CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

OFFICE OF BINATIONAL BORDER HEALTH

BORDER HEALTH STATUS

REPORT TO THE LEGISLATURE

2006-2008

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This report consists of two sections:

SECTION I: 2006-2007 BORDER HEALTH STATUS REPORT TO THE LEGISLATURE

- Demographics and Socioeconomic Characteristics
- Chronic Disease
  - Cervical Cancer
  - Obesity and Overweight
- Environmental Health
  - Air Quality
  - Asthma
- Infectious Disease
  - Foodborne and Waterborne diseases
  - Sexually Transmitted Diseases
  - Tuberculosis

SECTION II: 2007-2008 BORDER HEALTH STATUS REPORT TO THE LEGISLATURE

- Demographics and Socioeconomic Characteristics
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SECTION I

BORDER HEALTH STATUS

REPORT TO THE LEGISLATURE

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EXECUTIVE SUMMARY

The health of communities in California and Mexico are closely linked by demography, culture, trade, and mobility. Communities near both sides of the U.S.-Mexico boundary have created a “blended“ culture rich in traditions from either side of the border. The high volume of people crossing the U.S.-Mexico border in both directions for work, education, shopping, tourism, social visits, and other reasons fosters close relationships between communities on both sides.

These relationships also present challenges for public health and the provision of health care services, particularly in the areas of disease prevention, surveillance, and control. In an effort to define health successes and problems that are specific to the border region and its Hispanic population, the California Office of Binational Border Health (COBBH) collaborates with state and local partner agencies to produce Border Health Status Reports. These reports, which compile and analyze data from numerous sources, enable monitoring of priority health indicators for border and binational communities in California. The 2006-2007 Border Health Status Report specifically covers several chronic, environmental health, and infectious disease issues.

Highlights of the Border Health Status Report

Demographics

California’s border region is composed of a highly mobile, culturally and linguistically diverse population. In 2006, there were 3,246,856 residents in the two California border counties (168,979 in Imperial County and 3,077,877 in San Diego County), representing 8.7 percent of the total California population. From 2001 to 2006, Imperial County’s population increased by 15.7 percent, more than double the rate of increase in San Diego County (6.4%) and California overall (7.4%) during the same period.

Residents of Hispanic origin make up 77 percent of the population in Imperial County, 28 percent of the population in San Diego County and 35 percent of the population of California. Approximately 30 percent (nearly 11 million) of the population in California in 2006 was of Mexican origin, including 4,396,435 residents born in Mexico.

Mexican-born residents in California are less likely to speak English ”very well” and most (97.4%) speak a language other than English at home, compared to 79 percent of those of Mexican origin and 42.5 percent of all Californians. Mexican-born residents also have a larger average household size, higher poverty rate and lower median household income. Californians of Mexican origin have a younger median average age. The percentage of the population 16 and older in the labor force is higher among Mexican-born and those of Mexican origin than it is for all Californians.

The international boundary between California and Baja California is one of the busiest borders in the world. In 2006 there were more than 82 million northbound crossings. This includes persons crossing by foot, personal vehicle, bus, and train.

Cervical Cancer

The cervical cancer death rate is declining by 4 percent each year due to the increased use of the Pap smear, a screening procedure that can find changes in the cervix before the cancer develops. Hispanic women have the highest rate of cervical cancer incidence and are twice as likely as non-Hispanic white women to be diagnosed with the disease. In California, Hispanic women have higher mortality rates than the overall female population.

In the California border region, Hispanic women had a significantly higher incidence of cervical cancer in 2001-2005 than white women and all races combined. Overall, in Imperial County, San Diego County, and California, the percentage of women 18 and older (who had not had a hysterectomy) who have had a Pap smear screening in the previous three years has neither increased nor decreased significantly. Women of all races in California and the border region continue to fall below the Healthy People 2010 objective of 90 percent of all women obtaining Pap smear screenings at least once every three years.

Obesity and Overweight

A total of 67 percent of adult residents ages 18 and older in Imperial County are at an unhealthy weight because they are either overweight or obese. This percentage is significantly higher than for the state of California (56.1%) and San Diego County (54.7%). Males and Hispanics in the three regions analyzed in this report have a higher burden of this health condition.

A significantly higher percentage of Hispanics in San Diego County and California (62.2% and 66%, respectively) have an unhealthy weight than whites (53.6% and 54.3%, respectively). Unhealthy weight rates for white residents in Imperial County are similar to those for Hispanics. None of the population groups has achieved the Healthy People 2010 objective. A significantly higher proportion of Mexican-born males (75.8%) and females (62.9%) are at an unhealthy weight than Hispanic males and females overall in California.

Imperial County has a significantly higher percentage of adolescents who are overweight or obese (31.9%) than California (13.3%) and San Diego (12.5%). Significantly greater proportions of Hispanic adolescents in Imperial County (34.5%), San Diego County (21.6%), and California (18.4%) are overweight or obese than whites in those regions (24.3%, 5.8%, and 9.1%, respectively). All groups fail to meet the Healthy People 2010 objective.

A significantly lower proportion of Hispanic adults and adolescents in California report engaging in vigorous physical activities (29.6%) than whites (34.5%).

Air Quality

Imperial County, within the Salton Sea Air Basin, has a serious air pollution problem, primarily due to particulate matter (PM). It is a non-attainment area for the PM_{10} national standards and, especially, the stricter state standards. PM_{10}, composed of inhalable coarse particles that are larger than 2.5 micrometers and smaller than 10 micrometers in diameter, is associated with exacerbation of existing health problems such as asthma and other respiratory illnesses. About 74 percent of PM_{10} in Imperial County comes from windblown dust from open areas, agriculture, and unpaved roads.

San Diego County attains all national standards for particulate matter (PM), but is a non-attainment area for all state PM standards, specifically the state PM_{10} standards (24-hour and annual) and the state $PM_{2.5}$ standard (annual). $PM_{2.5}$ is composed of fine particles that are smaller than 2.5 micrometers (approximately 1/30th the average width of a human hair) in diameter and pose a major health concern because they can be lodged deeply in the lungs.

Imperial County is a non-attainment area for the national and state eight-hour and one-hour standards for ozone, the chief component of urban smog and a pollutant that can exacerbate asthma and other respiratory diseases. However, between 1990 and 2007, the number of days that the stricter state standards were exceeded in Imperial County decreased from a high of 173 days in 1994 to 94 days in 2006. San Diego County is also a non-attainment area for the national (eight-hour average) and state (one-hour and eight-hour average) ozone standards. However, despite continued growth in population and motor vehicle usage, San Diego County has experienced substantial improvement in ozone air quality over the past two decades as a result of emission control efforts.

The entire state of California, including the border region area, is in attainment for both federal and state carbon monoxide (CO) standards. CO, a byproduct of combustion mostly emitted by cars and trucks, can have serious health effects for people with heart disease, chronic lung disease or anemia, as well as for unborn children.

Asthma

The percentages of Hispanics ever diagnosed with asthma in Imperial County (10.2%), San Diego County (9.0%), and statewide (9.8%) are all significantly lower than the percentages for non-Hispanic whites in those same jurisdictions. Rates of asthma emergency department (ED) visits vary by race/ethnicity, age, and gender. In 2006, the ED age-adjusted rates in Imperial County were significantly higher for all age groups

(adults, children 0-17, and all ages) and each race/ethnicity examined (Hispanic, non-Hispanic white, and all populations combined) than for either San Diego County or California.

Imperial County reported the highest age-adjusted rate of asthma hospitalizations in 2006 of all counties in California for all ages (16.5 per 10,000), and for each race/ethnicity examined (16.7 per 10,000 for Hispanics and 22.9 per 10,000 for non-Hispanic whites). In contrast, San Diego County reported rates for all ages that were significantly lower than the statewide rates for all race-specific groups, including Hispanics, and all ages. During 2001-2003, Imperial County's age-adjusted asthma hospitalization rates for all age groups (under 5, 5-64, and older than 65) were higher than the Healthy People 2010 goals.

Foodborne and Waterborne Diseases

This report focuses on 10 foodborne and waterborne diseases that are of interest along the Southern California border region: Campylobacteriosis, Giardiasis, Amebiasis, *E. coli,* Shigellosis, Salmonellosis, Cysticercosis, Listeriosis, Cryptosporidiosis, and Hepatitis A.

San Diego County's campylobacteriosis rate (38.89 cases per 100,000 population) was up significantly from 2001 (16.97 per 100,000) and significantly higher than Imperial County's (27.22 cases per 100,000 population) and the statewide rate (12.43 cases per 100,000 population). Neither California nor the border counties met the Healthy People 2010 target of reducing the rate to 12.3 cases per 100,000 population. Among all major racial/ethnic groups in San Diego County, Hispanics had the highest campylobacteriosis rates in 2001 and 2006, while rates for non-Hispanic whites decreased in 2006.

In San Diego County, and throughout California, giardiasis rates significantly declined from 2001 to 2006. Giardiasis rates for San Diego County are significantly higher than for Imperial County or California as a whole.

The statewide amebiasis rate of 1.63 cases per 100,000 population in 2001 declined significantly by 2006, to 0.91 cases per 100,000 population. There were no significant differences among California and the two border counties in *E. coli* 0157:H7 rates. All three meet the Healthy People 2010 target of one case of *E. coli* 0157:H7 per 100,000 population.

Imperial County has a shigellosis rate (14.79 cases per 100,000 population) that is almost three times higher than that of California as a whole, and San Diego County has a shigellosis rate (10.56 cases per 100,000 population, up from 7.64 cases in 2001) twice as high as that of California. Hispanics reported the highest shigellosis rates in Imperial and San Diego counties. In San Diego County, the shigellosis rates for Hispanics were more than double the rates for non-Hispanic whites.

Statewide salmonellosis rates decreased significantly between 2001 (16.53 cases per 100,000 population) and 2006 (13.23 cases per 100,000 population), but remained similar in San Diego County. Salmonellosis rates are higher among Hispanics than among non-Hispanic whites in both San Diego and Imperial counties and in California. As of 2006, neither California nor the border counties had met the Healthy People 2010 objective of less than 6.8 Salmonellosis cases per 100,000 population.

Imperial County did not report any cysticercosis cases during 2001-2006. San Diego County reported 24 cases in the same six-year period, an average of six cases per year. Statewide, California reported an average of 65.5 cases per year during the same period. Of all cysticercosis cases reported in California during 2001-2006, 38.06 percent were in Hispanics, compared to 2.57 percent in non-Hispanic whites.

Of all listeriosis cases reported in California during 2001-2006, 35.51 percent were in non-Hispanic whites, compared to 21.99 percent in Hispanics. As of 2006, neither California nor San Diego County had met the Healthy People 2010 objective of less than 0.25 salmonellosis cases per 100,000 population.

In 2006, in San Diego County, cryptosporidiosis rates were significantly higher among Hispanics (1.61 cases per 100,000 population) than among non-Hispanic whites (0.12 cases per 100,000 population).

Hepatitis A rates, in California, significantly decreased between 2001 and 2004, remaining relatively stable between 2004 and 2006. Rates in San Diego County significantly decreased between 2001 and 2006, from 5.11 cases per 100,000 population in 2001 to 2.66 cases per 100,000 population in 2006. In Imperial County, hepatitis A rates increased between 2001 and 2003, decreased between 2003 and 2005, and slightly increased in 2006. Hispanics reported the highest hepatitis A rates in Imperial and San Diego counties in 2006. Statewide hepatitis rates were similar among Hispanics and non-Hispanic whites.

Sexually Transmitted Diseases

In California, rates of chlamydia and infectious syphilis increased in 2006, while rates of gonorrhea fell slightly from the previous year. Although rates of gonorrhea also fell in Imperial County, San Diego County experienced an increase. Hispanics in the border region and throughout the state continue to be disproportionally affected by STDs. In both Imperial and San Diego counties as well as in California overall, Hispanics have significantly higher rates of chlamydia and gonorrhea than non-Hispanic whites. While the rates for primary and secondary infectious syphilis among Hispanics are lower in the border region and statewide than for non-Hispanic whites, the burden of congenital syphilis is 5-6 times higher among Hispanics in the border counties and statewide. These data, which are useful for examining overall trends and trends among populations at risk, represent only a small proportion of the true national burden of

STDs. Many cases of notifiable STDs go undiagnosed, and some highly prevalent viral infections, such as human papillomavirus and genital herpes, are not reported at all.

By the end of 2006, an estimated 491,727 persons in the 33 states with confidential name-based HIV infection reporting were living with HIV/AIDS, for an estimated rate of 18.5 per 100,000 population. This exceeds the Healthy People 2010 objective of one new AIDS case among adolescents and adults per 100,000. In 2005, in San Diego and Imperial counties combined, over 85 percent of HIV cases in males were either Hispanic or white, while statewide, 74 percent of male cases were either Hispanic or white. In California and in the border counties, the majority of HIV cases in men were the result of MSM (men having sex with men).

Tuberculosis

Tuberculosis (TB) is one of the leading causes of death from infectious diseases worldwide. Although the rate of TB in California is declining, the California TB rate remains higher than the national rate, and significant disparities persist in some population groups.

The border counties of Imperial and San Diego have not experienced the same decline in TB cases and rates as the state overall. Imperial County consistently ranks first or second in TB rate among all counties in California. Both the number of cases and the rate of TB increased in Imperial County from 2003 to 2006. In San Diego County, the number of TB cases and the rate of disease have leveled off in recent years.

Between 2003 and 2006, in California, Hispanics accounted for approximately 39 percent of total TB cases. Hispanics in the border counties of San Diego and Imperial had rates of TB that were significantly higher than TB rates in white non-Hispanics. A co-diagnosis of AIDS in persons with TB has implications for the diagnosis, treatment and outcome of both diseases. In California, Mexican-born cases were twice as likely to have TB/AIDS as those born elsewhere, while in San Diego, Mexican-born cases were five times more likely to have TB/AIDS than non-Mexican-born cases. In Imperial County, TB/AIDS was less frequent in Mexican-born cases than in non-Mexican-born cases, although the total number of cases was small.

Both Imperial and San Diego counties have a greater proportion of cases move before completing TB treatment (7% and 5%, respectively) than California as a whole (4%); in the border counties, the majority of these cases moved out of the country, presenting challenges for ensuring treatment completion.

INTRODUCTION

California and Mexico have many important economic, social, and cultural ties. Economically, Mexico leads all nations as California's largest trading partner, representing billions of dollars in trade and thousands of jobs for California residents. In terms of demography and culture, more than one-third of California's residents identify themselves as Latino or Hispanic, and of these, nearly 11 million residents are of Mexican origin. Communities in the border region have created a "blended" culture that is rich in traditions from both sides of the border. The high volume of people crossing the U.S.-Mexico border in both directions for work, education, shopping, tourism, social visits and other reasons also fosters close relationships between communities on both sides.

Demography, culture, trade, and mobility are all important factors ensuring that the health of California and Mexico communities are closely linked. This creates many opportunities for binational collaborations to address health issues of mutual concern. However, there are also many political, legal, linguistic and other barriers to overcome before collaboration can occur. For example, the high volume of border crossings presents many challenges for public health and the provision of health care services for this highly mobile population, particularly in the areas of disease prevention, surveillance and control. In addition, border-related health issues not only affect populations adjacent to the U.S.-Mexico border, but also have an impact far beyond the border, affecting the health and well being of all Californians. These challenges serve to emphasize the importance of, and need for, collaboration between health agencies in California and Mexico.

In recognition of this situation, in 1999 Assembly Bill 63 (Chapter 765, Ducheny, Division One, Part Three, Health and Safety Code) established a permanent California Office of Binational Border Health (COBBH) within the California Department of Health Services (CDHS), "to facilitate cooperation between health officials and health professionals in California and Mexico, to reduce the risk of disease in the California border region and in those areas directly affected by border health conditions" (Appendix B). COBBH began operating in January 2000 and was located organizationally within CDHS Prevention Services. In July 2007, following the reorganization of CDHS and the establishment of the California Department of Public Health (CDPH), COBBH was placed organizationally within CDPH External Affairs.

To fulfill its mission, COBBH works closely with many groups and organizations, including the COBBH Advisory Group; local health departments in San Diego, Imperial, Los Angeles, and Orange counties; California Environmental Protection Agency (Cal/EPA); Baja California Secretariat of Health; Offices of Border Health in Arizona, New Mexico, and Texas; U.S. Department of Health and Human Services (DHHS); U.S. Environmental Protection Agency (EPA); U.S.-Mexico Border Health Commission (USMBHC); U.S.-Mexico Border Health Association (USMBHA); Pan American Health Organization (PAHO); and Project Concern International.

COBBH collaborates with state and local partner agencies to produce Border Health Status Reports that enable monitoring of priority health indicators for border and binational communities in California. The main objective of the reports is to inform policy makers, health department personnel, and the public about priority border health issues. To date, three reports have been completed and approved, and a fourth report is currently undergoing the required review and approval process.

The 2006-2007 Border Health Status Report provides current data on key border and binational health indicators. This report specifically covers several chronic, environmental health and infectious disease issues. Future reports will address health issues not included in this report.

DEMOGRAPHICS AND SOCIOECONOMIC CHARACTERISTICS

Population

California's border region consists of a highly mobile, culturally and linguistically diverse population. The close social and economic contact between California and Mexico communities has created a diverse culture, rich in traditions from both sides of the border.

Table 1.1 shows the population for California border counties. In 2006, the total estimated population of the two California border counties was 3,246,856 (168,979 in Imperial County and 3,077,877 in San Diego County). Thus, 8.7 percent of California's population resided in border counties. From 2001 to 2006, Imperial County's population increased by 15.7 percent, more than double the rate of increase in San Diego County (6.4%) and California overall (7.4%) during the same period.

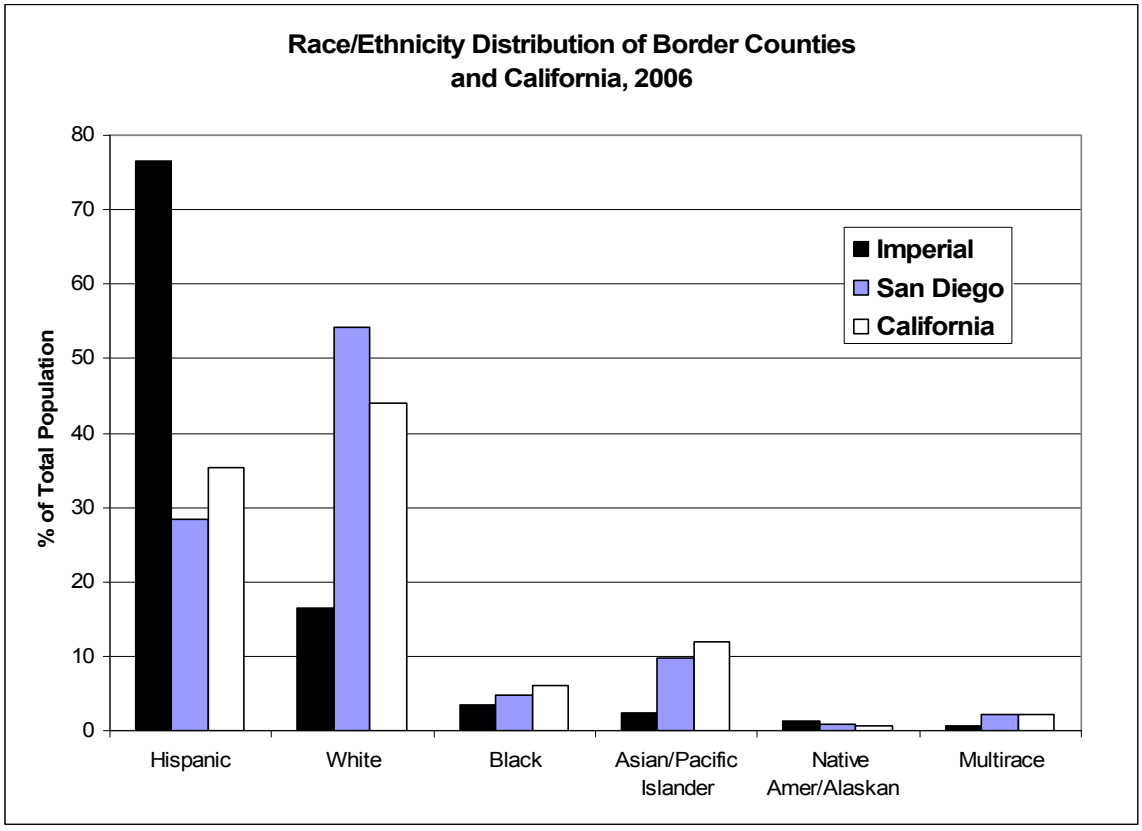
Table 1.1.

Population of the California Border Region by Race/Ethnicity, 2006			
Population	**Number**	**%**	**2001-2006 Percent Change**
Imperial			
Asian/Pacific Islander	4,011	2.4	40.5
Black	5,884	3.5	12.7
Hispanic	129,336	76.5	20.8
Multi	950	0.6	21.3
Native Amer/Alaskan	2,155	1.3	16.9
White	27,897	16.5	-2.6
All[a]	168,979	100	15.7
San Diego			
Asian/Pacific Islander	300,863	9.8	10.5
Black	144,991	4.7	-8.4
Hispanic	870,415	28.3	12.1
Multi	67,044	2.2	4.0
Native Amer/Alaskan	24,574	0.8	35.9
White	1,668,460	54.2	4.1
All[a]	3,077,877	100	6.4
California			
Asian/Pacific Islander	4,475,811	12.0	11.5
Black	2,256,432	6.0	0.8
Hispanic	13,227,047	35.4	15.5
Multi	782,242	2.1	17.1
Native Amer/Alaskan	219,683	0.6	13.1
White	16,419,655	44.0	1.2
All[a]	37,332,976	100.0	7.4

Source: California Department of Finance, 2006

Table 1.1 and Figure 1.1 display ethnicity by percents of the total population within San Diego County, Imperial County, and California as a whole in 2006. Residents of Hispanic origin make up 77 percent of the population in Imperial County, 28 percent of the population in San Diego County, and 35 percent of the population of California. Hispanics are the predominant ethnicity in Imperial County and the largest minority in San Diego and California. From 2001 to 2006, the number of Hispanics residing in Imperial County increased by 21.8 percent, while the number of white residents decreased by 2.6 percent. In San Diego County and statewide, the number of Hispanic residents increased by 12.1 percent and 15.5 percent, respectively, during the same period.

Figure 1.1



Source: California Department of Finance, 2006

Mexican-Origin Population in California

Respondents to the American Community Survey who identified themselves as "Hispanic" or "Latino" were asked to choose one of several specific subcategories listed in the questionnaire. Those who selected the "Mexican," "Mexican American," or "Chicano" subcategories are referred to as "Mexican origin." Origin can be viewed as "the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the U.S." (U.S. Census Bureau, 2003).

Approximately 30 percent (almost 11 million) of the population, in California, in 2006 is of Mexican origin. Among persons of Mexican origin, an estimated 4,396,435 were born in Mexico. Table 1.2 illustrates selected demographic characteristics of residents of California who are Mexican-born or of Mexican origin, compared to the characteristics of the overall California population. Most (97.4%) Mexican-born residents in California speak a language other than English at home, compared to 79 percent of those of Mexican origin and 42.5 percent of all Californians. Mexican-born Californians also have a larger average household size, higher poverty rate and lower median household income, are more likely to speak a language other than English at home, and less likely to speak English "very well." Californians of Mexican origin have a younger median average age. The percent of the population 16 and older in the labor force is higher for Mexican-born Californians and those of Mexican origin than among all Californians.

Table 1.2.

Selected Demographic Characteristics for Mexican-Born, Mexican Origin and Overall California Resident Population, 2006						
Subject	**Born in Mexico**		**Mexican-Origin**		**California**	
	Estimate	**Margin of Error**	**Estimate**	**Margin of Error**	**Estimate**	**Margin of Error**
Total Population	4,396,435	+/-44,517	10,841,524	+/- 37,370	36,457,549	*****
Median Age (years)	36.6	+/-0.2	25.7	+/-0.2	34.4	+/-0.2
Average Household Size	4.51	+/-0.03	4.04	+/-0.02	2.93	+/-0.01
Language Spoken at Home and Ability to Speak English (Population 5 years and Older)						
English Only	2.6%	+/-0.2	21.0%	+/-0.4	57.5%	+/-0.2
Language Other than English	97.4%	+/-0.2	79.0%	+/-0.4	42.5%	+/-0.2
Speak English Less than "very well"	74.0%	+/-0.5	40.0%	+/-0.4	20.1%	+/-0.1
Median Household Income in the Past 12 Months (In 2006 Inflation-Adjusted Dollars)	38,869	+/-511	43,066	+/-494	56,645	+/-236
Poverty Rates for Families	21.3%	+/-0.6	17.9%	+/-0.4	9.7%	+/-0.2
Employment Status (Population 16 Years and Older in Labor Force)	68.3%	+/-0.4	67.0%	+/-0.3	64.5%	+/-0.1

Source: American Community Survey, 2006

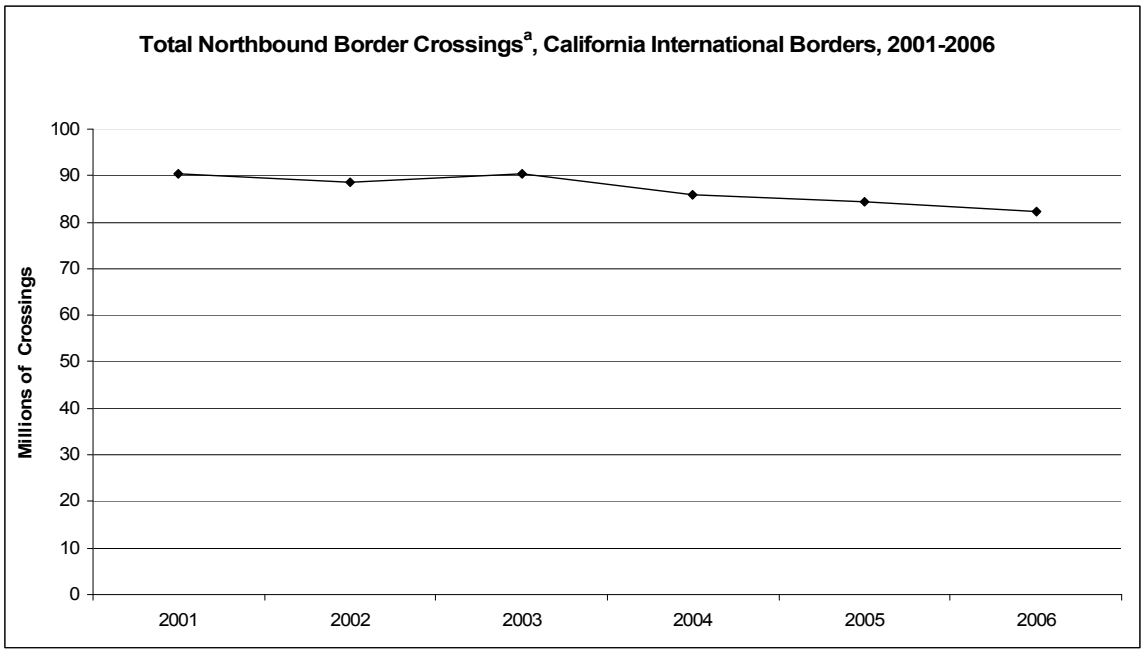
Limited ability to speak and write English can be a major barrier to primary and secondary disease prevention. This can lead to diminished comprehension, misinformation, noncompliance, and eventually poorer health outcomes (Calderon and Beltran, 2004).

Border Crossings

The international boundary between California and Baja California is one of the busiest borders in the world. People cross the border for various reasons, including social, work, shopping, tourism, and education. The amount of crossings fluctuates by time of day, day of the week, and time of the year.

There were more than 80 million northbound crossings every year between 2001 and 2006. This includes persons crossing by foot, personal vehicle, bus, and train. The data have some limitations; they do not measure the number of unique vehicles and persons that cross into the United States, but rather the total number of crossings. Also, no southbound border crossings are recorded (Bureau of Transportation Statistics, 2008). From 2001 to 2006, there was a 9 percent decrease in total border crossings (Figure 1.2). The increased wait time to cross the border and the additional security and documentation requirements might be partly responsible for the decrease in border crossing in recent years.

Figure 1.2



[a] Total is the sum of pedestrian, bus, train, and personal vehicle individual crossings.
Source: California Department of Finance, 2006

CHRONIC DISEASE

Cervical Cancer

What Is It?

Cervical cancer, which develops in the tissues of the cervix, is a slow-growing cancer that may not produce apparent symptoms. Cervical cancer was once one of the most common causes of cancer death for American women, but the cervical cancer death rate declined by 74 percent between 1955 and 1992 as a result of increased use of the Pap test (Perkins, 2001), a screening procedure that can find changes in the cervix before cancer develops, as well as detecting cervical cancer in the early, most curable stage.

An estimated 11,070 cases of invasive cervical cancer are expected to be diagnosed in 2008 in the United States. Incidence rates for Hispanic women in the United States have decreased at an average rate of 4.4 percent a year from 1992 to 1999 (Centers for Disease Control and Prevention, 2002). In African American and white women there has also been a steady decrease over the past several decades (American Cancer Society, 2008).

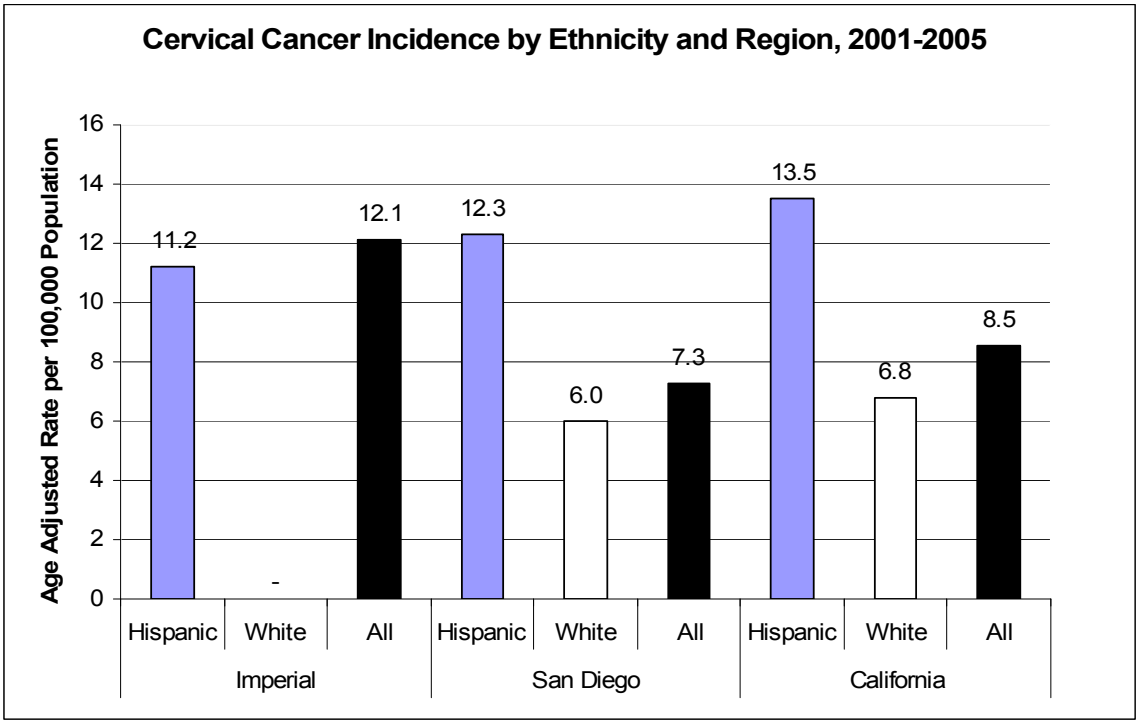
Why Is It Important?

