This publication was made possible by a grant from:

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Health in the Heartland: Responding to the Crisis

HEALTHY PEOPLE 2010

A 2007 Profile of Health Status in the San Joaquin Valley

Marlene Bengiamin, Ph.D.
John Amson Capitman, Ph.D.
Xi Chang

Central Valley Health Policy Institute
California State University, Fresno

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Published by:
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Suggested Citation:

Bengiamin, M., Capitman, J.A., and Chang, X. (2008). *Healthy people 2010: A 2007 prof le of health status in the San Joaquin Valley.* Fresno, CA: California State University, Fresno.

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This report was supported through a grant from The California Endowment to California State University, Fresno. The views expressed in this report are those of the authors and do not necessarily ref ect those of the funders or the University.

ACKNOWLEDGEMENTS

The authors would like to thank the following people for their invaluable assistance with the publication of this report.

Leadership

Carole Chamberlain, Program Off cer, The California Endowment
Benjamin Cuellar, Dean, College of Health and Human Services, California State University, Fresno
Jeronima Echeverria, Provost and Vice President for Academic Affairs, California State University, Fresno
The Members of the Regional Advisory Council, Central Valley Health Policy Institute

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The Methodist Hospital

Mapping

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THE CENTRAL VALLEY HEALTH POLICY INSTITUTE

The Central Valley Health Policy Institute improves equity in health and health care by developing the region's capacity for policy analysis and program development through integrating the resources of California State University, Fresno and the institutions and communities of the San Joaquin Valley. The Institute was funded in July 2003 by The California Endowment, in partnership with the university, to promote health policy and planning in the region.

Additional information about the Central Valley Health Policy Institute, its programs and activities (including this report), can be found at: www.cvhpi.org

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INTRODUCTION

In 1979, *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* provided national goals for reducing premature deaths and preserving independence for older adults. In 1980, another report, *Promoting Health/Preventing Disease: Objectives for the Nation*, set forth 226 targeted health objectives designed as goals to improve the health status of residents of the United States over the following 10 years. In 1990, the U.S. Department of Health and Human Services released *Healthy People 2000*. This document set 22 priority areas for health in the United States. Under each of these priorities were specif c health objectives to be met by the year 2000. *Healthy People 2000* provided the foundation for *Healthy People 2010*, which builds on initiatives pursued over the past two and one-half decades.

Healthy People 2010 (*HP 2010*; U.S. Department of Health and Human Services, 2000) is a national initiative designed to guide priorities around health and health care. The two major goals of *HP 2010* are: 1) to increase life expectancy and quality of life and 2) to eliminate health disparities among segments of the population including differences that occur by gender, race or ethnicity, education, income, disability, geographic location, or sexual orientation. These goals are delineated in 28 focus areas and specif ed in 467 measurable objectives.

The twenty-eight focus areas of *HP 2010* were developed by lead federal agencies with the most relevant scientif c expertise, with input from the Healthy People Consortium—an alliance of more than 400 national membership organizations and 250 state health, mental health, substance abuse, and environmental agencies. In addition to the *HP 2010* objectives, 10 leading health indicators were identif ed. These 10 health indicators ref ect the major public health concerns in the United States and were chosen based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues. Twenty-two *HP 2010* objectives, specif c to these 10 leading health indicators, are being used to track the progress of the health of the nation over the f rst 10 years of the new millennium (U.S. Department of Health and Human Services, 2000).

In 2003, researchers at the Central California Center for Health and Human Services (CCCHHS) at California State University, Fresno began exploring the health status of the residents of the eight San Joaquin Valley counties of Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare using the 10 leading health indicators found in *Healthy People 2010*. In 2003 they produced *Healthy People 2010: A 2003 Prof le of Health Status in the Central San Joaquin Valley* (*2003 Prof le*; Perez & Curtis, 2003). The *2003 Prof le* provided baseline data on the health status of residents in the Valley and identif ed areas where improvement was needed.

In 2005, *Healthy People 2010: A 2005 Prof le of Health Status in the San Joaquin Valley* (2005 Prof le), was produced to provide an update on the health status of the residents of those same San Joaquin Valley counties. It is the objective of CCCHHS to provide regular health status progress reports on all indicators of Healthy People 2010. A report will be produced and posted on our web site biennially.

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The *2007 Profile* will examine the following 10 leading health indicators and 22 selected objectives that are being used to measure the progress toward achieving *Healthy People 2010* overall goals.

1. Physical Activity

- Increase to 30% the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.
- Increase to 85% the proportion of adolescents who engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days per week for 20 or more minutes per occasion.

2. Overweight and Obesity

- Reduce the proportion of adults who are obese to 15% of the population.
- Reduce the proportion of children and adolescents who are overweight or obese to 5% of the population.

3. Tobacco Use

- Reduce cigarette smoking by adults to 12% of the population.
- Reduce cigarette smoking by adolescents to 16% of the population.

4. Substance Abuse

- Increase to 89% the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days.
- Reduce the proportion of adults using any illicit drug in the past 30 days to 2% of the population.
- Reduce the proportion of adults engaging in binge drinking of alcoholic beverages during the past month to 6% of the population.

5. Responsible Sexual Behavior

- Increase to 50% the proportion of sexually active persons who use condoms.
- Increase to 95% the proportion of adolescents who abstain from sexual intercourse or use condoms, if currently sexually active.

6. Mental Health

- Increase to 50% the proportion of adults with recognized depression who receive treatment.

7. Injury and Violence

- Reduce deaths caused by motor vehicle crashes to 9.2 per 100,000 population.
- Reduce homicides to 3.0 per 100,000 persons.

8. Environmental Quality

- Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency's health based standards for ozone to 0%.
- Reduce the proportion of nonsmokers exposed to environmental tobacco smoke to 45% of the population.

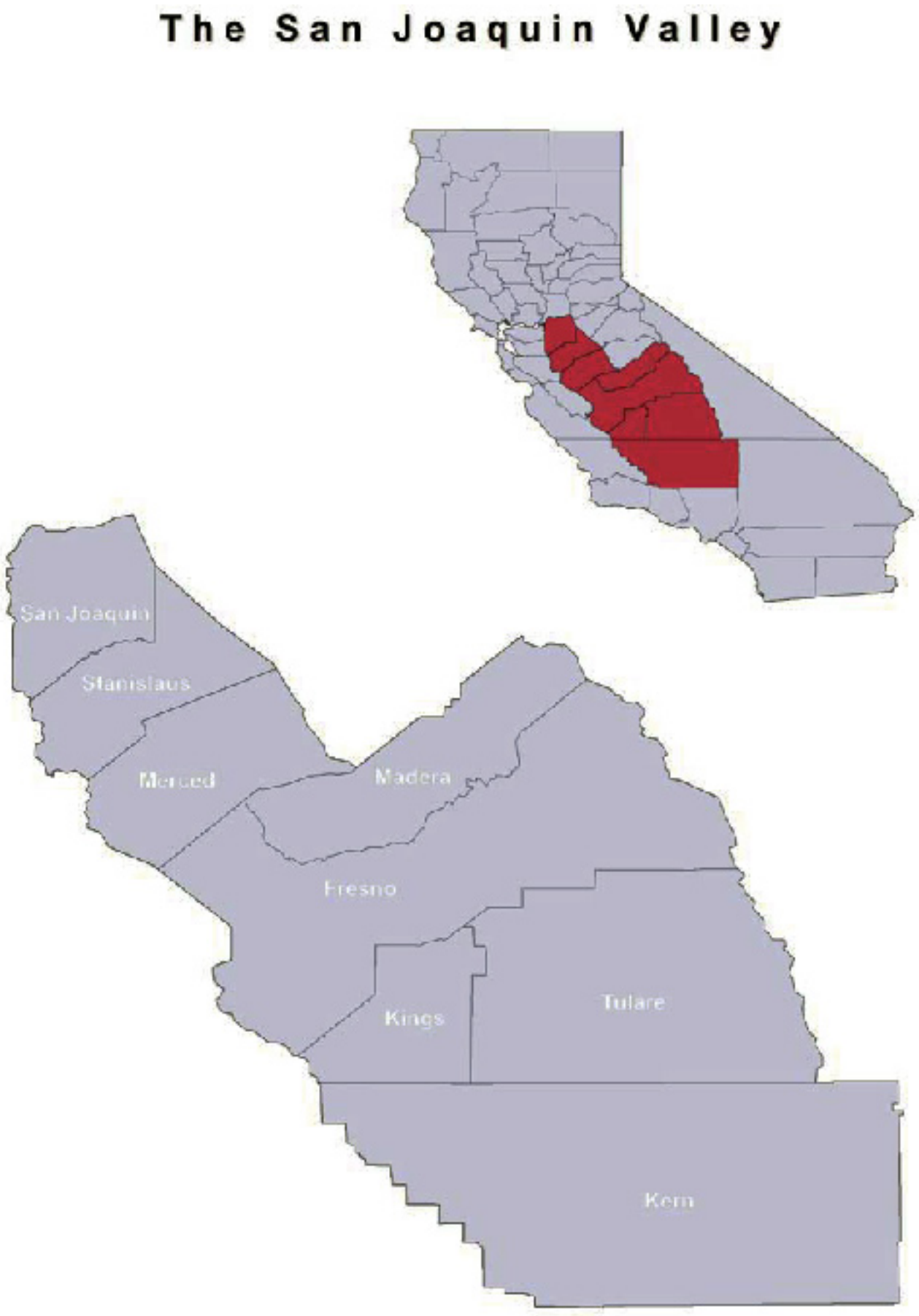
9. Immunization

- Increase to 80% the proportion of young children who receive all vaccines that have been recommended for universal administration for at least five years.
- Increase to 80% the proportion of adolescents ages 13 to 15 years who receive the recommended vaccines.
- Increase to 90% the proportion of noninstitutionalized adults who are vaccinated annually against influenza and those ever vaccinated against pneumococcal disease.

10. Access to Care

- Increase to 100% the proportion of persons with health insurance.
- Increase to 96% the proportion of persons who have a specific source of ongoing care.
- Increase to 90% the proportion of pregnant women who begin prenatal care in the first trimester of pregnancy.

Figure 1


The San Joaquin Valley
San Joaquin
Stanislaus
Merced
Madera
Fresno
Kings
Tulare
Kern

METHODOLOGY

This report reviews the most current available national, state and regional data available as of June, 2007. For each of the *HP 2010* 10 leading health indicators all data were obtained from existing published or web based sources. Data was compiled for eight counties of the San Joaquin Valley, California, and the nation as a whole, to assess progress relative to each of the objectives. This report was reviewed by each member of the Central California Public Health Partnership.

Data were used to assess the health status of the residents of the eight San Joaquin Valley counties, Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare, in comparison to each other, California and the nation. When possible and appropriate, data were used to show the span between 2001 and 2005, providing an opportunity to assess any progress that had been made in meeting the *HP 2010* objectives since the *2005 Prof le* (Bengiamin, et al., 2005). These data, retrieved from web-based and public-use data sets, have also been compiled into tables and f gures. Visual representations of the data allow for comparison between the eight counties and with California, the nation, and the *HP 2010* objectives.

As secondary data were used in this review, it was not possible to conduct statistical tests for similarities or differences between the San Joaquin Valley and the *HP 2010* objectives, California, the nation, or prior years on each available measure. Where possible, we drew on each source to identify the 95% conf dence intervals or other indicators of central tendency and variance for each measure. In this text, we only describe the observed measure for the Valley as "better" or "worse" than the *HP 2010* objective, California, the nation or prior years, if the difference exceeds the conf dence interval for the measure. If the available data source did not provide suff cient information to compute conf dence intervals, the difference between the observed measure for the San Joaquin Valley and the comparison measure needed to differ by 10% or more to be described as "better" or "worse."

Data Sources

For national data, we relied on sources such as the U.S. Department of Health and Human Services, U.S Census Bureau, National Center for Health Statistics, National Adolescent Health Information Center, and the Centers for Disease Control and Prevention.

For data on health status in California and the San Joaquin Valley, we relied on sources such as the *2001, 2003, and 2005 California Health Interview Survey* (UCLA Center of Health Policy Research, 2003; 2005; 2007), Rand California, California Environmental Protection Agency, California Department of Finance, the American Lung Association, the Kaiser Commission on Medicaid and the Uninsured, and several branches within the California Department of Health Services, i.e. Immunization Branch, STD Control Branch, Maternal and Child Health Epidemiology Section, Birth and Death Statistical Master Files, and the County and Statewide Archive of Tobacco Statistics.

Due to lack of representative and stable data for the San Joaquin Valley counties, data from this report should be viewed with caution. The authors made every effort possible to report on the health status of the Valley residents taking into consideration the data availability and the fact that there is no specif c Valley database to rely on for regional consistency among the counties.

Data Limitations

This report used data from multiple existing data sources. Findings from these sources are not always available in comparable formats and the quality of these data may be diff cult to assess. In general, statistics given in this report should be seen as a guide only and treated with appropriate caution. Further, this report identif es a number of important gaps in accessible data on health measures for the San Joaquin Valley. Although we have sought the most relevant and timely data to assess the region's status on the *Healthy People 2010* indicators, there are notable instances where specif c, timely and comparable data were unavailable to monitor health status and access to needed services.

As there was a heavy reliance on data from the *2001, 2003, and 2005 California Health Interview Survey (CHIS)* and other survey-based sources, it is important to understand that these data are estimates derived from a sample and are subject to both sampling and nonsampling errors. Sampling error occurs from the selection of people and housing units included in the survey. Nonsampling error occurs as a result of errors that may take place during the data collection and processing stage. The *2001, 2003, and 2005 CHIS* are random telephone surveys and are subject to some error, such as refusal rate differences. Households without a telephone were not sampled, which could give rise to bias in the estimates. In addition to the high frequent use of mobile phones over landline telephones, the sample may not be representative of the sub-groups in the Valley for other reasons. To mitigate the effects of sampling bias, *CHIS* researchers used special weighting procedures.

Additionally, it is important to note that the use of *2001, 2003* and *2005 CHIS* data was limited to public use on-line f les. The authors determined that accessing additional conf dential data f les, available through the Data Access Center (DAC) established at the UCLA Center for Health Policy Research, presented numerous problems, including data instability due to small sample size. Additional *CHIS* data will be included in the next edition of this report as it becomes available for analysis on *Ask*CHIS.

DEMOGRAPHIC CHARACTERISTICS OF THE SAN JOAQUIN VALLEY

Population Change

The San Joaquin Valley, which incorporates 27,493 square miles in Central California (Figure 1), had one of the fastest growing populations in the state between 2000 and 2006. According to the U.S. Census Bureau, the San Joaquin Valley gained a half million new residents during the 6 years between 2000 and 2006. By 2006, its population reached over 3.8 million, about the same as the population in Oregon and more than the population in 25 of the 50 states. It is projected that by 2040 the Valley will be home to almost 7 million people. Compared to other counties in the region, San Joaquin County has the largest population percentage change (19.4%). The populations in San Joaquin and Merced Counties are expected to increase by two and one-half times the current population and are expected to experience the largest population increases among the Valley counties over the next 50 years. Other Valley counties (Kern, Kings, Madera and Tulare) are expected to double their populations by 2040 (California Department of Finance, Demographic Research Unit, 2004).

Age

The San Joaquin Valley counties have a younger population than all but two other counties in California, with Tulare and Merced Counties having the largest percentage of children and adolescents in the state. In 2005, the Valley also had higher percentages of residents who were under 20 years of age (34.7%), than did California as a whole (30.2%; Rand California, 2005a). The presence of a higher proportion of persons under age 20 has implications for family economic well-being and the f nancing of public services.

The percentage of the population age 65 and older varied by county in 2005, but was below the state average of 10.9% in all of the eight Valley counties. Kings County had the lowest percentage of residents age 65 and older in the state at 8.7% (Rand California, 2005a). This is higher than the 7.3% reported in 2003. The highest proportion of residents age 65 and older was located in Madera County.

Table 1

Population Change in San Joaquin Valley Counties, 2000 to 2006

Place	2000	2006	% Change	County Rank for Population Growth*
Fresno	799,407	891,756	11.6	10
Kern	661,645	780,117	17.9	12
Kings	129,461	146,153	12.9	33
Madera	123,109	146,345	18.9	32
Merced	210,554	245,658	16.7	26
San Joaquin	563,598	673,170	19.4	15
Stanislaus	446,997	512,138	14.6	16
Tulare	368,021	419,909	14.1	18
San Joaquin Valley	**3,302,792**	**3,815,246**	**15.5**	
California	**33,871,648**	**36,457,549**	**7.6**	
Nation	**281,421,906**	**299,398,484**	**6.4**	

Source: U.S. Census Bureau, 2006.

** County Rank is the rank among the 58 counties in the state*

Ethnic Background

In 2005, seven of the eight San Joaquin Valley counties had a higher percentage of Latino residents than the state as a whole (35.9%). Tulare County had the second highest percentage of Latino residents in the state at 55.9%, only exceeded by Imperial County at 75.3%. Only San Joaquin County had a slightly lower percentage of Latino residents than the state, at 35.7% (Table 2; RAND California, 2005a).

Seven of the eight Valley counties, as well as the state of California, had a decrease in White, non-Hispanic population. Kings County had a 5.5% increase, raising the percentage of White, non-Hispanic to 47.9%. The percentage of African Americans in six of the eight San Joaquin Valley counties was lower than the state percentage of 7.3%. Kings and San Joaquin Counties had a higher percentage at 10.3% and 8.9% respectively. The percentage of Asian residents varied widely between Valley counties with a low of 1.7% in Madera County and a high of 13.8% in San Joaquin County. Seven of the eight Valley counties had a lower percentage of Asian residents than did California as a whole (12.2%; RAND California, 2005a). Despite the lower percentage of Asian residents, the Central Valley had the largest concentration of Laotian and Hmong refugees in the United States (The California Endowment, 2002). In 2000, San Joaquin Valley residents represented over 70 ethnicities and spoke approximately 105 languages, making the region among the most culturally diverse in California and the nation.

The Economy

The San Joaquin Valley is one of the least aff uent areas of California. Per-capita income is well below the national average, and poverty, in both urban and rural areas, is a signif cant problem. The San Joaquin Valley provides much to the nation's food supply and agriculture is the backbone of its economic survival (Great Valley Center, nd). The Valley is one of the largest rural and agricultural areas in the world, and food production is the leading industry in each of the eight counties. This agricultural based economy is one contributor to the poor economic situation in the San Joaquin Valley. Persistent poverty, a large population of migrant and low paid workers, and low educational attainment are also contributing factors.

