GROWING A HEALTHIER SAN JOAQUIN VALLEY:

RECOMMENDATIONS FOR IMPROVING THE PUBLIC HEALTH AND HEALTHCARE INFRASTRUCTURE

Recommendations Developed By:
San Joaquin Valley Health Departments

Report Prepared By:
The Central Valley Health Policy Institute

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Central California Center for Health and Human Services

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EXECUTIVE SUMMARY

In an effort to address concerns regarding the economic well-being of the San Joaquin Valley and the quality of life of its residents, Governor Schwarzenegger established the California Partnership for the San Joaquin Valley. Membership in the partnership includes both state agency secretaries and appointed Central Valley representatives. The partnership was divided into a number of workgroups with the task of contributing to a San Joaquin Valley Strategic Action Proposal that will provide recommendations to the Governor for improving the economic conditions of the San Joaquin Valley. The eight county health departments and agencies were asked to identify issues and provide recommendations to the Health and Human Services workgroup.

Issues of concern identified by the group fell under the general categories of: outmoded public health and healthcare financing systems, inadequate healthcare infrastructure and health professional shortages. Public health agencies in the San Joaquin Valley have experienced a long term pattern of inadequate funding relative to other California regions for a number of reasons, but most notably due to a relatively lower tax base, high rates of poverty and population growth and poor health outcomes.

Healthcare financing concerns in the San Joaquin Valley involve differing, but related, issues: the number of uninsured and underinsured residents, reliance on public healthcare insurance and low provider reimbursement rates. The proportion of Valley children and adults lacking full insurance for all or part of a year is higher than for California as a whole, in part due to the number of workers in low paying or intermittent jobs. The result is that regional safety net providers experience an overwhelming burden to provide healthcare for these residents, with a requirement that is disproportionate to the amount of available resources. Additionally, San Joaquin Valley counties experience a higher Medi-Cal enrollment rate than the rest of the state. Medi-Cal enrollees face challenges in accessing quality healthcare due to an unwillingness of providers to navigate the administrative requirements and accept low reimbursement rates. These low reimbursement rates are reflected in the fact that per enrollee payment levels for Medi-Cal recipients in San Joaquin Valley Counties are lower than the state average and Medicare per enrollee fee-for-service rates average 56-75% of average national rates.

An inadequate health infrastructure will become even more visible as the population continues to grow and federal and state commitment toward managed Medi-Cal strengthens. The Valley has a lower per capita availability of acute hospital beds and a lack of coordinated programs to address the need for outreach and education, chronic disease management and long term care services. Hospital emergency departments are overburdened and rural hospitals are at risk of closure. Community clinics express concerns about an “unfunded mandate” to increase the population they serve, but lack the “brick and mortar” space to respond to the need.

Health professional shortages are well documented in the San Joaquin Valley and are likely a result of the increasing costs of living in the Valley, air quality concerns, fear of professional isolation and low reimbursement rates, coupled with high rates of uninsured and underinsured patients. Shortages impact access to specialty care, behavioral services and dental care, as well as divert funding to high cost “imported” health professionals. Health professional shortages also impact the ability of the eight county public health programs to ensure the health and safety of their communities due to dramatic shortages of public health laboratory directors, physicians, nurses, health educators and epidemiologists.

In this context, the eight county health departments and agencies have drafted the following recommendations under the broad categories of healthcare and public health financing, health professional shortages, and healthcare and public health infrastructure.

Recommendations for Action

Improve Public Health and Healthcare Financing

1. Revise and streamline the procedure for county contracting with the state for public health functions.
2. Develop a point rating system to be used by state agencies to provide a mechanism to enhance review and consideration of funding awards and grants to Valley health proposals.
3. Use growth funds to increase allocations to existing programs based on population in need/health status indicators.
4. Fund and implement single entry point and single application eligibility determination systems for all publicly-sponsored health insurance and service access programs.
5. Request the development of a regional healthcare financing needs assessment which can serve as a resource to determine regional healthcare financing needs.
6. Develop a regional consensus plan for addressing the needs of the uninsured and underinsured that explores innovative healthcare access models, pursues a regional increase in the Federal Medical Assistance Percentage, and integrates federal and state funding streams.

Health Professional Shortages

7. Promote and create incentives for the development of regional approaches for funding and staffing public health laboratories. To help maintain the current public health workforce, modify the baseline pay rates ata all levels of public health to be competitive and more closely aligned with private sector rates.
8. Increase state funded scholarship and training opportunities available to residents of the San Joaquin Valley from the California Department of Health Services (CDHS) Public Health Laboratory Director Training Program. In addition, provide stipend waivers to Valley health departments for CDHS sponsored public health training programs.
9. Seek modifications of existing professional practice standards to increase the scope of allowable care provided by both paraprofessional (e.g. dental hygienists) and professional (e.g. nurse anesthetists) classifications. Encourage and promote reciprocal licensing for dentists with other states..
10. Seek regulatory changes to expand the range of reimbursable behavioral health services
11. Seek legislation to fund and support implementation of a San Joaquin Valley Promotora Academy.
12. Seek support through the California Partnership for the San Joaquin Valley to advocate for changes in the Federal Health Professional Shortage Area scoring methodology.
13. Expand the capacity for public health education at all University of California/California State University campuses.
14. Establish a School of Medicine at the University of California, Merced campus as soon as possible.

Healthcare and Public Health Infrastructure

15. Target and fund the San Joaquin Valley as a technology incubator for electronic medical records, telemedicine, voice over internet programs, video translation and other related new technology.
16. Establish medical “enterprise zones” throughout the region to offer tax credits and other financial incentives for providers to retain, open and expand services to underserved populations.

Overview and Context

California's San Joaquin Valley, our agricultural heartland and emerging center for economic development, population growth, and cultural diversity, is also characterized by an overwhelmed public health and healthcare system. Inadequate infrastructure, health professional shortages, and outmoded financing systems have resulted in health outcomes notably poorer than those experienced in other regions of the state. With an expected doubling in its population before this year's newborns settle into adulthood, the public health and healthcare systems require new ideas and long-term investments to meet current needs and future demands. This short report highlights the particular healthcare and public health challenges facing the Valley today and proposes recommendations aimed at ensuring a healthier future.

On June 24, 2005 California Governor Arnold Schwarzenegger established the California Partnership for the San Joaquin Valley. The California Partnership for the San Joaquin Valley brings state agency secretaries and Central Valley representatives together to make recommendations to the Governor regarding changes that would improve the economic well-being of the Valley and the quality of life of its residents. Many professionals representing the health care industry were asked to provide comments to the Partnership. The Health and Human Services Subcommittee chair, Fritz Grupe, asked the eight county health departments and agencies to develop issues and recommendations to be considered by the Partnership. The Central Valley Health Policy Institute (CVHPI) at California State University Fresno has compiled these recommendations and supportive materials for this presentation.[a]

This report is organized in two primary sections. First, we provide a summary of the evidence for an overburdened and under-funded public health and healthcare system in the region, highlighting the roles of financing, health infrastructure, and professional shortages, along with the unique demographic features of the region, as important determinants of health system outcomes. Second, we present a set of recommendations for actions to improve public health and healthcare financing, strengthen the healthcare and public health infrastructure and respond to the critical shortages of health professionals.

Health Outcomes and Health System Challenges Facing the San Joaquin Valley

Demographics

Table 1 provides a summary of the major health-relevant demographic features of the San Joaquin Valley.[1] The region's eight counties (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus and Tulare) encompass a land area of 27,493 square miles and had a 2003 population of 3,582,797. As Table 1 indicates, the region is younger and more heavily Latino than California as a whole. Although not shown, several of the counties in the region have also seen a greater influx of new legal immigrants, refugees, and undocumented immigrants relative to population compared to other areas of the state. For example, the Valley is home to the largest concentration of Laotian and Hmong refugees in the nation. CVHPI analyses show that about 45% of births in the region, 2002-2004, were to women who have immigrated to the United States from elsewhere.[2]

Table 1

San Joaquin Valley Demographics, 2003[1]

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

The area is experiencing more rapid population growth and development than many other parts of California. The region saw a growth of almost ½ million residents from 2000-2005. Figure 1 and Figure 2 show how projected growth in the region is equivalent to adding 11 more cities the size of Fresno by 2050 and that six of the Valley counties are forecast to be among the 16 fastest growing counties in the state during the same time period.[3]

Figure 1

San Joaquin Valley Projected Population Growth to 2050 [21]

