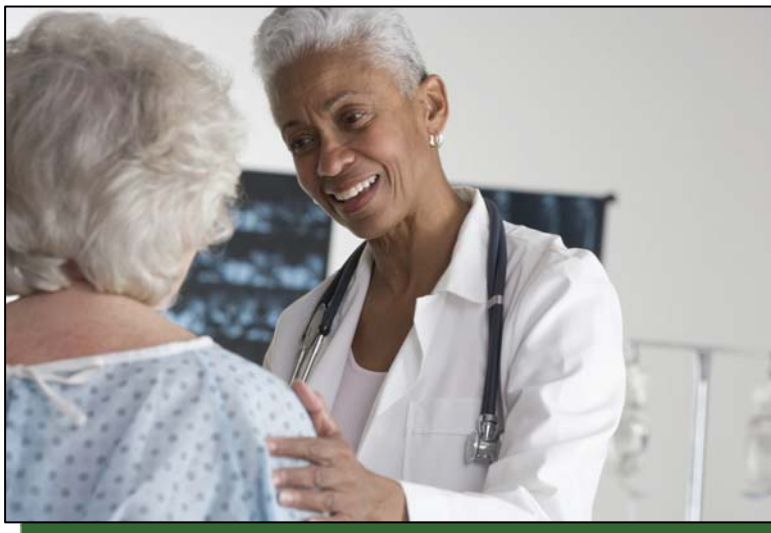


Chronic Disease



Chronic diseases—such as heart disease, cancer and diabetes—are the leading causes of death and disability in the United States. Chronic diseases account for 70% of all deaths in the U.S.—1.7 million each year—and cause major limitations in daily living for about 25 million people. Although chronic diseases are among the most common and costly health problems, they are also among the most preventable (Centers for Disease Control and Prevention, 2007).

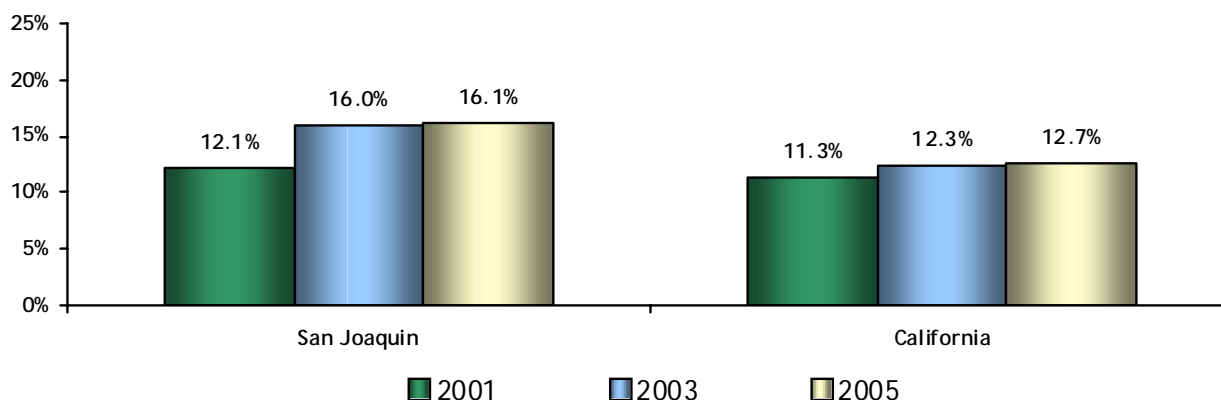
Asthma

Why It Is Important

Asthma is a chronic respiratory condition characterized by breathlessness, wheezing and chest tightness and has been on the rise in the country over the past 20 years.³³ Fortunately, asthma can be successfully controlled with medical supervision and treatment. However, children and adults who do not have access to adequate medical care are likely to experience repeated serious episodes, trips to the emergency department and absences from school and work. Asthma hospitalization rates illustrate the worst episodes of asthma and are a proxy measure for inadequate treatment.

For data on the number of adult survey respondents who have been diagnosed with asthma by zip code, please see Appendix V.

Figure 89:  **Adults Who Have Been Diagnosed with Asthma**




Source: 2001, 2003 and 2005 California Health Interview Survey.