Valley residents have among the lowest per capita personal incomes, higher rates of unemployment, and more residents living below the Federal Poverty Level (FPL) than California as a whole (Table 2). In 2005, Kings County had the lowest per capita income in the state and f ve of the eight counties with the highest unemployment rates in the state were in the Valley, with Tulare County in the number three spot (U.S. Bureau of Economic Analysis, 2004).

Table 2

San Joaquin Valley Demographics, 2005

Demographic Characteristics	Fresno	Kern	Kings	Madera	Merced	San Joaquin	Stanislaus	Tulare	San Joaquin Valley	California
Population[1]	858,948	724,206	121,418	134,159	237,278	646,259	497,804	404,909	3,624,981	35,484,453
Population per Square Mile[2]	148	93	104	66	125	468	338	85	178	235
% White, non Hispanic[2]	38.7%	47.1%	47.9%	47.1%	38.1%	43.5%	53.8%	39.3%	43.9%	45.6%
% Hispanic/Latino[2]	47.9%	46.0%	55.5%	51.5%	52.4%	35.7%	38.1%	55.9%	45.6%	35.9%
% American Indian[2]	2.2%	2.1%	2.6%	3.7%	1.8%	1.6%	1.8%	2.2%	2.0%	1.39%
% Asian[1]	8.8%	3.9%	3.3%	1.7%	6.6%	13.8%	5.0%	3.6%	5.8%	12.2%
% Pacific Islander[1]	0.2%	0.3%	0.3%	0.4%	0.2%	0.5%	0.5%	0.3%	0.3%	0.4%
% African American[2]	6.2%	6.9%	10.3%	4.9%	4.6%	8.9%	3.6%	2.2%	6.0%	7.3%
% Multirace[1]	1.9%	2.0%	1.7%	1.8%	2.1%	3.4%	2.7%	1.5%	2.1%	2.4%
% 0-19 Years[2]	34.7%	35.2%	36.7%	32.9%	36.6%	33.6%	33.3%	36.4%	34.7%	30.2%
% 18-64 Years[5]	60.1%	56.5%	60.8%	58.1%	58.5%	60.1%	60.7%	58.6%	59.2%	62.3%
% Over 65 Years[2]	9.9%	9.3%	8.7%	11.3%	9.0%	9.9%	10.1%	9.4%	9.7%	10.9%
Per Capita Personal Income[3]*	$25,573	$24,335	$21,253	$21,949	$23,379	$25,527	$25,885	$23,153	$23,882	$36.969
% 25 years+ Without High School Diploma[5]	28.3%	27.0%	24.4%	23.0%	23.3%	22.7%	21.0%	27.4%	25.3%	16.9%
Annual Unemployment Rate[4]	9.0%	8.4%	9.1%	8.3%	10.4%	8.1%	9.0%	9.5%	9.0%	5.2%*
% of Total Population Below 100% of FPL[5]	27.0%	22.7%	19.3%	22.4%	20.1%	16.5%	14.0%	27.6%	21.7%	15.1%
% of Children, Under 18, in Families with Income Below 100% of the FPL[5]	31.9%	26.8%	30.3%	22.8%	23.8%	18.2%	13.2%	36.8%	25.7%	20.9%

Sources: 1. U.S. Census Bureau. American Community Survey, 2005.
2. RAND California, 2005a.
3. U.S. Bureau of Economic Analysis, 2004.
4. California Employment Development Department, Labor Market Information Division, 2007.
5. UCLA Center for Health Policy Research, 2007.

* 2005 data on personal income was not available so 2004 data was substituted.

THE VALLEY'S PROGRESS TOWARD MEETING *HEALTHY PEOPLE 2010* OBJECTIVES

1. Physical Activity

Objective 22-2: Increase to 30% the Proportion of Adults Who Engage Regularly, Preferably Daily, in Moderate Physical Activity for at Least 30 Minutes per Day.

The Surgeon General reported that physical activity appears to improve health-related quality of life by enhancing psychological well-being and by improving physical functioning in persons compromised by poor health. Furthermore, physical activity appears to relieve symptoms of depression and anxiety and improve mood (CDC, National Center for Chronic Disease Prevention and Health Promotion, 1996). Other benef ts of regular physical activity include reduced risks for coronary heart disease, diabetes, colon cancer, hypertension, and osteoporosis. In addition, physical activity can enhance physical functioning and aid in weight control (National Center for Health Statistics, 2004).

In 2005, 42.7% of San Joaquin Valley adults, age 18 and over, reported doing moderate physical activity. An additional 26.2% of adults reported doing vigorous physical activity. This resulted in 68.9% of Valley adults reporting engaging in some vigorous/ moderate physical activity in 2005. Less than one-third of Valley adults (31.2%) reported no vigorous or moderate activity at all (UCLA Center for Health Policy Research, 2007).

In 2005, the percentage of adults in California as a whole reported engaging in some moderate activity were comparable to the SJV (41.3%). An additional 32.7% of California adults reported doing vigorous activity for a total of 74.0% of California adults engaging in some physical activity. In California, 26.0% of adults reported not engaging in any physical activity.

Between 2000 and 2005, there was little change in the percentage of adults engaging in usual daily activities and leisure-time physical activities. The changes in estimates that occurred were generally not signif cant. In instances where differences were statistically signif cant, adults were less active in 2005 than in 2000. (CDC, 2005a). In 2005, the percentage of adults at the national level who reported not engaging in any physical activity was 25.4% (CDC, 2005). This was comparable to the state and lower than the San Joaquin valley.

Objective 22-7: Increase to 85% the Proportion of Adolescents Who Engage in Vigorous Physical Activity that Promotes Cardiovascular Fitness Three or More Days per Week for 20 or More Minutes per Occasion.

Research has shown that adolescents who get daily vigorous physical activity tend to be leaner and f tter than their less active peers. As an example, a 2004 study of 878 California adolescents showed that a lack of physical activity was the main contributor to obesity in adolescents ages 11 to 15 (News-Medical.Net, 2004). In 2005, 64.0% of high school students nationally reported participating in suff cient vigorous physical activity. This was lower than the 66.5% of California teens, ages 12-17, who reported participating in recommended levels of regular physical activity. Only 55.0% of female and 70.0% of male high school students nationally reported a level of physical activity that met the criteria for the recommended amount of either moderate or vigorous physical activity (CDC, Division of Adolescent and School Health, 2005).

According to the *2005 CHIS*, 74.7% of male adolescents and 58.4% of female adolescents, ages 12 -17, in the San Joaquin Valley reported engaging in vigorous physical activity three or more days per week. This was similar to the percentage statewide where 73.2% of adolescent males and 59.4% of adolescent females, ages 12-17, reported engaging in vigorous physical activity three or more days per week (UCLA Center for Health Policy Research, 2007). Madera County has the highest percentage of teen physical activity of 74.1% while Fresno County has the lowest percentage of 57.1%. Male adolescents continue to have a higher rate of vigorous physical activity except in Madera and Tulare counties.

2005 CHIS data, by gender and ethnicity, showed a lower percentage of San Joaquin Valley Latino girls (52.3%) than White, non-Latino, girls (62.6%), ages 12-17, reporting engaging in vigorous activity three or more days per week. Asian adolescent boys had the lowest percentage of vigorous physical activity (59.7%) in the Valley. However, 2005 data showed that 96.5% of African American adolescents, ages 12-17, in the Valley, reported engaging in vigorous physical activity three or more days per week compared to 2001 data of 30.8% (UCLA Center for Health Policy Research, 2003; 2007).

2. Overweight and Obesity

Objective 19-2: Reduce the Proportion of Adults Who are Obese to 15% of the Population.

Obesity[1] is becoming the most critical health condition of this era. Over the last decade California has experienced one of the largest percentage increases in adult obesity in the nation. The percentage of California residents that were considered to be obese grew from 20.9% in 2001 to 23.3% in 2006, an increase of approximately 11% (CDC, 2007b). Nationwide, there has also been a dramatic increase in obesity. In 1991, four states had an obesity prevalence rate of 15-19% and with no states reporting above 20% of the population as obese. In contrast, in 2005, only four states had an obesity prevalence of 15-19%; 43 states, including California, had a prevalence rate of 20-29%; and three states had an obesity prevalence of equal to or more than 30% (CDC, 2007).

The *2001* and *2005 CHIS* used self reported height and weight to determine "overweight or obesity[2]". In this analysis, overweight or obese will be used as a measure for comparison purposes. In the San Joaquin Valley, *2005 CHIS* data show that 65.0% of nonelderly adults, ages 18-64, reported being overweight or obese. This was similar to the 65.1% of adults in this age group that reported being overweight or obese in the *2001 CHIS.* In 2005, the percentage of San Joaquin Valley nonelderly adults who reported being overweight or obese was higher than the state (56.2%) but similar to the 2002 national percentage of 64.5% (American Obesity Association, n.d.).

The percentage of Valley seniors, age 65 and over, who reported being overweight or obese (63%) was slightly lower than in 2003 (66.4%). Nonetheless, the 2005 proportion of Valley seniors who reported being overweight and obese was higher than in 2001 (56.5%). Statewide the percentage of seniors who reported being overweight or obese remained relatively stable at 54.3% in 2001 and 55.6% in 2005 (UCLA Center for Health Policy Research, 2003; 2007). In 2005 the percentage of Valley adults who reported being overweight or obese was over four times higher than the *HP 2010* goal (Table 3).

Table 3

Overweight and Obesity by Age Group[1]
San Joaquin Valley and California, 2001 and 2005

County	Ages 12-17		Ages 18-64		Age 65+	
	2001	2005	2001	2005	2001	2005
Fresno	14.1%	19.8%*	65.0%	56.7%	55.3%	64.7%
Kern	7.7%*	9.6% *	61.4%	66.9%	50.8%	62.1%
Kings	16.3%	7.5% *	63.5%	62.9%	58.0%	70.3%
Madera	11.5%*	4.8% *	66.1%	64.5%	58.6%	60.8%
Merced	18.2%*	12.5%	67.4%	66.8%	67.2%	65.6%
San Joaquin	17.9%	12.2%*	66.9%	71.6%	62.3%	59.7%
Stanislaus	12.9%*	17.0%*	62.8%	67.2%	53.4%	63.0%
Tulare	7.6%*	27.10%	71.0%	66.5%	56.1%	63.8%
San Joaquin Valley	**12.8%**	**15.5%**	**65.1%**	**65.0%**	**56.5%**	**63.0%**
California	**12.2%**	**14.2%**	**55.0%**	**56.2%**	**54.3%**	**55.7%**
Healthy People 2010 Objective	**5.0%**	**5.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**

Source: UCLA Center for Health Policy Research, 2003; 2007.

* *Statistically unstable*

[1]Adult obesity is def ned as having a Body Mass Index (BMI) of 30 or higher.

[2]Using the Body Mass Index (BMI) – 4 level, for adults "overweight or obese" includes the respondents who have a BMI of 25 or greater.

Objective 19-3: Reduce the Proportion of Children and Adolescents who are Overweight or Obese to 5% of the Population.

A comparison of 2001 and 2005 CHIS data shows an increase in overweight or obesity3 among San Joaquin Valley adolescents, ages 12-17, from 12.8% in 2001 to 15.5% in 2005. This percentage was slightly higher than the percentage of overweight or obesity adolescents statewide at 14.2% (Table 3). Results from the 1999-2002 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicated that an estimated 15.8% of children and adolescents, ages 6-19, nationally, reported being overweight (NCHS, 2004).

A recent California study that examined physical activity and the relationship to overweight and obesity in adolescents, ages 11-15, showed more Latino girls (54.8%) than non-Latino, White girls (42.0%) were either overweight or at risk for obesity. No difference was found for weight status between boys based on ethnicity (HYPERLINK http://News-Medical.Net News-Medical. Net, 2004). When comparing this with San Joaquin Valley data, the opposite is true. In 2005, more Latino than White adolescent boys, ages 12-17, reported being overweight or obese at 19.3% and 12.9% respectively. Similarly, there was a difference in the percentages of adolescent Latino and White girls in the Valley who reported being overweight or obese at 15.8% and 9.3% respectively (UCLA Center for Health Policy Research, 2007). It is important to note that Table 3 continues to show statistically unstable data for adolescent overweight or obesity in most counties in both 2001 and 2005.

It is apparent that the San Joaquin Valley is not meeting the HP 2010 objectives for the reduction of obesity in adults and adolescents. Although available data does not address overweight/ obesity in children under 12, the percentage of adolescents who are overweight or obese is indicative of a continuing health concern for overweight/obesity among younger children in the Valley.

3. Tobacco Use

27-1a - Reduce Cigarette Smoking by Adults to 12% of the Population.

Comparison of *2001* and *2005 CHIS* data for adult smoking (Figure 2) for the San Joaquin Valley showed that the percentage of adults, age 18 and over, who reported being a current smoker decreased slightly from 19.0% in 2001 to 17.4% in 2005. Furthermore, the percentage of adults who reported never smoking increased from 56.9% in 2001 to 59.9% in 2005. In keeping with this f nding, the percentage of adults who reported being former smokers decreased slightly from 24.1% in 2001 to 22.7% in 2005. The percentage of current smokers in the San Joaquin Valley was higher than the state as a whole; with 14.9% of adults statewide reporting that

[3]For adolescents, "overweight or obese" includes the respondents who have a BMI in the highest 95 percentile with respect to their age and gender.

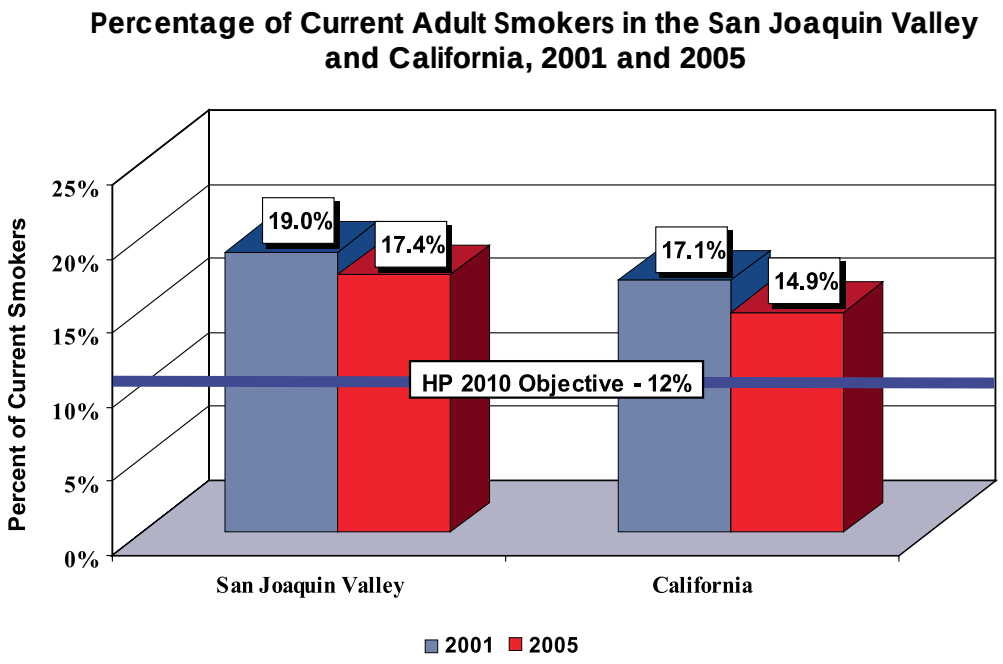
they were current smokers in 2005 and 60.5% reporting that they had never smoked (UCLA Center for Health Policy Research, 2003; 2007). In 2005, San Joaquin Valley had a lower percentage of adults who smoked than the nation at 21.0% (American Lung Association, 2007). According to *CHIS 2005* data, Kern County has the highest percentage of current smokers (20.3%) followed by Fresno (19.7%). Based on these results, the percentage of Valley adults who smoke continues to be higher than the *HP 2010* objective of 12.0%.

27-2b - Reduce Cigarette Smoking by Adolescents to 16% of the Population.

As the leading cause of preventable death and disease in the United States, smoking is associated with a signif cantly increased risk of heart disease, stroke, lung cancer, and chronic lung diseases (National Center for Health Statistics, 2004). The *2005 National Survey on Drug Use and Health* (NSDUH) showed that 44.3% of young adults nationally, ages 18 to 25, reported currently using a tobacco product. An estimated 3.3 million youths nationally (13.1%), ages 12 to 17, reported using a tobacco product during the past month (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Off ce of Applied Studies, 2007).

The *2005 CHIS* showed that 9.4% of San Joaquin Valley teens, ages 12-17, reported being a current smoker. This is higher than California as a whole where 6.5% of adolescents reported being a current smoker. The racial/ethnic background of Valley adolescents who reported being a current smoker varied widely. Because of unstable or not reported number for some racial/ethnic groups in the San Joaquin valley, teen smoking can not be reported by race/ ethnicity. Statewide reports indicate that White, non-Latino teens have the highest percentage of current smokers at 9.6%, American Indian/Alaska Natives at 6.8% and Latinos at 5.6%. Asian teens reported the second lowest percentage at 3.1%. The lowest percentage reported (1.8%) was the others category (UCLA Center for Health Policy Research, 2007). Cigarette smoking among Valley adolescents appeared to be lower than national rates and was almost half the HP 2010 objective. This specif c question was not asked in the *2001 CHIS* so temporal comparisons are not made.

Figure 2



Source: UCLA Center for Health Policy Research, 2003; 2007.

4. Substance Abuse

Objective 26.10a - Increase to 89% the Proportion of Adolescents not Using Alcohol or Any Illicit Drugs During the Past 30 Days.

Studies have shown that using alcohol and tobacco at a young age increases the risk of using other drugs later in life. Some teens will experiment and stop, or continue to use occasionally, without significant problems. Others will develop a dependency, perhaps moving on to more dangerous drugs and causing significant harm to themselves and possibly others. Results from the 2005 National Survey on Drug Use and Health (NSDUH) showed substantial variations in the rates of substance dependence by age. For example, 3.8% of youths aged 12 or 13 reported current illicit drug use in 2004. As in prior years, illicit drug use in 2004 tended to increase with age among young persons, peaking among 18 to 20 year olds (21.7%) and generally declining after that point with increasing age (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2004).

In 2005, 65.2% of San Joaquin Valley adolescents, ages 12-17, reported that they had never had an alcoholic drink. This was comparable to California at 64.5% (UCLA Center for Health Policy Research, 2007). However, adolescents in the Valley did not meet the 89% goal set by *HP 2010*. *CHIS 2005* data shows that Tulare County has the highest percentage of adolescents who had never had an alcoholic drink (74.0%) while San Joaquin County has the lowest percentage (51.8%).