Each year, about 1,400 women in California are diagnosed with cervical cancer and 400 die from the disease. Hispanic women have the highest rate of cervical cancer incidence; they are two times more likely than non-Hispanic white women to be diagnosed with cervical cancer (California Cancer Registry, 2008). Cervical cancer mortality is extremely preventable with regular Pap tests, which can detect abnormalities in the cervix before they become cancerous (California Department of Health Services and Public Health Institute, 2001).

Cervical Cancer Mortality

In the United States, 3,870 women are expected to die in 2008 from cervical cancer (American Cancer Society, 2008). In California, Hispanic women continued to have higher mortality rates (3.8 per 100,000 population) than the overall female population (2.4 deaths per 100,000 population) in 2002, and higher than the Healthy People 2010 objective (2.0 per 100,000). Nationwide, the death rate from cervical cancer is declining by nearly 4 percent a year. Regular screening for cervical cancer, such as Pap tests, greatly increases survival rates. In 2005, California's age-adjusted mortality rate from cervical cancer was 1.8 per 100,000 population (California Cancer Registry, 2008).

Figure 2.1



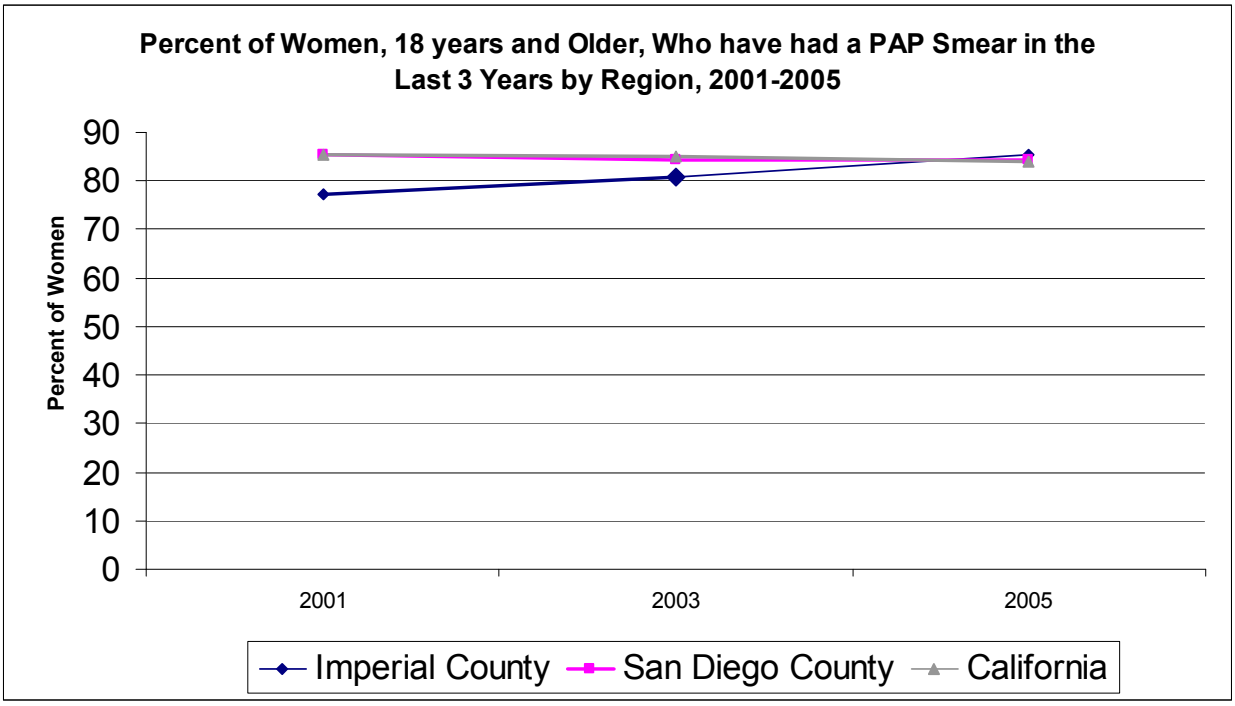
Source: California Cancer Registry, 2008
- Rates are not available due to low case counts.

What Is the Status in the Border Region?

In San Diego County, and in California, Hispanic women had a significantly higher incidence of cervical cancer in 2001-2005 combined (Figure 2.1) than white women and women of all races combined. In San Diego, Hispanic women had a rate of 12 per 100,000 and in California the rate was 13.5 per 100,000 women. There was no decrease in incidence of cervical cancer in Hispanic women, white women, or women overall in California or San Diego County when comparing 2001 and 2005 rates (Appendix I, Table 2.1).

Overall in Imperial County, San Diego County, and California, the percentage of women 18 and older (who had not had a hysterectomy), who have had a Pap smear screening in the previous three years has not increased or decreased significantly (Figure 2.2). For Hispanic women in San Diego County, Imperial County and California, rates of Pap screening have neither increased nor decreased significantly. In Imperial County, and in California, these rates persist below the Healthy People 2010 goal of 90 percent. The percentage of white women who had a Pap smear in the previous three years in San Diego County decreased by 6.8 percent from 2001 to 2005 (Appendix I, Table 2.1).

Figure 2.2



Source: 2001, 2003, and 2005 California Health Interview Survey
Healthy People 2010 Objective 3-11b: 90% of women will have received a Pap test within the preceding three years.

In California, and its border counties, women of all races continue to fall below the Healthy People 2010 objective of 90 percent of all women obtaining Pap smear test screenings at least once every three years. There has been no significant change in this trend.

Obesity and Overweight

What Is It?

Obesity and overweight are terms used to define ranges of weight that are greater than what is generally considered healthy for a given height. For adults, obesity and overweight are usually measured in terms of a number called the body mass index (BMI), a calculated measure of weight in relation to height. Adults are considered obese when they have a BMI greater than 30 kg/m^2 and overweight when their BMI is between 25 and 29 kg/m^2. Corresponding BMI ranges for children and teens take into account normal differences in body fat between boys and girls and differences in body fat at various ages. Although BMI correlates well with the amount of body fat, it does not directly measure body fat. For this section, height and weight information was self-reported and obtained from the California Health Interview Survey.

The causes of overweight and obesity are multiple and complex. Genes, metabolism, behavior, environment, culture, and socioeconomic status can all play an important role. Most frequently, an unhealthy weight is the result of an energy imbalance over a long period of time. This involves consuming too many calories and not getting enough physical activity (U.S. Department of Health and Human Services, 2001).

Why Is It Important?

Over the last decade there has been a rapid increase in the prevalence of obesity and overweight, both nationwide and in California (California Department of Health Services, 2005). According to the U.S. Surgeon General, obesity has reached epidemic proportions in adults, adolescents, and children (U.S. Department of Health and Human Services, 2001). Overweight and obese people are at increased risk for disability, premature death, and many health conditions, including coronary heart disease, diabetes, and some cancers. The determinants of overweight and obesity are complex. Genetics and level of physical activity are important factors. Individuals with lower income and education levels and certain minority groups, such as African Americans and Hispanics, have a higher risk of obesity. Physical inactivity, obesity, and overweight cost California an estimated $21.7 billion a year in direct and indirect medical care (California Department of Health Services, 2005).

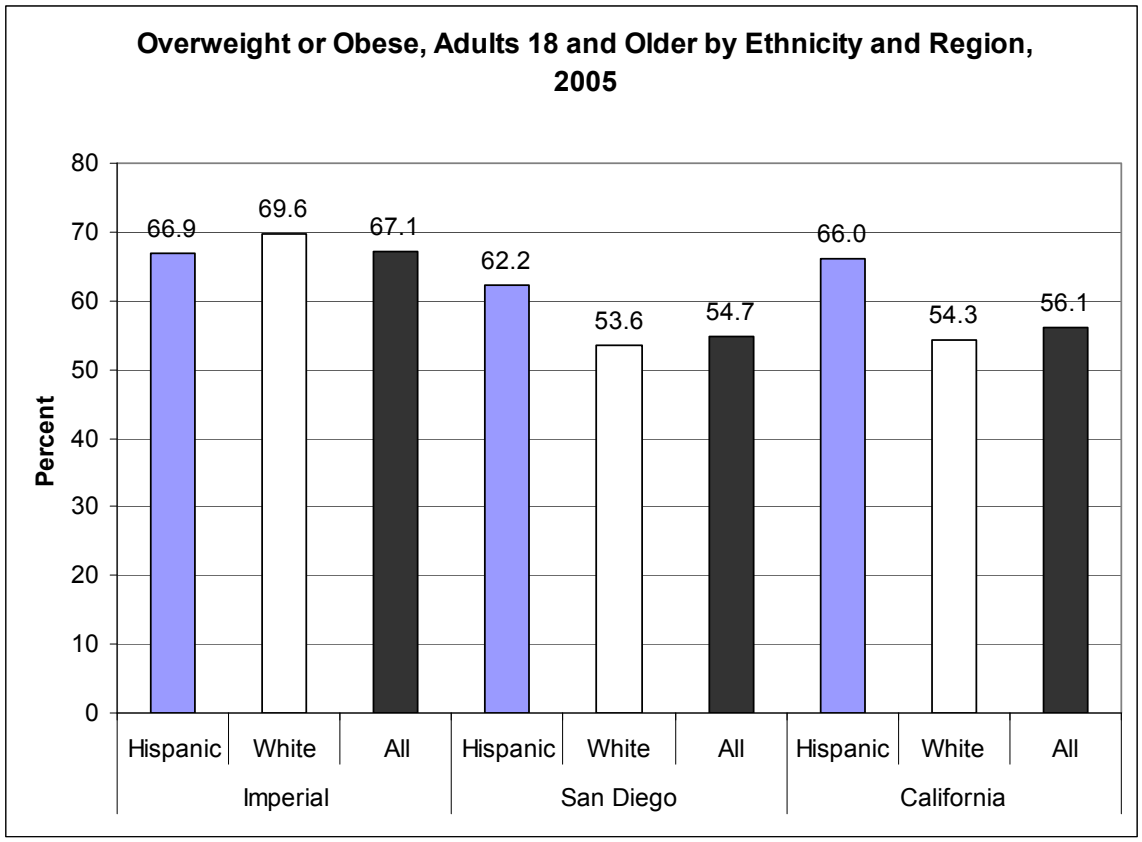
There is evidence that acculturation has an impact on obesity in Mexican-origin residents in the United States. Mexican-origin residents born in the United States tend to be more obese than their Mexican-born counterparts. This may be due to differences in diet. Diets of Mexican-born persons who reside in the United States are lower in fat and generally more “heart healthy” than diets of Mexican-origin persons born in the United States (Dixon et al., 2000).

What Is the Status in the Border Region?

Overweight and Obesity in Adults

The Healthy People 2010 Objective 19-1 sets a goal that no more than 40 percent of adults ages 20 and older will have an unhealthy weight (i.e., overweight or obese, defined as a BMI equal to or greater than 25).

Figure 2.3

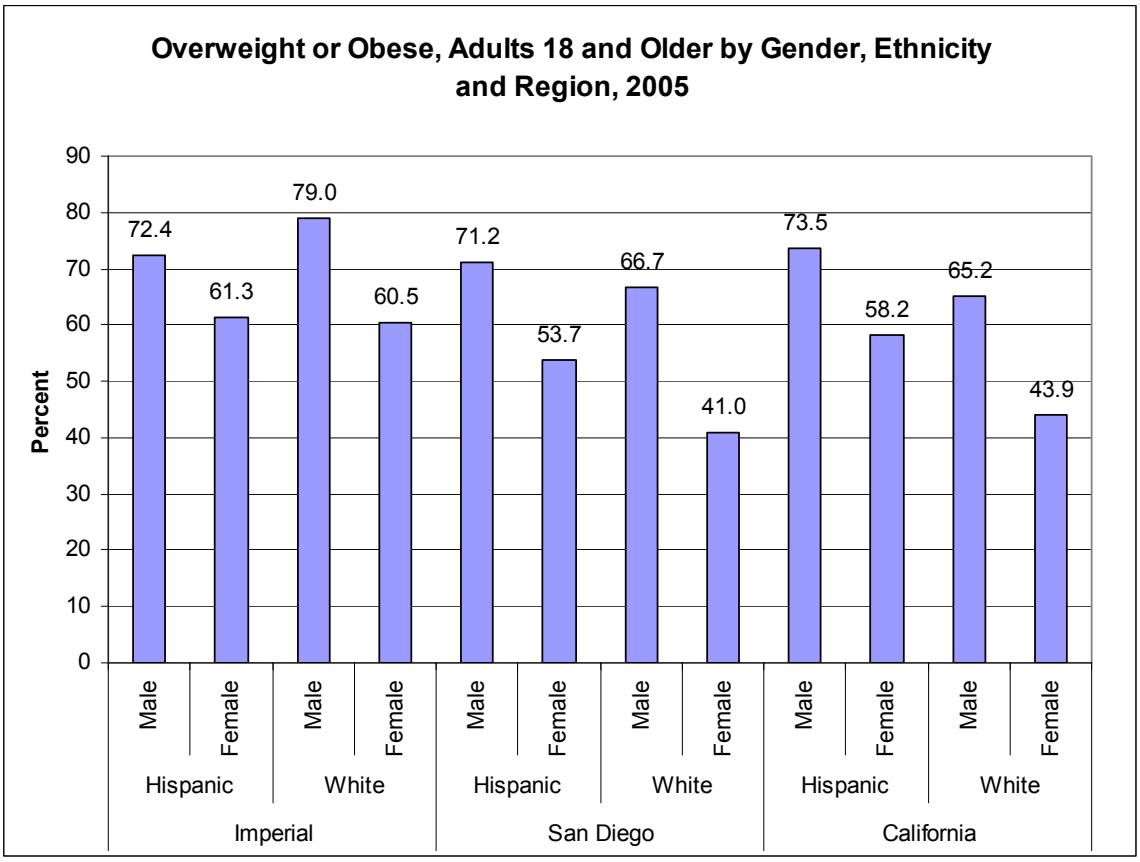


Source: 2005 California Health Interview Survey
Healthy People 2010 Objective 19-1: No more than 40% of adults ages 20 and older will be overweight or obese (BMI equal to or greater than 25).

As many as 67 percent of adult residents ages 18 and older in Imperial County are at an unhealthy weight because they are either overweight or obese (Figure 2.3). This percentage is significantly higher than the ones for California (56.1%) and San Diego (54.7%).

A significantly higher percentage of Hispanics in San Diego and California (62.2% and 66%, respectively) had an unhealthy weight compared to whites (53.6 and 54.3, respectively). Unhealthy weight rates for white residents in Imperial County were similar to those for Hispanics and were also significantly higher than rates for whites in San Diego (53.6%) and California (54.3%). The proportion of male residents in San Diego County with an unhealthy weight increased significantly, by 12.8 percent between 2001 and 2005.

Figure 2.4



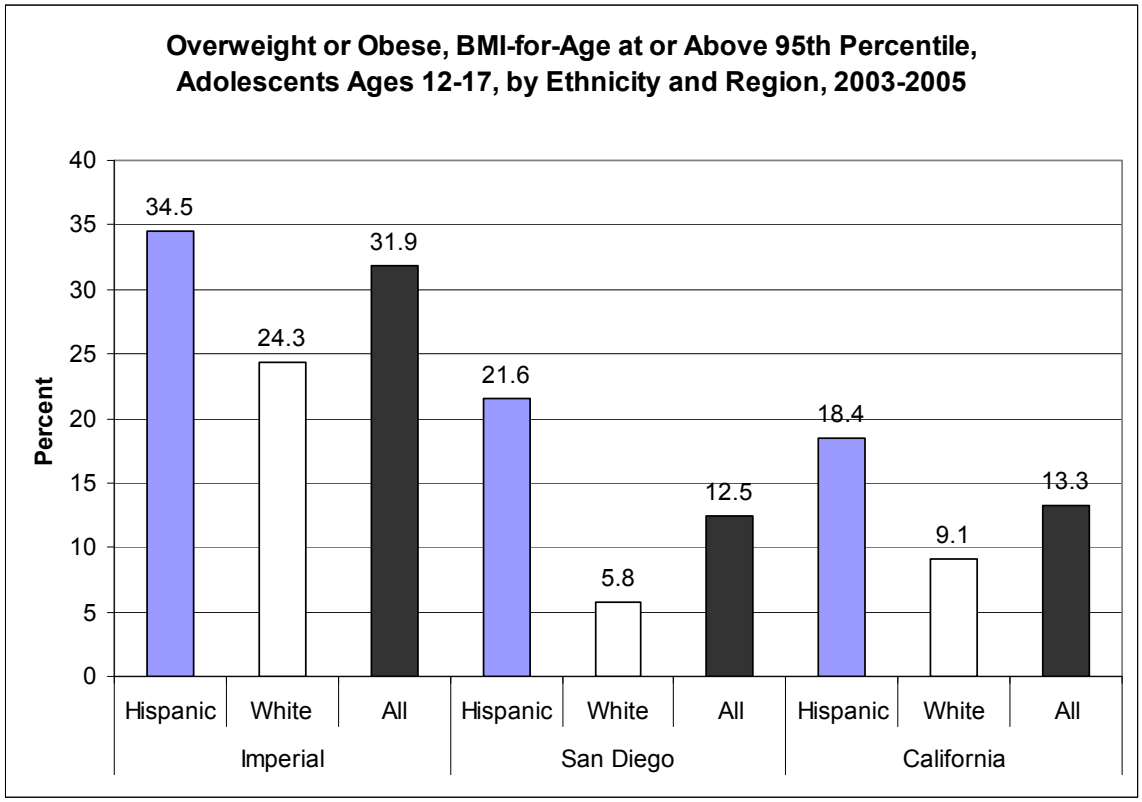
Source: 2005 California Health Interview Survey
Healthy People 2010 Objective 19-1: No more than 40% of adults ages 20 and older will be overweight or obese (BMI equal to or greater than 25).

In San Diego County and California, Hispanic males, white males, and males overall had significantly higher rates of obesity than the corresponding groups of females (Figure 2.4). In Imperial County, those differences were not statistically significant. None of the population groups has achieved the HP2010 objective. In California, Mexican-born males (75.8%) and females (62.9%) had a significantly higher proportion with unhealthy weight than overall Hispanic males and females.

Overweight and Obesity in Adolescents

Healthy People 2010 Objective 19-3 states that no more than 5 percent of children and adolescents ages 6-19 will be overweight or obese. For this report, an overweight adolescent is defined as a 12-17 year old with a BMI at or above the 95th percentile for age and sex.

Figure 2.5



Source: 2003, 2005 California Health Interview Survey
Healthy People 2010 Objective 19-3: No more than 5% of children and adolescents ages 6-19 will be overweight or obese.

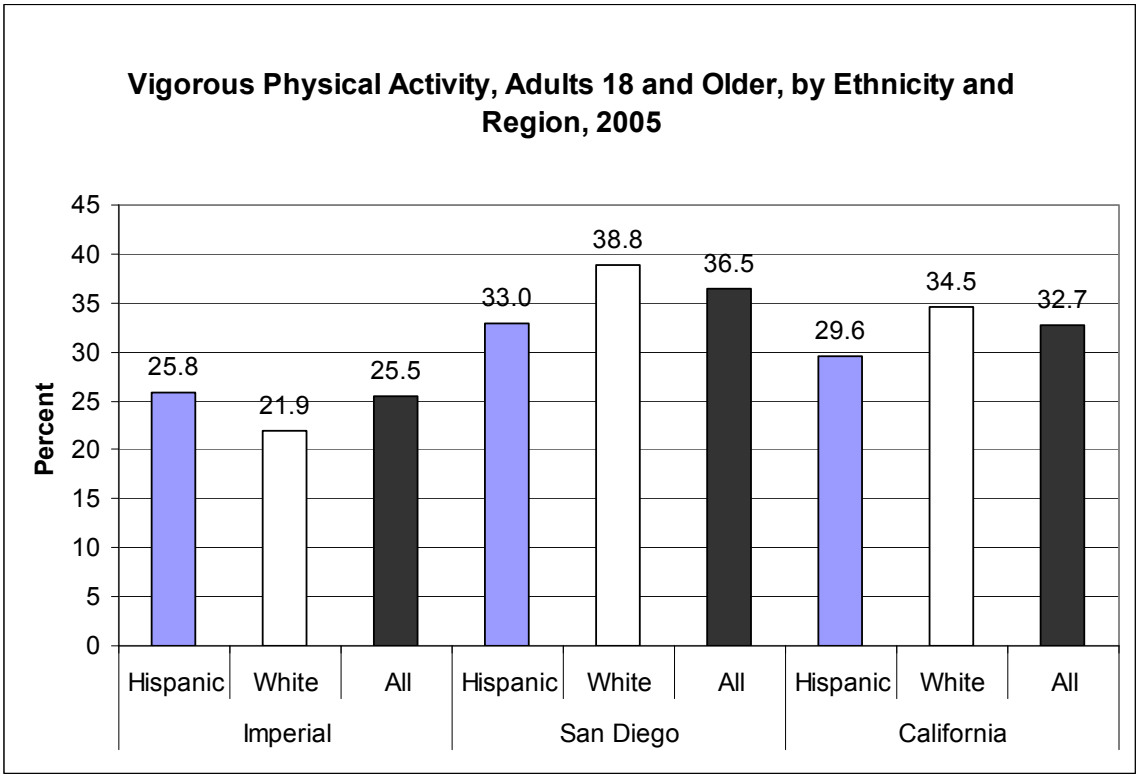
Data for the years 2003 and 2005 were combined to obtain more statistically stable estimates of overweight and obesity in adolescents. Figure 2.5 indicates that Imperial County has a significantly higher percentage of adolescents who are overweight or obese (31.9%) than California (13.3%) and San Diego County (12.5%).

Significantly greater proportions of Hispanic adolescents in Imperial County (34.5%), San Diego County (21.6%), and California (18.4%) were overweight or obese than whites in those regions (24.3%, 5.8%, 9.1%, respectively). None of the population groups met the Healthy People 2010 objective.

Vigorous Physical Activity, Adults

Healthy People 2010 Objective 22-3 sets the goal that at least 30 percent of adults will engage in vigorous physical activity that promotes the development and maintenance of cardio-respiratory fitness for at least 20 minutes per day three or more days per week.

Figure 2.6



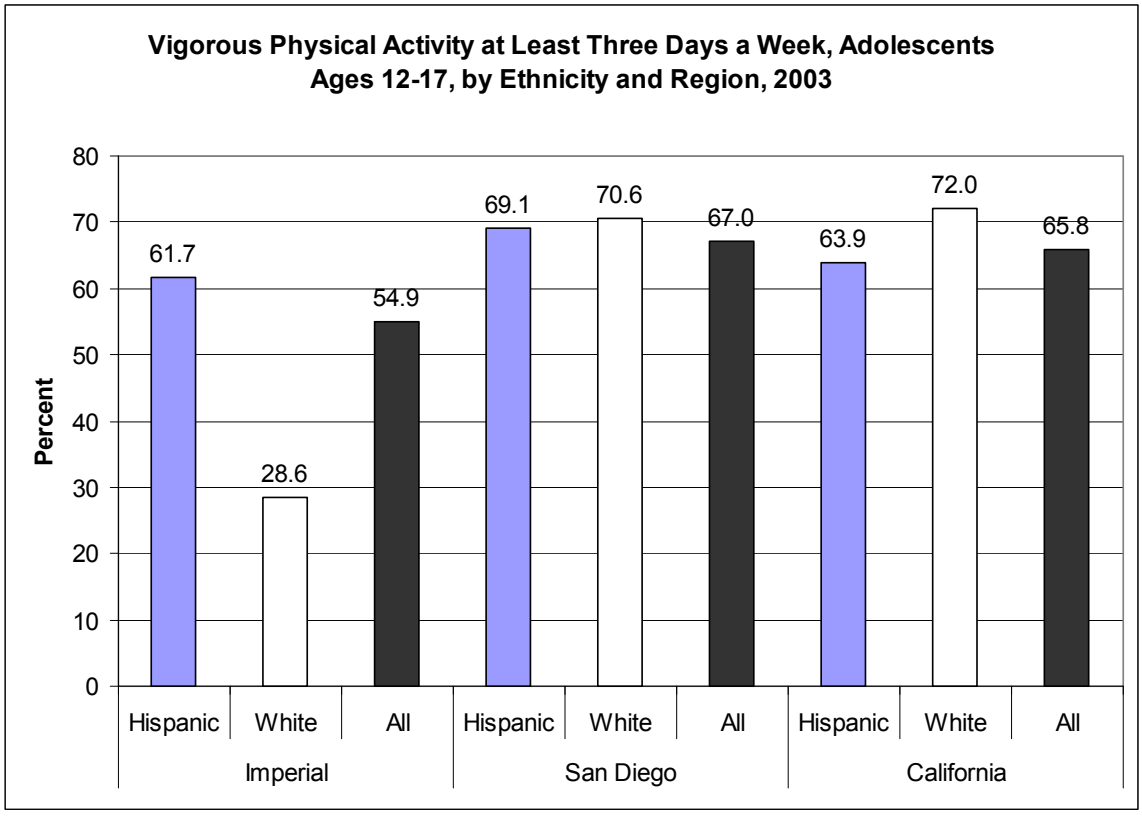
Source: 2005 California Health Interview Survey
Healthy People 2010 Objective 22-3: At least 30% of adults will engage in vigorous physical activity that promotes the development and maintenance of cardio-respiratory fitness for at least 20 minutes per day three or more days per week.

Figure 2.6 shows that a significantly lower proportion of Hispanics in California reported engaging in vigorous physical activities (29.6%), than whites (34.5%). Whites in San Diego County and California both reached the Healthy People 2010 objective. The percentage of male and female Mexican-born residents in California engaging in vigorous physical activities (25.5% and 15.1%, respectively) was significantly smaller than for male and female Hispanics in the state overall.

Vigorous Physical Activity, Adolescents

Healthy People 2010 Objective 22-7 indicates that at least 85 percent of adolescents will engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days a week for 20 or more minutes per occasion. The California Health Interview Survey defined vigorous physical activity as “physical activity for at least 20 minutes that made you sweat and breathe hard.”

Figure 2.7



Source: 2003 California Health Interview Survey
Healthy People 2010 Objective Objective 22-7: At least 85% of adolescents will engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days a week for 20 or more minutes per occasion.

Figure 2.7 shows that there was no significant difference by region in the percentage of adolescents engaging in vigorous physical activity. A significantly smaller percentage of Hispanic adolescents in California engaged in vigorous physical activity (63.9%) than white adolescents (72%). None of the population groups met the Healthy People 2010 objective.

Based on the CHIS data, overweight and obesity is a serious health problem in both the border counties and California overall. The prevalence of overweight and obesity is higher among Imperial County adult and adolescent residents (both Hispanics and whites). Males and Hispanics in the three regions analyzed in this report have a higher burden of this health condition.

Latinos in California have many of the risk factors predisposing to an unhealthy weight, especially unhealthy eating and inactivity. Many Latino communities have a low socioeconomic status and live in low-income, sometimes unsafe neighborhoods that have limited access to affordable healthy food and provide limited recreation and exercise opportunities (Latino Coalition for a Healthy California, 2006).

In recognition of California's growing obesity epidemic, the California Department of Public Health recently developed a strategic plan to guide a statewide response to this health crisis (California Department of Public Health, 2006). Obesity rates have been increasing among Latinos on both sides of the U.S.-Mexico border. Policy and community interventions are more likely to be culturally appropriate and effective if there is coordination and collaboration between California and Mexico agencies and other organizations addressing obesity (Latino Coalition for a Healthy California, 2006; Institute of Medicine, 2007).

ENVIRONMENTAL HEALTH

Air Quality

What Is It?

Air quality can be defined as the concentration of pollutants in the air determined over a set time period (NC Go! 2008). Pollutants refer to the amounts of foreign and/or natural substances occurring in the atmosphere that may result in adverse effects on humans, animals, vegetation, and/or materials (Coalition for Clean Air, 2008).

U.S. and California environmental agencies regularly monitor a set of criteria pollutants as indicators of air quality. These include ozone, particulate matter (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), sulfur dioxide, and nitrogen dioxide. The California Air Resources Board (CARB) operates a statewide network of monitors to measure airborne concentrations for those pollutants. As part of an agreement between the U.S. and Mexican governments, monitoring sites are also located in Baja California, Mexico (CARB, 2003). The State of California transferred the operation of the Baja California monitoring sites to the State of Baja California in March 2007 (U.S. Environmental Protection Agency, 2007).

There are state and federal standards for each of the criteria pollutants. These standards are based on the concentration above which a specific pollutant is known to cause adverse health effects in an exposed population. For some pollutants, such as $PM_{10,}$ $PM_{2.5}$, ozone, sulfur dioxide, nitrogen dioxide, and CO, California's standards are more stringent than national standards (CARB, 2003).

It is important to recognize that air pollution generated on one side of the border affects the communities on the opposite side of the border. The border region in California includes two air basins (areas with similar meteorological and geographic conditions): San Diego and the Salton Sea (the latter includes Imperial County and a portion of Riverside County) (CARB, 2003). Although not officially recognized, the Tijuana/San Diego metropolitan area and the Mexicali/Imperial County region could be considered as common air basins because pollutant emissions from either side of the border can affect air quality in the entire basin (Lampell, 2002). There are no geographic features to prevent the transport of pollutant emissions from either side of the border.