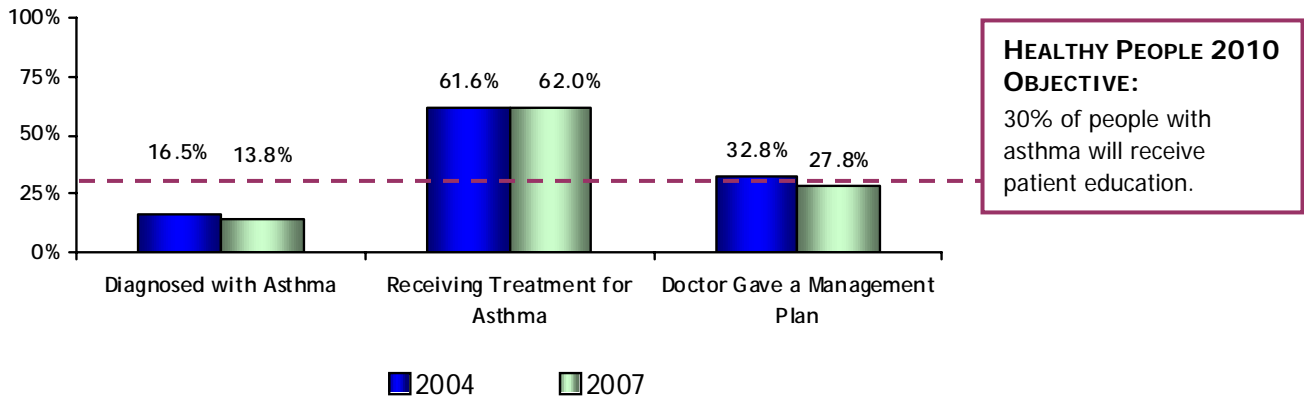
San Joaquin County 2001 N: 395,000; 2003 N: 422,000; 2005 N: 447,000.

California 2001 N: 24,577,000; 2003 N: 25,597,000; 2005 N: 26,388,000.

³³ UCLA Center for Health Policy Research, *Policy Brief: Asthma among California's Children, Adults and the Elderly: A Geographic Look by Legislative Districts*, September 2004.

Asthma (cont.)

Figure 90:  Percentage of Respondents Diagnosed with Asthma, Percentage Receiving Treatment for Their Asthma and Percentage Whose Doctor Gave a Management Plan or Instructions on How to Treat Their Asthma

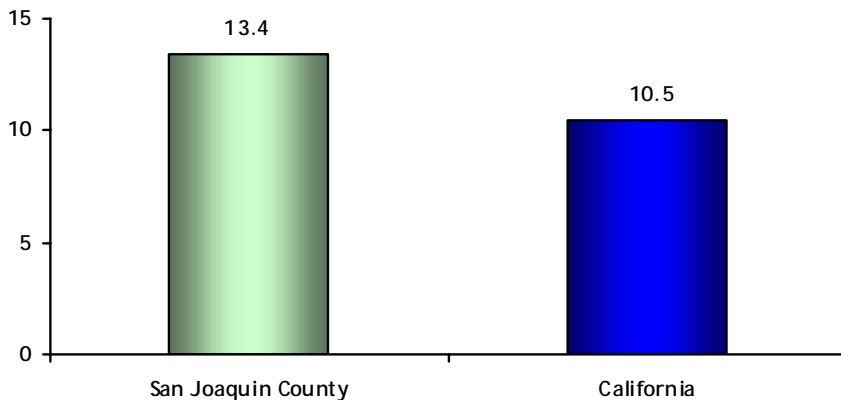


Source: Healthier San Joaquin County Community Assessment, Telephone Survey, 2004 and 2007.

Telephone Survey Diagnosed with Asthma 2004 N: 427; 2007 N: 429; Receiving Treatment for Asthma 2004 N: 71; 2007 N: 59; Doctor Gave a Management Plan 2004 N: 71; 2007 N: 59.

Note: Questions about treatment and about a management plan were asked only of those respondents who reported being diagnosed with asthma.

Figure 91: Age-Adjusted Asthma Hospitalization Rate per 10,000 Residents, All Ages, 2000-2005 Aggregated



Source: California Department of Health Services, *The Burden of Asthma in California*, June 2007.

San Joaquin County 2000-2005 N: 4,828.

California 2000-2005 N: 220,777.

 **New data not available**

Asthma (cont.)

