

Border County Health Workforce Profiles:



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Preface

A unique characteristic of the United States (U.S.)-Mexico Border region is the magnitude and diversity of the human capital residing within its boundaries. On the U.S. side, the four Border States were home to 65 million people in 2003, over one-fifth (22.4 percent) of the population of the country. About 6.9 million of them lived in the area extending 62 miles inland from Mexico. The Mexican side had a similar high concentration of people, with the larger Border cities hosting most of the population. In addition to the size of the population, the massive movement of people and goods between Mexico and the United States, combined with high rates of poverty and lack of health insurance, may facilitate the transmission of communicable diseases even beyond the Border.

This report, entitled *Border County Health Workforce Profiles: California*, has companion reports for the States of Arizona, New Mexico, Texas, and Florida.¹ This set of reports, which will be referred to as the "Profiles" throughout this report, represents a ground-breaking effort to assemble and disseminate consistent and current information on the health workforce, relevant population characteristics, and basic health indicators for the U.S. Border region. The Profiles were based on county-level data and reported by geographic proximity to the Border.

The great variability of health and workforce indicators between the Border States and between smaller regions within each State has traditionally been hidden in the aggregate totals and averages that have been used to describe the Border. Recognizing and understanding these differences is critically important to planners, policy makers, and program administrators who design and target health care interventions.

While the database created for the "Profiles" was a great improvement over existing aggregate, fragmented and rarely comparable information, some limitations remain. Mostly, the limitations were the result of using the politically defined county boundaries as a unit of measurement rather than the service areas within which health care was actually delivered. Also, the county averages may hide important differences within a county. For example, there may be concentrations of health professionals in an urban area that overshadow the lack of health professionals and extreme needs of a large rural area, producing a better-than average provider-to-population ratio for the county as a whole. Given these caveats, the data displayed in these reports provide a solid base for future research on workforce trends and utilization in the Border. The contract for this study, HRSA-230-03-0017, was awarded to the Regional Center for Health Workforce Studies at The University of Texas Health Science Center at San Antonio by the U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (BHPPr).

¹ The State of Florida was added because it has population and health workforce characteristics and needs similar to those of the U.S.-Mexico Border States.

The Evaluation and Analysis Branch, Office of Workforce Analysis and Quality Assurance, BHP, HRSA was responsible for overseeing the study.

Introduction

The Border County Health Workforce Profiles present county-level data obtained from State health agencies and health professions licensing boards to develop social/health indicators and practitioner-to-population ratios, respectively. These indicators help describe health status and health disparities in the U.S. regions that lie next to Mexico as well as provide information on the number of practitioners available to address the health needs of the areas. Comparable indicators and ratios were shown in this Report for the State as a whole, the four Border States, and the Nation. The Profiles show that the Border was far from being a homogeneous region. The U.S. counties from San Diego, California, to Brownsville, Texas, while sharing some common cultural traits, exhibit significant diversity in the proportion of the population that was Hispanic/Latino(a), in socioeconomic indicators, in health status measures and in the supply of health professionals.

Border regions were defined by different entities using criteria of proximity to the Border. One definition identifies only those counties adjacent to the U.S.-Mexico Border as "Border Counties." The U.S.-Mexico Border Health Commission (USMBHC) expands that definition to include all counties within 62 miles of the Border excluding La Paz, Maricopa, and Pinal Counties in Arizona and Riverside County in California. The Texas Comptroller of Public Accounts broadens the criteria by adding counties considered as directly affected by the economic impact of Border commerce thus extending the area to approximately 100 miles from the Border in Texas. Other definitions include larger areas. In Arizona, totals for the following geographic areas are included: within 62 miles of the Border and more than 62 miles from the Border. To satisfy as many users as possible, the Profiles show totals for the following geographic areas for California, New Mexico, and Texas: within 62 miles of the Border, 62-300 miles from the Border, and more than 300 miles from the Border. In the Texas report, totals for counties within 100 miles of the Border were also included. Counties within 62 miles of the Border are also referred to as "*Border Counties*" throughout these reports using the USMBHC definition.

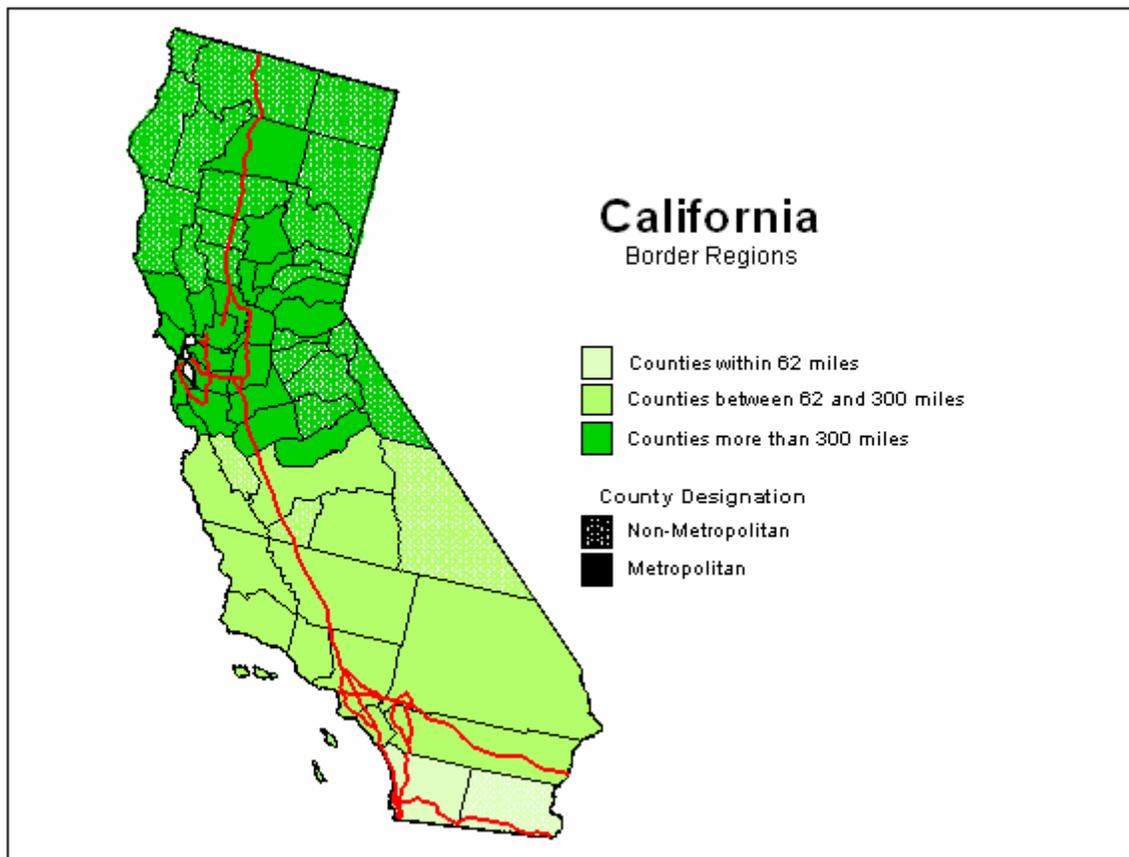
The Profiles were organized into three sections:

- A summary of State highlights for health status and the health workforce.
- Three categories of tables: Population and health status, health professions, and health infrastructure. Health professions tables include physicians, dentists, and registered nurses, non-physician clinician providers and mental health providers.
- A set of appendices that list counties included in the analysis by geographic area and a review of data sources.

These data may serve as a benchmark for updates and for complementary data from Mexico. It is through additional tracking of data and summary of results for

future years, and comparison of previous findings, that planners, policy makers, and program administrators will be able to measure the impact that programs may have on the reduction of health disparities for individuals living in the four Border States and Florida and particularly for those citizens living in closer proximity to the U.S.-Mexico Border.

California State Highlights



In 2000, the California population was 33,871,648 and had been estimated to increase by 5 percent to 35,484,460 in 2003.² The California population in 2003 was 47 percent Non-Hispanic White, 33 percent Hispanic/Latino(a), 6 percent Black/African-American, 11 percent Asian/ Pacific Islander, and 3 percent Other Races. With a birth rate of 94 births per 1,000 women of childbearing ages, Hispanics/Latinos(as) were the fastest growing race/ethnic group in California.³ The population of California made up 55 percent of the 65 million people who lived in the four States (Arizona, California, New Mexico, and Texas) that share a Border with Mexico. While Texas contributed 34 percent of the population of the four Border States, Arizona and New Mexico contributed 9 percent and 2.9 percent, respectively.

This report provides information about three regions of California based on proximity to the U.S.-Mexico Border. As defined by the U.S.-Mexico Border Health Commission, California has 58 counties, of which 2 are *within 62 miles (100 kilometers) of the U.S.-Mexico Border*, excluding Riverside County. These

² U.S. Census Bureau, 2000.

³ Office of Health Information and Research, California Department of Health Services, 2002.

are identified as Border Counties in this report. There are 14 counties *between 62 and 300 miles of the U.S.-Mexico Border*. Finally, there are 42 counties *more than 300 miles from the U.S.-Mexico Border* that make up the rest of the State.

Population Dynamics

Geographic Distribution

Estimates for 2000 show that 67 percent of the California population lived *within 300 miles of the U.S.-Mexico Border*. While 8.7 percent of the population lived in counties *within 62 miles of the Border*, 58 percent the population lived in counties *between 62 and 300 miles of the Border*. Counties *more than 300 miles from the U.S.-Mexico Border* were home to 34 percent of the State population. The two California counties *within 62 miles of the U.S.-Mexico Border* were metropolitan. They include the Southern California cities of San Diego, Chula Vista, Oceanside, Escondido, El Cajon, Vista, Carlsbad, Spring Valley, Encinitas, National City, Santee, La Mesa, Poway (San Diego County), and El Centro (Imperial County).⁴

Race/Ethnicity

Table 2 shows that in 2003 an estimated 3.1 million California residents lived in the counties *within 62 miles of the U.S.-Mexico Border*, of whom 29 percent were Hispanic/Latino(a); this reflects a similar proportion to the California State population (33 percent Hispanic/Latino(a)). Of the 6.9 million people who lived in Border Counties in the 4 Border States, 49 percent were Hispanic/Latino(a).⁵

Education

In 2000, 82 percent of California residents in the counties *within 62 miles of the U.S.-Mexico Border* had completed high school or higher education. This compares favorably with California State (77 percent) and the U.S. population (80 percent) in educational attainment (Table 6).

⁴ Area Resource File (ARF), 2002. Metropolitan includes those counties identified as Level A (Areas of 1 million or more), Level B (Areas of 250,000 to 999, 999), Level C (Areas of 100,000 to 249,000) and Level D (Areas of Less than 100,000) on the MSAPMSALevel1999 field in the ARF. According to ARF documentation, metropolitan areas, which include Metropolitan Statistical Area (MSA) and Primary Metropolitan Statistical Area (PMSA), were announced by the Office of Management and Budget in OMB Bulletin No.99-04 and became effective June 30, 1999. Current standards require that newly qualifying MSAs include at least one city with 50,000 or more inhabitants, or a Census Bureau-defined urbanized area (50,000 or more inhabitants) and a total metropolitan population of at least 100,000 (75,000 in New England).

⁵ U.S. Census Bureau, 2003.

Income⁶

The Border Counties in California and Arizona were different from New Mexico and Texas in the nature of the populations included in the Border Counties. The median family income in 2000 in the Metropolitan Statistical Areas (MSAs) in San Diego, California, was \$53,438. In Arizona, the median family incomes were \$51,126 in Phoenix-Mesa and \$44,446 in Tucson. In comparison, the median family incomes were lower in New Mexico and Texas MSAs; \$33,576 in Las Cruces, New Mexico, \$33,410 in El Paso, Texas, and \$29,394 and \$27,853, in Laredo and Brownsville–Harlingen, Texas, respectively. The Texas MSAs included as Border Counties according to the definition used by the Texas Comptroller of Public Accounts, but not directly on the U.S.-Mexico Border (San Antonio and Corpus Christi), had median family incomes similar to those reported for Arizona and California. Hispanic/Latino(a) median family incomes ranged from \$31,000 to \$34,000 in California and Arizona Border MSAs compared to a range of \$24,500 to \$28,500 in New Mexico and Texas Border MSAs.

Poverty

Table 4 shows that 23 percent of families lived below 150 percent of the Federal poverty guidelines in the California Border population (*within 62 miles of the U.S.-Mexico Border*) in 2000; this was similar to the rate for the overall California population (24 percent). The U.S. Federal Poverty Thresholds⁷ were established as a baseline to develop guidelines for determining eligibility for Federal and State programs such as Medicaid. In 2000, \$17,761 for a family of four was established as the poverty threshold.

Health Access

The annual Behavioral Risk Factor Surveillance System (BRFSS) collects information about health insurance coverage.^{8,9} The California Border counties had similar rates of health insurance coverage as the State at 15.2 percent and 15.4 percent respectively; this rate was similar to the 15.2 percent of the U.S. population without coverage (Table 5).

⁶ U.S. Census Bureau, 2000; using America Fact Finder; P77. MEDIAN FAMILY INCOME IN 1999 (DOLLARS) [1] – Universe Families Data Set: Census 2000 Summary File 3 (SF 3) – Sample Data, and P155H. MEDIAN FAMILY INCOME IN 1999 (DOLLARS) (HISPANIC OR LATINO HOUSEHOLDER) [1] – Universe: Families with a householder who is Hispanic or Latino Data Set: Census 2000 Summary File 3 (SF 3) – Sample Data.

⁷ U.S. Census Bureau, *Poverty in the United States: 2000: Current Population Reports: Consumer Income*; September 2001, p 5. Note: Poverty thresholds are updated annually by the Census Bureau.

⁸ *Behavioral Risk Factor Surveillance System (BRFSS)*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. In the BRFSS, respondents were asked “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?” Sample size reflects number of respondents, excluding those who answered “Do not know/not sure” or refused. The sample size within a State may not add up to State total due to suppression of data for counties with small sample sizes. The percentages were weighted to population characteristics in order to produce estimates that were representative of the sampled population. Health characteristics estimated from the BRFSS pertain only to the adult population (age 18 and older) living in households.

⁹ Note: Estimates based on the Current Population Survey, Annual Social and Economic supplement, 2004, indicated that 18 percent of California residents were uninsured during some time in 2003.

Health Professional Shortage Areas (HPSAs) were the method that HRSA used to identify areas of a State that did not have a sufficient supply of health professionals to meet the health needs of the population. Thirty-one percent of the population *within 62 miles of the Border* in California resided in a partial county primary care HPSA (Table 35). While 6.2 percent (Table 36) of the Border Counties population lived in a partial county dental HPSA, 11.5 percent (Table 37) of residents lived in a single or partial county mental HPSA. Statewide, 26 percent of the population lived in a primary care HPSA, 9.8 percent lived in a dental HPSA, and 11.8 percent lived in a mental HPSA.

Health Status

Health status indicators for this Report were based on the Healthy Border 2010 Goals and Objectives established by the U.S.-Mexico Border Health Commission in 2003. The Commission is a binational organization dedicated to addressing the pervasive health needs of the U.S.-Mexico Border.

The overarching goals of the Healthy Border Program are:

1. Improve the quality and increase the years of healthy life, and
2. Eliminate health disparities

The twenty Healthy Border (HB) 2010 objectives fall into eleven principal areas with their specific objectives as follows:

1. Improve access to primary health care
2. Reduce cancer mortality in women through improved screening for breast and cervical cancers
3. Reduce morbidity and mortality from diabetes mellitus
4. Improve water quality through improved sanitation and reduce amount of acute pesticide poisoning
5. Reduce transmission of HIV
6. Improve rates of immunization and reduce rates of infectious diseases
7. Reduce mortality from unintentional injuries
8. Reduce infant mortality and increase the number of women receiving prenatal care
9. Reduce the suicide mortality rate by improving mental health
10. Increase the usage of dental and oral health services
11. Reduce morbidity from asthma

The tables in this report provide detailed information about health status in California. Comparisons to the Healthy Border objectives are used to highlight disparities in health with a focus on the Border Counties (those *within 62 miles of the U.S.-Mexico Border*).

Breast and Cervical Cancer

Healthy Border 2010 Objectives for breast and cervical cancer:

- To reduce the female breast cancer death rate to 33.7 deaths per 100,000 women ages 25 or more
 - To reduce the cervical cancer death rate to 4.0 deaths per 100,000 women ages 25 or more
-
- Screening for breast cancer is an important aspect of women's health. Evidence from the BRFSS in 2002 shows that 82 percent of women living in the California Border Counties had a *mammogram within the past 2 years*; this was similar to the proportion of women living in California (83 percent) and the Border States (83 percent) who have had a mammogram within the past 2 years.¹⁰
 - The *breast cancer incidence rate* for counties *within 62 miles of the U.S.-Mexico Border* was 66 per 100,000 females; this was higher than the California incidence rate of 61 per 100,000 (Table 7).
 - The *age-adjusted¹¹ breast cancer mortality rate* in the California Border Counties was 15.4 per 100,000 population; this was higher than the California rate of 13.2 per 100,000 and the Border States rate of 13.3 per 100,000 (Table 7). When the rate is calculated only for women, the rate was 28.0 deaths in the California Border Counties. The loss due to premature breast cancer death cost 87 years of life per 100,000 population in California Border Counties. The years of potential life lost rate varied somewhat across California, but the State rate was consistent with the rate in the Border States (72 years per 100,000 females) and notably lower than the U.S. rate of 86 years per 100,000 females. The number of years of life lost to breast cancer is brought more into focus when the rate is calculated for those most affected by breast cancer: 139 years of life were lost per 100,000 women, in 2002, in California.
 - Regular screening with pap smears helps with early detection of cervical cancer. Eighty-seven percent of women living in California Border Counties had received a *pap smear within the past 2 years*; this rate was similar to California (82 percent) women and women living in the Border States (82 percent) in general.¹²

¹⁰ *Behavioral Risk Factor Surveillance System (BRFSS)*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. In the BRFSS, female respondents were asked "How long has it been since you had your last mammogram?" if they responded "yes" to ever having had a mammogram. The percentages reported here were weighted to population characteristics in order to produce estimates that were representative of the sampled population.