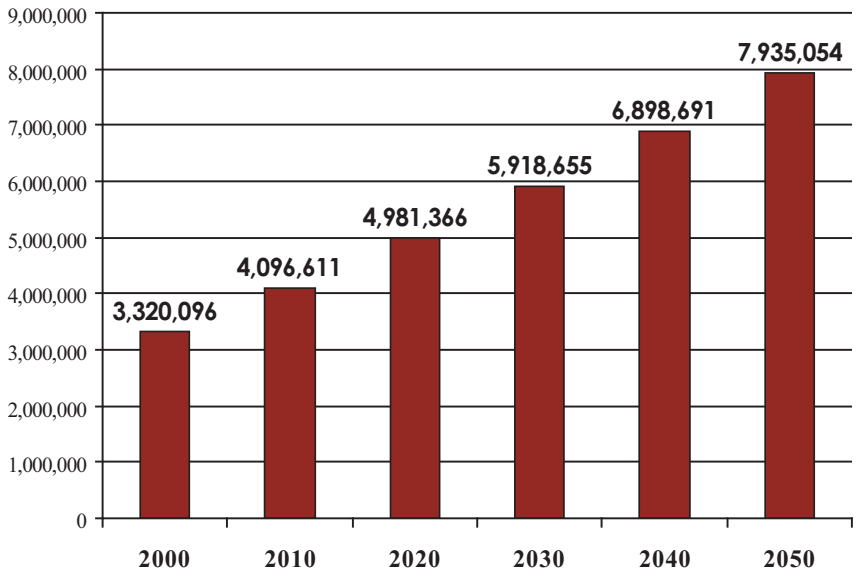
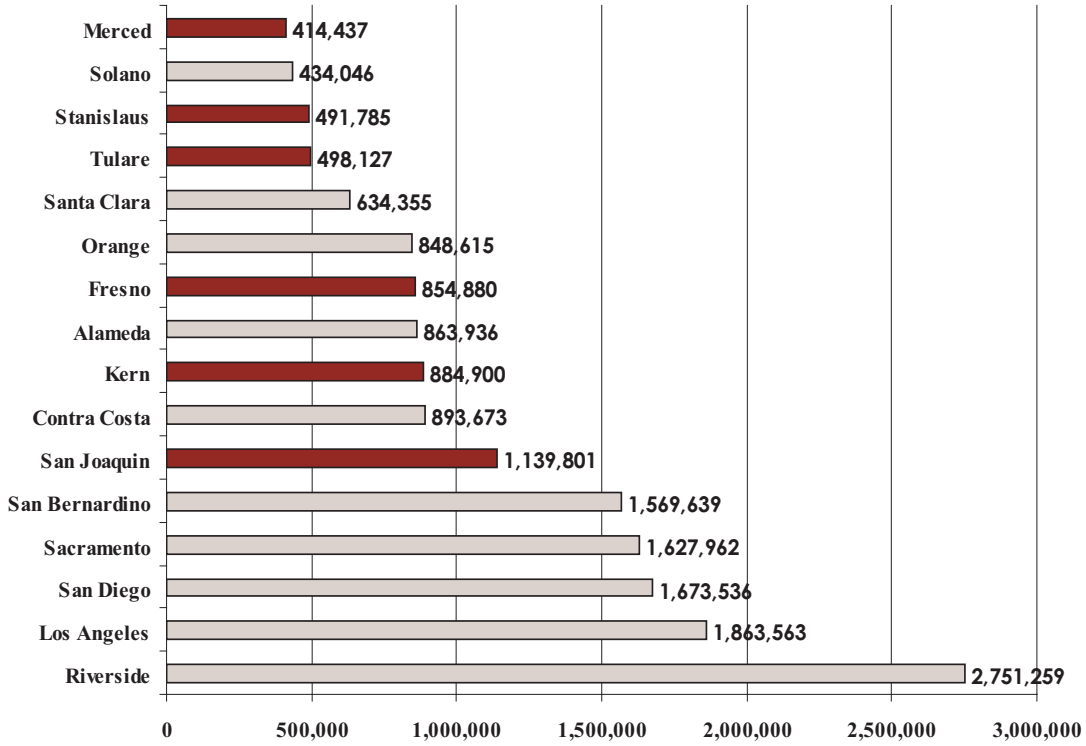


Figure 2

California Counties with the Largest Projected Numerical Population Growth, 2000-2050 [3]



As shown in Table 1, the region also has lower per-capita income, lower high-school graduation rates, greater unemployment, and a greater proportion of children under age 18 living in poverty than does California as a whole. A recent Congressional Research report found that the San Joaquin Valley is a region of severe economic distress with lower per capita income and higher unemployment and poverty rates than the Appalachian Regional Commission area.[4] These patterns are closely linked to both the historical and current development of the region, as it relies on agriculture and other typically low-wage industries as the backbone of its economy. In this context, there are cumulative effects of poverty for many Valley residents, expressed by issues such as food insecurity, substandard housing, poor access to health care and health insurance, low educational attainment, and persistent poverty from generation to generation. Beyond the impacts of population growth on the region's healthcare and social service infrastructures, it is anticipated that as this relatively young population ages and new immigrants acculturate, there will be additional burdens on the health care system.

Leading Health Indicators

Since 1979, the US Department of Health and Human Services has tracked a number of indicators of the nation's health. Healthy People: 2010 established national priorities around health and health care with the goals of increasing life expectancy and quality of life, while eliminating health disparities by race/ethnicity, gender, education, income, disability, geographic location or sexual orientation. Included with these priorities are 10 leading health indicators that are used to measure progress towards meeting the overall Healthy People: 2010 goals.[5] CVHPI examined overall health system performance in the region by comparing the national objectives for the 10 leading health indicators with current health status and indicators of change in the San Joaquin Valley and then comparing them to California and the nation.[1]

Table 2 summarizes overall results by comparing mean current indicator values for the San Joaquin Valley to California, the nation, the Healthy People 2010 target, and prior years. The findings provide little room for optimism that the San Joaquin Valley will meet the objectives. Currently, San Joaquin Valley residents have met the 2010 targets for adolescent tobacco use, adolescent immunization, and usual source of care for children and seniors. For each of the other indicators, where a comparison was possible, available data indicate little or no change and in some cases negative movement since prior available measures. The one exception to this pattern is that the rates of childhood, adolescent and elder immunizations improved in recent years.

Using conservative standards for drawing comparisons, Table 2 also indicates that health status in the San Joaquin Valley appears to be worse than for California as a whole on six of the indicators: adult overweight and obesity, adult tobacco use, motor vehicle deaths, air quality, flu shots for elders, and access to prenatal care. Specific data relevant to each of these comparisons are shown in Tables 3-6 and Figures 3-4. (Tables 3-6 and Figures 3-4 are located in the Appendix of this report.)

Beyond the general picture drawn by these findings, a number of areas need special attention. Although target objectives for mental health and responsible sexual behavior could not be measured directly by available data, there was evidence of problems with mental health services indicated by suicide rates that exceeded the state average, as well as high and growing rates of sexually transmitted diseases. Further, for these and most other indicators, when it was possible to conduct comparisons by race/ethnicity, insurance status, gender or urban/rural residence, the San Joaquin Valley counties showed disparate outcomes that mirrored or exceeded the group differences observed in state and national level sources.

In addition to the Healthy People 2010 measures, a number of other indicators underscore health status issues for the San Joaquin Valley. Health in the Heartland, reported rates of teen births and infant mortality that were higher than California as a whole, and excessive deaths in one or more of the region's counties from cancers, infectious diseases, diabetes, coronary heart disease and motor vehicle accidents.[6] This same pattern was also noted in the County Health Status Profiles 2006.[7] Figure 5 shows that all Valley counties, except for Madera County, had age-adjusted all-cause mortality rates notably higher than California as a whole. San Joaquin Valley counties also tended to have higher rates of diagnosed chronic conditions such as diabetes, hypertension, obesity, and asthma than most other parts of California.

Table 2

San Joaquin Valley Report Card for Meeting Healthy People 2010 Goals, 2003 [1]

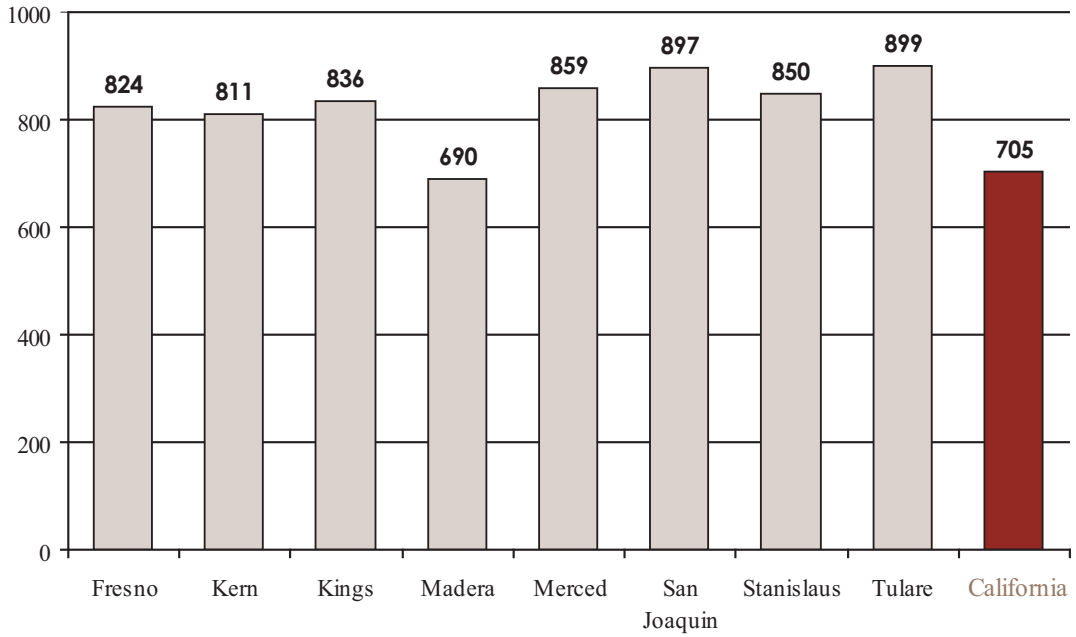
Health Indicator	San Joaquin Valley Compared with California	San Joaquin Valley Compared with the Nation	San Joaquin Valley Compared with *Healthy People 2010* Target	Progress since the *2003 Profile*
Physical Activity				
Adults	Similar	Similar	**Met Target**	No Comparable Data
Adolescents	Similar	Similar	Did Not Meet Target	No ComparableData
Overweight and Obesity				
Adults	**Worse**	No Comparable Data	Did Not Meet Target	No Change
Adolescents	Similar	Similar	Did Not Meet Target	No Change
Tobacco Use				
Adults	**Worse**	**Better**	Did Not Meet Target	No Change
Adolescents	Similar	**Better**	**Met Target**	No Comparable Data
Substance Abuse				
Adults - Binge Drinking	Similar	**Better**	Did Not Meet Target	No Change
Adults - Illicit Drug Use	No Comparable Data	No Comparable Data	No ComparableData	No Comparable Data
Adolescents* - Alcohol Use	Similar	**Better****	Did Not Meet Target	No Comparable Data
Sexual Behavior				
Adults - Condom Use	No Comparable Data	No Comparable Data	No ComparableData	No Comparable Data
Adolescents - Abstain/Condom Use	Similar	No Comparable Data	Did Not Meet Target	No Comparable Data
Mental Health				
Adults - Treatment for Depression	Similar	Similar	Did Not Meet Target	No Comparable Data
Injury and Violence				
Motor Vehicle	**Worse**	**Worse**	Did Not Meet Target	No Comparable Data
Homicide	Similar	Similar	Did Not Meet Target	No Comparable Data
Environmental Quality				
Air Quality	**Worse**	**Worse**	Did Not Meet Target	**Worse**
Second Hand Smoke	No Comparable Data	No Comparable Data	No Comparable Data	No Comparable Data
Immunization				
Childhood	Similar	Similar	Did Not Meet Target	**Better**
Adolescents	Similar	**Better**	**Met Target**	**Better**
Flu Shots	**Worse**	Similar	Did Not Meet Target	**Better**
Access to Health Care				
Health Insurance	Similar	Similar	Did Not Meet Target	No Change
Source of Care	Similar	Similar	**Met Target**	No Change
Prenatal Care	**Worse**	No Comparable Data	Did Not Meet Target	No Comparable Data