What The Data Tell Us

According to the California Health Interview Survey (CHIS), the number of adults diagnosed with asthma increased slightly in San Joaquin County and California from 2001 to 2005. During this time period, San Joaquin County consistently had a higher percentage of adults with asthma than California. In 2005, the County's percentage was 16% while the state's was 13%.

Results of the Healthier San Joaquin County telephone survey showed a decrease in the percentage of adults with asthma from 17% in 2004 to 14% in 2007. Of those who had been diagnosed with asthma, most were receiving treatment in both 2004 and 2007 (62%). However, a smaller percentage of respondents had been given a management plan by their doctor in 2007 (28%) than in 2004 (33%). In 2007, San Joaquin County had nearly reached the Healthy People 2010 Objective that 30% of people with asthma will receive patient education.

Additionally, from 2000 to 2005 San Joaquin County had a higher aggregated asthma hospitalization rate (13.4 asthma hospitalizations per 10,000 residents) than did California (10.5 asthma hospitalizations per 10,000 residents).

How We're Making a Difference

Adult Asthma Management Clinic

The Adult Asthma Management Clinic at the University of the Pacific, Thomas J. Long School of Pharmacy and Health Sciences provides asthma management services to adult patients from San Joaquin County and the surrounding area, with the objectives of reducing asthma-related hospitalization and reducing emergency room visits or unscheduled physician visits related to asthma. As these services are supported by grant funds from Catholic Healthcare West, there is no out-of-pocket expense for the patients.

In consultation with each client's physician, faculty members and student pharmacists provide various levels of service, from patient education and training, to monitoring and medication management. The Adult Asthma Clinic follows the National Heart, Lung, and Blood Institute's (NHLBI) protocols and guidelines.

Patient Story:

A 60-year-old woman was referred by her physician to the clinic, with a diagnosis of moderate persistent asthma. In the last six months before coming to the clinic she had one asthma-related urgent physician visit. At the clinic she was provided with education and training about her asthma and the best use of her asthma medications. Following her assessment she was given a peak flow meter and instructed in its use. With her physician's approval, she was given a quick-relief oral prednisone prescription for emergency use, if needed. Using her peak flow meter she was able to monitor her degree of asthma control on a daily basis. Using an Asthma Action Plan, which was personalized to her needs, she achieved positive asthma control outcomes. Since starting the clinic services on May 14, 2007, she has had no asthma-related hospitalizations, emergency department visits, or unscheduled physician visits. Her primary care physician has complimented her on her progress and control of her asthma.



Adult Asthma Pharmacy Student Team

"I feel so good about applying the knowledge I have learned to help our Asthma Clinic patients improve the quality of their lives." — Asthma Clinic Student

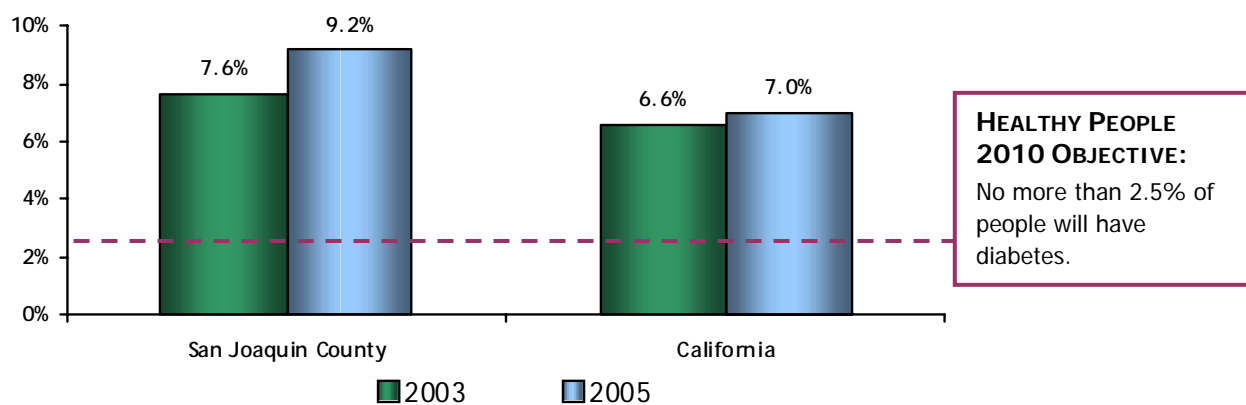
Diabetes

Why It Is Important

Diabetes is considered a silent killer because it is often overlooked. Yet, diabetes is the leading cause of kidney failure, adult blindness and amputations and is a leading contributor to strokes and heart attacks. In the United States, 20.8 million people have diabetes. Ninety to 95% have type 2 diabetes, previously called adult onset diabetes and 5–10% have type 1 diabetes, also called juvenile diabetes. Good self-management and care help control the disease and prevent complications.³⁴