¹¹ Age-adjusted mortality rate= Sum of ((number of resident deaths/population) in 10-year age groups multiplied by weights from the U.S. 2000 Standard Population). This formula was applied whenever age-adjusted mortality rate is referred to in this report. The population used in calculating the crude death rates by 10-year age groups includes total population with exception of breast (when specified) and cervical cancer (females only).

¹² *Behavioral Risk Factor Surveillance System (BRFSS)*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. In the BRFSS, female respondents were asked "How long has it been since you had your last Pap smear?" if they responded "yes" to ever having had a Pap smear. The percentages reported here were weighted to population characteristics in order to produce estimates that were representative of the sampled population.

- In the California Border Counties, the *cervical cancer incidence rate* was 7.0 per 100,000 females; this was lower than the California incidence rate of 8.4 per 100,000 females (Table 7).
- In the California Border Counties, the *age-adjusted cervical cancer mortality rate* at 2.0 per 100,000 females was lower than the California rate of 2.4, the Border States rate of 2.6, and the U.S. rate of 2.7 per 100,000 females.

Diabetes Mellitus

Healthy Border 2010 Objectives for diabetes mellitus:

- *Reduce the hospital discharge rate to 11.2 per 10,000 population for diabetes mellitus*
- *Reduce the diabetes death rate to 24.2 deaths per 100,000 population*

In 2002, diabetes was the sixth leading cause of death in the United States.¹³ and the seventh in California.¹⁴ Recent studies show that Type 2 diabetes is preventable.¹⁵ Overweight and obesity contribute to diabetes prevalence.¹⁶ Findings from the BRFSS indicate that Hispanic/Latinos(as) have a higher prevalence of diabetes than Non-Hispanic Whites at comparable Body Mass Index (BMI) ranking.¹⁷ Table 8 provides information about diabetes in California.

¹³ Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004.

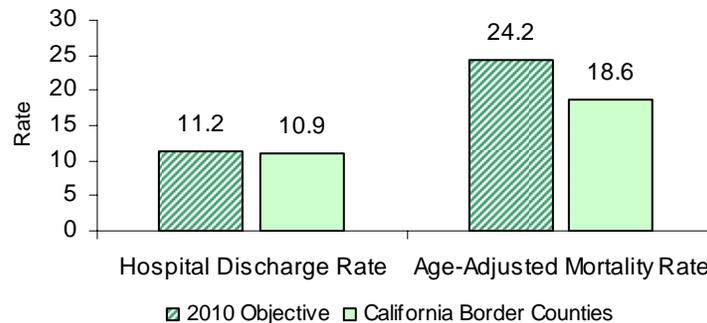
¹⁴ Office of Statistics and Programming, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. 10 Leading Causes of Death, California, 2002, All Races, Both Sexes, <http://webapp.cdc.gov/sasweb/ncipc/leadcaus10.html>, accessed on January 24, 2005.

¹⁵ Jermendy G. Can type 2 diabetes mellitus be considered preventable? Diabetes Research and Clinical Practice 2005, 68(SI): S73-81; Schwarz PEH, Schwarz J, Bornstein SR, Schulze J. Prevention of type 2 diabetes: what challenges do we have to address? Journal of Public Health, 2005. 13:303-308; Zimmet P, Shaw J, Alberti KGMM. Preventing Type 2 diabetes and the dysmetabolic syndrome in the real world: a realistic view. Diabetic Medicine, 2003. 20:693-702.

¹⁶ Mokdad AH, Ford ES, Bowman BA, et al. Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. Journal of the American Medical Association 2003;289:76-9.

¹⁷ Morbidity and Mortality Weekly Report (MMWR), Prevalence of Diabetes Among Hispanics --Selected Areas, 1998—2002. 53(40):941-944.

Healthy Border 2010 Objectives for Diabetes and 2002 Rates for California Border Counties



Sources: Office of Statewide Health Planning and Development, California Health and Human Services Agency (2002), and Office of Health Information and Research, California Department of Health Services (2002).

- Fifty-seven percent of California residents were overweight based on Body Mass Index: 38 percent were overweight but not obese, and 19 percent were obese. There was little variation across geographic regions of the State in overweight and obesity rates (Table 9).
- The reported prevalence of *diabetes* in the California Border Counties was 5.3 percent of adults responding to the BRFSS; this was lower than the State rate of 7.5 percent and the rate of 7.3 percent for the Border States. People living in the California counties *between 62 and 300 miles from the U.S.-Mexico Border* reported a diabetes prevalence of 8.3 percent (Table 8).
- Residents in the California Border Counties were slightly less likely to be *hospitalized for diabetes* related issues (10.9 hospital discharges) than California residents in general (13.4 per 100,000 population); this was lower than the Border States rate of 14.5 and notably lower than the U.S. rate of 20 hospital discharges per 100,000 population (Table 8).
- The *diabetes age-adjusted mortality rate* was 18.6 per 100,000 population in California Border Counties; this was lower than the California rate of 22 deaths per 100,000 population as well as the Border States and U.S. rates at 26 and 25 deaths per 100,000 population, respectively.
- In the California Border Counties, *premature death due to diabetes* results in 40 years of potential life lost per 100,000 population; this was 25 years of life per 100,000 population less than in the counties *between 62 and 300 miles from the Border* and 14 years fewer than the counties *more than 300 miles from the U.S.-Mexico Border*. This suggests that many of the people in the other parts of California who die as a result of diabetes or diabetes complications die at a younger age than those in the Border Counties who die of diabetes. California diabetes years of potential life lost rates were distinctly

lower than the Border States (73 years lost per 100,000 population) and the U.S. rates (79 years lost per 100,000 population).

Hospital discharge rates for diabetes in the California Border Counties were approaching the HB 2010 goals and diabetes age-adjusted mortality rates already exceeded the goal.

HIV/AIDS

Healthy Border 2010 Objectives for HIV:

- Reduce the incidence rate to 4.2 per 100,000 population for HIV

HIV/AIDS, despite recent advances in treatment, is an increasing concern in Mexico and a major cause of illness and death in the United States.¹⁸ While the latest therapies have reduced death rates from AIDS in the Border region, their costs are prohibitive for some segments of the population.¹⁸ Estimates in the United States of the lifetime costs associated with health care for HIV/AIDS have increased from \$55,000 to \$155,000 or more, contributing to the burden of illness, disability, and death.¹⁸ In this context, HIV prevention becomes even more cost-effective.

- The incidence rate for HIV in the counties *within 62 miles of the U.S.-Mexico Border* was 22 cases per 100,000 population in 2002, while the AIDS incidence rate was 14.6 cases per 100,000 population. Both rates were higher than the California HIV and AIDS incidence rates (14.1 per 100,000 and 11.8 per 100,000, respectively) and similar to the Border States rates (15.5 per 100,000 and 11.5 per 100,000, respectively, Table 11).
- The HIV incidence rate in the California Border Counties (22 per 100,000) was five times the objective established by HB 2010.

Hepatitis and Tuberculosis

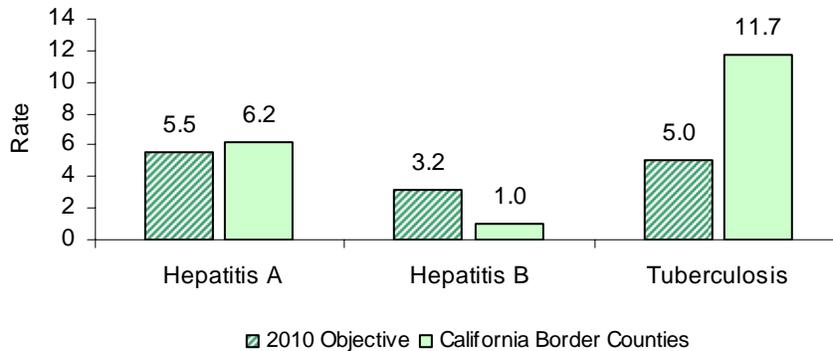
Healthy Border 2010 Objectives for hepatitis and tuberculosis:

- Reduce the incidence rate to 5.5 per 100,000 population for hepatitis A
- Reduce the incidence rate to 3.2 per 100,000 population for hepatitis B
- Reduce the incidence rate to 5.0 per 100,000 population for tuberculosis (TB)

The TB incidence rate of 11.7 cases per 100,000 population in the California Border Counties was higher than the State rate of 9.1 and the Border States rate of 7.8 cases per 100,000 population (Table 12).

¹⁸ U.S.-Mexico Border Health Commission (USMBHC). Healthy Border 2010: An Agenda for Improving Health on the United States Mexico Border, 2003.

Healthy Border 2010 Objectives and 2002 Incidence Rates for Selected Infectious Diseases for California Border Counties



Sources: Infectious Diseases Branch, Division of Communicable Disease Control, California Department of Health Services (2002), and Tuberculosis Control Branch, Division of Communicable Disease Control, California Department of Health Services (2002).

The counties *within 62 miles of the U.S.-Mexico Border* exceed the HB 2010 objectives for hepatitis B and are approaching the objective for hepatitis A. However, the incidence rate for tuberculosis in the California Border Counties was more than twice the HB 2010 goal.

Immunization Coverage

Healthy Border 2010 Objectives for immunizations was to achieve and maintain an immunization coverage rate of 90 percent for children 19 to 35 months of age for the following vaccination series:

- 4+ doses of diphtheria, tetanus, and pertussis or diphtheria and tetanus (DTP)
- 3+ doses of haemophilus influenzae (Hib)
- 3+ doses of hepatitis B vaccine (HepB)
- 3+ does of polio vaccine
- 1 dose of varicella vaccine
- 1 dose of measles, mumps, German measles vaccine (MCV)

If children are properly immunized, most childhood diseases could be prevented. This could result in a significant reduction in the cost of health care. The only reliable data available about childhood immunization status come from the National Immunization Survey (NIS). These data were available only for the Nation and individual States.

- The NIS results estimated that 76 percent (plus or minus 3.7 percent)¹⁹ of Arizona children 19 to 35 months of age had coverage for the prescribed

¹⁹ National Immunization Program, Centers for Disease Control and Prevention, 2003. Estimates are based on a sample and presented as 95 percent confidence intervals; wide confidence intervals for the State (plus or minus 3.7 percent) may be a sign of small sample size and less precision; national estimates have smaller confidence intervals (plus or minus 1.0 percent) and are more precise than State estimates.

vaccination series. Nationally, the NIS estimated that 73 percent of children in this age group (plus or minus 1.0) had received this coverage.

- Non-Hispanic White and Hispanic/Latino(a) children had similar rates of coverage for the prescribed vaccination series: 75 percent (plus or minus 6.8 percent) and 75 percent (plus or minus 5.1 percent), respectively. Data for other race/ethnic groups were not available (Table 13).

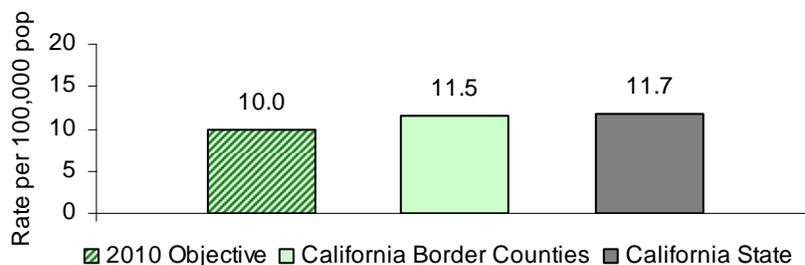
Injury-Related Deaths

Healthy Border 2010 Objectives for selected injury-related deaths:

- Reduce the mortality rate to 10.0 per 100,000 population for deaths due to motor vehicle crashes
- Reduce the mortality rate to 10.3 per 100,000 population for deaths due to unintentional injuries for children ages 0 to 4

Injury is identified as the leading health threat in the first 4 decades of life.²⁰ Unintentional injury was the fifth leading cause of death among all persons in California,²¹ the Border States, and the United States²² in 2002. Most injuries are preventable. Intentional injury is also among the leading causes of death with suicide being eleventh and homicide being the fourteenth in the United States.²² Injuries sustained by violent-intentional or accidental-unintentional means are responsible for more than 146,000 deaths each year nationwide.²³

Healthy Border 2010 Objective and 2002 Age-Adjusted Mortality Rates for Motor Vehicle Crashes in California



Source: Office of Health Information and Research, California Department of Health Services (2002).

²⁰ National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Injury in America. Defining Risk...Increasing Safety, June 2002.

²¹ Office of Statistics and Programming, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. 10 Leading Causes of Death, California, 2002, All Races, Both Sexes, <http://webapp.cdc.gov/sasweb/ncipc/leadcaus10.html>, accessed on January 24, 2005.

²² Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004.

²³ National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Injury Fact Book 2001–2002, November 2001; and National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Injury in America. Defining Risk...Increasing Safety, June 2002.

- The *motor vehicle crash age-adjusted mortality rate* in the Border Counties was 11.5 deaths per 100,000 population; this was similar to the California rate of 11.7 (Table 14).
- In 2002, lives claimed by *premature deaths due to motor vehicle crashes* resulted in the loss of 338 years of life per 100,000 population in California. There were 102 fewer years of potential life lost in California than in the Border States (436 years lost per 100,000 population) in general.
- In 2002, there were a total of 233 deaths among children ages 0 to 4 due to unintentional injuries in California.²⁴ Approximately 62 percent of these deaths (144 of 233) occurred in the counties *within 62 and 300 miles of the U.S.-Mexico Border*. Hispanic/Latino(a) children accounted for 54 percent of these deaths (126 of 233) statewide.

The counties *within 62 miles of the U.S.-Mexico Border* in California are approaching the mortality rates due to motor vehicle crashes set out in the HB 2010 objectives.

Prenatal Care

Healthy Border 2010 Objective for prenatal care:

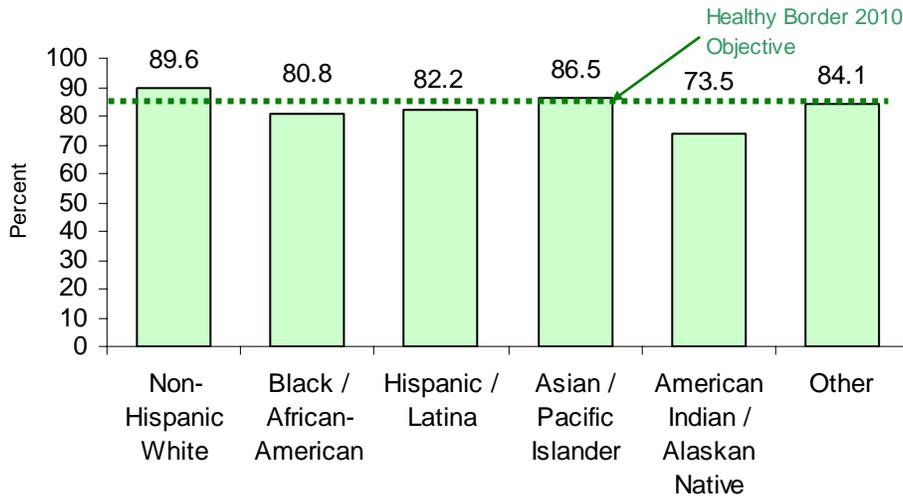
- *Increase the percent of women starting prenatal care in the first trimester to 85 percent*

Early prenatal care is important to a healthy pregnancy and is critical in identifying potential problems that may put the pregnancy at risk. Risk factors and maternal health conditions including pregnancy-related hypertension, gestational diabetes, and cigarette smoking, among others, which can contribute to poor infant outcomes can be identified by screenings as a part of prenatal care.²⁵

²⁴ Office of Health Information and Research, California Department of Health Services, 2002.

²⁵ U.S.-Mexico Border Health Commission (USMBHC). *Healthy Border 2010: An Agenda for Improving Health on the United States Mexico Border*, 2003.

Proportion of Mothers Beginning Prenatal Care in the First Trimester by Race/Ethnicity in California State, 2002



Source: Office of Health Information and Research, California Department of Health Services (2002).

- In California, 85 percent of women received *prenatal care in the first trimester*. The proportion of women receiving prenatal care varies only slightly by geographic area (Table 16).
- In 2002, 90 percent of California’s Non-Hispanic White mothers began prenatal care in the first trimester. Eighty-two percent of Hispanic/Latino(a) mothers began prenatal care in the first trimester.
- Black/African-American, Hispanic/Latina, and American Indian/Alaskan Native women in California fell below the desired goal set out in the Healthy Border 2010 Objective for the proportion of women who should start prenatal care in their first trimester of pregnancy. In 2002, these rates were 81 percent of Black/African-American, 82 percent of Hispanic/Latina, and 74 percent of American Indian/Alaskan Native mothers.
- Additional efforts may be needed to help achieve the HB 2010 goal of 85 percent of mothers beginning prenatal care in the first trimester of pregnancy among Hispanic/Latina, Black/African-American, and American Indian/Alaskan Native mothers in California.

