



Health in the Heartland: Responding to the Crisis

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HEALTHY PEOPLE 2010

A 2005 Profile of Health Status in the San Joaquin Valley

Marlene Bengiamin, Ph.D.
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THE CENTRAL VALLEY HEALTH POLICY INSTITUTE

The Central Valley Health Policy Institute was established in 2002 at California State University, Fresno to facilitate regional research, leadership training and graduate education programs to address emerging health policy issues that influence the health status of people living in 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, it's programs and activities (including this report), a health related calendar, and academic and community resources may be found at: www.csufresno.edu/ccchhs/HPI



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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 specific 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 specified in 467 measurable objectives.

The twenty-eight focus areas of HP 2010 were developed by lead federal agencies with the most relevant scientific 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 identified. These 10 health indicators reflect 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, specific to these 10 leading health indicators, are being used to track the progress of the health of the nation over the first 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 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 Profile of Health Status in the Central San Joaquin Valley* (2003 Profile; Perez & Curtis, 2003). The 2003 Profile provided baseline data on the health status of residents in the Valley and identified areas where improvement was needed.

This report, *Healthy People 2010: A 2005 Profile of Health Status in the San Joaquin Valley* (2005 Profile), is intended to provide an update on the health status of the residents of those same San Joaquin Valley counties, again using the 10 leading health indicators set forth in *Healthy People 2010* and the baseline data from the 2003 Profile.



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The *2005 Profile* will examine the following 10 leading health indicators and 22 selected objectives that are being used to measure the progress toward achieving *HP 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 received 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.

METHODOLOGY

This report reviews the most current available national, state and regional data available as of June, 2005. The data used to evaluate each of the *HP 2010* 10 leading health indicators and their related objectives were obtained from existing data sources, linked to the eight counties of the San Joaquin Valley, California, and the nation as a whole, to assess progress relative to each of the objectives.

Data were evaluated 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 2003, providing an opportunity to assess any progress that had been made in meeting the *HP 2010* objectives since the *2003 Profile* (Perez, et al., 2003). These data, retrieved from web-based and public-use data sets, have also been compiled into tables and figures. 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 evaluation, 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% confidence 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 confidence interval for the measure. If the available data source did not provide sufficient information to compute confidence 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 and 2003 California Health Interview Survey* (UCLA Center of Health Policy Research, 2003; 2005), 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.

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 difficult to assess. In general, statistics given in this report should be seen as a guide only and treated with appropriate caution. Further, this report identifies 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 specific, timely and comparable data were unavailable to monitor health status and access to needed services.

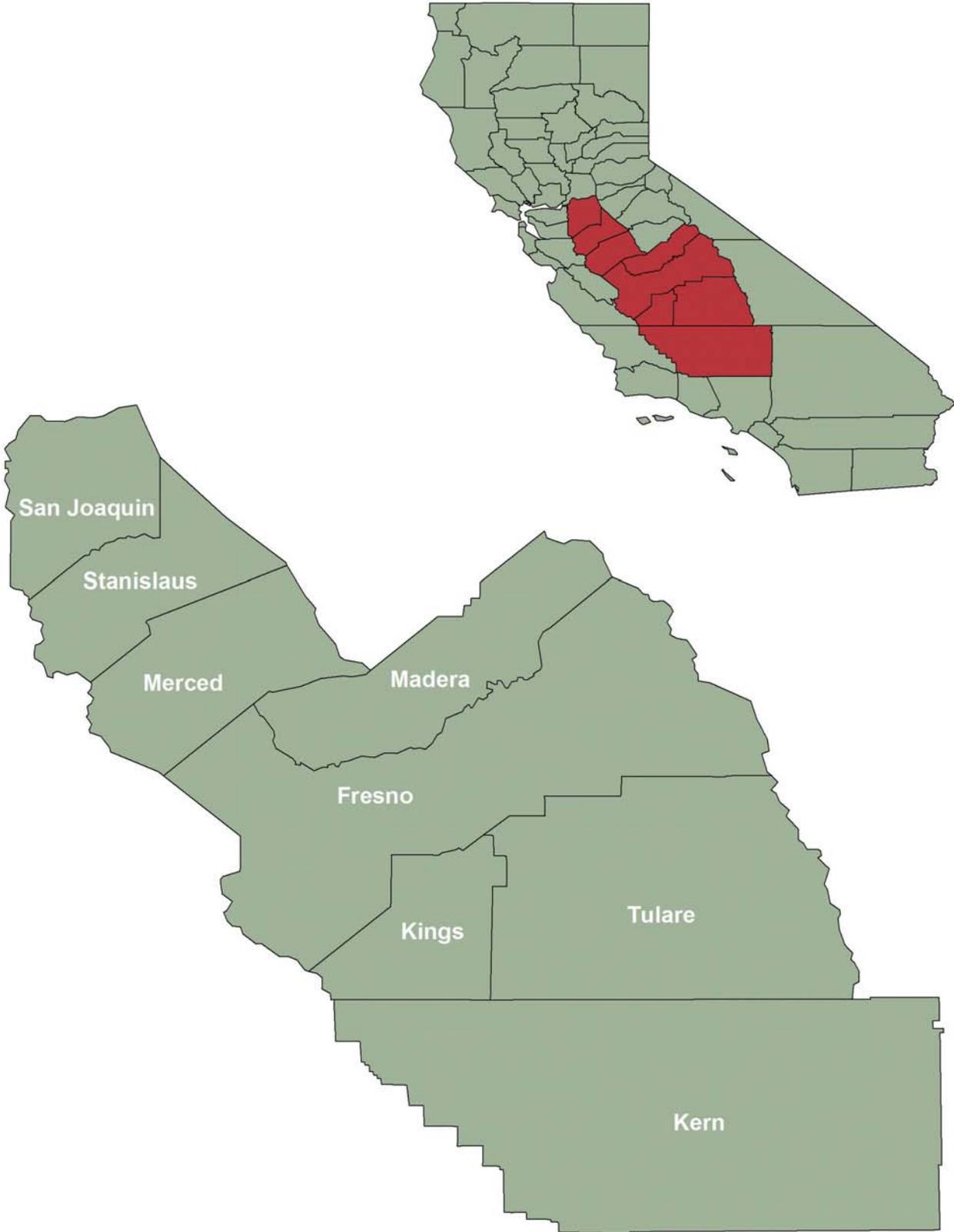
As there was a heavy reliance on data from both the 2001 and 2003 *California Health Interview Survey (CHIS)* and other survey based sources, it is important to understand that these data are estimates derived from a sample and are subject to both sampling and nonsampling errors. Sampling error occurs 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. Both the 2001 and 2003 *CHIS* are random telephone surveys and are subject to some error. Households without a telephone were not sampled which could give rise to bias in the estimates. To mitigate the effects of sampling bias, *CHIS* researchers used special weighting procedures.

Additionally, it is important to note that the use of 2001 and 2003 *CHIS* data was limited to public use on-line files. The authors determined that accessing additional confidential data files, 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 *AskCHIS*.



Figure 1

The San Joaquin Valley



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 2003. According to the California Department of Finance, the San Joaquin Valley gained a half million new residents during the 10 years between 1993 and 2003. By 2003, its population reached over 3.5 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. 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 2003, the Valley also had higher percentages of residents who were under 20 years of age (33.5%), than did California as a whole (29.1%; Rand California, 2003a). The presence of a higher proportion of persons under age 20 has implications for family economic well-being and the financing of public services.

The percentage of the population age 65 and older varied by county in 2003, but was below the state average of 10.6% in seven of the eight Valley counties. Kings County had the lowest percentage of residents age 65 and older in the state at 7.3% (Rand California, 2003a).

Table 1

Population Change in San Joaquin Valley Counties, 2000 to 2003

| Place | 2000 | 2003 | % Change | County Rank for Population Growth* |
|---------------------------|-------------------|-------------------|-------------|------------------------------------|
| Fresno | 799,407 | 850,325 | 6.4% | 17 |
| Kern | 661,645 | 713,087 | 7.8% | 13 |
| Kings | 129,461 | 138,564 | 7.0% | 16 |
| Madera | 123,109 | 133,463 | 8.4% | 11 |
| Merced | 210,554 | 231,574 | 10.0% | 5 |
| San Joaquin | 563,598 | 632,760 | 12.3% | 3 |
| Stanislaus | 446,997 | 492,233 | 10.1% | 4 |
| Tulare | 368,021 | 390,791 | 6.2% | 19 |
| San Joaquin Valley | 3,302,792 | 3,582,797 | 7.8% | |
| California | 33,871,648 | 35,484,453 | 4.8% | |

Source: RAND California, 2003.

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

Ethnic Background

In 2003, six of the eight San Joaquin Valley counties had a higher percentage of Latino residents than the state as a whole (32.4%). Tulare County had the second highest percentage of Latino residents in the state at 50.8%, only exceeded by Imperial County at 72.2%. Only San Joaquin and Stanislaus counties had a lower percentage of Latino residents than the state, at 30.5% and 31.7% respectively (Table 2; California Department of Finance, Demographic Research Unit, 2004).

The percentage of African Americans in seven of the eight San Joaquin Valley counties was lower than the state percentage of 6.5%. Only Kings County had a higher percentage at 8.2%. The percentage of Asian residents varied widely between Valley counties with a low of 1.3% in Madera County and a high of 11.5% in San Joaquin County. Seven of the eight Valley counties had a lower percentage of Asian residents than did California as a whole (10.9%; California Department of Finance, Demographic Research Unit, 2004). 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 affluent areas of California. Per-capita income is well below the national average, and poverty, in both urban and rural areas, is a significant problem. Most of the Valley's economic output comes from agriculture and from petroleum extraction and refining (Wikipedia, n.d.). 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 2002, Kings County had the lowest per capita income in the state and four of the five counties with the highest unemployment rates in the state were in the Valley, with Tulare County in the number two spot (California Department of Finance, 2002).



Table 2

San Joaquin Valley Demographics, 2003

| Demographic Characteristics | Fresno | Kern | Kings | Madera | Merced | San Joaquin | Stanislaus | Tulare | San Joaquin Valley | California |
|---|----------|----------|----------|----------|----------|-------------|------------|----------|--------------------|------------|
| Population ¹ | 850,325 | 713,087 | 138,564 | 133,463 | 231,574 | 632,760 | 492,233 | 390,791 | 3,582,797 | 35,484,453 |
| Population per Square Mile ² | 142 | 87 | 99 | 62 | 118 | 441 | 323 | 81 | 130 | 230 |
| % White, non Hispanic ³ | 40.4% | 50.0% | 42.4% | 47.5 | 41.7% | 48.2% | 58.4% | 42.5% | 47.0% | 47.4% |
| % Hispanic/Latino ³ | 44.0% | 38.4% | 43.6% | 44.3% | 45.4% | 30.5% | 31.7% | 50.8% | 40.0% | 32.4% |
| % American Indian ³ | 0.8% | 0.9% | 1.0% | 1.4% | 0.6% | 0.7% | 0.8% | 0.8% | 0.8% | 1.3% |
| % Asian ³ | 8.2% | 3.3% | 3.0% | 1.3% | 7.0% | 11.5% | 4.3% | 3.3% | 6.2% | 10.9% |
| % Pacific Islander ³ | 0.1% | 0.1% | 0.2% | 0.1% | 0.1% | 0.3% | 0.4% | 0.1% | 0.2% | 0.3% |
| % African American ³ | 5.1% | 5.9% | 8.2% | 3.9% | 3.6% | 6.5% | 2.4% | 1.4% | 4.7% | 6.5% |
| % Multirace ³ | 1.4% | 1.5% | 1.5% | 1.5% | 1.6% | 2.4% | 2.0% | 1.1% | 1.4% | 1.9% |
| % 0-19 Years ² | 33.7% | 33.5% | 31.0% | 31.4% | 36.0% | 33.0% | 33.0% | 35.7% | 33.5% | 29.1% |
| % 18-64 Years ² | 56.6% | 57.3% | 61.7% | 79.4% | 55.0% | 57.1% | 57.0% | 54.9% | 56.9% | 60.3% |
| % Over 65 Years ² | 9.7% | 9.2% | 7.3% | 10.8% | 9.0% | 9.9% | 10.0% | 9.4% | 9.5% | 10.6% |
| Per Capita Personal Income ^{4*} | \$23,492 | \$22,635 | \$18,581 | \$19,617 | \$20,623 | \$24,119 | \$23,642 | \$21,193 | \$20,370 | \$32,989 |
| % 25 years+ Without High School Diploma ⁵ | 27.3% | 26.6% | 30.2% | 33.1% | 29.8% | 23.0% | 31.5% | 38.3% | 28.6% | 21.0% |
| Annual Unemployment Rate ⁶ | 11.8% | 10.3% | 12.1% | 10.4% | 11.6% | 9.1% | 9.8% | 12.4% | 10.7% | 6.8% |
| % of Total Population Below 100% of FPL ⁵ | 27.8% | 22.4% | 20.5% | 21.3% | 23.2% | 14.9% | 15.9% | 29.3% | 22.2% | 16.9% |
| % of Children, Under 18, in Families with Income Below 100% of the FPL ⁵ | 36.0% | 30.0% | 28.0% | 29.0% | 31.0% | 12.0% | 19.0% | 39.0% | 27.7% | 22.0% |

Sources: 1. U.S. Census Bureau. American Community Survey 2003.

