



ASSESSING THE REGION VIA INDICATORS
Public Health and Access to Care

THE STATE OF THE
GREAT CENTRAL VALLEY
OF CALIFORNIA

*Supporting the economic, social, and environmental
well-being of California's Great Central Valley*

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Dear Friends:

Good health is precious.

Poor health can keep a child from attending school, prevent a senior from enjoying his or her retirement, require costly treatment, and greatly reduce quality of life. Not everyone has the security of knowing that they can make an affordable visit to a trained health care professional if they need it.

For others security is false. Not everyone is aware of the risk of communicable diseases, such as chlamydia, or of the long-term consequences of lifestyle factors such as dietary habits and smoking. Many negative health outcomes are preventable, but it will require continuing the concerted effort to raise awareness, provide access, and reduce poverty to improve this important aspect of life quality.

This, the fourth installment of *The State of the Great Central Valley* examines public health and access to health care in the region through indicators. The data focuses on important components of health, including maternal and child health, senior health, chronic and communicable diseases, social indicators, and measures of access to care such as the rate of uninsured people in the Valley.

The report was researched and authored by a team of health care researchers at the Integrating Medicine and Public Health (IMAP) Program at the University of California, San Francisco and the California Department of Health Services. Thanks must be given to them and to each of the agencies, universities, and organizations that provided data for this report. Additionally, report advisors in the health care field from throughout the region contributed their local and professional knowledge.

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Carol Whiteside
President

THE STATE OF THE GREAT CENTRAL VALLEY—PUBLIC HEALTH AND ACCESS TO CARE

Assessing the Region Via Indicators

What are Indicators?

Indicators are presentations of valuable data that show changes over time. They help to answer important questions such as how well the economy is functioning, how the schools are doing, or how air quality is improving or worsening. Indicators are powerful tools for measuring and tracking the overall quality of life and comparing performance against goals or benchmarks. The measurements help communities monitor changes or give them a baseline against which future changes can be measured.

What are Good Indicators?

A good indicator has several characteristics:

- It reflects the fundamentals of long-term regional or community well-being.
- It is clear and understandable.
- It can be tracked, is statistically measured at regular intervals, and comes from a reliable source.
- It is easy to communicate in concept as well as in terms of its value and importance to the region.
- It measures an outcome rather than an input.

About this Report:

Each year the Great Valley Center produces a report in the five part *State of the Great Central Valley* series. The data is updated in 5-year increments. The flagship report is an economic and quality-of-life report that was first released in 1999. The 2000 report featured indicators depicting the state of the Valley's environment. The 2001 report focused on community well-being by taking a look at social capital in the Central Valley. In 2002, the emphasis is on issues relating to health, including access to care, maternal and child health, senior health, chronic and communicable diseases, and social indicators. All four reports of the series are available online at www.greatvalley.org.

How to Use this Report:

The indicator set can be used as a benchmark for assessing the status of health of the Central Valley's population and the availability of adequate health care services in the region. The region's performance can be compared to other regions and the state as a whole.

Based on the information, analysis, and structure provided in this report, individual communities may develop specific indicators tailored to their own concern and unique assets. It can serve as a guide and a model for developing an indicator-based assessment of smaller communities and cities, providing valuable comparable data at the county, sub-regional, regional, and state levels.

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FINDINGS AND RECOMMENDATIONS

Based on the data, the Great Valley Center recognizes the potential to improve health outcomes throughout the region. Overall, the indicators suggest five strategies:

1 Invest in Prevention

Preventive treatments are good investments, being much lower in cost than providing care after diagnosis. The old “stitch in time” adage is true. Preventive care can go a long way in identifying and treating conditions before they become life-endangering or difficult to treat. Decreasing the rate of uninsured people in the Valley, encouraging the use of existing programs, and supporting the training of individuals in health care fields can ensure the region has the resources to provide adequate preventive care to a growing population and in so doing save scarce dollars and reduce human suffering.

2 Be Strategic With Limited Resources

Focusing intervention measures by geography and demographics can maximize the benefit of health care investments. The San Joaquin Valley has a large population of youth. The North Valley has a growing population of seniors. For both populations, immunizations play an important role in health outcomes. Diabetes is more common in the Latino population and in the San Joaquin Valley. Children have higher asthma symptoms and diagnosis in the Valley than in other regions of the state. Addressing the needs of specific populations can improve the health of the Valley population as a whole.

3 Model Healthy Lifestyles for Youth

Health education and better lifestyle classes need to specifically target young people. Helping people understand the connection between behavior and health outcomes and raising awareness about treatable diseases such as chlamydia can prevent unnecessary negative outcomes. Poor dietary habits, smoking, drinking, and drug use are all factors that can lead to conditions more easily avoided than corrected after the fact. Lifestyle-influenced conditions can be avoided or improved if healthy patterns are modeled for youth by adults.

4 Build Coalitions in Support of a Healthier Environment

Clean air and water are fundamental to quality of life and good health. Conditions such as asthma and diseases such as cancer can be contributed to and aggravated by environmental conditions. Pollution-related health impacts should be considered in evaluating the land use and transportation choices in accommodating the region’s growing population. This requires a stronger and broader constituency for a healthy environment.

5 Reduce Poverty

Socioeconomic status has a direct impact on health outcomes. No matter what progress is made in other areas, public health suffers when people live in poverty—as currently do one in four Valley children. The well-being of children and their families is tied to the ability of family members to earn an adequate living and connect to informational and resource networks. Strategies to boost economic well-being in the region, including economic development and workforce investment, can increase access to health care and information.

THE GREAT CENTRAL VALLEY OF CALIFORNIA

Stretching from Mt. Shasta in the north, to the Tehachapis in the south, California's Great Central Valley encompasses 19 counties.

To demonstrate relevant trends where there are differences in the region, the Valley has been divided into the following sub-regions:

- North Valley (5 counties—Butte, Colusa, Glenn, Shasta, and Tehama);
- Sacramento Metropolitan Area (6 counties—El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba);
- San Joaquin Valley (8 counties—Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare).

To show relative performance and to give context to the data, the report features comparisons to statewide data and that of other California regions:

- California (58 counties, including the Central Valley);
- San Francisco Bay Area (9 counties—Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma);
- Los Angeles Region (5 counties—Los Angeles, Orange, Riverside, San Bernardino, and Ventura).



Source: GreenInfo Network

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ACCESS TO CARE

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Access to health care directly affects the well-being of the population. While many people do not go to see their doctor unless they aren't feeling well, those without insurance are less likely to see a doctor or receive preventive care than those with health insurance.

- Primary care physicians play an important role in care. Yet, often there are not enough to treat the population. Areas of shortage of primary care physicians have been designated in every Central Valley county, except Sacramento and Yolo.
- Poverty is also a factor for many without sufficient access to health care, especially children. In the Central Valley, more than one in four children are living below the poverty level. Currently, 26,000 children between the ages of 0 and 4 are without insurance in the Valley.
- Misconceptions can lead to people not having adequate health insurance. Many low-income families have not enrolled their children in existing low-cost or no-cost programs such as Medi-Cal or Healthy Families, because they are unclear about the differences between the two.
- Program enrollment doesn't necessarily mean an individual is obtaining care. There are many who are enrolled in Denti-Cal, yet do not use the service. In 1999, only 36% of those who had Denti-Cal Fee For Service dental insurance in the Central Valley used this insurance.
- Lack of insurance is not simply restricted to the poor. Approximately 40% of the uninsured in California have a family income level at least twice that of the federal poverty level.



UNINSURED PEOPLE

High rates of uninsured in the San Joaquin Valley and North Valley. Sacramento Metropolitan Area at half the rate.

Definition:

This indicator shows the percentage of people ages 0-64 who were uninsured in California in 2001.

Why is it important?

- Health insurance provides access to health care.
- Persons with health insurance are more likely to have a primary care provider and to have received appropriate preventive care when compared to those without health insurance.
- Adults with health insurance are twice as likely to receive a routine checkup, compared to adults without health insurance. ¹

More About Uninsured People:

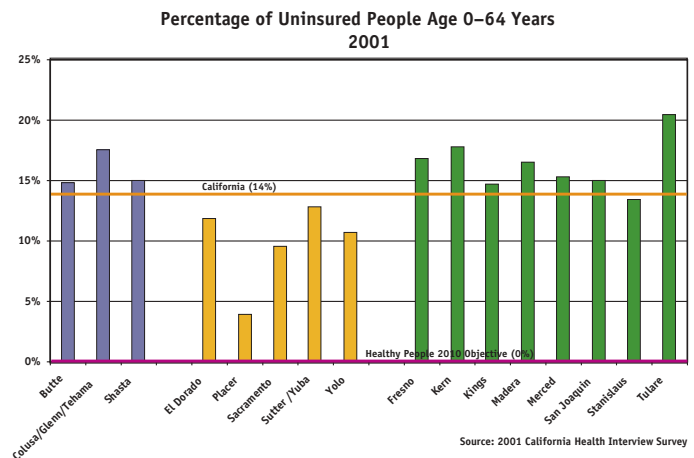
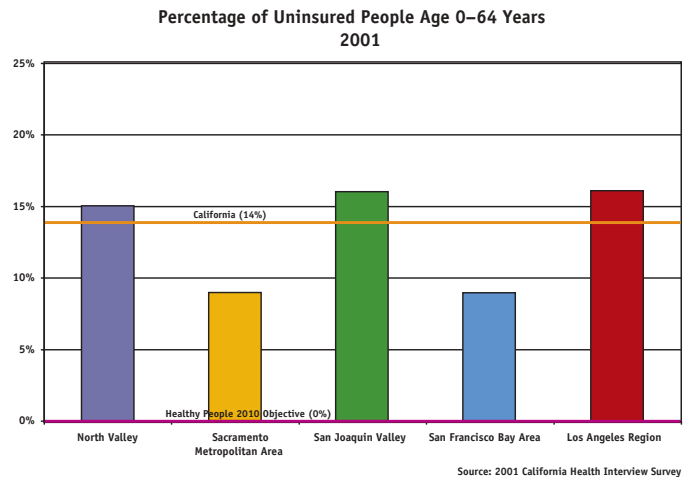
- Lack of insurance is not solely an issue for the poor. In California, approximately 40% of the uninsured have family incomes of at least twice the federal poverty level, and one-quarter have family incomes of at least three times the poverty level. The majority of California's non-poor uninsured are employed, but are not offered health insurance at work. ²
- Uninsured Californians are not all the same; they differ widely according to age group, ethnicity, and income, as well as in attitudes towards health insurance and reasons for not having coverage. ³

How are we doing?

The Central Valley has a considerable rate (14%) of people between the ages of 0-64 who are uninsured. To reach the National Healthy People 2010 Objective approximately 750,000 people still need to be insured in the Central Valley. The San Joaquin Valley rate of uninsured is equal to that of the Los Angeles Region (16%), and higher than the North Valley (15%) and California as a whole (14%). The Sacramento Metropolitan Area has the lowest rate of uninsured of all the Valley sub-regions, matching the San Francisco Bay Area rate at 9%.

All counties in the Central Valley (except Placer County) have more uninsured people than the San Francisco Bay Area. Tulare County has the highest percentage of uninsured (20%), whereas Placer County has a percentage one-fifth that rate (4%).

Note: See page 37 for more detail.



UNINSURED CHILDREN

More children without insurance in the San Joaquin Valley. Sacramento Metropolitan Area much closer to goal of complete coverage.

Definition:

This indicator shows the percentage of children 18 and under who were eligible for Medi-Cal or the Healthy Families program but who were not enrolled in 2001.

Why is it important?

- The level of coverage for a child can play a determining role in health quality throughout his or her life.

More about Uninsured Children:

- Even if low-cost or free health care is available, its use is not guaranteed. Other factors may prevent access to care.
- Many low-income California parents are unaware of the existence of the Healthy Families program, fail to understand how it differs from Medi-Cal, or are not sure in which program their children should enroll. ⁴
- A study by the Medi-Cal Policy Institute in 2000 revealed that families who are eligible but not enrolled in Medi-Cal and Healthy Families are mostly knowledgeable about these programs, but their misperceptions of, or dislike for, certain aspects of the

program were important enough to deter them from applying. These issues or problems were primarily related to the application and enrollment process. ⁵

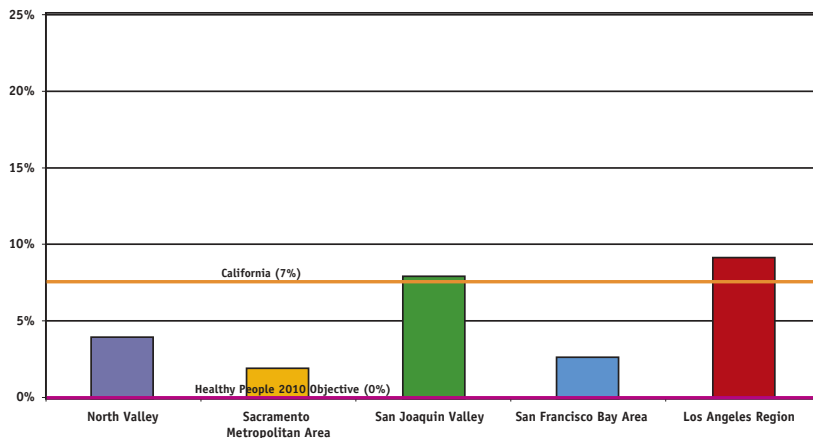
- Currently, approximately 6% of children age 0–4 are uninsured in the Central Valley. This is about 26,000 children. ⁶

How are we doing?

The California rate of uninsured children eligible for Medi-Cal or Healthy Families is 7%. The Los Angeles Region rate is 9%, and the San Francisco Bay Area is 2.6%.

Within the Central Valley, the San Joaquin Valley has the highest rate of children who are eligible, but not enrolled in Medi-Cal or Healthy Families programs. At 8%, the San Joaquin Valley is higher than the state rate. The North Valley and the Sacramento Metropolitan Area rates (4% and 2%, respectively) are lower than the state's average rate of 7%.

Percentage of Uninsured Children Age 0–18 Years
Eligible for Medi-Cal or Healthy Families Program
2001



Source: 2001 California Health Interview Survey

Note: No comparison for the Central Valley as a distinct region is available.

As a result of the way this data was collected and reported by the California Health Interview Survey, the following counties are combined as a sub-region for this indicator: a) the "Northern and Sierra counties" include Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba (which, with the exception of Sutter and Yuba, comprise our "North Valley") in addition to Humboldt, Del Norte, Siskiyou, Lassen, Trinity, Mendocino, Lake, Nevada, Plumas, Sierra, Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono, and Alpine (none of which are counties being analyzed for the purposes of this report). It is not possible to discern precise rates for individual counties within these aggregations, as they are simply averages. Regional and sub-regional results, however, are more robust since they include a large number of counties. All estimates are approximations, based on relatively small sample sizes with a confidence interval of .05, or a "95% range."

PRIMARY CARE PHYSICIANS

Primary care physician shortage areas found in all but two Central Valley counties.