Why Is It Important?

Air pollution is a widespread public health and environmental health problem. Poor air quality contributes to a variety of health problems, including respiratory illness, cardiovascular disease, cancer, and premature death. Asthma can be triggered or worsened by exposure to ozone, particulate matter, and tobacco smoke in the air. In addition to the detrimental impact on health, air pollution reduces visibility, damages

crops and buildings, and deposits pollutants on the soil and in bodies of water, where they can affect the chemistry of the water and the organisms living there.

What Is the Air Quality in the Border Region?

Despite its large population and economic growth rates, and even greater increases in vehicle usage, the overall air quality in San Diego and Imperial counties has improved in the past 20 years, mostly by reduced emissions from vehicles and industry, and control of dust from unpaved roads (Lampell, 2002). However, Imperial County continues to experience air pollution problems primarily due to particulate matter attributable largely to windblown dust. Both counties are expected to be in nonattainment for new federal ozone standards when designations are made in 2010.

Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter, also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, such as nitrates and sulfates, organic chemicals, metals, and soil or dust particles. PM is divided into two categories depending on its size. PM_{10} is composed of inhalable coarse particles that are larger than 2.5 micrometers and smaller than 10 micrometers in diameter. $PM_{2.5}$ is composed of fine particles that are smaller than 2.5 micrometers (approximately 1/30th the average width of a human hair) in diameter (U.S. Environmental Protection Agency, 2008).

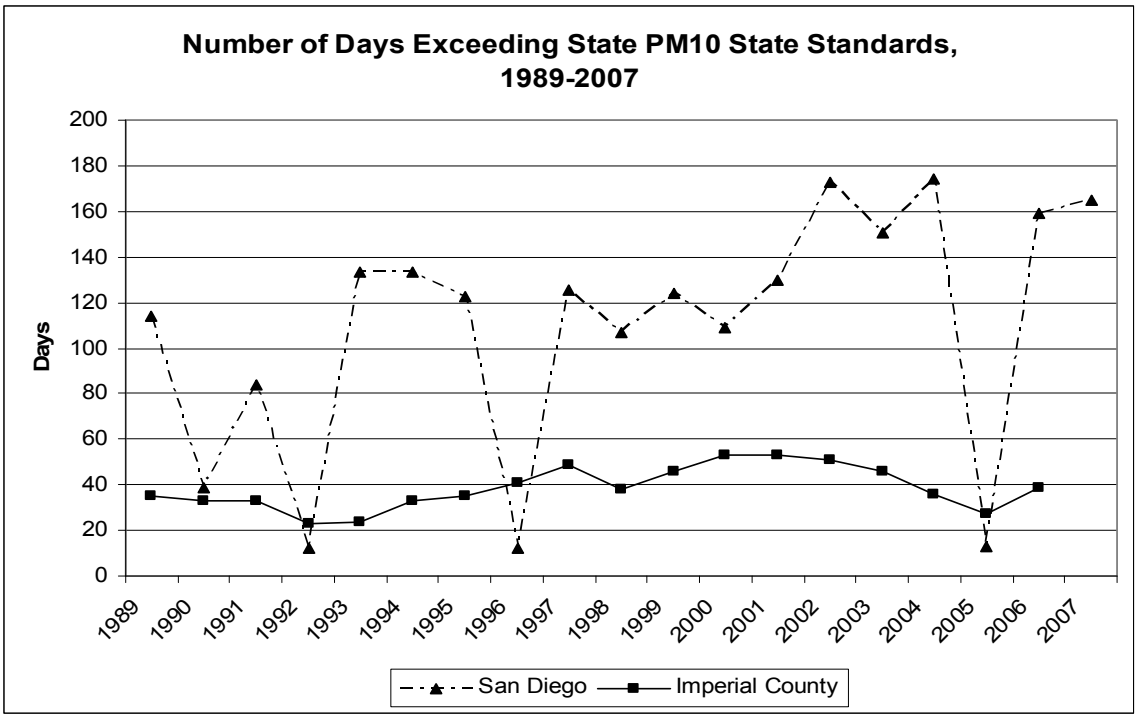
A widespread problem in California, PM_{10} sources include dust and re-entrained road dust, vehicle exhaust, crushing/grinding operations, wood burning, and travel on unpaved roads. The main health effect associated with PM_{10} is exacerbation of existing health problems such as asthma and other respiratory illnesses. Exposure to PM_{10} can cause premature death in people with existing heart and lung conditions (Agency for Toxic Substances and Disease Registry, 2004). Sources of $PM_{2.5}$ include all types of combustion activities (motor vehicles, power plants, wood burning, etc.) and certain industrial processes. $PM_{2.5}$ particles pose a major health concern because they can be lodged deeply in the lungs (U.S. Environmental Protection Agency, 2008).

Imperial County, within the Salton Sea Air Basin, has a serious air pollution problem, primarily due to particulate matter (PM). It is a non-attainment area for the 1997 PM_{10} national standards and the stricter state standards (Figure 3.3). Approximately 70 percent of generated PM_{10} within Imperial County is from fugitive windblown dust, of which 55 percent is from barren lands. Entrained PM_{10} from paved and unpaved roads accounts for 23 percent of the total PM_{10} emissions inventory, agricultural tilling and harvesting accounts for 2 percent, and open burning accounts for 1 percent of the emissions inventory for Imperial County (Air Resources Board, 2008). Analysis of high PM_{10} levels recorded in Calexico, a city adjacent to the Mexican border, indicated that high PM_{10} levels are often influenced by emissions generated in Mexicali, a significantly larger city south of the border.

Imperial County is currently in attainment for the 1997 national $PM_{2.5}$ standard and is unclassified for the state $PM_{2.5}$ standard, with the exception of Calexico, which is in non-attainment for the $PM_{2.5}$ state standard. Usually, combustion sources including industrial facilities, vehicles, wood burning, and trucks are the main contributors to the $PM_{2.5}$ problem. Occasionally, due to high winds, the very fine particles in windblown dust can also cause high $PM_{2.5}$ levels.

San Diego County attains all national standards for particulate matter (PM), but is a non-attainment area for all state PM standards, specifically the state PM_{10} standards (24-hour and annual) and the state $PM_{2.5}$ standard (annual). The main PM_{10} sources in San Diego County include area-wide sources, primarily fugitive dust from vehicle travel on paved and unpaved roads. $PM_{2.5}$ is directly emitted from combustion processes, and is also formed in the atmosphere by reactions of precursor gas emissions from combustion sources (San Diego County Air Pollution Control District, 2008).

Figure 3.1



Source: California Air Resources Board, 2007, http://www.arb.ca.gov.

(Note: These values may include exceptional events and calculated Days Exceeding the Standard is an estimate of days expected to exceed the standard if there was sampling everyday. This estimate could be low if insufficient samples are collected.)

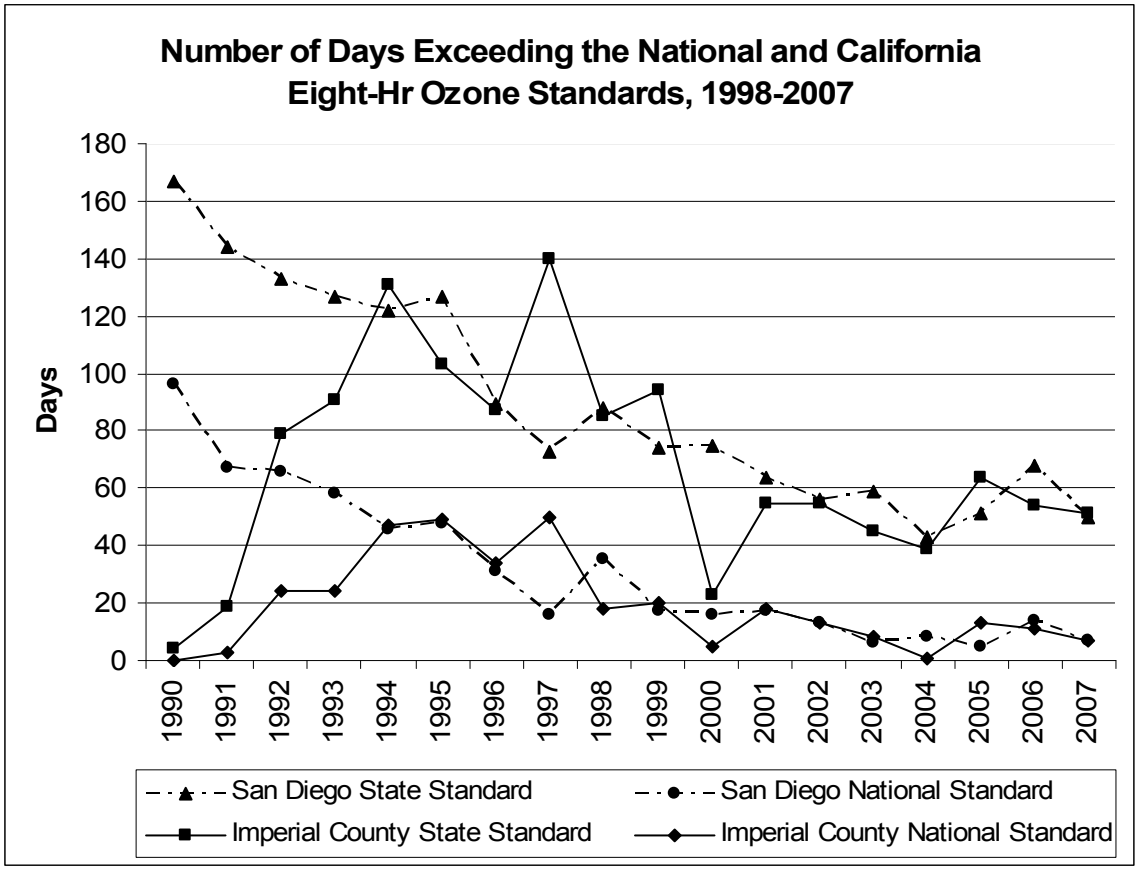
Ozone

Ozone is the chief component of urban smog and is a pollutant that can exacerbate asthma and other respiratory diseases. Vehicles are responsible for most of the emissions of ozone precursors (Lampell, 2002). Ozone can affect large areas, even far downwind of the emissions. The U.S. Environmental Protection Agency adopted more stringent ozone standards in March 2008. All of the major urban areas in California, as well as rural Imperial County, are in nonattainment for the national and state ozone standards.

Imperial County is a nonattainment area for the national (eight-hour) and state (one-hour and eight-hour ozone) standards (Figure 3.3). However, between 1990 and 2007, the number of days that the stricter state standards were exceeded in Imperial County decreased from a high of 131 days in 1994 to 51 days in 2007 (CARB, 2008). Within Imperial County, vehicles traveling on highways were responsible for the bulk of the ozone precursor emissions, followed by off-highway vehicles, primarily diesel agricultural equipment (Imperial County Air Pollution Control District, 2008). Transport analysis indicates that, on most days, Calexico's air quality is overwhelmingly influenced by emissions from Mexicali which is directly across the border in Mexico.

San Diego County is a nonattainment area for the national (eight-hour average) and state (one-hour and eight-hour average) ozone standards. However, despite continued growth in population and motor vehicle usage, San Diego County, similar to Imperial County, has experienced substantial improvement in ozone air quality over the past decades as a result of State and local emission control efforts, including upwind emission reductions (San Diego County Air Pollution Control District, 2008). The number of exceedances for the State 8-hour ozone standard has declined from 122 days in 1994 to only 50 days in 2007, a decrease of 60 percent. (CARB, 2008). Mobile sources (such as on-road and off-road motor vehicles, ships, trains, and aircraft) produce greater than three-fourths of ozone-forming emissions produced within San Diego County. Stationary industrial facilities and consumer and home products contribute to a lesser extent (San Diego County Air Pollution Control District, 2008).

Figure 3.2



Source: California Air Resources Board, 2007, http://www.arb.ca.gov.

Carbon Monoxide (CO)

Carbon monoxide (CO) is a byproduct of combustion and is mostly emitted directly by cars and trucks. CO reduces the ability of the blood to carry oxygen, which can be critical for people with heart disease, chronic lung disease, or anemia, as well as for unborn children (Environmental Health Investigations Branch, 2002). Unlike other pollutants, CO problems tend to be localized. In recent decades, CO levels have decreased greatly in most areas of California as a direct effect of using cleaner fuels and vehicles, despite significant increases in population and vehicle use.

Currently, the entire State of California is in attainment for both federal and state CO standards. The city of Calexico in Imperial County had been designated as a nonattainment area for the State CO standard. In 2006, Calexico was re-designated to attainment for the CO standard. (CARB, 2006).

Figure 3.3

California and National Air Quality Standard Designations for Border Counties, 2006					
County	**Standard**	**Ozone**	**PM_{10}**	**$PM_{2.5}$**	**CO**
Imperial	**National**	Nonattainment	Nonattainment	Unclassifiable/ Attainment	Attainment
	State	Nonattainment	Nonattainment	Unclassified	Attainment
San Diego	**National**	Nonattainment	Unclassified	Unclassifiable/ Attainment	Attainment
	State	Nonattainment	Nonattainment	Nonattainment	Attainment
State Standard		8-hour, 0.070 ppm 1-hour, 0.09 ppm	24-hour, 50 µg/m^3 Annual, 20 µg/m^3	Annual, 12 µg/m^3	8-hour, 9 ppm 1-hour, 20 ppm
National Standard		8-hour, 0.075 ppm	24-hour, 150 µg/m^3	24-hour, 35 µg/m^3 Annual, 15 µg/m^3	8-hour, 9 ppm 1-hour, 35 ppm

Unclassifiable: Information is incomplete and does not support a designation of attainment or non-attainment.
Attainment*:* The state standard for that pollutant was not violated at any site in the area during a three-year period.
Non-attainment: There was at least one violation of a state standard for that pollutant in the area.
Source: California Air Resources Board, 2007, http://www.arb.ca.gov/desig/adm/adm.htm.

Asthma

What Is It?

Asthma is a chronic inflammatory lung disease. Common symptoms include recurrent episodes of shortness of breath, wheezing, coughing, and chest tightness (Yeng, 2003). Asthma episodes can range from mild to life-threatening, but can be controlled and prevented with appropriate clinical management and by limiting exposure to environmental triggers (San Diego Regional Asthma Coalition, 2003).

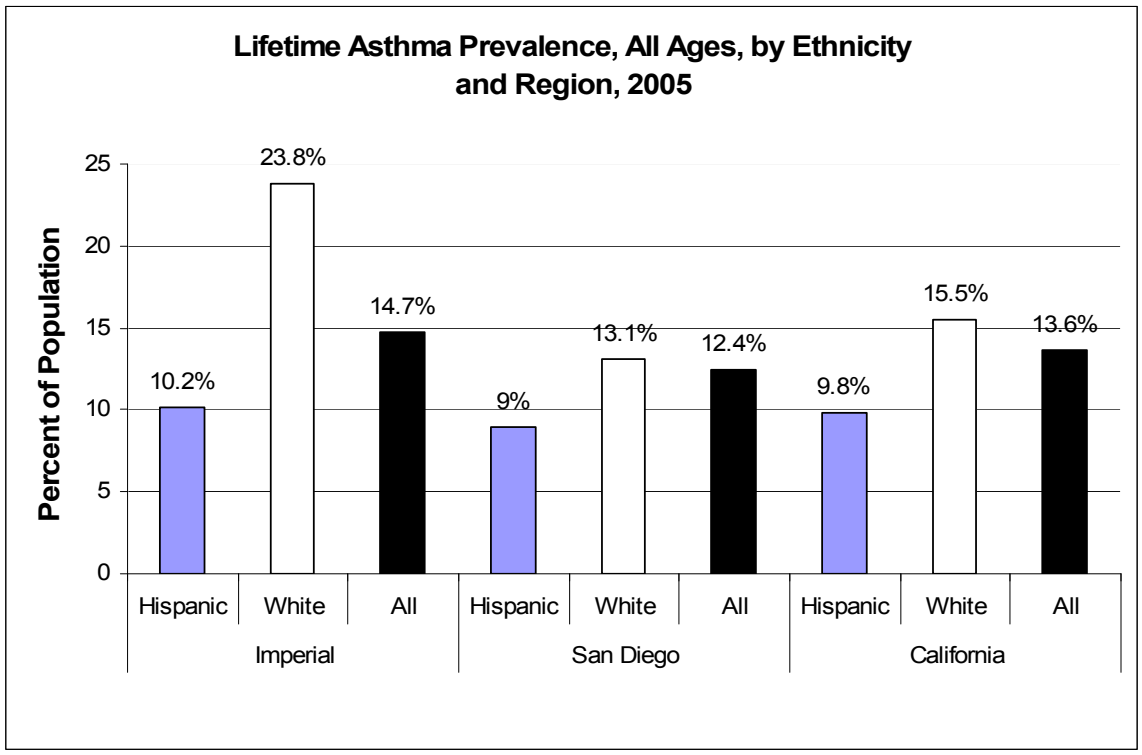
Why Is It Important?

Asthma is one of the most common chronic diseases in the United States and has been recognized as a growing public health concern (California Breathing, 2007). It has significant and costly negative effects on those with the disease and on society as a whole, being directly responsible for lower quality of life, elevated medical care expenditures, reduced work productivity, school absenteeism, and loss of life (Yeng, 2003). More than 5 million Californians have been diagnosed with asthma at some point in their lives, and nearly 3 million currently have the disease (California Breathing, 2007). Asthma is also one of the leading chronic childhood diseases in the United States and a major cause of childhood disability (CDC, 2006). In California alone, it affects nearly 1.5 million children and costs $1.3 billion per year in hospitalizations and medications. It is the No. 1 cause of hospitalizations among children in the United States and continues to be the leading cause of school absenteeism. These absences not only reduce the child's ability to learn and participate in school, they also translate to lost funds for school districts because of reduced average daily attendance for funding (American Lung Association of California, 2006).

What Is the Status in the Border Region?

Asthma prevalence has increased dramatically in the United States during the past two decades (Stockman, 2003). In California as a whole, the increase in asthma prevalence between 2003 and 2005 was significant for all ages only among non-Hispanic whites. In California's border counties (San Diego and Imperial) during the same period, there was no significant increase in asthma prevalence for all age groups in all populations examined (Appendix 3.1, Table 3.1).

Figure 3.4



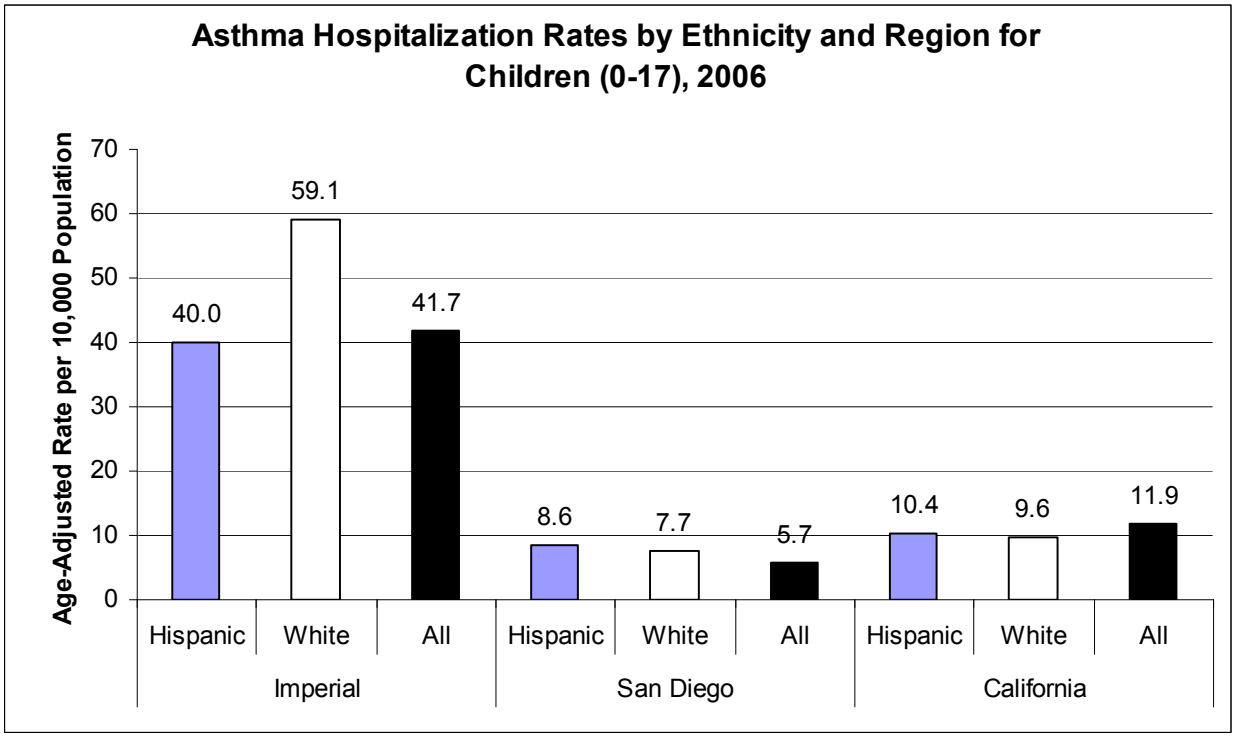
Source: 2005 California Health Interview Survey

In 2005, the percentage of people ever diagnosed with asthma (lifetime prevalence) in Imperial County (14.7%) was not significantly higher than in San Diego County (12.4%) and statewide (13.6%). The percentages of Hispanics ever diagnosed with asthma in Imperial County (10.2%), San Diego County (9%), and statewide (9.8%) were all significantly lower than the percentages for non-Hispanic whites in those same jurisdictions (23.8%, 13.1%, and 15.5%, respectively) (Figure 3.4; Appendix I, Table 3.1).

Asthma Emergency Department Visits

Rates of asthma emergency department (ED) visits vary by race/ethnicity, age, and gender. In 2006, the ED age-adjusted rates in Imperial County were significantly higher for all age groups (adults, children ages 0-17, and all ages) and each race/ethnicity examined (Hispanic, non-Hispanic white, and all populations combined) than in either San Diego County or California statewide. Within Imperial County, there was no significant difference in rates of ED visits by age group or race/ethnicity. In contrast, in San Diego County Hispanics of all ages and, especially, Hispanic children ages 0-17 had a significantly higher rate of ED visits than non-Hispanic whites. In California as a whole, Hispanics (adults, children ages 0-17, and all ages) had a significantly higher rate of ED visits than non-Hispanic whites. However, the rate of ED visits among Hispanics statewide in California is significantly lower than the rate of ED visits for the population as a whole in California for adults, children ages 0-17, and all ages (Figure 3.5; Appendix I, Table 3.2).

Figure 3.5



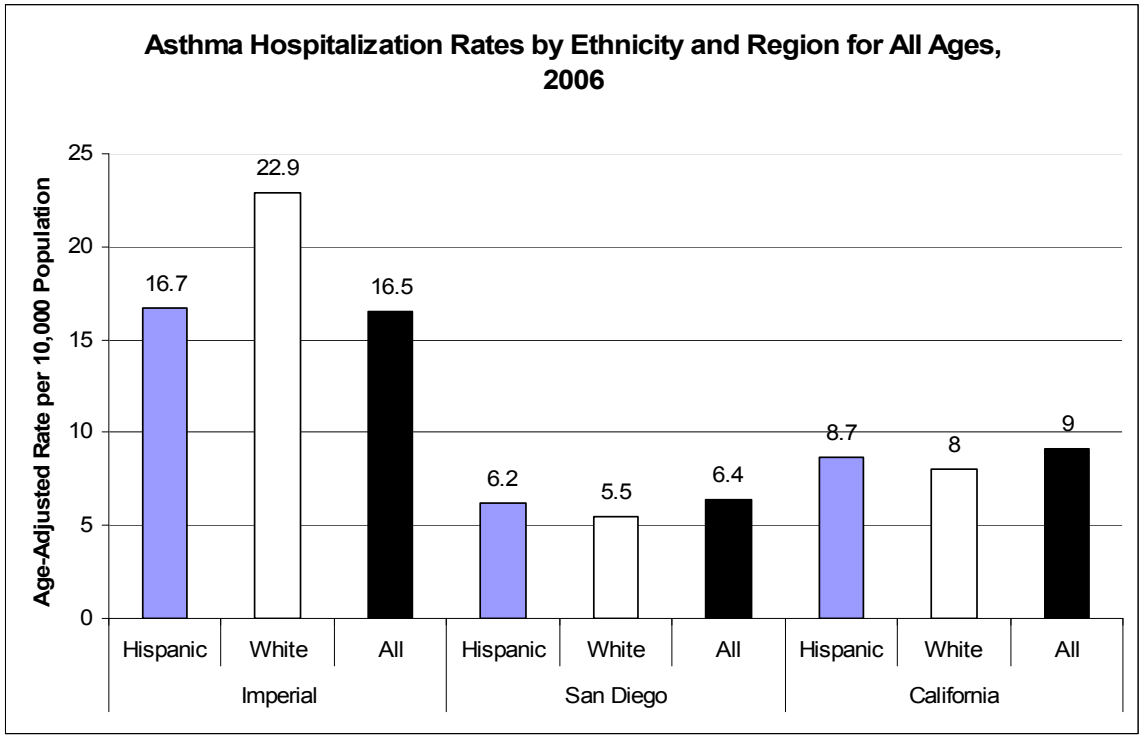
Source: California Office of Statewide Health Planning and Development (OSHPD) Emergency Department Databases

There are a number of reasons people may go to the ED for treatment of asthma symptoms. These include improper asthma management, lack of a plan for managing worsening asthma, or lack of health insurance or access to a primary health care provider (California Breathing, 2007).

Asthma-Related Hospitalizations

Asthma hospitalization rates in the United States have gradually declined during the past two decades. In 2000, California reported lower asthma hospitalization rates than for the United States. However, rates varied by race/ethnicity and county (Stockman et al., 2003). In Imperial County, between 2000 and 2006 the rates of asthma hospitalization decreased over time for each race/ethnicity examined. In San Diego County and for California statewide, the decrease in rates of asthma hospitalization was significant for each race/ethnicity examined (Appendix I, Table 3.3). In 2006, Imperial County reported the highest age-adjusted rate of asthma hospitalizations of all counties in California for all ages (16.5 per 10,000) and for each race/ethnicity examined (16.7 per 10,000 for Hispanics and 22.9 per 10,000 for non-Hispanic whites). In contrast, San Diego County reported rates for all ages that were significantly lower than the statewide rates for all race-specific groups, including Hispanics, and for all ages. Hispanics in the border counties reported asthma hospitalization rates similar to the non-Hispanic white population in the corresponding jurisdiction, while the hospitalization rates for Hispanics statewide were significantly higher than for the non-Hispanic white population (Figure 3.6; Appendix I, Table 3.3)

Figure 3.6

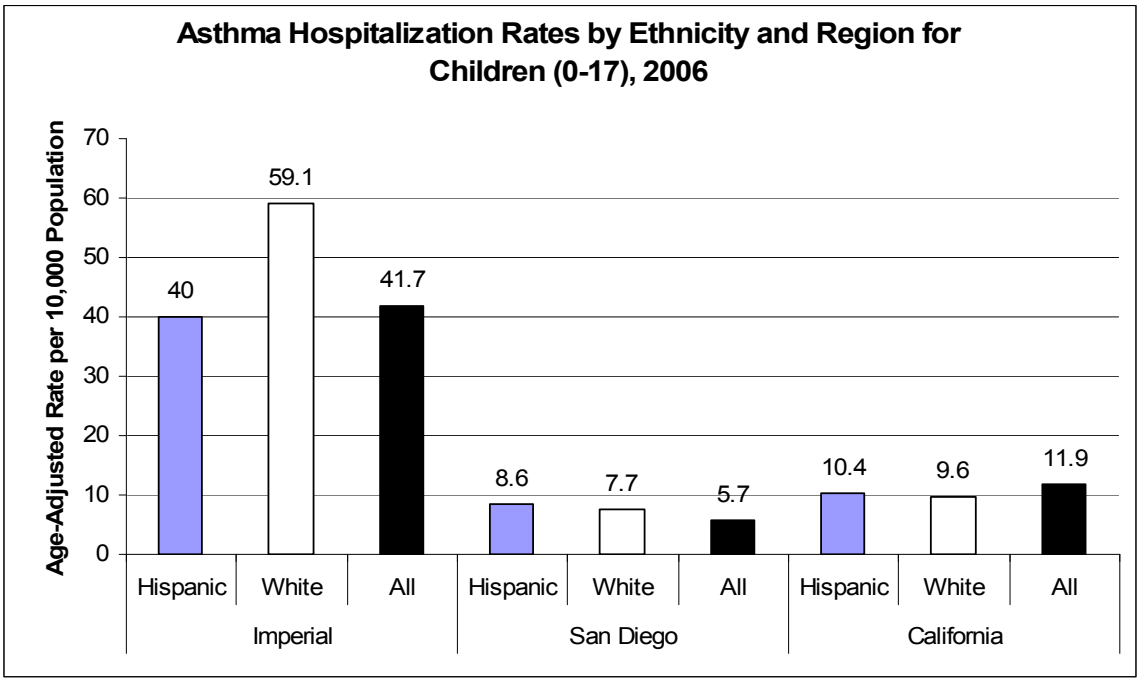


Source: California Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Databases

Of all counties in California, Imperial County reported the highest age-adjusted asthma hospitalization rates among children ages 0-17 for all race/ethnicity groups examined (40 per 10,000 for Hispanics and 59.1 per 10,000 for non-Hispanic whites). In contrast, San Diego County reported asthma hospitalization rates for children ages 0-17 in all

ethnic groups examined that were lower than the state rates. Asthma hospitalization rates were similar for Hispanic and non-Hispanic white children in Imperial County. However, non-Hispanic white children in San Diego County had a slightly lower asthma hospitalization rate than Hispanic children in the same county (Figure 3.7; Appendix I, Table 3.4).

Figure 3.7



Source: California Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Databases

During 2001-2003, Imperial County's age-adjusted asthma hospitalization rates for all age groups (under 5, 5-64, and older than 65) were higher than the rates specified in the Healthy People 2010 goals of 25 per 10,000 population for children under 5, 7.7 per 10,000 for individuals 5-64, and 11 per 10,000 for individuals 65 and older. Similarly, San Diego County's rates were higher for the under 5 and over 65 groups than the Healthy People 2010 goals, but lower for the 5-64 group (California Breathing, 2005).