2. Rand California, 2003a.

3. California Department of Finance, Demographic Research Unit, 2004.

4. California Department of Finance, 2002.

5. UCLA Center for Health Policy Research, 2005.

6. California Employment Development Department, Labor Market Information Division, 2003.

* 2003 data on personal income was not available so 2002 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 benefits 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 2001, 42.1% of San Joaquin Valley adults, age 18 and over, reported doing some vigorous/moderate physical activity, but did not walk/bicycle to school/work. An additional 26.1% of adults reported doing some vigorous/moderate physical activity, including walking or biking to school/work. This resulted in 68.2% of Valley adults reporting that they engaged in some vigorous/moderate physical activity in 2001. Less than one-third of Valley adults (31.7%) reported no vigorous or moderate activity at all (UCLA Center for Health Policy Research, 2003).

These percentages were comparable to California as a whole where, in 2001, 41.5% of adults reported engaging in some vigorous/moderate activity, but did not walk/bicycle to school/work and an additional 30.0% of California adults reported doing some vigorous/moderate activity, including walking or biking to school/work for a total of 71.5% of California adults engaging in some physical activity. In California, 28.5% of adults reported not engaging in any physical activity.



In 2001, the percentage of adults at the national level who reported not engaging in any physical activity (26.3%) was comparable to both the San Joaquin Valley and the state (CDC, 2001a). County and region specific estimates from the 2003 CHIS regarding adult physical activity levels have not yet been released for on-line data analysis and comparison purposes. However, in 2003, 68.5% of Valley adults reported walking for transportation, fun, and/or exercise (UCLA Center for Health Policy Research, 2005).

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 fitter 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 2003, 63.0% of high school students nationally reported participating in sufficient vigorous physical activity. This was lower than the 70.6% 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 2001 CHIS, 68.3% of male adolescents and 55.6% 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 70.0% of adolescent males and 56.3% of adolescent females, ages 12-17, reported engaging in vigorous physical activity three or more days per week (UCLA Center for Health Policy Research, 2003). County and region specific estimates from the 2003 CHIS regarding adolescent physical activity levels have not yet been released for on-line data analysis and comparison.

2001 CHIS data, by gender and ethnicity, showed a lower percentage of San Joaquin Valley Latino girls (48.1%) than White, non-Latino, girls (60.4%), ages 12-17, reported engaging in vigorous activity three or more days per week. There were no differences found between Valley Latino and White boys in the same age group (69.8% and 69.2% respectively). However, 2001 data showed that only 30.8% of African American boys, ages 12-17, in the Valley, reported engaging in vigorous physical activity three or more days per week (UCLA Center for Health Policy Research, 2003).

2. Overweight and Obesity

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

Obesity¹ 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 10.0% in 1991 to 20.9% in 2001, an increase of over 100% (CDC, 2001b). 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 2003, 15 states had an obesity prevalence of 15-19%; 31 states, including California, had a prevalence rate of 20-24%; and four states had an obesity prevalence of more than 25% (CDC, 2003).

The 2001 and 2003 CHIS used self reported height and weight to determine “overweight or obesity²”. In this analysis, overweight or obese will be used as a measure for comparison purposes. In the San Joaquin Valley, 2003 CHIS data show that 63.4% 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 2003 the percentage of San Joaquin Valley nonelderly adults who reported being overweight or obese was higher than the state (55.5%) 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 increased dramatically between 2001 and 2003 from 56.5% to 66.4%. Statewide the percentage of seniors who reported being overweight or obese remained stable at 54.3% in 2001 and 56.0% in 2003 (UCLA Center for Health Policy Research, 2003; 2005). In 2003 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
San Joaquin Valley and California, 2001 and 2003**

| County | Ages 12-17 | | Ages 18-64 | | Age 65+ | |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2001 | 2003 | 2001 | 2003 | 2001 | 2003 |
| Fresno | 14.1% | 13.4%* | 65.0% | 61.7% | 55.3% | 67.9% |
| Kern | 7.7%* | 17.1%* | 61.4% | 63.5% | 50.8% | 72.5% |
| Kings | 16.3% | 16.1%* | 63.5% | 67.5% | 58.0% | 59.2% |
| Madera | 11.5%* | 16.6%* | 66.1% | 62.7% | 58.6% | 63.5% |
| Merced | 18.2%* | 21.4% | 67.4% | 62.6% | 67.2% | 69.0% |
| San Joaquin | 17.9% | 13.7%* | 66.9% | 61.3% | 62.3% | 55.7% |
| Stanislaus | 12.9%* | 8.2%* | 62.8% | 64.5% | 53.4% | 71.8% |
| Tulare | 7.6%* | 21.6% | 71.0% | 68.1% | 56.1% | 62.0% |
| San Joaquin Valley | 12.8% | 15.2% | 65.1% | 63.4% | 56.5% | 66.4% |
| California | 12.2% | 12.4% | 55.0% | 55.5% | 54.3% | 56.0% |
| Healthy People 2010 Objective | 5.0% | 5.0% | 15.0% | 15.0% | 15.0% | 15.0% |

Source: UCLA Center for Health Policy Research, 2001; 2003.

* Statistically unstable

¹Adult obesity is defined as having a Body Mass Index (BMI) of 30 or higher.

²Using the Body Mass Index (BMI) – 2 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 2003 *CHIS* data shows a slight increase in overweight or obesity³ among San Joaquin Valley adolescents, ages 12-17, from 12.8% in 2001 to 15.2% in 2003. The percentage of San Joaquin Valley adolescents who reported being overweight or obese in 2003 (15.2%) was higher than the percentage of adolescents statewide at 12.4% (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 years, 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 (News-Medical.Net, 2004). When comparing this with San Joaquin Valley data, the opposite is true. In 2003, more Latino than White adolescent boys, ages 12-17, reported being overweight or obese at 29.9% and 15.9% respectively. On the other hand, there was little difference in the percentages of adolescent Latino and White girls in the Valley who reported being overweight or obese at 12.0% and 13.2% respectively (UCLA Center for Health Policy Research, 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

Comparing 2001 and 2003 *CHIS* data (Figure 2) for the San Joaquin Valley found that the percentage of adults, age 18 and over, who reported being a current smoker remained fairly stable at 19.0% in 2001 and 19.7% in 2003. Similarly, the percentage of adults who reported never smoking remained constant at 56.9% in 2001 and 57.1% in 2003. In keeping with this finding, the percentage of adults who reported being former smokers remained about the same at 24.1% in 2001 and 23.2% in 2003. The percentage of current smokers in the San Joaquin Valley was higher than the state as a whole; with 16.5% of adults statewide reporting that they were current smokers in 2003 and 59.5% reporting that they had never smoked (UCLA Center for Health Policy Research, 2003; 2005). Both the Valley and the state had a lower percentage of



adults who smoked than the nation at 22.5% (American Lung Association, 2004). Based on these results, the percentage of Valley adults who smoke continues to be higher than the *HP 2010* objective of 12.0%.

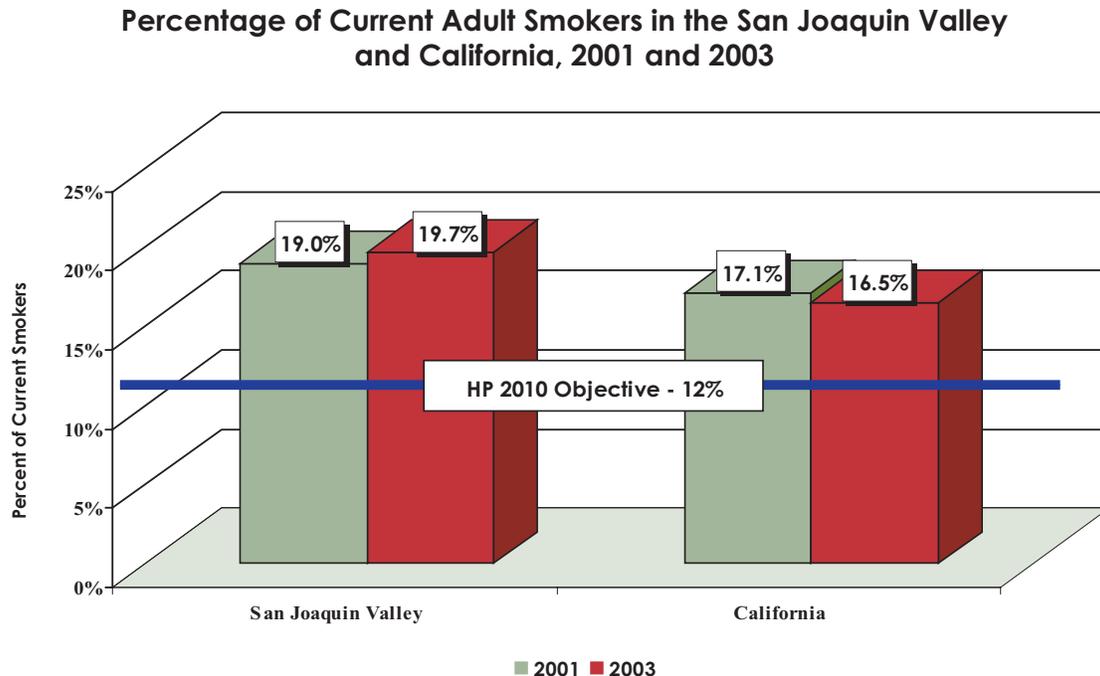
27-2b - Reduce Cigarette Smoking by Adolescents to 16% of the Population

As the leading cause of preventable death and disease in the United States, smoking is associated with a significantly increased risk of heart disease, stroke, lung cancer, and chronic lung diseases (National Center for Health Statistics, 2004). The 2003 *National Survey on Drug Use and Health* (NSDUH) showed that 44.8% of young adults nationally, ages 18 to 25, reported currently using a tobacco product. An estimated 3.6 million youths nationally (14.4%), 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, Office of Applied Studies, 2004).

The 2003 *CHIS* showed that 7.8% of San Joaquin Valley teens, ages 12-17, reported being a current smoker. This is similar to California as a whole where 5.8% of adolescents reported being a current smoker. The racial/ethnic background of Valley adolescents who reported being a current smoker varied widely with African American teens reporting the highest percentage of current smokers at 21.5%. White, non-Latino teens reported the lowest percentage at 4.5%, with Latinos at 9.1% and American Indian/Alaska Natives at 8.3% (UCLA Center for Health Policy Research, 2005). Cigarette smoking among Valley adolescents, with the exception of African American teens, appeared to be lower than were national rates and was almost half the *HP 2010* objective. This specific question was not asked in the 2001 *CHIS* so temporal comparisons are not made.

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

Figure 2



Source: UCLA Center for Health Policy Research, 2003; 2005.

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 *2003 National Survey on Drug Use and Health (NSDUH)* showed substantial variations in the rates of substance dependence by age. The rate for dependence or abuse was 1.2% at age 12, with rates generally higher for each successive year of age until reaching the highest rate (23.6%) at age 21. After age 25, the rates decreased with age (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2004).

In 2001, 70.5% of San Joaquin Valley adolescents, ages 12-17, reported that they had never had an alcoholic drink. This was comparable to California statewide at 68.9%. However, adolescents in the Valley did not meet the 89% goal set by *HP 2010*. County and region specific estimates from the *2003 CHIS* regarding adolescent alcohol use have not yet been released for on-line data analysis and comparison.