Prenatal Care—Border Teenage Mothers by Race/Ethnicity

Teenage mothers who live in the California Border Counties fell well below the goal established in the Healthy Border 2010 Objectives of 85 percent of mothers beginning prenatal care in the first trimester of pregnancy. In 2002, the proportions of teenage mothers receiving prenatal care in the first trimester were:

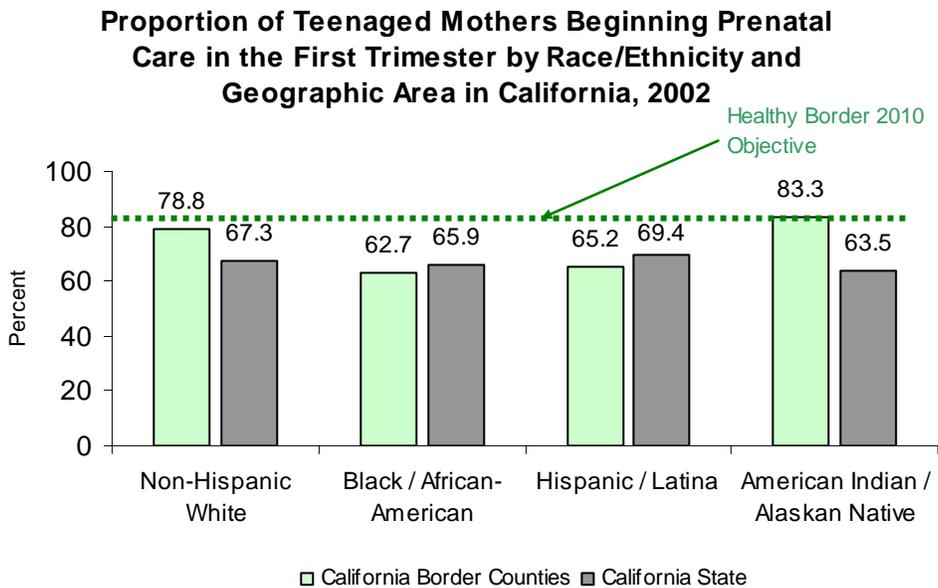
- 79 percent of Non-Hispanic White mothers
- 65 percent of Hispanic/Latina mothers
- 63 percent of Black/African-American mothers

Prenatal Care—California State Teenage Mothers by Geographic Distribution

In California, the proportion of mothers ages 15 to 17 who received prenatal care in the first trimester varied by geographic region. The rates were: 66 percent of mothers residing in counties *within 62 miles of the Border*, 71 percent of mothers residing in the counties *between 62 and 300 miles from the Border*, and 62 percent of mothers residing in the counties *more than 300 miles from the U.S.-Mexico Border* (Table 18).

Prenatal Care of Border Teenage Mothers—Comparison of Race/Ethnicity to State

In the Border Counties, Non Hispanic White, Black/African-American, and Hispanic/Latina teenage mothers, while below the 2010 goals, were more likely to receive early prenatal care than teenage mothers in other areas of the State. One factor that may have contributed to this is the fact that both Border Counties in California were metropolitan.



Source: Office of Health Information and Research, California Department of Health Services (2002).

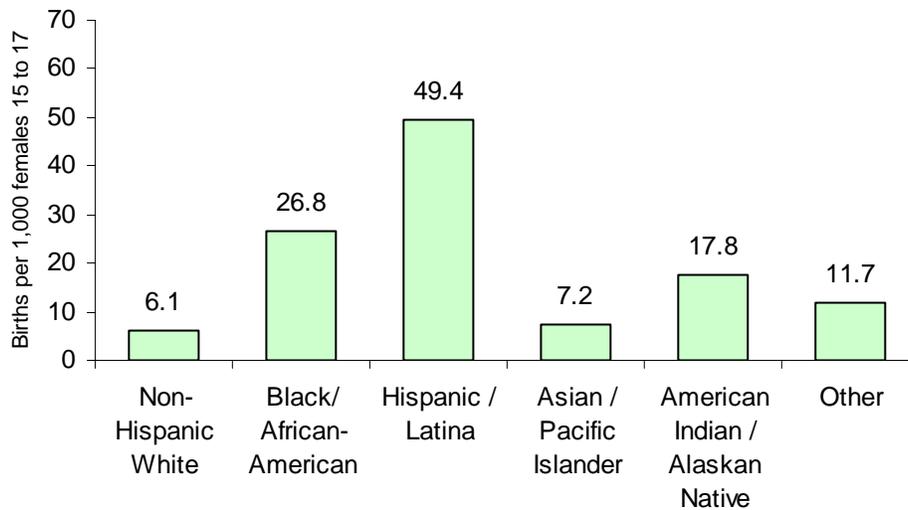
Teenage Pregnancy

Healthy Border 2010 Objective for teenage pregnancy, ages 15 to 17:

- Reduce teenage pregnancies to 28.0 per 1,000 women ages 15 to 17

- Statewide, there were 22 births for each 1,000 females between the ages of 15 to 17 in 2002 (Table 17); this was lower than the Border State teenage birth rate of 29.

Teenage Birth Rates by Race/Ethnicity in California State, 2002



Source: Office of Health Information and Research, California Department of Health Services (2002).

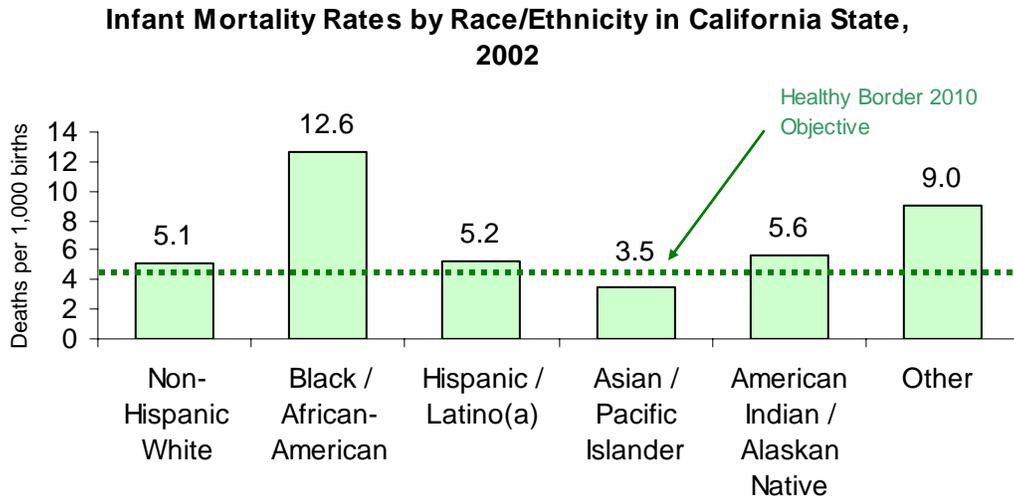
- There was considerable variation in the teenage birth rate by race/ethnicity for the State. The Hispanic/Latina birth rate was 49 per 1,000 females between 15 to 17 years old in California, while the rate in the California Border Counties was somewhat higher at 54 births per 1,000 Hispanic/Latina teenage women. The teenage birth rate for Blacks/African-Americans was 27 per 1,000 and 6 per 1,000 among Non-Hispanic White teenage women.
- Overall, the teenage birth rate in California (22 per 1,000) was lower than that of the Border States (29 per 1,000), but slightly higher than the U.S. (18 per 1,000). Higher teenage birth rates were reflected in all race/ethnic categories except Non-Hispanic White.

Infant Mortality

Healthy Border 2010 Objective for infant deaths:

- Reduce the infant mortality rate to 4.6 deaths per 1,000 live births

Table 15 shows that in California the *infant mortality rate* in 2002 was 5.5 deaths per 1,000 live births.



Source: Office of Health Information and Research, California Department of Health Services (2002).

- For Non-Hispanic Whites and Hispanic/Latinos(as), the infant mortality rate was 5.1 and 5.2 per 1,000 live births, respectively.
- The Black/African-American infant mortality rate was 12.6 deaths for each 1,000 live births. This reflected an infant mortality rate that was 2.4 times greater than occurred in the Non-Hispanic White and Hispanic/Latino(a) populations.
- There was little variation in infant mortality rates across the geographic areas in California. However, the Black/African-American infant mortality rate was consistently more than two or more times that of the Non-Hispanic White and Hispanic/Latino(a) populations, regardless of geographic area.

In the California Border Counties, in 2002, infant mortality rates were lower for all racial/ethnic groups, except Black/African-American, than the Healthy Border 2010 Objective of 4.6 deaths per 1,000 population.

Mental Health

Healthy Border 2010 Objective for mental health:

- Reduce the mortality rate for suicides to 9.4 deaths per 100,000 population

Meeting mental health needs has been identified as a national priority in the United States. The National Action Agenda, established by the Surgeon General, notes specific action steps aimed to decrease the burden of mental illness including promoting public awareness, supporting mental health-related research, improving early assessment, recognition and access to care, and training appropriate personnel to recognize and manage mental disorders.²⁶

Hospitalizations for *psychiatric-related conditions* occurred at the rate of 42 per 10,000 population in California in 2002; this was similar to the rate of 38 per 10,000 population for the Border States (Table 19).

- At a rate of 47 per 10,000 population, the rate for psychiatric related conditions in the counties *within 62 miles of the Border* was somewhat higher than the rest of California.
- The counties *more than 300 miles from the U.S.-Mexico Border* in California have the lowest rate (33 per 10,000) in the State for psychiatric related hospital discharges.

Suicide takes a disproportionate toll in the community as well as on the family and friends of the deceased. It also results in a significant loss of years of potential life of a productive community member. Suicide was the tenth leading cause of death in California²⁷ and the eleventh in the United States.²⁸

- Table 19 shows that the California 2002 age-adjusted suicide mortality rate was 9.5 deaths per 100,000 population. This was similar to the Border States and the U.S. rate (10.9 per 100,000 each).
- In the California Border Counties the rate of loss due to suicide was 10.6 deaths per 100,000 and 228 years of life lost per 100,000 population.
- In California, suicide resulted in the loss of 188 years of life per 100,000 population.

Oral Health

Healthy Border 2010 Objective for oral health:

- *Increase the use of oral care system to 75 percent*

²⁶ *Mental Health: A Report of the Surgeon General—Executive Summary*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

²⁷ Office of Statistics and Programming, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. 10 Leading Causes of Death, California, 2002, All Races, Both Sexes, <http://webapp.cdc.gov/sasweb/ncipc/leadcaus10.html>, accessed on January 24, 2005.

²⁸ Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004.

“You are not healthy without good oral health,” noted Dr. C. Everett Koop, former U.S. Surgeon General.²⁹ The importance of meeting oral health care needs in communities in the Border Counties, Border States and nationwide is increasing as research continues to link oral health with general well-being. Oral infection has been associated with the onset and severity of systemic diseases such as cardiovascular disease and diabetes, and negative birthing outcomes.³⁰ Despite increased use of dental sealants and water fluoridation, preventable oral diseases still afflict many children and adults during their lifetimes, impacting their self-image and quality of life as well as compromising their health and well-being.³⁰ Disparities in access to preventative and therapeutic oral care are demonstrated by the unmet needs of those with lower income and education levels, underserved populations, and a notable proportion of untreated tooth decay (over 40 percent in persons between 2 and 19 years, and approximately 90 percent of adults) observed in individuals regardless of sociodemographic characteristics.³¹ While it is now possible to maintain healthy teeth throughout a lifetime, currently available preventive measures, knowledge, and technologies must be utilized universally by professionals and consumers alike.³²

The HB 2010 Objective for oral health includes these essential services:

- *Treatment of dental cavities*
- *Preventive services such as dental sealants*
- *Dental restorative treatments such as replacement of permanent teeth*
- *Screening and diagnosis of oral and pharyngeal cancers*
- *Identification and referral for treatment of oral birth defects, such as cleft lip and cleft palate*

Information collected in the Behavioral Risk Factor Surveillance System (BRFSS) results from answers to the question, “Have you visited the dentist or dental clinic within the past year for any reason?”

- In 2002, California residents were close to reaching the HB 2010 goal of 75 percent visiting a dentist each year. Sixty-eight percent of adults statewide *visited a dentist or dental clinic within the past year*. The California rate for dental visits was higher than the Border States (66 percent) but slightly lower than the U.S. rate (70 percent).

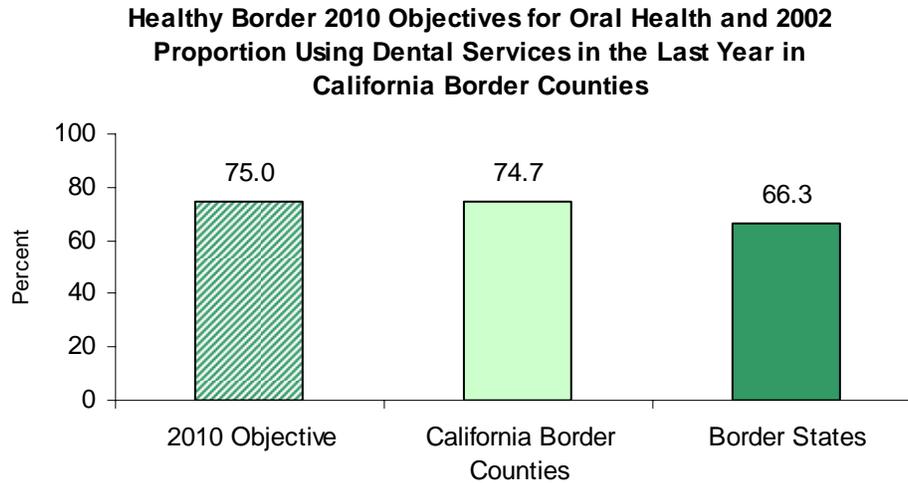
²⁹ *Oral Health in America: A Report of the Surgeon General*. U.S. Department of Health and Human Services, National Institutes of Health, Rockville, MD, 2000.

³⁰ Cappelli DP, Steffensen JEM, Urbietta M. “Oral Health,” in the Bexar County Community Health Assessment, 2002. The Bexar County Community Health Collaborative, San Antonio, Texas; Grossi SG, Zambon JJ, Ho AW, et al. Assessment of risk for periodontal disease: risk indicators of periodontal attachment loss. *Journal of Periodontology*, 1994. 65:260-267; Mattila KJ, Valle MS, Nieninen MS, et al. Dental infections and coronary atherosclerosis. *Atherosclerosis*, 1993. 103:205-211; Offenbacher S, Katz V, Fertik G, et al. Periodontal disease as a possible risk factor for preterm low birthweight. *Journal of Periodontology*, 1996. 67:1103-1113.

³¹ Beltrán-Aguilar ED, Barker LK, Canto MT, Dye BA, Gooch BF, Griffin SO, Hyman J, Jaramillo F, Kingman A, Nowjack-Raymer R, Selwitz RH, Wu T. Surveillance for Dental Caries, Dental Sealants, Tooth Retention, Edentulism, and Enamel Fluorosis. *MMWR Surveillance Summaries* 2005;54(03);1–44.

³² Cappelli DP, Steffensen JEM, Urbietta M. “Oral Health,” in the Bexar County Community Health Assessment, 2002. The Bexar County Community Health Collaborative, San Antonio, Texas.

- Residents of the California Border Counties met the HB goal and had a higher percentage of residents that visited a dentist within the last year (75 percent) than the rest of California, the Border States, and the U.S. (Table 20).



Source: Behavioral Risk Factor Surveillance System (2002).

Asthma

Healthy Border 2010 Objectives for asthma:

- Reduce the hospital discharge rate to 5.2 per 10,000 population*

Of the California respondents to the BRFSS in 2002, 12.7 percent reported that they had been diagnosed as *ever having asthma* by a health professional.

- The asthma rate was 10.5 percent among residents in the California Border Counties.
- The highest prevalence of asthma (13.1 percent) was reported in the California counties *within 62 and 300 miles of the U.S.-Mexico Border*.
- In 2002, the asthma discharge rate (8.9 per 10,000) in the counties *within 62 miles of the U.S.-Mexico Border* was almost twice the HB 2010 goal.
- The hospitalization rate reflects only cases that were severe enough to be admitted to the hospital, not cases that presented themselves in the emergency department, treated and released.
- Death due to asthma was a relatively rare cause of death; the age-adjusted mortality rate in California was 1.6 deaths per 100,000 population. This was similar to the U.S. and Border States rates and was consistent across the State.