Caution must be used when interpreting asthma hospitalization discharge rates, since a person may be admitted and discharged several times within a year for asthma and, therefore, be counted several times. The fact that asthma hospitalization rates were higher in Hispanics than in the non-Hispanic white population but the prevalence was lower in this group might suggest under-diagnosis, perhaps related to cultural issues and poor access to care. Asthma hospitalization rates reportedly are influenced by access to preventive care, medication use, insurance status, poverty, housing issues, and indoor and outdoor air quality (Stockman, 2003).

INFECTIOUS DISEASE

Foodborne and Waterborne Diseases

Foodborne disease is caused by consuming contaminated foods or beverages. Because many different disease-causing microbes, or pathogens, can contaminate foods, there are many different foodborne infections.

More than 250 foodborne diseases have been described. Most of these diseases are infections, caused by a variety of bacteria, viruses, and parasites that can be foodborne. These diseases have many symptoms and there is no one "syndrome" that defines a foodborne illness; however, the microbe or toxin enters the body through the gastrointestinal tract and often causes the first symptoms there, so nausea, vomiting, abdominal cramps, and diarrhea are common symptoms in many foodborne diseases. Since many microbes can spread in more than one way, it is not always possible to confirm that a disease is foodborne.

The Centers for Disease Control and Prevention (CDC) estimates that foodborne diseases cause 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths in the United States each year. The great majority of cases are mild, and cause symptoms for only a day or two. The most severe cases tend to occur in the very old, the very young, those who already have an illness that reduces their immune system function, and healthy people exposed to a very high dose of an organism (CDC, Division of Bacterial and Mycotic Diseases).

The remainder of this section presents information on some of the most common foodborne and waterborne diseases.

Campylobacteriosis

What Is It?

Campylobacteriosis is a gastrointestinal disease caused by a type of bacteria called *Campylobacter,* which causes fever, diarrhea, and abdominal cramps. Illness usually occurs 2-5 days after exposure to *Campylobacter* and lasts about a week. The illness is usually mild, and some people with campylobacteriosis have no symptoms at all.

Although campylobacteriosis is most commonly associated with eating raw or undercooked poultry, eating anything contaminated with *Campylobacter* can result in illness. Animals can be infected by *Campylobacter and o*utbreaks of campylobacteriosis have occurred from people who drank surface water that was contaminated by infected birds or cows.

Why Is It Important?

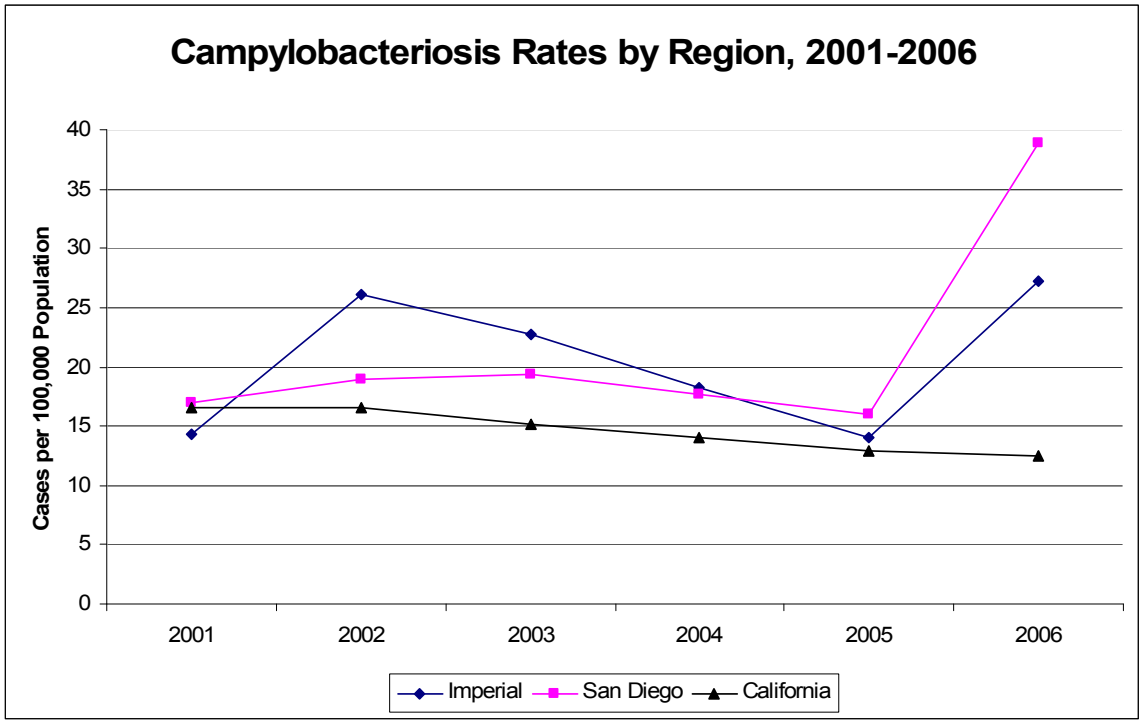
In some persons with compromised immune systems, *Campylobacter* can cause a serious, life-threatening infection. *Campylobacter* is also one of the most common types of bacteria causing diarrhea in the United States. Approximately 2.5 million people (roughly 1% of the U.S. population) are infected each year. There are well over 5,000 cases of *Campylobacter* reported in California annually. Since many milder cases are not diagnosed or reported, the actual number of infections may be considerably higher (State of California Department of Health Services, Communicable Disease Question and Answer Sheets, June 2008).

What Is the Status in the Border Region?

While campylobacteriosis rates in California remained relatively stable between 2001 and 2006, with a slight decrease starting in 2004, rates in San Diego County during that period significantly increased, from 16.97 cases per 100,000 population in 2001 to 38.89 cases per 100,000 in 2006. In Imperial County, the number of cases started to decrease in 2002, down from 39 that year to 23 cases in 2005, then doubled in 2006, to 46 cases.

In 2006, San Diego County's campylobacteriosis rate (38.89 cases per 100,000 population) was significantly higher than Imperial County's (27.22 cases per 100,000 population) and the statewide rate (12.43 cases per 100,000 population) (Figure 4.1; Appendix I, Table 4.1). Neither California nor the border counties met the Healthy People 2010 target of reducing the rate to 12.3 cases per 100,000 population. However, in 2005 and 2006, California approached the 12.3 cases per 100,000 population rate, with rates of 12.96 and 12.43, respectively.

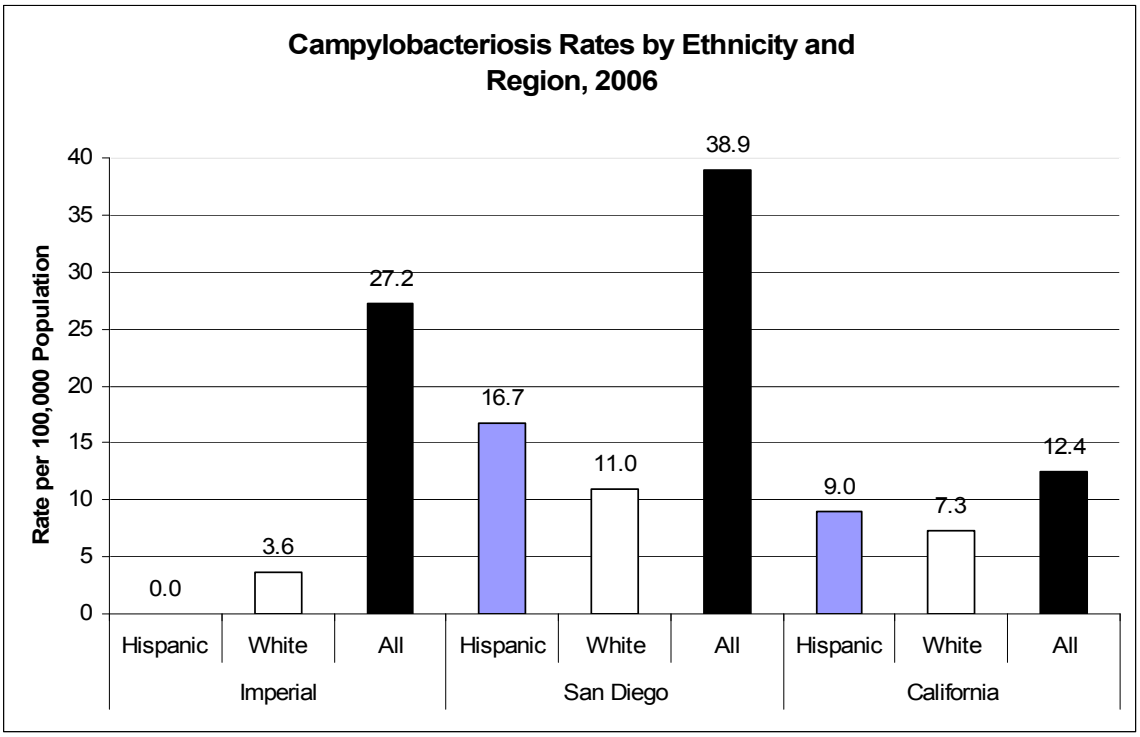
Figure 4.1



Source: California Department of Public Health
Healthy People 2010 Objective 10-1a: 12.3 cases per 100,000 population

Among all major racial/ethnic groups in San Diego County, Hispanics had the highest campylobacteriosis rates in 2001 and 2006, while rates for non-Hispanic whites decreased in 2006. There was a significant decrease in cases of campylobacteriosis in Imperial County between 2001 and 2006 among Hispanics (Figure 4.2).

Figure 4.2



Source: California Department of Public Health
Healthy People 2010 Objective 10-1a: 12.3 cases per 100,000 population

Giardiasis

What Is It?

Giardiasis is a diarrheal illness caused by *Giardia lamblia*, a microscopic parasite that lives in people and animals. Infected people and animals pass *Giardia* cysts in their stool. These cysts can survive in the environment, in water, and food and on surfaces and objects.

Symptoms include diarrhea, abdominal cramps, nausea, bloating, gas, fatigue, weight loss, and dehydration. Symptoms generally begin 1-2 weeks after infection. In otherwise healthy persons, symptoms usually last 2-6 weeks, but occasionally last longer. Some infected people do not develop any symptoms.

Giardia may be found in soil, food, water, or on surfaces that have been contaminated with feces from infected people or animals. People become infected after accidentally swallowing *Giardia* cysts. Giardiasis can also be spread from person to person.

In the United States, *Giardia* is one of the most common causes of waterborne diseases in people. Outbreaks have been associated with contaminated municipal and recreational waters, day care centers, and among men who have sex with men. In

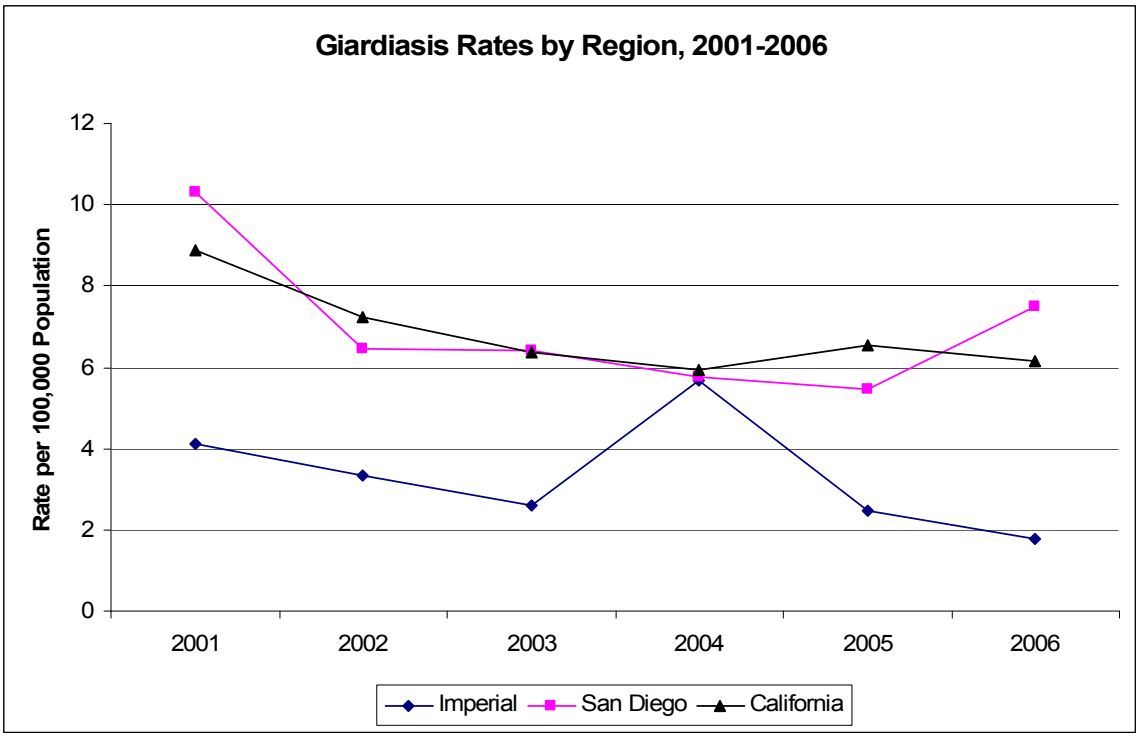
California, between 2,000 and 4,000 cases of giardiasis are reported each year; however, it is likely that there are many more cases each year that go undiagnosed (State of California Department of Health Services, Communicable Disease Question and Answer Sheets).

What Is the Status in the Border Region?

In San Diego County and throughout California, giardiasis rates significantly decreased from 2001 to 2006. The number of cases in Imperial County was relatively small; thus, calculated rates should be interpreted with caution.

Giardiasis rates for San Diego County were significantly higher than for Imperial County or California as a whole in 2006 (Figure 4.3; Appendix I, Table 4.2).

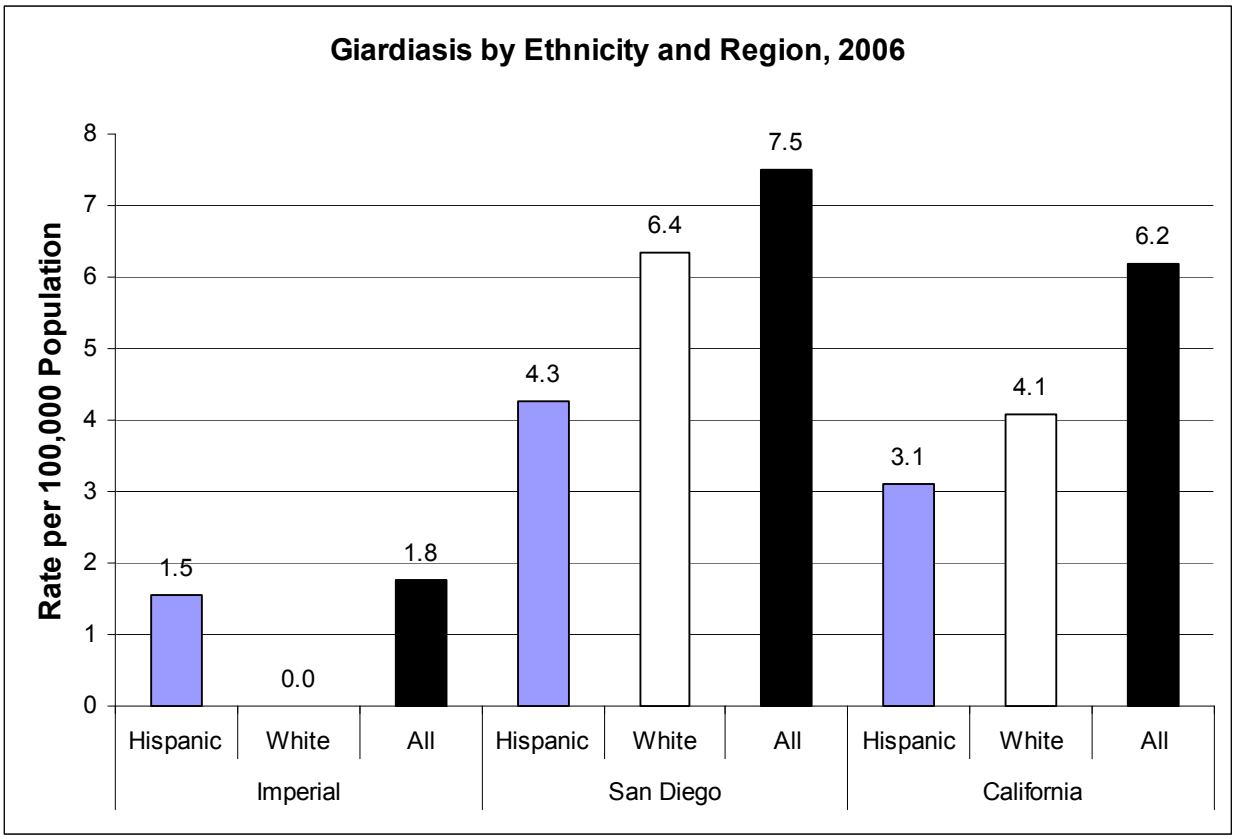
Figure 4.3



Source: California Department of Public Health

In San Diego County, in 2001, the giardiasis rate for Hispanics (5.54 cases per 100,000 population) was almost half the rate for non-Hispanic whites (9.73 cases per 100,000 population). In 2006, rates were not significantly different among all major racial/ethnic groups (Figure 4.4; Appendix I, Table 4.2).

Figure 4.4



Source: California Department of Public Health

Amebiasis

What Is It?

Amebiasis is a gastrointestinal disease caused by a one-celled parasite called *Entamoeba histolytica (E. histolytica)*. The symptoms are generally mild and can include loose stools, stomach pain, and stomach cramping.

Although anyone can acquire this disease, it is most common in people who live in developing countries that have poor sanitary conditions. In the United States, amebiasis is most often found in immigrants from developing countries. It can also be found in Americans who acquired infection on travels to developing countries or who reside in institutional settings with poor sanitary conditions. Men who have sex with men can become infected, but may not necessarily develop symptoms.

Individuals can become infected with *E. histolytica* by putting anything into their mouth that was contaminated with the stool of a person infected with *E. histolytica*; by swallowing something, such as water or food, that was contaminated with *E. histolytica;*

or by touching and bringing to their mouth cysts (eggs) picked up from surfaces contaminated with *E. histolytica*.

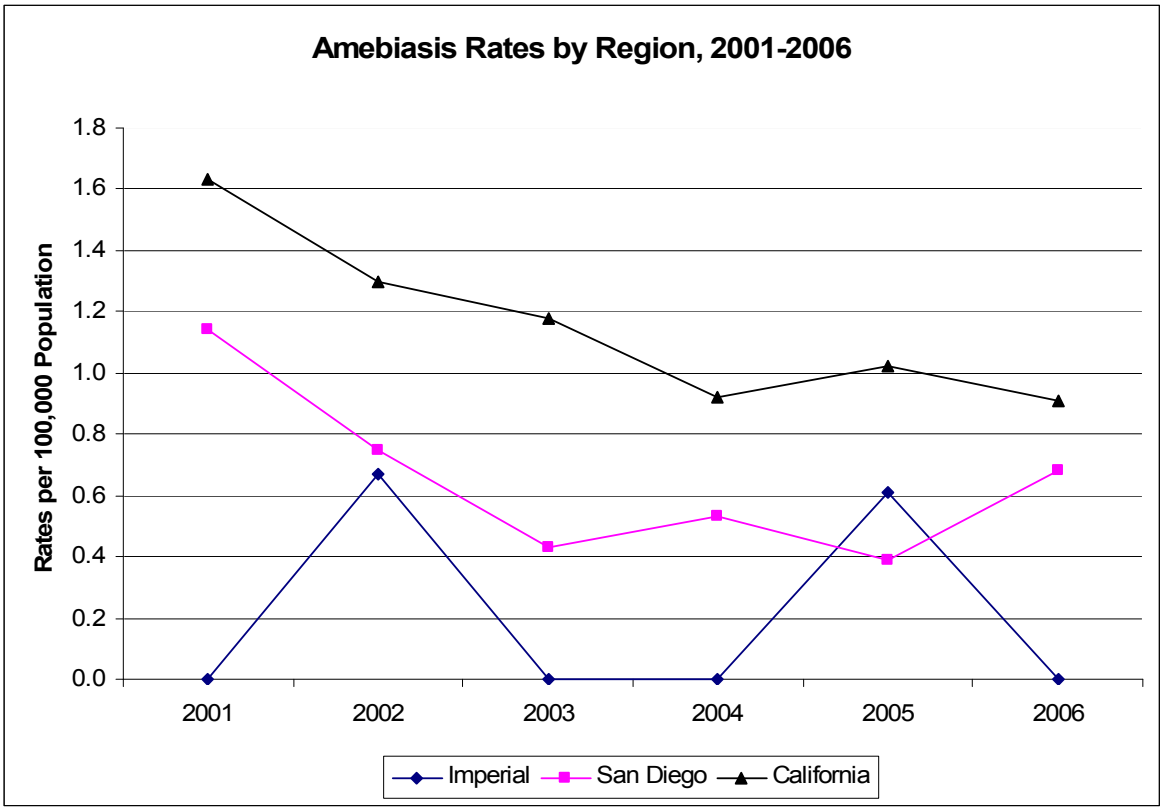
Why Is It Important?

Amebic dysentery is a severe form of amebiasis associated with stomach pain, bloody stools, and fever (State of California Department of Health Services, Communicable Disease Question and Answer Sheets).

What Is the Status in the Border Region?

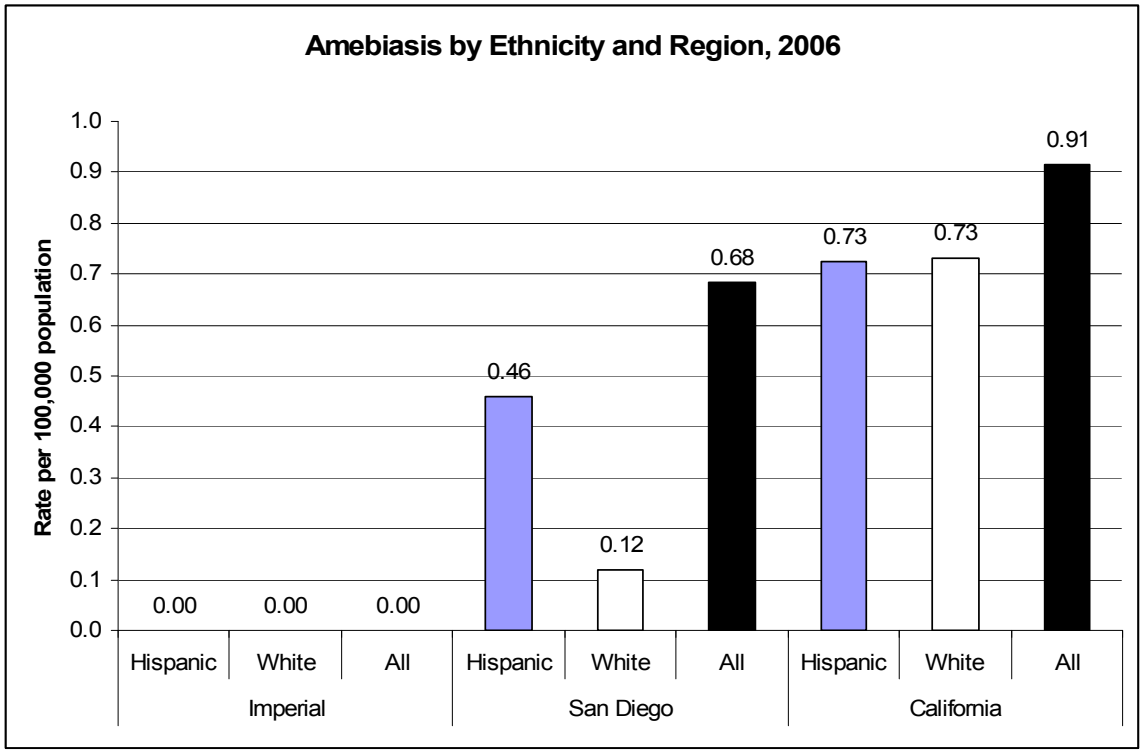
The statewide amebiasis rate was 1.63 cases per 100,000 population in 2001, with a significant decline by 2006 to 0.91 cases per 100,000 population. In San Diego County, the amebiasis rate for whites also declined significantly, from 0.56 cases per 100,000 population in 2001 to 0.12 cases per 100,000 population in 2006.

Figure 4.5



Source: California Department of Public Health

Figure 4.6



Source: California Department of Public Health

Escherichia Coli 0157:H7

What Is It?

E. coli O157:H7 is one of hundreds of strains of the bacterium *Escherichia coli*. Although most strains are harmless and live in the intestines of healthy humans and animals, this strain produces a powerful toxin and can cause severe illness. The illness it causes is often a severe and bloody diarrhea and painful abdominal cramps, without much fever.

E. coli O157:H7 is a bacterial pathogen that has a reservoir in cattle and other similar animals. Human illness typically follows consumption of food or water that has been contaminated with microscopic amounts of cow feces.

E. coli 057:H7 is an emerging cause of foodborne illness. An estimated 10,000-20,000 cases of infection occur in the United States each year. Most illness has been associated with eating undercooked, contaminated ground beef. Person-to-person contact in families and child care centers is also an important mode of transmission. Infection can also occur after drinking raw milk and after swimming in or drinking sewage-contaminated water (California Department of Public Health, *E. coli* O157:H7 Fact Sheet).

Why Is It Important?

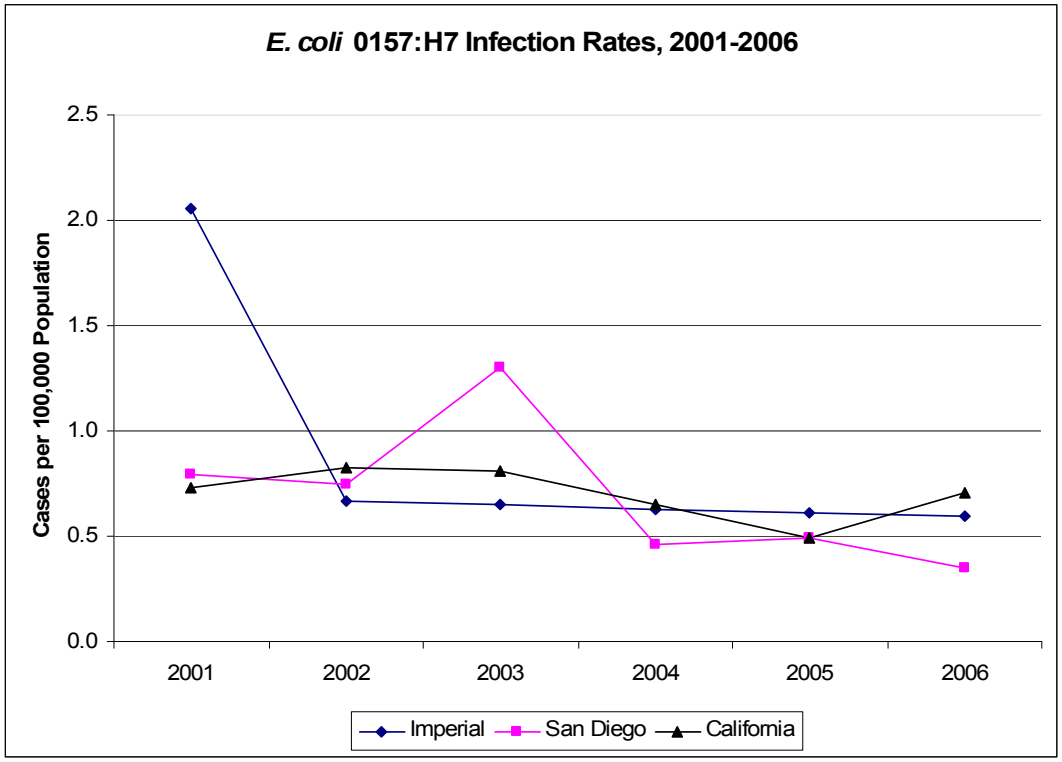
In 3-5 percent of cases, a complication called hemolytic uremic syndrome (HUS) can occur several weeks after the initial symptoms. This severe complication can be characterized by temporary anemia, profuse bleeding, and kidney failure (CDC, Division of Bacterial and Mycotic Diseases).

What Is the Status in the Border Region?

In 2001, San Diego County reported slightly higher rates of *E. coli* 0157:H7 than California as a whole. However, in 2006, San Diego County reported slightly lower rates of *E. coli* 0157:H7 than California. Imperial County reported an average of approximately one case of *E. coli* 0157:H7 each year during the six years from 2001 to 2006. In 2006, there were no significant differences among the three regions in *E. coli* 0157:H7 rates.

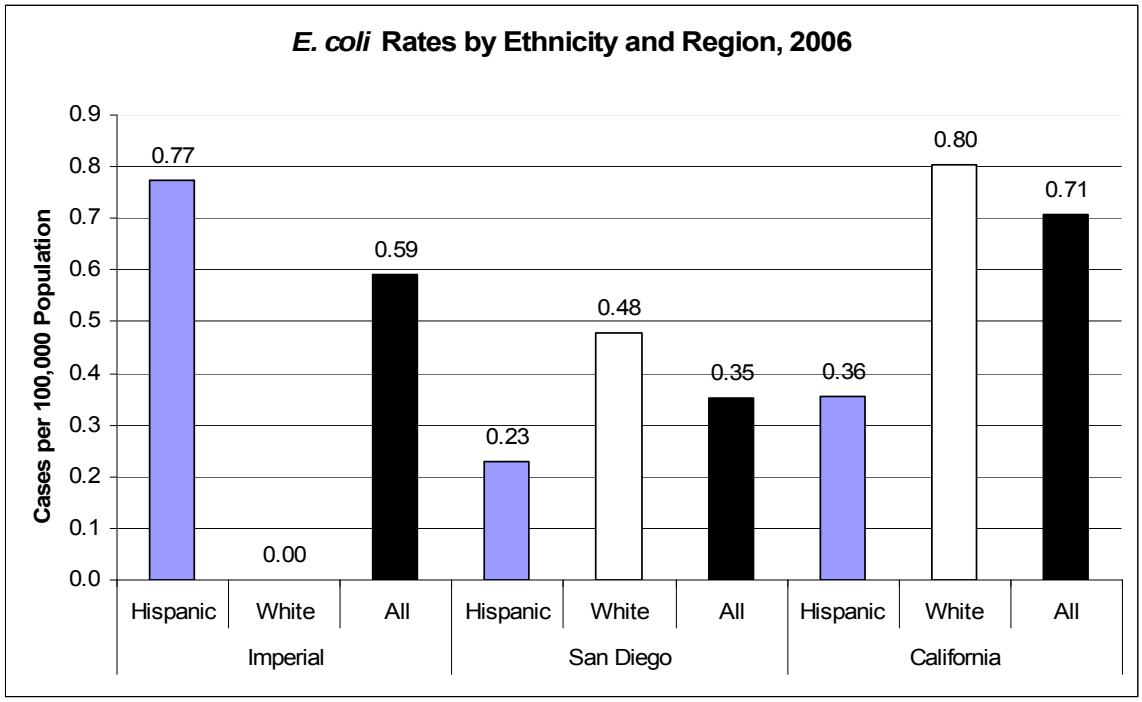
In 2006, California and both border counties met the Healthy People 2010 target of one case of *E. coli* 0157:H7 per 100,000 population (Figure 4.7; Appendix I, Table 4.4). The numbers of cases of *E. coli* 0157:H7 reported in 2001 and 2006 were too small to compare reliable racial/ethnic-specific rates.