As a proxy indicator for alcohol, we compared the percentage of Valley adolescents, who reported never having an alcoholic drink between 2001 and 2005. *CHIS* data from 2001 showed that 70.5% (253,000) of San Joaquin Valley adolescents, reported never having an alcoholic drink. In 2005, 65.2% (260,000) of Valley adolescents reported never having an alcoholic drink. Although this does not appear to ref ect a signif cant change, it does show that perhaps 7,000 more adolescents reported never having an alcoholic drink in 2005. The percentages of California teens who reported never having an alcoholic drink in 2001 (68.9%) and 2005 (64.5%) were similar to the Valley (UCLA Center for Health Policy Research, 2003; 2007).

Nationwide, according to the 2005 National Survey on Drug Use and Health, nearly 28% of Americans between ages 12-20 report current alcohol consumption, which was lower than the percentage of underage persons, ages 12-20, in the San Joaquin Valley (34.8%) and California (35.5%) who reported binge drinking* in 2005 (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Off ce of Applied Studies, 2004; UCLA Center for Health Policy Research, 2007).

Data on drug and alcohol use among adolescents in the San Joaquin Valley counties showed a difference in the use of drugs at an early age.

*Binge drinking is def ned as consuming more than f ve drinks at a single time in the month prior to the survey.

For example, three percent of Fresno County male children 11 years of age, had drank a full glass of alcohol and 4% had used an inhalant drug*, while the rate was 1% and 2% respectively for females. Additionally, the percentage of adolescents who reported using alcohol and other drugs increased with age with 29.0% percent of 7th graders, 51.0% of 9th graders, and 66.0% of 11th graders in Fresno County reporting that they had used alcohol or other drugs in the past 30 days (California Department of Education, 2005).

26-10c - Reduce the Proportion of Adults Using Any Illicit Drug During the Past 30 Days to 2% of the Population.

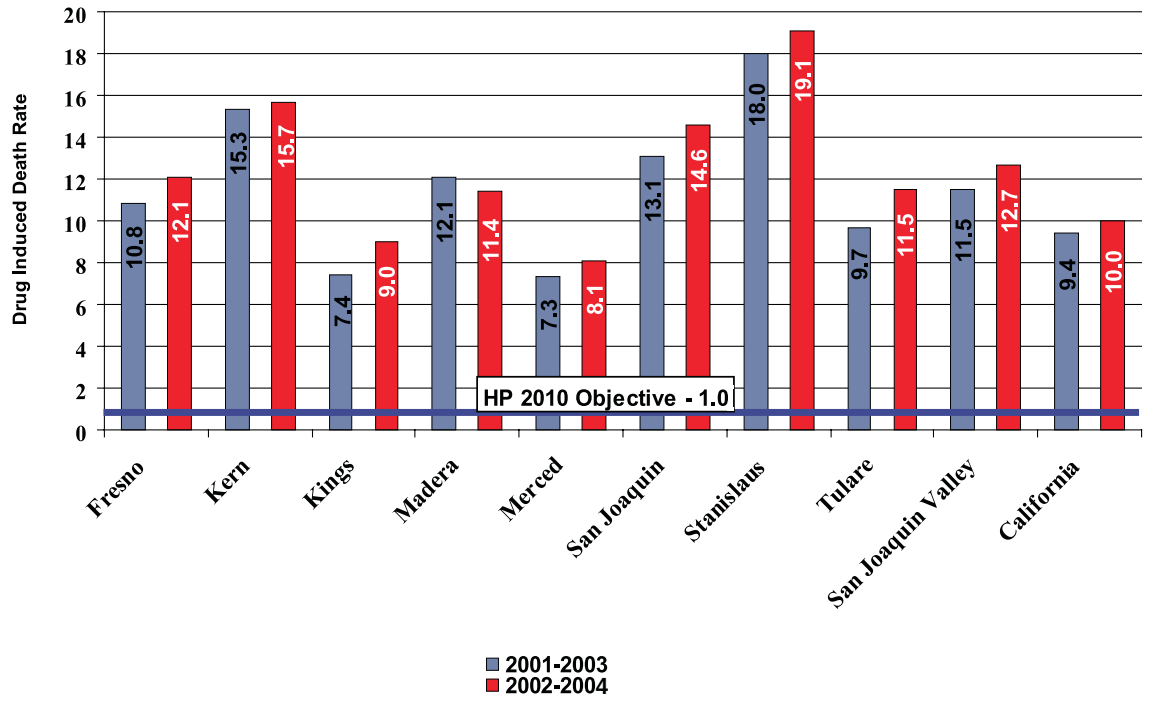
There were no data available specif c to the San Joaquin Valley to measure progress toward a decrease in the use of illicit drugs by adults or to compare with the HP 2010 objective. However, national data indicate that in 2005, 20.1% of persons ages 18-25 and 5.8% of persons ages 26 or older reported using illicit drugs, including marijuana, during the month prior to the NSDUH survey. These percentages were comparable to 2002 data with 20.2% of 18-25 year olds and 5.8% of those ages 26 and over reporting using illicit drugs during the month prior to the survey (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Off ce of Applied Studies, 2006).

Another basis for a comparison of drug use is the rate of drug induced deaths. Illicit drug use is associated with suicide, homicide, motor-vehicle injury, HIV infection, pneumonia, violence, mental illness, and hepatitis. An estimated three million individuals in the United States have serious drug problems. Several studies have reported an undercount of the number of deaths attributed to drugs by vital statistics. If deaths caused indirectly by illicit drug use were included in this category, it is estimated that illicit drug use resulted in approximately 17,000 deaths nationally in 2000, a reduction of 3,000 deaths from 1990 (Mokdad, Marks, Stroup, & Gerberding, 2004).

The *Healthy People 2010* objective #26-3: reduce drug induced deaths to 1.0 death per 100,000 persons, was used as a surrogate indicator for illicit drug use. Among the San Joaquin Valley counties, Stanislaus County had the highest rate of drug-induced deaths per 100,000 persons, using three year averages, with a rate of 18.0 for 2001-2003 and 19.1 for 2003-2005. Merced County had the lowest rates of drug induced deaths in the same time periods at 7.3 and 8.1 respectively. As shown in Figure 3, the San Joaquin Valley and California were well above the *HP 2010* objective of 1.0 death per 100,000 persons.

Figure 3

Rate of Drug Induced Deaths in the San Joaquin Valley and California, per 100,000 Persons, Age Adjusted Averages 2001-2003 and 2002-2004



Source: California Department of Health Services, 2005; 2007.

*Inhalant drugs include a variety of substances, such as amyl nitrite, cleaning f uids, gasoline, paint, and glue.

26-11c - Reduce the Proportion of Adults Engaging in Binge Drinking of Alcoholic Beverages During the Past Month to 6% of the Population.

CHIS data showed an increased percentage of San Joaquin Valley adults, age 18 and over, who reported binge drinking at 15.8% in 2001 and 18.5% in 2005. Even though this increase was lower than binge drinking among adults statewide at 15.4% in 2001 and 25.3% in 2005 (UCLA Center for Health Policy Research, 2003; 2007), the percentage of Valley adults who reported binge drinking remains three times greater than the *HP 2010* objective of 6%.

Nationally, young adults, ages 18-25, reported the highest percentage of binge drinkers in 2005, with peak usage at age 21. The rate of binge drinking was 42.1% for young adults ages 18-25 and 49.9% at age 21 (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2006). *2005 CHIS* data showed that young adults, ages 18-25, in both the San Joaquin Valley (32.2%) and California (28.0%) had a lower percentage of binge drinkers than did the nation.

5. Responsible Sexual Behavior

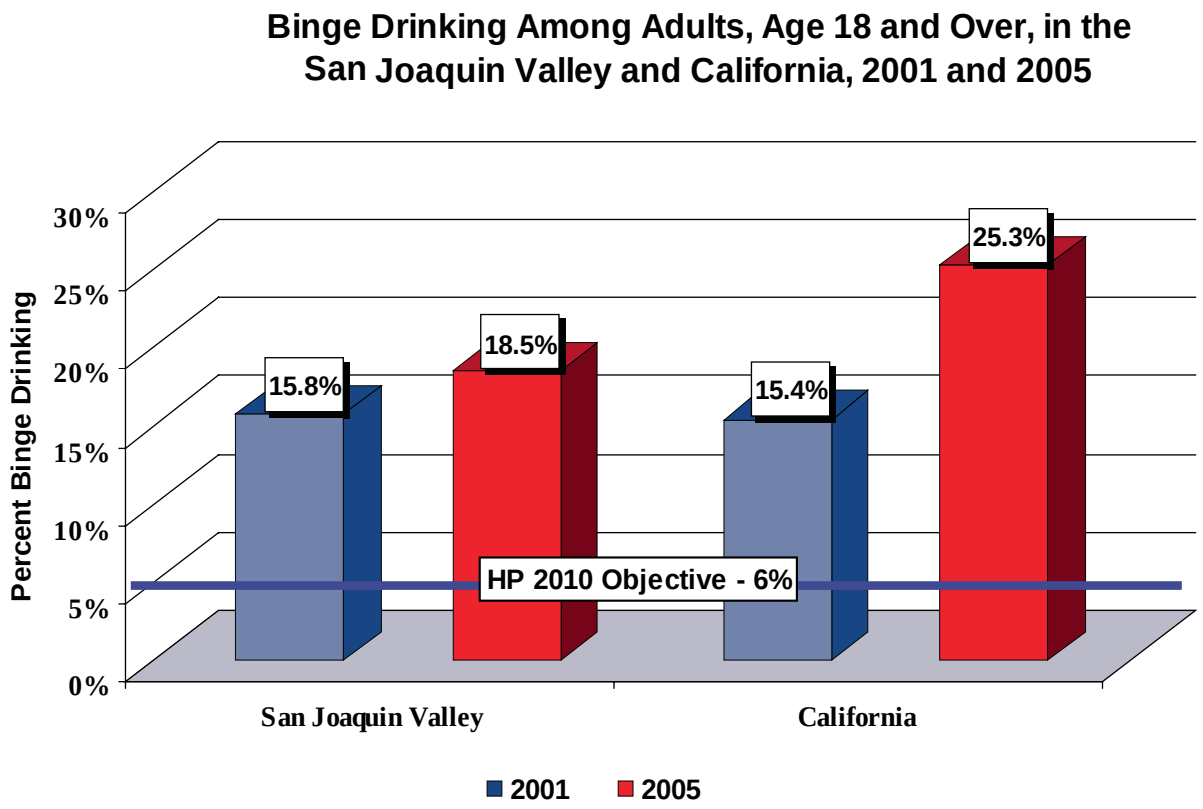
Objective 13-6: Increase the Proportion of Sexually Active Persons Who Use Condoms to 50% of the Population.

13-6a. Females Ages 18 to 44 years
13-6b. Males Ages 18-49 years

In a 2002 national survey, 90% of sexually experienced women*, ages 15-44, reported that they had used a condom at some time. Additionally, of women who reported that they were currently using a contraception method, 11.1% reported using the male condom as their most effective contraceptive method (Mosher et al., 2004). As current data were not available to address the use of condoms by San Joaquin Valley adults, the prevalence of sexually transmitted infections (STIs) was used as a surrogate indicator for the lack of condom use by adults.

STIs are a consequence of risk-taking behavior, specifically unprotected sexual activity. Condoms are the only contraceptive method proven to reduce the risk of all STIs, including HIV

Figure 4



Source: UCLA Center for Health Policy Research, 2003; 2007.

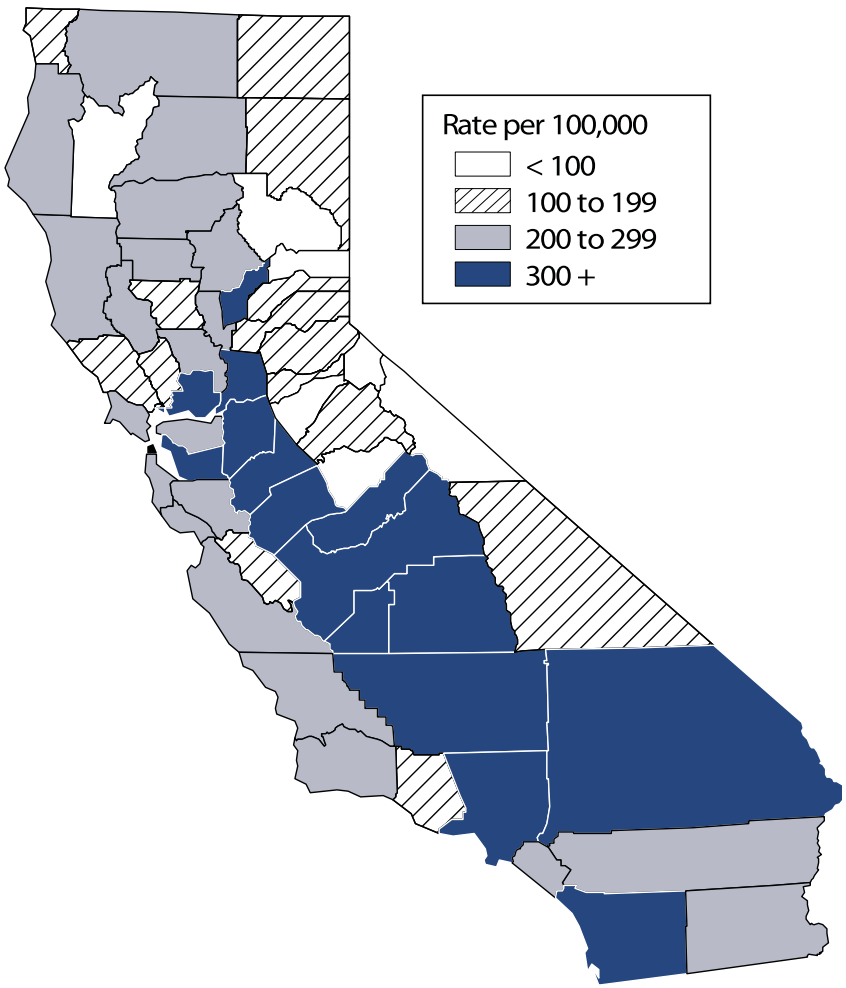
*The term "sexually experienced women" is def ned as women who have ever had sexual intercourse.

(WHO, 2000). Chlamydia is the most frequently reported infectious disease in the United States (CDC, Division of Sexually Transmitted Disease, n.d.). The rates of chlamydia and gonorrhea cases in the San Joaquin Valley counties were consistently higher than the state as a whole, as shown in Figures 5 and 6 and Table 4. The rates of both diseases in all of the Valley counties were dramatically higher for females, of any age, than for males, of any age, with the highest rates in the 15-24 age groups. However, the rates among both genders were lower in every age group after ages 25-29 (California Department of Health Services, STD Control Branch, 2007a; 2007b).

The rate of chlamydia infections in California as a whole increased from 292.9 per 100,000 persons in 2001 to 352.1 per 100,000 persons in 2005. The rate of Gonorrhea infections increased from 66.9 per 100,000 persons in 2001 to 92.6 in 2005. Among the Valley counties, Merced County had the greatest rate increase in cases of Chlamydia, growing from 214.6 per 100,000 persons in 2001 to 429.4 per 100,000 persons in 2005. (California Department of Health Services, STD Control Branch, 2007a; 2007b). Figures 5 and 6 also indicate that in 2005 rates for both Chlamydia and Gonorrhea in the San Joaquin Valley counties were consistently higher than in other primarily rural areas of California and more comparable to rates in the most populated urban counties.

Figure 5

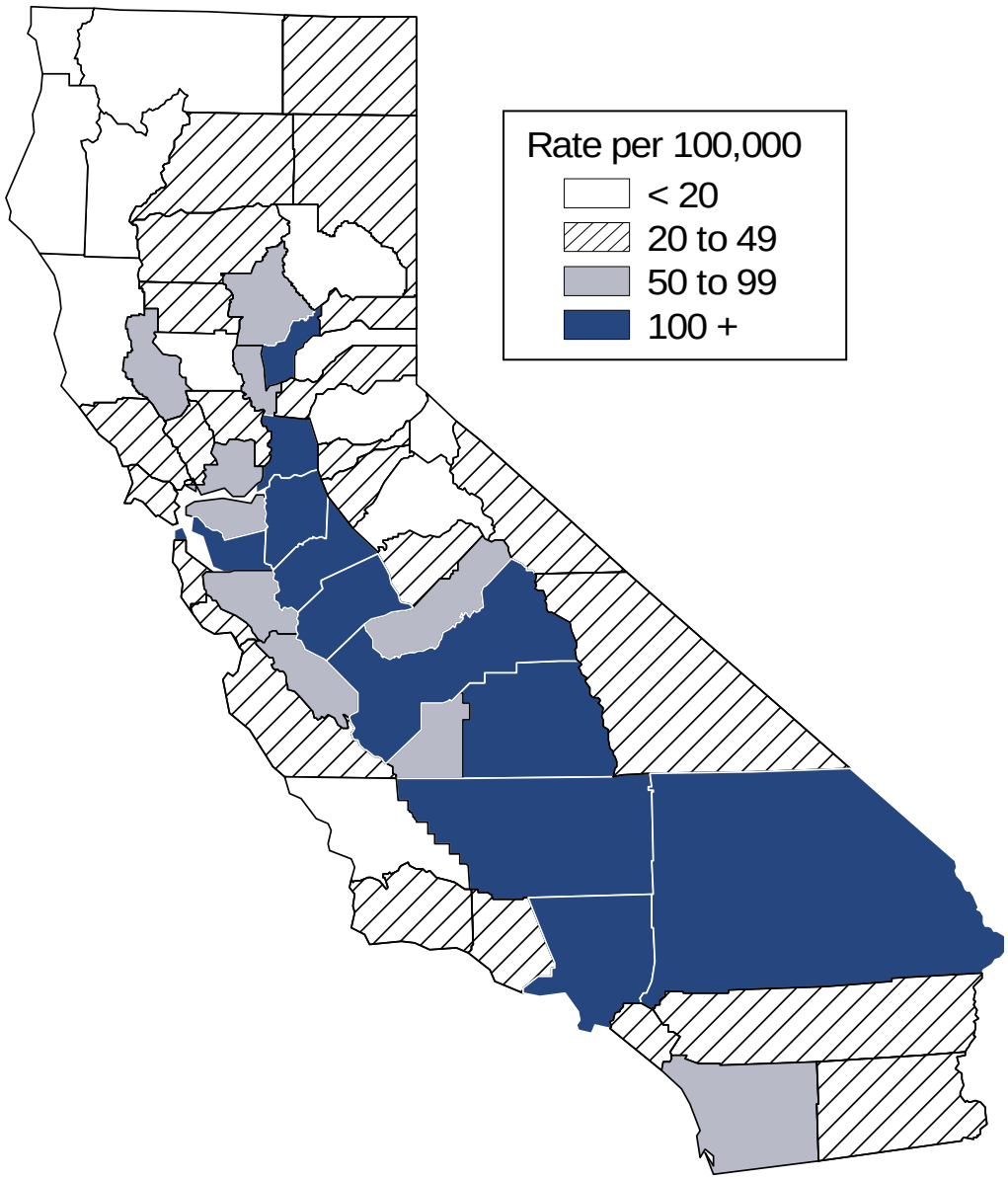
All California Counties - Rates of Chlamydia Infections, per 100,000 Persons, 2005



Source: California Department of Health Services, STD Control Branch, 2007a.