*Data on drug use was not available

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

Figure 5

Age Adjusted Death Rates, per 100,000 Persons, in the San Joaquin Valley and California, 2002-2004[7]



These findings not only indicate that the public health and healthcare systems in the region are not able to meet national health objectives, they also suggest that intensified public health resources will be needed to achieve progress in attaining national health guidelines, since little recent progress can be documented. They also point to the need for regional, broad-scale, and intensified public health efforts in the San Joaquin Valley to address some of the most daunting health challenges of the era, including overweight/obesity, tobacco and other substance use, depression and mental health services access, motor vehicle deaths, air quality and associated respiratory conditions, flu shots for elders, and access to prenatal and emergency services. As the region's population continues to grow, without new investments in infrastructure and services, one can only anticipate further disparities between the San Joaquin Valley and the rest of California.

Outmoded Public Health and Healthcare Financing

A major determinant of these negative indicators of healthcare and public health system performance in the San Joaquin Valley are current financing patterns. The region has lower public health spending and greater reliance on public healthcare financing (Medi-Cal, Healthy Families, etc.) but lower public reimbursement rates than other parts of California.

Public Health Spending: Public health investments at the county level in California are supported through multiple Federal, state and county sources. One of the largest sources of public health funding is derived from Realignment. This mechanism, established in 1991, transfers a portion of the sales tax, vehicle license fees, and State general fund to the counties, to fund a broad range of programs based on prior investments by the counties.

State Realignment funding is provided through two dedicated sources: .05% of the sales tax and 74.9% of Vehicle License Fees (VLF), which are deposited into the Local Revenue Fund. Realignment originally received 24.33% of VLF; however, when the total VLF was reduced in 2004, as part of the Local Government Agreement (SB 1096, Chapter 211, Statutes of 2004) the portion of the remaining VLF dedicated to Realignment was increased by a proportionate amount so that Realignment would continue to receive the same level of VLF funding.

The distribution formula for these funds is based on the 1991 percentage of population in poverty. The funds dedicated to physical health issues are divided into two general categories, Community Health and Indigent Health. However, each county may determine the use of the funds for the local health programs, so long as the use conforms to the historical patterns. Community Health Realignment, in general, is used to support programs such as immunizations, communicable disease control, public health nursing, some environmental health programs and administration. Indigent Health Realignment funds are, in general, used to offset the county obligation under Welfare and Institution Code 17000.

Separate from Realignment, each county has multiple contractual relationships with the State outlining the use of funds for categorically defined programs, and to pass through funding from the federal government. These can include Maternal and Child Health programs, HIV, Tuberculosis, and tobacco education, Black Infant Health, and many others depending on the identified needs. Counties are eligible for funds based on population, level of disease, historical funding patterns, or other methodology. Each county contract with the State (there can be anywhere from 25 to nearly 100 contracts in each county depending on the size and complexity of the county) has different reporting formats, standards, and timeframes which greatly increase the administrative overhead costs for each program, and negatively impact the funds available for direct service. Although the multiple and disparate contractual and programmatic requirements drive higher overhead costs in many cases, the state contracts also restrict the amount of overhead they are willing to reimburse. Therefore, in order to maintain the same level of service to the community, counties must subsidize these state and federal programs with more and more of their own scarce resources. This also creates "programs silos" which are not conducive to efficient administration.

Without entering into the extended and complex debate about the inequity of Realignment funds, and other contractual funding distribution, there is consensus that the relatively lower tax base, higher population growth, higher rates of poverty, and poor health outcomes in the San Joaquin Valley have exposed a long-term pattern of inadequate funding in public health, when compared with other regions of the state.

Table 7 shows total county expenditures on all non healthcare related public health services (health promotion, disease prevention, infectious disease monitoring etc) per low income resident in 2003-2004.[8,9] Some caution must be applied in comparing county expenditures for public health, because of differences in accounting and demographics. By comparing expenditures on the basis of population below the Federal Poverty Level, the table accounts for one of the most important demographic differences between state regions. The table shows that the San Joaquin Valley counties are spending less than other regions of the State. With about 5% of their total county budgets devoted to public health for both San Joaquin Valley counties and other regions of the state, these differences in expenditure levels are more reflective of variations in capacity to address public health concerns than political decision-making.

The comparisons in Table 7 also do not take into account the potential for economies of scale in public health initiatives. Important system components, such as public health laboratories, need to be developed and staffed, irrespective of county population or poverty rate. Large urban counties are better able to absorb these expenditures in their overall budgets.

As noted by the California Performance Review in 2005, completing multiple contracts has become unnecessarily burdensome, complex, and time-consuming for localities.[10] With lower overall budgets per population in poverty, and smaller total budgets compared to other regions of California, the contracting process between the San Joaquin Valley counties and the State assumes even greater importance.

Table 7

County Public Health Expenditures per Person in Poverty, 2003-2004 [9]

County Group	Expenditures per Person in Poverty
San Joaquin Valley (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare)	$260.87
Bay Area (Alameda, Contra Costa, Santa Clara, Marin, San Francisco San Mateo)	$1,126.81
Southern (Los Angeles, Orange, San Diego, Riverside, San Bernardino)	$325.93
Sacramento (Sacramento,Yolo, Solano)	$1,490.80
Central Coast (Ventura, Santa Barbara, SLO, Monterey)	$738.16

Uninsured/Underinsured: In California, as in the nation, healthcare services are financed through a complex array of employment-based insurance, public insurance (Medicare, Medi-Cal) and payments by individuals. As the economy has seen overall changes, and costs of healthcare have continued to grow, the proportion of US residents without employment-based health insurance and the proportion that are uninsured or under-insured have grown rapidly in recent years.[11,12] In the San Joaquin Valley, where a disproportionate number of workers are in low-wage and intermittent employment positions (notably in the agricultural, construction, service and retail sectors) compared to other parts of California, the percent of those without insurance or who are underinsured is particularly pronounced. Table 8 shows that the percentage of Valley children and adults lacking insurance for the full prior year (2002) was higher than for California as a whole. Although not shown here, young adults, low income persons, and all persons of color were most likely to be uninsured. This pattern was even more notable for rates of persons who were uninsured for part of the year. Lack of full-year insurance coverage creates challenges for individuals and for the healthcare system. Uninsured persons are less likely to have a usual source of care and more likely to experience poor management of chronic conditions. Under these circumstances, the uninsured are at greater risk for seeking health care when their conditions have deteriorated and require more healthcare resources to address those conditions.

Health care providers do not equally bear the burdens of providing care for the uninsured and under-insured. In the San Joaquin Valley, most care for persons without full-year insurance is provided through safety-net providers (community health centers, public clinics, public hospitals, and private safety net hospitals). Only community health centers, those clinics designated as rural or federally qualified clinics, or hospitals designated as disproportionate share providers, received federally enhanced revenue for the services provided. These revenues were historically based on reported costs of care.

The issues related to public health financing -- historically-based distribution of state contributions, lower overall and per-capita expenditures in the region, and burdensome contracting process -- also characterize this system and result in extraordinary financial burdens on the region's safety net providers. Public providers of care for the uninsured and under-insured also face administrative complexities associated with multiple categorical funding streams, for specific conditions, with inconsistent eligibility and coverage rules between programs. Mobile work forces in the region, where individuals change county of residence on a regular basis, also complicate the financing of care for the uninsured.