Dameron Hospital in San Joaquin County has a diabetes and pregnancy program called the Sweet Success program, which is a model of care for pre-pregnant and pregnant women with diabetes. The program was developed by the Regional Perinatal Programs of California (RPPC) through the California Diabetes and Pregnancy Program (CDAPP). The goal of the Sweet Success program is to reduce maternal and infant mortality and morbidity for women with overt diabetes prior to conception and for women who develop gestational diabetes. The Sweet Success program emphasizes early recruitment into diabetes and pregnancy programs, provision of outpatient-based comprehensive patient education, nutrition, psychosocial and medical services and active parent participation in managing diet, insulin and exercise regimens necessary for optimal blood glucose control.³⁵

Figure 92:  Adults Who Have Been Diagnosed with Diabetes



Source: 2003 and 2005 California Health Interview Survey.


San Joaquin County 2003 N: 422,000; 2005 N: 447,000.

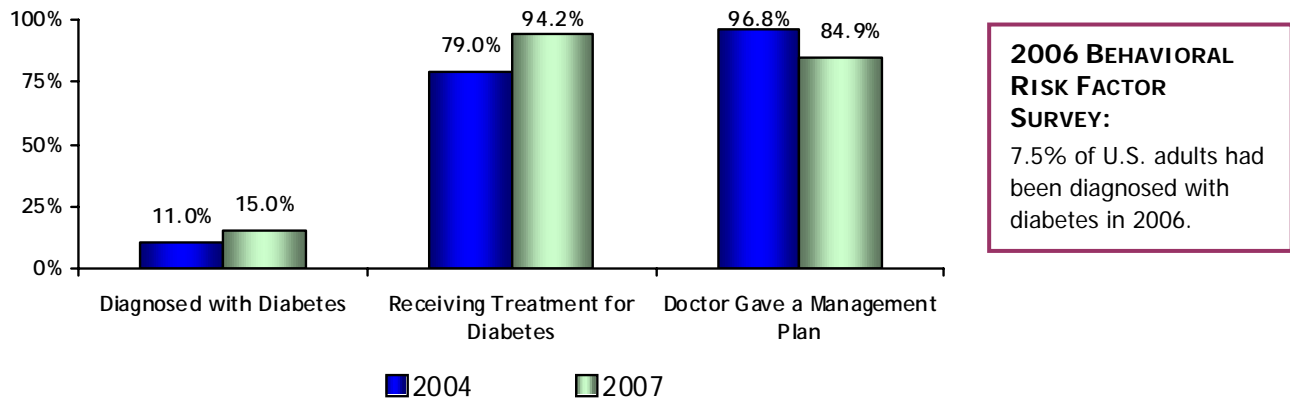
California 2003 N: 25,597,000; 2005 N: 26,388,000.

³⁴ California Department of Health Services, California Diabetes Control Program, *Fast Facts on Diabetes*, 2003.

³⁵ Loma Linda University Medical Center, *Sweet Success: California Diabetes and Pregnancy Program*, retrieved March 31, 2005, from <http://www.llu.edu/llumc/sweetsuccess/info.htm>.

Diabetes (cont.)

Figure 93:  Percentage of Respondents Diagnosed with Diabetes, Percentage Receiving Treatment for Their Diabetes and Percentage Whose Doctor Gave a Management Plan or Instructions on How to Treat Their Diabetes



Source: Healthier San Joaquin County Community Assessment, Telephone Survey, 2004 and 2007. Behavioral Risk Factor data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System, Prevalence Data, 2007.

Telephone Survey Diagnosed with Diabetes Total 2004 N: 426; 2007 N: 429; Receiving Treatment for Diabetes Total 2004 N: 47; 2007 N: 65; Doctor Gave a Management Plan Total 2004 N: 47; 2007 N: 65.

Note: Questions about treatment and about management plan was asked only of those respondents who reported being diagnosed with diabetes.