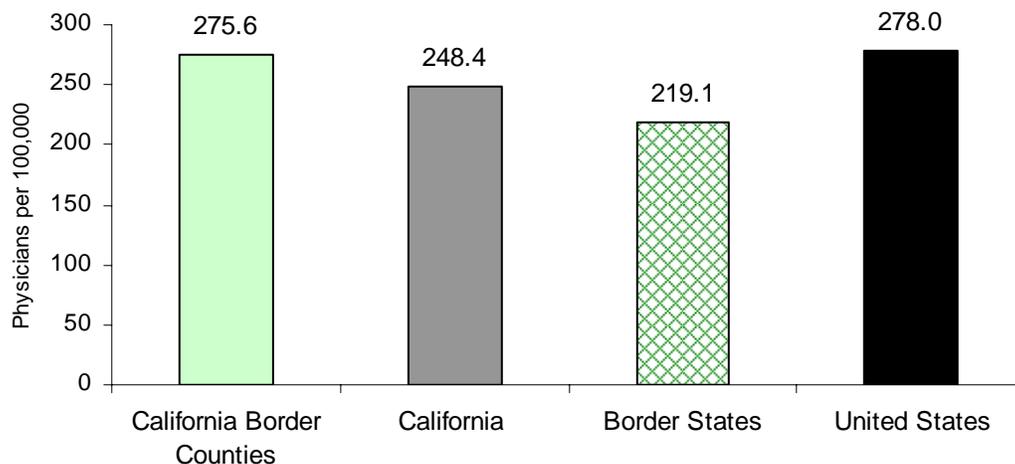
Health Professions

Physicians, Dentists, and Registered Nurses

Physicians

In 2004, there were 89,143 active physicians licensed to practice in California (Table 22) for a ratio of 248 physicians for every 100,000 California residents.

Physician to Population Ratios in California, 2004



Sources: Border States includes data from Arizona Medical Board (2004), and Arizona Board of Osteopathic Examiners in Medicine and Surgery (2004), California Department of Consumer Affairs (2004), New Mexico Health Policy Commission (2003), and Texas State Board of Medical Examiners (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (2000).

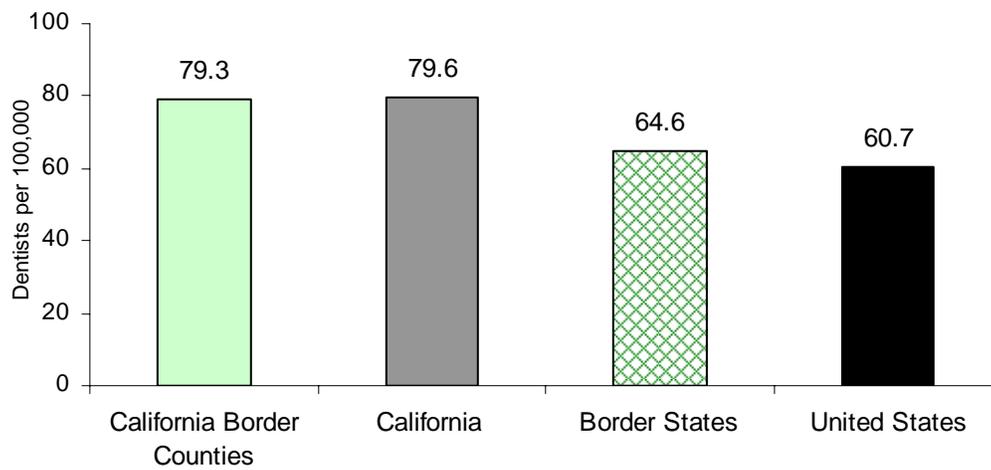
- There were 8,499 physicians in the California Border Counties; this was 276 physicians for every 100,000 people living *within 62 miles of the Border*.
- When compared to the State ratio of 248, the physician to population ratio in the California Border Counties (276 per 100,000) was higher than the state ratio, while the Border States ratio of 219 per 100,000 was lower than both.
- The ratio for the counties *within 62 miles of the Border* was similar to the U.S. physician to population ratio of 278 per 100,000 (Table 22).
- Within California, there was some variation by geographic region as there were 227 and 279 physicians per 100,000 in counties *between 62 and 300 miles of the Border* and those *more than 300 from the U.S.-Mexico Border*, respectively.

- In counties *within 62 miles of the Border*, in 2000 there were 63 primary care physicians and 124 specialty care physicians per 100,000 (Table 23).³³ The highest ratio of primary care and specialty care physicians was located in counties *more than 300 miles from the U.S.-Mexico Border* with 75 and 133, respectively. Statewide, the ratio for primary care and specialty care physicians (67 per 100,000 and 122 per 100,000, respectively) was similar to those counties located *within 62 to 300 miles from the U.S.-Mexico Border* (63 per 100,000 and 115 per 100,000, respectively).³⁴

Dentists

In 2004, there were 28,584 active dentists licensed to practice in California for a ratio of 80 dentists for every 100,000 California residents (Table 24).

Dentist to Population Ratios in California, 2004



Sources: Border States includes data from Arizona State Board of Dental Examiners (2004), California Department of Consumer Affairs (2004), New Mexico Health Policy Commission (2003), and Texas State Board of Dental Examiners (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (2000).

- There were 2,445 dentists in the California counties *within 62 miles of the U.S.-Mexico Border*. There were 79 dentists in the Border Counties for every 100,000 people living in the area.
- The dentist to population ratio in the counties *within 62 miles of the U.S.-Mexico Border* was similar to the State ratio of 80; this was somewhat higher than the Border States ratio of 65 and the U.S. ratio of 61.

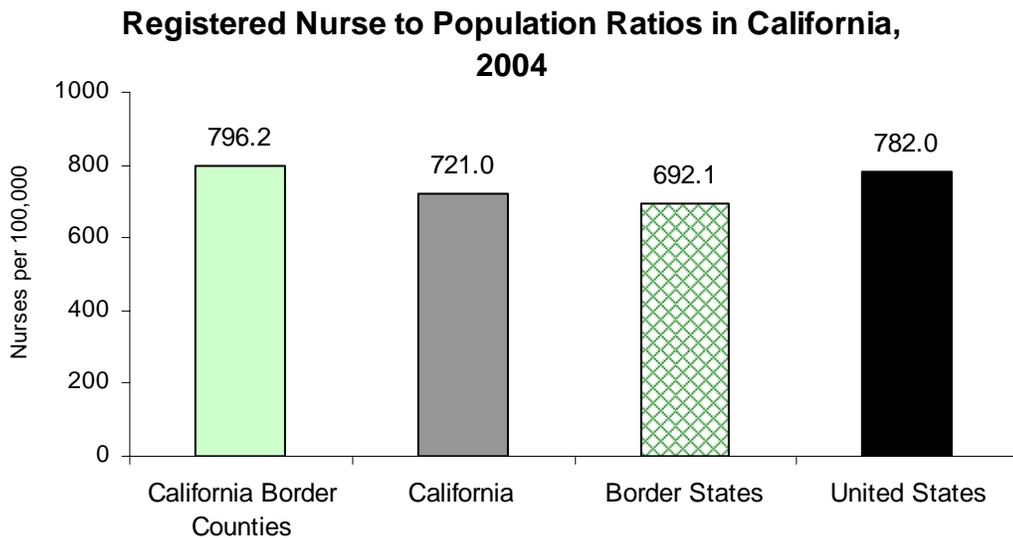
³³ Dower, C, McRee T, Grumbach K, Briggance B, Mutha S, Coffman J, Vranizan K, Bindman A, O'Neil E. *The Practice of Medicine in California: A Profile of the Physician Workforce*. San Francisco CA: California Workforce Initiative at the UCSF Center for the Health Professions. February 2001. Appendix F: California Active Patient-Care Physicians (Totals, Generalists, Specialists) and Ratios to 100,000 Population, by County, 2000.

³⁴ California did not collect information about individual characteristics on license forms. As a result, tables for direct patient care, primary care, and physician characteristics were not available.

- Across California, there was some variation in dentists by geographic region; there were 74 and 89 dentists per 100,000 in counties *between 62 and 300 miles from the Border* and those *more than 300 miles from the U.S.-Mexico Border*, respectively.³⁵

Registered Nurses

In 2004, there were 258,800 active registered nurses (RNs) licensed to practice in California for ratio of 721 RNs for every 100,000 California residents (Table 25).



Sources: Border States includes data from Arizona State Board of Nursing (2004), California Department of Consumer Affairs (2004), New Mexico Health Policy Commission (2003), and Texas Board of Nurse Examiners (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (2000).

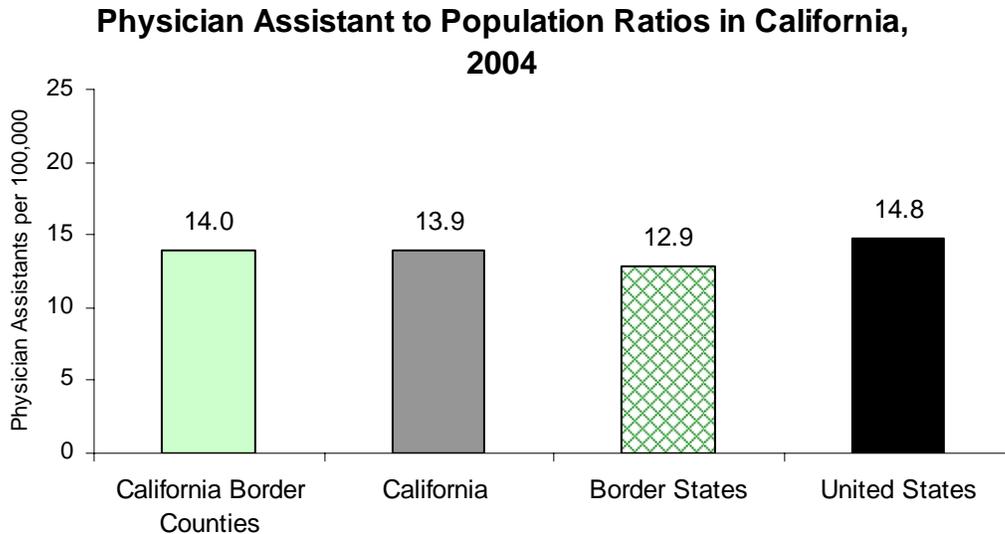
- There were 24,556 registered nurses in the counties *within 62 miles of the U.S.-Mexico Border*. The RN to population ratio (796 per 100,000 population) in this region was higher than the ratio for the State or the Border States (721 and 692, respectively).
- The ratio of nurses in California was lower than in the U.S. (782 per 100,000 population).
- The supply of registered nurses across California fluctuates by geographic region with a ratio of 652 per 100,000 in the counties *between 62 and 300 miles from the U.S.-Mexico Border*, and a much higher ratio of 821 per 100,000 in the counties *more than 300 miles from the Border*.

³⁵ California did not collect information about individual characteristics on license forms. As a result, tables for private practice, specialties, and dentist characteristics were not available.

Non-Physician Clinicians

Physician Assistants

In 2004, there were 4,974 active physician assistants (PAs) licensed to practice in California for a ratio of 13.9 PAs for every 100,000 California residents (Table 26).



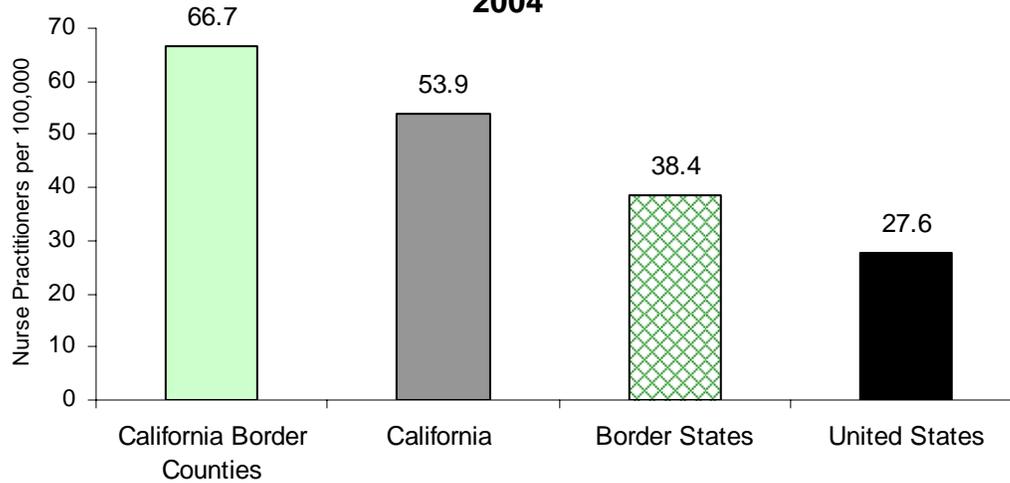
Sources: Border States includes data from Arizona Medical Board (2004), California Department of Consumer Affairs (2004), New Mexico Health Policy Commission (2003), and Texas State Board of Medical Examiners (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (2000).

- There were 433 physician assistants who practiced in the California Border Counties. The supply of PAs in the counties *within 62 miles of the Border* (14.0 per 100,000 population) was similar to the ratio for the State and Border States (13.9 and 12.9, respectively).
- The supply of physician assistants across the State's regions varied only slightly.

Nurse Practitioners

In 2004, there were 19,330 active nurse practitioners licensed to practice in California for a ratio of 54 nurse practitioners for every 100,000 California residents (Table 27).

Nurse Practitioner to Population Ratios in California, 2004



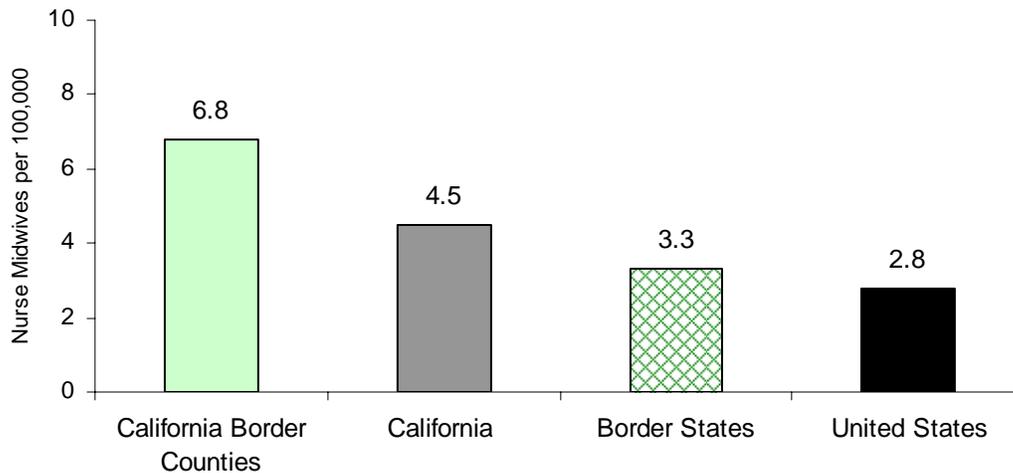
Sources: Border States includes data from Arizona State Board of Nursing (2004), California Department of Consumer Affairs (2004), New Mexico Health Policy Commission (2003), and Texas Board of Nurse Examiners (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (2000).

- In the California Border Counties, there were 2,058 nurse practitioners. This was 67 nurse practitioners per 100,000 population in the *Border region*, and was higher than the State ratio of 54 per 100,000. The supply of nurse practitioners in the State was notably higher than the Border States rate (38 per 100,000) and was twice the U.S. ratio (28 per 100,000).
- There was some variation in nurse practitioner ratios across California's geographic regions, with ratios of 44 per 100,000 in the counties *between 62 and 300 miles from the Border* and 68 per 100,000 in the counties *more than 300 miles from the U.S.-Mexico Border*.

Nurse Midwives

In 2004, there were 1,633 active nurse midwives licensed to practice in California for a ratio of 4.5 nurse midwives for every 100,000 California residents (Table 28).

Nurse Midwife to Population Ratios in California, 2004



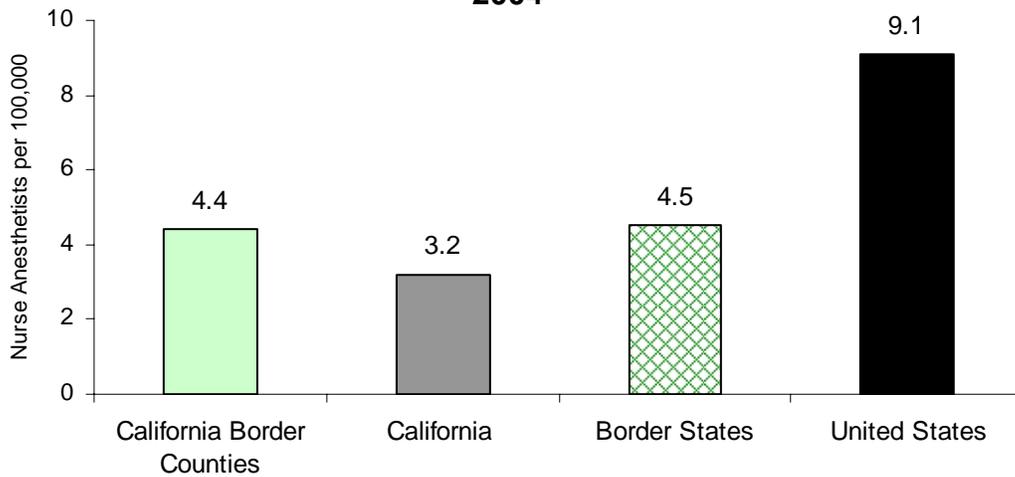
Sources: Border States includes data from Arizona State Board of Nursing (2004), California Department of Consumer Affairs (2004), Public Health Division, New Mexico Department of Health (2004), and Texas Board of Nurse Examiners (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (2000).