Figure 4.7



Source: California Department of Public Health
Healthy People 2010 Objective 10-1b: one case per 100,000 population

Figure 4.8



Source: California Department of Public Health
Healthy People 2010 Objective 10-1b: one case per 100,000 population

Shigellosis

What Is It?

Shigellosis is a gastrointestinal disease caused by a group of bacteria called *Shigella*. Illness often occurs 1-2 days after exposure to *Shigella*, and lasts 5-7 days. Symptoms of shigellosis usually include diarrhea (occasionally bloody or mucosy), fever, and abdominal cramps. Some people with shigellosis have very few or no symptoms, but can still pass *Shigella* to others. Sometimes, *Shigella* can contaminate food and cause illness among those who eat the tainted item. Shigellosis can also result from drinking or swimming in contaminated water.

Why Is It Important?

This disease can be quite severe and lead to hospitalization, especially in young children and the elderly. Most people with shigellosis recover completely; however, in a small percentage of people infected by *Shigella*, a condition called Reiter's syndrome can occur. Reiter's syndrome is the development of joint pain and swelling, eye irritation, and painful urination that occurs as a reaction to *Shigella* infection.

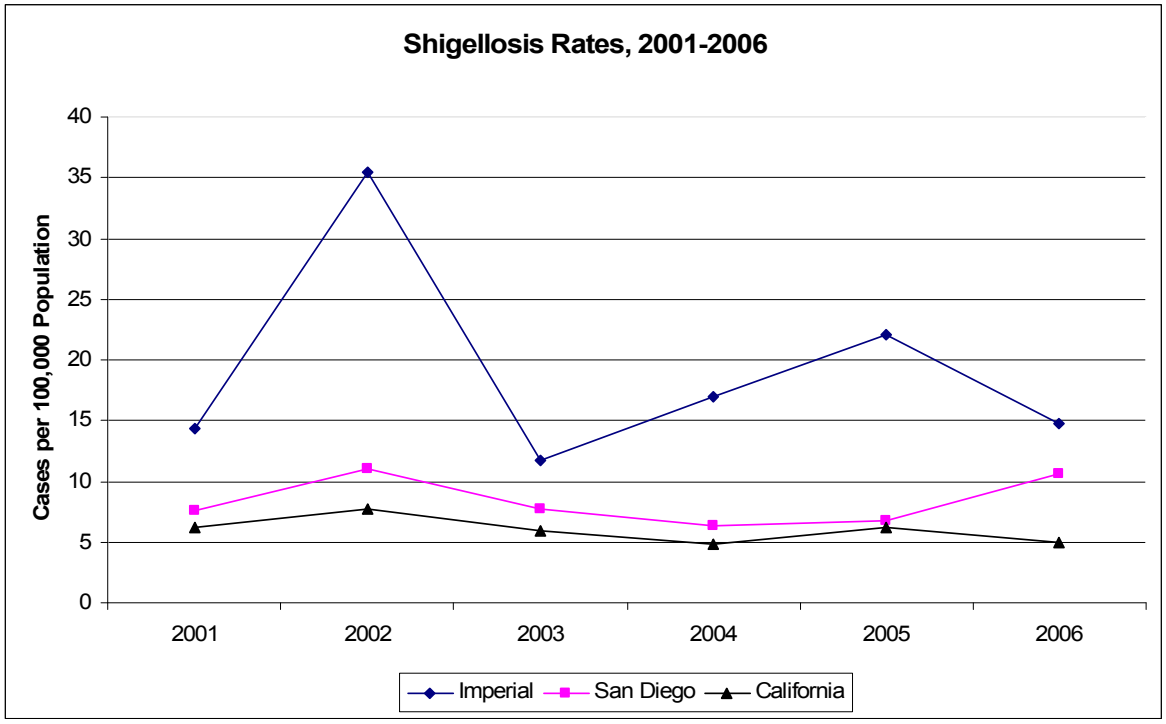
In the United States, about 18,000 cases are reported each year. The number of reported cases in California has generally declined over the past decade, with about 2,500 cases reported statewide each year for the last few years. However, because many milder cases are not diagnosed or reported, the actual number of infections may be up to 20 times higher (California Department of Public Health, Diseases and Conditions, Shigellosis Fact Sheet).

What Is the Status in the Border Region?

In 2001, Imperial County had a shigellosis rate (14.38 cases per 100,000 population) twice that of San Diego County. In 2006, Imperial County had a shigellosis rate (14.79 cases per 100,000 population) that was almost three times higher than that of California as a whole, and San Diego County had a shigellosis rate (10.56 cases per 100,000 population) twice as high as that of California (Figure 4.9; Appendix I, Table 4.5).

In San Diego County, shigellosis rates increased significantly, from 7.64 cases per 100,000 population in 2001 to 10.56 cases per 100,000 population in 2006.
Statewide rates decreased significantly, from 6.18 cases per 100,000 population in 2001 to 5.02 cases per 100,000 population in 2006 (Figure 4.9; Appendix I, Table 4.5).

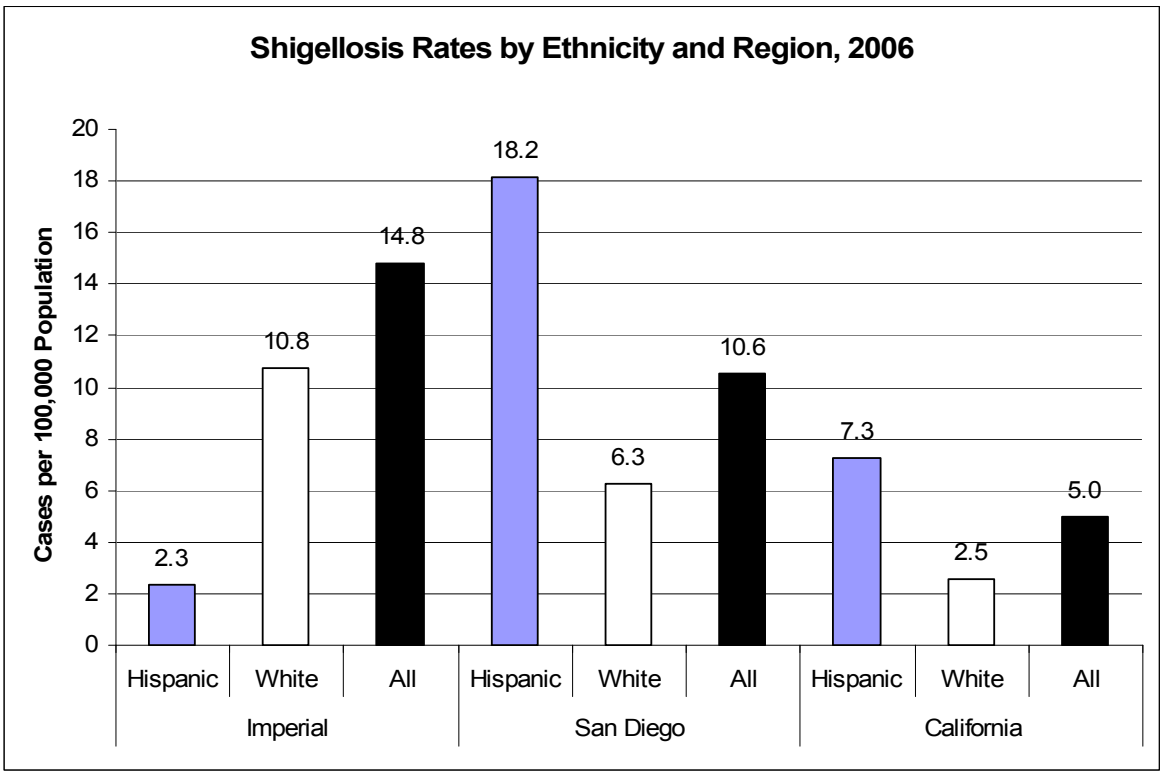
Figure 4.9



Source: California Department of Public Health

Among all major racial/ethnic groups, Hispanics reported the highest shigellosis rates in Imperial County and San Diego County. In San Diego County, the shigellosis rates for Hispanics were more than double the rates for non-Hispanic whites (Figure 4.10). Shigellosis rates in Hispanics in Imperial County decreased significantly between 2001 and 2006. Statewide rates decreased significantly between those same years among non-Hispanic whites.

Figure 4.10



Source: California Department of Public Health

Salmonellosis (Non-typhoid)

What Is It?

Salmonellosis is an infection caused by the bacteria *Salmonella.* Most people infected with *Salmonella* develop diarrhea, fever, and abdominal cramps between 12 and 72 hours after infection. The illness usually lasts 4-7 days, and most people recover without treatment. The most common sources of exposure to *Salmonella* are raw and undercooked eggs, undercooked poultry and meat, dairy products, seafood, fruits, and vegetables.

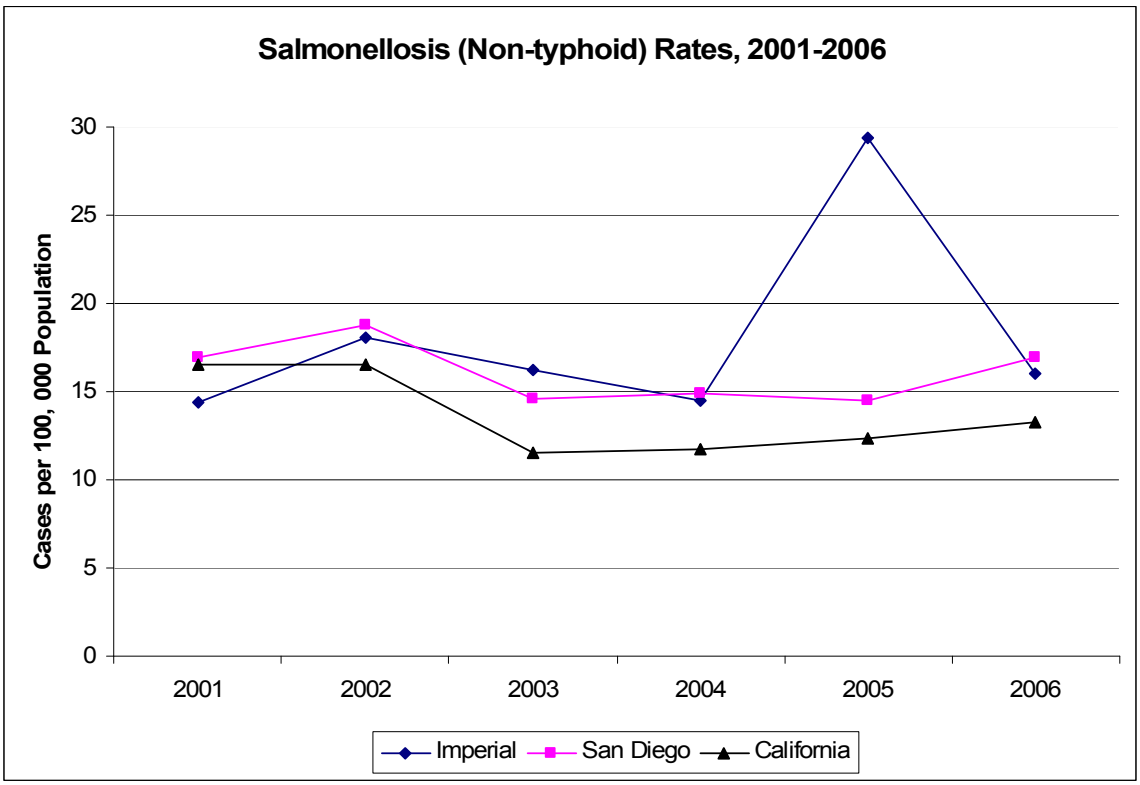
Why Is It Important?

Salmonellosis is a common cause of death from foodborne illness. In some people, the diarrhea may be so severe that the patient needs to be hospitalized. In these patients, the *Salmonella* infection may spread from the intestines to the bloodstream and then to other body sites, and can cause death unless the person is treated promptly with antibiotics. The elderly, infants, and those with impaired immune systems are the groups most likely to have a severe illness. Every year, approximately 40,000 cases of salmonellosis are reported in the United States. Because many milder cases are not diagnosed or reported, the actual number of infections may be 30 or more times greater (Centers for Disease Control and Prevention, 2008).

What Is the Status in the Border Region?

The salmonellosis rates in San Diego County remained similar from 2001 to 2006. Salmonellosis rates for Imperial County were based on a small number of cases and were, thus, more variable. Statewide salmonellosis rates decreased significantly between 2001 (16.53 cases per 100,000 population) and 2006 (13.23 cases per 100,000 population) (Figure 4.11).

Figure 4.11

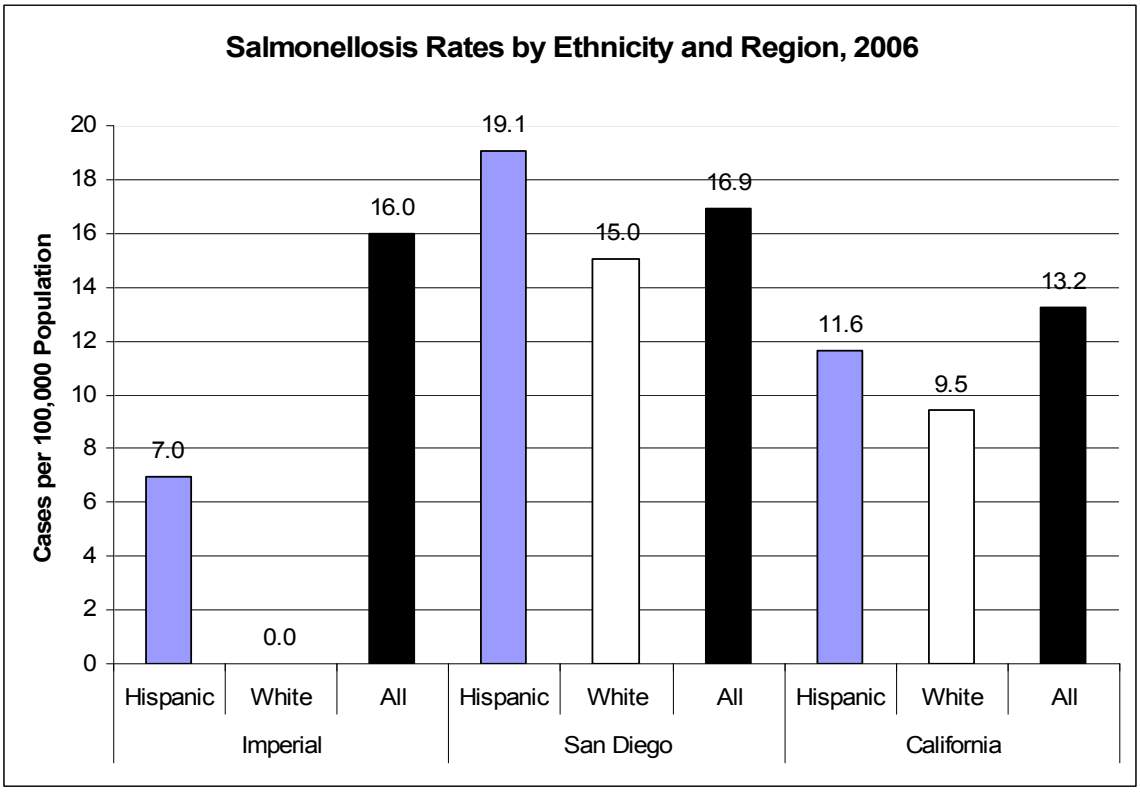


Source: California Department of Public Health

In 2001 and 2006, salmonellosis rates were higher among Hispanics than among non-Hispanic whites in San Diego and Imperial counties. In California, Hispanics had a significantly higher rate than non-Hispanic whites in 2001 and 2006. Salmonellosis rates in Hispanics and non-Hispanic whites increased significantly in San Diego County between 2001 and 2006. This trend was similar to that of California as a whole. (Figure 4.12; Appendix I, Table 4.6).

As of 2006, neither California nor the border counties had met the Healthy People 2010 objective of less than 6.8 salmonellosis cases per 100,000 population.

Figure 4.12



Source: California Department of Public Health
Healthy People 2010 goal: 6.8 cases per 100,000 population

Cysticercosis

What Is It?

Cysticercosis is an infection caused by the pork tapeworm, *Taenia solium.* Infection occurs when the tapeworm larvae enter the body and form cysticerci (cysts). The tapeworm that causes cysticercosis is found worldwide. Infection is found most often in rural, developing countries with poor hygiene where pigs are allowed to roam freely and eat human feces. The disease is also highly endemic in many developing countries, including Mexico.

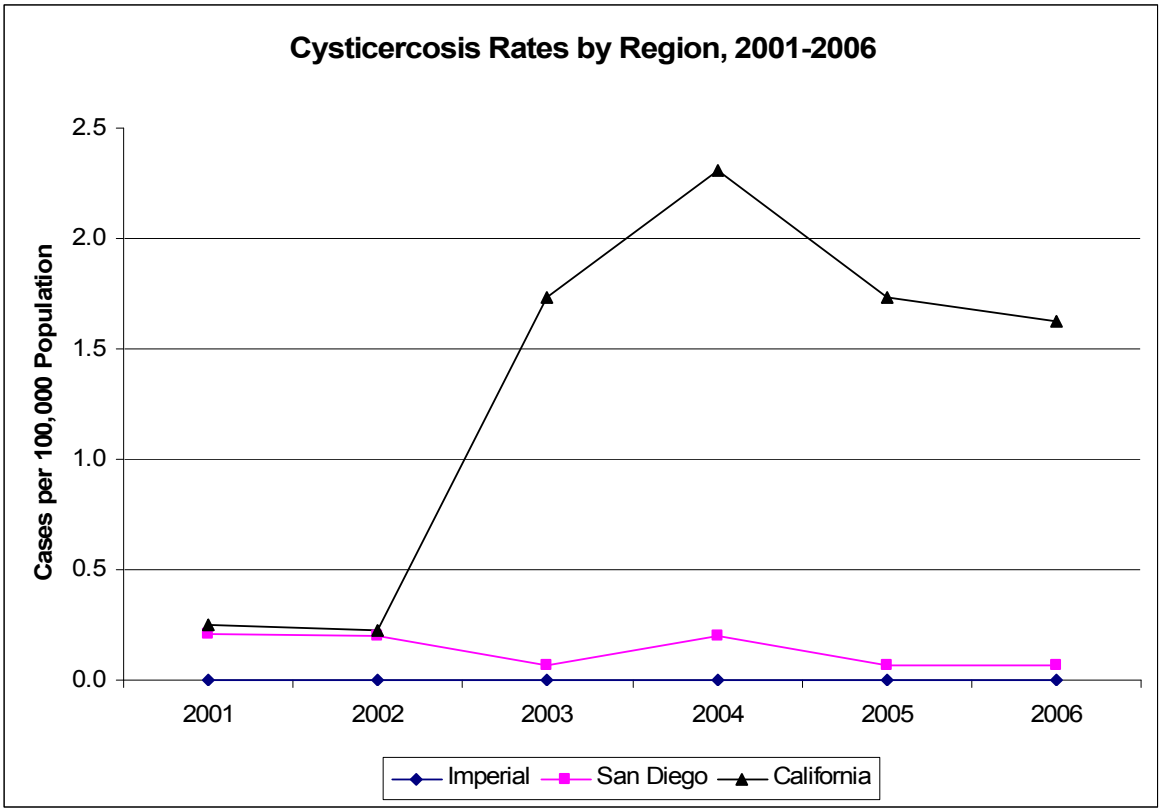
Why Is It Important?

When cysticerci are found in the brain, the condition is called neurocysticercosis and it is the most severe form of the disease (Centers for Disease Control and Prevention, Division of Parasitic Diseases)

What Is the Status in the Border Region?

Imperial County did not report any cysticercosis cases during 2001-2006. San Diego County reported 24 cases in the same six-year period, an average of six cases per year. Statewide, California reported an average of 65.5 cases per year during the same period (Figure 4.13).

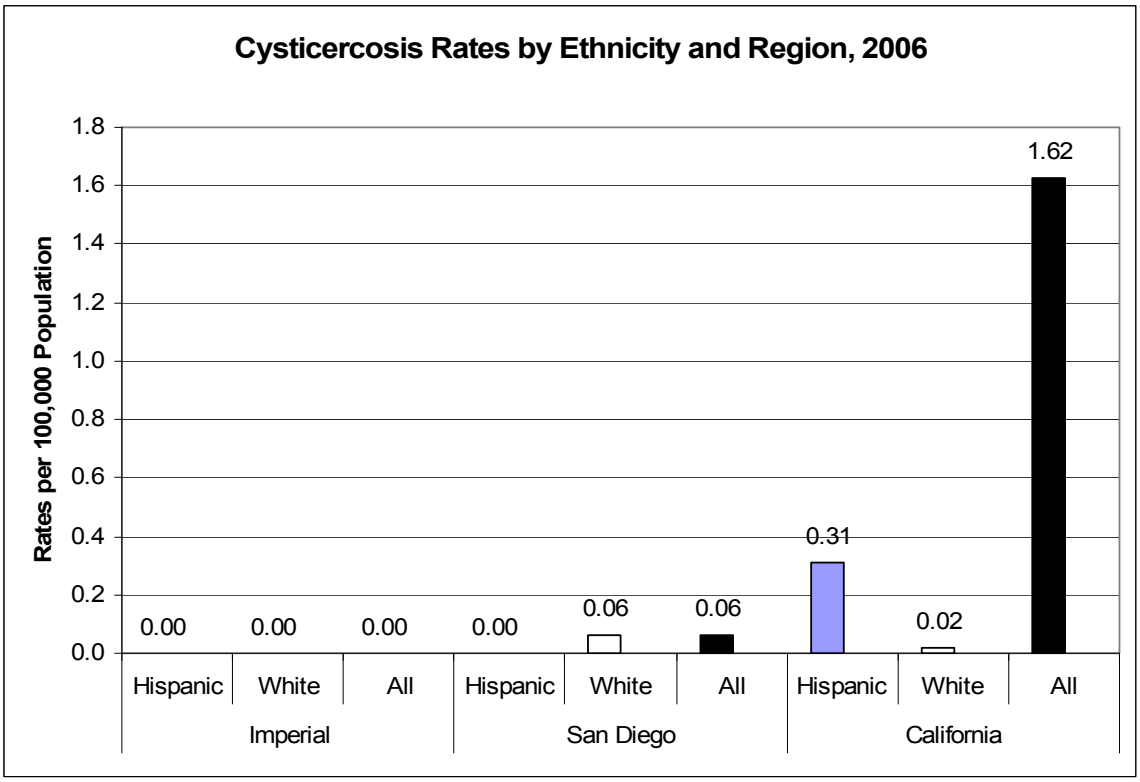
Figure 4.13



Source: California Department of Public Health

Of all cysticercosis cases reported in California during 2001-2006, 38.06 percent were in Hispanics, compared to 2.57 percent in non-Hispanic whites (Figure 4.14; Appendix I, Table 4.7).

Figure 4.14



Source: California Department of Public Health

Cysticercosis is highly endemic in Mexico. The prevalence of the disease in humans is as high as 13 percent in remote areas where pigs are raised in semi-confinement (de Aluja, 2000). Reports published in Mexico show cerebral cysticercosis to be the cause of 9 percent of neurology admissions, 11-30 percent of brain surgeries for tumors, and 2.8-3.6 percent of all autopsies (Richards, 1985).

Listeriosis

What Is It?

Listeria monocytogenes is a bacterium. It is often found in the environment, particularly in soil, vegetation, animal feed, and in human and animal feces. Animals can carry the bacterium without appearing ill and can contaminate foods of animal origin such as meats and dairy products. Eating food contaminated with *Listeria* may lead to the development of a disease called listeriosis. Symptoms include flu-like symptoms, nausea, vomiting, cramps, diarrhea, headache, constipation, and persistent fever. Symptoms usually appear within 2-30 days and up to 90 days after consuming contaminated food.

Why Is It Important?

Listeria monocytogenes has recently been recognized as an important public health problem in the United States. The disease affects primarily persons of advanced age, pregnant women, newborns, and adults with weakened immune systems. However, in rare cases people without these risk factors can also be affected.

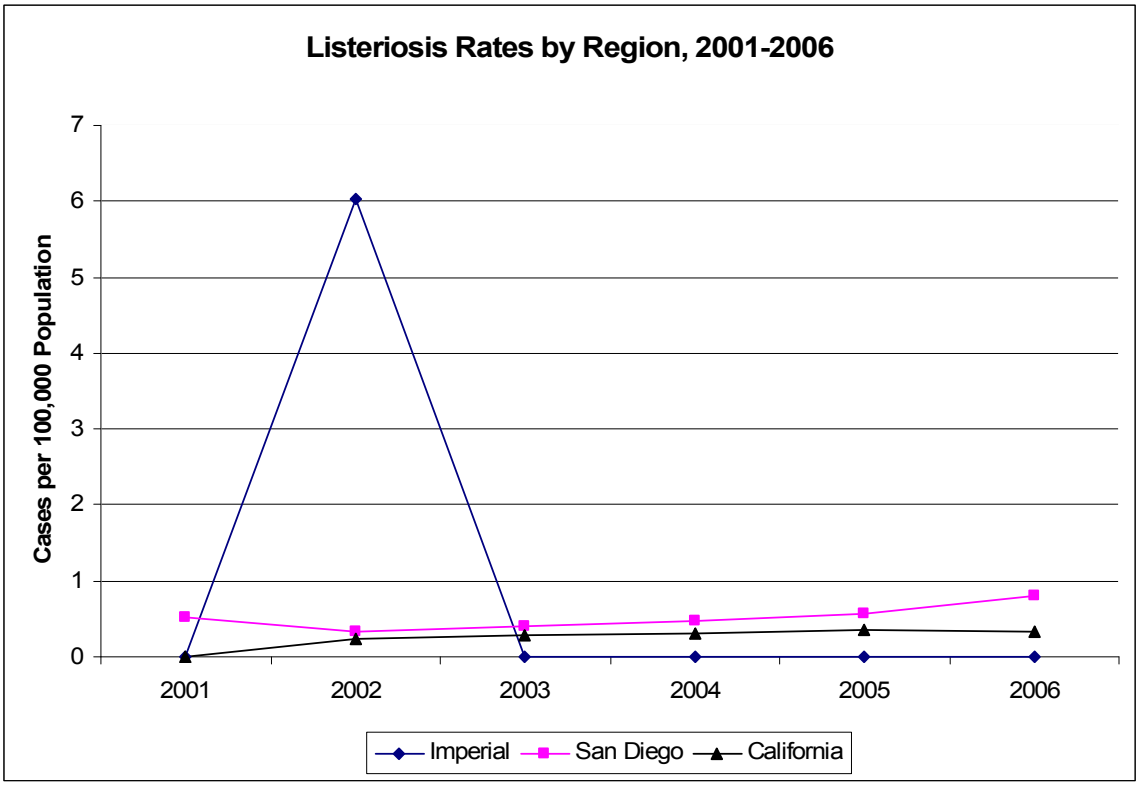
Infected pregnant women may experience only a mild, flu-like illness; however, infections during pregnancy can lead to miscarriage or stillbirth, premature delivery, or infection of the newborn.

Listeriosis is a leading cause of death among patients with foodborne diseases in the United States, with an estimated 2,500 persons becoming seriously ill with listeriosis each year. Of these, 500 die (Centers for Disease Control and Prevention, Division of Foodborne, Bacterial and Mycotic Diseases).

What Is the Status in the Border Region?

Imperial County reported nine listeriosis cases during 2001-2006. San Diego County reported 93 cases in the same six-year period, an average of 15.5 cases per year. Statewide, California reported an average of 112.16 cases per year during the same period.

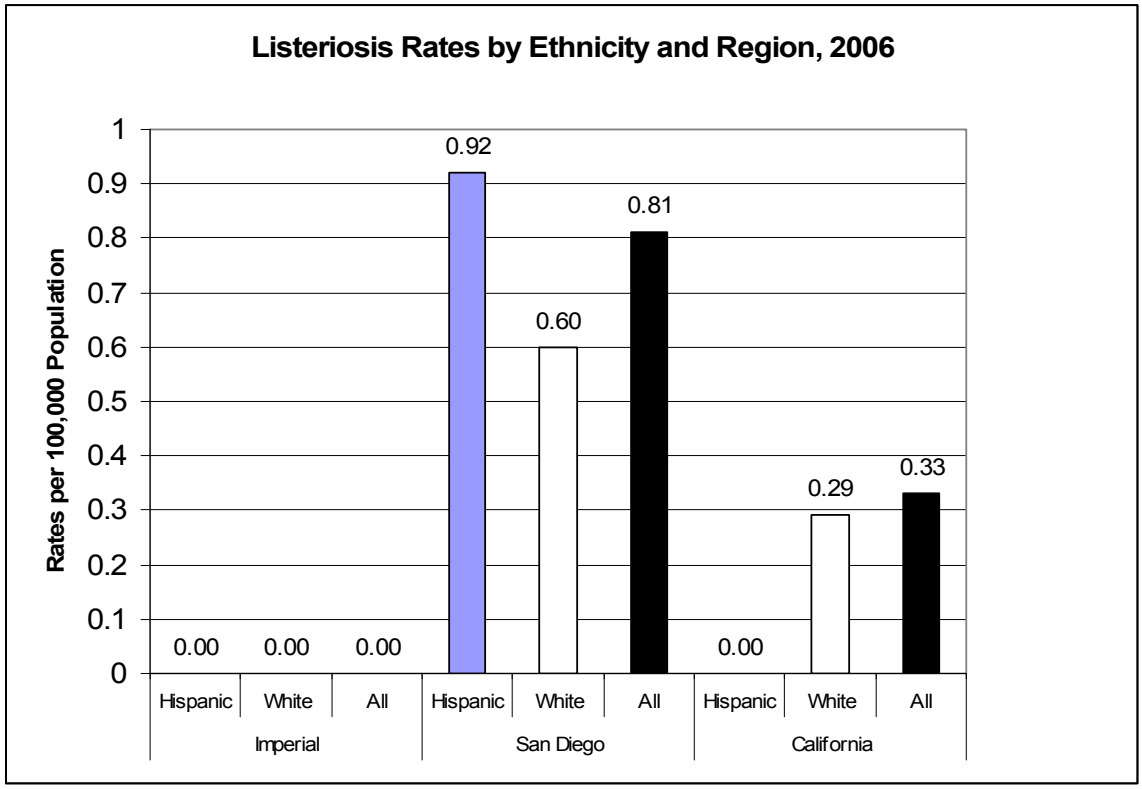
Figure 4.15



Source: California Department of Public Health

The number of cases of listeriosis reported during 2001-2006 in Imperial and San Diego counties was too small to compare reliable racial/ethnic-specific rates. Of all listeriosis cases reported in California during 2001-2006, 35.51 percent were in non-Hispanic whites, compared to 21.99 percent in Hispanics. As of 2006, neither California nor San Diego County had met the Healthy People 2010 objective of less than 0.25 listeriosis cases per 100,000 population (Figure 4.16; Appendix I, Table 4.8).