As a surrogate for alcohol use for comparison purposes, we looked at the percentage of Valley adolescents, ages 12-17, who reported binge drinking* in 2001 and 2003. *CHIS* data from 2001 showed that 6.7% (24,000) of San Joaquin Valley adolescents, ages 12-17, reported binge drinking in the past 30 days. In 2003, 9.4% (36,000) of Valley adolescents reported binge drinking in the 30 days prior to the survey. Although this does not reflect a significant change in the percentage of teens who were binge drinking, it does show that approximately 12,000 more adolescents reported binge drinking than in 2003. The percentages of California teens who reported binge drinking in 2001 (6.6%) and 2003 (6.3%) were similar to the Valley (UCLA Center for Health Policy Research, 2003; 2005).

Nationwide, 2000 data showed the percentage of underage persons, ages 12-20, who reported binge drinking at 19.0%, which was higher than the percentage of underage persons, ages 12-20, in the San Joaquin Valley (11.1%) and California (11.5%) who reported binge drinking in 2001 (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2002; UCLA Center for Health Policy Research, 2003).

Contacts were made in an attempt to obtain data on drug use among adolescents in the eight San Joaquin Valley counties from the *California Healthy Kids Survey*. Although data from all eight

*Binge drinking is defined as consuming more than five drinks at a single time in the month prior to the survey.

counties were not available, data from San Joaquin County showed a difference in the use of alcohol or inhalant drugs* by gender at an early age. Four percent of San Joaquin County male children 11 years of age, had drank a full glass of alcohol and 5% had used an inhalant drug, while the rate was 1% and 3% respectively for females. Additionally, the percentage of adolescents who reported using alcohol and other drugs increased with age with 15.0% percent of 7th graders, 31.0% of 9th graders, and 40.0% of 11th graders in San Joaquin County reporting that they had used alcohol or other drugs in the past 30 days (California Department of Education, 2004).

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 specific 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 2003, 20.3% of persons ages 18-25 and 5.6% 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

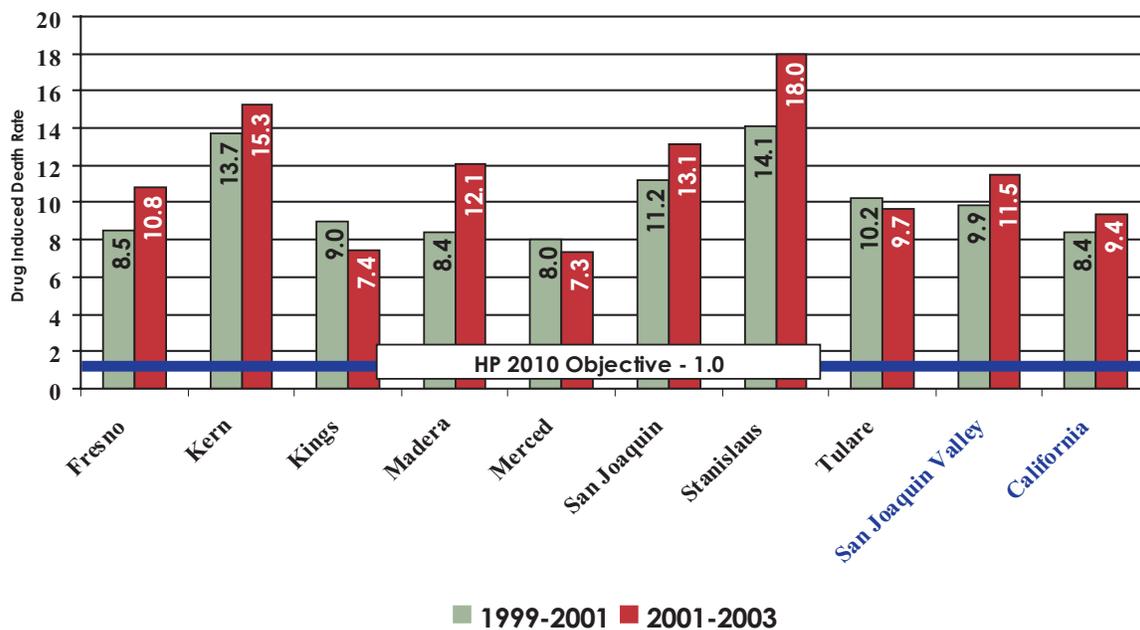
drugs during the month prior to the survey (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2004).

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 14.1 for 1999-2001 and 18.0 for 2001-2003. Merced County had the lowest rates of drug induced deaths in the same time periods at 8.0 and 7.3 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 1999-2001 and 2001-2003



Source: California Department of Health Services, 2003; 2005.

*Inhalant drugs include a variety of substances, such as amyl nitrite, cleaning fluids, 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

Comparing 2001 to 2003 CHIS data showed little change in the percentage of San Joaquin Valley adults, age 18 and over, who reported binge drinking at 15.8% in 2001 and 15.1% in 2003. This was comparable to binge drinking among adults statewide at 15.4% in 2001 and 15.1% in 2003 (UCLA Center for Health Policy Research, 2003; 2005). However, the percentage of Valley adults who reported binge drinking was still 2.5 times greater than the HP 2010 objective of 6%.

Nationally, young adults, ages 18-25, reported the highest percentage of binge drinkers in 2003, with peak usage at age 21. The rate of binge drinking was 41.6% for young adults ages 18-25 and 47.8% at age 21 (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2004). 2003 CHIS data showed that young adults, ages 18-25 in both the San Joaquin Valley (23.3%) and California (24.9%) 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

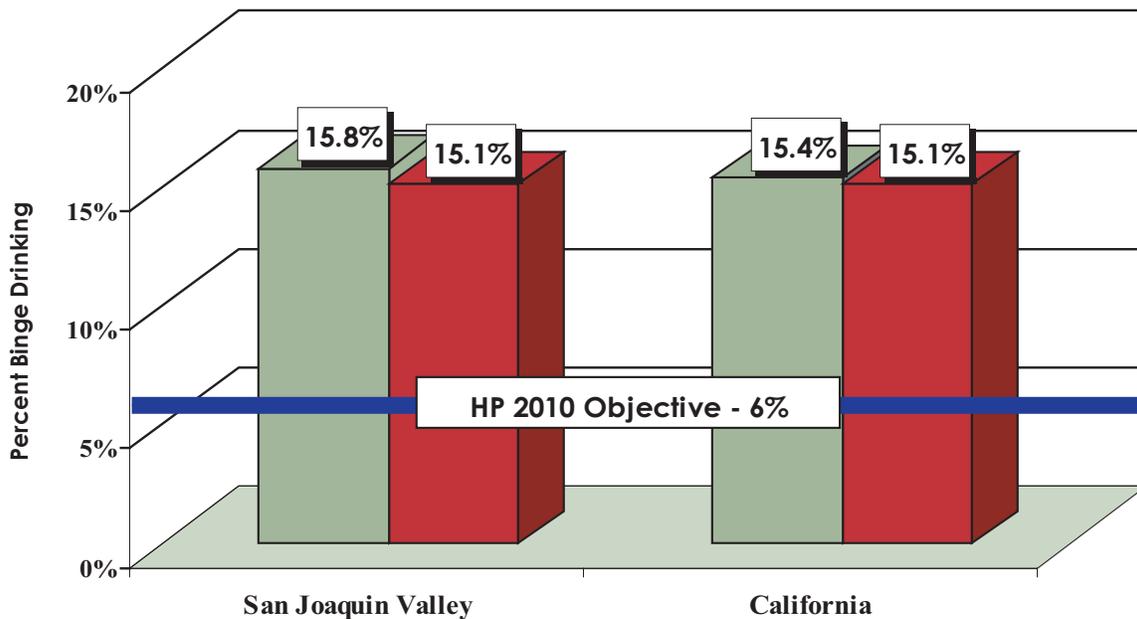
13-6b. Males Ages 18-49 years

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

Binge Drinking Among Adults, Age 18 and Over, in the San Joaquin Valley and California, 2001 and 2003



Source: UCLA Center for Health Policy Research, 2003 ■ 2001 ■ 2003

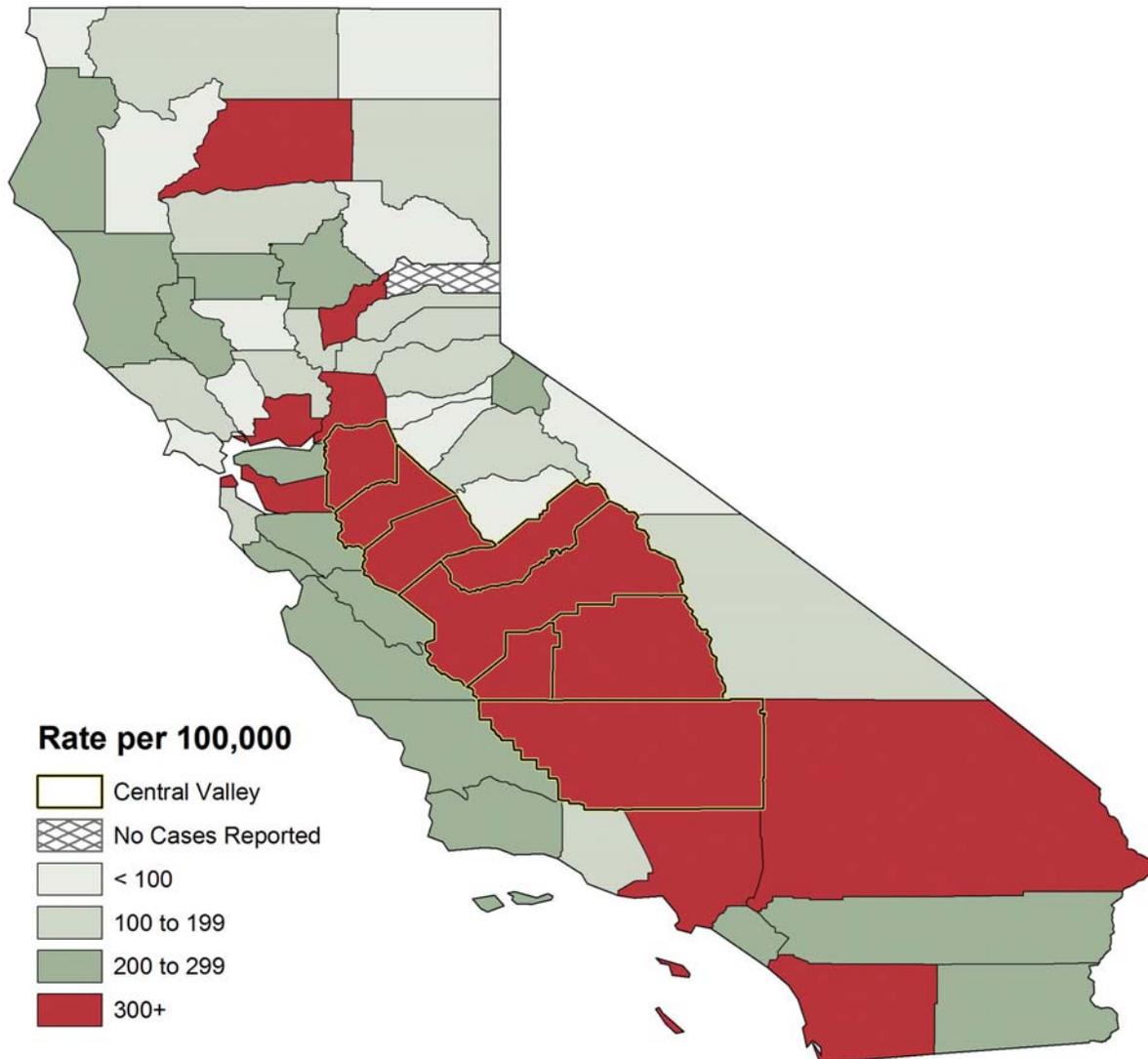
*The term "sexually experienced women" is defined as women who have ever had sexual intercourse.

(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 20-29 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, 2005a; 2005b).