- There were 210 nurse midwives in the California Border Counties for a ratio 6.8 nurse midwives per 100,000 population; this was somewhat higher than the State ratio of 4.5 per 100,000.
- The supply of nurse midwives in both counties *within 62 miles of the Border* and the State was higher than the ratio for the Border States (3.3 per 100,000) and the U.S. (2.8 per 100,000). The supply of nurse midwives in the counties *within 62 miles of the Border* was more than twice the national rate.
- Within California, there was some fluctuation in the supply of nurse midwives by geographic region. In the counties *between 62 and 300 miles from the U.S.-Mexico Border*, there were 3.3 per 100,000 and in the counties *more than 300 miles from the Border* there were 6.1 nurse midwives per 100,000 population.

Nurse Anesthetists

In 2004, there were 1,152 active nurse anesthetists licensed to practice in California for a ratio of 3.2 nurse anesthetists for every 100,000 California residents (Table 29).

Nurse Anesthetist to Population Ratios in California, 2004



Sources: Border States includes data from Arizona State Board of Nursing (2004), California Department of Consumer Affairs (2004), New Mexico Health Policy Commission (2003), and Texas Board of Nurse Examiners (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (2000).

- There were 137 nurse anesthetists in the counties *within 62 miles of the U.S.-Mexico Border* for a ratio of 4.4 per 100,000. This was similar to the Border States ratio of 4.5 per 100,000. The Border Counties ratio for nurse anesthetists in California was markedly lower than the U.S. ratio of 9.1 per 100,000.
- The national supply of nurse anesthetists was two times greater than was available in the Border Counties of California and the State.

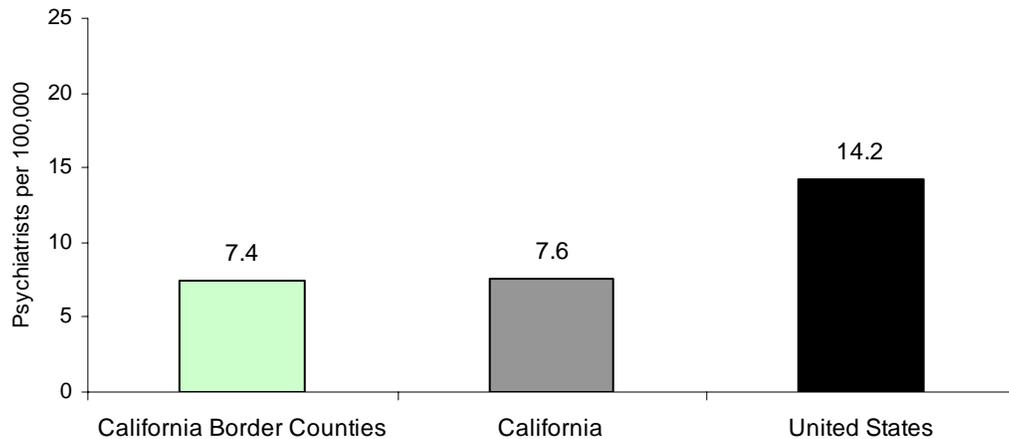
Mental Health Professionals

Psychiatrists

In 2000,³⁶ there were 2,589 active psychiatrists licensed to practice in California for a ratio of 7.6 psychiatrists for every 100,000 California residents (Table 30).

³⁶ Current ratios for psychiatrists could not be calculated as specialty data were not available for California physicians. For this same reason a comparable Border States ratio could not be calculated.

Psychiatrist to Population Ratios in California, 2000



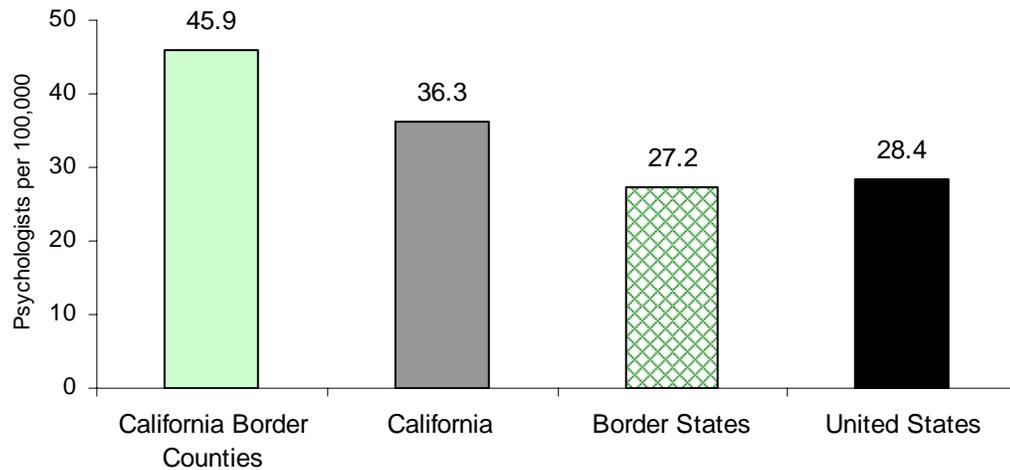
Sources: The Center for Health Professions, University of California, San Francisco (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (1999).

- There were 220 psychiatrists in the counties *within 62 miles of the U.S.-Mexico Border*. This was 7.4 psychiatrists per 100,000 population in the *Border region*, a ratio that was similar to the State ratio of 7.6. The supply of psychiatrists in the Border Counties and the State was lower than in the United States. (14.2 per 100,000).
- The supply of psychiatrists in the United States was two times greater than in the California Border Counties. The supply of psychiatrists was consistently lower across the State of California compared to the U.S. There were 6.8 and 9.0 psychiatrists per 100,000 population in the counties *between 62 and 300 miles from the Border* and those *more than 300 miles from the Border*, respectively (Table 30).

Psychologists

In 2004, there were 13,037 active psychologists licensed to practice in California. This was 36 psychologists for every 100,000 California residents (Table 31).

Psychologist to Population Ratios in California, 2004



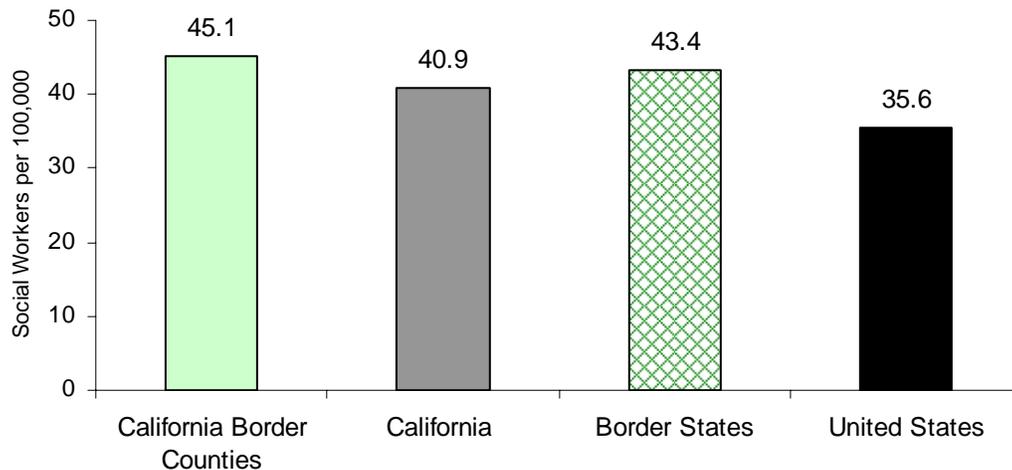
Sources: Border States includes data from Arizona Board of Psychologist Examiners (2004), California Department of Consumer Affairs (2004), New Mexico Health Policy Commission (2003), and Texas State Board of Examiners of Psychologists (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (1999).

- There were 1,416 psychologists in the California Border Counties. This resulted in a ratio of 46 psychologists per 100,000 people living the *Border region*, a ratio that was higher than the State ratio of 36 per 100,000. In both cases, the Border Counties and State ratios for psychologists were notably higher than the Border States and the United States (27 and 28 per 100,000, respectively).
- The ratio for psychologists in the counties *more than 300 miles from the U.S.-Mexico Border* was similar to the counties *within 62 miles of the Border*. The ratio of psychologists in the counties *between 62 and 300 miles from the U.S.-Mexico Border* was lower (31 per 100,000) than the other Border regions of the State.

Social Workers

In 2004, there were 14,676 active social workers licensed to practice in California; this was 41 social workers for every 100,000 California residents (Table 32).

Social Worker to Population Ratios in California, 2004



Sources: Border States includes data from Arizona Board of Behavioral Health Examiners (2004), California Department of Consumer Affairs (2004), New Mexico Health Policy Commission (2003), and Texas State Board of Social Worker Examiners (2003); U.S. from U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (1999).

- There were 1,392 social workers in the California Border Counties. This was 45 social workers per 100,000 population in the *Border region*. The Border ratio was somewhat higher than the ratios for California (41 per 100,000) the Border States (43 per 100,000), and the United States (36 per 100,000).
- The ratio for social workers in the counties *between 62 and 300 miles from the U.S.-Mexico Border* (34 per 100,000) was lower than the Border Counties (45 per 100,000). The supply of social workers in the counties *more than 300 miles from the U.S.-Mexico Border* (52 per 100,000) was notably higher than for the State (41 per 100,000).

Health Infrastructure

As one moved closer to the Border in California, there were fewer certified nursing home beds available. While there were 37 certified nursing home beds per 10,000 available for counties that were *more than 300 miles from the Border*, there were 34 certified nursing home beds per 10,000 population in counties *62 to 300 miles of the Border*, and 31 in counties *within 62 miles from the Border* (Table 33).

Statewide, there were 30 licensed hospital beds per 10,000 population. Counties *between 62 to 300 miles and more than 300 miles from the Border* had similar rates of licensed hospital beds (30 and 31, respectively) as the State while those

counties *within 62 miles of the Border* had fewer beds (24 per 10,000 population, Table 34).

Non-Traditional Professions

“Community Health Worker” (CHW) is a term inclusive of many job titles, such as community health advisors, lay health advocates, *promotoras*, outreach educators, community health representatives, peer health promoters and educators, etc. The common general attribute is that the CHWs are members of, or have a close relationship to, the community served. They generally are lay members of an underserved community who work in association with the health care system to offer interpretation and translation services, provide culturally appropriate health education and information, assist people in getting the health services they need, provide informal counseling and social support, advocate for individual and community health needs, and provide direct services such as first aid and blood pressure screening.³⁷

In 2004, a report by The Center for Health Professions indicated that California Assembly Bill (AB) 1963 was being considered by the California Legislature to encourage the use of *promotores* to address health concerns in rural and agricultural settings. While *promotores* would be defined as “trained” CHWs, training components were not addressed.³⁸ Although several groups offered their support for the bill, AB 1963 was vetoed by the governor of California in September 2004.³⁹

A few existing reports attempt to quantify the number of CHWs working in California. In a 1992 report, survey results indicated that there were a total of 1,645 CHWs working in California.⁴⁰ A more recent report indicates that there were 504 CHWs working in the San Francisco Bay area alone⁴¹ (covering eight counties). The Community Health Worker National Workforce Study (described below) will compute a set of estimates for paid CHWs using data from the U.S. Census Bureau’s Public Use Microdata Sample (PUMS) and Staffing Patterns data from the Bureau of Labor Statistics for every State in the country. In addition, an estimate of the number of volunteer CHWs will also be calculated at the State and national level. Results from the National Community Health Advisor Study (1998) indicated that there were at least 12,500 CHWs working throughout the United States.

The Community Health Worker National Workforce Study, which began on October 1, 2004, under a 2-year contract by the RCHWS at The University of Texas Health Science Center at San Antonio with the U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA), Bureau of Health Professions, is aimed at drawing an accurate profile of the CHW workforce. The study consists of a thorough analysis of the quality and size of CHW employment and potential job market.

³⁷ This is a HRSA description inclusive of the core roles of CHWs in the U.S. from the *National Community Health Advisor Study* by Rosenthal EL, Wiggins N, Brownstein JN et al., 1998.

³⁸ Keane, D., C. Nielson, and C. Dower, *Community Health Workers and Promotores in California*. 2004, UCSF Center for Health Professions: San Francisco, CA.

³⁹ Assembly Bill AB 1963 – Veto Message, September 24, 2004, from Official California Legislative Information, State of California Office of Legislative Counsel.

⁴⁰ Love, M.B., and K. Gardner, *The Emerging Role of the Community Health Worker in California: Results of a Statewide Survey and San Francisco Bay Area Focus Groups on the Community Health Workers in California’s Public Health System*. 1992, Center for Health Promotion, CHW Certificate Training, and California Department of Health Services.

⁴¹ Love, MB, K. Gardner, and V. Legion, *Community Health Workers: Who They Are and What They Do*. Health Education and Behavior, 1997. 24(4): p:510-22.

Data on the number of paid and volunteer CHWs, their duties, work conditions, compensation, training/education and career opportunities are collected, organized, verified, and explained. The study also examines related issues, such as training and credentialing standards, the availability of funding streams for education and compensation as well as current State/Federal policy trends and options. The final report will provide a national profile and detailed assessments of the CHW workforce in four States that will inform policy and strategic interventions on existing application of CHW capabilities in improving access, reducing disparities, and enhancing quality improvement and cost-containment efforts.

Population and Health Profiles Tables

Table 1
Population in California Border Regions, 2000⁴²

Geographic Area	Counties	Population	Percent
California	58	33,871,648	100.0
California Border Regions			
More than 300 miles from Border	42	11,464,306	33.8
62-300 miles	14	19,451,148	57.5
Within 62 miles	2	2,956,194	8.7

⁴² Source: U.S. Census Bureau. Census 2000 Summary File (SF-3) – Sample Data.

Table 2
Estimate of 2003 Population by Race/Ethnicity⁴³

Geographic Area	Non-Hispanic White	Black / African-American	Hispanic / Latino(a) [Ⓞ]	Asian / Pacific Islander	American Indian / Alaskan Native	Other**	Total
Percent of Total Population							
United States	69.1	12.0	12.5	3.7	0.7	1.9	100.0
Border States	50.1	7.5	31.9	7.1	1.0	2.3	100.0
California	46.7	6.3	32.5	10.9	0.5	3.1	100.0
California Border Regions							
More than 300 miles from Border	55.8	6.0	19.9	13.8	0.7	3.8	33.5
62-300 miles	40.4	6.7	40.3	9.5	0.4	2.7	57.8
Within 62 miles	53.2	5.3	28.9	8.8	0.6	3.2	8.7
Population							
United States	201,002,880	34,831,660	36,413,990	10,757,840	2,160,970	5,642,440	290,809,780
Border States	32,581,700	4,909,550	20,769,230	4,593,800	678,330	1,525,780	65,058,390
California	16,553,580	2,249,460	11,514,860	3,870,140	191,000	1,105,420	35,484,460
California Border Regions							
More than 300 miles from Border	6,640,070	712,790	2,364,410	1,647,410	84,850	454,000	11,903,530
62-300 miles	8,274,911	1,372,910	8,260,155	1,951,356	88,130	553,350	20,500,812
Within 62 miles	1,638,599	163,760	890,295	271,374	18,020	98,070	3,080,118

[Ⓞ] Includes Hispanic/Latinos(as) of all races; in California, 8.7% of Hispanic/Latinos(as) are Black/African-American, Asian/Pacific Islander, American Indian/Alaskan Native, or Other race. In the U.S. population, 9.7% of Hispanic/Latinos(as) were races other than White.

**Includes some other race or cases with two or more races.

⁴³ Source: U.S. Census Bureau County Population Estimates.

Table 3
Estimate of 2003 Population by Age⁴⁴

Geographic Area	Less than 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and Over	Total
Percent of Total Population							
United States	35.3	14.1	16.3	13.4	8.6	12.4	100.0
Border States	37.7	15.0	16.4	12.6	7.7	10.6	100.0
California	37.2	15.2	16.6	12.7	7.6	10.6	100.0
California Border Regions							
More than 300 miles from Border	34.4	14.9	17.0	13.9	8.4	11.5	33.5
62-300 miles	38.8	15.4	16.4	12.1	7.3	10.0	57.8
Within 62 miles	37.2	15.5	16.7	12.4	7.2	11.1	8.7
Population							
United States	102,519,790	40,897,610	47,436,820	38,832,180	24,977,550	36,145,830	290,809,780
Border States	24,496,680	9,772,120	10,678,680	8,208,470	5,025,510	6,876,930	65,058,390
California	13,200,060	5,398,090	5,907,280	4,512,350	2,708,390	3,758,290	35,484,460
California Border Regions							
More than 300 miles from Border	4,092,320	1,770,440	2,026,460	1,653,860	993,970	1,366,480	11,903,530
62-300 miles	7,962,386	3,151,125	3,365,720	2,477,565	1,494,180	2,049,841	20,500,817
Within 62 miles	1,145,354	476,525	515,100	380,925	220,240	341,969	3,080,113

⁴⁴ Source: U.S. Census Bureau County Population Estimates.