Figure 6

All California Counties - Rates of Gonorrhea Infections, per 100,000 Persons, 2005



Source: California Department of Health Services, STD Control Branch, 2007b.

Table 4

Chlamydia And Gonorrhea Cases and Rates, Per 100,000 Persons, in the San Joaquin Valley and California, 2005

Age Groups	Chlamydia				Gonorrhea			
	Female		Male		Female		Male	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Fresno County								
15-19	1238	3205.8	257	625	201	520.5	87	211.6
20-24	1409	3803.4	523	1266	226	610.1	192	464.8
25-29	554	1697.3	239	636.6	132	404.4	132	351.6
30-34	231	807.4	114	353.1	66	230.7	68	210.6
35-44	125	218.2	69	112.7	42	73.3	65	106.2
45+	29	20.9	21	16.7	21	15.1	53	42.2
Kern County								
15-19	1,016	3300.6	276	842.4	197	640	93	283.9
20-24	938	3378.8	443	1314.7	213	767.3	180	534.2
25-29	385	1768.3	263	997.8	122	560.4	106	402.2
30-34	139	651.5	97	385.8	54	253.1	51	202.8
35-44	87	177.4	95	174.6	49	99.9	81	148.9
45+	32	26.1	26	22.3	14	11.4	36	30.9
Kings County								
15-19	180	3493.8	43	715.1	20	388.2	6	99.8
20-24	191	4271	78	965.5	29	648.5	23	284.7
25-29	54	1413.2	38	509.8	8	209.4	18	241.5
30-34	17	404.3	7	90.4	2	47.6	8	103.4
35-44	11	118.2	6	39.6	2	21.5	8	52.9
45+	4	21.4	1	5	0	0	0	0
Madera County								
15-19	130	2518.4	12	220.2	13	251.8	2	36.7
20-24	196	3470.3	36	588.7	30	531.2	8	130.8
25-29	96	1909.3	18	365.4	20	397.8	6	121.8
30-34	46	915.6	5	119.9	14	278.7	2	48
35-44	50	470	6	77.2	19	178.6	7	90.1
45+	14	57.2	1	4.7	3	12.2	4	18.6
Merced County								
15-19	280	2400.3	52	424.7	28	240	16	130.7
20-24	300	2800.3	95	817.7	59	550.7	28	241
25-29	115	1420.1	49	547.9	28	345.7	20	223.6
30-34	58	738.1	24	304.4	16	203.6	10	126.8
35-44	35	209.1	13	79.8	24	143.4	20	122.8
45+	9	24.9	5	15.3	4	11	7	21.4

Table 4

Chlamydia And Gonorrhea Cases and Rates, Per 100,000 Persons, in the San Joaquin Valley and California, 2005

Age Groups	Chlamydia				Gonorrhea			
	Female		Male		Female		Male	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
San Joaquin County								
15-19	787	2769.6	240	754.1	126	443.4	55	172.8
20-24	662	2592.9	301	1058.9	125	489.6	114	401.1
25-29	288	1316.8	132	592	56	256	74	331.9
30-34	119	547.1	50	217.7	29	133.3	45	195.9
35-44	68	146.9	48	101.8	31	67	50	106.1
45+	19	17.6	19	19.8	6	5.6	24	25
Stanislaus County								
15-19	498	2270.6	111	487.8	89	405.8	41	180.2
20-24	606	2985.8	189	894.9	120	591.2	94	445.1
25-29	226	131.22	82	451.9	48	278.7	50	275.6
30-34	75	446.7	36	204.1	33	196.6	27	153.1
35-44	55	153.5	30	83.6	40	111.6	69	192.3
45+	11	12.9	13	17.4	5	5.9	29	38.9
Tulare County								
15-19	491	2710	133	694.6	48	264.9	25	130.6
20-24	521	3100.8	144	793.7	82	488	72	396.9
25-29	219	1600.1	80	527.7	49	358	35	230.9
30-34	107	814.2	40	271.9	24	182.6	31	210.8
35-44	80	298.8	22	80.1	21	78.4	18	65.5
45+	14	22.8	4	7.3	1	1.6	9	16.5
San Joaquin Valley								
15-19	4620	2833.6	1124	595.5	722.0	394.3	325	155.8
20-24	4823	3300.4	1809	962.5	884.0	584.6	711	362.3
25-29	1937	1554.7	901	578.6	463.0	351.3	441	272.4
30-34	792	665.6	373	243.4	238.0	190.8	242	156.4
35-44	511	224.0	289	93.7	228.0	96.7	318	110.6
45+	132	25.5	90	13.6	54.0	7.9	162	24.2
California								
15-19	30,882	2,289.4	7,017	490.2	5,086	377	2,205	154.3
20-24	34,189	2,715.1	12,301	880.7	5,057	401.6	4,480	320.7
25-29	14,858	1,234.9	7,284	555	2,491	207	3,548	270.4
30-34	6,366	485.1	3,762	272.3	1,192	90.8	2,443	176.4
35-44	4,485	159.9	4,083	140.8	1,244	44.3	3,780	130.4
45+	1,213	18.2	1,630	27.5	391	5.9	1,731	29.2

Source: RAND California, 2005a

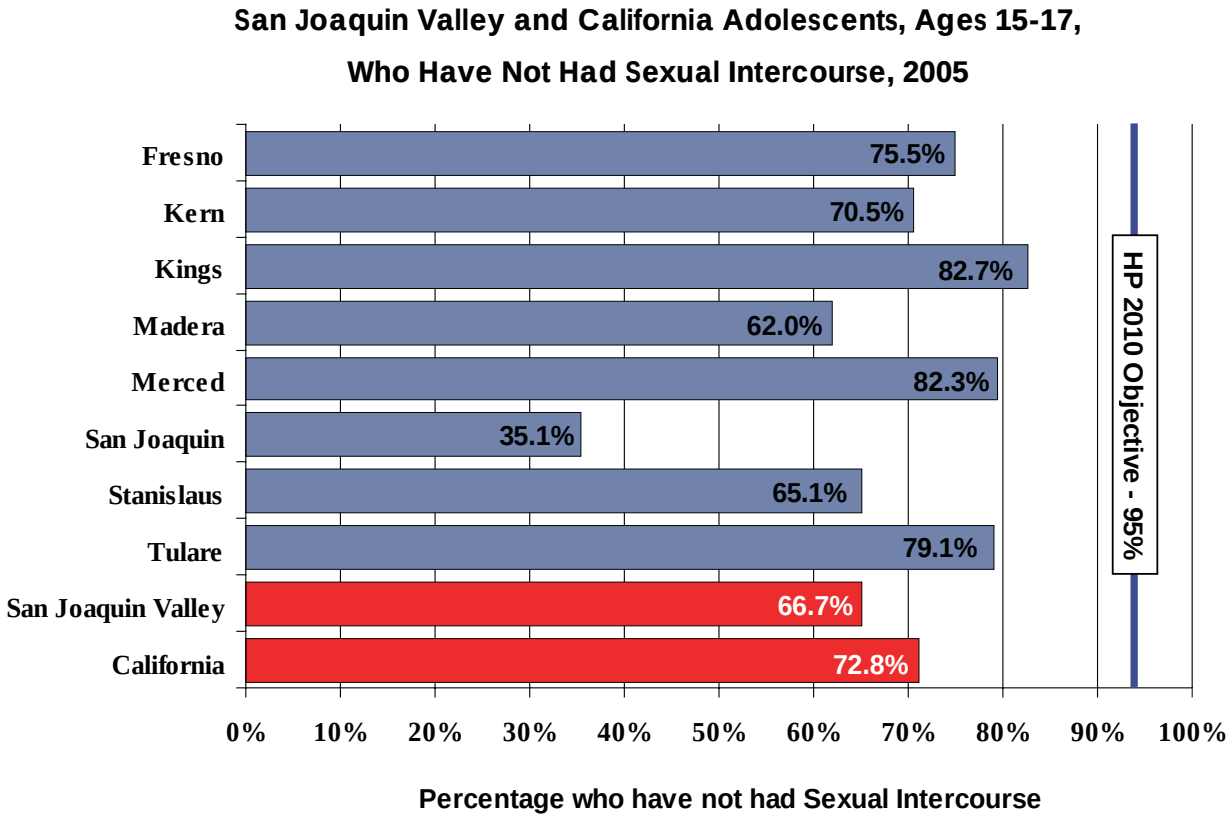
California Department of Health, STD Control Branch, 2007a; 2007b.

Objective 25-11: Increase to 95% the Proportion of Adolescents Who Abstain from Sexual Intercourse or Use Condoms, if Currently Sexually Active.

CHIS 2005 data shows an increase of 6.5% of San Joaquin Valley adolescents, ages 15-17, reporting having sexual intercourse at sometime during their life time (33.3%) compared to 26.8% in 2001. However, in the same year, about 76.0% of male adolescents in the Valley, ages 15-17, reported using a condom during their last experience with sexual intercourse. This was lower than statewide percentage (81.7%). In 2005, the percentage of Valley adolescents who reported abstaining from sexual activity at 66.7% was lower than the percentage statewide at 72.8% but still greater than national percentage at 53.2% (UCLA Center for Health Policy Research, 2007; CDC, 2007a). Figures 7 and 8 illustrate that the Valley is far from meeting the *HP 2010* objective of 95% of adolescents using condoms or abstaining from sexual intercourse. County and region-specif c estimates from the *2005 CHIS* regarding adolescents who abstain from sexual intercourse or use condoms show that Kings County has the highest percentage (82.7% and 100%, respectively) and comes closest to meeting the *Healthy People 2010* objective of 95%. San Joaquin County was the farthest from the objective at 35.1% for reporting abstains from sexual intercourse while Fresno County was farthest at 45.0% for reporting condom use during last sexual intercourse.

Another indicator that Valley adolescents are not abstaining from sexual intercourse or using condoms is the high teen birth rate. Despite a downward trend in teen births since the early 1990s, in 2004 the San Joaquin Valley counties had among the highest teen birth rates in the state. Kings and Tulare Counties had the highest teen birth rates in the state at 71.1 and 69.5, respectively, per 1,000 females, ages 15-19. The Valley rates were much higher than the teen birth rate in California as a whole, at 59.1 births per 1,000 females, ages 15-19, compared to California at 38.1 (California Department of Health Services, Maternal and Child Health Epidemiology Section, 2004). While California met the *HP 2010* objective #9-7 to reduce pregnancies among adolescent females to 43 per 1,000 females ages 15-19, the Valley exceeded this objective in all of the counties with Stanislaus County coming closest to the objective at 45.6%, as shown in Figure 9.

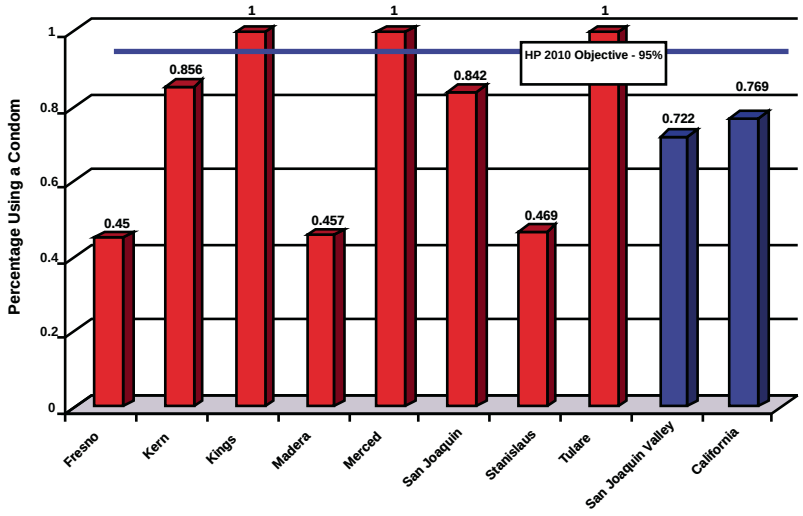
Figure 7



Source: UCLA Center for Health Policy Research, 2007.

Figure 8

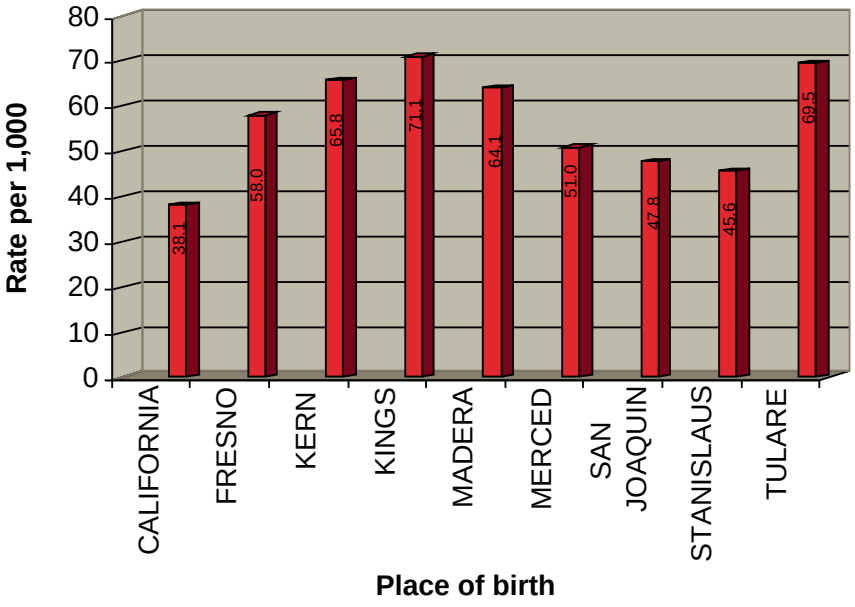
Males, Ages 15-17, in the San Joaquin Valley and California Who Reported Using a Condom During Last Sexual Intercourse, 2005



Source: UCLA Center for Health Policy Research, 2007.

Figure 9

Birth Rates for Teenage Mothers (15-19) in California and San Joaquin Valley Counties



Source: State of California, Department of Health Services, Birth Records. Sacramento, CA, May 2004.

6. Mental Health

Objective 18-9b: Increase to 50% the Proportion of Adults with Recognized Depression Who Receive Treatment.

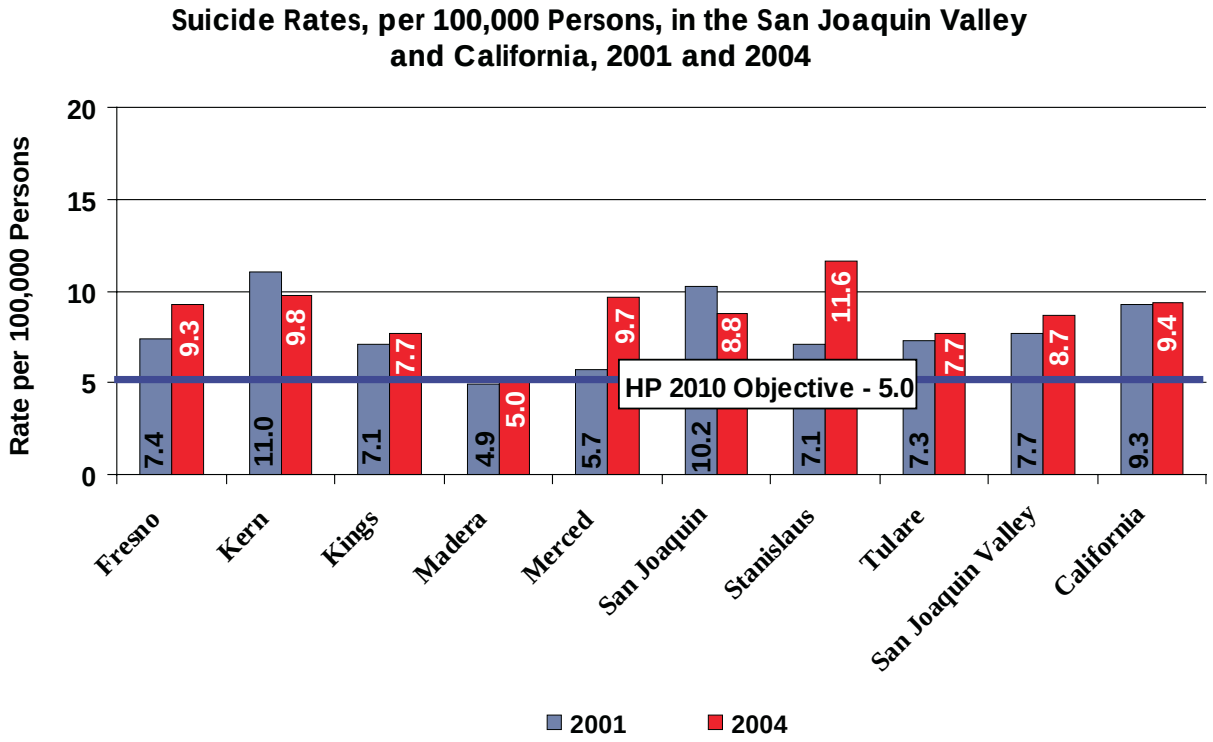
Mental disorders are among the most common of the chronic diseases affecting the U.S. population. These chronic diseases affect an estimated one in five adults nationally during their lifetime (U.S. Department of Health and Human Services, Center for Mental Health Services, 1999). In the state of California 5.4% (1,385,837) of the population age 18 and older were reported to have a serious mental illness. This estimate did not include persons who are homeless or who are institutionalized (National Institute of Mental Health, 2001).