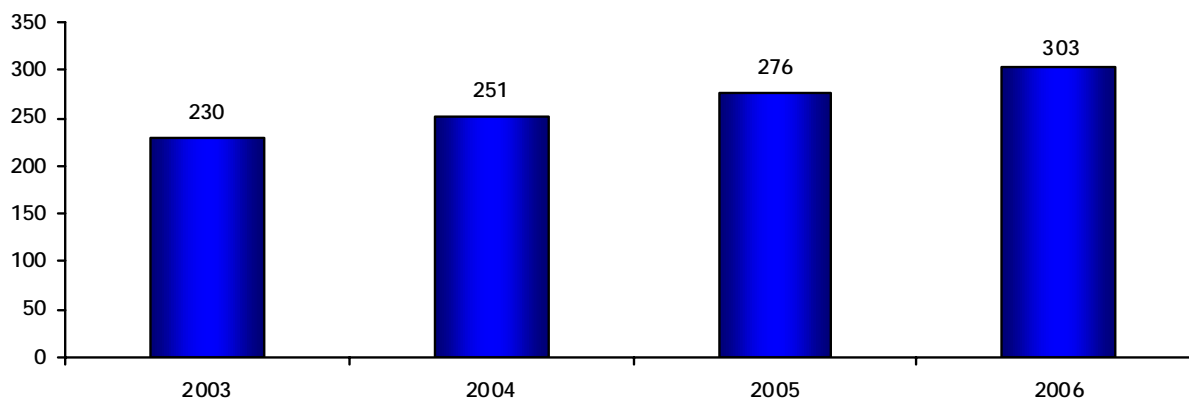
Figure 94:  How Old Were You When a Doctor First Told You That You Have Diabetes?

Response	Telephone Survey '04	Telephone Survey '07
Under 21 years	4.3%	2.5%
21-30 years	15.2%	13.6%
31-40 years	8.7%	16.0%
41-50 years	21.7%	16.0%
51-60 years	28.3%	28.4%
61-70 years	10.9%	18.6%
Over 71 years	10.9%	4.9%
Total respondents	46	61

Source: Healthier San Joaquin County Community Assessment, Telephone Survey, 2004 and 2007.

Diabetes (cont.)

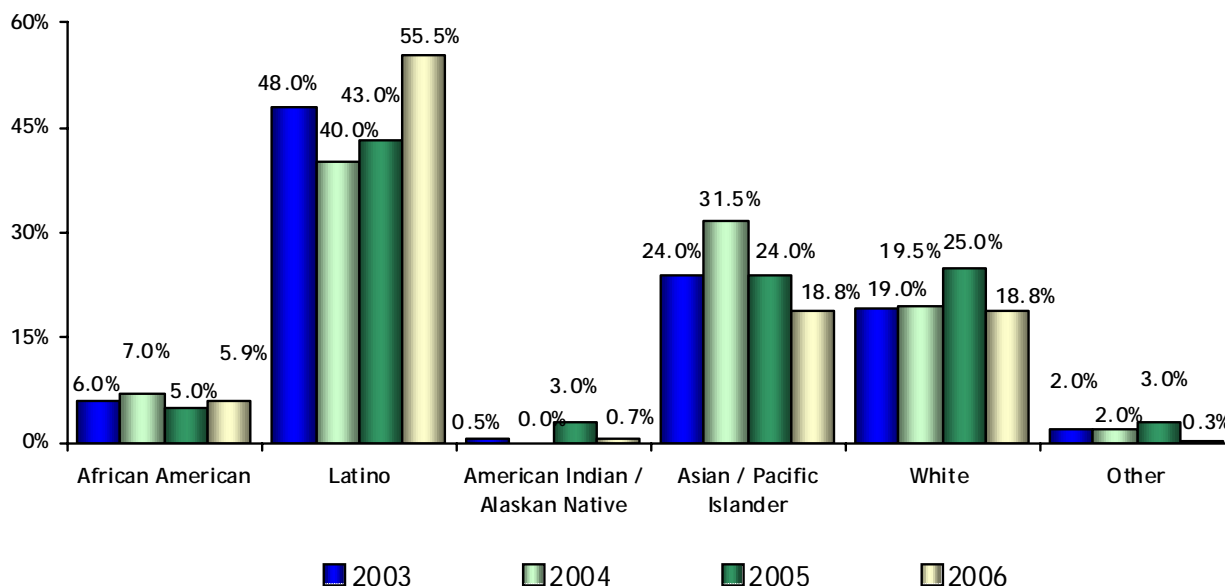
Figure 95: Number of Sweet Success Clients Seen in Past Year



Source: Dameron Hospital, Sweet Success Clinic, Sweet Success Annual Site Survey Form, 2007.