Table 8

The Percent of the Population Uninsured Part or all of Last Year by California Regions and Age Group, 2003 [14]

Region	% Uninsured by Age Group	
	0-17	18-64
San Joaquin Valley (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare)	12.2%	28.8%
Bay Area (Santa Clara, Alameda, Contra Costa, San Francisco, San Mateo, Sonoma, Solano, Marin, Napa)	6.0%	18.9%
Southern (Los Angeles, Orange, San Diego, Riverside, San Bernardino)	11.5%	28.5%
Sacramento (Sacramento, Placer, Yolo, El Dorado)	6.0%	18.2%
Central Coast (Ventura, Santa Barbara, Santa Cruz, San Luis Obispo, Monterey, San Benito)	9.2%	24.9%

Reliance on Public Healthcare Insurance: The San Joaquin Valley counties had 947,511 persons or 26.2% of their population enrolled in Medi-Cal in fiscal year 2003-2004. As shown in Table 9, this was a higher Medi-Cal enrollment rate than for California as a whole, where 18% are enrolled in this program.[13] Further, in the San Joaquin Valley, Medi-Cal enrollment does not ensure access to appropriate care because low reimbursements and administrative challenges reduce the willingness of the region's providers to serve this population. As with the uninsured, Medi-Cal clients are disproportionately served by safety net providers and these providers do not have sufficient resources to mount adequate levels of outreach and

educational programs, chronic disease management programming, and other programming that targets the particular needs of low-income patients. For example, a recent CVHPI analyses of birth records for the eight San Joaquin Valley counties for 2002-2004 show that Medi-Cal clients are significantly less likely to have the recommended levels of pre-natal care and experience more negative perinatal outcomes than those who are privately insured.[2]

In 2004, 69,443 or 13.8% of the region's Medi-Cal enrollees were aged, blind and disabled and 74% of these were individuals qualified for both Medi-Cal and SSI/SSP because of complex chronic diseases and associated disabilities.[15] Individuals with these complex health and functional status challenges historically have had more expensive patterns of service use and worse outcomes in the absence of programs that coordinate acute, long-term care, and supportive services on an ongoing basis. Unfortunately, the region does not have the resources or capacity to develop care management programs, to address the issues of chronic illness management and care, comparable to those in more urbanized counties of California.

Closely linked to the Medi-Cal challenges in the region, is the Valley's heavy reliance on the State Children's Health Insurance Program (SCHIP), called "Healthy Families" in California. Although about 80% of uninsured children in the region are eligible for this public insurance program, the program dis-enrolls three children for every four that are enrolled.[16]Counties in the region are experimenting with children's health insurance programs (Children's Health Initiatives or CHIs) to increase appropriate enrollment in existing programs and provide coverage for those children who do not qualify for public programs.

Table 9

Number and Percent of the Population Enrolled in Medi-Cal for San Joaquin Counties and California, Fiscal Year 2003-2004 [13]

	Population as of January 2004	# Enrolled in Medi-Cal	Percent of Population Enrolled in Medi-Cal
Fresno	862,600	255,416	29.6
Kern	724,900	183,416	25.3
Kings	141,400	29,148	20.6
Madera	135,300	34,733	25.7
Merced	232,100	69,965	30.1
San Joaquin	630,600	133,941	21.2
Stanislaus	491,900	111,627	22.7
Tulare	396,800	129,695	32.6
All San Joaquin Valley Counties	**3,615,800**	**947,511**	**26.2**
California	**36,144,000**	**6,514,384**	**18**

Currently, Fresno, Kern, San Joaquin and Stanislaus counties have working CHIs. Kings County plans to begin enrollment by the end of 2006. These initiatives are struggling to meet the demand and are dependent on philanthropy to fund gap-filling policies. Continued development of programs and further investment in enrollment management, to maximize children's access to appropriate health care, are crucial needs for low-income families in the San Joaquin Valley.

Low Reimbursement Rates: It is difficult to obtain comprehensive and comparable data on public and private insurance payments to Valley healthcare providers. Forensic accounting is required to develop a full picture of the relative healthcare reimbursement rates for the region. Yet, several sources do support the broadly shared view among providers that they are receiving payments that are disproportionately below their costs, compared to other regions of the state

Medi-Cal per enrollee payment levels were consistently lower in the Valley than for the state as a whole in 2001, and in the case of Merced County, almost 50% lower than the state average.[14] See Table 10. Further, as shown in Table 11, in 2004 the monthly average fee-for-service cost per user was lower for the Valley than other state regions.[17] These per user payment levels directly reflect lower reimbursement rates for services used, as well as differences in utilization patterns linked to other factors discussed here. Although new Medi-Cal initiatives seek to introduce mandatory managed care for enrolled children and families in Fresno, Kings, Madera, and Merced counties, historically low reimbursement rates in the region and an under-developed delivery system may not be able to manage this transition without serious upheaval. This approach may be even more dangerous for the most fragile of Medi-Cal enrollees, such as the aged, blind and disabled.

A recent Health System Change - Tracking Report noted that in comparing 2004/2005 to 1996/1997 data more physicians reported that they received no revenue from Medicaid and there was a small increase in the percentage of physicians who did not accept new Medicaid patients. The researchers noted a national trend for the care of Medicaid patients. Medicaid patients were increasingly restricted to a smaller proportion of physicians, mostly in large group practices, hospitals, academic medical centers and community health centers. Low payment rates and high administrative costs were given as contributors to decreased involvement with Medicaid among physicians in solo and small group practices.[18] Given the high reliance on Medi-Cal in the San Joaquin Valley, this trend becomes even more significant for residents who rely on Medi-Cal for health insurance.

The Medicare program is also a major payer for hospital care in the San Joaquin Valley counties. Hospitals in the region receive among the lowest Medicare fee-for-service reimbursements in the nation, and overall Medicare per enrollee fee-for-service rates are averaging 56-75% of average national rates. These low rates reflect patterns in amounts and types of care

Table 10

Medi-Cal Spending per Enrollee in the San Joaquin Valley, 2004[18]

County	Cost per Enrollee w/ DSH 2001	Cost per Enrollee w/o DSH 2001
Fresno	$2,564.84	$2,368.18
Kern	$2,609.24	$2,434.73
Kings	$2,653.04	$2,546.16
Madera	$3,001.53	$2,616.80
Merced	$1,982.71	$1,957.00
San Joaquin	$2,922.42	$2,826.66
Stanislaus	$2,669.85	$2,584.01
Tulare	$3,344.49	$3,339.97
California	**$3,990.94**	**$3,809.00**

Table 11

Monthly Average Cost per User for Medi-Cal Fee for Service by Region/County (COHS counties excluded) Jan. 2004 thru Dec. 2004[17]

Region/County	Monthly Average Cost per User
San Joaquin Valley (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare)	$492.92
Bay Area (Alameda, Contra Costa, Marin, San Francisco, Santa Clara)	$728.23
Sacramento County	$623.79
Central Coast (San Luis Obispo, Ventura)	$510.45
Southern (Los Angeles, Riverside, San Bernardino, San Diego)	$646.99

provided, rather than differences in the demographics of the aged or local prices for services. For a full discussion of this topic refer to: *Geographic Variation in Medicare per Capita Spending: Should Policy Makers be Concerned?*[20] It appears that as a reflection of supply problems, such as specialty practitioner shortages, high reliance on Medi-Cal, and high rates of persons going out of the region to obtain specialty care, that Medicare demand in the region is "deficient" and area providers are not receiving adequate funding to increase services, and thus stimulate appropriate demand. Further, as shown in Table 12 both Medicare fee-for-service (inpatient, nursing home, and outpatient) and Medicare managed care rates were lower for the Valley than for most other regions of California.[21]

Inadequate Infrastructure and Professional Shortages

One consequence of outmoded healthcare financing, and historical patterns of low investment in health in the San Joaquin Valley are notable inadequacies in the health care infrastructure and severe health professional shortages.

Infrastructure: As shown in the California Research Bureau 2005 report, the San Joaquin Valley has lower per capita availability of acute care and nursing home services. All Valley counties, with the exception of Madera, had lower hospital beds per population than the state. Madera's higher rate reflects the presence of a regional children's hospital.[3] Refer to Figure 6.

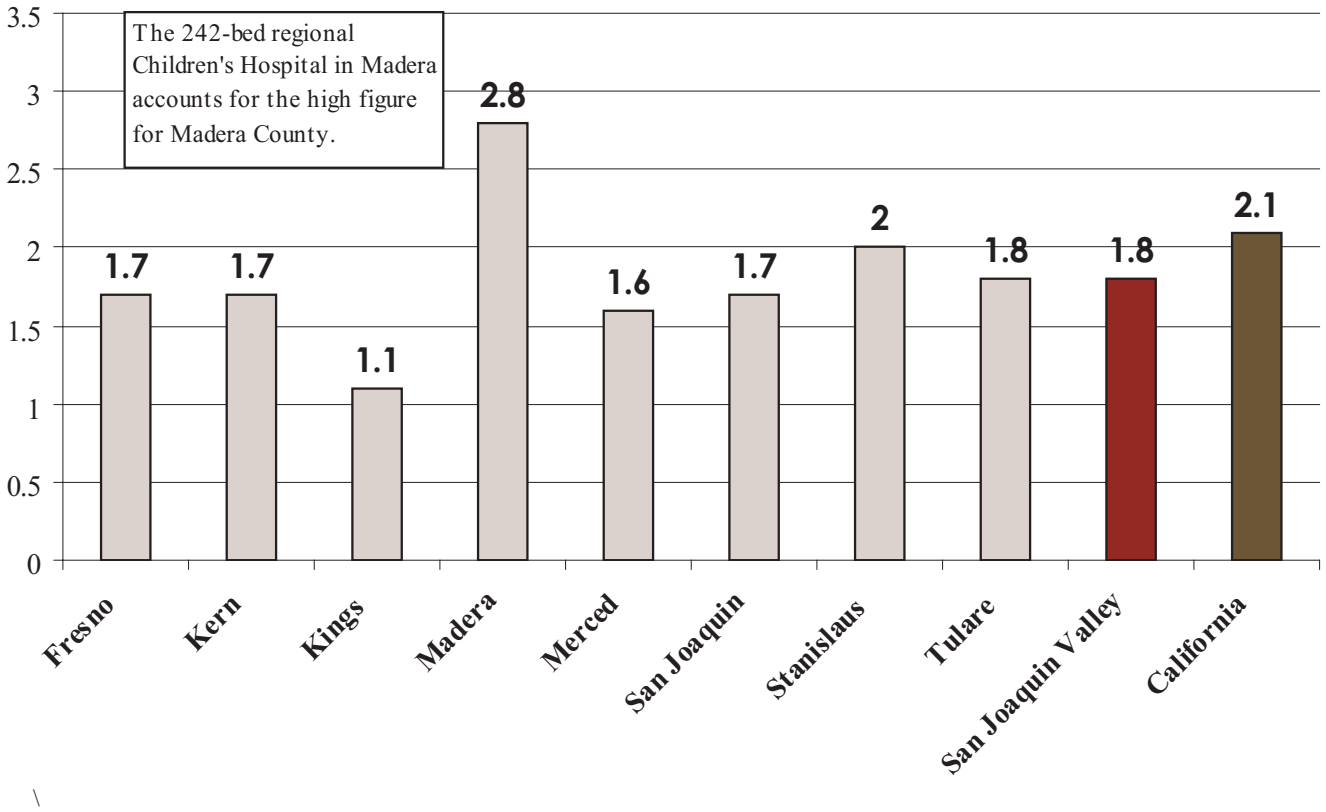
Table 12:

