a child with asthma misses 2.6 days of school per year due to his/her asthma.¹ In addition to its impacts on health, asthma has a substantial economic impact. In 2000, total costs due to asthma in the United States were estimated at \$18.3 billion.^{1,2,3}</p>
<p>Highlights</p>	<ul style="list-style-type: none"> ▪ From 1999-2004, there were an average of 508 asthma deaths per year, a rate of 15.5 per million California residents.¹ ▪ These deaths corresponded to an average of 8,400 years of potential life lost each year, or 16 years of potential life lost per person.¹ ▪ The rate of asthma deaths in California has been decreasing from 1999-2004.¹ ▪ In Santa Cruz County, approximately 29,000 children and adults have been diagnosed with asthma.⁴ ▪ The American Thoracic Society estimates that 15% of adult asthma is related to workplace exposure.^{4,5} This means that an estimated 2,000 adults in Santa Cruz County may have work-related asthma.^{4,5}
<p>Definitions</p>	<p><u>Asthma:</u> Asthma is a chronic inflammatory lung condition. Asthma is characterized by ongoing inflammation of the lining of the lungs. Frequently, this inflammation does not cause symptoms. Other times, the lung passages undergo spasms, resulting in symptoms such as recurrent flares or exacerbations of breathlessness, wheezing, coughing, and chest tightness.^{1,6}</p>
<p>Healthy People 2010 Objective⁷</p>	<p>“Promote respiratory health through better prevention, detection, treatment, and education efforts.”</p> <ul style="list-style-type: none"> ▪ Reduce asthma deaths. (Target: 1 per million for children 0 to 14 years, 2 per million for adolescents and adults aged 15 to 34 years, 9 per million for adults aged 35 to 67 years, and 60 per million for adults aged 65 years and older) ▪ Reduce hospitalizations for asthma. (Target: 25 per 10,000 for children under age 5 years, 7.7 per 10,000 for children and adults aged 5 to 64 years, and 11 per 10,000 for adults aged 65 years and older) ▪ Reduce hospital emergency department visits for asthma. (Target: 80 per 10,000 for children under age 5 years, 50 per 10,000 for children and adults aged 5 to 64 years, and 15 per 10,000 for adults aged 65 years and older)

A person has lifetime asthma if he or she has been diagnosed with asthma by a health care provider at any time in the past, whereas a person has current asthma if he or she reports still having asthma.¹ Not everyone with asthma continues to have asthma symptoms.¹ Figure VGi-1 summarizes the lifetime asthma prevalence of adults (ages 18 and older) at the state and county level from 2001 to 2007.⁸ The percentage of adults with lifetime asthma has increased, but the percentage of adults with current asthma has not changed by much.¹ Lifetime asthma prevalence in California is higher than the national prevalence, which was 11% in 2007.^{1,9}



ASTHMA (CONT.)

Figure VGi-2 shows lifetime asthma prevalence among children and adolescents (under 18 years old) for the state and county. Statewide levels show a steady increase, while local rates have much greater fluctuation, as is expected due to smaller sample sizes on the county level.⁸

Figure VGi-3 shows asthma prevalence by gender and age in 2007. State and national asthma prevalence were significantly higher for male children than for female children.^{8,9} But among adults, prevalences were higher for females than for males.^{8,9} Santa Cruz County rates for children are unstable because of small sample sizes.

Figure VGi-4 shows statewide asthma prevalence by race/ethnicity. Blacks had the highest prevalence of asthma, significantly higher than other race/ethnicity groups.⁸ Latinos had the lowest asthma prevalence.

Tables VGi-1 and VGi-2 summarize the number 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 (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 consistently had higher rates of asthma hospitalizations than any other race/ethnicity.¹ Asthma hospitalization rates are highest among children under 5 years of age and adults over the age of 65 years.¹