Note: In 2003 and 2004, the number of clients who returned postpartum was 51 and 82, respectively. These data for 2005 and 2006 were not available.

Figure 96: Sweet Success Clients by Ethnicity



Source: Dameron Hospital, Sweet Success Clinic, Sweet Success Annual Site Survey Form, 2007.

2003 N: 230; 2004 N: 251; 2005 N: 276; 2006 N: 303.

Diabetes (cont.)

What The Data Tell Us

From 2003 to 2005, the percentage of adults with diabetes increased in both San Joaquin County and California, but the County consistently had a slightly higher percentage of adults who were diagnosed with diabetes than did California. In 2005, the percentage of adults with diabetes was 9% in San Joaquin County and 7% in California. Both were higher than the Healthy People 2010 Objective of 2.5%.

From 2004 to 2007, the percentage of adult respondents to the Healthier San Joaquin County telephone survey with diabetes rose from 11% to 15%. Of these individuals, the highest percentage of respondents was first diagnosed between the ages of 51 and 60 (28%). Between 2004 and 2007, the percentage of respondents receiving diabetes treatment also increased from 79% to 94%; however, a smaller percentage received a management plan from their doctor in 2007 (85%) than in 2004 (97%).

The number of Sweet Success clients at Dameron Hospital increased from 230 in 2003 to 303 in 2006. In 2006, Sweet Success had a higher percentage of Latino clients than ever before (56%). Asians and Caucasians were the ethnicities with the next highest percentages (19% each) that year.

How We're Making a Difference

Community Medical Centers, Inc.

Community Medical Centers, Inc. (CMC) began in the 1960's as a volunteer effort of the San Joaquin Medical Society, the San Joaquin Local Health District, and the Community Action Council. Local physicians, nurses, dentists, and community activists who recognized the lack of health and social services programs formed service teams to address the needs of migrant farm workers and their families. The providers went out to the fields and worked from their cars to deliver medical care, to supply food and clothing, and to link families with available services. In 1967, the San Joaquin Medical Society received state and federal funding to support the development of two small facilities, as well as mobile clinics to provide services throughout the county. From these early beginnings, CMC has grown to provide comprehensive primary and preventive care at 11 clinical sites in the counties of San Joaquin, Solano, and Yolo.

Stories of Health Education Successes

One of the most outstanding and remarkable stories of improvement was of a man in his early 40's who came to see his doctor because of his weight problem and diabetes. He was referred to the Health Educator to help him understand the seriousness of his health problems. When he first came to the clinic his weight was 328 lbs. with a BMI of 49.9. His blood sugar level was 276 and his hemoglobin A1C was 11.6. The Health Educator reviewed his eating habits and discussed food servings and their nutritional values. He attended the nutrition and diabetes classes, and his awareness and knowledge of obesity in relation to his diabetes was drastically improved. When he came in for another visit, he was ecstatic to show his new weight of 256 lbs! His blood sugar level was down to a surprising 87 from 276; his hemoglobin was greatly reduced to 5.7 from 11.6. He attributed his weight loss to eating well balanced meals with fewer carbohydrates, more fruits and vegetables, avoiding sodas and juices, and keeping to his exercise schedule. Through nutrition education and chronic illness prevention this young man was able to change his lifestyle into a healthy one.



Obese Adults

Why It Is Important

Obesity has increased greatly in the last 20 years and is significantly associated with diabetes, high cholesterol, high blood pressure, asthma, arthritis and overall poor health status.^{36,37} Obesity is defined using a Body Mass Index (BMI) of 30.0 or greater. A normal BMI is 18.5 to 24.9 and a person is overweight if their BMI is 25.0 to 29.9.³⁸ BMI for adults is calculated in the following way:

$$\text{BMI} = \left(\frac{\text{Weight in Pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \right) \times 703$$

While a BMI of 30 or greater strongly suggests that an individual will be at a higher risk for the aforementioned obesity-related diseases, a person's waist circumference is a more powerful predictor of cardiovascular disease risk than any other single measure of obesity.³⁹ Waist circumferences greater than or equal to 40 inches for men and greater than or equal to 35 inches for women are very predictive of heightened cardiovascular disease risk.⁴⁰

Although waist circumference is the best indicator of cardiovascular disease risk associated with obesity, the BMI continues to be the most commonly accepted measure of obesity status in general. The figures below show BMI data only, as data on waist circumference are not available for San Joaquin County and California at this time.