Standardized Fee for Service (FFS) Allowed Costs per Member per Month for Inpatient; Medicare Advantage (MA) Capitation Rates by California Region, 2006 [21]

Region	FFS/Inpatient	FFS/Skilled Nursing Facility	FFS/Outpatient	MA Monthly Capitation Rates	
				Part A	Part B
San Joaquin Valley (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare)	$278.57	$41.42	$358.58	$336.61	$324.72
Bay Area (Alameda, Contra Costa, Santa Clara, Marin, San Mateo)	$321.93	$51.96	$370.82	$403.82	$357.68
Sacramento (Yolo, Solano)	$275.82	$39.61	$350.61	$374.45	$331.66
Central Coast (Ventura, Santa Barbara, San Luis Obispo, Monterey)	$290.24	$41.24	$381.90	$374.46	$331.67
Southern (Los Angeles, Orange, San Diego, Riverside, San Bernardino)	$310.92	$46.45	$406.45	$418.51	$370.68
State Average	$293.32	$42.86	$371.71	$387.34	$343.08

Figure 6

Licensed General Acute Care Beds per 1,000 Persons in the San Joaquin Valley, 2000 [3]



There is increasing evidence that the safety net provider system in the region is facing extraordinary challenges in meeting population needs -- and population growth may be expected to exacerbate these problems. For example, a recent survey of the Federally Qualified Health Centers in the region revealed a number of factors that clinic administrators view as limiting their capacity to meet the needs of their clients. Participants were asked to rate the importance ("not important" to "extremely important") of a variety of clinic, patient and access issues in limiting the clinic's ability to provide health care to their target population. Table 13, summarizes their responses. Note that no participants rated any issue as "not important". There were mixed results regarding the importance of transportation problems and access to pharmacy services, although the majority of clinics rated those issues as "very important" or "extremely important".[22]

Health Professional Shortages: The San Joaquin Valley was notably underserved compared to California and the nation on several indicators involving the health professional workforce. All eight San Joaquin Valley Counties have Medically Underserved Areas/Populations (MUA/P) designations, with Madera County listed as a county-wide MUA/P. These counties also experience shortages in dental, mental health and primary care professionals, as determined by the United States Health Resources and Services Administration, Bureau of Health Professionals. Six out of the eight Valley counties have county-wide mental health professional shortage area designations.[23] These health professional shortages create access challenges for all residents, but those who are uninsured or dependent on public insurance programs are perhaps the most impacted.

Table 13

Percentages and Number (n), by Importance, of Clinic Issues in Limiting the Ability to Provide Health Care [22]

Issue	Not Important	Somewhat Important/ Important	Very Important/ Extremely Important
Site Limitations (building size, location, etc.)	0% (0)	0.0% (0)	100.0% (8)
Prescription Medication Costs	0% (0)	12.5% (1)	87.5% (7)
Funding	0% (0)	12.5% (1)	87.5% (7)
Transportation Problems	0% (0)	25.0% (2)	75.0% (6)
Access to Pharmacy Services	0% (0)	37.5% (3)	62.5% (5)
Support Staff Shortages	0% (0)	50.0% (4)	50.0% (4)

Teh survey of Federally Qualified Health Centers in the region also found that all sites rated access to specialists and site limitations as "very important" or "extremely important". All but one clinic rated medical referrals as difficult "most of time or almost always". The majority of clinics also rated substance abuse, mental health and case management referrals as difficult "most of the time or almost always". A majority of the clinics reported that their uninsured patients had difficulty accessing specialists in the 20 listed specialties "half or more than half of the time", except for nephrology. An equal percentage of clinics reported difficulty with referrals to specialists in seven out of the 20 listed specialties for their Medi-Cal and uninsured patients "half or more than half of the time". In fact, more clinics reported referral difficulties for their Medi-Cal patients, than their uninsured patients, for dermatology, otolaryngology and pediatric dermatology specialties.[22]

The Central Valley Health Policy Institute used data from the American Medical Association[24] and California Department of Finance[25] population data to compute physician rates per 100,000 persons as of December 2005 (Table 14). The San Joaquin Valley experienced greater shortages for all physicians, primary care physicians and specialty physicians than any other region in the state.

Table 14

California Physicians, per 100,000 Persons, by Region and Statewide [24,25]

Region	Total Estimated Population	Total Physicians	Rate per 100,000 Persons
Northern/Sierra Counties	1,391,273	3,141	226
Sacramento Area	2,036,680	6,316	310
Greater Bay Area	7,096,848	29,427	415
San Joaquin Valley	3,730,194	6,467	173
Southern California	20,319,653	59,816	294
Central Coast	2,235,983	6,128	274
California	36,810,631	111,295	302
		Primary Care Physicians*	
Northern/Sierra Counties	1,391,273	1,490	107
Sacramento Area	2,036,680	2,688	132
Greater Bay Area	7,096,848	12,067	170
San Joaquin Valley	3,730,194	3,243	87
Southern California	20,319,653	24,323	120
Central Coast	2,235,983	2,588	116
California	36,810,631	46,399	126
		Specialists**	
Northern/ Sierra Counties	1,391,273	772	55
Sacramento Area	2,036,680	1,803	89
Greater Bay Area	7,096,848	8,690	122
San Joaquin Valley	3,730,194	1,608	43
Southern California	20,319,653	17,502	86
Central Coast	2,235,983	1,767	79
California	36,810,631	32,142	87

* Includes family medicine, family practice, general practice, general preventative medicine and public health, internal medicine, obstetrics and gynecology, pediatrics

** Selected specialists based on those with the most problematic access for uninsured as reported by the California Healthcare Foundation. Specialties included are Specialists include: Allergy/immunology; dermatology; endocrinology, diabetes & metabolism; gastroenterology; nephrology; neurology; occupational medicine; orthopedics and sports medicine; otolaryngology; neurological surgery; physical medicine and rehabilitation; psychiatry; pulmonary conditions; surgery (other than vascular surgery); urology; vascular surgery

All San Joaquin Valley counties, except for Stanislaus, also had rates of registered nurses (RN) per population below the state average in 2001. The Southern/Central San Joaquin Valley (Merced, Madera, Fresno, Kings, Tulare, and Kern) had one of the lowest rates of RNs in the country – 407 per 1000 residents, according to The California Endowment.[26] A recent report from the California Institute for Nursing and Health Care calculated a national average number of filled RN positions (both full-time and part-time) at 787 per 100,000 persons and compared that average to California and 24 metropolitan statistical areas (MSAs) in California. They used a grading rubric based on the number of standard deviations a state, or MSA, was from the national mean. All six San Joaquin Valley MSAs included in the analysis were below the national mean, with four out of the six MSAs receiving grades of D or F due to their averages being one or more standard deviations below the national mean. Those same four MSAs (Bakersfield MSA, Merced MSA, Stockton-Lodi MSA, and Visalia-Tulare-Porterville MSA) were also below the state average of 622 per 100,000 filled nursing positions.[27] (Table 15)

Table 15

Number of Filled RN Positions, per 100,000 Persons, in Selected MSAs, California and the United States [27]

Location	Component CA Counties	Filled RN Positions per 100,000
Bakersfield MSA	Kern	345
Fresno MSA	Fresno, Madera	632
Merced MSA	Merced	257
Modesto MSA	Stanislaus	660
Stockton-Lodi MSA	San Joaquin	533
Visalia-Tulare-Porterville MSA	Tulare	429
California	All	622
National Mean	N/A	787

Similar patterns can be observed for dentists, mental health practitioners and the spectrum of allied health professionals. For example:

- The ratio of dentists to residents is 48 per 100,000 versus 80 per 100,000 in California statewide.
- The ratio of mental and behavioral personnel is 94 per 100,000 versus 327 per 100,000 in California.
- Only 19 child psychiatrists currently practice in the San Joaquin Valley, but the national standard is 14.8 per 100,000 persons.