Figure 4.16



Source: California Department of Public Health

Cryptosporidiosis

What Is It?

Cryptosporidiosis is a diarrheal disease caused by microscopic parasites, *Cryptosporidium*, that can live in the intestine of humans and animals and are passed in the stool of an infected person or animal. The most common symptom of cryptosporidiosis is watery diarrhea. Other symptoms include stomach cramps or pain, dehydration, nausea, vomiting, fever, or weight loss. In people with healthy immune systems, symptoms usually last about 1-2 weeks

During the past two decades, Crypto has become recognized as one of the most common causes of waterborne disease (recreational water and drinking water) in

humans in the United States. Several community-wide outbreaks of cryptosporidiosis have been linked to drinking municipal water or recreational water contaminated with *Cryptosporidium*. The parasite is found in every region of the United States and throughout the world.

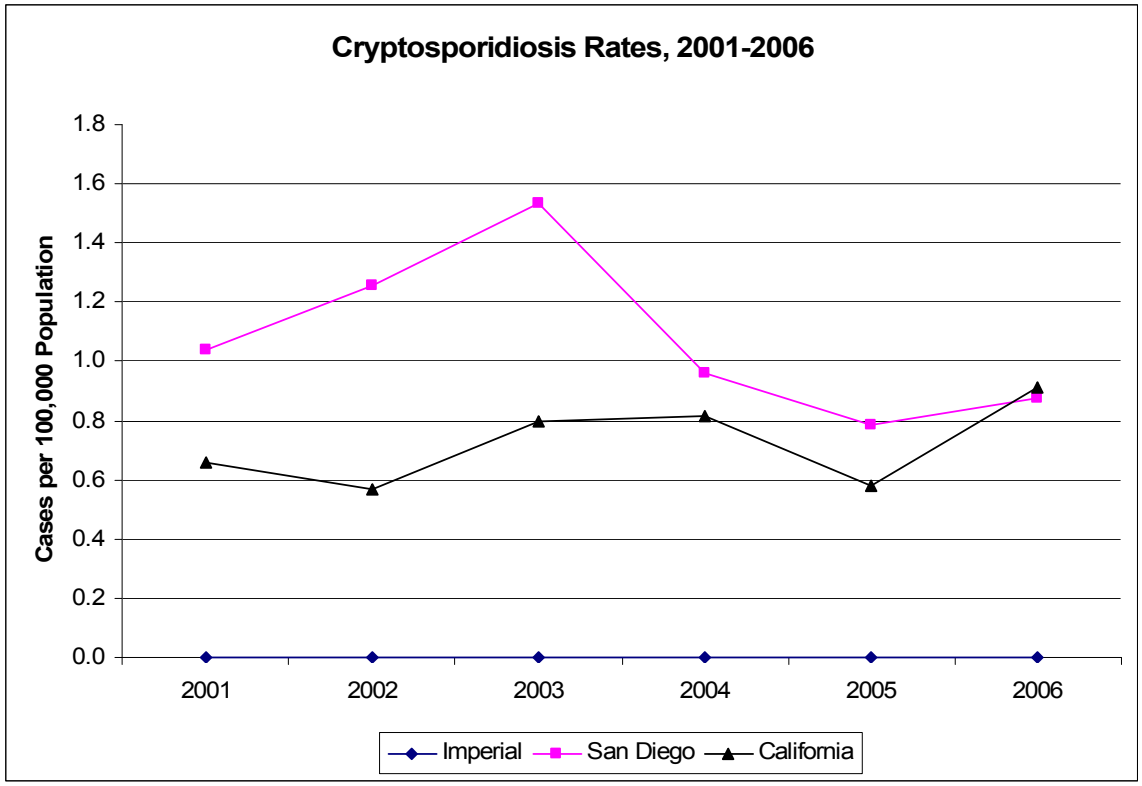
Why Is It Important?

Although Crypto can infect all people, some groups are more likely to develop more serious illness. Young children and pregnant women may be more susceptible to the dehydration resulting from diarrhea, and in people with significantly weakened immune systems it may be more severe and could lead to serious or life-threatening illness (Centers for Disease Control and Prevention, Division of Parasitic Diseases).

What Is the Status in the Border Region?

Imperial County did not report cryptosporidiosis cases during 2001-2006. San Diego County reported 193 cases in the same six-year period, an average of 32.16 cases per year. California reported an average of 261.16 cases per year during the same period. The statewide cryptosporidiosis rate was 0.66 cases per 100,000 population in 2001, with a significant increase in 2006 to 0.91 cases per 100,000 population (Figure 4.17).

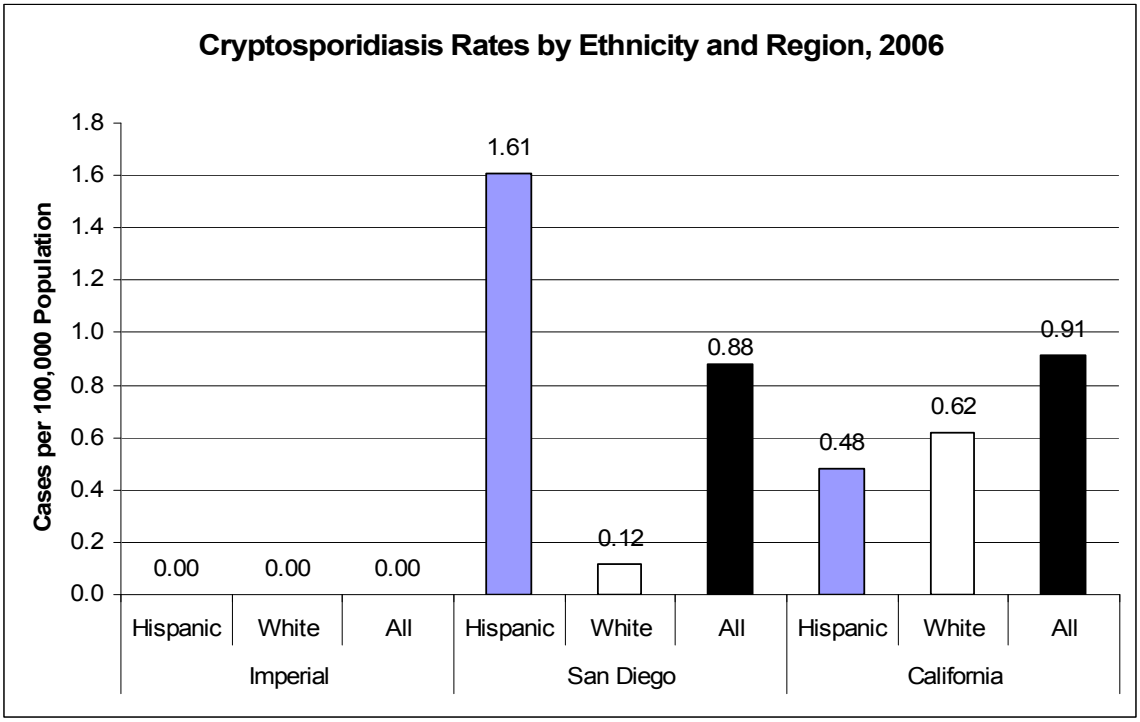
Figure 4.17



Source: California Department of Public Health

In 2006, cryptosporidiosis rates were significantly higher among Hispanics (1.61 cases per 100,000 population) than among non-Hispanic whites (0.12 cases per 100,000 population) in San Diego County (Figure 4.18; Appendix I, Table 4.9).

Figure 4.18



Source: California Department of Public Health

Hepatitis A

What Is It?

Hepatitis A is a liver disease caused by the hepatitis A virus (HAV). HAV infection produces a self-limited disease that does not result in chronic infection or chronic liver disease. Adults have signs and symptoms more often than children. When symptoms are present, they usually occur abruptly and can include jaundice, fatigue, abdominal pain, loss of appetite, nausea, diarrhea, or fever.

Transmission occurs by the fecal-oral route, either by direct contact with an HAV-infected person or by ingestion of HAV-contaminated food or water. In addition, HAV-contaminated food may be the source of hepatitis A for an unknown proportion of persons whose source of infection is not identified (Centers for Disease Control and Prevention). Foodborne or waterborne hepatitis A outbreaks are relatively uncommon in the United States.

Hepatitis A rates in the United States have declined by 89 percent since the hepatitis A vaccine first became available in 1995. But hepatitis A is one of the most common vaccine-preventable infections acquired during travel.

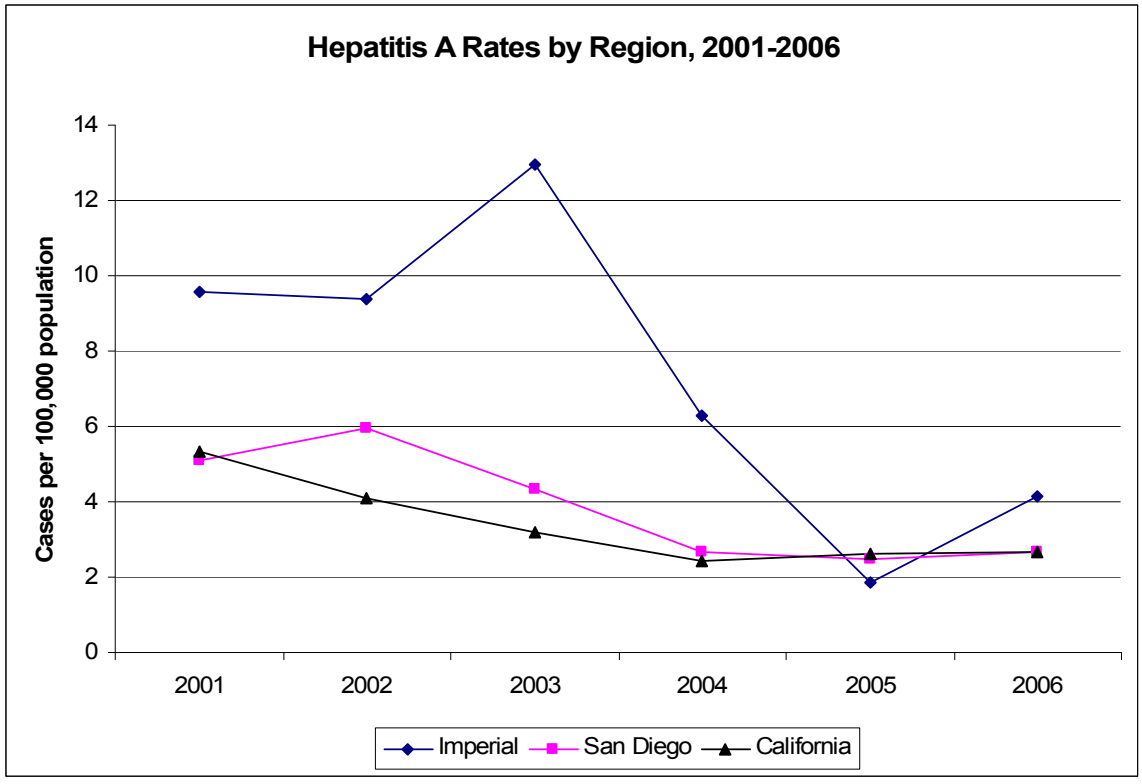
Why Is It Important?

Hepatitis A is endemic throughout much of the world, where poor sanitation and crowding facilitate transmission. The number of cases associated with travel, as well as the overall incidence, has decreased in recent years, according to notifiable disease data in the United States. However, the proportion of overall cases attributed to travel has increased (Centers for Disease Control and Prevention, Traveler's Health: Yellow Book).

What Is the Status in the Border Region?

Hepatitis A rates in California significantly decreased between 2001 and 2004, remaining relatively stable between 2004 and 2006. Rates in San Diego County significantly decreased between 2001 and 2006, from 5.11 cases per 100,000 population in 2001 to 2.66 cases per 100,000 population in 2006. In Imperial County, hepatitis A rates increased between 2001 and 2003, decreased between 2003 and 2005, and slightly increased in 2006.

Figure 4.19

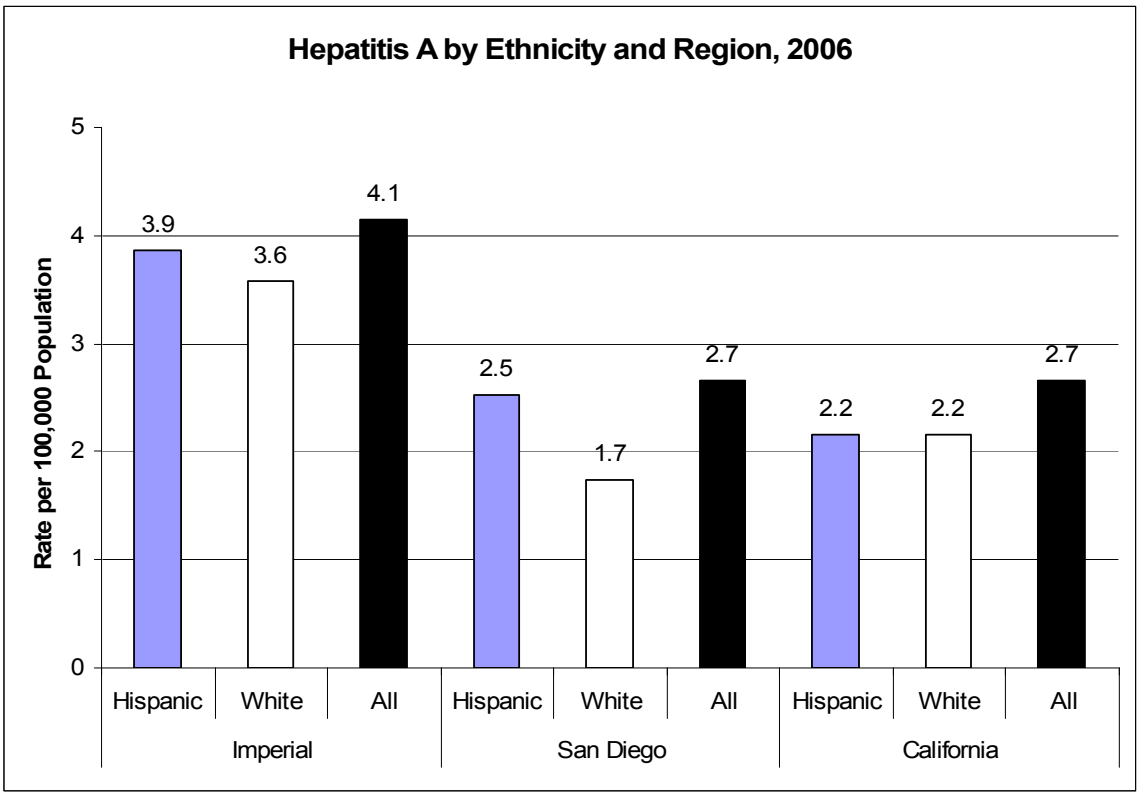


Source: California Department of Public Health

Hispanics reported the highest hepatitis A rates in Imperial and San Diego counties in 2006. The number of cases in Imperial County was relatively small; thus, calculated rates should be interpreted with caution. Statewide hepatitis rates were similar among Hispanics and non-Hispanic whites.

In 2006, San Diego County's hepatitis A rate among Hispanics (2.53 cases per 100,000 population) was not significantly higher than among non-Hispanic whites (1.74 cases per 100,000 population) (Figure 4.20; Appendix I, Table 4.10). In 2006, California and the border counties met the Healthy People 2010 target of reducing the rate to 4.3 cases per 100,000 population.

Figure 4.20



Source: California Department of Public Health
Healthy People 2010 Objective 14-6: 4.5 cases per 100,000 population

Sexually Transmitted Diseases

In 1997, the Institute of Medicine published a ground-breaking report, “The Hidden Epidemic: Confronting Sexually Transmitted Diseases (STDs),” which drew attention to the alarming rates of STDs. Before 1980, only syphilis and gonorrhea were common. Since then, the term "STD" has come to denote the more than 25 infectious organisms, including HIV/AIDS, that are transmitted through sexual activity, along with the dozens of clinical syndromes that they cause. STDs continue to be among the most common infections in the United States; of the 10 most frequently reported infections, five are STDs. The spectrum of health consequences ranges from mild acute illness to serious long-term complications such as cervical, liver, and other cancers and reproductive health problems (Institute of Medicine, “The Hidden Epidemic: Confronting Sexually Transmitted Disease,” 1997).

In California in 2006, rates of chlamydia and infectious syphilis increased, while rates of gonorrhea declined slightly from the previous year. The large numbers of combined reported cases made STDs by far the most commonly reported communicable diseases in California (and in the United States). Further, because STDs often are asymptomatic, the true burden of these diseases is many times greater than the number of reported cases (California Department of Public Health, STD Branch 2006 Annual Report).

In addition to HIV/AIDS, this report will discuss three sexually transmitted infections: syphilis, gonorrhea, and chlamydia, which are among the most common STDs in the United States and therefore most relevant to HIV transmission as well as a good proxy for unprotected sexual behaviors.

Chlamydia

What Is It?

Chlamydia is caused by the bacterium *Chlamydium trachomatis*; it is spread through vaginal, anal, or oral sex. Chlamydia may also be transmitted by a mother to an infant during vaginal childbirth. In women, chlamydial infections, which are usually asymptomatic, may result in pelvic inflammatory disease, which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain if left untreated. Chlamydia also can cause infections in newborn babies. Some women may experience pelvic pain, bleeding between periods, pain during sex or when urinating, and abnormal discharge from the vagina. Some men will have no symptoms at all; others may have pain when urinating, abnormal discharge from the penis, and/or testicular pain. Infected individuals may also contract HIV more easily if exposed. The infection can be treated and cured by the use of antibiotics.

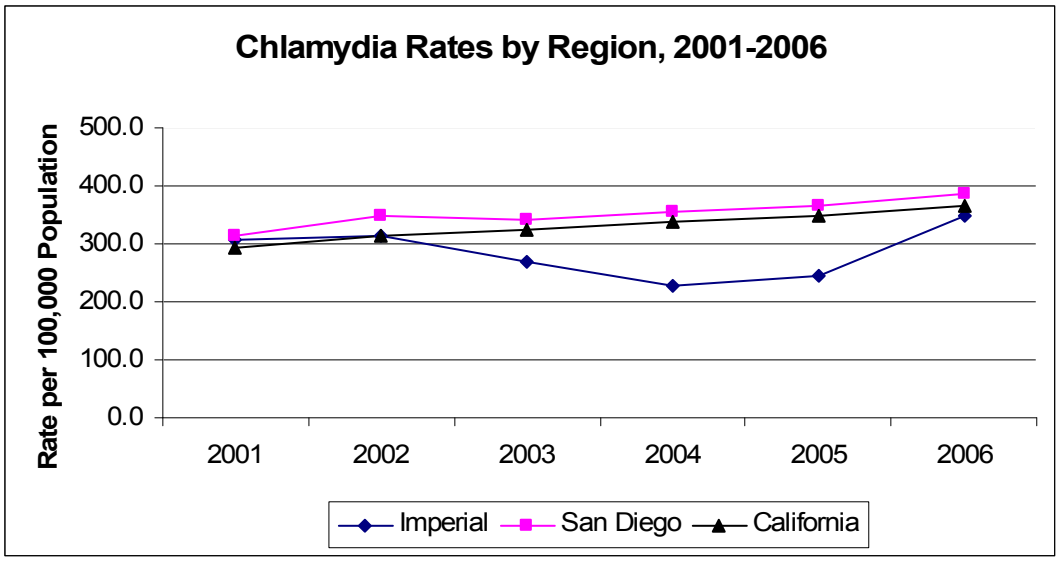
Why Is It Important?

Chlamydia ranks as the most commonly reported infectious disease in the United States and may be one of the most dangerous sexually transmitted diseases among women today. The prevalence is highest in persons younger than 25. In California, chlamydia is among the most prevalent of all STDs: In 2006, a total of 136,216 cases were reported, for a rate of 364.9 per 100,000 population (CDPH, STD Branch 2006 Annual Report).

What Is the Status in the Border Region?

During 2006, chlamydia rates continued to be significantly higher in San Diego County than in Imperial County or statewide (California Department of Public Health, STD Control Branch 2006). In San Diego County, rates increased 13% over the four-year period, from 342.4 cases per 100,000 population in 2003 to 386.0 cases per 100,000 population in 2006. Imperial County showed the greatest rate increase during this time period, with rates rising 29 percent, from 268.6 cases per 100,000 population to 347.4 cases per 100,000 population (Figure 4.21).

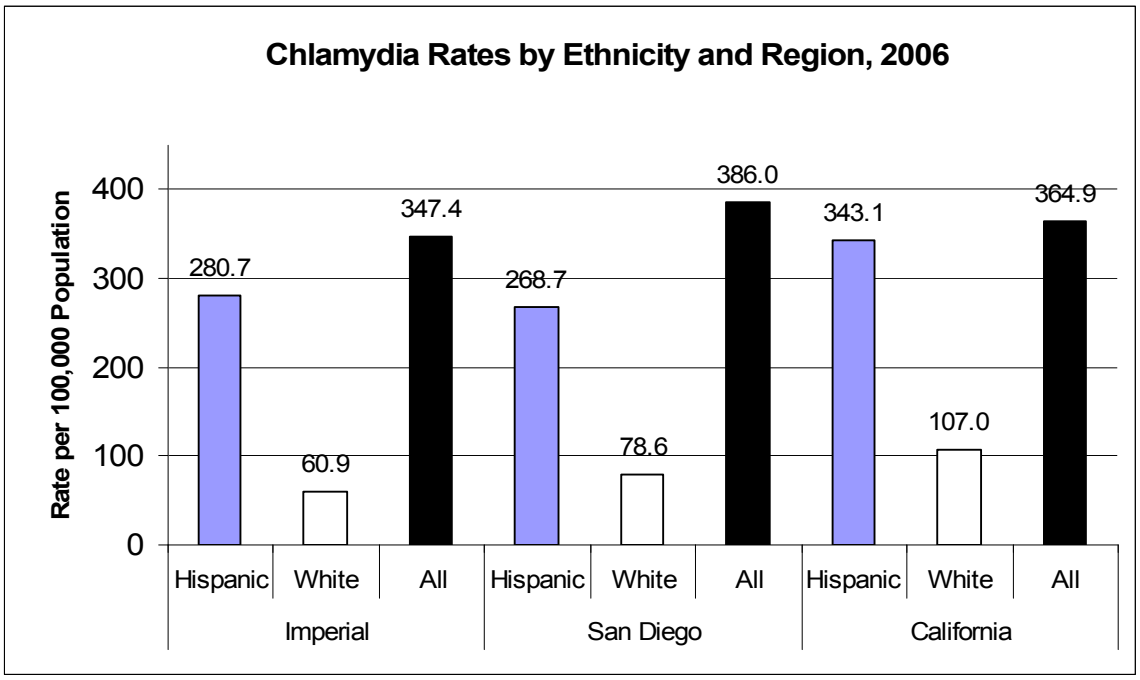
Figure 4.21



Source: California Department of Public Health, STD Control Branch

In both border counties, and California as a whole, Hispanics had a significantly higher rate of chlamydia than non-Hispanic whites. Statewide and in San Diego County, chlamydia rates were highest among African Americans (922.8), followed by Latinos (343.1). Non-Hispanic whites showed the lowest rate of any other racial/ethnic group (107.0). In Imperial County, Latinos exceeded all other racial groups (280.7) (Figure 4.22).

Figure 4.22



Source: California Department of Public Health, STD Control Branch

Gonorrhea

What Is It?

Gonorrhea, caused by the bacterium *Neisseria gonorrhoeae*, is transmitted through oral, vaginal, and rectal sex. Symptoms of gonorrhea in women may be mild and may be mistaken for a bladder or vaginal infection, with a painful or burning sensation during urination, increased vaginal discharge, or vaginal bleeding between menstrual cycles. Often, gonorrhea is asymptomatic and detectable only through screening. Infected men may experience painful or swollen testicles; the most common symptoms are a burning sensation while urinating, or discharge of a white, yellow, or green substance from the penis. Rectal infection is also possible, with symptoms including discharge, anal itching, soreness, bleeding, or painful bowel movements. Pharyngeal (throat) infections can also cause a sore throat and swollen lymph nodes. Untreated gonococcal infection is associated with adverse reproductive health consequences in both females and males, such as pelvic inflammatory disease (females) and urethritis (males), and can lead to more severe complications such as infertility. In addition, infections in pregnant females can lead to serious perinatal complications. Infected individuals may also contract HIV more easily if exposed. Gonorrhea is frequently underreported. The infection can be treated and cured by the use of antibiotics; however, the emergence of drug-resistant strains is affecting treatment choices in certain geographic areas, including California.

Why Is It Important?

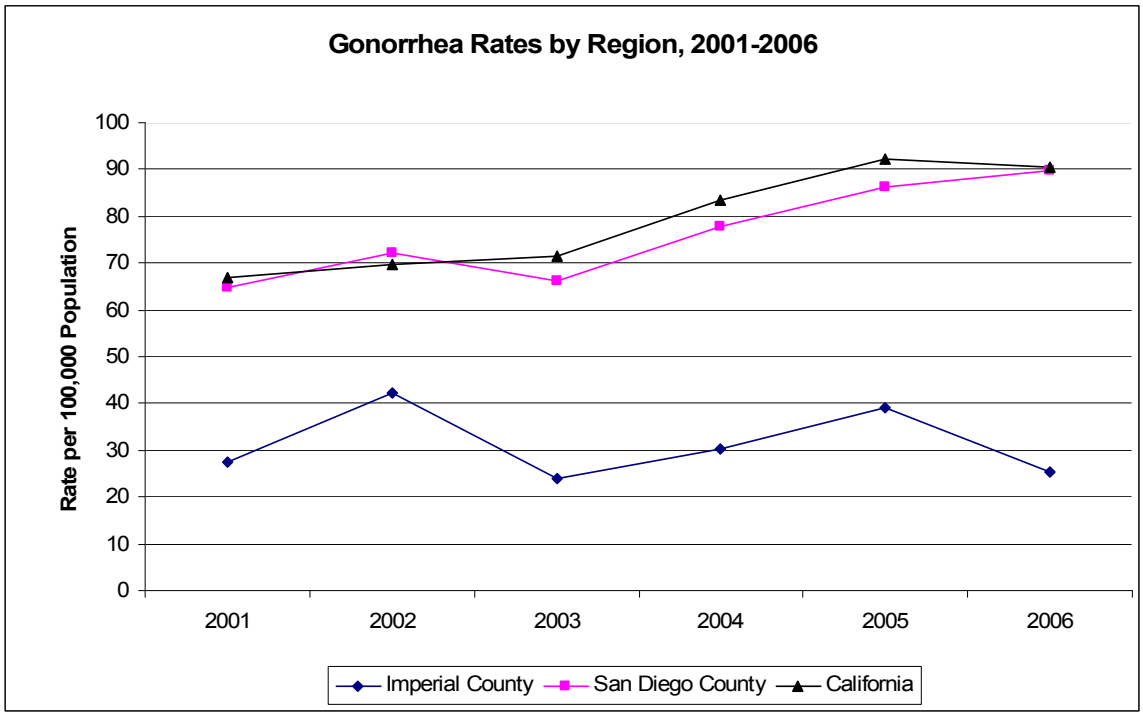
Gonorrhea is currently the second-most common reportable communicable disease in California. In 2006, California received a total of 33,776 reports of gonorrhea cases, for an incidence of 90.2 per 100,000 population. Because of incomplete screening of at-risk populations, under-reporting of infections by medical and laboratory providers, and presumptively treated infections that are not laboratory-confirmed, the case-based incidence underestimates the true incidence (California Department of Public Health, STD Branch 2006 Annual Report).

Incidence rates for gonorrhea declined significantly between 1985 and 1999 in both California and the United States. However, in California, gonorrhea rates increased between 1999 and 2005, with only a slight decrease in 2006. The California gonorrhea rate of 90.2 per 100,000 population in 2006 is nearly five times higher than the Healthy People 2010 target objective of fewer than 19 cases per 100,000 (CDPH, STD Branch 2006 Annual Report).

What Is the Status in the Border Region?

Rates of gonorrhea increased significantly statewide, and in San Diego County, from 2001 to 2006. Rates of gonorrhea, in Imperial County, decreased from 39.1 in 2005 to 25.4 in 2006 (Figure 4.23; Appendix I, Table 4.12). Neither California nor the border counties met the Healthy People 2010 objective of 19 new cases per 100,000 population.