Definition:

This indicator shows the ratio of primary care physicians to the population in 2000.

When determining areas of physician shortage, the Federal Health Resources and Services Administration (HRSA) considers the facilities, geography, and types of population groups. The national benchmark is to have at least one primary care physician for every 3,500 people (or 28.6 primary care physicians per 100,000). HRSA may designate a need for more primary care physicians if the population is high risk and/or under served.⁷

Why is it important?

- Primary care physicians are primarily responsible for the prevention, early detection, and treatment of common chronic conditions. These efforts are critical to reducing mortality and morbidity.
- When there is a limited availability of physicians in a community, people are less likely to seek preventive care and more likely to go to a local emergency room or urgent care center for acute symptoms and/or health conditions.

More about Primary Care Physicians:

- If they are feeling well, many people do not perceive the need to see their primary care physician. However, many common health conditions do not cause people to have noticeable symptoms until they have had the condition for a number of years. In many cases, if a condition is diagnosed early (e.g. breast cancer and diabetes), treatments can be given that can significantly reduce mortality and morbidity that is otherwise associated with the condition if it is diagnosed after a prolonged period following its onset.

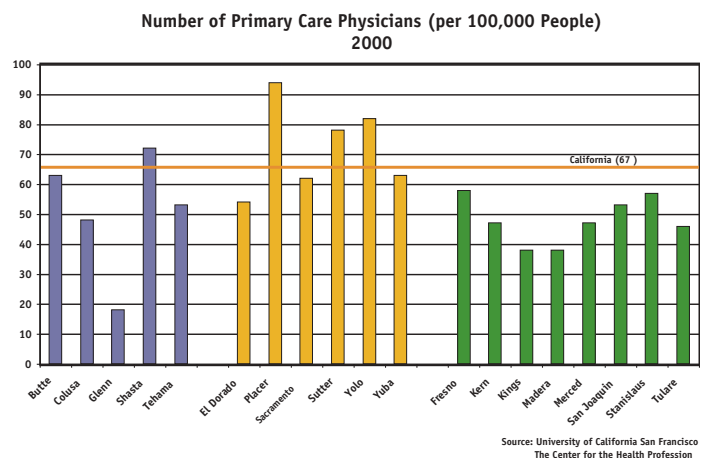
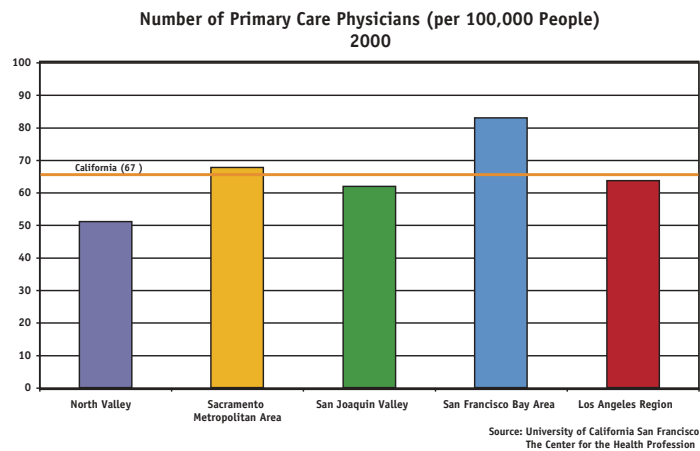
How are we doing?

The Central Valley has 58 primary care physicians per 100,000 people. In comparison, the San Francisco Bay Area has 83. The California rate is 67, and the Los Angeles Region's rate is 64. Fifteen of the Central Valley counties have lower rates of primary care physicians than both the state and Los Angeles

Region, and 95% have rates lower than those of the San Francisco Bay Area.

Within the Central Valley, the Sacramento Metropolitan Area has the highest rate at 68 primary care physicians per 100,000 people. The San Joaquin Valley rate is lower at 62, while the North Valley has the lowest rate at 51.

Central Valley counties have a wide range of access with Placer County at 95 and Glenn County at 18 primary care physicians per 100,000. (Of note, the Health Resources and Services Administration [HRSA] has designated shortage areas of primary care physicians in all counties in the Central Valley except Sacramento and Yolo counties.)



DENTI-CAL SERVICES

Lowest use of available Denti-Cal services in the North Valley.

Definition:

This indicator shows the percentage of people who had Denti-Cal Fee For Service dental insurance who used it in 1999.

Why is it important?

- Regular (at least annual) dental visits provide an opportunity for the early diagnosis, prevention, and treatment of oral and craniofacial diseases and conditions for persons of all ages. It is also an opportunity for the assessment of self-care practices.

More about Dental Health:

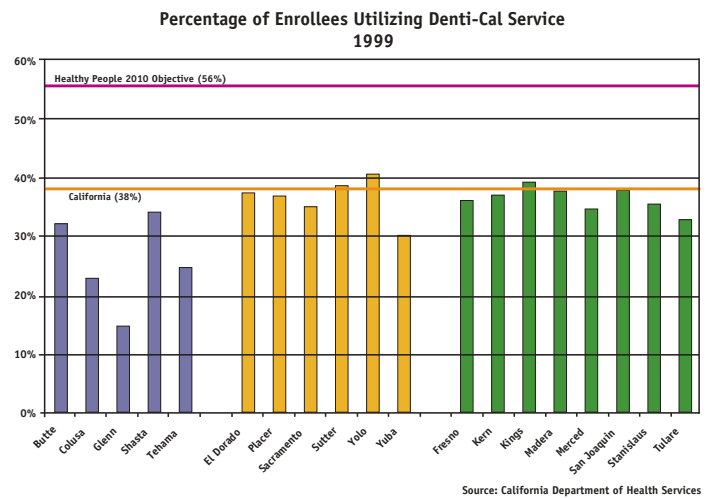
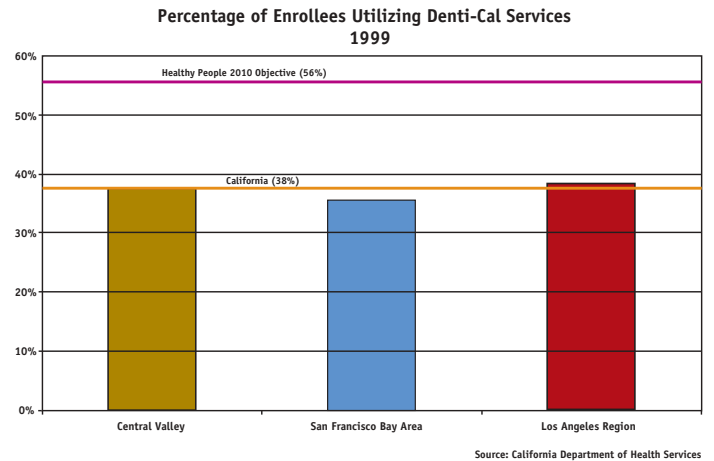
- Dental caries, a demineralization of the tooth surface caused by bacteria, is the single most common chronic disease of childhood, occurring five to eight times as frequently as asthma, the next most common.
- A major barrier to seeking and obtaining professional help is a general lack of public understanding and awareness of the importance of oral health. A report by the U.S. Surgeon General in 2000 revealed that there are profound disparities related to dental health that affect those without the knowledge or resources to achieve good oral care. Those who suffer the worst oral health include poor Americans (especially children), the elderly, and those with disabilities and complex health conditions. ⁸

How are we doing?

Thirty-six percent of the people who had Denti-Cal dental insurance in the Central Valley used it in 1999. This is lower than the statewide rate (38%). Approximately 200,000 more Denti-Cal enrollees would have to utilize this service in the Central Valley to reach the National Healthy People 2010 Objective. Within the Central Valley, the San Joaquin Valley and the Sacramento Metropolitan Area have rates (36%) below the California average. In the North Valley 31% of patients enrolled in Denti-Cal are using the services. The North Valley rate may be low due to the presence of community clinics that are reimbursed through a different payment mechanism.

Valley counties vary by over 25% on this indicator, with Yolo County having the highest percentage of people enrolled in Denti-Cal who use services (41%) and Glenn County experiencing the lowest rate at 15%. Seventeen of the Central Valley counties have lower percentages than the Los Angeles Region, while thirteen have lower percentages than the state.

Note: See page 37 for more detail.



CHILDREN LIVING IN POVERTY

More than one in four Central Valley children lives in poverty.

Definition:

This indicator shows the percentage of children under 18 who were living in poverty in 1997 and 1999.

Why is it important?

- Children living in poverty typically are uninsured or underinsured and therefore may have limited access to health care.

More about Poverty:

- Poverty is a weighted measurement based on annual income and family size. For a family of four with two children under 18, the threshold was income below \$16,276 per year in 1997 and below \$16,895 in 1999.
- Poverty has been associated with increased risk of exposure to environmental hazards and toxins and increased risks to health due to lack of clean water, adequate sanitation, nutrition, and shelter.
- Children living in poverty who do not speak English as a first language and who do not have access to linguistically and culturally competent health care providers have even greater difficulty accessing health care.

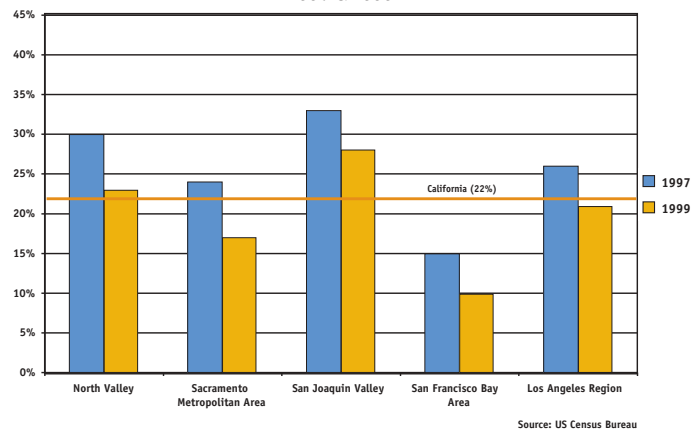
How are we doing?

The Central Valley experiences the highest rate of childhood poverty at more than 1 child in 4 (27%) living below the poverty level. The Los Angeles Region has a 23.5% childhood poverty rate and state-wide the rate is 22%. The San Francisco Bay Area fares, by far, the best on this indicator with 12.5% of children under 18 living in poverty.

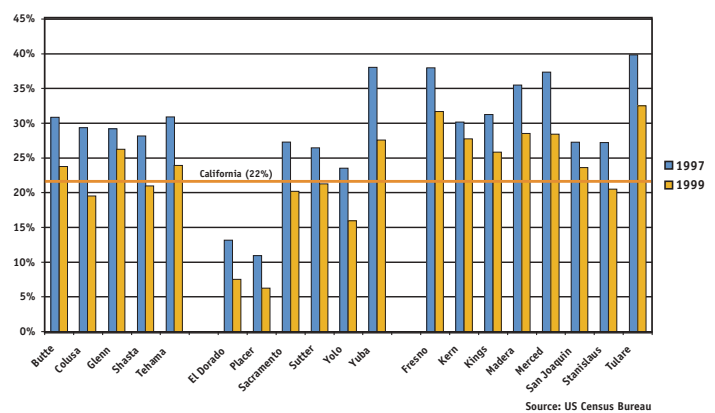
Within the region, the San Joaquin Valley experiences the highest rate of children living in poverty at 30.5%. The North Valley is next at 26.5%. At 20.5%, the Sacramento Metropolitan Area is slightly lower

(better) than the Los Angeles Region and the state-wide rate. In general, these data portray a decreasing trend in childhood poverty in the regions being studied between 1997 and 1999. Rates of childhood poverty vary drastically between counties, with Tulare County having the highest rate (36.5%) and Placer and El Dorado counties having the lowest rates (8.5% and 10.5% respectively).

Percentage of Children Age 0–17 Years Living in Poverty 1997 & 1999



Percentage of Children Age 0–17 Years Living in Poverty 1997 & 1999



Note: California rates indicated on charts are an average of the two years.

MATERNAL & CHILD HEALTH

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Early and continual prenatal care is vital to the health and survival of infants and to positive health outcomes later in their lives.

- Infant mortality is at an all time low, though it is still highest in the Central Valley when compared to the San Francisco Bay Area and the Los Angeles Region.
- Absence of prenatal care is a contributor to infant mortality. More than one in five pregnant women in the Valley do not receive early prenatal care.
- Low birth weight (less than 5.5 pounds) is a more probable outcome with late or no prenatal care. It increases an infant's chance of developing lifelong health conditions and disabilities. More than 6% of infants born in the Sacramento Metropolitan Area have a low birth weight.
- By the time children are 2 years old, they should have received up to 19 doses of vaccinations to guard against diseases such as measles and chicken pox. The childhood immunization rate in the Central Valley is far below the Healthy People 2010 objective.



INFANT MORTALITY

Infant mortality rates highest in the Central Valley.

Definition:

This indicator shows the number of infant deaths (within the first year of life) per 1,000 live births from 1998 through 2000.

Why is it important?

- Infant mortality has traditionally been considered of great significance to public health. A high rate has been taken to indicate unmet health needs and unfavorable environmental factors—economic conditions, education, nutrition, sanitation, and access to health care.⁹

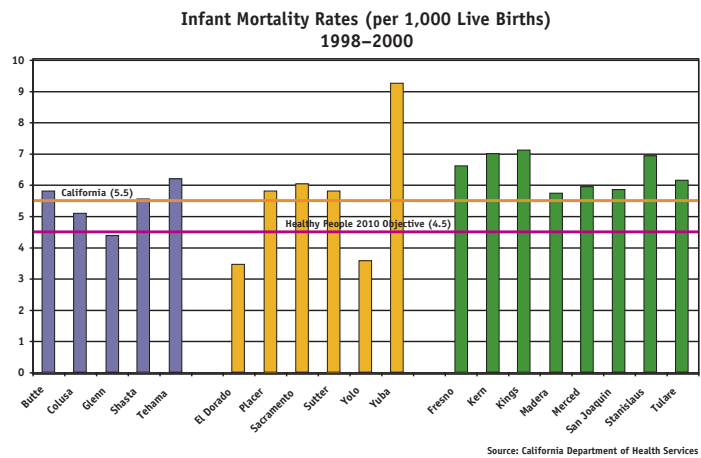
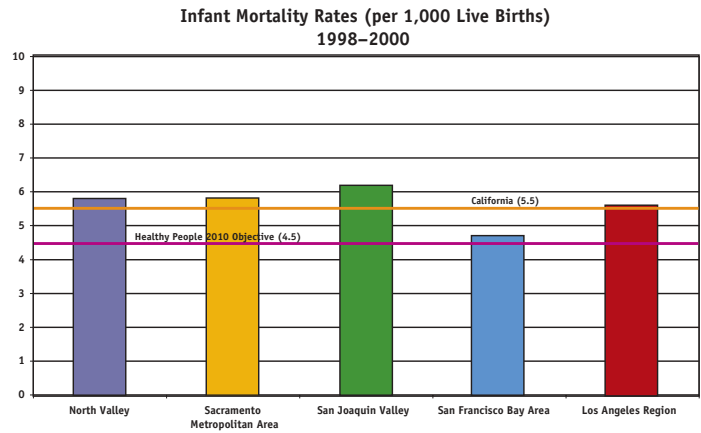
More about Infant Mortality:

- The most prominent risk factors for infant death are the absence of prenatal care, low birth weight (less than 2500 grams), poverty, birth to a teen-aged parent, air pollution, and cigarette smoking.
- Leading causes of death among infants are birth defects, sudden infant death syndrome (SIDS), unsafe housing, inadequate supervision, respiratory distress syndrome, and disorders related to short gestation.
- Infant mortality nationwide has reached an all-time low.