The *2005 CHIS* found only 5.6% of San Joaquin Valley adults age 18 and older who reported feeling downhearted and sad all or most of the time (an indicator for major depression), saw a health professional. This was slightly lower than the state percentage of 8.3%. The percentage has drastically decreased since the *2001 CHIS*. In 2001, 17.6% of San Joaquin Valley adults and 20.2% of California adults who reported depression were seeing a health professional. According to *2005 CHIS*, San Joaquin County indicated the highest percentage (8.6%) among the eight Valley counties, yet still well below the *HP 2010* objective. Results from a national telephone survey conducted in 1997-98 showed that 17.0% of adults with a probable depressive or anxiety disorder saw a health care provider (Young, Klap, Sherbourne, & Wells, 2001). The rates in the Valley, state and nation for this indicator were all well below the *HP 2010* objective of 50%.

Suicide is the most dreaded complication of major depressive disorders. A review of psychological autopsies conducted by Angst, Angst, and Stassen (1999) estimated that approximately 10-15% of patients formerly hospitalized with depression committed suicide. When looking at all deaths by suicide, approximately 20-35% of deaths were among individuals who had been diagnosed with a major depressive disorder and received treatment at some point (Angst et al., 1999). In 2002, 132,353 individuals in the U.S. were hospitalized following a suicide attempt. An additional 116,639 individuals were treated in emergency departments following a suicide attempt and then released (CDC, National Center for Injury Prevention and Control, 2004). In 2004, 1.4% of the total number of deaths in California was the result of suicide (RAND California, 2004).

An increase in the suicide rate is evidence of the lack of access to mental health care. Figure 10 shows increases in the rates, per 100,000 persons, of deaths from suicide in six of the eight San Joaquin Valley counties between 2001 and 2004. However, rates have decreased since 2003. Suicide rates in California as a whole remained stable at 9.3 in 2001 and 9.4 in 2004 (Rand California, 2004). In 2004, only one of the San Joaquin Valley counties (Madera) met the *HP 2010* objective of reducing the suicide rate to 5.0 suicides per 100,000 persons.

Figure 10



Source: RAND California, 2004.

7. Injury and Violence

Objective 15-15a: Reduce Deaths Caused by Motor Vehicle Crashes to 9.2 Deaths per 100,000 Population.

Unintentional injuries (including motor vehicle accidents) were the fifth leading cause of death nationally in 2004 with a rate of 37.0 deaths per 100,000 persons. Nationally, the death rate from motor vehicle accidents alone was 15.0 deaths per 100,000 persons in 2004 (CDC, National Center for Health Statistics, 2006). If motor vehicle deaths were rated separately and not subsumed in the broader rankable category of accidents, motor vehicle deaths would have been the ninth leading cause of death in the United States in 2002 (Anderson & Smith, 2005). From 1997 to 2002, 9,622 child passengers aged 0 to 14 years died in motor vehicle crashes. Of these children, 2,335 (24%) were killed in crashes involving drinking drivers, and 68% of the deaths occurred while the child was riding with the drinking driver (Shults, 2004).

Death from all types of accidents was the leading cause of death for individuals, ages 1-39, in the San Joaquin Valley. Accidents involving motor vehicles accounted for the highest proportion of those deaths (California Department of Health Services, 2002). Averaged yearly data from 2002-2004 showed that the death rate per 100,000 persons as a result of motor vehicle accidents was 21.6 for all age groups in the San Joaquin Valley. In California, the death rate from motor vehicle accidents, per 100,000 persons, was nearly half the Valley rate at 12.1. As shown in Table 5, using averaged 2002-2004 data, the rates of deaths from motor vehicle accidents in all eight of the San Joaquin Valley counties exceeded the California rate of 12.1 per 100,000 persons and were over twice the rate specified in the HP 2010 objective (California Department of Health Services, 2007).

Objective 15-32: Reduce Homicide Rate to 3.0 per 100,000 Population.

In 2004, homicides were ranked as the 15th leading cause of death in the United States at 5.9 deaths per 100,000 persons (Kochanek, et al., 2007). The highest national rate occurred in the 15-24 age group at 12.9 deaths per 100,000 persons. The death rate in the United States from homicide was almost four times higher for males, at 9.6 deaths per 100,000 persons, than females, at 2.7 deaths per 100,000 persons (CDC, National Center for Health Statistics, 2005).

The 2004 death rate due to homicide in California was 6.9 per 100,000 persons (California Department of Health Services, 2007). As with the national data, the highest rate occurred in the 15-24 age group at 18.0 deaths per 100,000 persons. In the same year, California males in the 15-24 age group had a death rate from homicides that was almost 10 times higher than the rate for females, 30.9 vs. 3.4. The highest death rate from homicide in California occurred among Black males in the 15-24 age group at 128.0 per 100,000 persons (California Department of Health Services, Center for Health Statistics, 2007).

Among the San Joaquin Valley counties, the rates for death due to homicide (averaged 2002-2004 rate per 100,000 persons) varied widely from a low of 4.2 in Kings County to a high of 8.9 in San Joaquin County (California Department of Health Services, 2007). The death rate from homicides in the Valley was higher than both California and the national rates at 7.1 deaths per 100,000 persons. The Valley death rate for males (11.6), of all ages, was over four times higher than the death rate for females of all ages (2.5). As shown in Table 5, all of the eight Valley counties exceeded the *HP 2010* objective of 3.0 per 100,000 persons.

Table 5

Age-Adjusted Death Rates from Motor Vehicle Accidents and Homicide in the San Joaquin Valley and California, Averaged 2002-2004

County	# of Deaths from Motor Vehicle Crashes	Rate of MVD[1] per 100,000	# of Deaths from Homicide	Rate of Homicides per 100,000
Fresno	186.7	22.3	66.3	7.5
Kern	144.7	20.6	50.7	7.1
Kings	27.7	20.1	6	4.2*
Madera	34.3	25.8	8	5.8*
Merced	56	24.7	18	7.6*
San Joaquin	113.3	18.4	57	8.9
Stanislaus	93.7	19.1	30	6
Tulare	93.3	25	25.7	6.3
San Joaquin Valley	**749.7**	**21.6**	**261.7**	**7.16**
California	**4334.3**	**12.1**	**2476.3**	**6.7**
***HP 2010* Objective**		**9.2**		**3**

Source: California Department of Health Services, 2007.

1= MVD = Motor Vehicle Deaths. ** = Statistically Unstable*

8. Environmental Quality

Objective 8-1a: Reduce the Proportion of Persons Exposed to Air that Does Not Meet the U.S. Environmental Protection Agency's Health-Based Standards for Ozone to 0 percent.

Air pollution is a major environment-related health threat to children and a risk factor for both acute and chronic respiratory disease in adults. The American Lung Association's publications, *State of the Air 2006* and *State of the Air 2007,* examined the two most pervasive air pollutants: ozone and PM^{10} or particle pollution. While these are not the only outdoor air pollutants, they are among the most dangerous because of their toxicity and their prevalence. Even with the downturn in ozone levels, nearly half of the people living in the United States—46%—live in 251 counties with unhealthful levels of ozone pollution (American Lung Association, 2007). To make the Air Quality Index (AQI) as easy to understand as possible, the Environmental Protection Agency (EPA) has divided the AQI scale into the six categories shown in Table 6.

In 2006, ozone levels in the San Joaquin Valley exceeded the federal eight-hour ozone standard on 86 days, a decrease from 109 days in 2001, and the state one-hour standard on 90 days, a decrease from 123 days in 2001. The federal one-hour standard was revoked in 2005 (California Air Resources Board, 2006-2007). Furthermore, the number of unhealthy air days decreased in all of the eight Valley counties between 2005 and 2006 (Table 7; American Lung Association, 2006; 2007). Table 7 indicates that the region is suffering from a chronic ozone problem with seven of the eight Valley counties receiving an air quality grade of F from the EPA in 2006. Only San Joaquin County received a grade of C for air quality. The San Joaquin Valley not only does not meet the objective set by *HP 2010*, it also has some of the worst air quality in the nation. Furthermore, current control measures have not been successful enough to improve its relative standing, with California having 8 of the 10 most polluted counties in the nation in 2006. Of these eight counties, four are in the Valley, as shown in Table 8 (American Lung Association, 2007).

Table 6

Air Quality Index Scale

Air Quality Index Values	Levels of Health Concern	Colors
When the AQI is in this range:	*Air quality conditions are:*	*As symbolized by this color:*
0 to 50	Good	Green
51 to 100	Moderate	Yellow
101 to 150	Unhealthy for Sensitive Groups	Orange
151 to 200	Unhealthy	Red
201 to 300	Very Unhealthy	Purple
301 to 500	Hazardous	Maroon

Source: American Lung Association, 2007.

Table 7

Number of High Ozone Days per Year by County, San Joaquin Valley, 2005 and 2006

County	2005 # of Orange Days *Unhealthy for Sensitive Groups*	2005 # of Red Days *Unhealthy*	2005 # of Purple Days *Very Unhealthy*	2005 Total High Ozone Days	2006 # of Orange Days *Unhealthy for Sensitive Groups*	2006 # of Red Days *Unhealthy*	2006 # of Purple Days *Very Unhealthy*	2006 Total High Ozone Days
Fresno	135	14	0	149	179	32	3	214
Kern	221	53	2	276	242	66	2	310
Kings	28	0	0	28	50	1	0	51
Madera	14	0	0	14	31	1	0	32
Merced	67	5	0	72	116	8	1	125
San Joaquin	4	0	0	4	6	0	0	6
Stanislaus	28	0	0	28	46	1	0	47
Tulare	210	19	0	229	238	25	0	263
San Joaquin Valley	88	11	0	100	114	17	1	131
California	1668	284	49	2001	1907	409	54	2370

Source: American Lung Association, 2006; 2007.

Table 8

Top 10 Most Ozone Polluted Counties in the Nation, 2007

County	National Rank	# of Orange Days *Unhealthy for Sensitive Groups*	# of Red Days *Unhealthy*	# of Purple Days *Very Unhealthy*	Grade
San Bernadino, CA	1	150	76	23	F
Kern, CA	**2**	**221**	**53**	**2**	**F**
Fresno, CA	**3**	**159**	**57**	**8**	**F**
Riverside, CA	4	158	35	16	F
Tulare, CA	**5**	**210**	**19**	**0**	**F**
Los Angeles, CA	6	135	14	0	F
Merced, CA	**7**	**87**	**21**	**5**	**F**
Harris, TX	8	67	5	0	F
El Dorado, CA	9	57	8	0	F
Sacramento, CA	10	53	10	0	F

Source: American Lung Association, 2007.

0bjective 27-10: Reduce the Proportion of Nonsmokers Exposed to Environmental Tobacco Smoke to 45% of the Population.

Research summarized in the World Health Organization, Tobacco Free Initiative clearly shows that chronic exposure to environmental tobacco smoke, also known as passive smoking or second hand smoke (SHS) signif cantly increases health risks and premature deaths in non-smokers. There is clear scientif c evidence of an increased risk of lung cancer in non-smokers exposed to SHS (U.S Department of Health and Human Services, 2006). This increased risk is estimated at 20% in women and 30% in men who live with a smoker (Hackshaw, Law, & Wall, 1997). Similarly, it has been shown that non-smokers exposed to SHS in the workplace have a 16% to 19% increased risk of developing lung cancer (Fontham et al., 1994). The risk of getting lung cancer increases with the degree of exposure.

The California Environmental Protection Agency estimates that SHS causes the death of 3,000 non-smoking Californians each year due to lung cancer (CalEPA, 1997). Results of a state study conducted in 1997 to identify the percentage of children and adolescents exposed to SHS showed that 12.3% of children were exposed to SHS in California homes (Cook et al., 1997). There was no data available specif c to the San Joaquin Valley on adults exposed to second hand smoke.

Table 9 shows results from the County and Statewide Archive of Tobacco Statistics, (*C-STATS*)(California Department of Health Services, 2007) regarding youth exposure to SHS. Using living with a smoker and being in the same room with a smoker as surrogate variables for exposure to environmental tobacco smoke, California and the San Joaquin Valley were close to meeting the HP 2010 objective of 45% of the population exposed to SHS. In Table 9 the percentages of adults who currently smoke, youth living with a cigarette smoker, and youth who were in the same room are 2006 data collections, while percentage of adults who agree that SHS harms the health of children and babies is limited to 2005 data only.

Other indicators of possible exposure to second hand smoke are whether smoking is allowed in the home and the number of days that there is smoking inside the home. According to the 2003 CHIS, 70.3% of San Joaquin Valley respondents, in homes where someone smokes cigarettes, cigars, or pipes, reported that there was smoking inside the home on a daily basis (UCLA Center for Health Policy Research, 2005). However, as shown in Figure 11, rules regarding smoking inside the home varied widely when looking at the homes where someone smokes compared to homes where no one smokes. The percentage of homes where smoking is allowed all of the time is 18 times greater in homes where there is a smoker compared to homes where no one smokes (UCLA Center for Health Policy Research, 2005). There were no current 2005 data available specif c to the San Joaquin Valley.

Table 9

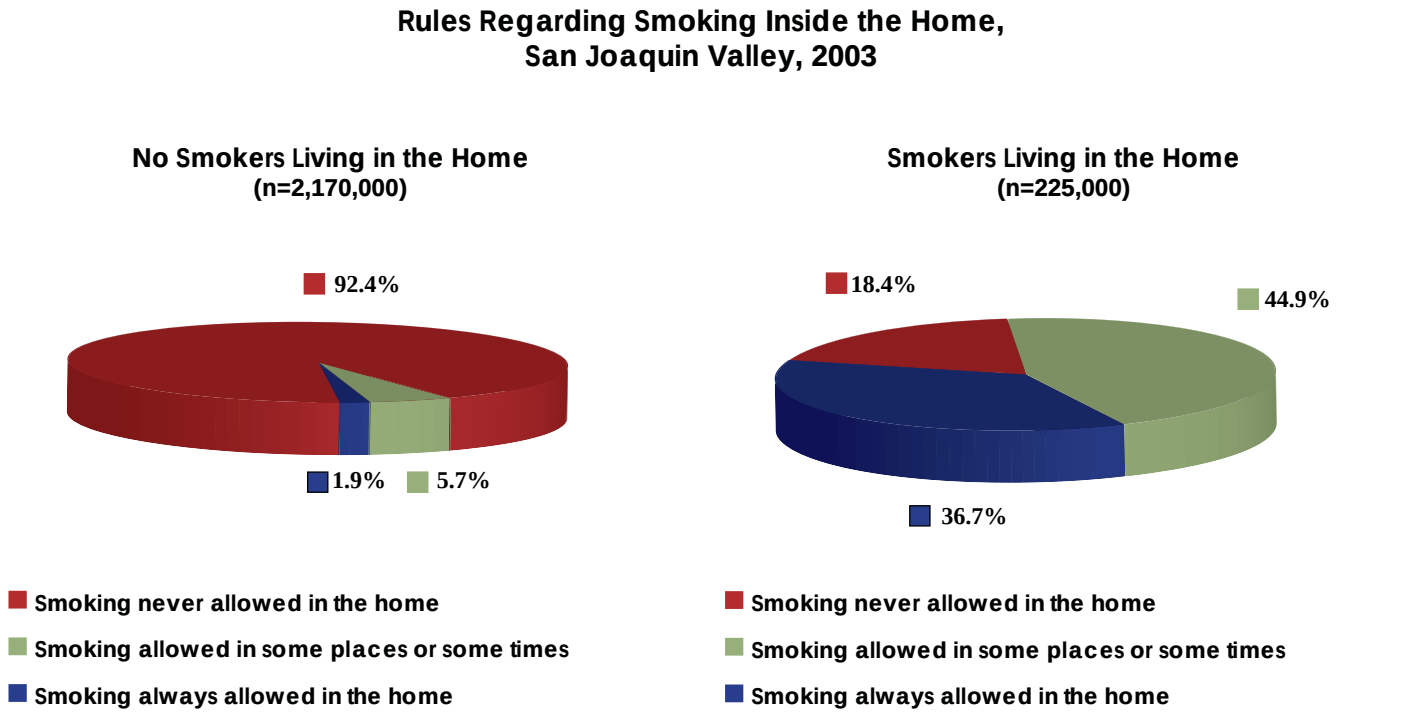
Percent of Adult Smokers, Youth, Ages 12-17, Who Live With a Smoker and/or Have Been in the Same Room with a Smoker, and Adult Beliefs About Secondhand Smoke, 2006

County	% of Adults Who Currently Smoke[2*]	% of Youth Living with a Cigarette Smoker[1]	% of Youth Who Were in the Same Room with a Smoker in the Previous 7 Days[1]	% of Adults Who Agree that SHS Harms the Health of Children and Babies[1*]
Fresno	20.2%	34.6%	47.6%	98.6%
Kern	21.0%	34.6%	47.6%	96.1%
Kings	16.5%	34.6%	47.6%	96.1%
Madera	14.9%	34.6%	47.6%	98.6%
Merced	17.2%	34.6%	47.6%	98.6%
San Joaquin	13.9%	33.2%	47.6%	98.3%
Stanislaus	15.7%	33.2%	47.6%	98.6%
Tulare	17.4%	34.6%	47.6%	96.1%
San Joaquin Valley	**17.1%**	**34.3%**	**47.6%**	**97.6%**
California	**17.8%**	**31.7%**	**47.0%**	**97.3%**

Source: **1** California Department of Health Services, 2007. County estimates presented in this table are regional estimates.
2 UCLA Center for Health Policy Research, 2007.

**No 2006 data available; 2005 data was substituted.*

Figure 11



Source: UCLA Center for Health Policy Research, 2005

9. Immunization

Objective 14-24a: Increase to 80% the Proportion of Children Ages 19-35 Months who Received the Recommended Vaccines (4DTaP, 3polio, 1MMR, 3 Hib, 3 hepatitis B).

Immunization is one of the greatest public health achievements of modern times. In the U.S. today, 10 childhood diseases can be prevented by immunization--poliomyelitis, measles, pertussis (whooping cough), mumps, rubella (German measles), tetanus, diphtheria, hepatitis B, Haemophilus inf uenza type b (Hib), and varicella (chicken pox). Except for tetanus, these diseases are contagious and when children are not protected against them, serious outbreaks of disease can occur (Children's Health System, 2001). Any shortfalls in immunization leave many of the youngest children vulnerable to diseases that are entirely preventable through vaccination. Immunizations also help control the spread of other infections, such as inf uenza, within communities. Despite this success, new challenges and reduced resources are weakening the nation's immunization system, increasing the likelihood of disease outbreaks (IOM, 2000).