Health professional shortages also impact the capacity of public health programs in the eight San Joaquin Valley counties to meet needs. Among the most difficult health professionals to recruit and retain are Public Health Physicians, Public Health Laboratory Directors, Public Health Microbiologists, Public Health Nurses, Health Educators and Epidemiologists. One current example of problems with staff recruiting and retention is the Kern County Department of Public Health in Bakersfield. The Public Health Laboratory has been operating for nearly two years without a qualified Laboratory Director. The "Grandfather" clause of the California Laboratory licensure regulations allowed an existing Public Health Microbiologist, hired prior to 1990 and without a Ph.D., to fill that position "temporarily". That person has since retired and Kern County is recruiting to fill this critical vacancy. The position of Public Health Laboratory Director has been open for two years without a single qualified applicant. Public Health Microbiologist positions, which were vacant for several months, have been filled with trainees, paid for with special funding from Bioterrorism Preparedness funds.

The economic impact of health professional shortages is reflected in the increased costs of importing professionals (e.g. locum tenens physicians and traveling nurses) and the loss of local healthcare revenue to areas with available specialty services. A recent health policy report from The Center for Health Services Research at the University of Tennessee discusses the relationship between health and development: health as an economic engine. The report also noted that the poor health status of a community influences its economic development by reducing personal productivity, in both adults and children, and has general community consequences by reducing external investment and tourism. The workforce response is high employee turnover and the loss of skilled workers.[28]

It is not entirely clear why the San Joaquin Valley counties are not able to attract and retain an adequate healthcare and public health workforce. Traditionally, relatively lower costs of living in the region helped to attract such workers even at lower salaries than in other communities. Currently, increasing costs of living, concerns about air quality and other quality of life components, and a perception that practitioners may find themselves either isolated from their colleagues or struggling financially, because of low reimbursements and high rates of uninsured/publicly insured patients, have also been cited as factors in attracting and retaining health professionals. Also noted by many have been lower rates of high school completion, lower academic performance among high school graduates, and lower rates of college or graduate school attendance than other parts of the state. These factors combine with the absence or constrained availability of medical, allied health, and public health training opportunities in the region to produce relatively fewer new professionals with strong ties to the region. Recent discussions have emphasized the need for new investments in training health professionals who may be expected to stay in the region, but the potential benefits of such initiatives will take several years to be realized.

RECOMMENDATIONS FOR ACTION

The findings and analyses provided above provide clear evidence that the San Joaquin Valley healthcare and public health systems are lacking sufficient resources to ensure the health of the region. As the region's population increases and ages, the capacity of the healthcare and public health systems to meet needs will become even more sharply stressed if we don't rapidly initiate a set of longer term actions. This is not just a concern for health and public health professionals or advocates; it is also part and parcel of the economic development challenges facing the region. The Valley may be sacrificing its pool of workers, some facing chronic illness and disability because of inadequate health care access, and many others making career choices that take them out of the region to areas with better services. The Valley is also losing opportunities to attract new businesses and new investment in existing businesses concerned with the quality and affordability of health services, as one component of quality of life. Meeting this present challenge and looming future crisis in healthcare and public health requires solutions in three broad areas: public health and healthcare financing, health professional shortages, and healthcare and public health infrastructure.

Improve Public Health and Healthcare Financing

The outmoded pattern of healthcare and public health financing that creates such daunting challenges for the San Joaquin Valley needs to be addressed within a national and state context of financing reform. In this region, healthcare and public health financing problems are exacerbated by population poverty and mobility and historical neglect for the health needs of rural and inner city residents.

Addressing the public health financing disparities that distinguish the Valley from the remainder of the state will also require new attention to competing regional interests. While it may not be practical or politically feasible to re-allocate existing funding among California's regions, a number of actions might be taken to direct new funding to counties with greater need and to reduce the administrative burden associated with current contracting approaches.

1. Revise and streamline the procedures for counties contracting with the state for public health functions. The proposals for streamlining the public health contracting process developed by the California Performance Review in 2005 and the recommendations of the County Health Executives Association of California (CHEAC) in August 2006 should be incorporated in this new approach; including:
    a. Establish a simplified administrative framework for managing categorical funding for the delivery of public health programs administered by the recently approved California Department of Public Health (DPH).
    b. Standardize program administrative requirements.
    c. Standardize and simplify public health program invoicing.
    d. Maximize the use of public health resources (local and state) through the reduction of the administrative burden, more effective use of staff across programs to address complex inter-related issues and focusing on outcomes not process.
    e. Standardize and consolidate program information reported to DPH, assuring strict accountability to meet funding requirements.

2. Develop a point rating system to be used by state agencies to provide a mechanism to enhance review and consideration of funding awards and grants to Valley health proposals. The goal in using such a system would be to direct any new public health funding to counties with lower current budgets per population in need, rather than on the basis of historical patterns of local investment. New categorical funding could be directed to jurisdictions based on health indicator data, not just on current budgets and population.

3. In the longer run, growth funds generated through increases in revenues related to sales tax or VLFs could be used to augment existing allocations. This supplemental funding could be directed to counties with lower current budgets per population in need though the proposed new bonus point rating system.

Addressing the healthcare financing challenges faced by the San Joaquin Valley will require significant local innovations but will also be dependent on the progress of national and state efforts to re-engineer outmoded healthcare financing mechanisms. In the short run, policy makers and advocates concerned with the Valley need a better understanding of how healthcare dollars flow into our communities and how they are deployed. The application and eligibility systems for public insurance can also be made both more efficient and more user-friendly. In the long run, the Valley needs state support and encouragement to develop and explore innovations in healthcare financing and organization.

4. Fund and implement single entry point and single application eligibility determination systems for all publicly-sponsored health insurance and service access programs. Experiences with Children's Health Initiatives (CHI) in several Valley counties have underscored the need for more efficient and user-friendly mechanisms for benefit application and eligibility determination. Information gleaned from CHI efforts could be used to improve the application process for all age groups. In many cases, the single entry point and single application approach has been shown to be a powerful tool for improving this process, but many potential sites for application and eligibility determination do not have the resources and training needed to utilize these tools.

5. Request the development of a regional healthcare financing needs assessment. This systematic study and report can serve as a resource to determine regional healthcare financing needs. The project could adopt a forensic accounting approach to identify (public and private) funding streams and expenditures for health and health related services in the San Joaquin Valley, as compared to other regions of California. The goal of the report would be to provide decision-makers with a complete understanding of the system of policies and procedures associated with the distribution of public financing, the equity of current distributions in relation to population size and demographic features (poverty, rurality etc.) and describe options for achieving more equitable and responsive financing.

6. Develop a regional consensus plan for addressing the needs of the uninsured and under-insured. Development of this regional consensus plan could be funded through the California Partnership for the San Joaquin Valley or through a combination of state and philanthropic support. The regional consensus planning could address the feasibility and potential impacts of alternative proposals.

   The concepts that might be explored include:
   a. Pooling small business, agricultural, and other business payments with public funds to directly finance expanded access by the uninsured to safety net and other providers. A shared responsibility approach, including an individual mandate to include some kind of health insurance or standardized pre-payment for expanded access, could be examined. Other models for increasing access to appropriate care for uninsured persons could be considered in the unique context of the region.
   b. Increasing the amount of Federal assistance for Medi-Cal in the region through a waiver to support a separate (higher) Federal Medical Assistance Percentage (FMAP) for the San Joaquin Valley. The additional matching funds should be used to develop medical resources and comprehensive coverage for low-income population in the San Joaquin Valley.
   c. Exploring a more complex, large scale integration of federal and state funding and delivery. This might include state support for a Federal waiver to consolidate Medicaid (Medi-Cal) and S-CHIP (Healthy Families), while re-directing eligibility and outreach funds into services. Plan benefits and case management could be linked to existing Healthy Families plans. Current Disproportionate Share Hospital and Federally Qualified Health Center funding could be factored into the calculations of payment level, along with any existing county match. The California Children's Services and Mental Health/Substance Abuse programs could be carved out of the plan benefits, with the expectation that clearly defined agreements will be in place to close any potential service gaps. A simplified eligibility would be developed, similar to the self-declaration Child Health and Disability Prevention program, and all persons under 300% of Federal Poverty Level would be enrolled and remain enrolled for one year intervals

Address Health Professional Shortages

As with the healthcare and public health financing challenges, finding solutions to the health professional shortages, that limit the availability and quality of current health services for Valley residents, will require both short-term efforts and longer term approaches. In the short run, we need to find new ways to attract and retain health professionals, while making better use of existing professionals. In the longer run, we need to prime the healthcare professional training pump through improvements in secondary education and expanded health professional training opportunities.

A number of actions might address the most critical shortages of public health professionals:

7. With state-supported intervention and financial incentives, modify existing regulations and county policies to permit a regional approach to Public Health Laboratories. Such a regional approach might include specialization of functions in some county facilities or shared funding for key positions. A regional public health laboratory plan might also include dedicated state funding for recruiting and retaining public health professionals to assist San Joaquin Valley public health programs. Efficiencies achieved through regionalization of public health laboratories might also be used to finance training stipends to allow on the job training, internships and student fellowships for those who work in San Joaquin Valley Health Departments, hospitals or clinics, and/or financial incentives for recruitment and retention of difficult to recruit public health professional classifications (e.g., direct subsidy, tax credits, higher reimbursements, educational loan forgiveness). To help maintain the current public health workforce, modify the baseline pay rates at all levels of public health to be competitive and more closely aligned with private sector rates.