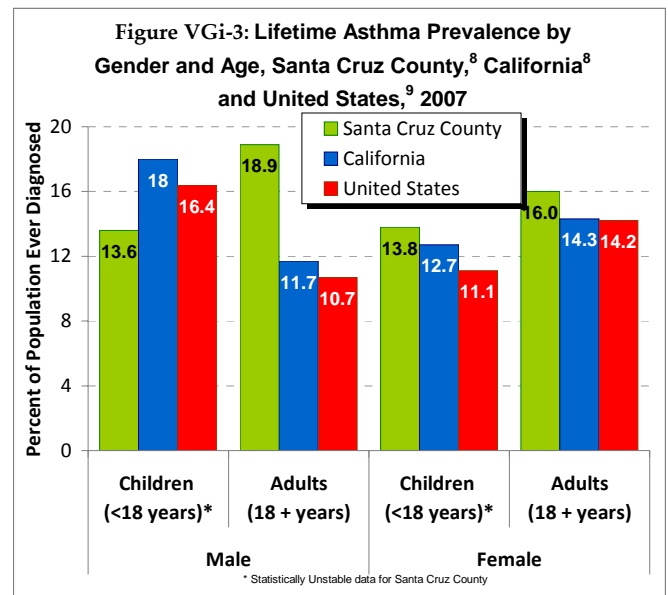
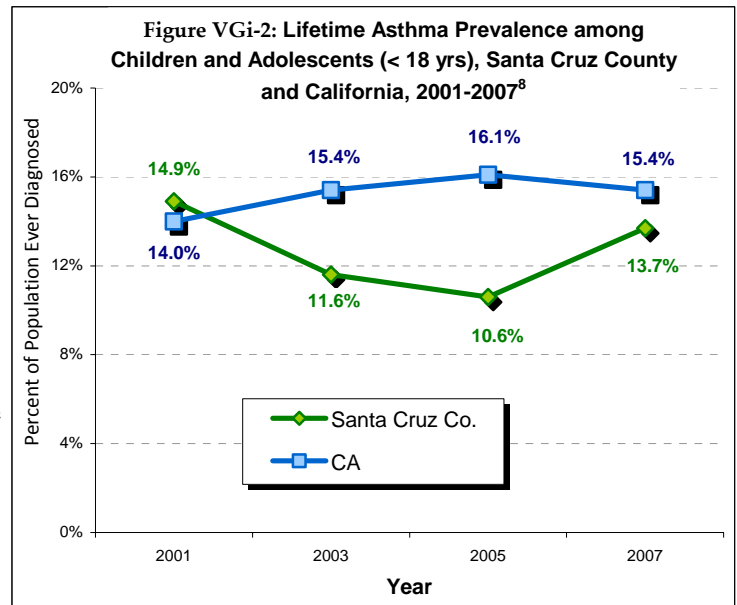
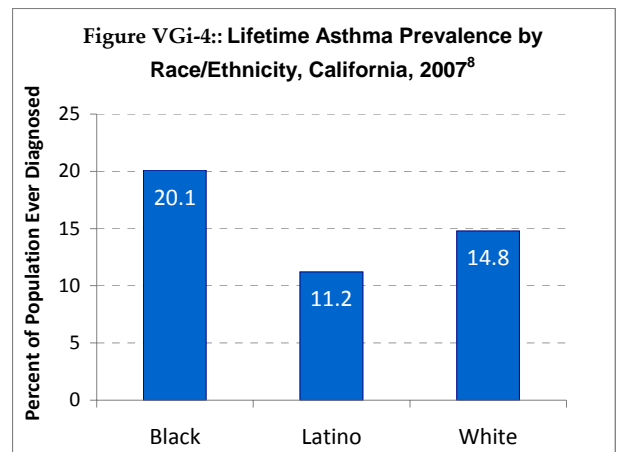


Table VGi-1: Number and Age-Adjusted Rate (per 10,000 residents) of Asthma Hospitalization, 2006.⁴

Age	Santa Cruz County		California	
	N	Rate	N	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 (CONT.)

Asthma risk factors:

Exposure to tobacco smoke increases one's risk of asthma. In Santa Cruz County, 13% of adults currently smoke, while 6.7% of adults and children are exposed to second-hand smoke.⁴ People who are obese are more likely to have asthma. In Santa Cruz County, 12.1% of adults and adolescents are obese.⁴ Low income has been linked to more severe asthma.^{1,4} In Santa Cruz County, 10.8% of residents have household incomes below the Federal Poverty Level.⁴

Table VGi-2: Number and Age-Adjusted Rate (per 10,000 residents) of ED Visits due to Asthma, 2008⁴				
Age	Santa Cruz County		California	
	N	Rate	N	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 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, 70% of people with asthma have not received an asthma management plan from a health care provider.⁴

Primary Prevention Activities	<ul style="list-style-type: none"> ▪ 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.¹⁰
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Sources	<ol style="list-style-type: none"> 1. Milet M, Tran S, Eatherton M, Flattery J, Kreutzer R. "The Burden of Asthma in California: A Surveillance Report." Richmond, CA: California Department of Health Services, Environmental Health Investigations Branch, June 2007. 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. 3. Centers for Disease Control and Prevention. 1600 Clifton Rd., Atlanta, GA 30333, USA. cdcinfo@cdc.gov. 4. Santa Cruz County Asthma Profile, July 2008. www.californiabreathing.org. 5. 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. 6. California Environmental Health Tracking Program (CEHTP), California Department of Public Health, Environmental Health Investigation Branch. 2009. http://www.ehib.org/page.jsp?page_key=34#about_info. 7. U.S. Department of Health and Human Services. Healthy People 2010. Washington, DC: U.S. Government Printing Office. 2nd ed. 2000. 8. California Health Interview Survey (CHIS), 2001-2007. http://www.chis.ucla.edu/. 9. National Health Interview Survey, National Center for Health Statistics, CDC, 2008. 10. California Asthma Partners, Strategic Plan for Asthma in California, 2008-2012. http://www.asthmapartners.org/.
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