How are we doing?

The Central Valley has the highest infant mortality rate at 6.2 deaths, while the Los Angeles Region is nearer to the state's rate at 5.6 and 5.5 per 1,000 live births, respectively. The San Francisco Bay Area shows the lowest infant mortality rate at 4.7 deaths.

Within the Valley, the San Joaquin Valley has the highest rate of infant deaths at 6.5 per 1,000 live births. It fares worse than the Sacramento Metropolitan Area (5.7) and the North Valley (5.6). Valley counties vary drastically on this indicator, with Yuba County experiencing the highest rate at 9.2 deaths per 1,000 live births and El Dorado, Glenn, and Yolo counties showing the lowest mortality rates at 3.4, 4.4, and 4.4 respectively. Sixteen of the counties experience higher rates than the San Francisco Bay Area and thirteen are the same or higher than both California and the Los Angeles Region.



LOW BIRTH WEIGHT INFANTS

North Valley has fewest low birth weight infants.

Definition:

This indicator shows the rate of babies born weighing less than 2500 grams (5.5 pounds) per 100 live births as a proportion of the total number of all babies born from 1996–2000.

Why is it important?

- Low birth weight is commonly used as an indicator of the general health of a population.
- Infants born with low birth weight are more likely to develop problems in areas such as learning disabilities and motor skills; develop conditions such as epilepsy, cerebral palsy, and mental illness; and die within the first month of life compared with babies who are of normal weight.

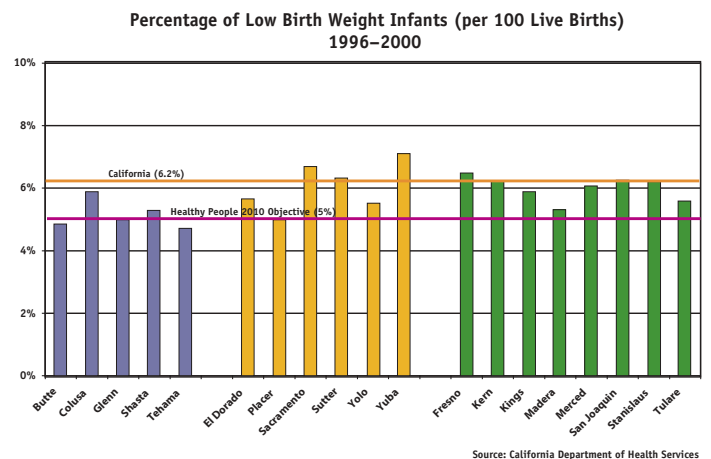
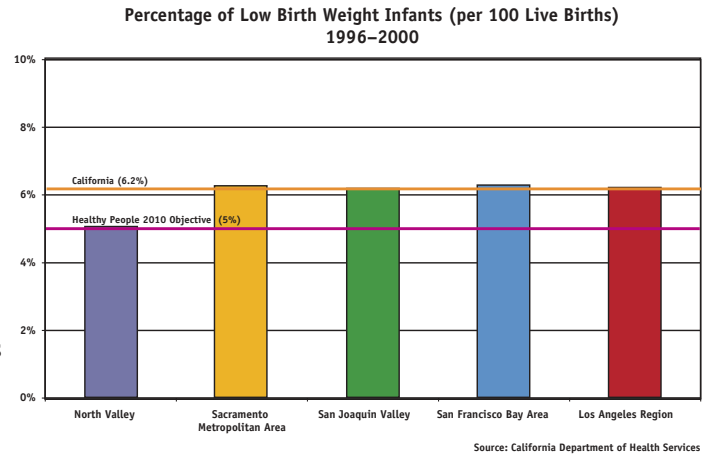
More about Low Birth Weight Infants:

- Low birth weight is associated with late or no prenatal care, poor maternal nutrition, lack of access to care, low socioeconomic status, maternal smoking, premature delivery, and other conditions.¹⁰
- Care for low birth weight babies in neonatal intensive care units can cost \$3,000 per day, totaling an average of \$14,000 to \$45,000 per neonatal discharge.¹¹

How are we doing?

The Central Valley has approximately the same percentage of low birth weight infants as the San Francisco Bay Area and the Los Angeles Region. All are just over 6%.

Within the Valley, the Sacramento Metropolitan Area has the highest rate of low birth weight infants at approximately 6.3%, while the San Joaquin Valley and the state follow closely at about 6.2%. The North Valley at 5% was the lowest (best) among all regions compared in this report. Yuba County has the highest percentage of low birth weight babies in the Central Valley (7.5%) and Tehama, Butte, and Placer counties have the lowest (about 4.7%, 4.9%, and 5%, respectively).



Note: Both Kern and Colusa counties had missing data on two years for this indicator and should be interpreted as an estimate rate since an exact number is impossible to discern.

PRENATAL CARE

More than one in five pregnant women in the Valley do not receive early prenatal care.

Definition:

This indicator shows the percentage of women who received late or no prenatal care (per 100 live births) from 1996–2000.

Why is it important?

- Studies have shown that comprehensive prenatal care given during the first 12 weeks of pregnancy can significantly reduce risk of maternal morbidity and poor birth outcomes.
- Pregnant women who do not receive early prenatal care are much more likely to give birth to an infant suffering from consequences of low birth weight or prematurity.

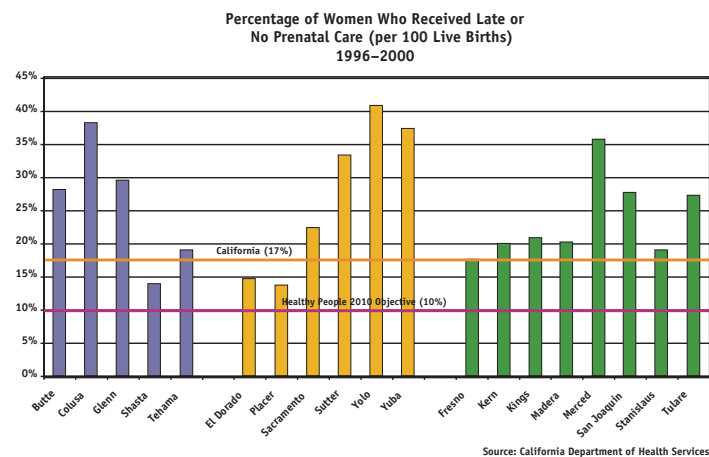
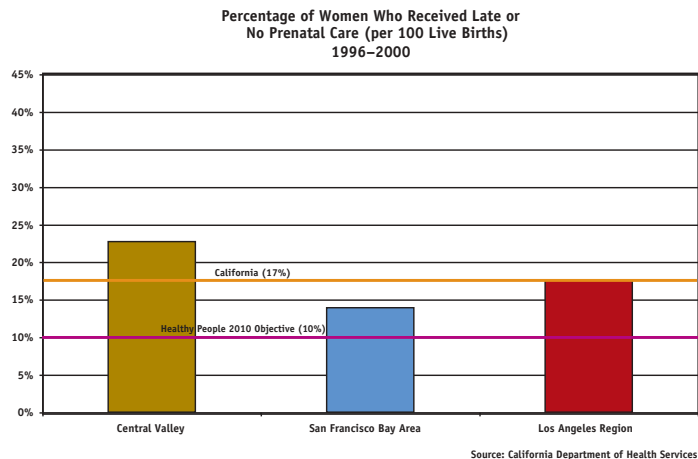
More about Prenatal Care:

- Health insurance and financial problems are among the most important barriers to receiving care during pregnancy, especially during the first trimester. Attitudes toward cultural beliefs, lifestyle factors, and pregnancy are also considered barriers to accessing early prenatal care.¹²

How are we doing?

At just under 23%, the Central Valley has the highest (worst) rate of women who are not receiving adequate early prenatal care, followed by the Los Angeles Region at 18%. The San Francisco Bay Area has the lowest rate with 14% of mothers having late or no prenatal care.

All Central Valley sub-regions fare equally poorly on this indicator, with rates approximately 5% to 6% greater than the Los Angeles Region and even more disparate from the San Francisco Bay Area. Sixteen of the counties in the Central Valley experienced higher rates of lack of early prenatal care than the state (17%). Counties in the Central Valley varied by over 25%. At approximately 40%, Yolo and Colusa counties had the highest rates, with Placer and Shasta counties having the lowest rates at about 14%.



CHILDHOOD IMMUNIZATION

Central Valley age 2 immunization rates below national standard.

Definition:

This indicator shows the percent of children who are up-to-date with required immunizations as of their second birthday and the time they entered kindergarten in 2000–2001.

Why is it important?

- Immunizations are a means of mobilizing the body's natural defenses against disease.
- They can prevent disability and death from vaccine-preventable diseases for individuals and can help control the spread of infections within communities.

More about Immunization:

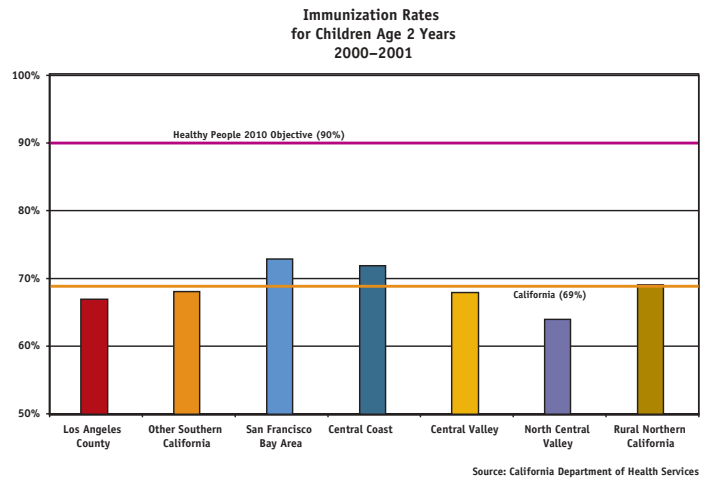
- Children must receive at least 15–19 doses of vaccine by age 18–24 months to be optimally protected against 11 vaccine-preventable childhood diseases. When children do not receive these important vaccines on time, their risk of developing a vaccine-preventable disease (if exposed) goes up significantly. This includes diseases such as Diphtheria, Whooping Cough, Measles, Mumps, Rubella, Chicken Pox, Polio, and Hepatitis B.¹³
- African American and Latino children continue to be less frequently immunized than children in other racial/ethnic groups.¹⁴

Childhood Immunization Rate for Children Age 2 Years

How are we doing?

Immunization rates for children at age 2 in the Central Valley fall far below the national standard of 90%.¹⁵

The San Francisco Bay Area has the highest rate with the Central Coast Region close behind (73% and 72%, respectively). The area defined as Stanislaus, Sacramento, and San Joaquin counties experience proportions of childhood immunization that are almost 10% lower than that of the San Francisco Bay Area.



Note: Data was not available for county or further sub-regional analysis. The Kindergarten Retrospective Study used the following regional groupings: 1) Los Angeles County; 2) Other Southern California [Imperial, Orange, Riverside, San Bernardino, San Diego]; 3) San Francisco Bay Area [Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma]; 4) Central Coast [Monterey, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura]; 5) Central Valley [Fresno, Kern, Kings, Madera, Merced, Tulare]; 6) North Central Valley [Sacramento, San Joaquin, Stanislaus]; and 7) Rural Northern California [Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Placer, Plumas, San Benito, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yolo, Yuba]. Due to these categories, county-level data was not available and sub-regional analysis was based on slightly different counties (see the listing of counties this report is based on for specifics).

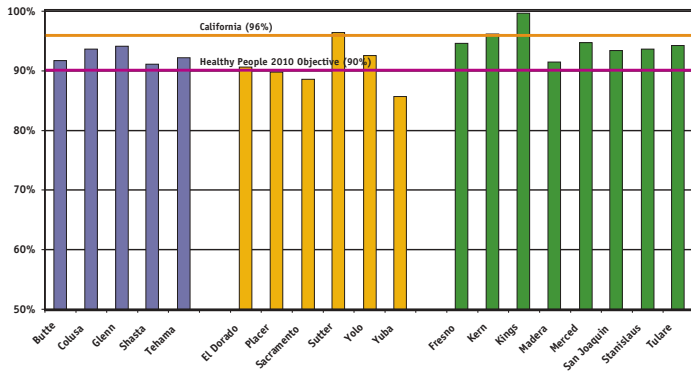
Childhood Immunization Rate at Entry Into Kindergarten

How are we doing?

All regions in California exceed the Healthy People 2010 Objective for childhood immunization, due to continued enforcement of the California School Immunization Law. Immunization rates for California’s school-aged children have increased steadily over the past 10 years. The Central Valley has a high percentage of children entering kindergarten fully immunized, although at 93%, it is slightly lower than the state rate (96%).

Within the Central Valley, the San Joaquin Valley has the highest immunization rate (95%), followed by the North Valley (92%) and the Sacramento Metropolitan Area (89%). County rates range from a high of 99.7% for Kings County to a low of 86% for Yuba County. Sixteen of Central Valley counties, however, have lower percentages than the state’s average.

**Immunization Rates
for Children at Entry into Kindergarten
2000–2001**



SENIOR HEALTH



Falls or illnesses that are almost routine for many can be life-threatening to people sixty-five and older.

- More than 18,000 people over the age of 65 die each year in the United States because of the flu. This can be prevented through vaccination. El Dorado County has the highest influenza immunization rate in the Central Valley, with 81% of all seniors being vaccinated.
- Falls are one of the leading causes of death or injury among seniors. In Tehama County, nearly 80% of all falls that require hospitalization are attributed to seniors.
- Nearly half of non-institutionalized seniors in the San Joaquin Valley live with disabilities. Seniors with disabilities require more specialized care, yet their independence is still very important to their well-being. Access to care can be a greater issue for this population compared to seniors without disabilities.



INFLUENZA IMMUNIZATION

70% of Valley seniors receive influenza immunizations. More progress needed to meet 90% goal.

Definition:

This indicator shows the percentage of people age 65 and older who reported receiving an influenza (flu) shot in 2001.

Why is it important?

- Influenza is one of the most common and deadly diseases affecting people age 65 and older in the United States and result in an average of 110,000 hospitalizations and more than 18,000 deaths in persons 65 years of age and over each year.¹⁶
- Influenza vaccines can prevent up to 60% of hospitalizations and up to 80% of deaths from influenza-related complications.¹⁷

More about Influenza Immunization:

- Medicare has covered the cost of influenza immunizations since 1993.
- Influenza immunizations are typically widely available in clinics, drugstores, health fairs, and senior centers throughout the flu season.
- Influenza immunization rates are significantly lower among African American and Latino adults than for white adults.