Figure 4.23

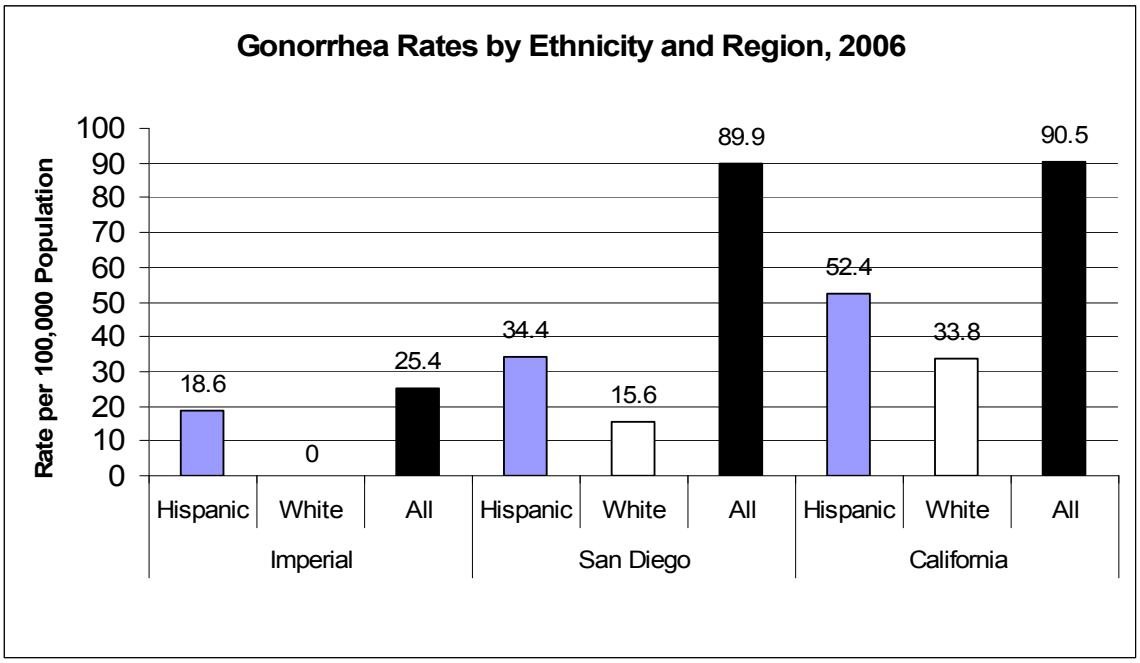


Source: California Department of Public Health, STD Control Branch
Healthy People 2010 Objective 25-2: 19 new cases per 100,000 population

In 2006, the gonorrhea rate among Hispanics in both border counties and statewide was higher than the rate for non-Hispanic whites. Rates in Hispanics for both border counties were lower than the rate for Hispanics statewide (52.4 per 100,000 population).

In San Diego County, the rate for non-Hispanic whites was 15.6 cases per 100,000 population; it was 34.4 per 100,000 among Hispanics. The rate of gonorrhea, in Imperial County, among Hispanics was 18.6 per 100,000, while no cases were reported in non-Hispanic whites (Figure 4.24). Extremely high rates per 100,000 population for African Americans statewide (398.2) and in San Diego County (190.4) inflated the average rate reported for these populations.

Figure 4.24



Source: California Department of Public Health, STD Control Branch
Healthy People 2010 Objective 25-2: 19 new cases per 100,000 population

Infectious Syphilis – Primary & Secondary Syphilis (P&S)

What Is It?

Syphilis is a systemic disease caused by the bacterium *Treponema pallidum*; when symptoms are present, they are often indistinguishable from those of other diseases. Syphilis can be transmitted through direct contact with a syphilis sore (chancre). Sores occur mainly on the external genitals, vagina, anus, or in the rectum. Sores also can occur on the lips and in the mouth. Transmission of the organism occurs during vaginal, anal, or oral sex. Pregnant women with the disease can pass it to the fetus.

Primary syphilis is the first stage of the disease and is marked by the appearance of a lesion (chancre). Eventually, the chancre will heal without treatment and, if no adequate treatment is administered, the infection will progress to the secondary stage. Secondary syphilis is characterized by the appearance of a rash in at least one area, such as on the palms of the hands or soles of the feet. Other symptoms include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and fatigue. The signs and symptoms of secondary syphilis will resolve with or without treatment, but without treatment, the infection will progress to the latent and possibly late stages of disease.

Many infected people do not have any symptoms for years and remain at risk for late complications if untreated. Infected persons in the late stages of syphilis may experience damage to internal organs (brain, nerves, eyes, heart, blood vessels, liver, bones, joints), and symptoms can include paralysis, numbness, dementia, or gradual blindness; in some cases death occurs. Curing a person infected with syphilis can be done through one application of antibiotics in its early stages; those in the later stages require a longer-term application of antibiotics. Genital sores (chancres) caused by syphilis make it easier to transmit and acquire HIV infection sexually. There is an estimated two- to five-fold increased risk of acquiring HIV if exposed to that infection when syphilis is present (CDC STD Syphilis Fact Sheet 2008). Screening at-risk persons for syphilis is important given the availability of effective treatments and the duration of latent stages after symptom disappearance.

P&S and early latent stages (less than one year's duration) of syphilis are considered infectious, with primary and, to a lesser degree, secondary infections having the highest likelihood of transmission. Because of this higher likelihood of transmission, greater epidemiologic relevance, and the potential for misclassification of early latent syphilis (e.g., unrecognized primary lesions or secondary symptoms), this report focuses primarily on P&S syphilis (California Department of Public Health STD Branch 2006 Annual Report).

Why Is It Important?

The rate of P&S syphilis decreased throughout the 1990s, and in 2000 reached an all-time low. However, over the past six years, the syphilis rate in the United States has been increasing. Between 2005 and 2006, the national P&S syphilis rate increased 13.8 percent, from 2.9 to 3.3 cases per 100,000 population, and the number of cases increased from 8,724 to 9,756 (CDC, STD Surveillance Report 2006).

Nationally, the overall increase in syphilis rates from 2005 to 2006 was driven primarily by increases among males, with the rate climbing by 11.8 percent (from 5.1 per 100,000 population in 2005 to 5.7 in 2006) in that group. However, the rate among females increased for the second year in a row, following a decade of declines (from 0.9 per 100,000 in 2005 to 1.0 in 2006, an increase of 11.1%). The male-to-female rate ratio for P&S syphilis has risen steadily since 1996 when it was 1.2, suggesting an increase in

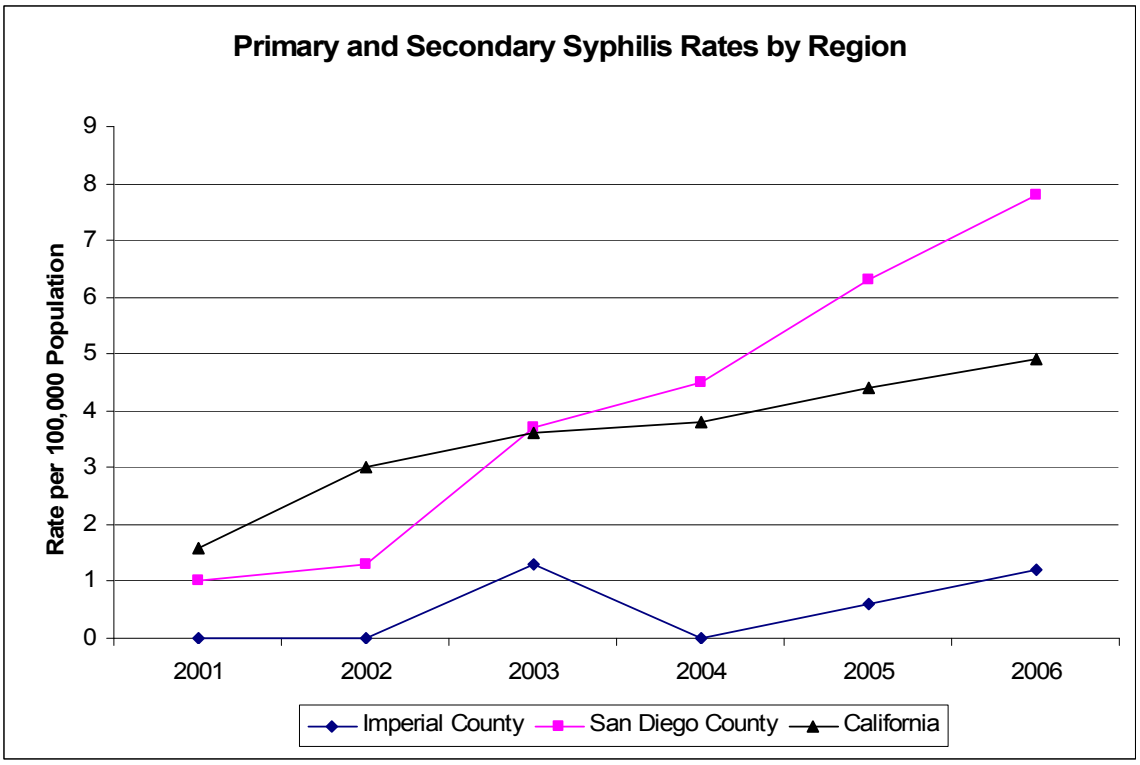
syphilis among men having sex with men (MSM) during this time. In 2006, the rate of syphilis in males was 5.7 times that in females (CDC, STD Surveillance Report 2006).

What Is the Status in the Border Region?

In 2006, 1,839 cases of P&S syphilis (4.9 per 100,000 population) were reported in California, placing the state rate above the national average rate of 3.3 cases per 100,000 population. This incidence rate was more than 24 times the Healthy People 2010 objective of less than 0.2 cases per 100,000 (California Department of Public Health STD Branch 2006 Annual Report).

During 2006, rates of P&S continued to be higher in San Diego than in Imperial County or statewide. San Diego County showed the greatest rate increase, rising 111% over the four-year period, from 3.7 cases per 100,000 population in 2003 to 7.8 cases per 100,000 population in 2006 (Figure 4.25). In Imperial County, case counts remain relatively low, although the most recent years report rates in excess of the Healthy People 2010 objectives (Appendix I, Table 4.13).

Figure 4.25

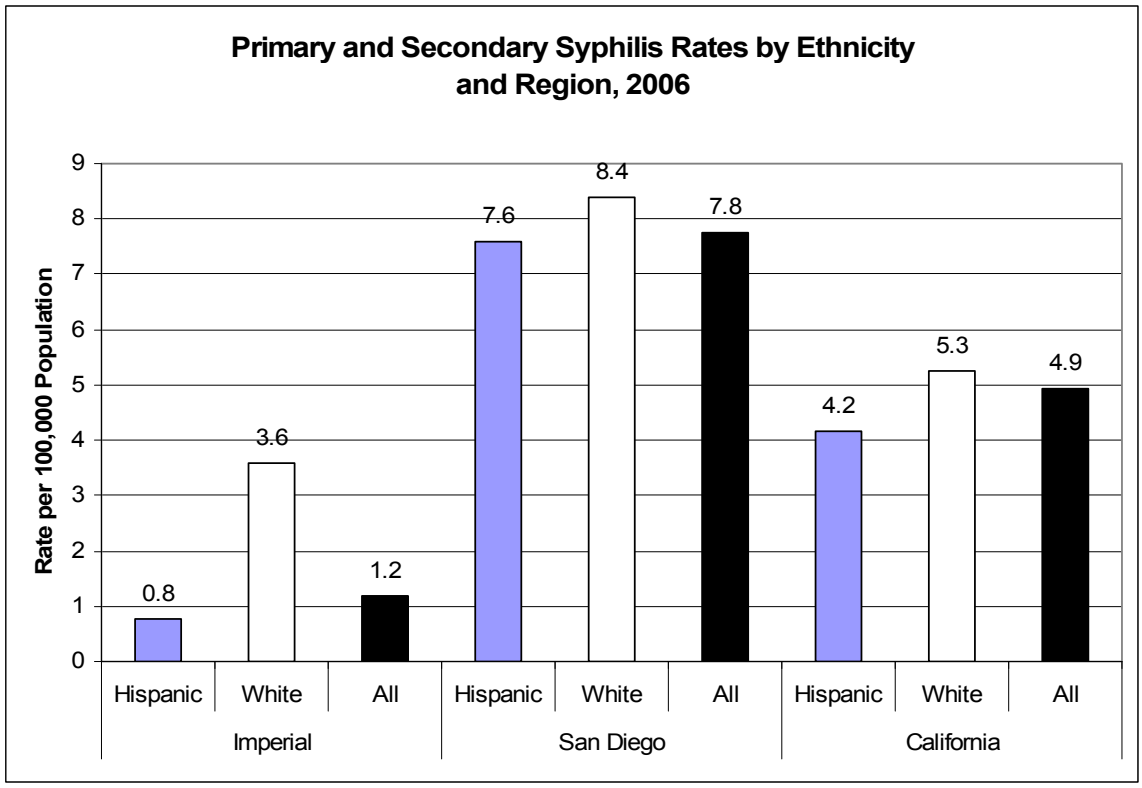


Source: California Department of Public Health, STD Control Branch
Healthy People 2010 Objective 25-3: 0.2 cases per 100,000 population

During 2006, the P&S syphilis rate among Hispanics in both border counties was lower than the rate for non-Hispanic whites and lower than the rate for Hispanics statewide (4.2). The San Diego County rate for non-Hispanic whites was 8.4 cases per 100,000 population and it was 7.6 per 100,000 among Hispanics. Rates of P&S syphilis in

Imperial County among non-Hispanic whites was 3.6, while rates among Hispanics was 0.8 per 100,000 population (Figure 4.26).

Figure 4.26



Source: California Department of Public Health, STD Control Branch
Healthy People 2010 Objective 25-3: 0.2 cases per 100,000

Congenital Syphilis

What Is It?

The syphilis bacterium can infect the baby of a woman during her pregnancy or during childbirth. Depending on how long a pregnant woman has been infected, she may have a high risk of having a stillbirth or the infant may die soon after birth, particularly if untreated, due to complications (e.g., seizures, failure to thrive, saddle nose, bone pain, sores, and others). In older children, syphilis may produce brain damage, blindness, and other developmental delays. Diagnosis is complicated and treatment options may depend on factors such as identification of syphilis in the mother, adequacy of maternal treatment, presence of clinical, laboratory, or radiographic evidence of syphilis in the infant, and comparison of maternal (at delivery) and infant non-treponemal serologic titers.

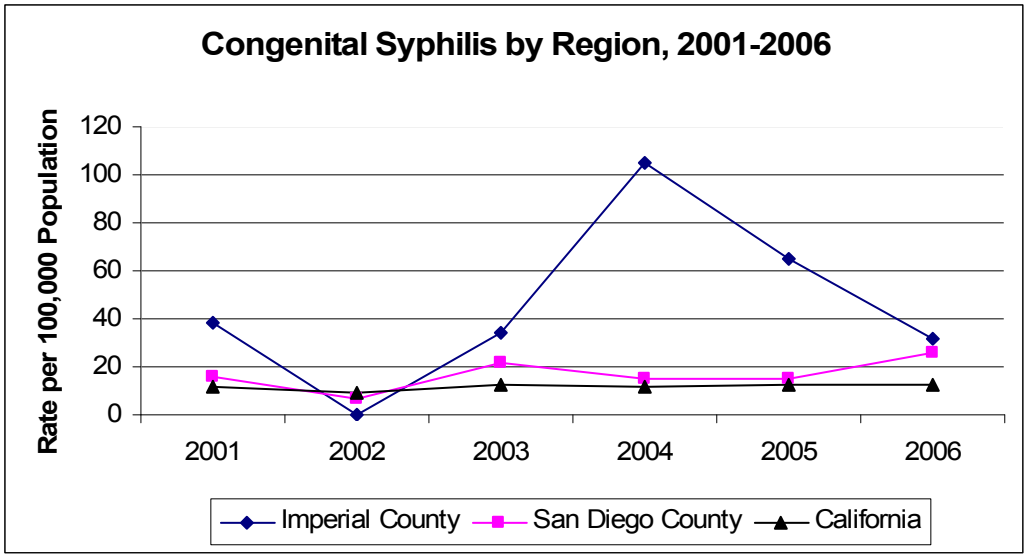
Why Is It Important?

Trends in congenital syphilis morbidity follow those of adult female P&S syphilis morbidity with a lag of 1-2 years. After 14 years of decline in the United States, the rate of congenital syphilis increased 3.7 percent between 2005 and 2006 (from 8.2 to 8.5 cases per 100,000 live births). In 2006, 349 cases were reported, up from 339 in 2005. This exceeds the HP target for congenital syphilis of 1.0 case per 100,000 live births and may relate to the increase in the rate of P&S syphilis among women that has occurred in recent years (CDC STD Surveillance Report 2006).

What Is the Status in the Border Region?

In San Diego County, in 2006, the rate of congenital syphilis was 25.6 per 100,000 population. Statewide, in Imperial County, and in San Diego County there was no significant change in congenital syphilis rates during the period 2001-2006 (Figure 4.27).

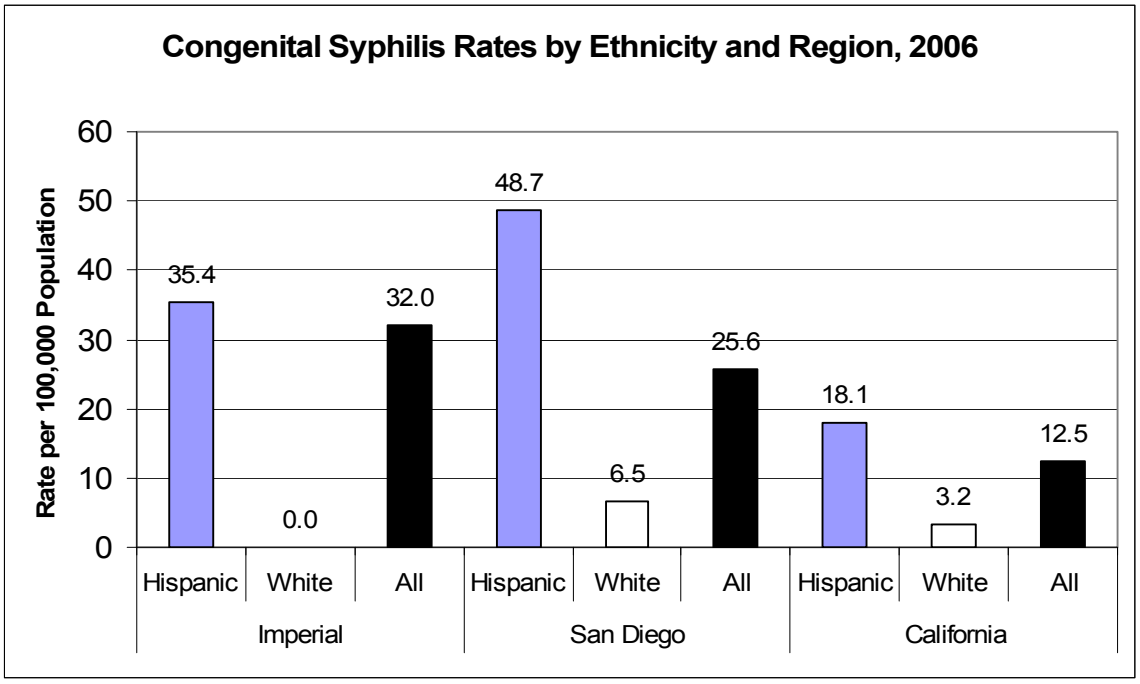
Figure 4.27



Source: California Department of Public Health, STD Control Branch

Statewide, the number of congenital cases is 5-6 times higher among Hispanics than for non-Hispanic whites (18.1 and 3.2 per 100,000 population, respectively). This trend is mirrored in border counties; the rate per 100,000 population for Hispanics in Imperial County is 35.4 and in San Diego County, the rate for Hispanics (48.7) is significantly higher than for non-Hispanic whites (6.5) (Figure 4.28).

Figure 4.28



Source: California Department of Public Health, STD Control Branch

HIV/AIDS

What Is It?

HIV is the acronym for human immunodeficiency virus, which causes acquired immunodeficiency syndrome (AIDS). The immune system is responsible for fighting infections and, significantly, HIV attacks the immune system by finding and destroying certain types of white blood cells (T cells or CD4 cells) needed to fight diseases and infections. AIDS is the final stage of HIV infection and may begin after many years of infection with HIV. The immune system of persons diagnosed with AIDS is extremely fragile and the body has a difficult time fighting infections. HIV is a fragile virus and cannot survive for very long outside the body. As a result, the virus is not transmitted through day-to-day activities such as shaking hands, touching a doorknob, hugging, sitting on a toilet seat, or drinking from a drinking fountain. HIV is primarily found in the blood, semen, or vaginal fluid of an infected person and is transmitted in three main ways: having unprotected sex (anal, vaginal, or oral) with someone infected with HIV, sharing needles and syringes with someone infected with HIV, and being exposed (fetus or infant) to HIV before or during birth or through breast feeding. Other factors that can increase the risk for infection include sharing injection drug equipment (e.g., needles, syringes, cotton, water), especially activities that involve sharing blood with others; having unprotected vaginal, anal, or oral sex (that is, sex without using condoms) with men who have sex with men, multiple partners, or anonymous partners; exchanging sex for drugs or money; having been diagnosed or treated for hepatitis,

tuberculosis, or other sexually transmitted infections; or having unprotected sex with a person with any of these risk factors. Taking precautions for these risk factors may reduce infection. The only way to confirm an HIV diagnosis is to be tested for the virus. While treatment for HIV is available and may reduce the virus to undetectable levels, current treatment regimens do not eliminate the virus from the body; therefore, infected patients still need to take antiretroviral drugs.

When HIV became reportable in California in July 2002, it was by non-name identifier only. In April 2006, California implemented a confidential name-based HIV infection case surveillance system of reporting. These data collection inconsistencies limit the capacity to compare trends over time.

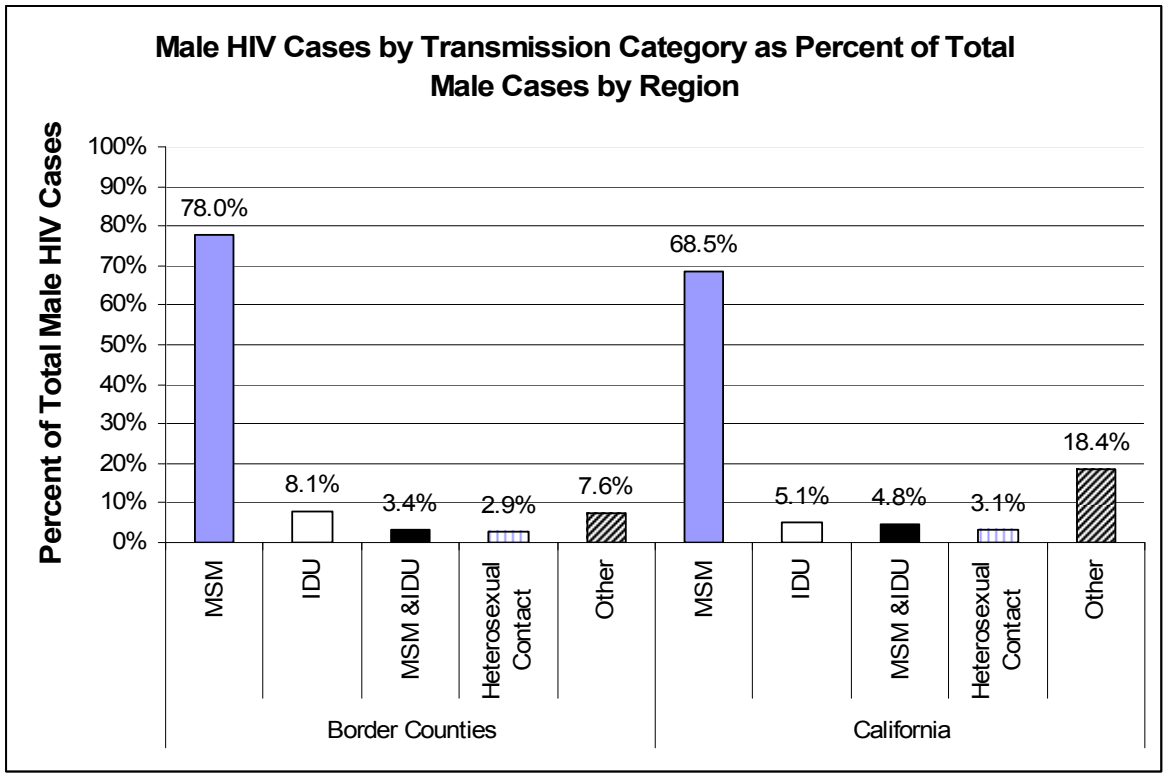
Why Is It Important?

From 2003 through 2006, the estimated number of HIV/AIDS cases in the 33 states with confidential name-based HIV infection reporting remained stable. By the end of 2006, an estimated 491,727 persons in the 33 states were living with HIV/AIDS, for an estimated rate of 18.5 per 100,000 population (CDC HIV/AIDS Surveillance Report 2006). This exceeds the Healthy People 2010 objective of one new AIDS case among adolescents and adults per 100,000 population.

What Is the Status in the Border Region?

In 2005, in San Diego and Imperial Counties combined, more than 85 percent of HIV cases in males were either Hispanic or white, while statewide, 74 percent of male cases were either Hispanic or white. Statewide and in the border counties, for all races, HIV cases are more likely to be male than female. In the border counties, HIV cases are close to six times more likely to be male, and statewide HIV cases are 6.5 times more likely to be male (Appendix I, Table 4.15). There are even more drastic gender disparities seen in HIV/AIDS cases in the border counties and statewide (Appendix I, Table 4.16).

Figure 4.29



Source: California Department of Health Services, Office of AIDS, HIV/AIDS Case Registry Section, data as of 3/31/06

In the border counties, 78 percent of male HIV cases were the result of MSM (Men having sex with men), followed by 8.1 percent being the result of IDU (Intravenous drug use). In California, 69 percent of male HIV cases were the result of MSM, followed by 18.4 percent being the result of other exposures (hemophiliac, transfusion of blood or blood products/transplant, confirmed other risk, no identified risk, and pediatric.) (Appendix I, Table 4.17; Figure 4.29).

Tuberculosis

Why Is it Important?

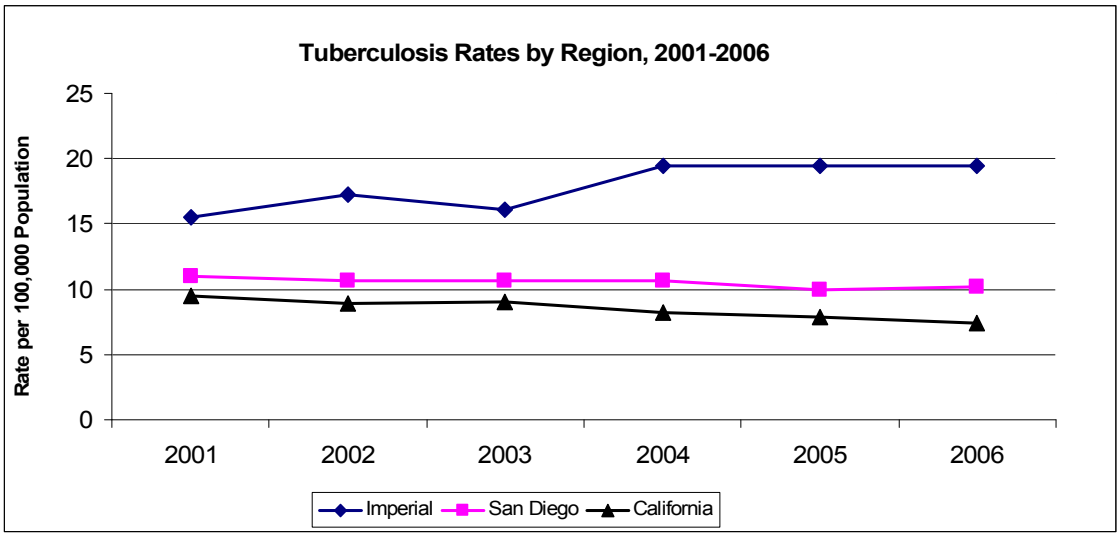
TB is one of the leading causes of death from infectious diseases worldwide. The Centers for Disease Control and Prevention (CDC) is committed to eliminating TB from the United States. This is defined as having less than one case of TB per 1 million people per year. Achieving this goal will not be possible without strengthening collaborations with national and international health partners, especially Mexico, to improve locating, testing, and treating those at highest risk for TB.

What Is the Status in the Border Region?

In 2006, California reported the lowest number of TB cases (pulmonary and extra-pulmonary) ever recorded in the state, and a decline of nearly 50 percent since the peak of the resurgence of the epidemic in 1992 (http://www.cdph.ca.gov/data/statistics/Pages/TuberculosisDiseaseData.aspx). The rate of TB in the state is also declining: The 2006 rate of 7.4 cases per 100,000 population is down 4.3 percent from the previous year. However, the California TB rate remains higher than the national rate (4.6 per 100,000) (http://www.cdc.gov/tb/surv/surv2006/default.htm), and significant disparities in TB disease persist in some population groups in the state.

The border counties of Imperial and San Diego have not experienced the same decline in TB cases and rates as the state overall. Imperial County consistently ranks first or second in TB rate among all counties in California. Both the number of cases and the rate of TB increased in Imperial County from 2003 to 2006. In San Diego County, the number of TB cases and the rate of disease leveled off during recent years (Figure 4.30).

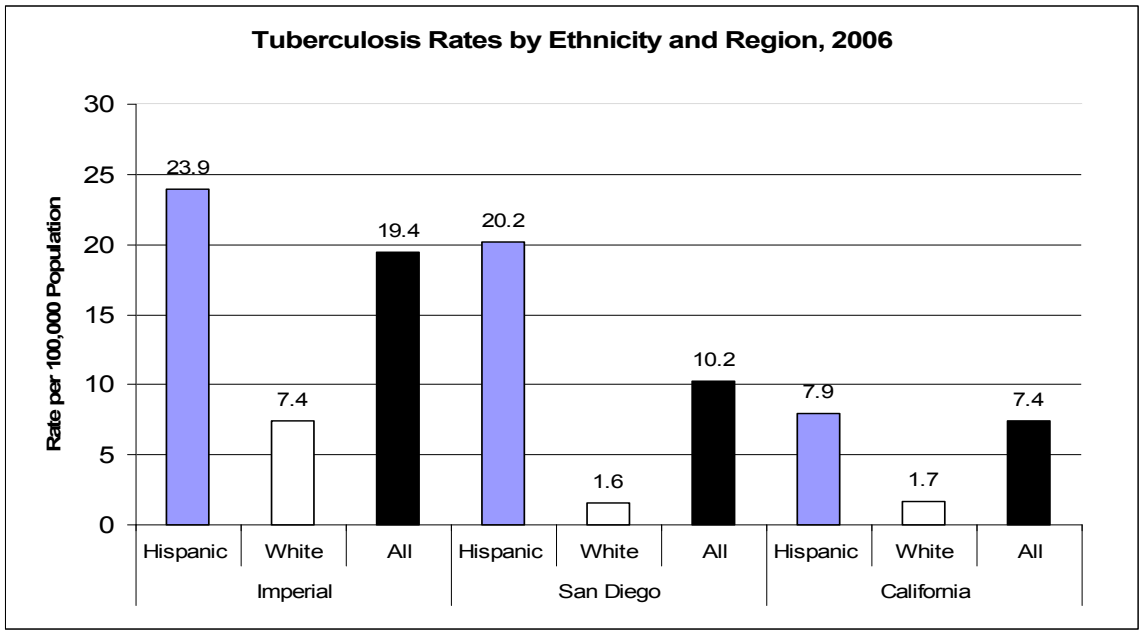
Figure 4.30



Source: California State TB Control Branch

Between 2003 and 2006, in California, Hispanics accounted for approximately 39 percent of the total cases. During the same time period, in Imperial County, 95-100 percent of TB cases were Hispanic, while 50-55 percent of San Diego County's cases were Hispanic (note: only 27% of San Diego residents are Hispanic). A large disparity in TB rates exists between Hispanics in border counties and those in the rest of California. In Imperial County, the rate of TB among Hispanics is three times greater than the statewide rate for Hispanics, and in San Diego it is two-and-a-half times greater. Hispanics in the border counties and in California had rates of TB that were significantly higher than the TB rates for non-Hispanic whites (Figure 4.31).