The rate of Chlamydia infections in California as a whole increased from 292.9 per 100,000 persons in 2001 to 324.3 per 100,000 persons in 2003. The rate of Gonorrhea infections increased from 66.9 per 100,000 persons in 2001 to 71.6 in 2003. 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 377.7 per 100,000 persons in 2003, an increase of 163.1 per 100,000 persons (California Department of Health Services, STD Control Branch, 2005a; 2005b). Figures 5 and 6 also indicate that in 2003 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

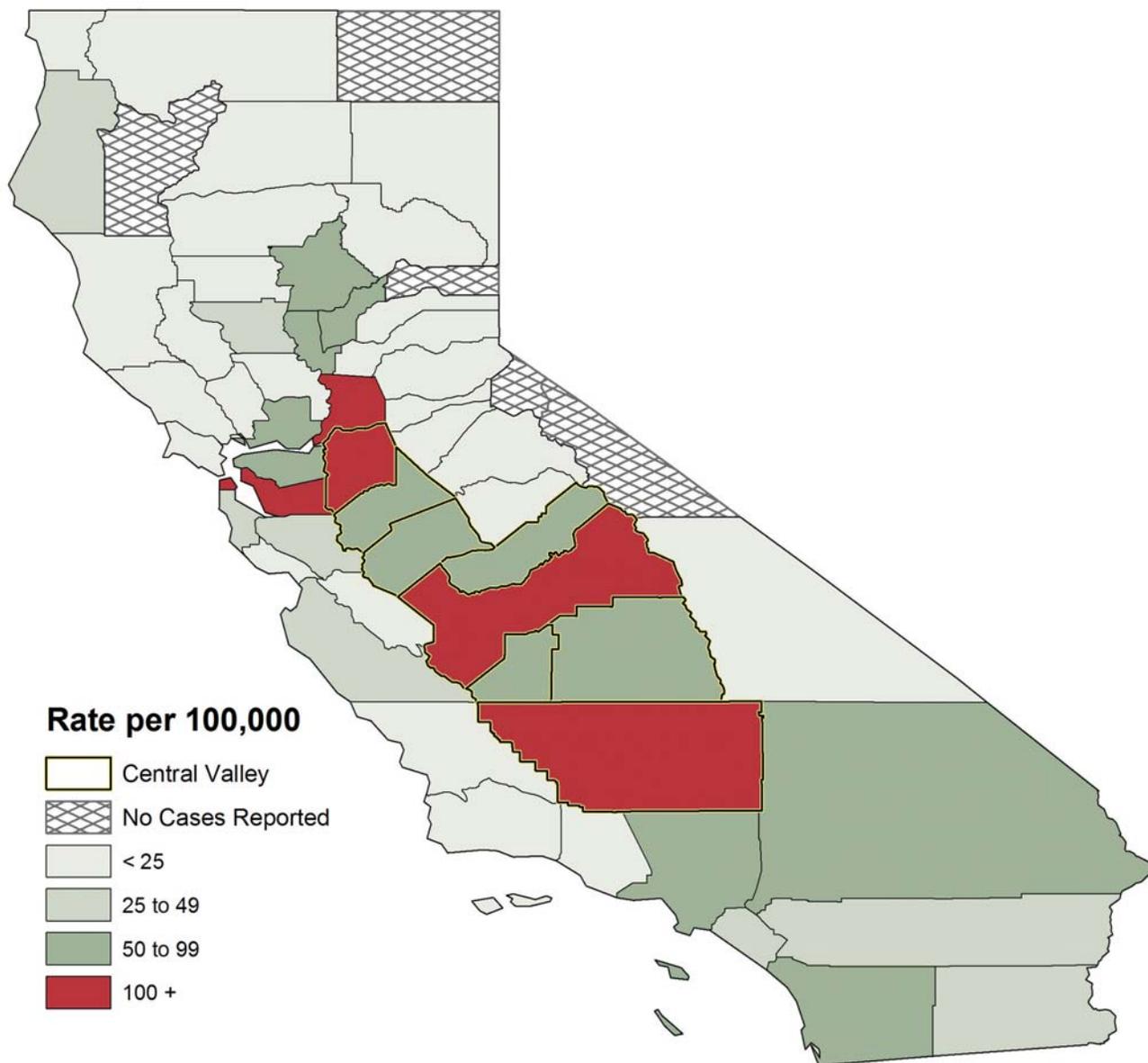
All California Counties - Rates of Chlamydia Infections, per 100,000 Persons, 2003



Source: California Department of Health Services, STD Control Branch, 2005a.

Figure 6

All California Counties - Rates of Gonorrhea Infections, per 100,000 Persons, 2003



Source: California Department of Health Services, STD Control Branch, 2005b.

Table 4

**Chlamydia And Gonorrhea Cases and Rates
per 100,000 Persons, in the San Joaquin Valley and California, 2003**

| Age Groups | Chlamydia | | | | Gonorrhea | | | |
|----------------------|-----------|--------|------|----------|-----------|-------|------|-------|
| | Female | | Male | | Female | | Male | |
| | Case | Rate | Case | Rate | Case | Rate | Case | Rate |
| Fresno County | | | | | | | | |
| 15-19 | 1288 | 3478.1 | 244 | 611.6 | 228 | 615.7 | 88 | 220.6 |
| 20-24 | 1321 | 3750.3 | 454 | 1,155.90 | 245 | 695.5 | 148 | 376.8 |
| 25-29 | 540 | 1790.6 | 213 | 616.9 | 94 | 311.7 | 93 | 289.3 |
| 30-34 | 214 | 766.9 | 86 | 278.8 | 33 | 118.3 | 49 | 158.9 |
| 35-44 | 169 | 292.7 | 73 | 120.5 | 46 | 79.7 | 60 | 99.1 |
| 45+ | 32 | 24.2 | 14 | 11.9 | 13 | 9.8 | 24 | 20.3 |
| Kern County | | | | | | | | |
| 15-19 | 1,016 | 3434.4 | 236 | 746.5 | 149 | 503.7 | 65 | 205.6 |
| 20-24 | 895 | 3581.1 | 309 | 1,035.60 | 113 | 452.1 | 105 | 351.9 |
| 25-29 | 334 | 1586.1 | 143 | 579.4 | 71 | 337.2 | 56 | 226.9 |
| 30-34 | 143 | 651.2 | 52 | 209.2 | 41 | 186.7 | 42 | 169 |
| 35-44 | 105 | 209.8 | 45 | 82.6 | 41 | 81.9 | 41 | 75.3 |
| 45+ | 11 | 9.6 | 17 | 15.8 | 4 | 3.5 | 16 | 14.9 |
| Kings County | | | | | | | | |
| 15-19 | 196 | 3978.1 | 35 | 616.2 | 16 | 324.7 | 3 | 52.8 |
| 20-24 | 164 | 3965.2 | 54 | 701.6 | 18 | 435.2 | 13 | 168.9 |
| 25-29 | 50 | 1276.8 | 20 | 266.2 | 3 | 76.6 | 7 | 93.2 |
| 30-34 | 16 | 378.3 | 8 | 103.0 | 3 | 70.9 | 3 | 38.6 |
| 35-44 | 5 | 55.0 | 7 | 46.8 | 1 | 11.0 | 2 | 13.4 |
| 45+ | 2 | 11.6 | 2 | 10.7 | 2 | 11.6 | 0 | 0.0 |
| Madera County | | | | | | | | |
| 15-19 | 151 | 2977.7 | 10 | 181.3 | 11 | 216.9 | 3 | 54.4 |
| 20-24 | 136 | 2572.3 | 30 | 533.3 | 17 | 321.5 | 8 | 142.2 |
| 25-29 | 55 | 1180.3 | 13 | 291.9 | 13 | 297 | 7 | 157.2 |
| 30-34 | 14 | 276.3 | 6 | 150 | 1 | 19.7 | 4 | 100 |
| 35-44 | 17 | 160.1 | 8 | 102.2 | 10 | 94.2 | 4 | 51.1 |
| 45+ | 3 | 12.8 | 2 | 9.7 | 1 | 4.3 | 0 | 0 |
| Merced County | | | | | | | | |
| 15-19 | 253 | 2374.9 | 31 | 274.4 | 20 | 187.7 | 13 | 115.1 |
| 20-24 | 282 | 3112.9 | 62 | 614.7 | 25 | 276.0 | 21 | 208.2 |
| 25-29 | 111 | 1490.1 | 25 | 317.1 | 16 | 214.8 | 14 | 177.6 |
| 30-34 | 32 | 415.3 | 14 | 184.4 | 9 | 116.8 | 6 | 79.0 |
| 35-44 | 22 | 136.1 | 13 | 81.5 | 4 | 24.8 | 6 | 37.6 |
| 45+ | 7 | 20.7 | 3 | 9.9 | 1 | 3.0 | 4 | 13.2 |

Table 4

**Chlamydia And Gonorrhea Cases and Rates,
per 100,000 Persons, in the San Joaquin Valley and California, 2003**

| Age Groups | Chlamydia | | | | Gonorrhea | | | |
|---------------------------------|-----------|--------|--------|-------|-----------|-------|-------|-------|
| | Female | | Male | | Female | | Male | |
| | Case | Rate | Case | Rate | Case | Rate | Case | Rate |
| San Joaquin County | | | | | | | | |
| 15-19 | 734 | 2814.4 | 164 | 554.6 | 127 | 487.0 | 49 | 165.7 |
| 20-24 | 602 | 2597.1 | 218 | 839.1 | 108 | 465.9 | 80 | 307.9 |
| 25-29 | 249 | 1259.9 | 109 | 536.2 | 51 | 258.1 | 59 | 290.3 |
| 30-34 | 102 | 492.7 | 51 | 232.5 | 25 | 120.8 | 25 | 114.0 |
| 35-44 | 62 | 137.5 | 37 | 80.4 | 24 | 53.2 | 41 | 89.1 |
| 45+ | 15 | 14.9 | 18 | 19.8 | 3 | 3.0 | 20 | 22.0 |
| Stanislaus County | | | | | | | | |
| 15-19 | 488 | 2355.9 | 88 | 406.4 | 34 | 164.1 | 25 | 115.4 |
| 20-24 | 442 | 2385.6 | 111 | 576.2 | 57 | 307.6 | 31 | 160.9 |
| 25-29 | 182 | 1129.7 | 76 | 453.6 | 41 | 254.5 | 35 | 208.9 |
| 30-34 | 75 | 442.5 | 18 | 102.7 | 11 | 64.9 | 15 | 85.6 |
| 35-44 | 31 | 86.7 | 21 | 59.4 | 14 | 39.1 | 20 | 56.6 |
| 45+ | 8 | 9.9 | 4 | 5.7 | 1 | 1.2 | 4 | 5.7 |
| Tulare County | | | | | | | | |
| 15-19 | 480 | 2757.8 | 111 | 600.2 | 29 | 166.6 | 16 | 86.5 |
| 20-24 | 469 | 3104.7 | 140 | 824.1 | 39 | 258.2 | 28 | 164.8 |
| 25-29 | 215 | 1649.5 | 66 | 461.2 | 18 | 138.1 | 15 | 104.8 |
| 30-34 | 85 | 650.2 | 38 | 265.9 | 8 | 61.2 | 13 | 91.0 |
| 35-44 | 57 | 215.8 | 24 | 90.4 | 3 | 11.4 | 15 | 56.5 |
| 45+ | 16 | 27.4 | 2 | 3.9 | 2 | 3.4 | 4 | 7.7 |
| San Joaquin Valley Total | | | | | | | | |
| 15-19 | 4606 | 3195.0 | 919 | 594.0 | 614 | 426.0 | 262 | 169.0 |
| 20-24 | 4338 | 3107.0 | 1407 | 882.0 | 604 | 432.0 | 431 | 270.0 |
| 25-29 | 1736 | 1428.0 | 665 | 479.0 | 307 | 252.0 | 286 | 206.0 |
| 30-34 | 681 | 560.0 | 273 | 204.0 | 131 | 107.0 | 157 | 117.0 |
| 35-44 | 468 | 186.0 | 228 | 85.0 | 143 | 57.0 | 189 | 70.0 |
| 45+ | 94 | 17.0 | 62 | 3.0 | 27 | 5.0 | 72 | 14.0 |
| California | | | | | | | | |
| 15-19 | 28,123 | 2217.0 | 6,114 | 453.2 | 3,769 | 297.1 | 1,603 | 118.8 |
| 20-24 | 31,125 | 2592.2 | 10,423 | 776.5 | 3,660 | 304.8 | 3,228 | 240.5 |
| 25-29 | 13,270 | 1112.8 | 6,043 | 471.1 | 1,920 | 161 | 2,537 | 197.8 |
| 30-34 | 6,003 | 445.4 | 3,544 | 249 | 932 | 69.1 | 2,048 | 143.9 |
| 35-44 | 4,043 | 145.6 | 3,356 | 116.9 | 950 | 34.2 | 3,090 | 107.6 |
| 45+ | 1,130 | 17.9 | 1,188 | 21.2 | 266 | 4.2 | 1,185 | 21.2 |

Source: Rand California, 2003a
California Department of Health, STD Control Branch, 2005a; 2005b.