8. Make state funded scholarships and training opportunities available to residents of the San Joaquin Valley from the recently funded California Department of Health Services (CDHS), Public Health Laboratory Director Training Program. Additionally, provide waivers of county stipend requirements for the region's health departments' to participate in CDHS sponsored training programs which include:

    - Public Health and General Preventive Medicine Residency Program (PMRP) – is a two year accredited training program to prepare physicians for leadership positions in California local and state health agencies ($55,000 per stipend and $3,000 for travel costs).
    - California Epidemiologic Investigation Service (Cal-EIS) Training Program is a one-year training program that provides epidemiologists with experience in epidemiology and public health practice during placements with governmental health agencies in order to prepare them for leadership roles in public health departments ($40,000 per stipend and $3,000 for travel).

Similarly, a number of actions could support better use of existing healthcare professional resources.

9. Seek several modifications of existing professional practice standards to increase the allowed duties of existing paraprofessional classifications (such as dental hygienists) and professional classifications (such as nurse anesthetists). Similarly, practice standards could relax the requirement for out-of-state dentists to practice five years before being eligible for California licensure.

10. Seek regulatory changes to expand the range of reimbursable behavioral health services.

11. Seek legislation to fund and support implementation of a San Joaquin Valley Promotora Academy. The academy would recruit, train, finance placement, and supervise a new cadre of allied health professionals and paraprofessionals (community health workers, promotoras de salud, community health educators, etc.) that could assist existing health professionals in more efficiently managing perinatal services and chronic disease. These new paraprofessionals would be trained in evidence-based approaches to disease prevention and management. Their presence could be used to propel delivery of care consistent with national guidelines and expand the use of electronic medical records.

12. Seek support through the California Partnership for the San Joaquin Valley to develop and advocate for changes in Federal Health Professional Shortage Area (HPSA) rules. This might include changes in the HPSA scoring methodology to accurately reflect the need in the San Joaquin Valley. The urban/rural mix in the Valley has confounded HPSA calculations for health professional shortages. Alternatively, seek Federal legislation and waivers to develop a Valley-wide HPSA that will allow increased access to federal and state loan repayment programs, while waiving the required match for State loan repayment programs.

In the longer term, addressing health professional shortages will require increasing the number of young people with the backgrounds and passions to seek health professional training and provide services in the Valley. Renewed support for programs such as the Health Careers Opportunity Program and new investments in secondary school biological science, technology, and health careers programming. These investments would increase the potential for other efforts in health professional education. Among the most important long term proposals in this area are:

13. Expand capacity at all University of California/California State University campuses to train Masters of Public Health candidates (including MPH level physicians), public health nurses, medical microbiologists, clinical laboratory scientists, health educators and epidemiologists. Create a regional network of community-based training sites utilizing health departments, local hospitals and clinics.

14. Develop a School of Medicine at the U.C. Merced campus as soon as possible, to expand educational opportunities for Valley students interested in healthcare and public health as a career. A medical school in the region could emphasize public health and healthcare programming, directed to the special concerns documented here, and could also include a specific focus on preparing physicians for roles in public health and healthcare for underserved populations.

Develop Healthcare and Public Health Infrastructure

Due to current gaps in health infrastructure in the region and expected population increases and aging, the San Joaquin Valley needs to act now to promote development of new healthcare services and systems. The most pressing needs are for services in remote rural and mountain areas and in inner-city locales where under-served populations are concentrated. Two proposals for infrastructure development appear most promising.

15. Building on the Governor's proposal for expanding the use of medical informatics technology, the San Joaquin Valley could be targeted as the technology incubator for future development of electronic medical record (EMR) technology, telemedicine, voice over internet program (VOIP) technology, video translation and related new ideas. Focusing state investments in medical informatics technology development in the region could make it a more attractive place to practice medicine, address the specialty physician shortage, and, most importantly, generate private investment in the healthcare infrastructure in the region. In the longer run, further development of these technologies would allow easier access to patient information from a variety of locations, reduce medical errors, and support improved coordination among health providers.

16. Establish medical "enterprise zones" throughout the region that offer tax credits and other financial incentives for providers to retain, open and expand services to underserved populations. Tax credits could favor the development of new facilities and exempt earnings, associated with care for Medi-Cal and indigent care patients, from taxation. Tax credits or other financial incentives could be directed toward recruitment of shortage professionals or promote expansion of "brick and mortar" healthcare facilities.

[a]CVHPI has published a number of reports that together offer a compelling overview of the unique health and healthcare challenges facing the region. Among those reports accessed for this briefing paper are: *Health Professional Shortages in the San Joaquin Valley: the Impact on Federally Qualified Health Clinics*, (Riordan and Capitman, 2006), *Healthy People 2010: A 2005 Profile of Health Status in the San Joaquin Valley*, (Bengiamin et al., 2005); *Medi-Cal Redesign: Implications for the San Joaquin Valley*, (Capitman et al., 2005); *Health in the Heartland: The Crisis Continues*, (Diringer et al., 2004); and *Healthy People 2010: A 2003 Profile of Health Status in the Central San Joaquin Valley*, (Perez and Curtis, 2003). All of these reports, and other publications of the Institute that are relevant to the work of the California Partnership for the San Joaquin Valley can be accessed through the CVHPI web-site at www.cvhpi.org.

REFERENCES

1. Bengiamin, M., Capitman, J.A., Paul, C.M., Riordan, D.G., and Curtis, K.A. (2005). *Healthy people 2010: A 2005 profile of health status in the San Joaquin Valley*. Fresno, CA: California State University, Fresno.

2. Capitman, J., Bengiamin, M., Curtis, K., and Iqbal, S. (2005, April 21). *Birth patterns in the San Joaquin Valley: Adequate care and pre-term births*. Presentation at 26th Annual California Research Symposium: California State University, Fresno.

3. Umbach, K. (2005). *San Joaquin Valley: Land, people, economy*. Sacramento, CA: California Research Bureau, California State Library.

4. Congressional Research Service. (n.d.). *California's San Joaquin Valley: a region in transition.* Retrieved December, 2005 from: www.house.gov/nunes/documents/ San_Joaquin_Valley_CRS_Report.pdf

5. U.S. Department of Health and Human Services. (2000, November). *Healthy people 2010: Understanding and improving health* (2nd ed.). Washington, DC: U.S. Government Printing Office. Retrieved February, 2005 from: http://www.healthypeople. gov/document/

6. Diringer, J., Curtis, K.A., Paul, C.M., and Deveau, D. R. (2004). *Health in the Heartland: The Crisis Continues*. Fresno, CA: California State University, Fresno.

7. California Department of Health Services and California Conference of Local Health Officers (2006). *County health status profiles 2006*. Retrieved April, 2006 from http://www.dhs.ca.gov/hisp/chs/OHIR/reports/healthstatusprofiles/2006/profiles.pdf#search='County%20Health%20Status%20Profiles%202006'

8. Insure the Uninsured Project (2006). *48 California Counties: Demographics 2003*. Retrieved January 2006 from http://itup.org/reports.html#uninsured

9. Office of the California State Controller (2006). *Counties Annual Report for Fiscal Year ending June 30, 2004*. Sacramento, CA: State of California.

10. California Performance Review Recommendations retrieved August 10, 2006 from http://cpr.ca.gov/report/cprrpt/issrec/hhs/hhs12.htm

11. Hadley J., Cravens, M., Coughlin, T., Holahan, J. (2005). *Federal spending on the health care safety net from 2001-2004: Has spending kept pace with the growth in the uninsured?* KCMU, November 2005, Publication #7425

12. Holden, J., Cook, A. (2005). *Changes in Economic Conditions and Health Insurance Coverage, 2000-2004*. Health Affairs Web Exclusive, November 1, 2005.

13. California Department of Health Services, Medical Care Statistics Section. (n.d.). *Medi-Cal beneficiary counts as a percent of population by county for fiscal year 2003-2004*. Available at: http://www.dhs.ca.gov/admin/ffdmb/mcss/RequestedData/Population/FY2003-04%20Eligibles%20as%20a%20Percent%20of%20Population.htm. Retrieved April 26, 2005.

14. UCLA Center for Health Policy Research. (2005). *2003 California health interview survey* [Data Files]. Available from http:// www.chis.ucla.ed

15. Medi-Cal Care Statistics Section, California Department of Health Services. (2005). *2005 Medi-Cal managed care expansion-aged, blind, disabled and long term care population*, Table 3, Pg 6, January 31, 2005. Retrieved April, 2005 from http://www.dhs.ca.gov/mcs/mcpd/MCReform/PDFs/SeniorsanddreportRevised- 1.8.pdf.

16. Managed Risk Medical Insurance Board, State of California. *Healthy Families Program monthly enrollment reports*. Retrieved September, 2006 from http://www.mrmib.ca.gov/MRMIB/HFPReports1.shtml

17. California Department of Health Services Fiscal Forecasting and Data Management Branch. (n.d.). *Calendar year 2004 Medi-Cal services and expenditures complete month of payment report.* Retrieved August 9, 2006 from: http://www.dhs.ca.gov/MCSS/RequestedData/MOP_Full/CY2004/mop_CY%202004%20full%20Adobe.htm

18. California HealthCare Foundation. (n.d.). Medi-Cal County Data. Retrieved April 26, 2005 from http://www.chcf.org/topics/medi-cal/index.cfm?subsection=county.

19. Cunningham P, and May J. (2006, August). Medicaid patients increasingly concentrated among physicians. *Health Systems Change Tracking Report*, No. 16, August 2006

20. Gold, M. (2004). *Geographic variation in Medicare per capita spending: Should policy makers be concerned?* Mathematica Policy Research Inc., Policy Synthesis Report #6.

21. Centers for Medicare and Medicaid. Medicare Advantage Rates and Statistics. Retrieved August 9, 2006 from: http://www.cms.hhs.gov/MedicareAdvtgSpecRateStats/RSD/itemdetail.asp?filterType=none&filterByDID=-99&sortByDID=1&sortOrder=ascending&itemID=CMS023375

22. Riordan, D.G., Capitman, J.A. (2006). *Health professional shortages in the San Joaquin Valley: The impact on federally qualified health clinics*. Fresno, CA: California State University, Fresno.