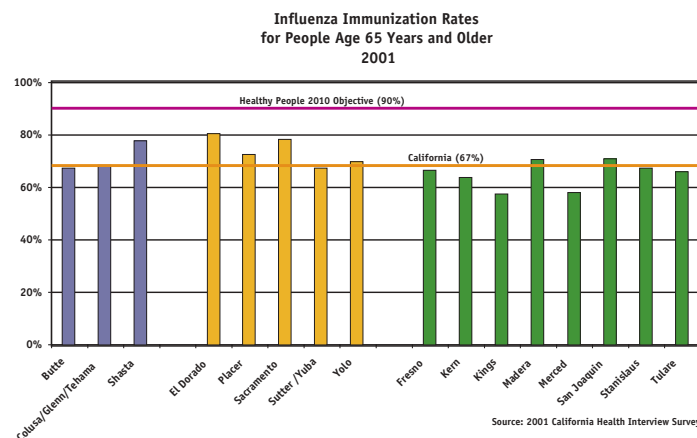
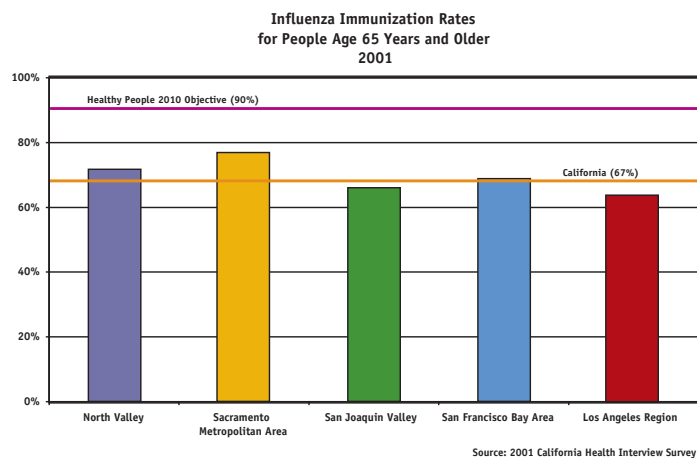
How are we doing?

The Central Valley has a slightly higher (better) percentage of adults age 65 years and older who reported receiving an influenza immunization in 2001 (70%) when compared to adults in the San Francisco Bay Area (69%), California (67%), and the Los Angeles Region (64%). However, to meet the National Healthy People 2010 Objective, 110,000 more seniors need to be immunized in the Central Valley.

The North Valley and the San Joaquin Valley had rates of immunized older adults (72% and 66%, respectively) much lower than the Sacramento Metropolitan Area at 77%. When compared to all counties in the Central Valley, El Dorado County has the

highest (best) percentage of older adults who reported receiving an influenza immunization in the past 12 months (81%). At the other end of the spectrum, Kings and Merced counties had the lowest rates at 58%. Fifteen of the counties experience higher rates than those of the Los Angeles Region and thirteen fare better than the statewide rate.

Note: See page 37 for more detail.



FATAL & NON-FATAL FALLS

Fall rate greatest in the North Valley.

Definition:

This indicator shows the percentage of falls resulting in hospitalization for people 65 and older in 1999 and 2000.

Why is it important?

- Falls are an injury endemic of old age. One of every three older Americans fall each year.
- Falls are the third leading fatal injury (behind suicide and motor vehicle accidents) among people age 65 and older, accounting for one in five fatal injuries.
- Most falls are preventable.

More about Fatal & Non-Fatal Falls:

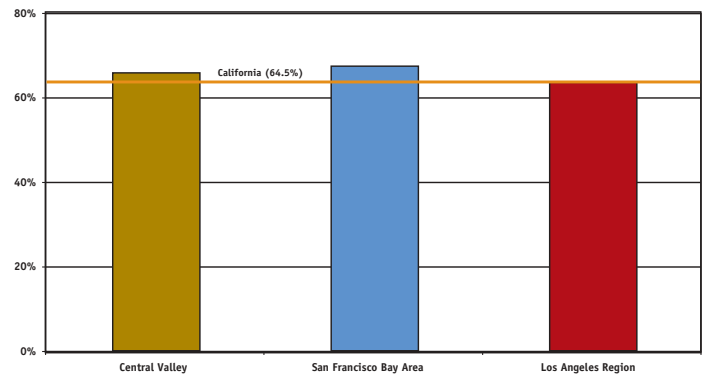
- Of people age 65 and older who fall, 20% to 30% suffer moderate to severe injuries that reduce mobility and independence, and increase the risk of premature death.
- The total direct medical cost of all fall injuries among people 65 and older in 1994 was more than \$20.2 billion. By 2020, the cost of all fall injuries is expected to reach \$32.4 billion nationally.¹⁸
- Of all fall-related injuries, hip fractures not only cause the greatest number of injury deaths, but they also lead to the most severe health problems and reduced quality of life. Annual costs for hip fractures in the United States are almost \$3 billion.¹⁹

How are we doing?

At 66%, the Central Valley rate of all fatal and non-fatal hospitalized falls is slightly higher than the state rate (64.5%), but it is lower than the San Francisco Bay Area rate (67.5%).

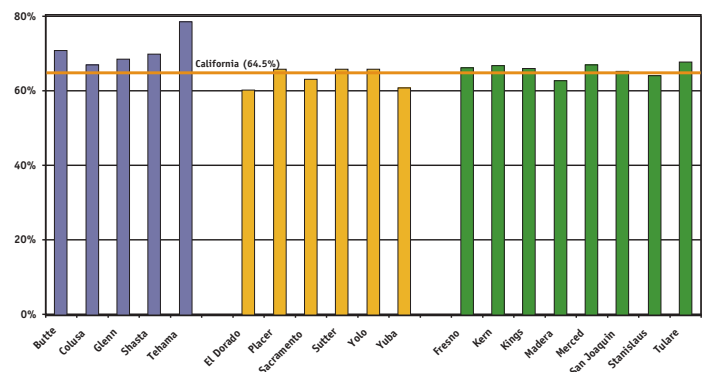
The North Valley has a higher percentage of people age 65 and older who have been hospitalized for falls than the San Francisco Bay Area (71% compared to 68%). Central Valley counties vary greatly on this indicator, with falls attributable to people age 65 and older ranging from approximately 60% to 80% of total falls in each county. Tehama County has the highest percentage at 79% and Yuba County has the lowest at 61%.

Percentage of Falls Resulting in Hospitalization for People Age 65 Years and Older 1999–2000



Source: California Department of Health Services

Percentage of Falls Resulting in Hospitalization for People Age 65 Years and Older 1999–2000



Source: California Department of Health Services

NON-INSTITUTIONALIZED PEOPLE LIVING WITH A DISABILITY

More seniors living on their own with disabilities in the Central Valley than in other regions.

Definition:

This indicator shows the percentage of non-institutionalized people 65 years of age and over that reported having a disability in 2000.

Why is it important?

- People with disabilities tend to report more anxiety, pain, sleeplessness, and days of depression and fewer days of vitality than do people without activity limitations.
- People with disabilities also have other disparities, including lower rates of physical activity and higher rates of obesity.

More about Seniors with Disabilities:

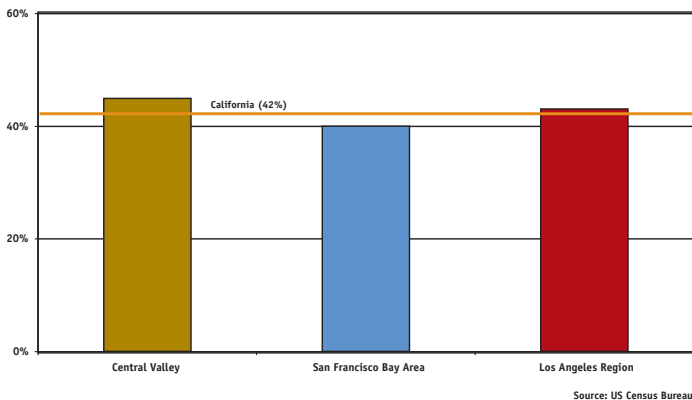
- Many people with disabilities lack access to health services and medical care.
- Approximately 16% of people age 65 and older with disabilities require personal assistance. It is important for these people to have access to care to help them live independently at home and avoid confinement in a costly institutionalized setting. ²⁰

How are we doing?

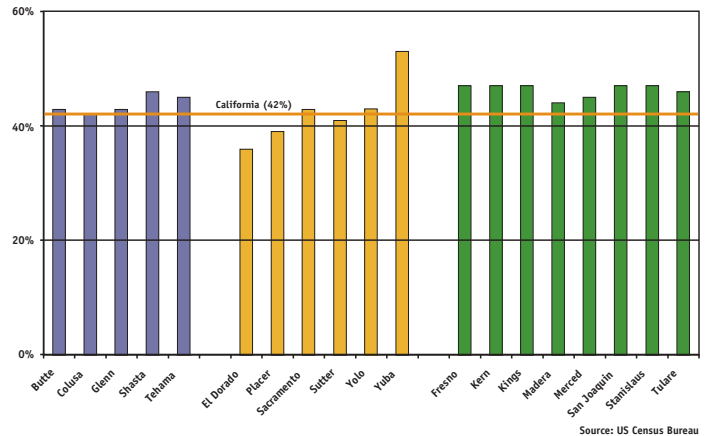
At 45%, the Central Valley has a higher (worse) level of senior disability when compared to California (42%), the Los Angeles Region (43%), and the San Francisco Bay Area (40%).

Within the Valley, the San Joaquin Valley has close to half (47%) of its non-institutionalized people age 65 and older experiencing disabilities. The North Valley is lower at 44% and the Sacramento Metropolitan Area matches the state rate at 42%. Central Valley counties exhibit disability rates among people age 65 and older that vary by as much as 17%, with Yuba County having the highest rate (53%) and El Dorado and Placer counties having the lowest rates (36% and 39% respectively).

Percentage of Non-Institutionalized People Age 65 Years and Older Living with a Disability 2000



Percentage of Non-Institutionalized People Age 65 Years and Older Living with a Disability 2000



CHRONIC & COMMUNICABLE DISEASES

...

A chronic disease is a slowly progressing disease that can be severely debilitating (and can eventually lead to death) and occurs over a long duration of time. A communicable disease is one that may be transmitted directly or indirectly from one individual to another.

- Coronary heart disease is the leading cause of death among adults in California. Controlling risk factors and leading a healthy lifestyle can reduce the risk of death due to coronary heart disease. While the death rates for the Sacramento Metropolitan Area and the San Joaquin Valley are slightly higher than the state average, the North Valley death rate is significantly lower.
- Cancer is the second most common cause of death among all race and ethnic groups in California. Lung cancer kills the most people, but with an increased awareness of the dangers of smoking, the rates are falling. Cancer death rates in the Central Valley are still significantly higher than the California average.
- Asthma is the leading serious chronic disease of childhood. Those who suffer from asthma are greatly restricted in their activities. Prevalence of asthma has more than doubled over the past 15 years, and is highest in the Central Valley when compared to other regions in California.



Robert K. Ross, M.D.
President & CEO, The California Endowment

NEW LEADERSHIP, COMMUNITY ADVOCACY IMPORTANT FOR LONG-TERM CHANGE

What makes a healthy community? A growing body of knowledge supports the concept that a healthy community is the result of many external factors including: a safe environment; effective, supportive community services; and policies that contribute to healthy behavior. With this in mind, the data in this report indicates that there is much work to be done to improve the health of the Central Valley's residents. However, the situation is not as dire as it may appear. Communities throughout California have experienced similar challenges and they have empowered themselves by creating a community voice and using it to advocate for change.

Cause for Concern

The State of the Great Central Valley: Public Health and Access to Care report provides us with critical data to stimulate discussion for the advancement of a social justice agenda for health. Like much of California, double-digit rates of uninsured individuals exist in almost every county in the Central Valley, due to low-paying jobs that do not offer employees health coverage. In addition, limited access to preventive health services and the prevalence of chronic and untreated medical conditions have created a burden on a public health system and community health providers who are unable to cope with the increased demand for services.

Moreover, significant immigrant and urban population growth has resulted in new and greater demands on the region's infrastructure, social and health services, and housing. For example, many urban workers are relocating to the Central Valley and commuting long distances because of affordable housing, impeding the ability of the poor and disenfranchised to find their own housing. Inadequate housing then contributes to the problem of poor health outcomes.

Existing health disparities in such areas as diabetes, childhood immunizations, and asthma signal the need for more culturally and linguistically sensitive health services in response to these changing demographics. Without these culturally appropriate services, good communication—essential to the prevention, diagnosis, and treatment of illness—is jeopardized, and negatively impacts patient compliance and trust. Substance abuse issues in particular have had an enormous impact on the region, often associated with violence, injuries, teen pregnancy, and sexually transmitted diseases. These are public health issues ripe for the implementation of preventive health policies.

A commitment by local government, civic, social, and nonprofit organizations to improve the health of communities will ultimately shape a new community health agenda.

But Hope Abounds

But there is hope. The Central Valley has also been known for its strong community values. A commitment by local government, civic, social, and nonprofit organizations to improve the health of communities will ultimately shape a new community health agenda. Many key advocates are already in place. A combination of strong neighborhood networks, community volunteers, and local donors are waiting to heed the call for action and change. In addition, an abundance of faith-based activists and local organizations, driven, in large part, by the Latino community, can help mobilize advocates and community-based groups. Organizations such as the Pacific Institute for Community Organization (PICO), a network of 16 California faith-based organizations, are working in the Central Valley and statewide to improve health access and reduce the number of uninsured by organizing local citizens and developing leaders who can be health champions.

The Central Valley's public health sector and community-based organizations are the backbone of the region's health care system. However, they are struggling to meet the new demands placed upon them. We must work to create broad and sustainable efforts to increase the capacity of the public health system and health providers. The "Partnership for the Public's Health" is one program aimed at identifying local health issues, developing intervention strategies, and mobilizing action and resources to prevent community health problems.

Community organizations are the most likely proponents for mobilizing and working toward health improvements. These safety-net providers work on the front lines, are familiar with the key issues and their populations, and possess the best ideas for how to build grassroots advocacy for long-term change. In order to mobilize these organizations, we need to improve their capacity to serve as health advocates at both local and state government levels. Public-private partner-

ships can help build the capacities of these groups by providing technical assistance on data collection, message development and communication, monitoring policy, and assisting with outreach to policymakers, opinion leaders, and other influencers, including the media.