The Centers for Disease Control and Prevention recommends that children in the United States should receive a 4:3:1 series of immunizations before age two. Results from the *Kindergarten Retrospective Survey** (California Department of Health Services, Immunization Branch, 2006) indicate that immunization rate among California's children at 24 months of age was less than the nation's children immunization rate, 77.7% and 79.0% respectively. The San Joaquin Valley had a smaller percentage of children who were immunized than most other regions in California; regional coverage for the 4:3:1 series of immunization for the Central Valley was 72.2%. Three regions slightly exceeded the national rate; they are San Francisco Bay Area (81.0%), Central Coast (81.3%), and North Central Valley ([81.2%] which includes Sacramento, San Joaquin, and Stanislaus counties).

California coverage for Polio, MMR, and Hep B remained stable at an average of 91.6%, while immunizations for DTP and varicella were 79.9% and 83.9% respectively. Among California children, Asian kindergarten students had the highest coverage for the 4:3:1 series at 86.2%, Hispanic children at 77.9%, White children 76.7%, and Blacks at 65.9% (California Department of Health Services, Immunization Branch, 2006). Among kindergarteners, it was reported that at 24 months of age 74.8% had been immunized with the 4:3:1:3 series (4 DTP, 3 Polio, 1 MMR, and 3 Hep B) and 69.8% had been immunized with the 4:3:1:3:1 series (4 DTP, 3 Polio, 1 MMR, 3 Hep B, and 1 Var) (California Department of Health Services, Immunization Branch, 2006).

* The *Kindergarten Retrospective Survey* surveyed immunization coverage levels of California kindergarteners at 24 months of age.

Objective 14-24b: Increase to 80% the Proportion of Adolescents Ages 13 to 15 Years Who Received the Recommended Vaccines.

While data specif c to this age group, adolescents ages 13-15, were not available for the San Joaquin Valley, the California Department of Health Services, Immunization Branch conducts yearly school assessments to monitor compliance with California school immunization law. One group that is assessed is seventh graders. This assessment has been conducted each year since 1999. In 2006, 95.8% of 7th graders in California had received all required immunizations, an increase from 70.0% in 2001. The 2006 California percentage was similar to the counties in the San Joaquin Valley that ranged from a high of 87.6% in Fresno County to a low of 70.8% in Tulare County. Half of the eight Valley counties met the 80% goal set forth in *HP 2010* (California Department of Health Services, Immunization Branch, 2003).

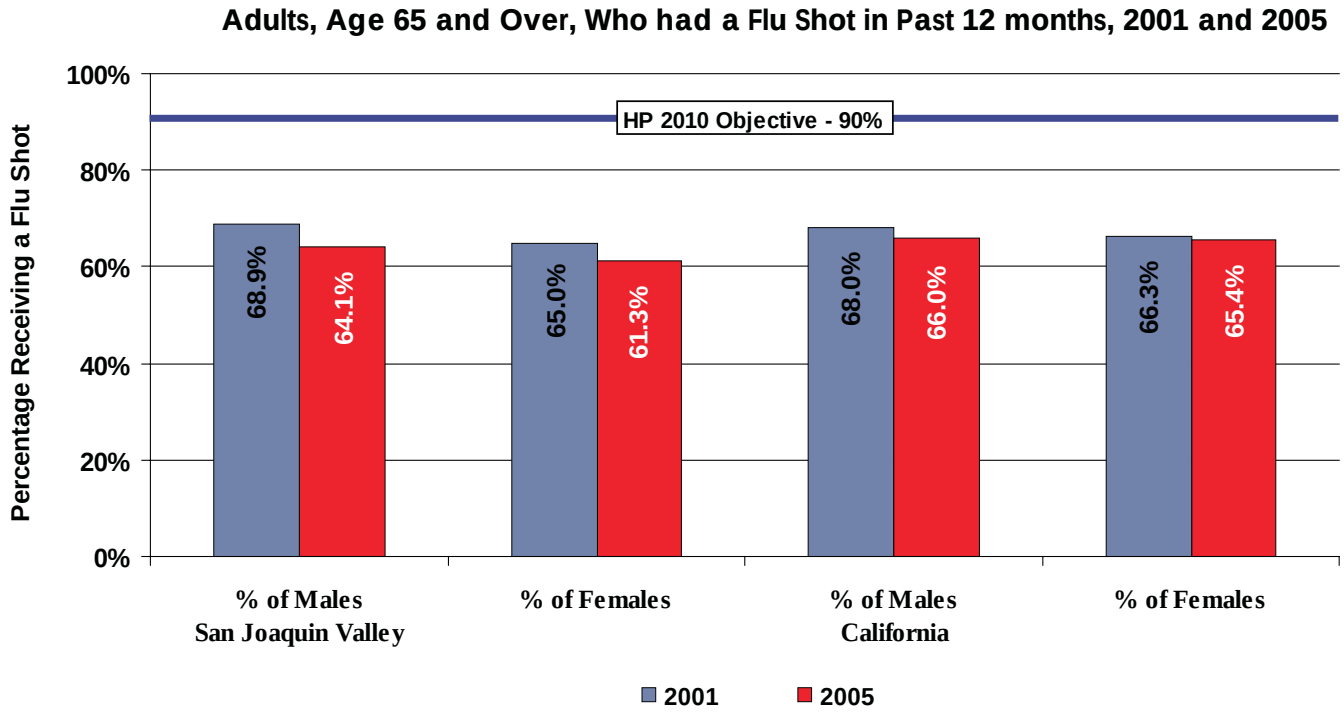
Objective 14-29a: Increase to 90% the Proportion of Noninstitutionalized Adults who are Vaccinated Annually Against Inf uenza and Those Ever Vaccinated Against Pneumococcal Disease.

CHIS 2005, 65.7% of California's seniors, ages 65 years and over, reported having had a f u shot during the 12 months prior to the survey, while only 62.6% of the San Joaquin Valley population in the same age group reported having a f u shot. This was lower than the median percentage for the nation at 67.9% (CDC, 2006b). *CHIS 2005* data by gender showed that a larger percentage of males, age 65 and over, in both California (66.0%) and San Joaquin Valley (64.1%) than females, age 65 and over, in California (65.4%) and the Valley (61.3%) received f u vaccinations during the 12 months prior to the survey. Males, age 65 and over, in the San Joaquin Valley and California as a whole and California females, aged 65 and over, showed some decrease between 2001 and 2005 in the percentage who received a f u shot. However, the percentage of Valley males, age 65 and over, who received a f u shot, has signif cantly dropped by 10.3% since 2003 (Figure 12; UCLA Center for Health Policy Research, 2005; 2007).

CHIS 2005 data shows great disparity by race/ethnicity for seniors age 65 and over in vaccination against the f u in the San Joaquin valley. Whites (63.2%), Asian (61.7%), and Latino (67.9%) were over two times more likely to have had the f u vaccination than American Indian/Alaska Native 29.8%, and African American 33.4% ages 65 and over, (UCLA Center for Health Policy Research, 2007). Figure 12 indicates that neither California nor the San Joaquin Valley is meeting the HP 2010 objective of 90% for annual f u vaccinations.

In 2003, 63.0% of California's adult population age 65 and over reported that they had ever had a pneumonia shot, while 65.5% of the San Joaquin Valley population in the same age group reported that they had ever had a pneumonia shot (UCLA Center for Health Policy Research, 2005). This was similar to the national median percentage of 64.6% (CDC, 2006b). The Valley, California and the nation were all below the HP 2010 objective of 90%. CHIS data for 2005 was not available.

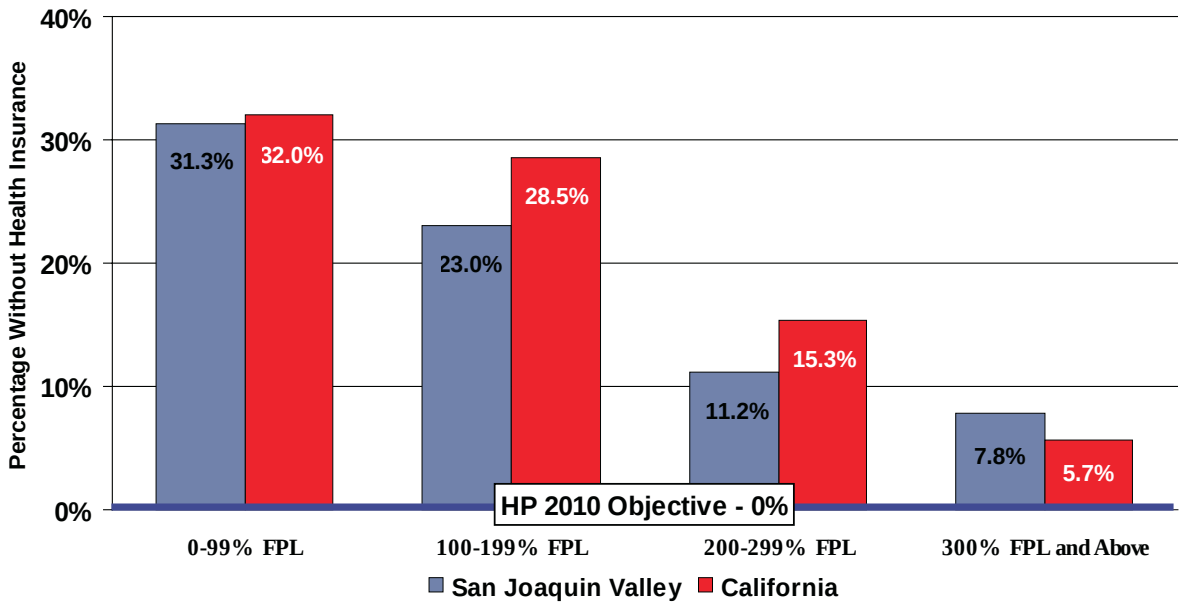
Figure 12



Source: UCLA Center for Health Policy Research, 2003; 2007.

Figure 13

Nonelderly Adults, Ages 18-64, in the San Joaquin Valley and California, Without Health Insurance for the Entire Year by Percentage of Federal Poverty Level, 2005



Source: UCLA Center for Health Policy Research, 2007.

10. Access to Care

Objective 1-1: Increase to 100% the Proportion of Persons with Health Insurance.

Since 2001, family incomes have shifted downward and the share of U.S. residents with employer-sponsored insurance has also declined. The number of uninsured persons nationally increased from 40.9 million in 2001 to 47.0 million in 2006 (DeNavas-Walt, et al., 2007), with nonelderly adults, ages 18-64, accounting for 80% of the uninsured (Kaiser Commission on Medicaid and the Uninsured, 2007). Health insurance affects access to health care, as well as the financial well-being of families. Over 40% of nonelderly uninsured adults have no regular source of health care, and coupled with a fear of high medical bills, many delay or forgo needed care. Data from a national representative survey conducted between 1997 and 2004 showed that uninsured individuals were significantly less likely to see a clinician following an unintentional injury or a new chronic condition (Hadley, 2007).

Several demographic characteristics, such as age, race/ethnicity, nativity, educational attainment and poverty, contribute to the lack of insurance coverage among Americans. The U.S. Census Bureau reported on selected characteristics of people who were without health insurance for the entire year in 2002 (Mills & Bhandari, 2003).

- People in the 18-24 age group were less likely than other age groups to have health insurance at 29.6%.
- The uninsured rate among Latinos of all ages (32.4%) was higher than any other racial or ethnic group.
- The proportion of the foreign-born population without health insurance (33.4%) was almost triple that of the native population (12.8%).
- Educational attainment had an impact on the proportion of people who were uninsured with 28.0% of those with no high school diploma reporting not having health insurance for the entire year compared with only 8.4% of those with a Bachelor's degree or higher.
- Poverty was an important factor for people without health insurance in every category. Individuals with incomes below the federal poverty level were twice as likely to not have insurance (30.4% vs. 15.2%) than the population as a whole.

In 2001, 14.8% of nonelderly Californians, ages 18-64, or 3,122,000 adults, reported not having health insurance during the year prior to the survey. This was similar to the percentage for 2005 at 14.4% or 3,238,000 people. The percentage of San Joaquin Valley nonelderly adults who reported not having health insurance for the entire year prior to the survey was higher than the state with 15.9% (307,000 persons) in 2001 and 16.4% (358,000 persons) in 2005 (UCLA Center for Health Policy Research, 2003; 2007). Nationally, in 2002, a similar percentage of nonelderly adults reported having no health insurance at 15.6% (U.S. Census Bureau News, 2004).

2001 and 2005 *CHIS* data showed that demographic characteristics also played a signif cant role in the health insurance status of Valley residents, with f ndings similar to those nationally (UCLA Center for Health Policy Research, 2003; 2007).

- Young adults in the San Joaquin Valley, ages 18-24, had the highest percentage of individuals who reported having no health insurance for the entire year prior to the survey at 22.3% in 2001 and 23.2% in 2005.

- Almost three times as many nonelderly Latino adults in the Valley (21.1% in 2001 and 25.1% in 2005) reported having no health insurance for the entire year prior to the survey when compared to White nonelderly adults (7.0% in 2001 and 10.5% in 2005).

- Nonelderly San Joaquin Valley adults, who where born in Mexico, had the highest percentage of individuals who reported being uninsured for the entire year at 34.0% in 2001 and 32.2% in 2003. Among Valley nonelderly adults that were born in the United States, 10.7% in 2001 and 11.8% in 2003, reported being uninsured for the entire year.

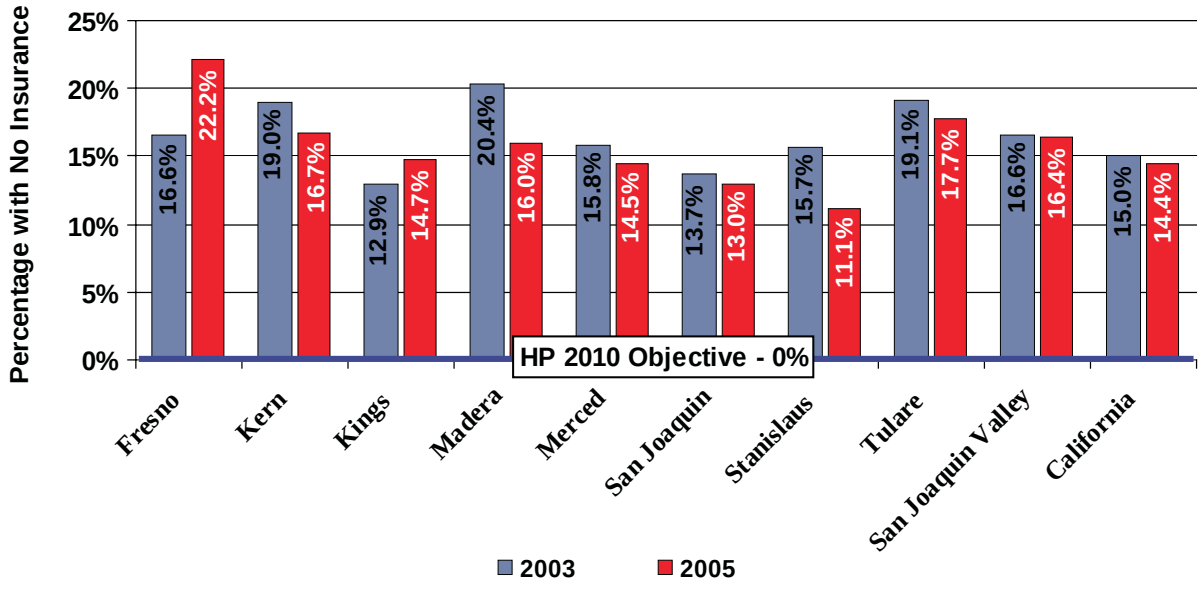
- Educational attainment played on important role in insurance status with 31.9% of nonelderly Valley adults, with less than a high school diploma, reporting no health insurance in the year prior to the *2003 CHIS* compared to only 4.3% of those with a Bachelor's degree or higher.

- As shown in Figure 13, the poverty level of Valley residents impacted insurance status with 31.3% of nonelderly adults with incomes 0-99% of the federal poverty level (FPL) in 2005 reporting no health insurance for the entire year. Only 7.8% of nonelderly adults with incomes of 300% FPL and above reported having no health insurance in the same year.

There was little overall change between 2001 and 2005 in the percentages of nonelderly adults who reported having no health insurance for an entire year. Figure 14 indicates that percentages remained constant for Valley residents without health insurance, with very slight increases or decreases between the two years (UCLA Center for Health Policy Research, 2005; 2007). Neither the Valley counties nor the state were near the *HP 2010* objective of 100% of people with health insurance.

Figure 14

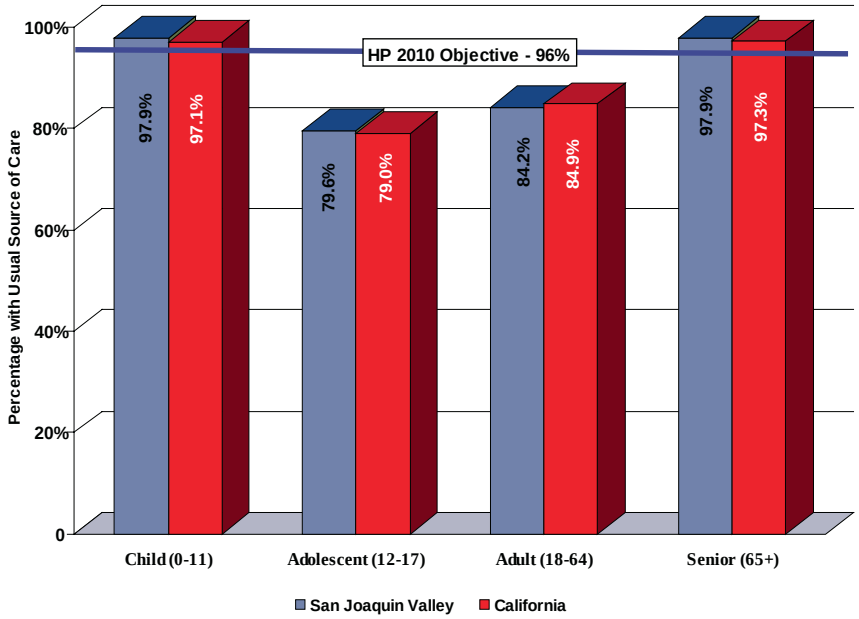
Nonelderly Adults, Ages 18-64, in the San Joaquin Valley Without Health Insurance for the Entire Year, 2003 and 2005



Source: UCLA Center for Health Policy Research, 2005; 2007.

Figure 15

Residents in the San Joaquin Valley and California with a Usual Source of Care, by Age Group, 2005



Source: UCLA Center for Health Policy Research, 2007

Objective 1-4a: Increase to 96% the Proportion of Persons (All Ages) Who Have a Specific Source of Ongoing Care.