Further, linked to obesity is metabolic syndrome, which is a combination of medical disorders that increase the risk of developing cardiovascular disease and diabetes. Metabolic syndrome is diagnosed when a person has at least three of the following heart disease risk factors: excessive fat in the stomach area ("apple shaped"), high blood levels of triglycerides (a type of fat in the blood), low blood levels of high-density cholesterol (HDL, a protective blood fat-protein), high blood pressure, and high blood sugar. It affects a large number of people, and prevalence rises with increasing obesity, particularly abdominal obesity.⁴¹ Almost 25% of U.S. residents currently have metabolic syndrome, and the numbers continue to grow.⁴²

³⁶ Centers for Disease Control and Prevention (CDC), *Overweight and Obesity: Economic Consequences*, 2004.

³⁷ Centers for Disease Control and Prevention (CDC), *Overweight and Obesity: Health Consequences*, 2004.

³⁸ Centers for Disease Control and Prevention (CDC), *Overweight and Obesity: Defining Overweight and Obesity*, 2005.

³⁹ Lakka et al., *Abdominal Obesity is Associated with Increased Risk of Acute Coronary Events in Men*, 2002.

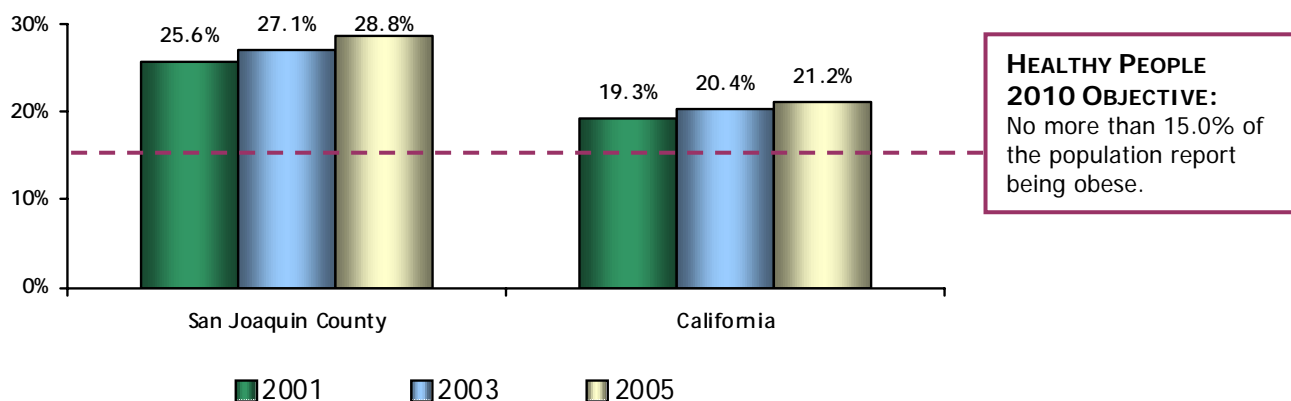
⁴⁰ The Journal of the American Medical Association, *National Cholesterol Education Program (NCEP) ATP II*, 2001.

⁴¹ Grundy et al., *AHA Scientific Statement: Diagnosis and Management of the Metabolic Syndrome*, 2005.

⁴² U.S. Department of Health & Human Services, National Institute of Health (April 2007), *Metabolic Syndrome*, Retrieved March 2008 from, http://www.nhlbi.nih.gov/health/dci/Diseases/ms/ms_what.html.