In addition, a greater consumer voice from those who utilize government services is needed. Often, in rural areas, barriers such as transportation and language keep residents from expressing their concerns and advocating for their rights. Local service providers can help build the leadership skills of low-income consumers to create an

Community organizations are the most likely proponents for mobilizing and working toward health improvements.

even more powerful voice to advocate for increased access to health care and other critical community services. Several local organizations such as the Fresno Metropolitan Ministry and the Fresno Health Consumer Center are assisting low-income residents to navigate through a complex health care system, while helping to increase their participation in discussions and actions related to health care issues. Coalition building among service providers, advocacy groups, and community development organizations can facilitate information sharing, build skill sets, and improve service providers' understanding of how advocacy efforts can propel issues forward to help develop a health agenda for policymakers.

Philanthropy can and must play a greater role in building the capacity of community organizations and increasing their leadership skills. The 2001 *State of the Great Central Valley of California* report indicated that funding for

nonprofits in this region was less than half of the per capita funding received by their counterparts statewide. Additionally, there were 20 percent fewer public charities per capita than are found in California as a whole. So even if funding were at “parity” levels, community-based organizations would not have adequate financial resources to meet the increase in service demand. Improved data collection efforts, such as this report, are useful tools when advocating for change; however, much more needs to be done in this area as well because information is lacking in several important areas and proxy measures were used when available.

The region’s service providers and grassroots advocacy groups also are learning to more effectively reach out to foundations for funding. For example, several foundations, including The Endowment, have focused their efforts on improving the health care infrastructure of the region by providing grants to several key non-profit organizations and advocacy groups.

The issue of civic engagement remains critical. Ongoing, low-minority voter turnout and a 55 percent response rate to the 2000 Census may indicate apathy and distrust of local and state government. As we know, federal funding allocation is driven by Census data. And, if certain populations are not accurately represented, funding will be inadequate to meet the needs of those communities.

Again, the Fresno Metropolitan Ministry is working on a program to educate local and state policymakers on the health issues impacting Fresno County. Funded by grants from several California foundations, the Ministry has established a local health care coalition, comprised of community-based service providers and residents, to conduct Neighborhood Roundtables. The purpose of these roundtables is to address issues of hunger and nutrition, environmental health, health care access, cultural and linguistic competence, among others.

Early results of this initiative appear promising. Two community activists currently sit on Fresno County’s Mental Health Board, representing their communities and helping to ensure that their voices are heard and the needs of their communities are considered in the decision-making process. A group of advocates recently visited state policymakers in Sacramento to weigh in on pending hunger and nutrition legislation. The work of this local health care coalition is ongoing and evolving as lessons are learned. Clearly,

For years, dedicated residents throughout the Central Valley have persevered to guide their communities through change, often without the background or experience in demographics, economic development and other areas of expertise.

the Central Valley could benefit from more of these innovative and successful projects that are built from the ground up.

Socioeconomic status and its impact on the community’s health is another quandary facing the region. One in four children live in poverty. In 2000, The California Endowment, in partnership with the Rockefeller Foundation, created Community Works for Better Health (CWBH), a \$16 million program to improve the health of residents in low-income neighborhoods by raising their socioeconomic status. The central hypothesis of the project is that by connecting these residents with access to more and better quality jobs, they will experience significant

health improvements over time. Four underserved communities in the state, including one in Fresno, formed regional collaboratives to develop practical plans and build local capacity to secure better jobs and improve health. The success of the initiative is dependent on the project's ability to stabilize and strengthen key community-based institutions to serve as catalysts and links between individuals, neighborhoods, and regions.

Our Diversity, Our Leadership

We all know that new and dynamic leadership is essential when advocating for change. For years, dedicated residents throughout the Central Valley have persevered to guide their communities through change, often without the background or experience in demographics, economic development and other areas of expertise. At the same time, the populations of Latinos and Asians have grown significantly, with little training or preparation for their leaders. Among this group lies the greatest promise to grow a new crop of leaders.

The ethnic and cultural diversity of the Central Valley's residents should be embraced and utilized to its full advantage. Efforts to identify and develop the leadership capabilities of these communities must be strengthened. It is an asset that needs to be nurtured and developed. Latinos comprise 30 percent of the region's population, but represent only eight percent of the area's elected officials. Parity has not been achieved for

Asians and African Americans either. We salute the efforts of our colleagues at The James Irvine Foundation to enhance grassroots advocacy, organizing, and leadership in the Central Valley.

In almost every aspect, there is a critical need to create, enhance, and support local leadership in order to facilitate civic involvement and increase the area's capacity to create a sustainable, healthy, and competitive future. The rate of growth, the

...there is a critical need to create, enhance, and support local leadership in order to facilitate civic involvement and increase the area's capacity to create a sustainable, healthy, and competitive future.

pressures on agricultural land, water and other natural resources, and the enormous human and economic needs of the area create an urgency for immediate action. Improving health and building healthier communities must concern us all. The health challenges facing the Central Valley will require community will, persistent activism, and stalwart dedication from all who call this region home.

h

CORONARY HEART DISEASE

Lowest rates of coronary heart disease found in the North Valley.

Definition:

This indicator shows the death rate per 100,000 people attributed to coronary heart disease in California in 1999 and 2000.

Why is it important?

- Coronary heart disease is the leading cause of death among men and women in California.

More about Coronary Heart Disease:

- Coronary heart disease results from the coronary arteries becoming narrowed with fatty deposits on the inside wall. This narrowing reduces flow of blood to the heart and increases the chance of a blood clot blocking the artery, resulting in a heart attack.
- Women are much more likely to die from a first heart attack than men. White males and African American males and females have a disproportionately higher risk of being hospitalized for this disease than other race/ethnic groups in California.
- It is estimated that more than 7 million Americans suffer from coronary heart disease. The true prevalence of this disease in California is not known because many people do not become symptomatic, or know they have coronary heart disease, until they have a heart attack.
- One in five people without previous symptoms of coronary heart disease die suddenly from an arrhythmia or heart attack. The majority of people go on to live their lives affected by conditions such as short-

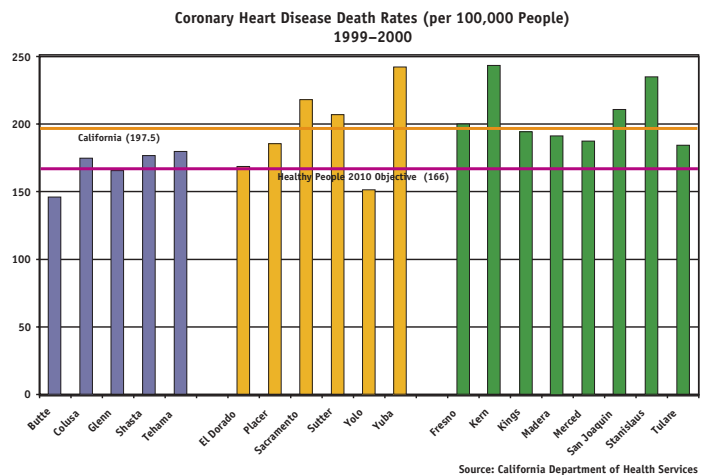
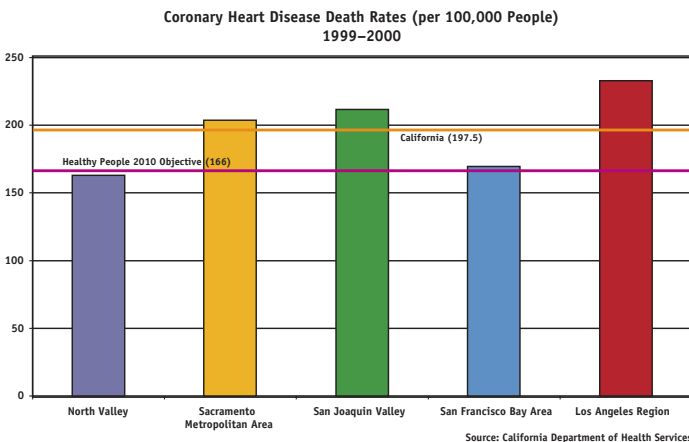
ness of breath, difficulty walking short distances, or difficulty with performing simple activities of daily living (i.e. preparing a meal). These symptoms contribute significantly to disability associated with coronary heart disease. ²¹

- Many deaths could be prevented because coronary heart disease is related to certain lifestyle-related risk factors. These include high blood pressure, high blood cholesterol, smoking, diabetes, obesity, and physical inactivity—all of which can be controlled.

How are we doing?

Valley wide, the rate of coronary heart disease deaths (205) is just slightly above that of the state (197.5 deaths per 100,000).

Within the Valley, the San Joaquin Valley and Sacramento Metropolitan Area have death rates slightly higher than the state average at 212 and 204 per 100,000 people, respectively. The North Valley has a substantially lower rate at 163 deaths. Kern and Yuba counties have the highest (approximately 244 deaths) while Butte County has the lowest coronary heart disease related death rate (146.5).



CEREBROVASCULAR DISEASE

*More strokes in the Sacramento Metropolitan Area.
Fewest in the North Valley.*

Definition:

This indicator shows the death rate per 100,000 people attributed to cerebrovascular disease (stroke) in California in 1999 and 2000.

Why is it important?

- Stroke is the leading cause of adult disability and the third leading cause of death in the United States.

More about Cerebrovascular Disease:

- A stroke is an injury to the brain caused by a blockage or rupture of a blood vessel in the brain. The extent and location of the injury determines which brain functions are affected and the likelihood that an individual will survive the stroke.
- The most important risk factors for stroke are high blood pressure, heart disease, diabetes, and cigarette smoking. Therapies to prevent stroke are based on treating and controlling these risk factors.
- Thirty percent of all strokes happen to people under the age of 65.
- Approximately 4 million Americans are living with the effects of stroke. About 1/3 have mild impairments, another third are moderately impaired, and the remainder are severely impaired.²²
- Studies have shown that, in some cases, stroke morbidity and mortality can be improved if a stroke is

diagnosed and treated within the first few hours of the onset of symptoms.

- Strokes cost the United States \$30 to \$40 billion per year in medical expenses and lost productivity.²³

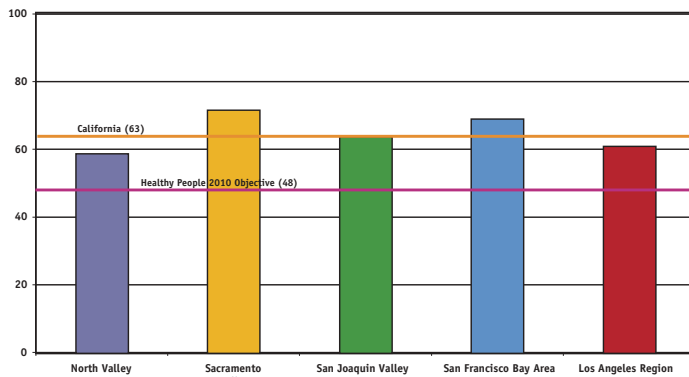
How are we doing?

The Central Valley has the second highest cerebrovascular disease death rate at 67 per 100,000 people when compared to the San Francisco Bay Area (69), California (63), and the Los Angeles Region (61).

Within the Central Valley, the Sacramento Metropolitan Area stands out with the highest death rate (72 per 100,000 people). The San Joaquin Valley (64.5) is slightly higher than the state average (63). The North Valley has the lowest cerebrovascular disease death rate at 59.5. Eleven of the counties in the Central Valley had a higher stroke death rate on this indicator than the state average. Yuba County has the highest death rate (98), while Madera and El Dorado counties have the lowest (47 and 51 deaths, respectively).

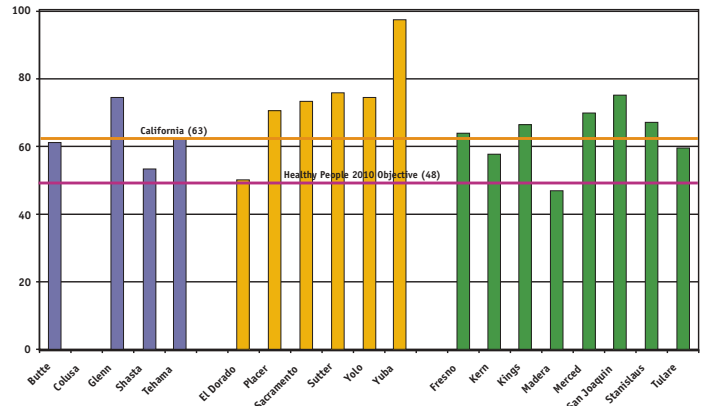
Note: Colusa County was excluded from the report and analysis due to missing data.

Cerebrovascular Disease (Stroke) Death Rates (per 100,000 People) 1999–2000



Source: California Department of Health Services

Cerebrovascular Disease (Stroke) Death Rates (per 100,000 People) 1999–2000



Source: California Department of Health Services

DIABETES

Death rate from diabetes highest in the San Joaquin Valley.

Definition:

This indicator shows the death rate per 100,000 people attributed to diabetes in California in 1999–2000.

Why is it important?

- Overall, the risk for premature death among people with diabetes is about two times that of people without diabetes.

More about Diabetes:

- Studies have shown that medications and lifestyle changes can prevent or delay the onset of type 2 diabetes among high-risk adults.
- People with diabetes can take steps to control the disease and lower the risk of complications and premature death.
- The increased risk associated with diabetes disproportionately affects younger adults (aged 25 to 44 years) and women.
- Hispanic/Latino Americans are almost twice as likely to have diabetes than non-Hispanic whites of similar age. Mexican Americans and non-Hispanic blacks are two times more likely to have diabetes than non-Hispanic whites of similar age.
- Many people who die with diabetes do not have this disease entered on their death certificate; only about 35% to 40% have it listed anywhere on their death

certificate and only about 10% to 15% have it listed as the underlying cause of death, such as is reflected in these statistics. Therefore, the reporting of the true death rate due to diabetes, as recorded in death certificates, underestimates the mortality associated with diabetes.²⁴

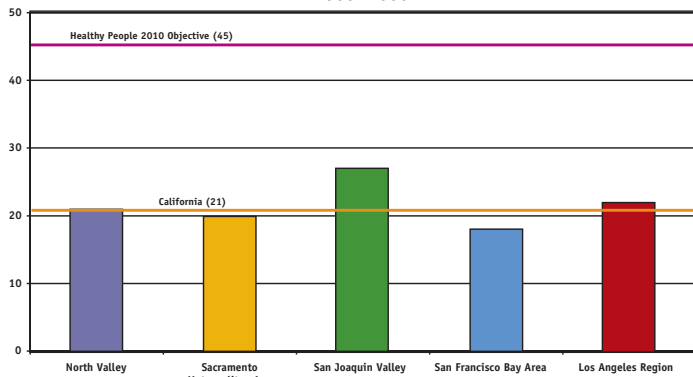
How are we doing?

The Central Valley has the highest death rate due to diabetes among the regions being compared, though differences on the regional level are slight.

The San Joaquin Valley death rate (27 deaths per 100,000) is significantly higher than other sub-regions. The North Valley (21) and the Sacramento Metropolitan Area (20) are only slightly different in their rates on this indicator. Twelve of the counties in the Central Valley have higher death rates due to diabetes when compared to the San Francisco Bay Area (18). Kings County has the highest death rate at approximately 50 deaths per 100,000 people while Placer and Butte counties have the lowest diabetes death rates (approximately 15 deaths per 100,000 people).