Table 4
Poverty Level, 2000⁴⁵

Geographic Area	Percent of Poverty					Total
	Under 1.00	1.00 to 1.49	1.50 to 1.84	1.85 to 1.99	2.00 & Over	
Percent of Total Population						
United States	12.4	8.6	6.2	2.5	70.4	100.0
Border States	14.7	10.2	6.8	2.6	65.7	100.0
California	14.2	9.9	6.5	2.5	66.9	100.0
California Border Regions						
More than 300 miles from Border	11.3	7.7	5.3	2.1	73.6	33.9
62-300 miles	16.1	11.2	7.2	2.7	62.8	57.5
Within 62 miles	12.9	9.7	6.5	2.5	68.5	8.6
Population						
United States	33,899,812	23,420,337	16,977,258	6,897,202	192,687,623	273,882,232
Border States	8,851,341	6,142,023	4,095,365	1,567,304	39,536,456	60,192,489
California	4,706,130	3,280,757	2,141,744	814,505	22,156,908	33,100,044
California Border Regions						
More than 300 miles from Border	1,265,989	866,896	593,337	237,571	8,259,133	11,222,926
62-300 miles	3,072,061	2,137,586	1,363,072	506,656	11,943,876	19,023,251
Within 62 miles	368,080	276,275	185,335	70,278	1,953,899	2,853,867

⁴⁵ Source: U.S. Census Bureau, 2000. Data for 2000 were the most recent year of data available. Note: In 2000, \$17,761 for a family of four was established as the poverty threshold according to the U.S. Census Bureau, *Poverty in the United States: 2000: Current Population Reports: Consumer Income*, September 2001, p 5. Poverty thresholds are updated annually by the Census Bureau, in 2004, the poverty threshold changed to \$19,484, <http://www.census.gov/hhes/poverty/threshld/thresh04.html>, accessed on February 8, 2006.

Table 5
Insurance Coverage, 2002

Geographic Area	Without Health Coverage ⁴⁶
Percent of Population	
United States	15.2
Border States	19.4
California	15.4
California Border Regions	
More than 300 miles from Border	12.9
62-300 miles	17.1
Within 62 miles	15.2
Sample Size	
United States	247,303
Border States	24,305
California	4,213
California Border Regions	
More than 300 miles from Border	1,158
62-300 miles	2,096
Within 62 miles	341

⁴⁶ Source: *Behavioral Risk Factor Surveillance System (BRFSS)*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. In the BRFSS, respondents were asked "Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?" Sample size reflects number of respondents, excluding those who answered "Do not know/not sure" or refused. The sample size within a State may not add up to State total due to suppression of data for counties with small sample sizes. The percentages were weighted to population characteristics in order to produce estimates that were representative of the sampled population. Health characteristics estimated from the BRFSS pertain only to the adult population (age 18 and older) living in households.

Table 6
Highest Level of Education, 2000⁴⁷

Geographic Area	Less than 9	9 to 12 (no diploma)	High School	Some College	Associate Degree	College Degree	Total
Percent of Total Population							
United States	7.5	12.1	28.6	21.0	6.3	24.4	100.0
Border States	11.1	12.1	22.2	23.0	6.4	25.1	100.0
California	11.5	11.7	20.1	22.9	7.1	26.8	100.0
California Border Regions							
More than 300 miles from Border	8.0	9.8	20.2	23.5	7.5	31.0	35.4
62-300 miles	14.1	13.2	20.1	22.2	6.8	23.5	55.9
Within 62 miles	8.7	9.8	19.9	25.4	7.5	28.7	8.7
Population							
United States	13,755,477	21,960,148	52,168,981	38,351,595	11,512,833	44,462,605	182,211,639
Border States	4,271,425	4,645,407	8,558,845	8,857,227	2,473,254	9,674,620	38,480,778
California	2,446,324	2,496,419	4,288,452	4,879,336	1,518,403	5,669,966	21,298,900
California Border Regions							
More than 300 miles from Border	602,195	739,755	1,521,459	1,771,295	568,197	2,336,373	7,539,274
62-300 miles	1,683,469	1,574,217	2,396,575	2,636,541	810,424	2,801,441	11,902,667
Within 62 miles	160,660	182,447	370,418	471,500	139,782	532,152	1,856,959

⁴⁷ Source: U.S. Census Bureau, 2000. Figures reported here reflect the highest level of education attained by adults ages 25 and over. Data for 2000 were the most recent year of data available.

Table 7
Breast and Cervical Cancer, 2002

Geographic Area	Breast Cancer			Cervical Cancer		
	Age-Adjusted Mortality Rate	YPLL Rate	2001 Incidence Rate	Age-Adjusted Mortality Rate	YPLL Rate ⁴⁸	2001 Incidence Rate
	Per 100,000			Per 100,000		
United States⁴⁹	14.5	86.2[£]	NA[§]	2.7	34.0[£]	NA[§]
Border States	13.3	71.8	NA[§]	2.6	31.9	4.5^Ω
California⁵⁰	13.2	70.6	61.4	2.4	27.9	8.4
California Border Regions						
More than 300 miles from Border	13.3	76.4	67.8	1.6	20.5	7.5
62-300 miles	12.9	64.9	56.9	2.9	31.9	9.1
Within 62 miles	15.4	86.8	66.3	2.0	29.2	7.0
	Number of Cases					
United States	41,883	17,520[£]	NA[§]	3,952	2,609[£]	NA[§]
Border States	7,555	3,424	NA[§]	827	572	2,804^Ω
California	4,154	1,843	21,194	414	289	1,455
California Border Regions						
More than 300 miles from Border	1,522	685	7,923	100	65	440
62-300 miles	2,207	969	11,280	284	202	910
Within 62 miles	425	189	1,991	30	22	105

[£] YPLL rate is for 2001, the most recent year of data available.

[§] Counts not available for 2001.

^Ω New Mexico rate is based on average number of cases for a 5-year period.

⁴⁸ Years of potential life lost (YPLL) calculated for persons who died before age 65.

⁴⁹ Sources: Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004, for mortality; and <http://wonder.cdc.gov/mortICD10J.html>, accessed on September 9, 2004, for YPLL rates.

⁵⁰ Sources: Office of Health Information and Research, California Department of Health Services, 2002, for mortality and YPLL rates, and California Cancer Registry, California Department of Health Services, 2001, for incidence rates. Breast cancer mortality and YPLL rates include all deaths and total population; female population used to calculate mortality and YPLL for cervical cancer; both mortality rates were adjusted to the 2000 U.S. Standard Population. Incidence rates reflect malignant neoplasm of the breast and cervix uteri and were for the most current years of data available; breast cancer incidence reflects males and females. The California Registry indicated that incidence data for 2001, reported here, were 97 percent complete based on expected counts from previous years. Age at death due to cervical cancer not reported for one case in California.

Table 8
Diabetes Mellitus Measures, 2002

Geographic Area	Hospital Discharge Rate	Age-Adjusted Mortality Rate	YPLL Rate ⁵¹	Ever Had Diabetes ⁵²
	Per 10,000	Per 100,000	Per 100,000	Percent
United States⁵³	20.1	25.4	79.3[£]	7.1
Border States	14.5	25.7	72.8	7.3
California⁵⁴	13.4	22.2	59.1	7.5
California Border Regions				
More than 300 miles from Border	11.8	19.4	53.9	6.6
62-300 miles	14.7	24.6	64.9	8.3
Within 62 miles	10.9	18.6	39.5	5.3
		Number of Cases		Sample Size
United States	NA[§]	73,249	17,664[£]	245,063
Border States	92,664	14,228	3,849	24,018
California	46,740	6,783	1,729	4,155
California Border Regions				
More than 300 miles from Border	13,872	2,173	536	1,146
62-300 miles	29,567	4,104	1,097	2,063
Within 62 miles	3,301	506	96	337

[£] YPLL rate is for 2001, the most recent year of data available.

[§] Number of hospitalizations not reported, only rates of discharge.

⁵¹ Years of potential life lost (YPLL) calculated for persons who died before age 65.

⁵² Source: *Behavioral Risk Factor Surveillance System (BRFSS)*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. In the BRFSS, respondents were asked "Have you ever been told by a doctor that you have diabetes? (If "Yes" and female, ask "Was this only when you were pregnant?")". Sample size reflects number of respondents, excluding those who answered "Do not know/not sure," were female and had diabetes while pregnant, or refused. The sample size within a State may not add up to State total due to suppression of data for counties with small sample sizes. The percentages were weighted to population characteristics in order to produce estimates that were representative of the sampled population. Health characteristics estimated from the BRFSS pertain only to the adult population (age 18 and older) living in households.

⁵³ Sources: DeFrances CJ, Hall MJ. 2002 National Hospital Discharge Survey. Advance data from vital and health statistics; no 342. Hyattsville, Maryland: National Center for Health Statistics. 2004; for hospital discharge rate; Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004, for mortality; and <http://wonder.cdc.gov/mortlCD10J.html>, accessed on September 9, 2004, for YPLL rate.

⁵⁴ Sources: Office of Statewide Health Planning and Development, California Health and Human Services Agency, 2002 and Office of Health Information and Research, California Department of Health Services, 2002, for mortality and YPLL rates.

Table 9
Proportion Overweight and Obese, 2002

Geographic Area	Body Mass Index Category ⁵⁵		
	Overweight Only	Obese Only	Overweight & Obese
Percent of Population			
United States	36.9	21.9	58.8
Border States	37.4	20.9	58.3
California	37.5	19.2	56.7
California Border Regions			
More than 300 miles from Border	35.9	17.7	53.6
62-300 miles	38.9	19.5	58.4
Within 62 miles	34.7	16.6	51.3
Sample Size			
United States			236,287
Border States			23,243
California			4,084
California Border Regions			
More than 300 miles from Border			1,109
62-300 miles			2,038
Within 62 miles			333

⁵⁵ Source: *Behavioral Risk Factor Surveillance System (BRFSS)*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. In the BRFSS, body mass index is reported as a calculated variable using weight and height data collected from the respondent. Sample size reflects number of respondents, excluding those who answered "Do not know/not sure" or refused, or whose data was missing. The sample size within a State may not add up to State total due to suppression of data for counties with small sample sizes. The percentages were weighted to population characteristics in order to produce estimates that were representative of the sampled population. Health characteristics estimated from the BRFSS pertain only to the adult population (age 18 and older) living in households.

Table 10
Cerebrovascular Disease Deaths, 2002

Geographic Area	Age-Adjusted Mortality Rate	YPLL Rate ⁵⁶
	Per 100,000	Per 100,000
United States⁵⁷	56.2	96.7[£]
Border States	57.9	81.0
California⁵⁸	57.9	79.1
California Border Regions		
More than 300 miles from Border	61.7	78.1
62-300 miles	55.6	79.9
Within 62 miles	55.8	77.0
	Number of Cases	
United States	162,672	19,048[£]
Border States	31,226	3,897
California	17,551	2,076
California Border Regions		
More than 300 miles from Border	6,884	733
62-300 miles	9,133	1,201
Within 62 miles	1,534	142

[£]YPLL rate is for 2001, the most recent year of data available.

⁵⁶ Years of potential life lost (YPLL) calculated for persons who died before age 65.

⁵⁷ Sources: Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004, for mortality; and <http://wonder.cdc.gov/mortLCD10J.html>, accessed on September 9, 2004, for YPLL rate.

⁵⁸ Source: Office of Health Information and Research, California Department of Health Services, 2002, for mortality and YPLL rates. Age at death not reported for two cases in California.

Table 11
HIV / AIDS, 2002

Geographic Area	AIDS	HIV
Incidence Rate Per 100,000		
United States⁵⁹	14.8[£]	NA[§]
Border States^Ω	11.5	15.5
California⁶⁰	11.8	14.1
California Border Regions		
More than 300 miles from Border	10.9	13.6
62-300 miles	12.0	13.2
Within 62 miles	14.6	22.1
Number of Cases		
United States	42,651[£]	NA[§]
Border States^Ω	7,358	9,887
California	4,142	4,937
California Border Regions		
More than 300 miles from Border	1,280	1,603
62-300 miles	2,419	2,661
Within 62 miles	443	673

[£] Counts are for 2002.

[§] Counts not available for 2002; number of HIV cases only available for 36 States.

^Ω Counts are for 2002; Arizona rate is based on average number of cases for a 5-year period, while New Mexico rate is based on average number of cases for a 3-year period.

⁵⁹ Source: National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention. Table 14. AIDS cases and rate (per 100,000 population), by area of residence and age category, reported through December 2002 – United States.

⁶⁰ Source: Office of AIDS, California Department of Health Services, 2002.

Table 12
Selected Infectious Diseases, 2002

Geographic Area	Hepatitis A	Hepatitis B	Tuberculosis
Incidence Rate Per 100,000			
United States⁶¹	3.1	2.8	5.2
Border States	4.3	3.3	7.8
California⁶²	4.1	1.8	9.1
California Border Regions			
More than 300 miles from Border	3.4	2.7	9.0
62-300 miles	4.3	1.3	8.7
Within 62 miles	6.2	1.0	11.7
Number of Cases			
United States	8,795	8,064	15,075
Border States	2,747	2,122	5,021
California	1,452	614	3,169
California Border Regions			
More than 300 miles from Border	406	322	1,059
62-300 miles	857	262	1,775
Within 62 miles	189	30	355

⁶¹ Sources: National Center for Infectious Diseases, Centers for Disease Control and Prevention. Table 1. Reported cases of acute viral hepatitis, by type and year, United States, 1966-2003; National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention. Table 1. Tuberculosis Cases and Case Rates per 100,000 Population, Deaths, and Death Rates per 100,000 Population: United States, 1953-2002.

⁶² Sources: Infectious Diseases Branch, Division of Communicable Disease Control, California Department of Health Services, 2002; reflects only acute hepatitis cases, and Tuberculosis Control Branch, Division of Communicable Disease Control, California Department of Health Services, 2002.

Table 13
Estimated Vaccination Coverage with 4:3:1:3:3:1†**
Among Children 19-35 Months of Age by Race/Ethnicity‡, and by
State and Immunization Action Plan Area U.S., National
Immunization Survey, 2003§⁶³

Geographic Area	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic	American Indian or Alaskan Native only	Asian only	Native Hawaiian or Other Pacific Islander only	Multiple Race, non-Hispanic
United States	72.5 ±1.0	73.9 ±1.2	68.4 ±3.3	71.3 ±2.2	69.1 ±8.1	76.0 ±5.5	NA	74.3 ±5.0
Border States	NA	NA	NA	NA	NA	NA	NA	NA
California	75.6 ±3.7	74.8 ±6.8	NA	74.5 ±5.1	NA	NA	NA	NA
California Border Regions								
More than 300 miles from Border	NA	NA	NA	NA	NA	NA	NA	NA
62-300 miles	NA	NA	NA	NA	NA	NA	NA	NA
Within 62 miles	NA	NA	NA	NA	NA	NA	NA	NA

** Estimate=NA (Not Available) if the unweighted sample size for the numerator was <30 or (CI half width)/Estimate >0.5 or (CI half width)>10

† Four or more doses of DTP, three or more doses of poliovirus vaccine, one or more doses of any MCV, three or more doses of Hib, three or more doses of HepB, and one or more doses of varicella

‡ Self-reported by respondent. Individual racial groups do not include Hispanic children. Children of Hispanic ethnicity may be of any race

§ Children in the Q1/2003-Q4/2003 National Immunization Survey were born between February 2000 and May 2002.

|| % ± 95% Confidence Interval

NA: Not Available.

The NIS estimates vaccination coverage for each State and 28 selected urban areas. Due to NIS sampling methods and sample size constraints, coverage for smaller geographical areas cannot be estimated.

NIS Data were not available at the county-level. Therefore, coverage rates for Border regions cannot be provided.

National coverage estimates are more precise than State estimates.

⁶³ Source: National Immunization Program, Centers for Disease Control and Prevention, 2003. National Immunization Survey table available at http://www.cdc.gov/nip/coverage/nis/03/tab26_431331_race_iap.xls, accessed on August 25, 2004.

Table 14
Motor Vehicle Deaths, 2002

Geographic Area	Age-Adjusted Mortality Rate	YPLL Rate ⁶⁴
	Per 100,000	Per 100,000
United States⁶⁵	15.7	465.6[£]
Border States	14.6	436.4
California⁶⁶	11.7	338.4
California Border Regions		
More than 300 miles from Border	12.5	376.3
62-300 miles	11.3	317.5
Within 62 miles	11.5	332.5
	Number of Cases	
United States	45,380	36,410[£]
Border States	9,238	7,886
California	4,046	3,422
California Border Regions		
More than 300 miles from Border	1,472	1,265
62-300 miles	2,223	1,864
Within 62 miles	351	293

[£] YPLL rate is for 2001, the most recent year of data available.

⁶⁴ Years of potential life lost (YPLL) calculated for persons who died before age 65.

⁶⁵ Sources: Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004, for mortality, and National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, for YPLL rate <http://webappa.cdc.gov/sasweb/ncipc/ypll10.html>, accessed on August 30, 2004.

⁶⁶ Source: Office of Health Information and Research, California Department of Health Services, 2002, for mortality and YPLL rates. Age at death not reported for seven cases in California.