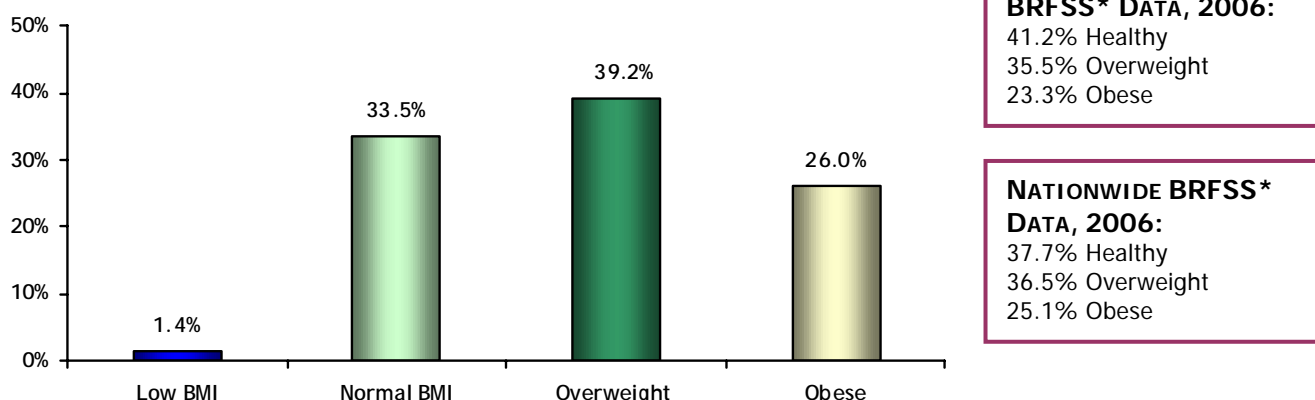
Obese Adults (cont.)

Figure 97: 🦋 Age-Adjusted Percentage of Adults Who Are Obese



Source: 2001, 2003, and 2005 California Health Interview Survey.
 San Joaquin County 2001 N: 379,000; 2003 N: 422,000; 2005 N: 447,000.
 California 2001 N: 23,852,000; 2003 N: 25,597,000; 2005 N: 26,388,000.

Figure 98: 📞 Body Mass Index of Adult Respondents, 2007



Source: Healthier San Joaquin County Community Assessment, Telephone Survey, 2007. BRFSS data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System, Prevalence data, 2007. Telephone Survey 2007 N: 388.
 * Behavior Risk Factor Surveillance System.

What The Data Tell Us

The percentage of obese adults increased in both San Joaquin County and California from 2001 to 2005 according to CHIS. Moreover, in each survey year, San Joaquin County had higher percentages of obese adults than California. In 2005, 29% of County adults were obese compared to 21% of California adults.

About four in ten adult respondents (39%) to the Healthier San Joaquin County telephone survey were overweight in 2007. An additional 26% were obese while 1% had a low BMI. The Healthy People 2010 Objective is not more than 15% of the population report being obese. Neither San Joaquin County nor California met that objective.

How We're Making a Difference

Steps to a Healthier San Joaquin Coalition

The Steps to a Healthier San Joaquin Coalition was formed in 2004 to address the burdens of diabetes, obesity, and asthma in our communities. Coalition members are comprised of a broad range of stakeholders including public and private health organizations, school health and food services representatives, neighborhood and community groups, and others interested in these and related issues. Our mission is to assess the needs of the community regarding *obesity, diabetes and asthma*, develop a community action plan to address the needs, and mobilize resources to implement this plan. *We envision San Joaquin County as a community where all people engage in healthy behaviors with special focus on obesity, diabetes, and asthma, and the infrastructure in place to support them.*

Members of the Steps to a Healthier San Joaquin County have provided various nutrition and physical activity classes in the Sierra Vista neighborhood. One of the programs offered at Sierra Vista included a series of eight classes on nutrition and physical activity targeting the Hmong residents. Houa Lee of the University of California Cooperative Extension Expanded Food and Nutrition Education program led these classes in the residents' native language.

The Poovang family participated in all eight classes. Choua Poovang and Sue Chang have two teenage children. They are also raising five grandchildren under the age of nine years old.



Choua Poovang stated that he enjoyed the presentations so much he and his wife never missed a class. Since attending the series last year, the family has continued to implement some healthy lifestyle changes. They now eat brown rice daily, no longer drink soda, and take a walk as a family at least one a day. Choua Poovang feels that these small changes are what have caused him to feel better. According to Choua he was frequently ill before attending these classes and had high blood pressure. He has reported that he no longer has high blood pressure and his improved health has enabled him to do so much more on a daily basis.