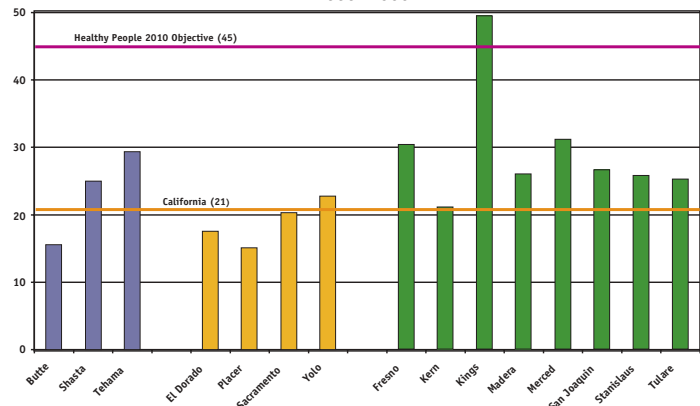
Note: Yuba, Sutter, Glenn, and Colusa counties were removed due to data that was missing or otherwise unreliable.

Diabetes Death Rates (per 100,000 People)
1999–2000



Source: California Department of Health Services

Diabetes Death Rates (per 100,000 People)
1999–2000



Source: California Department of Health Services

ASTHMA

*Asthma incidence greater in the Central Valley.
Worst for San Joaquin Valley children.*

Definition:

This indicator shows the percentage of the California Health Interview Survey population who reported that they had been diagnosed with asthma and had experienced asthma symptoms in 2001.

Why is it important?

- Asthma adversely affects the quality of life of both the person with asthma and his or her family. It often causes restrictions of many activities in which they participate, many nights of lost sleep, a disruption in daily routines, and is frequently associated with lost days of school and work.
- It is the leading serious chronic disease of childhood and among the most common cause for emergency room visits and hospitalizations of children.

More about Asthma:

- Asthma is a chronic inflammatory lung disease characterized by recurrent episodes of breathlessness, wheezing, coughing, or chest tightness. These symptoms can range from mild to life-threatening.
- Evidence-based guidelines for the diagnosis and treatment of this disease exist but are not fully implemented by all health care providers. Numerous studies associated with these guidelines have demonstrated that using medications and reducing exposure to environmental triggers can reduce the frequency and severity of asthma symptoms and the associated visits to the emergency room and hospital.
- Asthma prevalence has more than doubled in the past 15 years. The cause of this increase is not well understood.
- Although asthma affects Americans of all ages, races, and ethnic groups, children, low income, and minority populations are particularly affected.

Asthma Diagnosis and Symptom Prevalence for Children Age 0–17 years

How are we doing?

The Central Valley has the highest asthma prevalence among children age 0-17 (11%) when compared to the San Francisco Bay Area (10%), the state (9%), and the Los Angeles Region (8%).

Within the Central Valley, the San Joaquin Valley has the highest childhood asthma prevalence (12%), with the Sacramento Metropolitan Area and the North Valley at 11%. Ninety-four percent of the Central Valley counties experience higher rates of childhood asthma than the Los Angeles Region, while over 80% are higher than the state rate and approximately two-thirds are higher than San Francisco Bay Area rate. Fresno County (16%) has double the prevalence of the Glenn, Colusa, and Tehama County grouping (8%).

Asthma Diagnosis and Symptom Prevalence for People 18 Years and Older

How are we doing?

The adult asthma prevalence rate for the Central Valley is slightly higher (10%) than the San Francisco Bay Area (approximately 9%) and the Los Angeles Region (8%).

The Sacramento Metropolitan Area and the North Valley have the highest adult asthma prevalence rates (11%) with the San Joaquin Valley experiencing a slightly lower rate (10%). All of these are higher than the levels of the state and the other regions. All of the Central Valley counties have higher prevalence rates than the state average, and over 80% have higher rates than the San Francisco Bay Area. The Glenn, Colusa, and Tehama County grouping has the highest rate (13%) while Kern, San Joaquin, and Tulare counties have the lowest (approximately 9%).

Asthma Diagnosis and Symptom Prevalence for All Ages

How are we doing?

When looking at the whole population, asthma prevalence in the Central Valley (11%) is higher than that of the San Francisco Bay Area and the Los Angeles Region (8%).

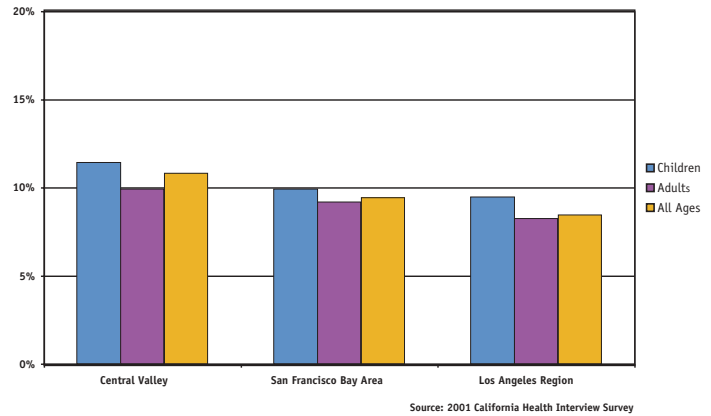
Within the Central Valley, all three sub-regions experience somewhat higher asthma prevalence rates than the Los Angeles Region and the San Francisco Bay Area. Ninety-four percent of Valley counties have rates higher than the San Francisco Bay Area. For all age groups, asthma prevalence rates approximate those of the adult population with Fresno County experiencing the highest rates at 13% and Kern, San Joaquin, and Tulare counties experiencing the lowest at 9%.

Note: As a result of the way this data was collected and reported by the California Health Interview Survey, the following counties are combined for this indicator: a) Colusa, Glenn, and Tehama and b) Sutter and Yuba. This means that county-level, or strata, analysis cannot be performed for these 5 counties. It is inaccurate to assume that any individual county has the same rate, or any specific rate, as the aggregate number presented is simply an average of the 2 or 3 counties listed. Thus, this analysis is based on 16 Central Valley "counties" instead of 19.

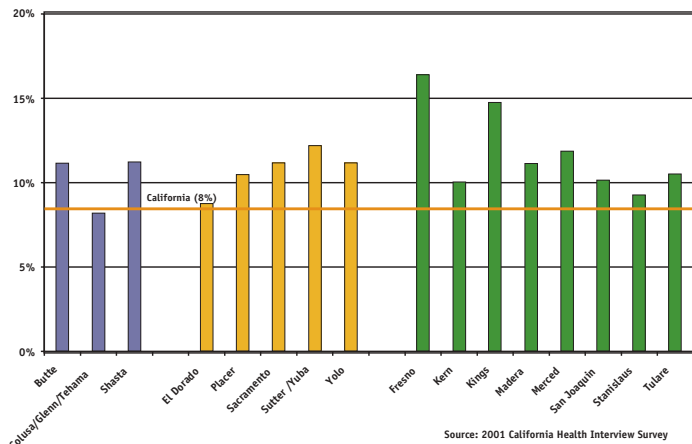
**Asthma Diagnosis and Symptom Prevalence
2001**



**Asthma Diagnosis and Symptom Prevalence
2001**



**Percentage of Asthma Diagnosis and Symptom Prevalence
Among Children 0–17 Years of Age
2001**



CANCER

Cancer rate significantly higher in the Central Valley than other regions.

Definition:

This indicator shows the death rate attributed to all forms of cancer in California in 1999 and 2000.

Why is it important?

- Cancer mortality rates are affected by changes in cancer incidence, screening, diagnosis, treatment, and survival. Mortality trends are a fundamental measure of the success of cancer control efforts.
- Cancer is the leading cause of childhood death in California.

More about Cancer:

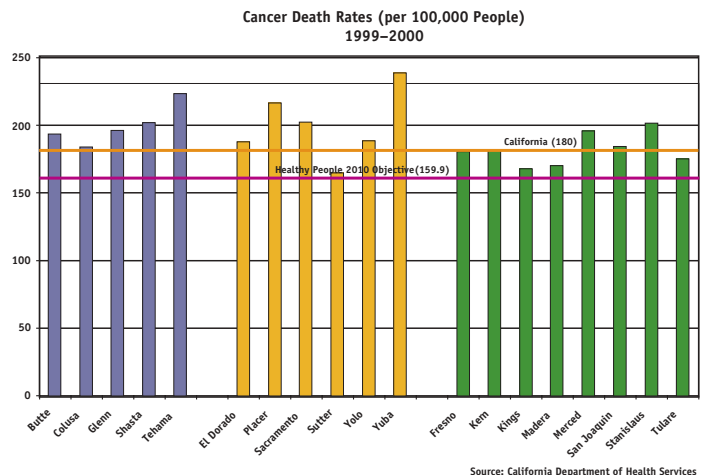
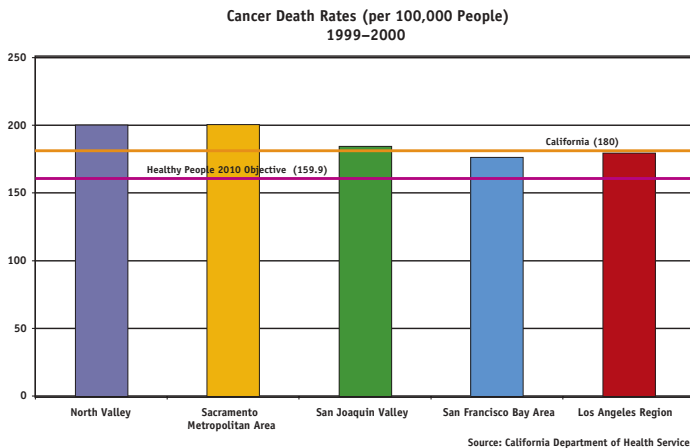
- The rates of many common cancers have decreased significantly since 1990, both in California and nationally; however, cancer remains the second most common cause of death among all race and ethnic groups in California.
- Breast and prostate cancer are the most commonly diagnosed cancers, but lung cancer kills more people than breast, prostate, colon, and rectum cancer combined. Together these four cancers account for more than half of all cancer diagnoses and deaths.
- Overall cancer death rates are decreasing largely because fewer people are smoking, thereby reducing lung cancer death rates, the most common cause of cancer-related deaths in California.

- For every 5 persons diagnosed with cancer, five more are living with a history of the disease. Based on current rates, more than two out of five Californians will be diagnosed with cancer during their lifetime. ²⁵

How are we doing?

The Central Valley cancer death rate (191 per 100,000) is significantly higher than California (180), the Los Angeles Region (178), and the San Francisco Bay Area (175.5).

The North Valley and the Sacramento Metropolitan Area have much higher cancer death rates (200 and 201 per 100,000, respectively), when compared to other regions. Of Central Valley sub-regions, the San Joaquin Valley has the lowest cancer death rate (as many as 20 deaths per 100,000 fewer than the others). At the county level, cancer death rates vary widely, with Yuba County having the highest rate at 239 deaths and Sutter and Kings counties having the lowest death rates (165 and 168, respectively). In 1999 and 2000, fifteen of the counties in the Central Valley had more deaths attributable to all cancers than California and both the Los Angeles Region and the San Francisco Bay Area.



AIDS

Far lower AIDS rate in the Central Valley. Highest of region in Sacramento County.

Definition:

This indicator shows the number of AIDS deaths per 100,000 people in 2001.

Why are they important?

- Even though new drug therapies have led to the decline in AIDS-related deaths in recent years, the HIV/AIDS epidemic continues to be one of the most serious public health threats in California and the nation.

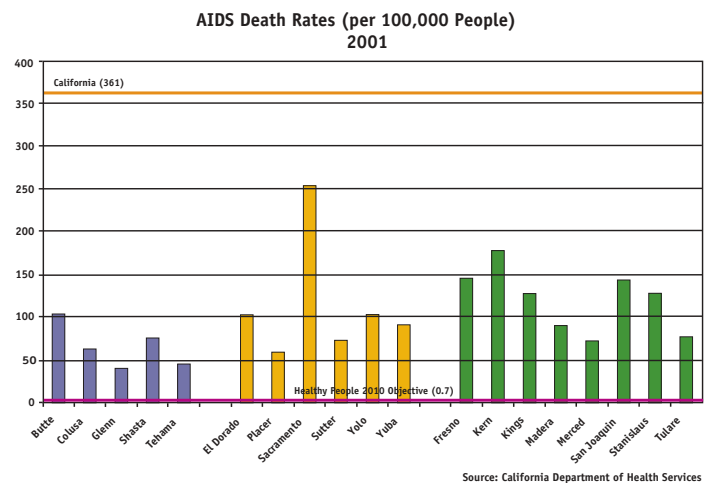
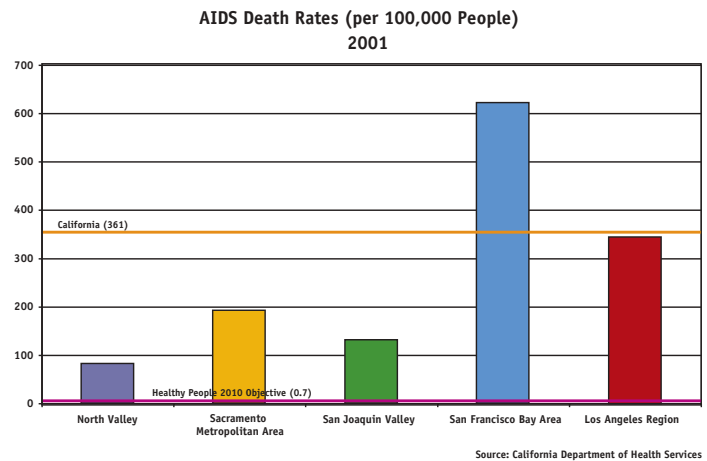
More about AIDS:

- The California Office of AIDS estimates that more than 65,000 Californians are HIV infected, not including people living with AIDS.
- Current AIDS surveillance reports show that 15.4% of the cumulative AIDS cases in California are among people 20-29 years of age, 44.8% among 30-39 year olds, and 27.1% among 40-49 years olds.²⁶
- The risk groups and populations most affected by the HIV/AIDS epidemic are changing. Recent surveillance data indicate that although white men who have sex with men continue to represent the majority of reported AIDS cases each year, the proportion of new AIDS cases among people of color (including men who have sex with men), injection drug users and their sex partners, and women (especially African American and Latino women) are increasing.²⁷
- The true incidence of AIDS in California is not known given the social and privacy issues associated with reporting this diagnosis.

How are we doing?

The Central Valley experiences a much lower AIDS death rate than both the state as a whole and other sub-regions in the state. The Valley rate (148 per 100,000) is four times lower than the San Francisco Bay Area (622), and more than twice as low as the state (361) and the Los Angeles Region (345). This may be due to people (AIDS patients) seeking treatment outside the region.