Growing evidence suggests that the combination of health insurance and having a usual source of care has additive effects for quality of health care (Robert Graham Center, 2004). In 2005, 89.6% of Californians of all ages reported having a usual source of care. This was higher than the percentage for 2001 at 87.6%. The percentage of San Joaquin Valley residents who reported having a usual source of care was similar to the state with 87.3% in 2001 and 89.9% in 2005. These percentages were similar to the nation where 88.0% of residents in 2001 and 87.9% in 2003 reported having a usual source of care (CDC, 2005). The percentage of individuals who reported having a usual source of care in both 2001 and 2005 was higher among Valley females at 90.0% in 2001 and 90.7% in 2005 than it was for males at 84.6% in 2001 and 89.1% in 2005 (UCLA Center for Health Policy Research, 2003; 2007).

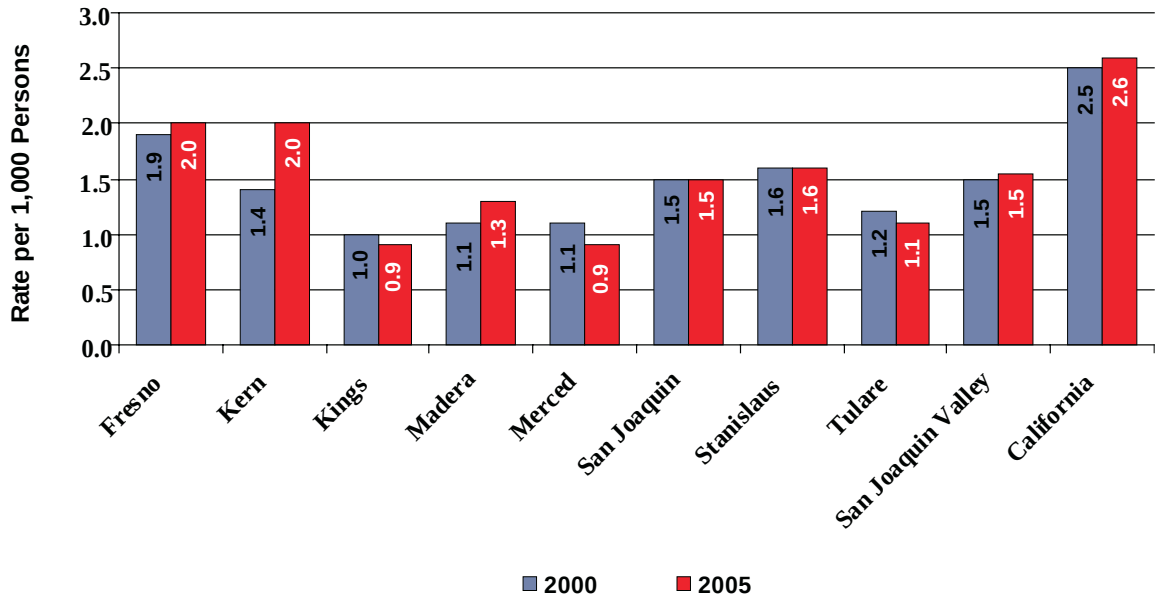
Figure 15 provides evidence that children ages 0-11 and elders, age 65 and over, in both California and the San Joaquin Valley met the HP 2010 objective of 96% of persons having a usual source of care. However adolescents, ages 12-17, and nonelderly adults, ages 18-64, did not meet the objective.

As with health insurance coverage, demographic characteristics played a signif cant role with regard to having a usual source of care for San Joaquin Valley residents. Several demographic characteristics, such as age, race/ethnicity, citizenship, nativity and educational attainment, contributed to the lack of a usual source of care for Valley residents (UCLA Center for Health Policy Research, 2003; 2007).

- Adults, ages 18-24, were less likely than other age groups to have usual source of care with 26.7% (96,000 persons) in 2001 and 28.8% (125,000 persons) in 2005 having no usual source of care.
- Among ethnic groups, a higher percentage of nonelderly Latino adults, ages 18-64, (26.0% in 2001 and 24.0% in 2005) reported having no usual source of care than any other racial or ethnic group.
- The proportion of the non-citizen population, in the 18-64 age group, without a usual source of care (33.0% in 2001 and 25.4% in 2003) was more than double that of U.S. - born citizens in the same age group (12.5% in 2001 and 13.7% in 2003).
- Nonelderly adults, ages 18-64, who were born in Mexico had the highest percentage of individuals reporting no usual source of care with 31.0% in 2001 and 24.4% in 2003.
- Educational attainment had an impact on the proportion of people who were without a usual source of care. Higher percentages of nonelderly Valley residents with a high school education or less reported having no usual source of care (21.8% in 2001 and 21.6% in 2003). However, less than half as many persons with a college education, some college through a Ph.D. or equivalent, reported having no usual source of care (10.2% in 2001 and 8.3% in 2003).

Figure 16

Physicians and Surgeons, per 1,000 Persons, in the San Joaquin Valley and California, 2000 and 2005



Source: RAND California, 2005b.

One potential explanation for Valley residents not meeting the *Healthy People 2010* objective of 96% of residents having a usual source of care is a relative shortage of health care professionals in the Valley. Figure 16 shows the rate of physicians and surgeons per 1,000 persons in the San Joaquin Valley counties compared to California as a whole. The data show that each of the San Joaquin Valley counties had a lower rate of physicians per 1,000 persons than the state. The data also show that there has been little or no increase in the number of physicians in any of the Valley counties between 2000 and 2005 (Rand California, 2005b).

The shortage of health care providers in the San Joaquin Valley is impacted by several factors: its largely rural nature, the large percentage of uninsured residents, and lower Medi-Cal reimbursement rates compared to other parts of the state (Capitman, et al., 2005a). National studies conf rm this observation citing that low health insurance coverage rates and low reimbursement rates from programs such as Medicaid may be among the determinants that cause a growing number of health care professionals to either not practice in rural communities or limit their indigent care efforts (Phillips & Kruse, 1995). The National Health Service Corps, a federal agency that works to get health care professionals into shortage areas, reports that 43 million Americans live in communities without doctors or other medical practitioners to deliver primary health care (AFSCME, 2001). Health care workforce shortages in the rural United States are not limited to physicians and nurses but extend to include pharmacists, technology specialists, therapists and many other health care occupations (Braden et al., 1994).

Objective 16-6a: Increase to 90% the Proportion of Women Who Receive Prenatal Care Beginning in First Trimester of Pregnancy.

Infant mortality and its leading cause, low birth weight, are serious public health problems in the United States. Research has shown that women who receive adequate prenatal care during their pregnancies have much lower rates of low birth weight infants than do women who receive less than adequate prenatal care* (IOM, 1985). Inadequate prenatal care has been identified as a significant risk factor for women whose infants die during the neonatal period from birth to 28 days (March of Dimes, n.d.).

In a recent report, *Birth Patterns in the San Joaquin Valley: Adequate Care and Preterm Births* (Capitman, et al., 2005b), 2002 California Department of Health Services data were used to determine that 78.1% of San Joaquin Valley women received early (first trimester) prenatal care. This was similar to the 2004 data at 78.5%. The percentage of Valley women who received early prenatal care varied slightly when compared by race and ethnicity. The percentage of minority women receiving inadequate care has

*Prenatal care is def ned as adequate if the f rst prenatal visit occurs in the f rst trimester of pregnancy and if the total number of doctor visits are appropriate to the gestational age of the baby at birth (Kotelchuck, 1994).

consistently remained higher than the percentage of White women receiving inadequate care from 2002 to 2004. Specifically, African American and Asian/Pacific Islander women had an increase in adequacy of prenatal care (over 5 to 7 percentage points). Hispanic women had an improvement of 3.3 percentage points, while White and American Indian women had a slight but significant increase in inadequacy of care. Despite these reductions in the extent of racial/ethnic disparities, White women continue to remain at lower risk for inadequate care. Early prenatal care also varied by mother's age and educational level, with those of younger ages and those having less education experiencing lower percentages of first trimester care. Furthermore, the percentage of Valley women who received adequate prenatal care varied by county (Capitman, et al., 2005b). Table 10 summarizes the differences in adequacy of prenatal care by race, education level, and place of residence. Averaged 2000-2002 data showed that none of the San Joaquin Valley counties met the *HP 2010* objective of 90% of pregnant women receiving early prenatal care nor did they meet the California average of 85.5% (California Department of Health Services, 2004).

Table 10

Demographic Characteristics and Adequacy of Prenatal Care in the San Joaquin Valley, 2004

Demographic Characteristics	Total Number of Births	% of San Joaquin Valley Births	% Receiving Adequate Pre-Natal Care*
Ethnicity			
White	17,141	27.3%	82.3%
African American	26,141	4.2%	78.3%
Asian/Pacific Islander	4,349	6.2%	76.2%
Hispanic/Latino	38,737	61.6%	77.0%
Mother's Age			
Under Age 20	8,512	14.0%	72.9%
20 and Older	52,386	86.0%	79.4%
Mother's Education Level			
Less Than High School	12,143	20.3%	74.6%
High School Grad	28,863	48.2%	77.1%
Some College - Graduate Degree	18,911	31.6%	83.1%
County Data			
Fresno	15,765	25.9%	79.4%
Kern	10,993	18.1%	78.7%
Kings	2,514	4.1%	70.4%
Madera	2,316	3.8%	81.0%
Merced	4,004	6.6%	74.8%
San Joaquin	9,897	16.3%	75.5%
Stanislaus	7,643	12.5%	83.2%
Tulare	7,766	12.7%	79.1%
San Joaquin Valley	**60,898**	**100.0%**	**77.8%**
Payment Source			
Medi-Cal	35,649	58.5%	75.4%
Other Public	148	0.2%	76.4%
Private/HMO	23,236	38.2%	82.9%
All Others	1,865	3.1%	81.1%

Source: Capitman, et al., 2007
Note: Data excludes births to women who reside in a non-San Joaquin Valley county

CONCLUSION

Key Findings

The goal of this report was to assess the progress San Joaquin Valley residents have made in reaching the *Healthy People 2010* objectives for the 10 leading health indicators since the *2005 Prof le* (Bengiamin, et al., 2005). Additionally, we attempted to compare the Valley to California and the nation, whenever possible. Limitations on available data for comparison purposes remained to be our greatest barrier to meeting these goals. Further conf rmation to the data limitation was also voiced by the Central California Public Health Partnership during their review of the f nal report. The major issues with data collection involved the following:

- Key indicators were measured inconsistently across sources.
- Age groups were clustered differently.
- Data were collected for different years.
- Units of measurement from different sources were not the same.
- Data specif c to the San Joaquin Valley did not exist or was not available for several objectives.

In reviewing the f ndings from this report, the region's Departments of Public Health were concerned with limitations in the accuracy, stability, and representativeness of health indicators derived from the CHIS and the absence of county-specif c individual level data to assess the determinants of within-county and regional variations in health.

Despite these diff culties we were able to determine that overall there is little evidence to suggest that progress has been made since the *2005 Prof le*, comparing 2001 data to 2005 data, on meeting the *HP 2010* objectives. Specif cally, data show that the San Joaquin Valley has not yet met all of the 22 objectives set forth in the 10 leading health indicators from *HP 2010* 10 (Table 11). The Valley met or exceeded the standard set in three of the objectives and did not meet the standard in 19 other objectives. The following is a summary of the f ndings regarding the status of the San Joaquin Valley with regard to meeting the *HP 2010* objectives.

1. Physical Activity

- Increase to 30% the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.
- Increase to 85% the proportion of adolescents who engage in vigorous physical activity that promotes cardio-respiratory f tness three or more days per week for 20 or more minutes per occasion.

In the 2005 report the percentages of physical activity among adults in the San Joaquin Valley, the state, and the nation were similar. In this report the San Joaquin Valley adult physical activity was worse than California and the Nation and exceeded the *HP 2010* objective of 30% of adults engaging in regular, moderate physical activity. Although the percentage of San Joaquin Valley adolescents who engaged in vigorous physical activity was comparable to that of the state and the nation, they did not meet the *HP 2010* objective of 85%.

2. Overweight and Obesity

- Reduce the proportion of adults who are obese to 15% of the population.
- Reduce the proportion of children and adolescents who are overweight or obese to 5% of the population.

The San Joaquin Valley had a higher percentage of overweight/obese non elderly adults, ages 18-64, and seniors, age 65 and over, than the state as a whole.

The percentage of overweight and obese nonelderly adults remained stable since the *2005 Prof le.* Percentages of overweight and obese adults and seniors as compared to the nation as a whole were similar. The San Joaquin Valley and the state failed to meet the *HP 2010* objective of reducing the proportion of adults who were overweight or obese to 15% of the population.

The percentage of overweight and obese adolescents in the San Joaquin Valley increased between 2001 and 2005. The percentage of Valley adolescents who were overweight or obese was higher than the state and similar to the nation . The Valley failed to meet the *HP 2010* objective of reducing the proportion of children and adolescents who are overweight or obese to 5% of the population.

3. Tobacco Use

- Reduce cigarette smoking by adults to 12% of the population.
- Reduce cigarette smoking by adolescents to 16% of the population.

There was some improvement in the percentage of adult smokers between 2001 and 2005 in the San Joaquin Valley. When comparing the Valley to the state, a higher percentage of Valley adults reported being current smokers than adults statewide. However, a lower percentage of Valley adults reported being current smokers than did adults nationally. Adults in the Valley, the state, and the nation failed to meet the *HP 2010* objective of reducing cigarette smoking by adults to 12% of the population.

A lower percentage of adolescents in the San Joaquin Valley and California reported being smokers than the nation and surpassed the *HP 2010* objective of reducing cigarette smoking by adolescents to 16% of the population. Current data shows the SJV having a lower percentage of Adolescents smokers than in *2005 Prof le*.

4. Substance Abuse

- Increase to 89% the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days.
- Reduce the proportion of adults using any illicit drug in the past 30 days to 2% of the population.
- Reduce the proportion of adults engaging in binge drinking of alcoholic beverages during the past month to 6% of the population.

The percentage of adolescents in both the San Joaquin Valley and California who reported not using alcohol failed to meet the *HP 2010* objective of 89% of adolescents not using alcohol. 2005 data shows that adolescents use of alcohol increases from 63.9% in 2001 to 65.2% in 2005. However, the percentage of Valley adolescents who reported binge drinking increases from 6.7% in 2001 to 8.6% in 2005. SJV adolescents use of illicit drugs has increased from 9.9% in 2001 to 12.7% in 2005. This was higher than the state percentage of 10.0% in 2005.

The percentage of adults in the San Joaquin Valley who reported binge drinking had increased 3.4% since 2001. SJV percentage of adults reporting binge drinking (18.5%) was lower than the percentage statewide at 25.3%. Both the Valley and California had a lower percentage (32.2% and 28.0%) of binge drinkers in the 18-25 age groups than the nation (42.1%). The San Joaquin Valley, California and the nation failed to meet the *HP 2010* objective of reducing the percentage of adults who engage in binge drinking to 6% of the population. Data shows an increase in the San Joaquin Valley adult residents' use of illicit drugs since the *2005 Prof le.*

5. Responsible Sexual Behavior

- Increase to 50% the proportion of sexually active persons who use condoms.
- Increase to 95% the proportion of adolescents who abstain from sexual intercourse or use condoms, if currently sexually active.

Data specif c to condom use among adults in the San Joaquin Valley were not available to measure against the *HP 2010* goal of 50% of sexually active adults using condoms. As a surrogate indicator we examined the rate of Chlamydia and Gonorrhea cases in the San Joaquin Valley, which increased between 2001 and 2005, and were higher than the state as a whole for those between the ages 15-24.

The percentage of San Joaquin Valley adolescents who abstained from sexual intercourse was worse than adolescents statewide (65.0% and 71.2% respectively) and better than the national percentage at 53.2%. However, in 2005, almost one quarters of San Joaquin Valley male teens, ages 15-17, reported not using a condom during sexual intercourse. Overall, the percentage of sexually active San Joaquin Valley male adolescents who reported using a condom (76.0%) was lower than the state (81.7%). The San Joaquin Valley, the state and the nation failed to meet the *HP 2010* objective of increasing to 95% the proportion of adolescents who either abstain from sexual intercourse or use condoms during sexual intercourse. County and region-specif c estimates from the *2005 CHIS* regarding abstinence indicates that there have been a decrease in comparison to the *2005 Prof le*.

6. Mental Health

- Increase to 50% the proportion of adults with recognized depression who receive treatment.

The percentage of San Joaquin Valley adults who suffered from depression and sought help was lower than the state (5.6% and 8.3% respectively). The Valley, the state and the nation failed to meet the *HP 2010* objective of increasing to 50% the proportion of adults with recognized depression who receive treatment. County and region-specif c estimates from the *2005 CHIS* regarding treatment of depression shows similar percentage to the *2005 Prof le.* However, it is important to note that the percentage of deaths from suicide was higher than that of the state in three out of the eight counties and all counties except one (Madera) were higher that the *HP 2010* objective of 5.0 deaths per 100,000 persons. Furthermore, there was an increase in the percentage of suicide deaths from 2001 to 2004 in six of the eight counties.

7. Injury and Violence

- Reduce deaths caused by motor vehicle crashes to 9.2 per 100,000 population.
- Reduce homicides to 3.0 per 100,000 persons.

The rates of death from motor vehicle crashes in almost all eight of the San Joaquin Valley counties was approximately twice that of the state as a whole and the *HP 2010* objective of 9.2 deaths per 100,000 persons. San Joaquin Valley county rates for death due to homicide varied widely from a low of 4.2 to a high of 8.9 per 100,000 persons (California Department of Health Services, 2007). Four of the eight counties had homicide rates that were higher than the state. The San Joaquin Valley had similar homicide rates to the nation. Furthermore, the San Joaquin Valley, the state and the nation exceeded the *HP 2010* objective of 3.0 homicide deaths per 100,000 persons.

8. Environmental Quality

- Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency's health based standards for ozone to 0%.
- Reduce the proportion of nonsmokers exposed to environmental tobacco smoke to 45% of the population.

The San Joaquin Valley now has the distinction of having some of the worst air quality in the nation. Ozone levels continue to exceed federal 1-hour and 8-hour standards. Recent data on smog emissions show the Valley leads the nation with the most days of polluted air. Furthermore, in 2006 California had eight of the ten most polluted counties in the nation. Of the nine counties, four were in the San Joaquin Valley. None of the Valley counties came close to meeting the *HP 2010* objective of 0% exposure to air that does not meet the EPA health-based standards for ozone. National data shows that 35% of children live in homes where residents or visitors smoke in the home on a regular basis.