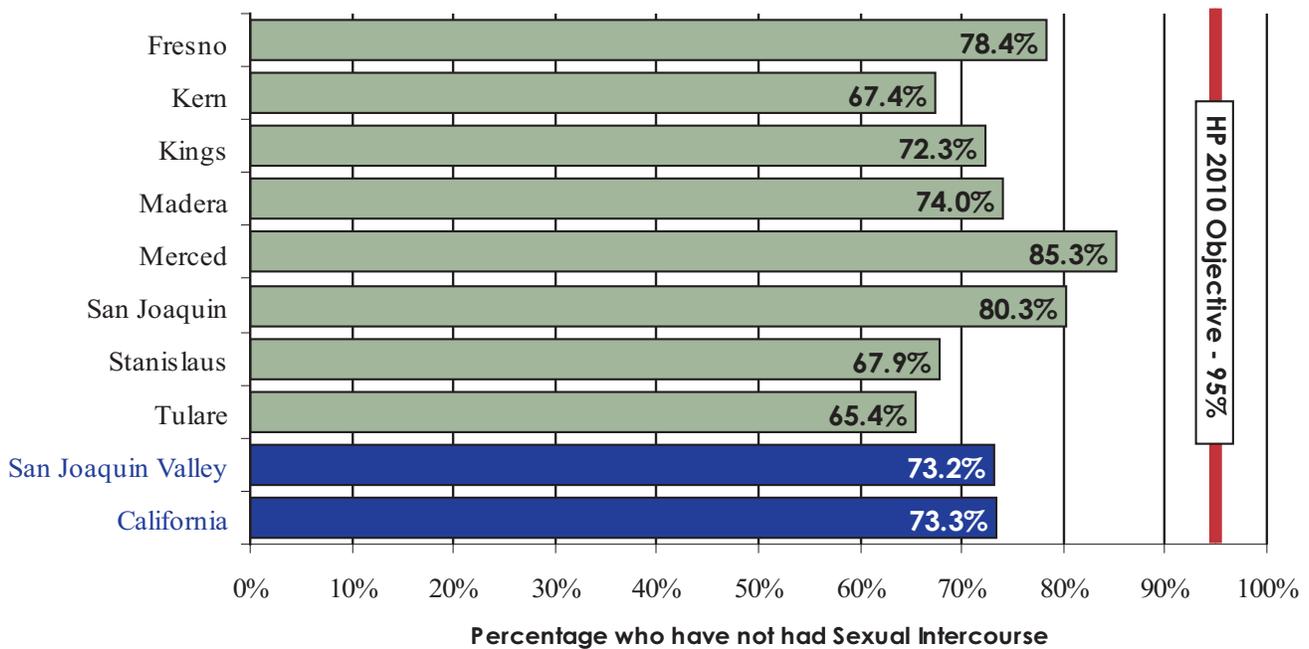
Objective 25-11: Increase to 95% the Proportion of Adolescents Who Abstain from Sexual Intercourse or Use Condoms, if Currently Sexually Active

CHIS 2001 data show that 26.8% of San Joaquin Valley adolescents, ages 15-17, reported having sexual intercourse at sometime during their life time. However, in the same year, only 54.4% of male adolescents in the Valley, ages 15-17, reported using a condom during their last experience with sexual intercourse. In 2001, the percentage of Valley adolescents who reported abstaining from sexual activity at 73.2% was similar to the percentage statewide at 73.3% and nationally at 68.7% (UCLA Center for Health Policy Research, 2003; CDC, 2004a). Figures 7 and 8 illustrate that the Valley is far from meeting the 2010 objective of 95% of adolescents using condoms or abstaining from sexual intercourse. County and region specific estimates from the 2003 CHIS regarding adolescent who abstain from sexual intercourse or use condoms, if sexually active, have not yet been released for on-line data analysis and comparison.

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 1990's, in 2002 the San Joaquin Valley counties had among the highest teen birth rates in the state. Tulare and Kings Counties had the highest teen birth rates in the state at 72.2 and 71.6, 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 41.1 births per 1,000 females, ages 15-19 (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.

Figure 7

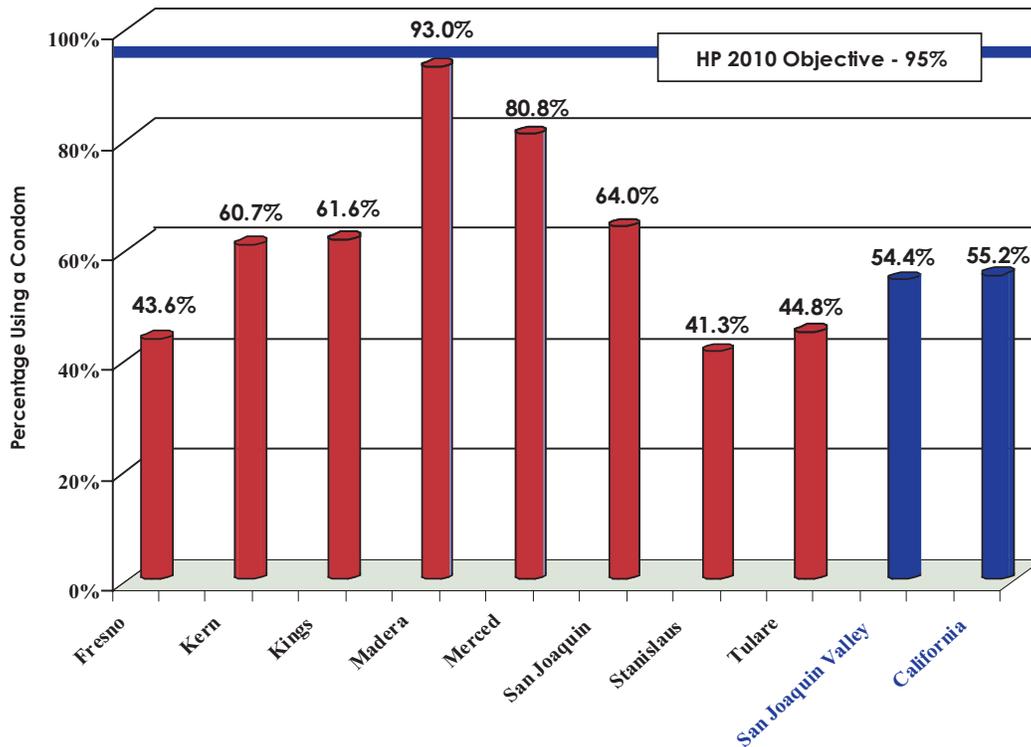
San Joaquin Valley and California Adolescents, Ages 15-17, Who Have Not Had Sexual Intercourse, 2001



Source: UCLA Center for Health Policy Research, 2003.

Figure 8

Males, Ages 15-17, in the San Joaquin Valley and California Who Reported Using a Condom During Last Sexual Intercourse, 2001



Source: UCLA Center for Health Policy Research, 2003.

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).

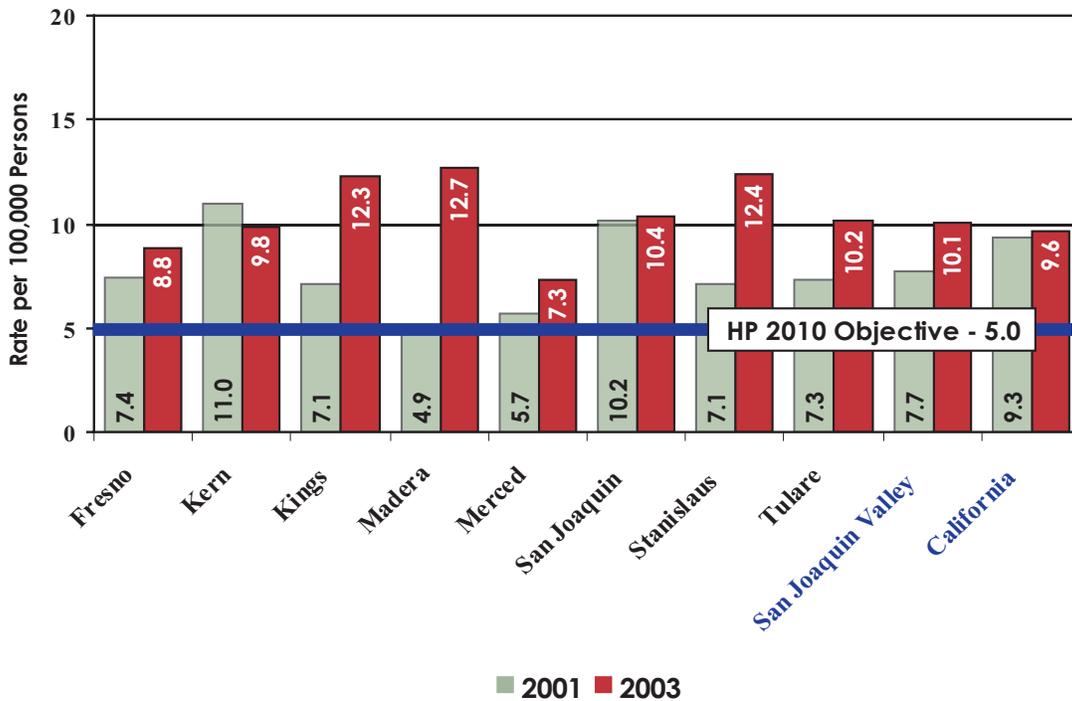
The 2001 CHIS found only 17.6% of San Joaquin Valley adults age 18 and older who reported feeling downhearted and sad all or most of the time (an indicator for major depression), saw a health professional. This was slightly lower than the state percentage of 20.2%. Results from a national telephone survey 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%. County and region specific estimates from the 2003 CHIS have not yet been released for on-line data analysis and comparison.

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, Nation Center for Injury Prevention and Control, 2004). In 2003, 1.4% of the total number of deaths in California was the result of suicide (RAND California, 2003b).

An increase in the suicide rate is evidence of the lack of access to mental health care. Figure 8 shows increases in the rates, per 100,000 persons, of deaths from suicide in seven of the eight San Joaquin Valley counties between 2001 and 2003. Suicide rates in California as a whole remained stable at 9.3 in 2001 and 9.6 in 2003 (Rand California, 2003b.) In 2003, none of the San Joaquin Valley counties met *HP 2010* objective 18-1, reduce the suicide rate to 5.0 suicides per 100,000 persons.

Figure 9

Suicide Rates, per 100,000 Persons, in the San Joaquin Valley and California, 2001 and 2003



Source: RAND California, 2003b.

7. Injury and Violence

Objective 15-15a: Reduce Deaths Caused by Motor Vehicle Crashes to 9.0 Deaths per 100,000 Population

Unintentional injuries (including motor vehicle accidents) were the fifth leading cause of death nationally in 2002 with a rate of 37.0 deaths per 100,000 persons. Nationally, the death rate from motor vehicle accidents alone was 15.3 deaths per 100,000 persons in 2002 (CDC, National Center for Health Statistics, 2005). 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).

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, 2002a). Averaged yearly data from 2001-2003 showed that the death rate per 100,000 persons as a result of motor vehicle accidents was 21.4 for all age groups in the San Joaquin Valley. In California, the death rate from motor vehicle accidents, per 100,000 persons, was half the Valley rate at 11.9. As shown in Table 5, using averaged 2001-2003 data, the rates of deaths from motor vehicle accidents in all eight of the San Joaquin Valley counties exceeded the California rate of 11.9 per 100,000 persons and were over twice the rate specified in the *HP 2010* objective (California Department of Health Services, 2005).

Objective 15-32: Reduce Homicide rate to 3.2 per 100,000 population

In 2002, homicides were ranked as the 14th leading cause of death in the United States at 6.1 deaths per 100,000 persons (Kochanek, et al., 2005). 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 2002 death rate due to homicide in California was 6.9 per 100,000 persons (California Department of Health Services, 2005). 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, 31.2 vs. 3.8. The highest death rate from homicide in California occurred among Black males in the 15-24 age group at 123.4 per 100,000 persons (California Department of Health Services, Center for Health Statistics, 2004).