Within the Central Valley, the Sacramento Metropolitan Area, at 192 per 100,000 people, has a rate at least double that of the North Valley (82 per 100,000). The San Joaquin Valley falls in the middle at 132 deaths due to AIDS. Every county in the Central Valley has significantly lower rates than the state, the Los Angeles Region, and the San Francisco Bay Area. Counties within the Central Valley varied by as much as 114 deaths per 100,000 with Sacramento County having the highest rate (255), and Tehama (46) and Glenn (41) counties having the lowest rates.



CHLAMYDIA

High chlamydia rates found in the San Joaquin Valley and Sacramento County.

Definition:

This indicator shows the number of people who have been diagnosed with chlamydia per 100,000 people from 1997–2000.

Why is it important?

- Chlamydia is a sexually transmitted disease. It is by far the most commonly reported communicable disease in California and is the leading cause of infertility in women. The state average for the study period is 240 cases per 100,000 people. By comparison, the California rate for primary and secondary syphilis, for the same period, is 0.60 cases per 100,000 people.

More about Chlamydia:

- Chlamydia crosses all ethnic, economic and social class lines, and geographic regions.
- California has the highest number of estimated cases of chlamydia in the nation among women 15–34 years of age.
- Up to 70% of women and 50% of men with chlamydia have no detectable symptoms; therefore, case detection is based primarily on screening done by health care providers.²⁸
- Of those who have been screened for chlamydia in California, the incidence is highest in young adults (ages 20–24).²⁹

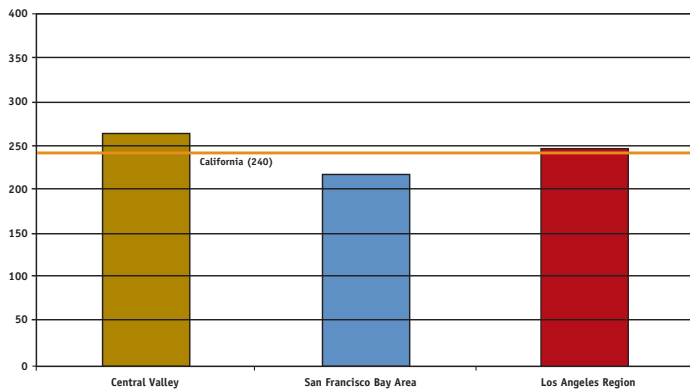
- A simple urine test can be used to test for the disease and readily available antibiotics effectively treat chlamydia.
- Prevalence monitoring of chlamydia only represents rates among people who access testing.
- The true prevalence of chlamydia is not known due to incomplete screening coverage of at-risk populations, under-reporting of infections by medical and laboratory providers, and presumptively treated infections that are not confirmed by testing.

How are we doing?

At 273 per 100,000 people, the Central Valley has a higher incidence of chlamydia (by as much as 53 cases per 100,000) when compared to all other regions. The Los Angeles Region, state, and the San Francisco Bay Area are much lower at 244, 240, and 220 cases per 100,000 people, respectively.

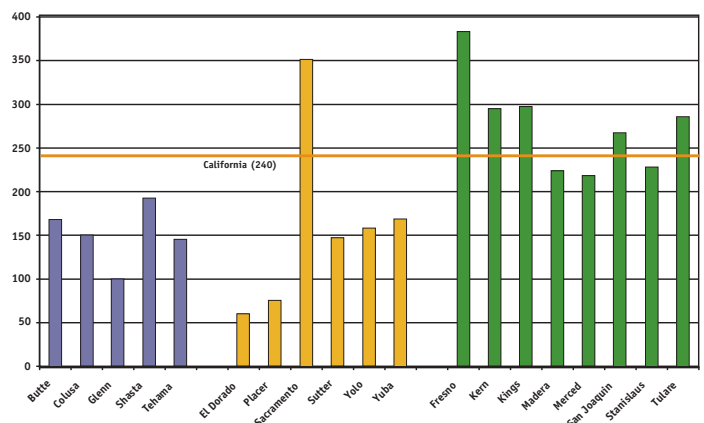
The North Valley (169 per 100,000) has a significantly lower chlamydia incidence rate than both the Sacramento Metropolitan Area (261) and the San Joaquin Valley (294). The Central Valley experiences a wide range of chlamydia incidence rates with El Dorado (60) and Placer (75) counties having the lowest rates, while Sacramento (351) and Fresno (383) counties have as much as 323 more cases per 100,000.

Chlamydia Incidence (per 100,000 People)
1997–2000



Source: California Department of Health Services

Chlamydia Incidence (per 100,000 People)
1997–2000



Source: California Department of Health Services

SOCIAL INDICATORS

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Unlike the previous measures, social indicators rely primarily on behavioral changes to improve the health of the region. The emotional and related effects of these health-related issues can extend beyond those directly involved, with devastating effects on families and communities.

- Cigarette smoking can lead to numerous health problems, not the least of which is lung cancer. Smoking prevalence is highest in the Central Valley when compared to other California regions and the state.
- Domestic violence victims are most often women. The Central Valley is just above the state rate for both hospitalizations and homicides due to domestic violence.
- Aside from the effects that heavy alcohol use has on the body, it is also associated with abuse of loved ones, sexually transmitted diseases, and other social problems. The Central Valley rate for alcohol abuse is slightly higher than the California rate.
- Drug abuse in the Central Valley is also higher than in other regions in the state, particularly in the San Joaquin Valley, where drug-related misdemeanor convictions exceed that of all Central Valley sub-regions.



In 1997, the California Department of Health Services began a popular media campaign using advertisements such as this to warn about the dangers of second-hand smoke.

CIGARETTE SMOKING

Highest cigarette smoking rates in the North Valley and San Joaquin Valley.

Definition:

This indicator shows the percent of adult survey respondents age 18 and older who reported that they had smoked at least 100 cigarettes in their life-time and smoked (everyday or some days) at the time of the interview (1999).

Why is it important?

- Cigarette smoking is the single most preventable cause of disease and death in the United States.

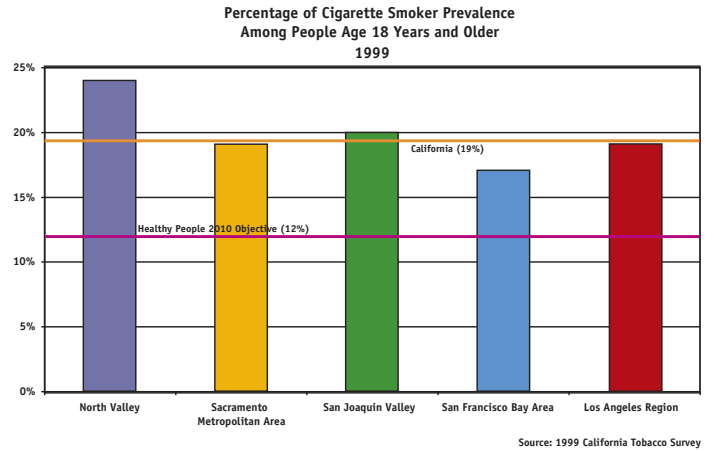
More about Cigarette Smoking:

- Smoking results in more deaths each year in the U.S. than AIDS, alcohol, cocaine, heroin, homicide, suicide, motor vehicle crashes, and fires combined. ³⁰
- It is a major risk factor for coronary heart disease, stroke, lung cancer, and chronic lung diseases.
- Smoking during pregnancy can result in miscarriages, premature delivery, and sudden infant death syndrome.
- People who are exposed to cigarette smoke are at an increased risk for developing heart disease, lung cancer, asthma, and bronchitis.

How are we doing?

The Central Valley has the highest percentage of adult cigarette smokers (20%) when compared to the Los Angeles Region (19%), California (19%), and the San Francisco Bay Area (17%). To reach the National Healthy People 2010 Objective in the Central Valley, about 320,000 people must quit smoking.

Both the North Valley (24%) and the San Joaquin Valley (20%) have higher percentages of adult cigarette smokers than the Sacramento Metropolitan Area (19%).



Note: As a result of the way this data was collected and reported by the California Tobacco Survey, the following counties are combined for this indicator: a) San Mateo and Solano; b) Marin, Napa, and Sonoma; c) Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Siskiyou, Tehama, Trinity, and Yolo; d) San Luis Obispo, Santa Barbara, and Ventura; e) Alpine, Amador, Calaveras, El Dorado, Mariposa, Nevada, Placer, San Joaquin, Sierra, Sutter, Toulumne, and Yuba; f) Fresno, Madera, Merced, and Stanislaus; and g) Imperial, Inyo, Kern, Kings, Mono, and Tulare. As these data are percentages, only regional and sub-regional rates can be reported with any accuracy. For example, since we only have one figure for aggregation "c)" above, an accurate prediction as to how that figure specifically relates to Yolo County cannot be made. In contrast, since 7 of the 15 counties in aggregation "c)" are Central Valley counties we can approximate the effect these counties have on a regional and sub-regional level. Further, the adjusted prevalence estimates depicted are not the true prevalence in a region at a given time, but can be used to compare relative rates for different regions.

HEAVY ALCOHOL USE

Reported drinking higher in the Central Valley.

Definition:

This indicator shows the percent of adults who reported at least one episode of consuming 5 or more alcoholic drinks in the past month, among adults who report consuming alcohol.

Why is it important?

- Alcohol use is associated with child and spousal abuse; sexually transmitted diseases, including HIV infection; escalation of health care costs; teen pregnancy; school failure; low worker productivity; and homelessness.³¹
- Heavy alcohol use and alcohol abuse are strongly associated with motor vehicle accidents, homicides, suicides, and drownings.
- Long-term heavy drinking can lead to heart disease, cancer, alcohol-related liver disease, and pancreatitis.

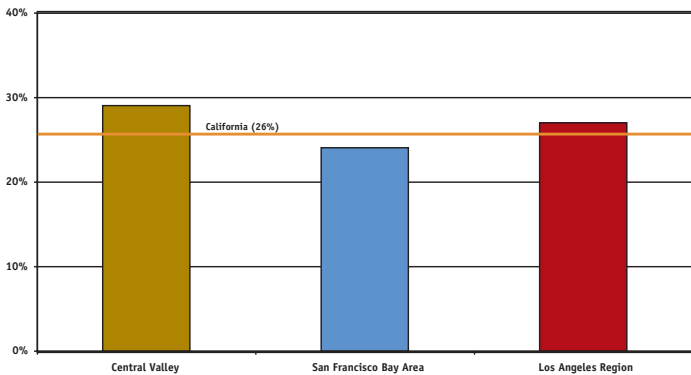
How are we doing?

The Central Valley (29%) has a higher percentage of adults who use alcohol and report at least one episode of heavy alcohol consumption in the past month when compared to the Los Angeles Region (27%), California as a whole (26%), and the San Francisco Bay Area (24%).

Within the Valley, the San Joaquin Valley (30%) experiences the highest percentage of adults who report heavy alcohol consumption when compared to both the North Valley (27%) and the Sacramento Metropolitan Area (27%). All counties in the Central Valley, except Placer County, experience higher percentages of adults who use alcohol and reported heavy alcohol consumption when compared to the San Francisco Bay Area (24%). Thirteen of the counties are still higher than both the Los Angeles Region (27%) and California as a whole (26%). As many as 33% of adults who use alcohol in Kern County reported at least one episode of heavy alcohol consumption in the past month, while 20% of adults who use alcohol in Placer County report the same behavior.

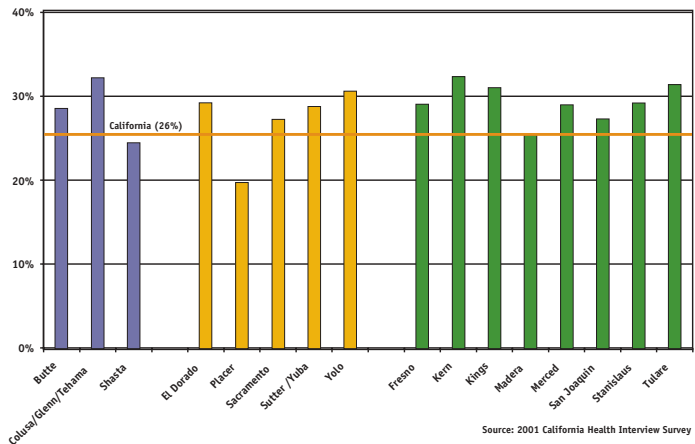
Note: As a result of the way this data was collected and reported by the California Health Interview Survey, the following counties are combined for this indicator: a) Colusa, Glenn, and Tehama and b) Sutter and Yuba. This means that county-level, or strata, analysis cannot be performed for these 5 counties. It is inaccurate to assume that individual counties have the same rate, or any specific rate, as the aggregate number presented is simply an average of the 2 or 3 counties listed. Thus, this analysis is based on 16 Central Valley "counties" instead of 19.

Percentage of Heavy Alcohol Use
Among Adults Age 18 Years and Older Who Consume Alcohol
2001



Source: 2001 California Health Interview Survey

Percentage of Heavy Alcohol Use
Among Adults Age 18 Years and Older Who Consume Alcohol
2001



Source: 2001 California Health Interview Survey

DOMESTIC VIOLENCE

Highest hospitalization rate experienced in the Sacramento Metropolitan Area. Madera County deaths double that of most of the region.

Definition:

This indicator shows the percentage of female-victim homicides and violent injury hospitalizations among women from 1997–1999.

Why is it important?

- Domestic violence is a serious and pervasive problem at the national, state, and county levels.
- Domestic violence does not discriminate; it crosses racial and ethnic lines, as well as socioeconomic class boundaries.
- Several studies have shown that victims of domestic violence were less likely to have access to health care when compared to people who were not victims of domestic violence.

More about Domestic Violence:

- Domestic violence can be defined broadly as economic control, physical, sexual, verbal, emotional, and psychological abuse used by adults or adolescents against their current or former intimate partners.³²
- Domestic violence leads to physical and mental health consequences for women and their children.
- Women victims of domestic violence are at risk for physical injury or death, and may experience gynecologic and obstetrical problems, chronic somatic disorders, and mental health disorders.³³
- Men can also be victims of domestic violence; however, there is no reliable data source in place to assess this in California.
- The true prevalence of domestic violence in a population is difficult to assess given the shame and perceived threat to personal safety commonly associated with reporting this type of violence to public officials.

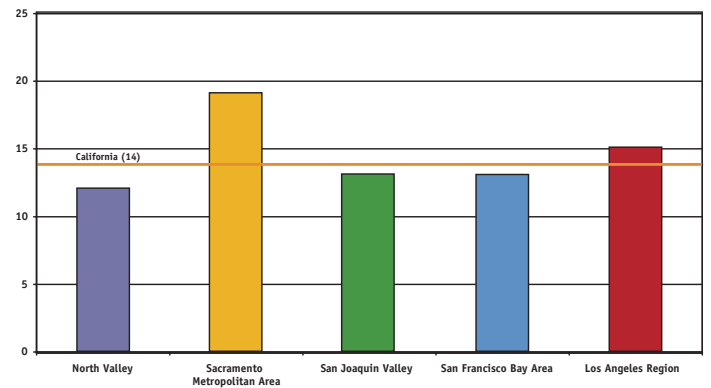
Violent Injury-Related Hospitalizations Among Women

How are we doing?