Table 15
Infant Mortality by Race/Ethnicity, 2002

Geographic Area	Non-Hispanic White	Black / African-American	Hispanic / Latino(a) [Ⓞ]	Asian / Pacific Islander	American Indian / Alaskan Native	Other**	Total
Infant Mortality Rate per 1,000 Births							
United States⁶⁷	5.9	14.3	5.6	NA[§]	NA[§]	NA[§]	7.0
Border States	5.4	12.9	5.5	3.4	7.1	8.7	5.9
California⁶⁸	5.1	12.6	5.2	3.5	5.6	9.0	5.5
California Border Regions							
More than 300 miles from Border	4.9	11.2	5.5	2.9	6.4	9.8	5.2
62-300 miles	5.5	13.1	5.3	4.1	†	7.6	5.7
Within 62 miles	4.1	14.2	3.7	3.3	†	12.5	4.5
Number of Infant Deaths							
United States	13,492	8,446	4,928	NA[§]	NA[§]	NA[§]	27,977
Border States	1,894	957	2,700	261	79	63	5,954
California	827	375	1,372	216	11	63	2,864
California Border Regions							
More than 300 miles from Border	323	107	304	86	6	29	855
62-300 miles	437	235	988	115	-	25	1,803
Within 62 miles	67	33	80	15	-	9	206

Did not respond in California - four

[Ⓞ] Includes Hispanic/Latinos(as) of all races; in California, 3.5% of Hispanic/Latino(a) infant deaths were of races other than White.

** Includes some other race or cases with two or more races.

[§] Counts not available for 2002.

† Rates based on small cell sizes are unreliable.

- Number of cases is suppressed due to fewer than five cases.

⁶⁷ Source: Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004.

⁶⁸ Source: Office of Health Information and Research, California Department of Health Services, 2002.

Table 16
Prenatal Care Started in First Trimester by Race/Ethnicity,
2002

Geographic Area	Non-Hispanic White	Black / African-American	Hispanic / Latino(a) [¶]	Asian / Pacific Islander	American Indian / Alaskan Native	Other**	Total
Percent Starting Prenatal Care in First Trimester							
United States⁶⁹	88.6	75.2	76.7	84.8	69.8	NA[§]	83.7
Border States	88.2	78.6	78.6	86.6	64.7	84.0	82.4
California⁷⁰	89.6	80.8	82.2	86.5	73.5	84.1	84.8
California Border Regions							
More than 300 miles from Border	88.0	79.3	77.3	84.0	69.6	80.2	82.9
62-300 miles	90.6	81.5	83.8	89.0	77.2	87.3	85.8
Within 62 miles	91.1	81.0	80.3	86.8	76.2	85.2	84.7
Number							
United States	2,006,365	423,012	657,240	NA[§]	NA[§]	NA[§]	3,301,186
Border States	306,594	58,502	387,515	66,873	7,199	6,083	832,766
California	144,661	24,076	216,137	53,434	1,445	5,890	445,643
California Border Regions							
More than 300 miles from Border	58,185	7,557	42,361	24,597	651	2,386	135,737
62-300 miles	71,515	14,640	156,192	24,906	624	2,889	270,766
Within 62 miles	14,961	1,879	17,584	3,931	170	615	39,140

Did not respond in California – 3,312

[¶] Includes Hispanic/Latinos(as) of all races; in California, 2.2% of Hispanic/Latinos(as) were of races other than White.

** Includes some other race or cases with two or more races.

[§] Counts not available for 2002.

⁶⁹ Source: Martin JA, Hamilton BE, Sutton PD, Ventura SJ, Menacker F, Munson ML. Births: Final data for 2002. National vital statistics reports; vol 52 no 10. Hyattsville, Maryland: National Center for Health Statistics. 2003.

⁷⁰ Source: Office of Health Information and Research, California Department of Health Services, 2002.

Table 17
Birth Rates for Teenage Mothers, Ages 15 to 17, by
Race/Ethnicity, 2002

Geographic Area	Non-Hispanic White	Black / African-American	Hispanic / Latino(a) ^φ	Asian / Pacific Islander	American Indian / Alaskan Native	Other**	Total
Birth Rates							
United States⁷¹	13.1	41.0	50.7	9.0	30.7	NA[§]	18.2
Border States	10.0	39.4	60.5	7.1	39.6	8.6	28.8
California⁷²	6.1	26.8	49.4	7.2	17.8	11.7	22.1
California Border Regions							
More than 300 miles from Border	6.9	28.8	49.7	9.0	21.9	13.9	17.5
62-300 miles	6.0	26.4	48.9	5.9	14.3	10.3	24.8
Within 62 miles	3.9	22.0	54.1	7.6	15.8	10.3	20.1
Number of Births to Teenage Mothers							
United States	49,756	37,017	46,740	NA[§]	NA[§]	NA[§]	138,731
Border States	7,020	4,202	28,004	667	649	281	40,823
California	2,152	1,268	12,242	566	74	273	16,575
California Border Regions							
More than 300 miles from Border	934	405	2,441	279	40	128	4,227
62-300 miles	1,086	788	8,786	244	28	124	11,506
Within 62 miles	132	75	1,015	43	6	21	1,292

Did not respond in California – 85

^φ Includes Hispanic/Latinos(as) of all races; in California, 3.1% of Hispanic/Latinos(as) were of races other than White.

** Includes some other race or cases with two or more races.

[§] Not available in 2002.

⁷¹ Source: Martin JA, Hamilton BE, Sutton PD, Ventura SJ, Menacker F, Munson ML. Births: Final data for 2002. National vital statistics reports; vol 52 no 10. Hyattsville, Maryland: National Center for Health Statistics. 2003.

⁷² Source: Office of Health Information and Research, California Department of Health Services, 2002.

Table 18
Prenatal Care Started in First Trimester by Race/Ethnicity
for Teenage Mothers, 2002

Geographic Area	Non-Hispanic White	Black / African-American	Hispanic / Latino(a) [Ⓟ]	Asian / Pacific Islander	American Indian / Alaskan Native	Other**	Total
Percent Teenage Mothers Starting Prenatal Care in First Trimester							
United States⁷³	70.1	57.2	62.2	NA[§]	NA[§]	NA[§]	63.3
Border States	69.3	63.1	67.1	49.9	51.3	62.3	66.5
California⁷⁴	67.3	65.9	69.4	50.4	63.5	61.5	68.0
California Border Regions							
More than 300 miles from Border	63.6	66.7	63.3	40.9	57.5	55.5	61.9
62-300 miles	69.1	65.9	71.6	60.2	67.9	68.5	70.6
Within 62 miles	78.8	62.7	65.2	55.8	83.3	57.1	66.1
Number of Teenage Mothers Starting Prenatal Care in First Trimester							
United States	34,890	21,190	29,051	NA[§]	NA[§]	NA[§]	87,876
Border States	4,862	2,651	18,779	333	333	175	27,133
California	1,448	836	8,493	285	47	168	11,277
California Border Regions							
More than 300 miles from Border	594	270	1,544	114	23	71	2,616
62-300 miles	750	519	6,287	147	19	85	7,807
Within 62 miles	104	47	662	24	5	12	854

Did not respond in California - 42

[Ⓟ] Includes Hispanic/Latinos(as) of all races; in California, 2.7% of Hispanic/Latinos(as) were of races other than White.

** Includes some other race or cases with two or more races.

[§] Not available in 2002.

⁷³ Source: Martin JA, Hamilton BE, Sutton PD, Ventura SJ, Menacker F, Munson ML. Births: Final data for 2002. National vital statistics reports; vol 52 no 10. Hyattsville, Maryland: National Center for Health Statistics. 2003.

⁷⁴ Source: Office of Health Information and Research, California Department of Health Services, 2002.

Table 19
Mental Health Measures, 2002

Geographic Area	Hospital Discharge Rate [‡]	Suicide – Age-Adjusted Mortality Rate	Suicide YPLL Rate ⁷⁵
	Per 10,000	Per 100,000	Per 100,000
United States⁷⁶	85.8	10.9	261.6[£]
Border States	37.9^Ω	10.9	237.0
California⁷⁷	41.8	9.5	188.4
California Border Regions			
More than 300 miles from Border	32.5	10.7	215.5
62-300 miles	46.4	8.6	167.0
Within 62 miles	47.4	10.6	227.8
		Number of Cases	
United States	NA[§]	31,655	25,214[£]
Border States	235,577^Ω	6,730	5,501
California	146,214	3,210	2,538
California Border Regions			
More than 300 miles from Border	38,373	1,264	982
62-300 miles	93,435	1,630	1,290
Within 62 miles	14,406	316	266

[£] YPLL rate is for 2001, the most recent year of data available.

^Ω Proportion for the Border States is based on Arizona, California, and Texas; hospitalizations for New Mexico not based on primary diagnosis.

[‡] Hospitalized for: Alcohol- and substance-related mental disorders; senility and organic mental disorders; affective disorders; schizophrenia, related disorders; other psychoses; anxiety, somatoform, dissociative, and personality disorders; preadult disorders, other mental conditions; personal history of mental disorder, mental / behavioral problems, observation, mental retardation; and screening for mental condition.

[§] Number of hospitalizations not reported, only rates of discharge.

⁷⁵ Years of potential life lost (YPLL) calculated for persons who died before age 65.

⁷⁶ Sources: DeFrances CJ, Hall MJ. 2002 National Hospital Discharge Survey. Advance data from vital and health statistics; no 342. Hyattsville, Maryland: National Center for Health Statistics. 2004 for hospital discharge rate; Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004, for mortality; National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, for YPLL rate <http://webappa.cdc.gov/sasweb/ncipc/ypll10.html>, accessed on August 30, 2004.

⁷⁷ Source: Office of Statewide Health Planning and Development, California Health and Human Services Agency, 2002, and Office of Health Information and Research, California Department of Health Services, 2002, for mortality and YPLL rates. Age at death not reported for one case in California.

Table 20
Oral Health, 2002

Geographic Area	Dental Visit in Past Year ⁷⁸
Percent of Population	
United States	69.5
Border States	66.3
California	68.4
California Border Regions	
More than 300 miles from Border	70.7
62-300 miles	66.6
Within 62 miles	74.7
Sample Size	
United States	243,595
Border States	24,257
California	4,213
California Border Regions	
More than 300 miles from Border	1,157
62-300 miles	2,097
Within 62 miles	341

⁷⁸ Source: *Behavioral Risk Factor Surveillance System (BRFSS)*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. In the BRFSS, respondents were asked "How long has it been since you last visited a dentist or a dental clinic for any reason? [Include visits to dental specialists, such as orthodontists.]" Sample size reflects number of respondents, excluding those who answered "Do not know/not sure" or refused. The sample size within a State may not add up to State total due to suppression of data for counties with small sample sizes. The percentages were weighted to population characteristics in order to produce estimates that were representative of the sampled population. Health characteristics estimated from the BRFSS pertain only to the adult population (age 18 and older) living in households.

Table 21
Asthma, 2002

Geographic Area	Hospital Discharge Rate	Age-Adjusted Mortality Rate	YPLL Rate ⁷⁹	Ever Had Asthma ⁸⁰
	Per 10,000	Per 100,000	Per 100,000	Percent
United States⁸¹	16.8	1.4	17.8[£]	11.9
Border States	11.1	1.5	15.4	12.0
California⁸²	10.3	1.6	15.4	12.7
California Border Regions				
More than 300 miles from Border	9.6	1.9	15.4	12.4
62-300 miles	11.0	1.4	16.3	13.1
Within 62 miles	8.9	1.1	9.5	10.5
		Number of Cases		Sample Size
United States	NA[§]	4,261	2,124[£]	247,646
Border States	71,160	852	415	24,341
California	36,177	496	234	4,210
California Border Regions				
More than 300 miles from Border	11,323	220	89	1,157
62-300 miles	22,156	243	132	2,095
Within 62 miles	2,698	33	13	340

[£] YPLL rate is for 2001, the most recent year of data available.

[§] Number of hospitalizations not reported, only rates of discharge.

⁷⁹ Years of potential life lost (YPLL) calculated for persons who died before age 65.

⁸⁰ Source: *Behavioral Risk Factor Surveillance System (BRFSS)*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. In the BRFSS, respondents were asked "Have you ever been told by a doctor, nurse, or other health professional that you had asthma?" Sample size reflects number of respondents, excluding those who answered "Do not know/not sure" or refused. The sample size within a State may not add up to State total due to suppression of data for counties with small sample sizes. The percentages were weighted to population characteristics in order to produce estimates that were representative of the sampled population. Health characteristics estimated from the BRFSS pertain only to the adult population (age 18 and older) living in households.

⁸¹ Sources: DeFrances CJ, Hall MJ. 2002 National Hospital Discharge Survey. Advance data from vital and health statistics; no 342. Hyattsville, Maryland: National Center for Health Statistics. 2004 for hospital discharge rate; Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: Final data for 2002. National vital statistics reports; vol 53 no 5. Hyattsville, Maryland: National Center for Health Statistics. 2004, for mortality; and <http://wonder.cdc.gov/mortlCD10J.html>, accessed on September 9, 2004, for YPLL rates.

⁸² Sources: Office of Statewide Health Planning and Development, California Health and Human Services Agency, 2002 and Office of Health Information and Research, California Department of Health Services, 2002, for mortality and YPLL rates. Age at death not reported for one case in California.

Tables for Profiles of Physicians, Dentists, and Registered Nurses

Table 22
Physician to Population Ratios, 2004

Geographic Area	Number	Ratio
United States^{£,83}	782,235	278.0
Border States	143,792	219.1
California⁸⁴	89,143	248.4
California Border Regions		
More than 300 miles from Border	33,518	279.3
62-300 miles	47,126	226.5
Within 62 miles	8,49	275.6

[£] Counts are for 2000, the most recent year of data available.

⁸³ Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. United States Health Personnel Factbook, 2003. Table #203 Number, Percent Distribution, and Physician-to-Population Ratios of Active MDs by Primary Care Specialty, 1981-2000; Table #211 Total and Active Osteopathic Physicians (DOs) and Physician-to-Population Ratios, 1981-2000.

⁸⁴ Source: California Department of Consumer Affairs, July 2004. Physicians include active MDs and DOs whose address was located in California. MD license types included were "A," "C," "G," "AFE," "CFE," and "GFE," (with exception of retired and disabled licensees), and a license type of "20A" for DOs.

Table 23
Physicians by Type of Patient Care, 2000

Geographic Area	Primary Care**	Other Specialties	Total
Physician to Population Ratios per 100,000			
California⁸⁵	67.3	121.9	189.2
California Border Regions			
More than 300 miles from Border	75.4	132.9	208.3
62-300 miles	63.2	115.0	178.2
Within 62 miles	62.7	124.1	186.8
Number of Physicians			
California	22,890	41,441	64,331
California Border Regions			
More than 300 miles from Border	8,684	15,301	23,985
62-300 miles	12,347	22,450	34,805
Within 62 miles	1,859	3,682	5,541

Did not respond in California - 767

**Primary care includes family practice, general practice, general internal medicine, and general pediatrics; Counts are for 2000, the most recent year of data available. Physician to population ratios calculated using 2000 population for California.

⁸⁵ Source: Dower, C, McRee T, Grumbach K, Briggance B, Mutha S, Coffman J, Vranizan K, Bindman A, O'Neil E. *The Practice of Medicine in California: A Profile of the Physician Workforce*. San Francisco CA: California Workforce Initiative at the UCSF Center for the Health Professions. February 2001. Appendix F: California Active Patient-Care Physicians (Totals, Generalists, Specialists) and Ratios to 100,000 Population, by County, 2000.

Table 24
Dentist to Population Ratios, 2004

Geographic Area	Number	Ratio
United States^{£,86}	168,000	60.7
Border States	42,370	64.6
California⁸⁷	28,584	79.6
California Border Regions		
More than 300 miles from Border	10,685	89.0
62-300 miles	15,454	74.3
Within 62 miles	2,445	79.3

[£] Counts are for 2000, the most recent year of data available.

⁸⁶ Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. United States Health Personnel Factbook, 2003. Table #301 Professionally Active and Private Practice Dentists and Dentist-to-Population Ratios, Selected Years: 1975-2000.

⁸⁷ Source: California Department of Consumer Affairs, July 2004. Dentists include those dentists with an active license and a license type of "DDS" whose address was located in California.

Table 25
Registered Nurse to Population Ratios, 2004

Geographic Area	Number	Ratio
United States^{£,88}	2,201,800	782.0
Border States	454,178	692.1
California⁸⁹	258,800	721.0
California Border Regions		
More than 300 miles from Border	98,519	820.8
62-300 miles	135,725	652.3
Within 62 miles	24,556	796.2

[£] Counts are for 1999, the most recent year of data available.

⁸⁸ Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. United States Health Personnel Factbook, 2003. Table #402 Estimated Supply of Registered Nurses by Geographic Area December 31, 1999.

⁸⁹ Source: California Department of Consumer Affairs, July 2004. Registered nurses (RNs) include those RNs with an active license (and a license type of "RN") whose address was located in California.

Tables for Profiles of Non-Physician Clinicians

Table 26
Physician Assistant to Population Ratios, 2004

Geographic Area	Number	Ratio
United States^{£,90}	42,220	14.8
Border States	8,469	12.9
California⁹¹	4,974	13.9
California Border Regions		
More than 300 miles from Border	1,643	13.7
62-300 miles	2,898	13.9
Within 62 miles	433	14.0

[£] Counts are for 2002, the most recent year of data available.

⁹⁰ Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. United States Health Personnel Factbook, 2003. Table #220 Estimated Number of Physician Assistants and Physician Assistant-to-Population Ratios by Geographic Area, January 1, 2002.

⁹¹ Source: California Department of Consumer Affairs, July 2004. Physician assistants (PAs) are those PAs with an active license and a license type of "PA" whose address was located in California.