Among the San Joaquin Valley counties the rates for death due to homicide (averaged 2001-2003 rate per 100,000 persons) varied widely from a low of 3.9 in Kings County to a high of 8.9 in San Joaquin County (California Department of Health Services, 2005). The death rate from homicides in the Valley was similar to both the California and 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 3.2 per 100,000 persons.

Table 5

**Death Rates from Motor Vehicle Accidents and Homicide
In the San Joaquin Valley and California, Averaged 2001-2003**

| County | # of Deaths from Motor Vehicle Crashes | Rate of MVD* per 100,000 | # of Deaths from Homicide | Rate of Homicides per 100,000 |
|---------------------------|--|--------------------------|---------------------------|-------------------------------|
| Fresno | 181.3 | 21.7 | 62.0 | 7.4 |
| Kern | 144.3 | 20.7 | 50.0 | 7.2 |
| Kings | 33.7 | 24.9 | 5.3 | 3.9 |
| Madera | 37.0 | 28.6 | 8.7 | 6.7 |
| Merced | 53.7 | 24.0 | 13.3 | 6.0 |
| San Joaquin | 110.7 | 18.2 | 54.0 | 8.9 |
| Stanislaus | 96.7 | 20.2 | 27.0 | 5.6 |
| Tulare | 88.7 | 23.1 | 26.7 | 7.0 |
| San Joaquin Valley | 746.1 | 21.4 | 247.0 | 7.1 |
| California | 4189.0 | 11.9 | 2413.7 | 6.8 |
| HP 2010 Objective | | 9.0 | | 3.2 |

Source: California Department of Health Services, 2005.

*MVD = Motor Vehicle Deaths

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 2004* and *State of the Air 2005*, examined the two most pervasive air pollutants: ozone and PM₁₀ 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--49%--live in 353 counties with unhealthy levels of ozone pollution (American Lung Association, 2005). 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 2003, ozone levels in the San Joaquin Valley exceeded the federal one-hour ozone standard on 37 days, an increase from 32 days in 2001, and the Federal 8-hour standard on 134 days, an increase from 109 days in 2001 (California Air Resources Board, n.d.). Additionally, the number of unhealthy air days increased in six of the eight valley counties between 2003 and 2004 (Table 6; American Lung Association, 2004; 2005). 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 2004. Only San Joaquin County received a grade of D 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, with California having 9 of the 10 most polluted counties in the nation in 2004. Of these nine counties; four are in the Valley, as shown in Table 8 (American Lung Association, 2005).

Table 6

Air Quality Index Scale

| Air Quality Index Values | Levels of Health Concern | Colors |
|---------------------------------------|------------------------------------|-------------------------------------|
| <i>When the AQI is in this range:</i> | <i>Air quality conditions are:</i> | <i>As symbolized by this color:</i> |
| 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, 2005.

Table 7

Number of High Ozone Days per Year by County, San Joaquin Valley, 2003 and 2004

| County | 2003 | | | Total High Ozone Days | 2004 | | | Total High Ozone Days |
|-------------|---|-----------------------------------|---|-----------------------|---|-----------------------------------|---|-----------------------|
| | # of Orange Days <i>Unhealthy for Sensitive Groups</i> | # of Red Days <i>Unhealthy</i> | # of Purple Days <i>Very Unhealthy</i> | | # of Orange Days <i>Unhealthy for Sensitive Groups</i> | # of Red Days <i>Unhealthy</i> | # of Purple Days <i>Very Unhealthy</i> | |
| Fresno | 197 | 66 | 4 | 267 | 223 | 59 | 3 | 285 |
| Kern | 212 | 46 | 0 | 258 | 225 | 66 | 1 | 292 |
| Kings | 89 | 7 | 0 | 96 | 58 | 2 | 0 | 60 |
| Madera | 39 | 1 | 0 | 40 | 44 | 1 | 0 | 45 |
| Merced | 114 | 7 | 1 | 122 | 130 | 8 | 1 | 139 |
| San Joaquin | 8 | 0 | 0 | 8 | 7 | 0 | 0 | 7 |
| Stanislaus | 44 | 2 | 0 | 46 | 53 | 1 | 0 | 54 |
| Tulare | 221 | 19 | 0 | 240 | 228 | 28 | 0 | 256 |

Source: American Lung Association, 2004; 2005.

Table 8

Top 10 Most Ozone Polluted Counties in the Nation, 2004

| County | National Rank | # of Orange Days <i>Unhealthy for Sensitive Groups</i> | # of Red Days <i>Unhealthy</i> | # of Purple Days <i>Very Unhealthy</i> | Grade |
|-------------------|---------------|---|-----------------------------------|---|----------|
| San Bernadino, CA | 1 | 143 | 89 | 39 | F |
| Kern, CA | 2 | 225 | 66 | 1 | F |
| Fresno, CA | 3 | 223 | 59 | 3 | F |
| Riverside, CA | 4 | 152 | 77 | 12 | F |
| Tulare, CA | 5 | 228 | 28 | 0 | F |
| Los Angeles, CA | 6 | 108 | 47 | 18 | F |
| Merced, CA | 7 | 130 | 8 | 1 | F |
| Harris, TX | 8 | 65 | 27 | 7 | F |
| El Dorado, CA | 9 | 86 | 17 | 1 | F |
| Sacramento, CA | 10 | 68 | 13 | 0 | F |

Source: American Lung Association, 2005.

Objective 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) significantly increases health risks and premature deaths in nonsmokers. There is clear scientific evidence of an increased risk of lung cancer in non-smokers exposed to SHS (WHO, n.d.). 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 specific 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, (California Department of Health Services, 2002a) 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.

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 10, 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).

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 Second Hand Smoke, 2002

| County | % of Adults Who Currently Smoke | % of Youth Living with a Cigarette Smoker | % of Youth Who Were in the Same Room with a Smoker in the Previous 7 Days | % of Adults Who Agree that SHS Harms the Health of Children and Babies |
|---------------------------|---------------------------------|---|---|--|
| Fresno | 19.3% | 32.4% | 48.6% | 96.2% |
| Kern | 19.9% | 32.4% | 48.6% | 96.2% |
| Kings | 19.9% | 32.4% | 48.6% | 96.2% |
| Madera | 19.3% | 32.4% | 48.6% | 96.2% |
| Merced | 19.3% | 32.4% | 48.6% | 96.2% |
| San Joaquin | 17.7% | 37.7% | 54.1% | 97.8% |
| Stanislaus | 19.3% | 37.7% | 54.1% | 96.2% |
| Tulare | 19.9% | 32.4% | 48.6% | 96.6% |
| San Joaquin Valley | 19.3% | 33.7% | 49.9% | 96.5% |
| California | 16.2% | 34.8% | 49.1% | 97.0% |

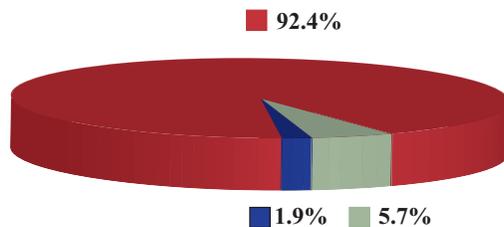
Source: California Department of Health Services, 2002a.

Note: The county estimates presented in this table are regional estimates.

Figure 10

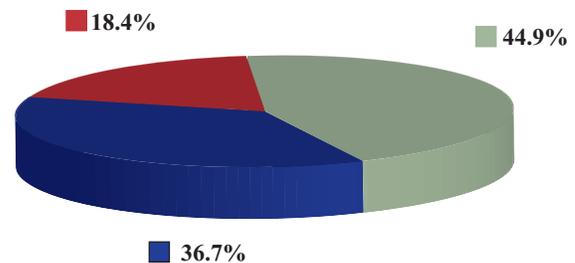
Rules Regarding Smoking Inside the Home, San Joaquin Valley, 2003

No Smokers Living in the Home



- Smoking never allowed in the home
- Smoking allowed in some places or some times
- Smoking always allowed in the home

Smokers Living in the Home



- Smoking never allowed in the home
- Smoking allowed in some places or some times
- Smoking always allowed in the home

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 influenza 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 influenza, 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, 2004) indicate that immunization rates among California's children were similar in both 2002 and 2003. Coverage for DTP, Polio, MMR, and Hep B remained stable, while immunizations for varicella increased significantly from 64.6% in 2003 to 75.1% in 2004. Among kindergarteners, it was reported that at 24 months of age 71.8% had been immunized with the 4:3:1 series (4 DTP, 3 Polio, and 1 MMR) and 68.9% had been immunized with the 4:3:1:3 series (4 DTP, 3 Polio, 1 MMR, and 3 Hep B) (California Department of Health Services, Immunization Branch, 2004).

Although the San Joaquin Valley had a smaller percentage of children who were immunized than most other regions in California, immunization rates for the 4:3:1 series in the Valley showed little change between 2003 (67.3%) and 2004 (69.3%). The percentage of immunized children in the Valley was slightly lower than the state percentage of 71.8% (California Department of Health Services, Immunization Branch, 2004) and well below the national percentage of 81.0% (CDC, Office of Communication, 2005). Only one area, the North Central Valley (which includes Sacramento, San Joaquin, and Stanislaus counties) showed a statistically significant change in immunizations with the 4:3:1 series from 2003 to 2004, increasing from 62.3% to 73.1% (California Department of Health Services, Immunization Branch, 2004).

* 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 specific 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 2003, 78.8% of 7th graders in California had received all required immunizations, an increase from 70.0% in 2001. The 2003 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 Influenza and Those Ever Vaccinated Against Pneumococcal Disease

In the 2003 *CHIS*, 73.9% of California’s seniors, ages 65 years and over, reported having had a flu shot during the 12 months prior to the survey, while only 69.6% of the San Joaquin Valley population in the same age group reported having a flu shot. This was similar to

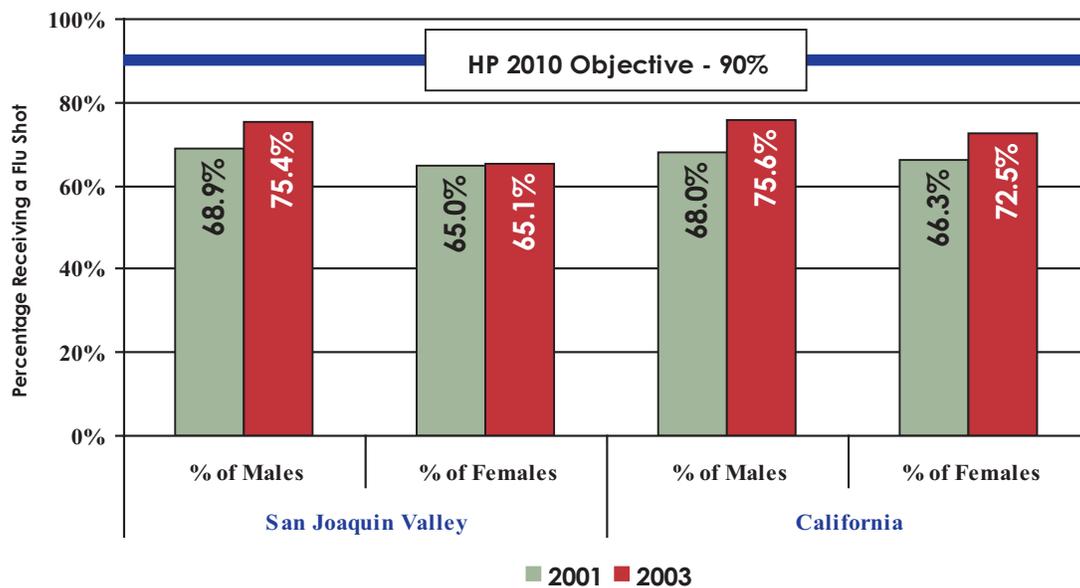
the median percentage for the nation at 69.9% (CDC, 2004b). *CHIS 2003* data by gender showed that a larger percentage of males, age 65 and over, in both California (75.6%) and San Joaquin Valley (75.4%) than females, age 65 and over, in California (72.5%) and the Valley (65.1%) received flu vaccinations 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 improvement between 2001 and 2003 in the percentage who received a flu shot. However, the percentage of Valley females, age 65 and over, who received a flu shot, was unchanged between 2001 and 2003 (Figure 11; UCLA Center for Health Policy Research, 2003; 2005).