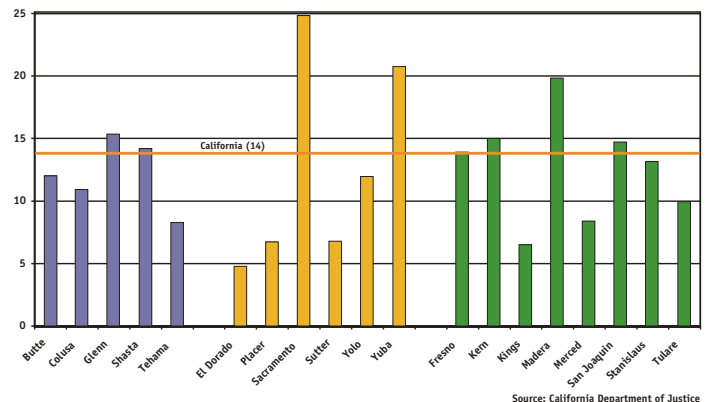
The Central Valley has a slightly higher rate of domestic violence-related hospitalizations (15 hospitalizations per 100,000 women) than the Los Angeles Region (fewer than 15), California (14), and the San Francisco Bay Area (13).

Within the Central Valley, the Sacramento Metropolitan Area has the highest rate at 19 per 100,000, while the North Valley (12) and the San Joaquin Valley (13) experience lower rates. Eleven of the Central Valley counties have the same or lower rates of domestic violence-related hospitalizations

Female Violent Injury-Related Hospitalizations (per 100,000 Women) 1997–1999



Female Violent Injury-Related Hospitalizations (per 100,000 Women) 1997–1999



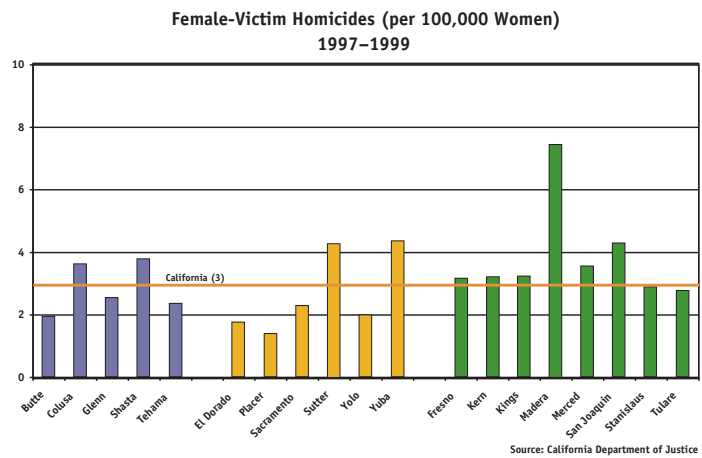
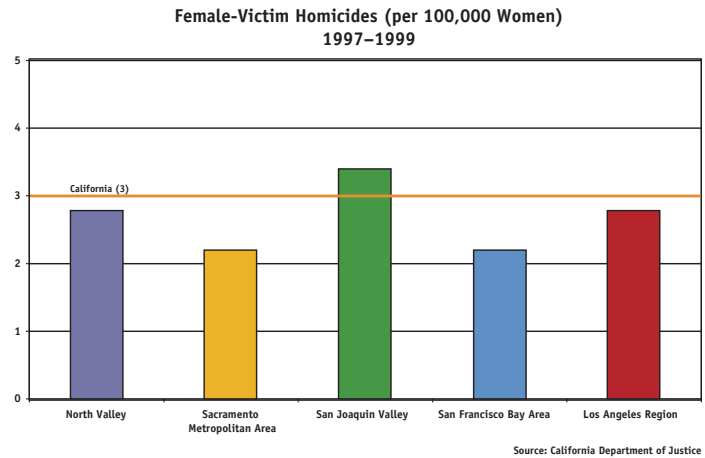
than the state; and thirteen are the same or less than the Los Angeles Region. Sacramento County experiences the highest rate at 25 and El Dorado County the lowest (5).

Female-Victim Homicides

How are we doing?

Although the regional differences in female-victim homicide rates are slight, the Central Valley and the Los Angeles Region (nearly 3 per 100,000 women), are somewhat higher than the San Francisco Bay Area (just over 2). Over half of the Central Valley counties have higher rates of female-victim homicide than the Los Angeles Region, while over two-thirds are higher than the state, and almost three-fourths are higher than the San Francisco Bay Area.

Within the Central Valley, the San Joaquin Valley (approximately 4 per 100,000) has a rate slightly higher than the Los Angeles Region and California. The North Valley has a rate similar to those of the Los Angeles Region and the state, while the Sacramento Metropolitan Area (2) has the same rate as that of the San Francisco Bay Area. Central Valley counties vary somewhat on the female-victim homicide rate. For example, Madera County (7) has a rate seven times greater than that of Placer County (1).



DRUG-RELATED MISDEMEANOR CONVICTIONS

Convictions highest in the South San Joaquin Valley and Yuba County.

Definition:

This indicator shows the number of misdemeanor convictions among adults per 100,000 people for illicit drugs. The data includes heroin, methamphetamine, barbiturates, and psychedelics, but excludes marijuana in 1999–2000.

Why is it important?

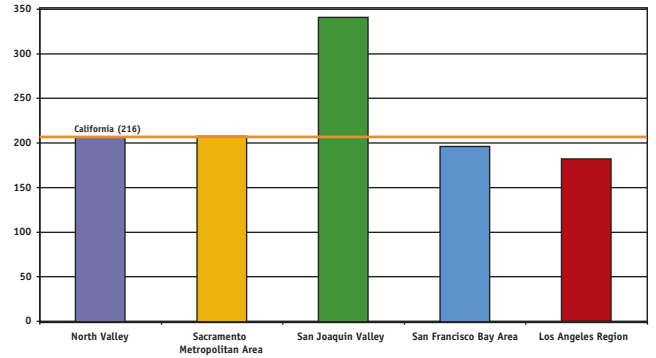
- Drug arrests are an indicator of the extent of drug abuse or drug-related activities that have been linked to significant negative health effects and crime.
- Illicit drug use is strongly associated with violence, injury, and sexually transmitted diseases including HIV infection. It is also associated with spousal abuse, teen pregnancy, school failure, motor vehicle accidents, escalation of health care costs, lower work-productivity, and homelessness.
- The annual economic costs to the United States from drug abuse were estimated to be \$110 billion in 1995.³⁴

How are we doing?

The Central Valley has significantly more drug-related misdemeanor convictions at 285 per 100,000 people when compared to California as a whole (216), the San Francisco Bay Area (196), and the Los Angeles Region (181).

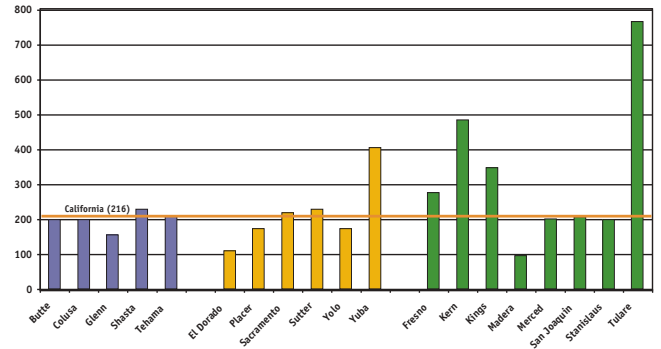
Within the Central Valley, the San Joaquin Valley (341) has significantly higher rates than all other sub-regions, regions, and the state; including more than 150 additional convictions per 100,000 than both the North Valley (207) and the Sacramento Metropolitan Area (207), which more closely resemble the state rate. Central Valley counties range widely on this indicator with Tulare County (766) possessing the highest rate and Madera County (95) the lowest. Tulare County experienced a rate more than 8 times higher than Madera County. Almost three-quarters of Valley counties have more drug-related misdemeanor convictions than both the Los Angeles Region and San Francisco Bay Area.

Drug-Related Misdemeanor Convictions Among People Age 18 Years and Older (per 100,000 People) 1999–2000



Source: California Department of Justice

Drug-Related Misdemeanor Convictions Among People Age 18 Years and Older (per 100,000 People) 1999–2000



Source: California Department of Justice

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Note: As a result of the way this data was collected and reported by the California Health Interview Survey, the following counties are combined for this indicator: a) Colusa, Glenn, and Tehama and b) Sutter and Yuba. This means that county-level, or strata, analysis cannot be performed for these 5 counties. It is inaccurate to assume that any individual county has the same rate, or any specific rate, as the aggregate number presented is simply an average of the 2 or 3 counties listed. Thus, this analysis is based on 16 Central Valley "counties" instead of 19. Also, there was considerable missing data on children (0-17) for both the San Francisco Bay Area and a few counties in the Sacramento Metropolitan Area regions receive a routine checkup, compared to adults without health insurance.

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Note: Sacramento County participates in the Geographic Managed Care (GMC) program so the majority of their Denti-Cal eligible residents do not participate in the fee-for-service program. Nonetheless, utilization rates for Sacramento are deemed representative per staff at the Dental Health Program/California Department of Health Services.

The percent of utilization among small rural counties may be artificially low due to the presence of community clinics that are reimbursed through a different payment mechanism than the usual fee-for-service system.

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Note: As a result of the way this data was collected and reported by the California Health Interview Survey, the following counties are combined for this indicator: a) Colusa, Glenn, and Tehama and b) Sutter and Yuba. This means that county-level, or strata, analysis cannot be performed for these 5 counties. It is inaccurate to assume that individual counties have the same rate, or any specific rate, as the aggregate number presented is simply an average of the 2 or 3 counties listed. Thus, this analysis is based on 16 Central Valley "counties" instead.

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Cancer

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AIDS

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Chlamydia

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Social Indicators

Cigarette Smoking

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Heavy Alcohol Use

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Domestic Violence

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33. *Domestic Violence in California*. Office for the Attorney General, State of California. 2002. http://caag.state.us/cvpc/fs_dv_in_ca.html.

Drug-Related Misdemeanor Convictions

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DATA SOURCES

Access to Care

Uninsured People

University of California, Los Angeles
Center for Health Policy Research
California Health Interview Survey (2001)
<http://www.chis.ucla.edu>

Uninsured Children

University of California, Los Angeles
Center for Health Policy Research
California Health Interview Survey (2001)
<http://www.chis.ucla.edu>

Primary Care Physicians

University of California, San Francisco
Center for the Health Professions
The Practice of Medicine in California: A Profile of the
Physician Workforce (2001)
<http://futurehealth.ucsf.edu/publications/index.html>

Denti-Cal Services

University of California, San Francisco
Center for the Health Professions
Geographic Distribution of Dentists (2001)
http://futurehealth.ucsf.edu/press_releases/dental.html

Children Living in Poverty

US Census Bureau
State and County Quick Facts
<http://censtats.census.gov>
<http://quickfacts.census.gov>

Maternal & Child Health

Infant Mortality

California Department of Health Services
Center for Health Statistics
Office of Health Information and Research
www.dhs.ca.gov

Low Birth Weight Infants

California Department of Health Services
Center for Health Statistics
<http://www.dhs.ca.gov>

Childhood Immunizations

California Department of Health Services
Division of Communicable Disease Control
Immunization Branch
<http://www.dhs.ca.gov>

Prenatal Care

California Department of Health Services
Center for Health Statistics
<http://www.dhs.ca.gov>

Senior Health

Influenza Immunization

University of California, Los Angeles
Center for Health Policy Research
California Health Interview Survey (2001)
<http://www.chis.ucla.edu>

Fatal & Non-Fatal Falls

California Department of Health Services
Epic Data Center
<http://www.dhs.ca.gov>

Non-Institutionalized People Living with a Disability

US Census Bureau
Censtats
<http://censtats.census.gov>

Chronic & Communicable Diseases

Coronary Heart Disease

California Department of Health Services
Center for Health Statistics
<http://www.dhs.ca.gov>

Cerebrovascular Disease

California Department of Health Services
Center for Health Statistics
<http://www.dhs.ca.gov>

Diabetes

California Department of Health Services
Center for Health Statistics
<http://www.dhs.ca.gov>

Cancer

California Department of Health Services
Center for Health Statistics
<http://www.dhs.ca.gov>

Asthma

University of California, Los Angeles
Center for Health Policy Research
California Health Interview Survey (2001)
www.chis.ucla.edu

AIDS

California Department of Health Services
Office of AIDS
<http://www.dhs.ca.gov>

Chlamydia

California Department of Health Services
Center for Health Statistics
<http://www.dhs.ca.gov>

Social Indicators

Cigarette Smoking

University of California San Diego
Cancer Prevention and Control Program
The California Tobacco Control Program:
A Decade of Progress, the Results from the
California Tobacco Survey 1990-1999
http://ssdc.ucsd.edu/ssdc/pdf/1999_Final_Report.pdf

Domestic Violence

California Attorney General's Office
Criminal Justice Statistics Center
<http://www.caag.state.ca.us/cjsc>

Heavy Alcohol Use

University of California, Los Angeles
Center for Health Policy Research
California Health Interview Survey (2001)
www.chis.ucla.edu

Drug-Related Misdemeanor Convictions

California Attorney General's Office
Criminal Justice Statistics Center
<http://www.justice.hdcdojnet.state.ca.gov>

DEFINITIONS

California Health Interview Survey (CHIS)

The California Health Interview Survey (CHIS) is a collaborative project of the UCLA Center for Health Policy Research, the California Department of Health Services, and the Public Health Institute. The CHIS is the largest state health survey in the United States. It is a telephone survey conducted every two years on public health topics and access to health care. The first survey was completed in November 2001 and results were available in May 2002.

Denti-Cal

Denti-Cal is California's dental care program. This program pays for a variety of non-cosmetic dental services for children and adults with limited income and resources, and disabled individuals who lack dental insurance. Denti-Cal is supported by federal and state taxes.

Healthy Families

Healthy Families provides health coverage to children in families with incomes between 100% and 250% of federal poverty level who do not qualify for Medi-Cal (annual income less than \$36,576 for a family of three) and do not have private insurance.

Medi-Cal

Medi-Cal, California's Medicaid program, provides health care coverage for low-income and disabled individuals who lack health insurance. Jointly funded by the state and federal government, it is the primary source of health and long-term care coverage for 5.1 million Californians.

Morbidity

Illness, disease.

Mortality

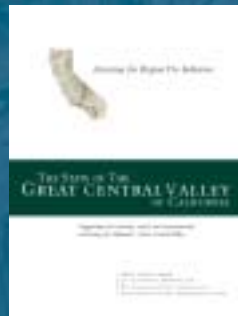
Death.

National Healthy People 2010

Healthy People 2010 is the prevention agenda for the nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats.

OTHER REPORTS IN THE
STATE OF THE GREAT CENTRAL VALLEY
SERIES:

ASSESSING THE REGION VIA INDICATORS



THE ENVIRONMENT



COMMUNITY WELL-BEING





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