Table 27
Nurse Practitioner to Population Ratios, 2004

Geographic Area	Number	Ratio
United States^{£,92}	77,584	27.6
Border States	25,215	38.4
California⁹³	19,330	53.9
California Border Regions		
More than 300 miles from Border	8,136	67.8
62-300 miles	9,136	43.9
Within 62 miles	2,058	66.7

[£] Counts are for 2000, the most recent year of data available.

⁹² Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. The Registered Nurse Population: Findings from the National Sample Survey of Registered Nurses, 2001. Table 12. Distribution of advanced practice nurses by national certification, State recognition and employment status: March 2000. It was estimated that 77,584 nurse practitioners employed in nursing were represented by survey results. Ratio calculated using the estimated number of nurse practitioners and the 2000 U.S. population.

⁹³ Source: California Department of Consumer Affairs, July 2004. Nurse practitioners are registered nurses with an active license and a license type of "NP" or "NPF" (nurse practitioner or nurse practitioner furnisher, respectively) whose address was located in California.

Table 28
Nurse Midwife to Population Ratios, 2004

Geographic Area	Number	Ratio
United States^{£,94}	7,914	2.8
Border States	2,154	3.3
California⁹⁵	1,633	4.5
California Border Regions		
More than 300 miles from Border	735	6.1
62-300 miles	688	3.3
Within 62 miles	210	6.8

[£] Counts are for 2000, the most recent year of data available.

⁹⁴ Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. The Registered Nurse Population: Findings from the National Sample Survey of Registered Nurses, 2001. Table 12. Distribution of advanced practice nurses by national certification, State recognition and employment status: March 2000. It is estimated that 7,914 nurse midwives employed in nursing were represented by survey results. Ratio calculated using the estimated number of nurse midwives and the 2000 U.S. population.

⁹⁵ Source: California Department of Consumer Affairs, July 2004. Nurse midwives are registered nurses with an active license and a license type of "NMW" or "NMF" (nurse midwife or nurse midwife furnisher, respectively) whose address was located in California.

Table 29
Nurse Anesthetist to Population Ratios, 2004

Geographic Area	Number	Ratio
United States^{£,96}	25,575	9.1
Border States	2,945	4.5
California⁹⁷	1,152	3.2
California Border Regions		
More than 300 miles from Border	413	3.4
62-300 miles	602	2.9
Within 62 miles	137	4.4

[£] Counts are for 2000, the most recent year of data available.

⁹⁶ Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. The Registered Nurse Population: Findings from the National Sample Survey of Registered Nurses, 2001. Table 12. Distribution of advanced practice nurses by national certification, State recognition and employment status: March 2000. It was estimated that 25,575 nurse anesthetists employed in nursing were represented by survey results. Ratio calculated using the estimated number of nurse anesthetists and the 2000 U.S. population.

⁹⁷ Source: California Department of Consumer Affairs, July 2004. Nurse anesthetists are registered nurses with an active license and a license type of "NA" whose address was located in California.

Tables for Profiles of Mental Health Professionals

Table 30
Psychiatrist to Population Ratios, 2000

Geographic Area	Number	Ratio
United States^{£,98}	38,258	14.2
Border States^Ω	NA	NA
California^{** ,99}	2,589	7.6
California Border Regions		
More than 300 miles from Border	1,041	9.0
62-300 miles	1,328	6.8
Within 62 miles	220	7.4

£ Counts are for 1999, the most recent year of data available; reflects the number of clinically trained psychiatrists.

Ω Results for the Border States could not be calculated as comparable data was not available for California.

** Counts are for 2000, the most recent year of data available. Psychiatrist to population ratios calculated using 2000 population for California.

⁹⁸ Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. United States Health Personnel Factbook, 2003. Table #701 Estimated Number of Clinically Active or Clinically Trained Mental Health Personnel and Practitioner-to-Population Ratios by Discipline and Geographic Area.

⁹⁹ Source: McRee T, Dower C, Briggance B, Vance J, Keane D, O'Neil E. *The Mental Health Workforce: Who's Meeting California's Needs?* San Francisco, CA: California Workforce Initiative at the USCF Center for the Health Professions. February 2003.

Table 31
Psychologist to Population Ratios, 2004

Geographic Area	Number	Ratio
United States ^{£,100}	76,968	28.4
Border States	17,848	27.2
California ¹⁰¹	13,037	36.3
California Border Regions		
More than 300 miles from Border	5,210	43.4
62-300 miles	6,411	30.8
Within 62 miles	1,416	45.9

£ Counts are for 1999, the most recent year of data available; reflects the number of clinically trained psychologists.

¹⁰⁰ Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. United States Health Personnel Factbook, 2003. Table #701 Estimated Number of Clinically Active or Clinically Trained Mental Health Personnel and Practitioner-to-Population Ratios by Discipline and Geographic Area.

¹⁰¹ Source: California Department of Consumer Affairs, July 2004. Psychologists include those psychologists whose license was active, with a license type of "PSY," and whose address was located in California.

Table 32
Social Worker to Population Ratios, 2004

Geographic Area	Number	Ratio
United States ^{£,102}	96,268	35.6
Border States	28,465	43.4
California ¹⁰³	14,676	40.9
California Border Regions		
More than 300 miles from Border	6,209	51.7
62-300 miles	7,075	34.0
Within 62 miles	1,392	45.1

£ Counts are for 1999, the most recent year of data available; reflects the number of clinically trained social workers.

¹⁰² Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. United States Health Personnel Factbook, 2003. Table #701 Estimated Number of Clinically Active or Clinically Trained Mental Health Personnel and Practitioner-to-Population Ratios by Discipline and Geographic Area.

¹⁰³ Source: California Department of Consumer Affairs, July 2004. Includes only Licensed Clinical Social Workers (license type of "LCS") whose license was active and whose address was located in California.

Health Care Infrastructure Tables

Table 33
Nursing Home Bed Ratios, 2004¹⁰⁴

Geographic Area	Average Certified Beds	Certified Beds, Entire Pop.	Certified Beds, Ages 65+
	Per Facility	Per 10,000	
Border States	98.1	39.7	374.7
California	94.7	34.7	325.8
California Border Regions			
More than 300 miles from Border	91.7	36.9	318.7
62-300 miles	95.5	34.0	338.2
Within 62 miles	104.4	30.8	278.9
	Number of Facilities	Number of Beds	
Border States	2,675	262,313	262,313
California	1,315	124,564	124,564
California Border Regions			
More than 300 miles from Border	483	44,300	44,300
62-300 miles	741	70,762	70,762
Within 62 miles	91	9,502	9,502

¹⁰⁴ Source: <http://www.medicare.gov/NHCompare/home.asp>, accessed on August 25, 2004. Nursing Home Compare includes information only on nursing homes that are Medicare or Medicaid certified.

Table 34
Hospital Bed Ratios, 2002¹⁰⁵

Geographic Area	Average Licensed Beds	Licensed Beds	Staffed Beds
	Per Facility	Per 10,000	Per 10,000
California	217.1	29.5	24.5
California Border Regions			
More than 300 miles from Border	202.9	30.8	25.3
62-300 miles	223.3	29.5	24.8
Within 62 miles	246.6	24.3	19.3
	Number of Hospitals	Number of Beds	Number of Beds
California	475	103,111	85,773
California Border Regions			
More than 300 miles from Border	179	36,317	29,849
62-300 miles	266	59,396	50,044
Within 62 miles	30	7,398	5,880

¹⁰⁵ Source: Hospital Annual Financial Data, Office of Statewide Health Planning and Development (OSHPD), California Health and Human Services Agency, 2002.

Table 35
Population in Primary Care Health Professions Shortage
Areas by Type, 2000

Geographic Area	Single County	Partial County	Total
Percent of Total Population			
California¹⁰⁶	0.1	25.7	25.8
California Border Regions			
More than 300 miles from Border	0.4	23.0	23.5
62-300 miles	-	26.6	26.6
Within 62 miles	-	30.7	30.7
HPSA Population			
California	46,311	8,743,590	8,789,901
California Border Regions			
More than 300 miles from Border	46,311	2,642,715	2,689,026
62-300 miles	0	5,189,885	5,189,885
Within 62 miles	0	910,990	910,990

- Proportion could not be calculated for cells with zero cases.

¹⁰⁶ Source: HPSA designations from the U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Office of Workforce Analysis and Quality Assurance, Shortage Designations Branch, updated weekly.

Table 36
Population in Dental Health Professions Shortage Areas by
Type, 2000

Geographic Area	Single County	Partial County	Total
Percent of Total Population			
California ¹⁰⁷	0.1	9.7	9.8
California Border Regions			
More than 300 miles from Border	0.2	10.8	11.0
62-300 miles	-	9.5	9.5
Within 62 miles	-	6.2	6.2
HPSA Population			
California	18,804	3,286,190	3,304,994
California Border Regions			
More than 300 miles from Border	18,804	1,246,912	1,265,716
62-300 miles	0	1,855,106	1,855,106
Within 62 miles	0	184,172	184,172

- Proportion could not be calculated for cells with zero cases.

¹⁰⁷ Source: HPSA designations from the U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Office of Workforce Analysis and Quality Assurance, Shortage Designations Branch, updated weekly.

Table 37
Population in Mental Health Professions Shortage Areas by
Type, 2000

Geographic Area	Single County	Partial County	Total
Percent of Total Population			
California ¹⁰⁸	3.5	8.3	11.8
California Border Regions			
More than 300 miles from Border	7.9	8.5	16.5
62-300 miles	0.7	8.4	9.1
Within 62 miles	4.8	6.7	11.5
HPSA Population			
California	1,182,206	2,811,512	3,993,718
California Border Regions			
More than 300 miles from Border	910,384	976,425	1,886,809
62-300 miles	129,461	1,637,182	1,766,643
Within 62 miles	142,361	197,905	340,266

¹⁰⁸ Source: HPSA designations from the U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Office of Workforce Analysis and Quality Assurance, Shortage Designations Branch, updated weekly.

Appendices

Appendix A. List of Counties

CALIFORNIA

Counties Within 62 Miles	Counties 62 to 300 Miles	Counties More than 300 miles from Border	
Imperial San Diego	Fresno Inyo Kern Kings Los Angeles Monterey Orange Riverside San Benito San Bernardino San Luis Obispo Santa Barbara Tulare Ventura	Alameda Alpine Amador Butte Calaveras Colusa Contra Costa Del Norte El Dorado Glenn Humboldt Lake Lassen Madera Marin Mariposa Mendocino Merced Modoc Mono Napa	Nevada Placer Plumas Sacramento San Francisco San Joaquin San Mateo Santa Clara Santa Cruz Shasta Sierra Siskiyou Solano Sonoma Stanislaus Sutter Tehama Trinity Tuolumne Yolo Yuba

Appendix B. Data Sources

Overview of Data Sources

Population

Census data and county estimates from the U.S. Census Bureau were used to calculate the size of the population at the county-level for each of the Border States. Population figures used for calculating the health provider-to-population ratios in this report are based on updated data from the U.S. Census Bureau, Population Division, Population Estimates Program (Release Date: August 11, 2005).

Prevalence Data

Data for 2002 from the Behavioral Risk Factor Surveillance System (BRFSS) were used to estimate the proportion of the population: without health coverage; ever diagnosed with diabetes; who are overweight or obese; who have had a dental visit within the past year; and, who currently have asthma. In addition, the proportions of females who had a pap smear or mammogram were also estimated.

The BRFSS is a survey that collects information about adults (18 and older and living in households); persons younger than 18 are not represented by the survey results provided in this report.

While the sample allows estimates to be produced for areas, such as the Border regions in each of the Border States, most counties do not have large enough samples to produce reliable estimates for individual counties.

State Licensure Data

Agencies in each State that handle data for licensed health professionals were contacted to obtain data for the current report. Among these were State boards for physicians, dentists, registered nurses, physician assistants, psychologists, and social workers. Psychiatrists and three categories of specialty nurses were identified when specialty information or another designator was included in the data sets.

Delays in obtaining data resulted in inconsistencies in the reporting date of the data as most licensing boards process and compile data requests on an as needed basis and this Study may have had a lower priority rating at one board than at others. Reporting dates were included in the respective tables in the report.

The health professions data used in this report, in most cases, were purchased from the respective Board in each State. Licensure Boards most often receive

requests for mailing lists. Consequently, for some boards, a mailing list was purchased only when no other data were available for analysis. Some boards were able to include additional variables to mailing lists.

State Health Data

Vital statistics, hospital discharge, and incidence data for selected diseases were also requested from State health departments to present the health status of the regions as well as State totals. Healthy Border 2010 Objectives guided the selection of health indicators used in this report.

Description of Geocoding Process

State Licensure Data

Data received from State licensure boards or State organizations were “geocoded” using Geographic Information Systems (GIS) software in an effort to determine the location of the health professional. This permitted assignment of health professionals to a county based on the county federal information processing standards (FIPS) code assigned by the GIS software. The following process describes the method by which an address was “geocoded.” The address used was determined by staff (in consultation with the suppliers of the data when possible) to best represent the practice location of the health professional. Using batch processing, on the first pass, addresses were matched only on the exact street name, house number and zip code. On the second pass,¹⁰⁹ addresses were matched by “*relaxing*” the zip code; this allowed a match for address in a different zip code. On the third pass, street name and house number for the address were relaxed to allow matches for parameters similar to address components (such as misspellings to be matched to the address). On the final geocoding pass (usually by this stage only a small percentage of records were not matched), records were matched by zip code only. Once these passes were complete, remaining unmatched records were viewed through interactive mode in GIS to determine if a match could be made by searching for visible errors in the address field. Once geocoding was completed, data were moved into Statistical Package for the Social Sciences (SPSS) software. The remaining unmatched records were assigned a county in SPSS based on the city name. For example, since PO Box addresses could not be geocoded, they were assigned a county FIPS code based on the name of the city.

¹⁰⁹ Subsequent geocoding passes were performed on unmatched records only.

State Health Data

Health related information such as vital statistics, hospital discharge, and incidence data, were usually assigned a county code by the State agency/office responsible for the data. Data reported here reflect place of residence of each case, not the place of occurrence.

Data from Licensing Boards in California

Data licensing boards did not have the demographic and specialty data needed for analysis. Licensing boards were not allowed to collect demographic data; the collection of specialty data for physicians had begun, but this information would not be available in time for the Border Profiles Reports.

Proportion of Missing Data for Physicians, Dentists, and Registered Nurses in California

Variable	Physicians	Dentists	Registered Nurses
Race/Ethnicity	NA	NA	NA
Age	NA	NA	NA
Gender	NA	NA	NA
Patient Care	NA	NA	NA
Specialty	NA	NA	A
Hours/Week or Part-/Full-Time	NA	NA	NA

NA= Not available

A= Available

The “Masterfile” from the California Department of Consumer Affairs (DCA) was purchased because it included comparable information within the State of California for every profession in this Report. All data runs in this report for health professionals were compiled from data received from the DCA and reflects a date of July 1, 2004. Problems with the data set include:

- Practice address not available, only address
- Specialty information not available for physicians and dentists; the lack of specialty data for physicians impeded the ability to calculate current psychiatrist to population ratios for the State of California, as well as ratios for primary care physicians
- For physicians, field not available to indicate direct patient care
- For dentists, field not available to indicate private practice
- For all professions, information was not available on the following items: race/ethnicity; Age or date of birth; Gender; Hours worked per week of

part-/full-time employment status; Field to identify health professional as providing patient care

The inability to obtain codes to determine which health professionals provide direct services to the population using data from the DCA hindered analysis. Thus, this Report includes all professionals with an active license and does not reflect the number of health professionals providing direct patient care in their respective health fields.

An additional problem with health professions data for California was the availability of only one address which was geocoded to determine the location of the health professional's reported place of practice. The problem with this assumption was the inability to determine whether the address in the data set reflected the health professional's home or business/practice address.

Data from Health Offices in California

Vital Statistics

Vital statistics data for 2002 were received from the Office of Health Information and Research, California Department of Health Services.¹¹⁰

Hospital Discharges

Hospital discharge data for 2002 were received from the Office of Statewide Health Planning and Development, California Health and Human Services Agency.

Incidence Data

Breast and Cervical Cancer

Data for breast and cervical cancer cases diagnosed in 2001 were received from the California Cancer Registry, California Department of Health Services.

HIV/AIDS

Data for HIV/AIDS cases diagnosed in 2002 were received from the Office of AIDS, California Department of Health Services.¹¹¹

¹¹⁰ Analysis, interpretations, and conclusions are those of the authors, not the California Department of Health Services, Center for Health Statistics.

¹¹¹ Analysis, interpretations, and conclusions are those of the authors, not the California Department of Health Services, Office of AIDS.

Hepatitis A and B

Number of hepatitis A and B cases diagnosed in 2002 and 2003 were received from the Infectious Diseases Branch, Division of Communicable Disease Control, California Department of Health Services.

Tuberculosis

Number of tuberculosis (TB) cases diagnosed in 2002 were provided by the Tuberculosis Control Branch, Division of Communicable Disease Control, California Department of Health Services.

Immunizations

Information about childhood immunization status for 2003 was obtained from the Centers for Disease Control and Prevention, National Immunization Program (NIP). The National Immunization Survey (NIS) provides immunization status for States, but not counties. Results were also not available for all race/ethnic groups. For California, State level results were available for Non-Hispanic Whites and Hispanics/Latinos(as) only.