23. Healthcare Workforce and Community Development Division. (2005). *Health professional shortage area and medically underserved area/population.* Sacramento, CA: Office of Statewide Health Planning and Development.

24. American Medical Association (2005, December 16). *Physician-related data resources*. Retrieved February 27, 2006 from http://www.ama-assn.org/cgi-bin/sserver/datalist.cgi?State=CA

25. State of California, Department of Finance, (2005). *E-1 city / county population estimates with annual percent change — January 1, 2004 and 2005.* Retrieved February 28, 2006 from http://www.dof.ca.gov/HTML/DEMOGRAP/E-1text.htm

26. The California Endowment. (2002). Fact sheet: Central Valley nursing work force diversity Initiative project background. Available at http://www.calendow.org/news/press_releases/2002/special/press032702/issuebkgrnd.stm

27. Lin V.W-H., Lee A., Juraschek S., Jones D., Hsiao I. (n.d.). *California registered nurse regional workforce report card*. Retrieved May 2006 from http://www.cinhc.org/news/documents/CINHCreport_finalWeb.pdf

28. Mirvis, D.M., Chang, C.F. (n.d.). The relationship between health and development: Health as an economic engine. *Health Policy Reports*. The Center for Health Services Research, The University of Tennessee. Retrieved August, 2006 from http://www.utmem.edu/CENTER/HealthPolicyReports/EconomicEngine.pdf

APPENDIX

Table 3

Overweight and Obesity by Age Group
San Joaquin Valley and California, 2001 and 2003[1]

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

* *Statistically unstable*

Figure 3

Percentage of Current Adult Smokers in the San Joaquin Valley and California, 2001 and 2003[1]

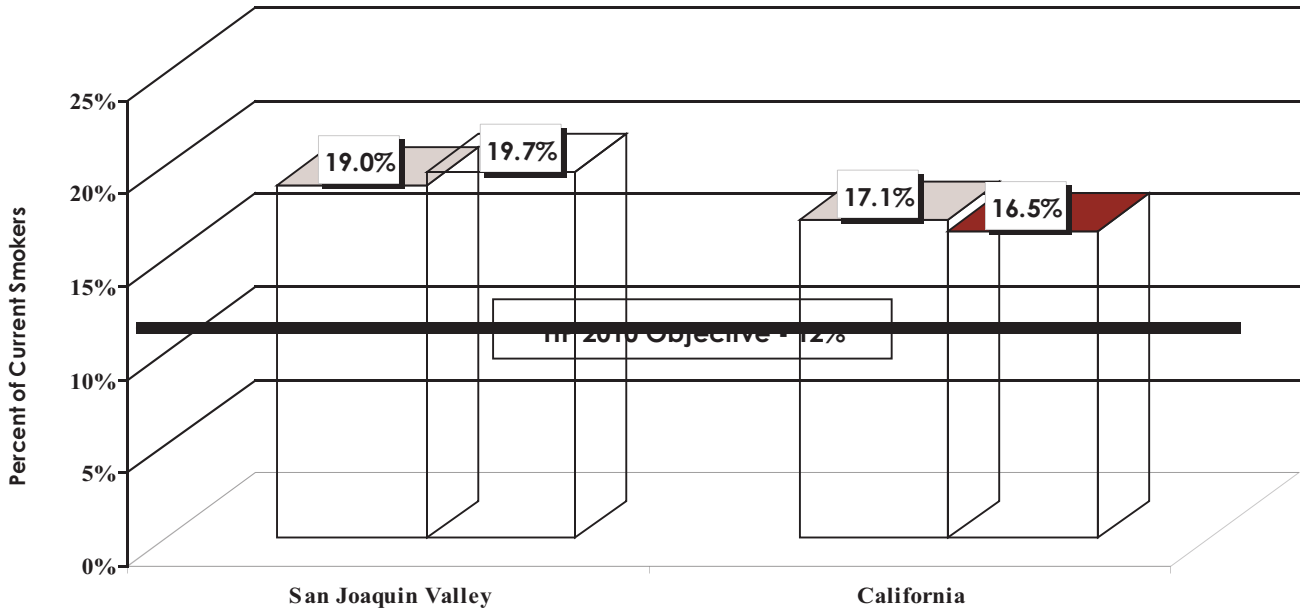


Table 4

Death Rates from Motor Vehicle Accidents and Homicide In the San Joaquin Valley and California, Averaged 2001-2003 [1]

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

**MVD = Motor Vehicle Deaths*

Table 5

Number of High Ozone Days per Year by County, San Joaquin Valley, 2003 and 2004 [1]

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

Figure 4

Adults, Age 65 and Over, Who Had a Flu Shot in the Past 12 Months, 2001 and 2003[1]

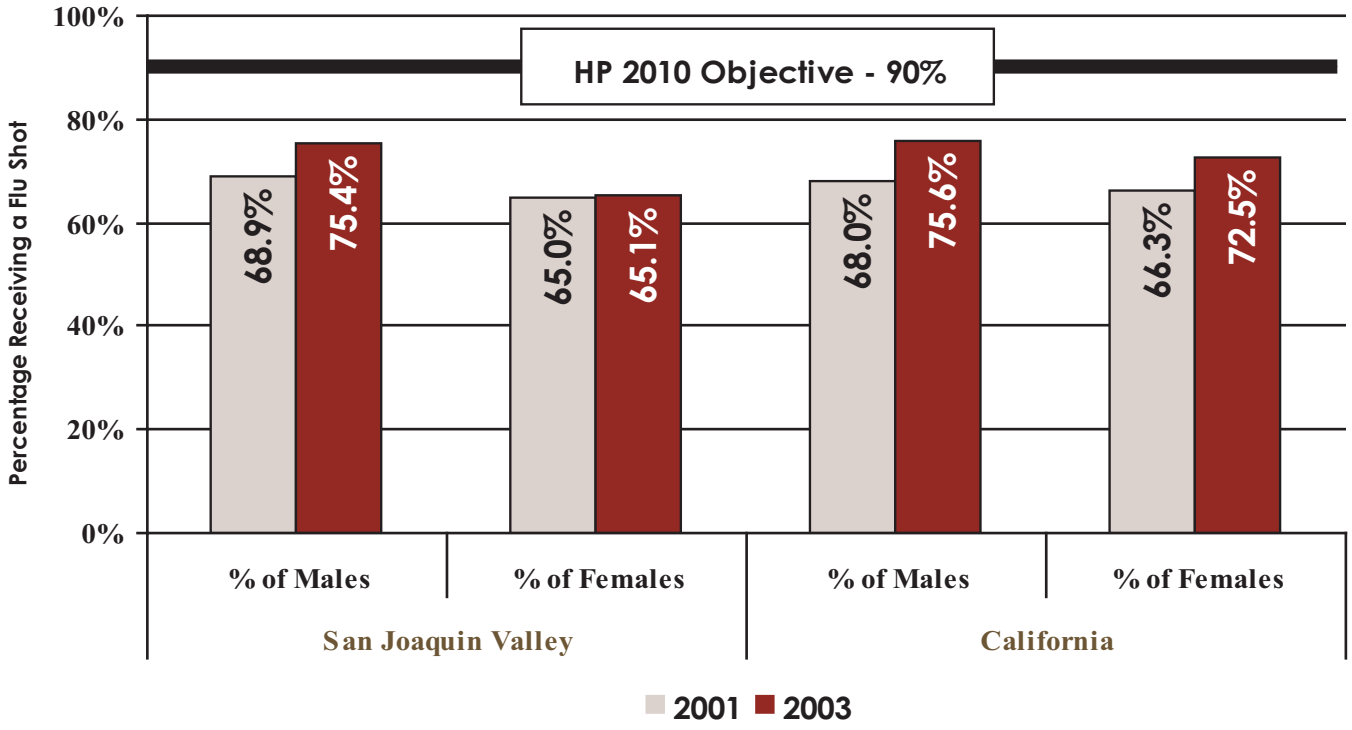


Table 6

Demographic Characteristics and Adequacy of Prenatal Care in the San Joaquin Valley, 2003[1]

Demographic Characteristics	Total Number of Births	% of San Joaquin Valley Births	% Receiving Adequate Pre-Natal Care*
Ethnicity			
White	14,170	23.3%	81.2%
African American	3,021	5.0%	71.7%
Asian/Pacific Islander	4,231	7.0%	75.3%
Hispanic/Latino	38,737	63.7%	70.5%
Mother's Age			
Under Age 20	8,788	14.5%	66.7
20 and Older	52,015	85.5%	76.7
Mother's Education Level			
Less Than High School	14,935	24.6%	69.8%
High School Grad	26,575	43.7%	73.4%
Some College - Graduate Degree	19,293	31.7%	82.0%
County Data			
Fresno	14,720	24.2%	88.3%
Kern	12,085	19.9%	72.6%
Kings	2,311	3.8%	72.7%
Madera	2,147	3.5%	77.9%
Merced	4,030	6.6%	56.0%
San Joaquin	10,162	16.7%	65.5%
Stanislaus	7,929	13.1%	73.0%
Tulare	7,419	12.2%	79.8%
San Joaquin Valley	**60,803**	**100.0%**	**75.2%**
Payment Source			
Medi-Cal	33,469	55.0%	71.0%
Other Public	327	50.0%	67.6%
Private/HMO	25,127	41.3%	82.3%
All Others	1,880	3.1%	58.1%