Data by race/ethnicity indicate that 72.5% White, 65.8% Asian, 61.8% Latino, 69.0% American Indian/Alaska Native, and 53.4% of the African American population in the San Joaquin Valley, ages 65 and over, had been vaccinated against the flu in 2003 (UCLA Center for Health Policy Research, 2005). Figure 11 indicates that neither California nor the San Joaquin Valley is meeting the *HP 2010* objective of 90% for annual flu 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 a pneumonia shot (UCLA Center for Health Policy Research, 2005). This was similar to the national median percentage of 64.2% (CDC, 2004b). The Valley, California and the nation were all below the *HP 2010* objective of 90%.

Figure 11

Adults, Age 65 and Over, Who had a Flu Shot in Past 12 months, 2001 and 2003



Source: UCLA Center for Health Policy Research, 2003; 2005.

10. Access to Health 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 44.7 million in 2003, with nonelderly adults, ages 18-64, accounting for 80% of the uninsured (Kaiser Commission on Medicaid and the Uninsured, 2003). 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. In 2003, nearly half (47%) of uninsured adults postponed seeking medical care because of cost, and over a third (35%) said they needed, but did not get care because of lack of health insurance (Kaiser Commission on Medicaid and the Uninsured, 2003).

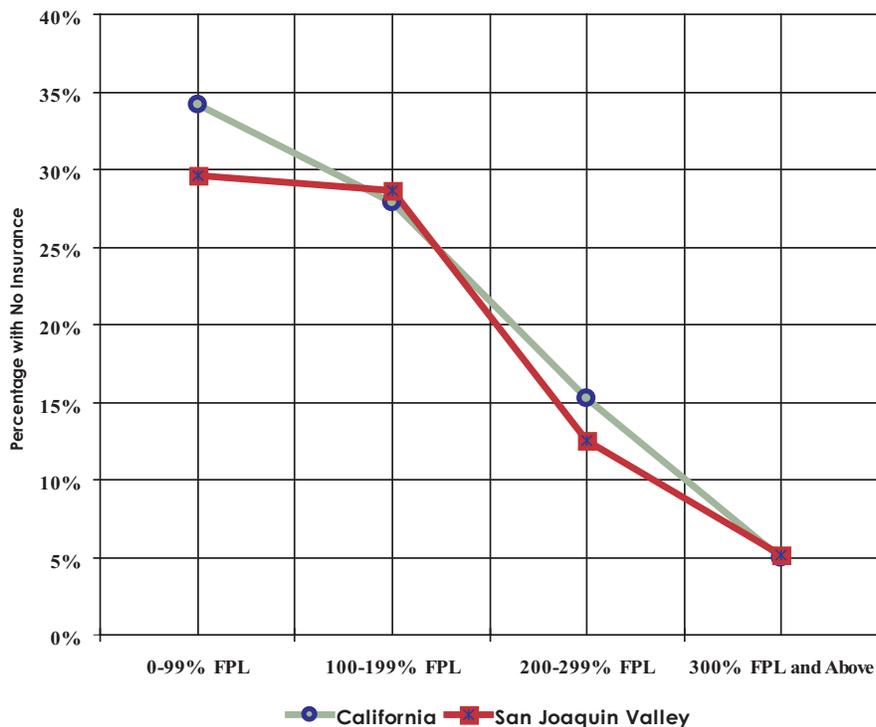
Several demographic characteristics, such as age, race/ethnicity, nativity, educational attainment and poverty, contribute to the lack of insurance coverage among Americans. The U.S. Census Bureau

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 who were in poverty were twice as likely to not have insurance (30.4% vs. 15.2%) than the population as a whole.

Figure 12

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, 2003



Source: UCLA Center for Health Policy Research, 2003; 2005.

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 2003 at 15.0% or 3,282,000 people. The percentage of San Joaquin Valley nonelderly adults who reported not having health insurance for the entire year prior to the survey was similar to the state with 15.9% (307,000 persons) in 2001 and 16.6% (342,000 persons) in 2003 (UCLA Center for Health Policy Research, 2003; 2005). 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 2003 CHIS data showed that demographic characteristics also played a significant role in the health insurance status of Valley residents, with findings similar to those nationally (UCLA Center for Health Policy Research, 2003; 2005).

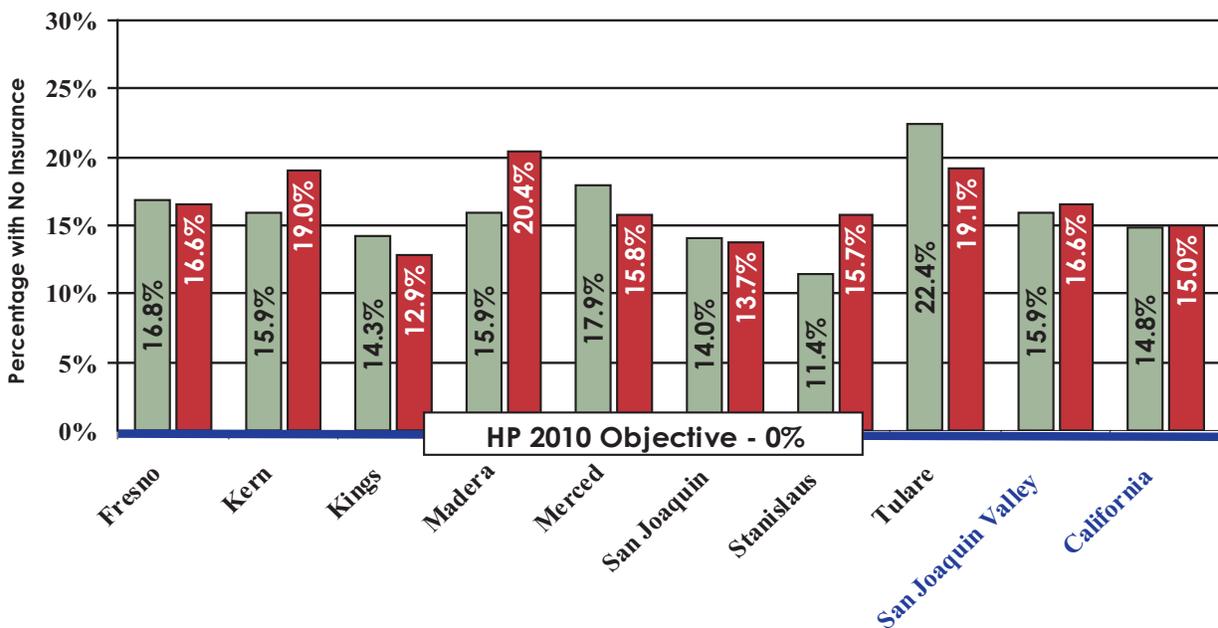
- Young adults in the San Joaquin Valley, ages 18-24, had the highest percentage of individuals who reported having no health insurance for the entire year prior to the survey at 22.3% in 2001 and 19.0% in 2003.
- Almost three times as many nonelderly Latino adults in the Valley (21.1% in 2001 and 19.6% in 2003) reported having no health insurance for the entire year prior to the survey when compared to White nonelderly adults (7.0% in 2001 and 7.3% in 2003).

- Nonelderly San Joaquin Valley adults, who were 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 an 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 12, the poverty level of Valley residents impacted insurance status with 29.6% of nonelderly adults with incomes 0-99% of the federal poverty level (FPL) in 2003 reporting no health insurance for the entire year. Only 5.1% 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 2003 in the percentages of nonelderly adults who reported having no health insurance for an entire year. Figure 13 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, 2003; 2005). Neither the Valley counties nor the state were near the HP 2010 objective of 100% of people with health insurance.

Figure 13

Nonelderly Adults, Ages 18-64, in the San Joaquin Valley Without Health Insurance for the Entire Year, 2001 and 2003

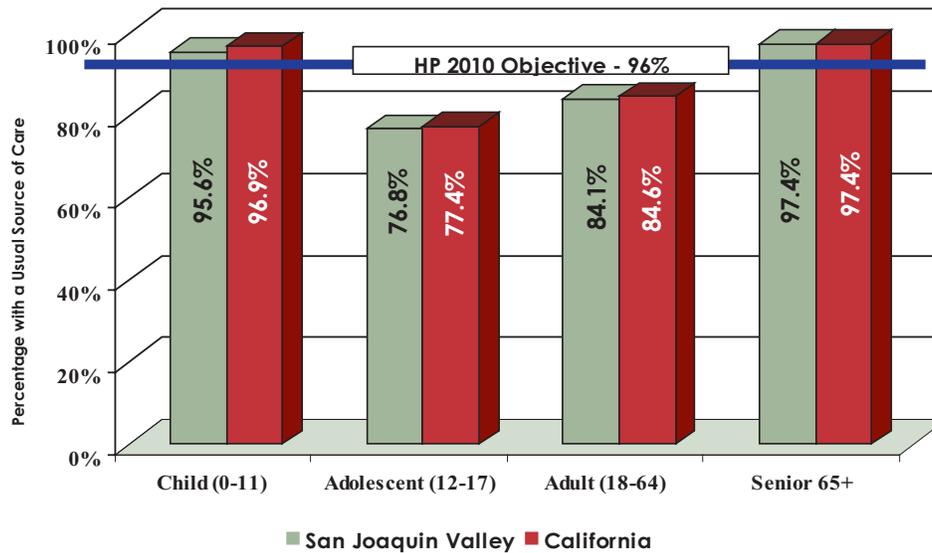


Source: UCLA Center for Health Policy Research, 2003; 2005.

■ 2001 ■ 2003

Figure 14

Residents in the San Joaquin Valley and California with a Usual Source of Care, by Age Group, 2003



Source: UCLA Center for Health Policy research, 2005

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

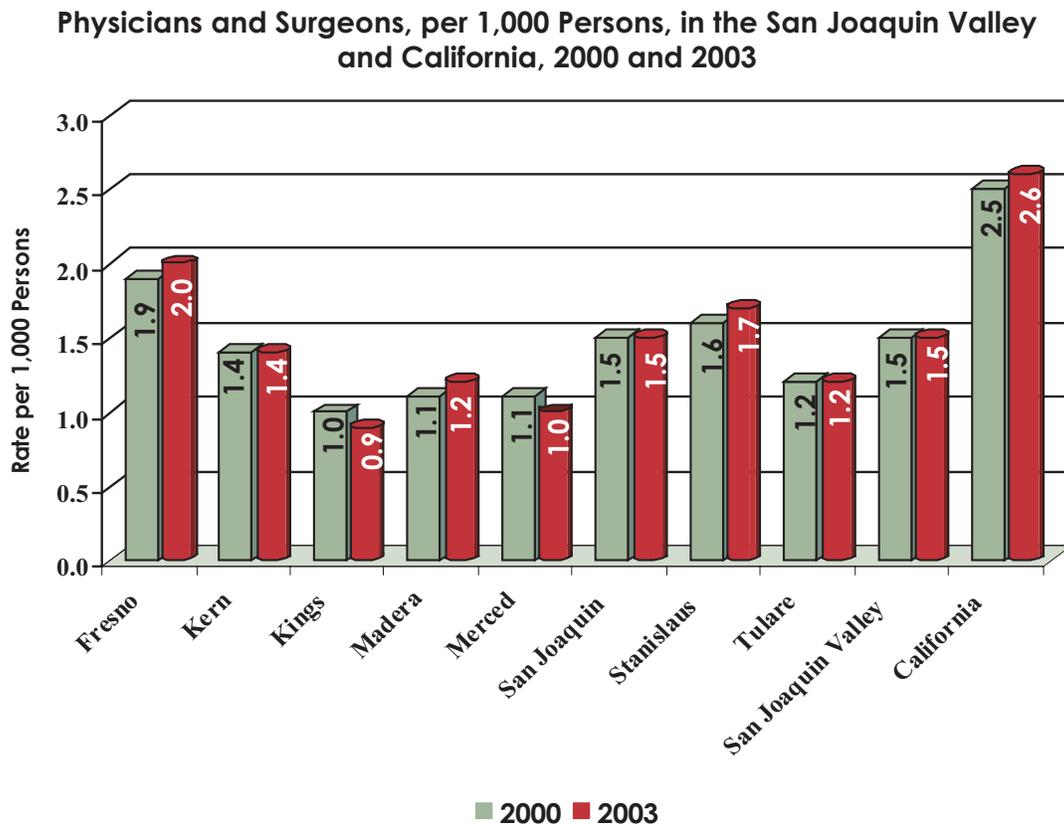
Growing evidence suggests that the combination of health insurance and having a usual source of care has additive effects for quality of health care (Robert Graham Center, 2004). In 2001, 87.6% of Californians of all ages reported having a usual source of care. This was similar to the percentage for 2003 at 87.5%. 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 87.0% in 2003. 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 2003 was higher among Valley females at 90.0% in 2001 and 90.6% in 2003 than it was for males at 84.6% in 2001 and 83.4% in 2003 (UCLA Center for Health Policy Research, 2003; 2005).