9. Immunization

- Increase to 80% the proportion of young children who receive all vaccines that have been recommended for universal administration for at least five years.
- Increase to 80% the proportion of adolescents ages 13 to 15 years who receive the recommended vaccines.
- Increase to 90% the proportion of noninstitutionalized adults who are vaccinated annually against influenza and those ever vaccinated against pneumococcal disease.

The percentage of San Joaquin Valley children receiving recommended vaccines increased slightly between 2004 at 69.3% and 2006 at 72.2%. The Valley percentages remained lower than both the state and nation. The San Joaquin Valley, the state and the nation failed to meet the *HP 2010* objective of 80% of young children receiving all the recommended vaccines. While data specif c for adolescents, ages 13-15, were not available, a state assessment of 7th graders showed some variation among the eight counties. On average, San Joaquin Valley results were comparable to that of the state, and half of the eight Valley counties met or exceeded the 80% goal set forth in *HP 2010*.

When compared to the state a lower percentage of Valley seniors, age 65 and over (65.7% and 62.6% respectively), received an annual inf uenza vaccination. The percentage of seniors in the San Joaquin Valley who received a f u shot was lower than the nation at 67.9%. There was a slight decrease in the percentage of seniors receiving a f u shot between 2001 and 2005. The Valley, the state, and the nation failed to meet the 2010 objective of increasing to 90% the proportion of noninstitutionalized adults who are vaccinated annually against inf uenza. This was also true of adults vaccinated against pneumonia.

10. Access to Care

- Increase to 100% the proportion of persons with health insurance.
- Increase to 96% the proportion of persons who have a specif c source of ongoing care.
- Increase to 90% the proportion of pregnant women who begin prenatal care in the f rst trimester of pregnancy.

The San Joaquin Valley had a higher percentage (16.4%) of uninsured nonelderly adults, ages 18-64, as compared to the state as a whole (14.4%) and there was little change between 2001 and 2005. Notable age, race/ethnicity, and income disparities in insurance coverage mirrored national patterns. Similar percentages of nonelderly adults in the Valley, the state and the nation reported having a usual source of care. There was also no change between 2001 and 2005.

The San Joaquin Valley had a lower percentage of women receiving adequate, early prenatal care than California. There was an improvement in adequate prenatal care in the San Joaquin Valley from 2002 at 80.8% to 82.3% in 2004. Despite the overall improvement in adequacy, racial ethnic disparity persisted over the same period.In summerary, the San Joaquin Valley failed to meet the *HP 2010* objectives of 100% with insurance coverage, 96% with a specif c source of care, and 90% receiving early prenatal care.

Table 11

San Joaquin Valley Report Card for Meeting *Healthy People 2010* Goals, 2005

Health Indicator	San Joaquin Valley Compared with California	San Joaquin Valley Compared with the Nation	San Joaquin Valley Compared with *Healthy People 2010* Target	Progress since the *2005 Profile*
Physical Activity				
Adults	Worse	Worse	Met Target	No Change
Adolescents	Similar	Better	Did Not Meet Target	Similar
Overweight and Obesity				
Adults	Worse	Similar	Did Not Meet Target	Similar
Adolescents	Worse	Similar	Did Not Meet Target	Similar
Tobacco Use				
Adults	Worse	Better	Did Not Meet Target	Better
Adolescents	Worse	Better	Met Target	Better
Substance Abuse				
Adults - Binge Drinking	Better	No Comparable Data	Did Not Meet Target	Worse
Adults - Illicit Drug Use	Worse	Better	Did Not Meet Target	Worse
Adolescents* - Alcohol Use	Similar	Worse	Did Not Meet Target	Worse
Sexual Behavior				
Adults - Condom Use	Worse	No Comparable Data	Did Not Meet Target	No Comparable Data
Adolescents - Abstain/Condom Use	Worse	Better	Did Not Meet Target	Worse
Mental Health				
Adults - Treatment for Depression	Worse	No Comparable Data	Did Not Meet Target	Worse
Injury and Violence				
Motor Vehicle	Worse	Worse	Did Not Meet Target	Similar
Homicide	Worse	Worse	Did Not Meet Target	No Change
Environmental Quality				
Air Quality	Worse	Worse	Did Not Meet Target	Better
Secondhand Smoke	Similar	Similar	Did Not Meet Target	Better
Immunization				
Childhood	Worse	Worse	Did Not Meet Target	Better
Adolescents	Worse	No Comparable Data	Met Target	Better
Flu Shots	Worse	Worse	Did Not Meet Target	Worse
Access to Health Care				
Health Insurance	Worse	Similar	Did Not Meet Target	Similar
Source of Care	Similar	Similar	Did Not Meet Target	Similar
Prenatal Care	Worse	Worse	Did Not Meet Target	Similar

*Data on adolescent drug use was not available

Priorities for Action

Overall, this report illustrates that the San Joaquin Valley is not making progress nor is it losing ground with regard to key measures of the health status of its residents. No change was noted for adult physical activities and homicide. No improvements were noted for adolescent physical activity, overweight/obesity for adults and adolescents, motor vehicle accidents, and access to care measures (health insurance, usual source of care and prenatal care). California's heartland region worsened in adult binge drinking and illicit drug use, adolescent alcohol use, adolescent abstinence and use of condoms, adult treatment for depression and senior f u shots. Improvements were noted for adult and adolescent tobacco use, air quality, and child and adolescent immunization. Few of the *HP 2010* objectives are being met, and the lack of progress since the *2005 Prof le* offers little justif cation for optimism about meeting those objectives without concerted effort.

Although this review found several areas where the health status of San Joaquin Valley residents was worse than California as a whole (adult physical activity; adult overweight/obesity; adult and adolescent tobacco use; adult binge drinking and illicit drug use; adult and adolescent sexual behavior; adult mental health; motor vehicle and homicide deaths; air quality; child, adolescent and elder immunization; health care insurance; and access to prenatal care), mean differences may understate the depth of health challenges in the region. In each case where health status comparisons by race/ethnicity, insurance status, and urban/rural residence were available, notable disparities were documented. These disparities emerge, in part, from the San Joaquin Valley's unique conditions, such as a notably younger population, low average income and educational attainment, a rural/agricultural economy, health care professional shortages, mal-distribution of health care resources, and inadequate respect for racial/ethnic and cultural diversity. Yet understanding the complex social and economic determinants of health is not suff cient if our goal is to come closer to meeting national health objectives. Also needed to meet these objectives are new strategies that refocus public health and health care programs on eliminating health and health care inequities and meeting the changing needs of all Valley residents. In our 2005 report, we offered f ve recommendations—two addressing improved data and three addressing program enhancements—that continue to be relevant. An additional area of recommendation is focused on our changing economic and political context as well as increased recognition of the social determinants of health disparities. These are also highlighted in this report.

Improving Available Information: Two recommendations related to improving the quality and comprehensiveness of data and analyses with respect to leading health indicators are:

- Use multivariate quantitative methods and qualitative approaches to pinpoint specif c health challenges.
- Develop a San Joaquin Valley database pertinent to the *Healthy People 2010* health objectives.

Responding to the need for more detailed understanding of specif c health challenges, the Central Valley Health Policy Institute (CVHPI) conducted a series of studies of regional health care sector performance in providing prenatal care and improving birth outcomes (Bengiamin, et al., 2007). Among these were: 1) a study of three years of California birth records, 2002-2004, 2)

a qualitative evaluation of system barriers in three of the region's counties and 3) a meta-analysis and systematic review of race and insurance-related disparities in prenatal care in California compared to other states, in the context of the 1990s Medicaid expansion. The three-year analysis of California birth records explored how demographic characteristics, insurance, and residential location inf uence adequacy of care and birth outcomes in the San Joaquin Valley. The qualitative study, conducted in three of the region's counties, focused on provider experiences in serving pregnant and post-partum women. The systematic review and meta-analysis of published studies on the adequacy of prenatal care focuses on how the Medicaid expansions of the 1990s inf uenced racial/ethnic prenatal care disparities in California compared to other states. Signif cantly, these studies point to critical changes in health care f nancing, public sector reimbursement, provider staff ng patterns and training, and health education programming that could yield improvements in prenatal care and birth outcomes. Continued research on this topic is focusing on how individual low-income women overcome the barriers to adequate care. New collaborations and policy initiatives are needed to demonstrate the potential effectiveness of the proposed health care system enhancements on health care access and birth outcomes. More broadly, similar in-depth investigations need to be initiated to address other leading health indicators.

Responding to the need for more complete data, the Central Valley Health Policy Institute has been working with a national consulting f rm to build a region-wide data warehouse that integrates existing demographic data (population, births, deaths) and hospital discharge data at the zip-code, community, county and regional levels. Although diff culties in acquiring hospitalization data have slowed this project, we anticipate that these data will be available for use in 2008 and subsequent *Healthy People* updates. While the data warehouse will improve our capacity to use extant data, it should be noted that there are signif cant leading indicator domains (responsible sexual behavior, tobacco use, substance abuse, physical activity and mental health targets as well as utilization of emergency services, outpatient care, and preventive health services) for which regional data continue to be unavailable. Further, the data used to assess status relative to many of the indicators are derived from the California Health Interview Survey (CHIS). While the broad utility and scientif c quality of the CHIS is not in question, the relatively small samples for some counties, the reliance on land-based telephones to contact potential respondents, and the level of detail available on key indicators suggest the need for continued exploration of how health care providers, public health departments, and other institutions (social service departments, schools, and employers, for example) might collaborate to develop more inclusive data sets that target areas of special concern to the region. Recognizing the need for comprehensive, reliable and consistent data on health indicators, the regions eight departments of public health , working as the Central California Public Health Partnership, have initiated a review of their data resources. In addition to seeking innovations in access to data now available at the state-level only or in county-aggregate form only, they are exploring new opportunities for extracting reportable data from ongoing health monitoring and disease prevention activities. The Partnership is also exploring the development of a regional template for reporting on health indicators and public health efforts.

Interventions to Improve Health: The f ndings reported here appear to indicate the continuing value of the three 2005 recommendations addressing new strategies to improve health:

- Def ne and address access barriers to health care experienced by San Joaquin Valley residents by age, educational level, income, and race/ethnicity.

- Increase access to care, especially among young adults where there appears to be a lack of insurance coverage.

- Develop culturally appropriate and linguistically competent outreach services to address racial/ethnic, social class and other disparities.

With respect to access barriers, through the California Partnership for the San Joaquin Valley, the Central Valley Health Policy Institute is exploring the potential benef ts and best designs for Health Enterprise Zones (HEZ). Through statewide legislation and local decision-making, some currently underserved communities might be able to implement tax and regulatory changes to attract health care providers and other health-promoting enterprises. A two-year feasibility study is seeking to identify what shortages should be addressed and which incentives would effectively increase the number of health professionals establishing practices/ health businesses in underserved areas of the San Joaquin Valley. Because many believe that the health care practitioner shortages and mal-distribution of resources can only be addressed through increases in local efforts to engage young people in health careers, CVHPI is also participating in several efforts to promote health careers and improve health career educational opportunities in the region. Although both HEZ and enhanced health professional education are likely to produce long-term improvements in access, our f ndings from prenatal care projects referenced above suggest that there may be strategies to broaden access with the potential for more immediate impact. Innovations in making health care more accessible will require broad participation and a growing cadre of health and policy professionals knit together by shared understandings of the challenges we face and shared commitments to removing barriers that block individuals from care and organizations from working collaboratively. The Health Policy Leadership Program at the Central Valley Health Policy Institute represents one such effort to enhance the local capacity to cross traditional political, discipline, and organizational boundaries. This program engages emerging leaders from throughout the region in exploring opportunities to address regional health problems.

With respect to high rates of uninsured, one of the most promising efforts in California, the Children's Health Initiative (CHI), is being

implemented in most San Joaquin Valley counties. Statewide, the 32 local CHIs are dedicated to ensuring that all California children have access to quality health coverage. Together, the CHIs emphasize streamlined enrollment into Healthy Families, Medi-Cal and Healthy Kids insurance programs, and share a goal of creating and maintaining a sustainable health care program for all children in California. A University of Southern California (USC) study (Cousineau et al., 2008) shows that these locally f nanced initiatives save the state of California up to $7.3 million annually in health care costs by preventing more than 1,000 unnecessary child hospitalizations per year. Although the CHI programs have been successful to date, there remains a need for a stable source of funding. Also needed are more complete data for the San Joaquin Valley counties to develop a comprehensive view of the program's potential accomplishments and challenges in our region.

For the San Joaquin Valley, access challenges based on health care professional shortages and mal-distribution of health care resources are intimately linked to the large share of our communities who are uninsured and under-insured. While 2007 began as the year of health care f nancing and organizational policy reform, partisan and special interest politics, deep philosophical debates on public policy, absent and competing budgetary/economic priorities in California, as well as mostly absent health and immigration policy leadership at the federal level, blocked the emergence of a fully articulated and fully funded new consensus. While the health reform in California debate has stalled, dramatic new legislative initiatives at the state and federal levels may still emerge. Analyses conducted by the Central Valley Health Policy Institute (Riordan, D., Capitman, J., 2007) suggest that most of the approaches considered in 2007 will fail to improve health care access for important segments of the region's underserved populations. Because of the complexity and scale of the efforts needed, expanding the range of participants and increasing the specif city of regional efforts to address our unique public health and health care access challenges will be required to achieve notable improvements in health care indicators. As California and the nation face possible recession and additional constraints on public spending, Central Valley public health and health care professionals, community leaders and residents are further challenged to address growing unmet health needs within existing resources while exploring opportunities for sustainable regional funding alternatives. The innovation required to address these unmet needs in an increasingly challenging economic and political context indicates the need for an ambitious program of public education and inter-group dialogue around public health and health care to jump-start f nancing and delivery system redesign in the region.

The development of culturally appropriate and linguistically competent interventions is needed to reduce the persistent racial/ethnic and social class inequities in health in our region. Three programs in which the Central Valley Health Policy Institute is participating offer models for the kinds of efforts that need to be explored: 1) CVHPI and six of the region's public health departments have joined the national Place Matters initiative, sponsored by the Joint Center for Political and Economic Studies, a Washington-based think tank, and its Health Policy Institute.

Place Matters' focus is to address "upstream factors" or root causes that produce unfair health outcomes, an approach that differs from the usual disease reduction model. The Place Matters regional project for the San Joaquin Valley is examining the root causes of rural/urban disparities in motor vehicle mortality and morbidity. A pilot project has been proposed in several communities characterized by extremely high rates of motor vehicle accident-related morbidity and mortality to develop local interventions to reduce high-risk use patterns and infrastructure-linked determinants of these accidents. 2) In collaboration with University Medical Center/Community Medical Centers, UCSF-Fresno, and the San Joaquin Valley Health Consortium, the Central Valley Health Policy Institute is conducting a pilot study exploring the use of breast cancer navigators in order to reduce racial/ethnic and insurance status disparities in breast cancer care. The project has already shown the need for breast cancer navigators because of the diff culties low-income women are now facing in making their way through the breast cancer diagnosis and treatment process while providing some important clues about the most feasible approach to care navigation. A larger scale demonstration and more intensive evaluation of the model has been proposed. 3) The federal Centers for Medicare & Medicaid Services has funded the UCSF-Fresno Latino Center for Health Education and Research (LaCMER) and CVHPI in partnership with several community-based organizations to demonstrate and evaluate the use of promotores (community health workers) to increase health insurance participation and appropriate use of primary and preventive care by low-income Latino families and elders in the region. While each of these programs holds promise for demonstrating new approaches to increasing equitable access to quality health care for low-income communities and communities of color in the San Joaquin Valley, efforts focused on other health challenges and initiatives that can expand small-scale pilots of these and related innovations to communities across the region continue be an urgent priority.

New Focus on Local Responsibilities and Collaborations: Beyond the ongoing relevance of our *Healthy People 2010: 2005 Prof le's* recommendations, the continued f ndings of high rates of overweight/obesity, lack of regular physical exercise, and poor air quality have drawn attention to the San Joaquin Valley in the last few years as a prime example of the intersection of broader social, land use, transportation, and economic development policies with health. Recognition of the diverse and interacting factors that contribute to the health and prosperity of our region has been a motivating force for the California Partnership for the San Joaquin Valley. Community leaders, public off cials and academics from across the region are working through several project teams to develop innovative solutions to the region's challenges. The intersection of health and community development is also being addressed by the eight Councils of Governments (COGs) in the region and many other groups that have come together in an unprecedented effort to develop a coordinated Valley vision – the San Joaquin Valley Regional Blueprint. Each county is developing its own principles and plans through a parallel process, and the county plans will be integrated to form a preferred vision for future development throughout the Valley to the year 2050. Although the Regional Blueprint process has not adopted a specif c focus on achieving public health goals among its core objectives, the focus on building a strong economy, equitable opportunities and healthful environments is consistent with addressing the social determinants of health. The f ndings of this *Healthy People 2010* update underscore the urgent need for greater cooperation between public health, health care and community development efforts. Recognition of the environmental and economic policy impacts on the potential for health improvements suggests the need for a new paradigm in which the likely health impacts of land use, transportation, housing, and economic development proposals are considered before their implementation.

The Central California Regional Obesity Prevention Program (CCROPP) offers another example of the new focus on the environmental and policy determinants of health in the San Joaquin Valley. CCROPP was established as a collaborative effort of the region's health departments and California State University, Fresno (the Central California Public Health Partnership). With funding from The California Endowment, CCROPP has engaged community-based organizations throughout the region in exploring both local and broader policy and environmental interventions. CCROPP partners throughout the region are demonstrating community-led efforts to improve the social and physical environment for healthy eating and active communities. Although it will take several years to gauge whether or not these efforts are prompting the broad-scale changes in community life and individual behavior needed to improve the region's health status, CCROPP f ndings to date do indicate that improvements in health across our region will require more than individualized clinical interventions and public education programs. If we are to achieve national health objectives in the San Joaquin Valley, then new strategies that extend the CCROPP model to a broader range of communities and the full range of health indicators are needed. In a related effort, Stanislaus County's Healthy Eating Active Living-Community Health Initiative is funded by Kaiser Permanente in collaboration with community partner West Modesto King Kennedy Neighborhood Collaborative. The Initiative is intended to prevent overweight and obesity as the leading cause of chronic diseases

There are also examples of locally initiated and locally funded initiatives in each of the San Joaquin Valley counties to address the Valley's health challenges. For example, a new report (forthcoming) by the San Joaquin County Community Health Assessment Collaborative (SJC2 HAC) cites twenty locally initiated and locally funded projects addressing leading health indicators such as prenatal care, primary care availability, asthma, and mammography http://www.healthiersanjoaquin.org/about-us.htm.

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