Figure 14 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 significant 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; 2005).

- 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 27.6% (112,000 persons) in 2003 having no usual source of care.
- Among ethnic groups, a higher percentage of nonelderly Latino adults, ages 18-64, (26.0% in 2001 and 22.0% in 2003) 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 15



Source: Rand California, 2003c.

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 15 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 2003 (Rand California, 2003c).

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 confirm 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

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

determine that 78.1% of San Joaquin Valley women received early (first trimester) prenatal care. The percentage of Valley women who received early prenatal care varied slightly when compared by race and ethnicity. White women had the highest percentage receiving early prenatal care (81%), with Asian/Pacific Islander (75%), African American (72%), and Latino (71%) women following. 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 pre-natal 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 Care
in the San Joaquin Valley, 2003**

| Demographic Characteristics | Total Number of Births | % of San Joaquin Valley Births | % Receiving Adequate Pre-Natal Care* |
|-----------------------------|------------------------|--------------------------------|--------------------------------------|
|-----------------------------|------------------------|--------------------------------|--------------------------------------|

Ethnicity

| | | | |
|------------------------|--------|-------|-------|
| White | 14,170 | 23.3% | 81.2% |
| African American | 3,021 | 5.0% | 71.7% |
| Asian/Pacific Islander | 4,231 | 7.0% | 75.3% |
| Hispanic/Latino | 38,737 | 63.7% | 70.5% |

Mother's Age

| | | | |
|--------------|--------|-------|------|
| Under Age 20 | 8,788 | 14.5% | 66.7 |
| 20 and Older | 52,015 | 85.5% | 76.7 |

Mother's Education Level

| | | | |
|--------------------------------|--------|-------|-------|
| Less Than High School | 14,935 | 24.6% | 69.8% |
| High School Grad | 26,575 | 43.7% | 73.4% |
| Some College - Graduate Degree | 19,293 | 31.7% | 82.0% |

County Data

| | | | |
|---------------------------|---------------|---------------|--------------|
| Fresno | 14,720 | 24.2% | 88.3% |
| Kern | 12,085 | 19.9% | 72.6% |
| Kings | 2,311 | 3.8% | 72.7% |
| Madera | 2,147 | 3.5% | 77.9% |
| Merced | 4,030 | 6.6% | 56.0% |
| San Joaquin | 10,162 | 16.7% | 65.5% |
| Stanislaus | 7,929 | 13.1% | 73.0% |
| Tulare | 7,419 | 12.2% | 79.8% |
| San Joaquin Valley | 60,803 | 100.0% | 75.2% |

Payment Source

| | | | |
|--------------|--------|-------|-------|
| Medi-Cal | 33,469 | 55.0% | 71.0% |
| Other Public | 327 | 50.0% | 67.6% |
| Private/HMO | 25,127 | 41.3% | 82.3% |
| All Others | 1,880 | 3.1% | 58.1% |

Source: Capitman, et al., 2005

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 *2003 Profile* (Perez, et al., 2003). Additionally, we attempted to compare the Valley to California and the nation, whenever possible. The greatest barrier to meeting these goals was limitations on available data for comparison purposes. The major issues with data collection involved the following:

- A lack of consistency in data that originated from various sources.
- Age groups were clustered differently.
- Data were collected for different years.
- Units of measurement from different sources were not the same.
- Data specific to the San Joaquin Valley did not exist or was not available for several objectives.

Despite these difficulties we were able to determine that overall there is little evidence to suggest that progress has been made since the *2003 Profile*, comparing 2001 data to 2003 data, on meeting the *HP 2010* objectives. Specifically, 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 four of the objectives and did not meet the standard in 15 other objectives. Valley specific data was not available to use as a measurement in the remaining three objectives. The following is a summary of the findings 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 fitness three or more days per week for 20 or more minutes per occasion.

Percentages of physical activity among adults in the San Joaquin Valley, the state, and the nation were similar 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%. County and region specific estimates from the *2003 CHIS* regarding physical activity have not yet been released to provide a comparison with the *2003 Profile*.

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 *2003 Profile*. However, the percentage of seniors who reported being overweight or obese increased dramatically since the *2003 Profile*. Percentages of overweight and obese adults and seniors were not compared to the nation as a whole. 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 2003. 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 no improvement in the percentage of adult smokers between 2001 and 2003 in the San Joaquin Valley. When comparing the Valley data state and national data, 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 was not yet available to conduct a comparison with the *2003 Profile*.

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. 2003 data were not available to make a comparison of the progress since 2001. However, the percentage of Valley adolescents who reported binge drinking stayed consistent from 2001 to 2003. There were no data available to assess illicit drug use among San Joaquin Valley adolescents.

The percentage of adults in the San Joaquin Valley who reported binge drinking had not changed since 2001 and was comparable to the percentage statewide. Both the Valley and California had a lower percentage of binge drinkers in the 18-25 age group than the nation. 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. There were no San Joaquin Valley data available to measure progress toward a decrease in the use of illicit drugs by adults. However, drug related deaths increased slightly since 2001 and were 10 times the *HP 2010* objective of 1.0 per 100,000 persons.

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 specific 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 2003, and were higher than the state as a whole for those between the ages 18-29.

The percentage of San Joaquin Valley adolescents who abstained from sexual intercourse was comparable to adolescents statewide and nationally. However, in 2001, almost

half 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 was comparable to the state. 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 specific estimates from the 2003 *CHIS* regarding abstinence and condom use had not yet been released to provide a comparison with the 2003 *Profile*.

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 slightly lower than the state and similar to the nation. 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 specific estimates from the 2003 *CHIS* regarding treatment of depression had not yet been released to provide a comparison with the 2003 *Profile*. However, it is important to note that the percentage of deaths from suicide was higher than that of the state in four out of the eight counties and all counties were higher than 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 2003 in five out 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 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 3.9 to a high of 8.9 per 100,000 persons (California Department of Health Services, 2005). Four of the eight counties had homicide rates that were higher than the state. Both the San Joaquin Valley and the state had higher homicide rates than 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 2004 California had 9 of the 10 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. There were no San Joaquin Valley specific data to evaluate the exposure of nonsmokers to second hand smoke.

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 received 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 changed little between 2003 and 2004, and Valley percentages remained lower than both the state and nation. The San Joaquin Valley and the state both failed to meet the *HP 2010* objective of 80% of young children receiving all the recommended vaccines. The objective was met at the national level. While data specific 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 slightly lower percentage of Valley seniors, age 65 and over, received an annual influenza vaccination. The percentage of seniors in the San Joaquin Valley who received a flu shot was similar to the nation. There was a slight improvement in the percentage of seniors receiving a flu shot between 2001 and 2003. 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 influenza. 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 specific source of ongoing care.
- Increase to 90% the proportion of pregnant women who begin prenatal care in the first trimester of pregnancy.

The San Joaquin Valley had a similar percentage of uninsured nonelderly adults, ages 18-64, as the state as a whole and there was little change between 2001 and 2003. 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 2003.

The San Joaquin Valley had a lower percentage of women receiving adequate, early prenatal care than California. No comparison was made between 2001 and 2003 for early prenatal care. In summary, the San Joaquin Valley failed to meet the *HP 2010* objectives of 100% with insurance coverage, 96% with a specific source of care, and 90% receiving early prenatal care.



Table 11

San Joaquin Valley Report Card for Meeting Healthy People 2010 Goals, 2003

| 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 2003 Profile |
|-----------------------------------|---|---|---|---------------------------------|
| Physical Activity | | | | |
| Adults | Similar | Similar | Met Target | No Comparable Data |
| Adolescents | Similar | Similar | Did Not Meet Target | No Comparable Data |
| Overweight and Obesity | | | | |
| Adults | Worse | No Comparable Data | Did Not Meet Target | No Change |
| Adolescents | Similar | Similar | Did Not Meet Target | No Change |
| Tobacco Use | | | | |
| Adults | Worse | Better | Did Not Meet Target | No Change |
| Adolescents | Similar | Better | Met Target | No Comparable Data |
| Substance Abuse | | | | |
| Adults - Binge Drinking | Similar | Better | Did Not Meet Target | No Change |
| Adults - Illicit Drug Use | No Comparable Data | No Comparable Data | No Comparable Data | No Comparable Data |
| Adolescents* - Alcohol Use | Similar | Better** | Did Not Meet Target | No Comparable Data |
| Sexual Behavior | | | | |
| Adults - Condom Use | No Comparable Data | No Comparable Data | No Comparable Data | No Comparable Data |
| Adolescents - Abstain/Condom Use | Similar | No Comparable Data | Did Not Meet Target | No Comparable Data |
| Mental Health | | | | |
| Adults - Treatment for Depression | Similar | Similar | Did Not Meet Target | No Comparable Data |
| Injury and Violence | | | | |
| Motor Vehicle | Worse | Worse | Did Not Meet Target | No Comparable Data |
| Homicide | Similar | Similar | Did Not Meet Target | No Comparable Data |
| Environmental Quality | | | | |
| Air Quality | Worse | Worse | Did Not Meet Target | Worse |
| Second Hand Smoke | No Comparable Data | No Comparable Data | No Comparable Data | No Comparable Data |
| Immunization | | | | |
| Childhood | Similar | Similar | Did Not Meet Target | Better |
| Adolescents | Similar | Better | Met Target | Better |
| Flu Shots | Worse | Similar | Did Not Meet Target | Better |
| Access to Health Care | | | | |
| Health Insurance | Similar | Similar | Did Not Meet Target | No Change |
| Source of Care | Similar | Similar | Met Target | No Change |
| Prenatal Care | Worse | No Comparable Data | Did Not Meet Target | No Comparable Data |

*Data on drug use was not available

**When comparing binge drinking in underage drinkers ages 12-20

Priorities for Action

Overall, this report illustrates where the San Joaquin Valley is not making progress or is losing ground with regard to the health status of its residents. Air quality worsened in the region and no improvements were noted for the overweight/obesity, tobacco use, adult binge drinking and access to care measures. Few of the *HP 2010* objectives are being met and the lack of progress since the *2003 Profile* offers little justification 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, overweight/obesity, adult tobacco use, motor vehicle deaths, flu shots for elders, air quality 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, gender or other factors were available, notable disparities were documented. As the San Joaquin Valley is affected by a complex set of health issues, such as a notably younger population, low average income and educational attainment, a rural/agricultural economy, barriers to health care access, and racial, ethnic and cultural diversity, initiatives are needed that adequately address the demands on existing systems and adapt to the changing needs of Valley residents. Based on analysis of existing data, we offer the following recommendations:

- Define and address access barriers to health care experienced by San Joaquin Valley residents by age, educational level, income, and race/ethnicity.
- Use multivariate methods to pinpoint specific health changes.
- Develop culturally competent outreach services to address racial/ethnic, social class and other disparities.
- Increase access to care, especially among young adults where there appears to be a lack of insurance coverage.
- Develop a San Joaquin Valley data base pertinent to the *Healthy People 2010* health objectives.

This report has identified where there are gaps in existing data sources. Notably absent were data to monitor responsible sexual behavior, tobacco use, substance abuse, physical activity and mental health targets. What is lacking in the San Joaquin Valley is specific, timely and comparable data to monitor the performance and progress of systems and services that are available to Valley residents. To be most useful for the region and to assist community policy makers, the health information systems need to be timely, longitudinal, and in formats that permit consistent geocoding. These data are particularly needed to support rural community-level planning and action. Ideally health data sets should be designed to interface with other demographic and program information to target problems, enhance policy decisions, allocate resources and assist with intervention.



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