Figure 4.31



- Rates are not available due to low case counts.
Source: California State TB Control Branch
Healthy People 2010 Objective 14-11: 1.0 new cases per 100,000 population.

Between 2003 and 2006, nearly 70 percent of Imperial County's TB cases were born in Mexico, while in San Diego 34 percent of cases were Mexican-born, compared with 24 percent of all cases in California. It is worth noting that Mexican-born cases are not restricted to the border counties, but have been reported in 48 of 61 (79%) local jurisdictions in California during this time period. Nearly 20 percent of San Diego's Mexican-born cases were diagnosed within one year of arrival in the United States, while in Imperial County the vast majority of Mexican-born cases (86%) had resided in the United States for more than 10 years (Appendix I, Table 4.20).

Clinical Characteristics

In the border counties, and California as a whole, TB cases involving individuals born in Mexico are more likely to be infectious at the time of diagnosis, as indicated by a greater proportion of patients with a sputum smear positive for acid-fast bacilli and/or the presence of a cavity on chest radiograph. In Imperial, and San Diego counties combined, 48 percent of Mexican-born cases had a positive sputum smear, compared with 35 percent of all other cases. Over 19 percent of Mexican-born cases had a cavitary chest x-ray, compared with 17 percent of non-Mexican cases. In California as a whole, 45 percent of Mexican cases were sputum smear positive compared with 34 percent of non-Mexican-born cases, while 24 percent of Mexican-born cases had a cavitary chest x-ray, vs. 19 percent of non-Mexican-born cases. Patients with sputum smear positivity and/or cavitary disease are more likely to be infectious (CDC, 2005).

Drug Resistance

Drug resistance is a growing concern in the United States and internationally. Initial resistance to isoniazid (INH) during 2003-2006 was 7.8 percent in Imperial County, 10.1 percent in San Diego County, and 10.2 percent in California. Multidrug-resistant (MDR) TB is defined as resistance to at least INH and rifampin, two of the most effective drugs used to treat TB. MDR TB is more difficult to treat, often requiring up to 24 months of treatment with drugs that are costly and may cause serious complications for the patient. Between 2003 and 2006, 1.5 percent of California's culture-positive cases were MDR TB. San Diego reported between two and five MDR TB cases per year during this time, an average of 1.4 percent of cases. Imperial reported two MDR TB cases during this four-year period. Extensively drug resistant (XDR) TB, defined as MDR TB plus resistance to a fluoroquinolone and at least one of the injectable second-line drugs commonly used to treat MDR TB, was not reported in either Imperial or San Diego County between 1993 and 2006. In California, a total of 18 XDR TB cases were identified during this time period; of these, seven (39%) involved individuals born in Mexico (Banerji et al., In Press).

TB/AIDS

A co-diagnosis of AIDS in persons with TB has implications for the diagnosis, treatment, and outcome of both diseases. During 2003 and 2004, the most recent years for which data on co-diagnosis of AIDS is available, Imperial County reported four (7%) TB/AIDS cases; San Diego County reported 62 (9.8%) TB/AIDS cases, while California reported 305 (4.9%) TB/AIDS cases. In California, Mexican-born cases were twice as likely to have TB/AIDS as those born elsewhere, while in San Diego County, Mexican-born cases were five times more likely to have TB/AIDS than non-Mexican-born cases. In Imperial County, TB/AIDS was less frequent in Mexican-born cases than in non-Mexican-born cases, although the total number of cases was small. These findings emphasize the importance of determining the HIV status of all TB patients (CDC, 2006).

Treatment Outcomes

In California, between 2003 and 2005 (the most recent year for which treatment completion data is available), 86 percent of patients who started anti-TB treatment finished their course of therapy. In San Diego County, 85 percent completed treatment; in Imperial County, 81 percent completed treatment. Imperial County had a greater proportion of patients die during treatment (12%) than San Diego County (5%) and California (7%). In 2003-2005, both Imperial and San Diego counties had a greater proportion of cases move before completing TB treatment (7% and 5%, respectively) than California (4%); in the border counties, the majority of these cases moved out of the country, presenting challenges for ensuring treatment completion.

What Is Being Done?

Binational TB Card

In 2003, in an effort to increase the number of patients traveling between the United States and Mexico who complete treatment, CDC implemented a pilot program for the binational TB card. During the initial interview of a TB patient, the binational TB card is given to any patient likely to travel to Mexico during his or her TB treatment (e.g., migrant workers, patients with close family in Mexico). The TB card contains CureTB's (800) number that the patient may call from either the United States or Mexico. Patients who call CureTB can be linked to a provider in their destination country. The case manager also uses an educational flip chart to provide information regarding the purpose of the TB card, and obtains locating information in Mexico in case the patients travel there during TB treatment.

In 2007, CureTB and the State of California expanded the use of the binational TB card and educational flip charts statewide, and a request was made for additional funding to expand the use of these tools nationwide in 2008.

Cure TB

The San Diego County TB Control Branch operates CureTB, a U.S.-Mexico referral system for patients with tuberculosis who cross the border during care. CureTB was developed to improve the continuity of care for TB patients traveling between these two countries. CureTB staff are bilingual and bicultural, and are familiar with the Mexican and U.S. health care systems, as well as the TB standards of care in both nations.

Between January 2003 and December 2006, CureTB received 1,458 requests for services, of which 568 (39%) were for active TB cases that moved during diagnostic workup or treatment. Treatment completion was documented for 330 (58%) referred TB cases; 112 (20%) were lost to follow-up; 48 (8%) moved back to the referring jurisdiction; 37 (6%) refused treatment after arrival; 21 (4%) died; and 20 (4%) did not move after referral.

CDC's Technical Instructions for Tuberculosis Screening and Treatment of Immigrants and Refugees to the United States

In 2007, CDC released revised technical instructions for use in TB screening of immigrants and refugees applying for permanent residency in the United States. These guidelines will enhance TB evaluation and treatment of legal immigrants prior to entry in the United States, as well as identifying those needing further assessment of TB conditions following arrival in the United States (CDC, 2007). While these enhanced screening protocols will be valuable for a select group of immigrants from Mexico, those entering the United States without a formal visa will not benefit from the new technical instructions.

HIV and TB Testing

The Tuberculosis Control Branch and the Office of AIDS of the California Department of Public Health are working together to ensure universal HIV testing for TB patients, and TB testing of all HIV-infected persons, especially in border populations.

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APPENDIX A

Technical Notes

Race/Ethnicity

The race/ethnicity categories used in this report are mutually exclusive and are the same as the ones used by the California Department of Finance (2007) for producing California population estimates, and by the UCLA Center for Health Policy Research (Holtby et al., 2006). The UCLA method defines “Latino” as a mutually exclusive race category, along with white, African American, American Indian/Alaska Native, and Asian. In this report, the terms “Hispanic” and “Latino” are used interchangeably.

Rates

A **crude rate** is defined as the number of cases of vital events (e.g., cases or deaths) divided by the population at risk, and then multiplying by some convenient basis (e.g., 100,000). The age composition of communities may greatly influence their rates for certain health events. For example, older communities will likely have higher death rates than younger communities. Rates were calculated by gender, race, age, and county using yearly population estimates by the California Department of Finance (2007).

Age-adjusted rates can be used to make fair comparisons among communities with different age compositions. Age-adjusted rates were calculated using the 2000 United States Standard Million Population.

Reliability of Rates

Statistical rates are subject to random variation. Rate estimates based on a small number of events (e.g., cases or deaths) are more unstable and, therefore, unreliable, and should be interpreted with caution.

Most of the tables in this report include the upper and lower 95% confidence interval limits, which provide a means for assessing the degree of stability of the estimated rates. The upper and lower limits define the range within which the rate probably would occur in 95 out of 100 independent sets of data similar to the present set. The wider the intervals, the less reliable the rates. For example, Table 2.3 shows that 67.1% of all adults ages 18 and older in Imperial County reported that they were overweight or obese in 2006. Also, the confidence interval for this population group is 61.5%-72.8%. This means we are 95% certain that the true percent of adults in Imperial County who were overweight or obese is somewhere between the lower and upper limits. We estimate that it is 67.1%, but it may be as low as 61.5% or as high as 72.3%.

If the sample size is small, the confidence interval may be very wide, and in some cases it is so wide that the result is not a stable estimate. An estimate is considered unstable

(i.e., unreliable) if the coefficient of variation (CV) is equal to or greater than 30%. In this report, unreliable estimates are replaced with a dash in the tables ("-").

Assessing Statistically Significant Differences

Confidence intervals provide an easy way to determine if differences among groups (or years) are statistically significant:

- If the 95% confidence intervals of two different estimates (i.e., the percents or rates) do not overlap, it can be safely concluded that the difference is statistically significant and not due to chance. However, if the intervals do overlap, the difference between the two percents is assumed not to be statistically significant. However, the reader should be aware that, according to the National Center for Health Statistics (2003), "this is a conservative test for statistical significance. Thus, caution needs to be observed when interpreting a non-significant difference between rates or proportions, especially when the lower and upper limits being compared overlap only slightly."

- If the 95% confidence intervals of two different estimates share a boundary, it means the lower boundary of one confidence interval is the same as the upper boundary of a confidence interval with which it is being compared. In these cases, we took a conservative approach and did not consider the differences significant because the confidence intervals did overlap, albeit at one point only.

Unless specified in the text, only statistically significant differences were discussed as "differences."

Healthy People 2010 Objectives

Healthy People 2010 is a set of health objectives for the United States to achieve over the first decade of the new century. The specific objectives for each health topic, and other useful background information, can be found at www.healthypeople.gov/Data/midcourse/html/default.htm.

The narrative describes whether the objective was met overall and whether it was met among specific demographic groups. To meet the objective, both the point estimate and the estimate's 95% confidence interval must be equal to or better than the percent or rate associated with the Healthy People objective.

California Health Interview Survey (CHIS): Data Limitations

Information for many health indicators in this report was obtained from the California Health Interview Survey (CHIS), using the interactive Web-based tool "AskCHIS" (CHIS, 2008). CHIS is the largest state health survey and one of the largest health surveys in the United States. The CHIS data are self-reported by respondents to the survey.

Therefore, the data may be subject to error, such as from respondent failure to recall information about existing health conditions or behavior. Only persons living in households with telephones are included in the survey. Participation is voluntary; persons who refused to participate may be different from those who were interviewed. Details on response rates and other survey information can be obtained at the CHIS website (CHIS, 2008).

Tables

For tables developed using CHIS data, the **population estimates** are the estimated number of Californians in each population group that has the health condition or behavior described in the title of the table. The population estimates were calculated by CHIS by multiplying the weighted sample percents by the Department of Finance figure for each row in the table, after adjusting for sampling error. The numbers are rounded to the nearest thousand.

Communicable Disease Data

The communicable disease data presented in this document are based on reports submitted to the California Department of Public Health by health care providers, laboratories, and other institutions. As is the case with any data obtained through passive surveillance, the following limitations need to be considered when interpreting this report:

- Not all diagnosed cases of reportable diseases are reported to the state. The proportion of under-reporting varies greatly by disease.
- Some case reports have incomplete information. For example, race/ethnicity information may be unknown for a high percentage of reported cases.

Cases identified in a county may have been acquired outside the country. This may be especially true for the border Hispanic population. At the same time, because part of the border population may obtain health care in Mexico, cases acquired in California may never be reported here.

APPENDIX B

California Department of Public Health
California Office of Binational Border Health

Overview

The California Office of Binational Border Health (COBBH) was created in 1999 by legislation (AB 63, Ducheny) as a unit of the California Department of Public Health (CDPH). The University of California, San Diego (UCSD) Extension administers COBBH under contract with CDPH.

The COBBH mission is "to protect and improve the health of California communities by facilitating communication, coordination, and collaboration among California and Mexico health officials and health professionals."

The main roles of COBBH are the following:

- Serve as the CDPH liaison to Baja California state and other Mexican health officials;
- Foster binational partnerships with other U.S.-Mexico border states;
- Assess the health status of border communities;
- Assist in border health program development;
- Inform and educate the general public about border health; and
- Serve as an information clearinghouse.

COBBH goals include:

1. Assess and monitor border and binational public health issues.
2. Optimize border and binational communication, coordination, and collaboration on public health issues.
3. Build capacity in California and Baja California to effectively address public health issues.
4. Increase awareness among state and local agencies, policy makers, the public, and other stakeholders about border and binational public health issues, and the role of COBBH in addressing these issues.

Accomplishments

In fulfillment of these goals, some of COBBH's recent accomplishments and ongoing projects include the following:

- Produced four annual reports on the health status of populations residing in the California-Baja California border region.
- Collaborated with the Health Initiative of the Americas (HIA) in developing three editions of the *Spanish/English Dictionary of Health-related Terms* to assist health providers in communicating with Spanish-speaking patients.
- Established the California-Mexico Public Health Collaborative in coordination with Mexico's Migrant Health Program in the Ministry of Health, to jointly address priority health issues of mutual concern, particularly those affecting Mexican migrant populations in California. Under the Collaborative: (1) convened the meeting, Social Marketing for Health Promotion in California and Baja California, on May 3, 2007 in San Diego; and (2) currently implementing the California-Mexico Cervical Cancer Outreach Project.
- Collaborating on an ongoing basis with California and Mexico academic institutions to implement educational, training, and health assessment projects focusing on migrant populations. Participating in the annual Summer Institute on Migration and Health in Puebla, Mexico.
- Prepared the report, "The California Farm Labor Force Overview and Trends from the National Agricultural Workers Survey," in collaboration with Aguirre International, the U.S. Environmental Protection Agency (U.S. EPA) Region 9, HIA, and California Programs for Access to Care (CPAC).
- Established and co-chair, with ISESALUD, the California-Baja California Environmental Health Task Force under the U.S.-Mexico Border 2012 Program.
- Created the U.S.-Mexico Lead Initiative, in collaboration with the U.S.-Mexico Border Health Commission (USMBHC) and federal and state partners, to cooperate in reducing exposure to lead in candy, traditional pottery, and home remedies in the U.S. and Mexico. Currently implementing the U.S. Border Lead Outreach Project to prevent exposure to lead in traditional pottery.
- Conducting a pilot study, funded by the PIMSA (*Programa de Investigación en Migración y Salud*) Program, in collaboration with the School of Medicine, *Benemérita Universidad Autónoma de Puebla*, on the use of social marketing for health education among migrant populations in California and Mexico.
- Ongoing collaboration with the Secretariat of Health of Baja California and multiple federal, state, and local partners to enhance pesticide illness prevention, awareness, and reporting in Imperial County and Baja California. Developed bilingual (English and Spanish), Web-based Pesticide Assessment Training.
- Organized multiple presentations and seminars to educate public health students and professionals about border and binational health issues.

- Coordinated several technical trainings and workshops for public health professionals to enhance their capacity to assess and respond to health issues in the border region.

Funding Sources

California Department of Public Health
U.S. EPA Border 2012 Program
University of California Office of the President/PIMSA Program

Additional information

http://www.dhs.ca.gov/ps/dcdc/COBBH/
(619) 688-0263

APPENDIX C

California Department of Public Health
Office of Binational Border Health
Accomplishments for FY 2006-2007

The Office of Binational Border Health's accomplishments, by goal, for FY 2006-2007 include the following:

Goal 1: Assess and monitor border and binational public health issues.

A. Border Health Status

1. *California Border Health Status Reports*

a. Annual Border Health Status Report, 2001: Barriers to California-Mexico Collaboration in Border Health (received final approval from California HHS).
b. Border Health Status Report, 2002-2003 (received final approval from California HHS).
c. Annual Border Health Status Report, 2004-2005: "A Focus on Infectious Diseases" (submitted to CDPH; under review by California HHS).

2. *U.S. Border-Wide Health Status Report*

a. Wrote chapter on Infectious Diseases in the U.S.-Mexico Border Region.
b. Co-authored a chapter on Mental Health Status in the U.S.-Mexico Border Region.

B. Lead Exposure

1. *Reports*

a. Authored draft report on *Lead in Imported Candy Products in the United States*.
b. Authored draft report on *Lead in Ceramic Ware and Home Remedies in the U.S. Border States.*

Goal 2: Optimize border and binational communication, coordination, and collaboration on public health issues.

A. Migrant Health

1. *California-Mexico Public Health Collaborative*

a. Developed joint work plan for California-Mexico Public Health Collaborative with Mexico's Migrant Health Program in the Ministry of Health, for implementation during FY 06-07. The primary goal of the Collaborative is to build strong relationships among California and Mexico public health professionals to collaboratively address priority health issues of mutual

concern, particularly those affecting Mexican migrant populations in California.

b. Co-organized the Mexico-California Public Health Collaboration Planning Meeting on November 8-10, 2006 in Mexico, D.F. Thirteen senior-level public health professionals from California participated in the meeting. The purpose of the meeting was:
    i. to inform California senior-level health professionals about Mexico's health system and approaches to addressing priority health issues; and
    ii. to identify specific opportunities for collaboration in the areas of communicable, chronic, and environmental diseases.
c. Developed draft binational action plans addressing the following areas: communicable diseases, chronic diseases, pandemic influenza preparedness, environmental health, access to health care, trainings and exchanges, research, and cross-cutting issues.
d. Formed the California-Mexico Public Health Coordinating Group (CG) to guide and oversee implementation of Collaborative activities. CG members include representatives of CDPH, HIA, Public Health Institute, and CCLHO. Mexico members include the Ministry of Health, USMBHC/Mexico Section, National Institute of Public Health, and Baja California Department of Health Services (ISESALUD).
e. Convened the meeting Social Marketing for Health Promotion in California and Baja California on May 3, 2007 in San Diego. The meeting brought together health promotion program managers in California and Mexico with experience in planning and implementing social marketing campaigns to discuss social marketing as a health promotion strategy for Mexican migrant populations that reside in Mexico or California.

2. *PIMSA Grant*

a. Obtained funding from the *Programa de Investigación en Migración y Salud* (PIMSA) to conduct a pilot study, in collaboration with the School of Medicine, *Benemérita Universidad Autónoma de Puebla*, on the use of social marketing for health education among migrant populations in California and Mexico.

3. *Binational Health Week*

a. Coordinated with the California-Mexico Health Initiative (now referred to as the Health Initiative of the Americas, or HIA) to design an evaluation plan and website for Binational Health Week 2006 in California.

4. *Summer Institute on Migration and Health*

a. Collaborated with HIA and the *Benemérita Universidad Autónoma de Puebla* in organizing a "Summer Institute on Migration and Health" in Puebla, Mexico, from August 21 to 25, 2006. COBBH staff was part of the Institute's binational faculty. Ninety students (58 from Mexico and 32 from the U.S.) attended the course.

5. ***International Field Epidemiology Training Course***

a. Collaborated with partner academic institutions (SDSU/UABC/ UCSD/CMHI) to enhance educational and training opportunities on migrant and border health issues. During the "International Field Epidemiology Training Course (VIIDAI)" in October 2006, COBBH participated in designing and implementing epidemiologic studies of migrant communities in Baja California.

B. Environmental Health

1. ***California-Baja California Environmental Health Task Force (EHTF).***

a. Served as EHTF co-chair with ISESALUD.
b. Convened and facilitated EHTF meetings on October 3, 2006 in Mexicali, Baja California and April 11, 2007 in El Centro, California.
c. Facilitated process with EHTF members to identify and prioritize environmental health issues in the California-Baja California border region. These include air quality, water quality, pesticides, hazardous waste, and lead.
d. Formed two subgroups under the EHTF: Pesticides and Water.
e. Prepared a draft document, *Priority Environmental Health Issues in the California-Baja California Border Region: The California Perspective*.

2. ***Pesticide Exposure Subgroup (under the EHTF)***

a. Developed action plan for implementation during FY 06-07.
b. Developed and submitted a grant proposal in response to a U.S.-Mexico Border 2012 Program RFP requesting funding support for the California-Baja California Integrated Pesticide Illness Surveillance and Exposure Prevention Project.
c. Co-convened with ISESALUD the California-Baja California Pesticides Summit on April 10, 2007 in Mexicali, Baja California. The purpose of the meeting was to exchange information among agencies involved with pesticides issues and identify areas for binational collaboration.

3. ***U.S.-Mexico Lead Initiative***

a. Co-convened, with the USMBHC/U.S. Section, the U.S.-Mexico Lead Meeting on September 28-29, 2006 in La Jolla, California.
b. Coordinated the development of draft U.S.-Mexico action plans to collaboratively address lead exposures from ceramic ware, candy, and home remedies.
c. Established the U.S.-Mexico Lead Initiative to (1) reduce exposure to lead through binational cooperation in identifying products posing health risks in the U.S. and Mexico and (2) identify and promote non-lead-based alternatives to these products.
d. Formed the U.S.-Mexico Lead Work Group with representation from federal, state, and local public health agencies in the U.S. and Mexico. The Work

Group guides and oversees implementation of activities related to the U.S.-Mexico Lead Initiative.

4. ***U.S. Border Lead Outreach Project (under the U.S.-Mexico Lead Initiative)***

a. Co-coordinated with the USMBHC California Outreach Office the development and implementation of the U.S. Border Lead Outreach Project. The project goal is to prevent exposure to lead in traditional pottery primarily among Latino populations in the four U.S. border states and, secondarily, among U.S. tourists in Mexico. Four bilingual outreach products (poster, flyer, and two PSAs) were developed in consultation with the project's Technical Advisory Committee (TAC) for dissemination during Binational Health Week and other public health events. TAC members include representatives of the U.S. FDA; CDC; U.S. EPA; State Lead Programs in California, Arizona, New Mexico, and Texas; USMBHC/U.S. Section and U.S. State Outreach Offices; U.S. State Offices of Border Health; and San Diego County and Imperial County lead programs.

C. Communicable Diseases

1. Analyzed bill (AB 328) that would require health care service plan contracts to require health care providers who provide services to persons in Mexico to report specific diseases or conditions to local health officers, consistent with existing communicable disease reporting requirements. The legislation passed and became law in July 2008.

D. California Conference of Local Health Officers (CCLHO)

1. Participated on CCLHO Planning Committee for the semi-annual meeting on October 19-20, 2006 in Tijuana, Baja California and San Diego, respectively. Provided consultation on protocols with Mexico, presentation topics and titles, translation, conference-related forms, and meeting logistics.

Goal 3: Build capacity in California and Baja California to effectively address public health issues.

A. Environmental Health

1. *Pesticides Exposure*

a. Developed bilingual (English and Spanish), Web-based Pesticide Assessment Training in collaboration with the California Environmental Protection Agency (Cal/EPA)-Office of Environmental Health and Hazard Assessment (OEHHA) and Department of Pesticide Regulation (DPR), and the Center for Occupational and Environmental Health (COEH). The training program is available at: http://www.mededpesticide.org/. CME credits are available.

B. Community Health

1. *Rapid Survey Statistical Methods*

a. Coordinated with MS Public Health Research to provide training for public health professionals in the border region on rapid survey statistical methods.

2. *Partnerships with Universities*

a. Organized four presentations during fiscal year 2006-2007 to educate public health students and professionals about border and binational health issues.

   i. University of San Diego:
   Dr. Enrique Rios, "Mexico's Health System: A Federal Perspective," on August 10, 2006.

   ii. Ohio University Health Policy Fellowship:
   "Health Status and Access to Care in CA-Mexico Region: A Focus on Vulnerable Populations," on January 12, 2007.

   iii. UC Irvine Medical School:
   "Links between U.S. and Mexico's Public Health," on March 1, 2007.

   iv. San Diego State University::
   "Lead Exposure from Ceramic Cookware and Home Remedies: Awareness and Risks among a Migrant Rural Community in Baja California, Mexico."

b. Developed a mentoring work plan for COBBH student interns, covering professional development and research activities such as training on interpretation and use of population-based survey data.

Goal 4: Increase awareness among state and local agencies, policy makers, the public, and other stakeholders about border and binational public health issues, and the role of COBBH in addressing these issues.

A. Seminars

1. Organized seminars presented by Dr. Enrique Ríos, deputy director, Mexico Migrant Health Program, on the following topics:
   a. "The Mexican Health Care System: A Federal Perspective in San Diego," on August 10, 2006.
   b. "Mexico's Migrant Health Program" in Sacramento on August 11, 2006.

2. Coordinated with CDPH Environmental Health Investigations Branch and *Comité Cívico del Valle* in Imperial County on planning for the Transformational Leadership Summit that was held in Imperial County on June 2, 2007.

3. Coordinated nine presentations on border and binational health issues at the Border Health Network Seminars, as follows:
   a. Binational Health Week, July 26, 2006.
   b. BASTA Study: Childhood Asthma Prevalence and Risk Factors at the US/MX border, September 27, 2006.
   c. Hispanic Health Awareness and Practices Survey, October 25, 2006.
   d. Senator Denise Moreno Ducheny, November 29, 2006.
   e. Pediatric Education Project (PEP), December 20, 2006.
   f. Clínicas de Salud del Pueblo, Inc., January 24, 2007.
   g. California Distance Learning Health Network (CDLHN): Learning Without Limits, April 25, 2007.
   h. Binational Tuberculosis Card: Pilot Project Results and Next Steps, May 30, 2007.
   i. The Unique Challenges to the Well Being of California's Border Kids: A Border KIDS COUNT Data Brief, June 27, 2007.

B. Binational Meetings

1. Organized the U.S.-Mexico Lead Meeting held on September 28-29, 2006, in La Jolla, California, involving representatives of U.S. and Mexico agencies addressing the public health impact of exposure to lead in Mexican ceramic ware, candy, and home remedies.

2. Assisted CCLHO in planning the Semi-Annual CCLHO Meeting, "Binational and Border Health: Shared Challenges and Solutions," on October 19-20, 2006, in Tijuana, Baja California and San Diego.

3. Organized and facilitated California-Baja California Environmental Task Force meetings on October 3, 2006 in Mexicali, Baja California and April 11, 2007 in El Centro, California.

4. Co-convened with ISESALUD the California-Baja California Pesticides Summit on April 10, 2007 in Mexicali, Baja California.

5. Organized the binational meeting, Social Marketing for Health Promotion in California and Baja California, on May 3, 2007 in San Diego.

C. Presentations

1. Delivered presentations on the following topics:
   a. "Studying Migrant Populations: Methodological Considerations," at the University of California Office of the President, Summer Institute on Migration and Health on August 25, 2006 in Puebla, Mexico.
   b. "Substance Use Among Adult U.S.-Born and Immigrant Latinos and Whites: Perceived Risk as a Mediating Factor," at the National Institute on Drug Abuse (NIDA) National Hispanic Science Network on Drug Abuse.

c. ”Drug Use and HIV/AIDS: Implications for the Hispanic Population,” at the 6th Annual National Scientific Conference on September 15, 2006 in Scottsdale, Arizona.
d. “Towards an Integrated Approach for Public Health Emergency Preparedness and Response in the U.S.-Mexico Border Region,” at the XXIV U.S.-Mexico Border Governors’ Conference on August 25, 2006 in Austin, Texas.
e. “Environmental Health Priorities in the California-Baja California Border Region: the California Perspective,” at the California-Baja California Environmental Health Taskforce Meeting on October 3, 2006 in Mexicali, Baja California.
f. “Pesticide Subgroup Report,” at the California-Baja California Environmental Health Taskforce Meeting on October 3, 2006 in Mexicali, Baja California.
g. “Binational, Border, and Migrant Health: Defining the Public Health Links Between the U.S. and Mexico,” at the California Conference of Local Health Officers Semi-Annual Meeting on October 19, 2006 in Tijuana, Baja California.
h. “U.S.-Mexico Lead Initiative,” at the USMBHC Tri-Annual Outreach Offices Meeting on December 11-13, 2006 in El Paso, Texas.
i. “West Nile Virus: National, State, and Border Issues,” at San Diego State University Graduate School of Public Health on November 1, 2006.
j. “COBBH’s Priority Areas for Research on Migrant Health,” at the Health and Immigration Consortium Meeting on December 1, 2006 in San Francisco.
k. “Activities to Reduce Lead Exposure from Products that Cross the Border,” at the Childhood Lead Poisoning Strategic Planning Meeting on January 23, 2007 in Long Beach, California.
l. “U.S.-Mexico Lead Initiative,” at the Tri-Annual Outreach Offices Meeting on May 8, 2007 in Tucson, Arizona.

D. Briefing Documents

1. Prepared briefing documents on the following topics:
a. Prepared sections on health issues of immigrant women and border resident women in California for the California Office of Women’s Health “California Women Health Report.”
b. Produced documents on the U.S.-Mexico Border Governors’ Conference Health Worktable, Cross-Border Surgeries, Purchases of Prescription Drugs, and Pandemic Flu Preparedness Planning for Governor Schwarzenegger’s participation in the XXIV U.S.-Mexico Border Governors’ Conference on August 25, 2006.

E. Talking Points

1. Prepared talking points for CDHS leadership on the following topics:
a. Talking points for Director Shewry on DHS activities for delivery at Binational Health Week Closing Ceremony on October 13, 2006 in Los Angeles.
b. Talking points for Director Shewry on DHS border and binational programs for delivery at the CCLHO dinner on October 19, 2006 in Tijuana, Baja California.

c. Talking points for Director Shewry on the U.S. Mexico Lead Initiative for delivery at the USMBHC Annual Meeting on November 13, 2006 in Hermosillo, Sonora, Mexico.

F. Advisory Group

1. COBBH Advisory Group:

a. Convened Advisory Group meetings on September 18, 2006 and June 5, 2007.
b. Nine new Advisory Group members were nominated and approved by CDPH.
c. Co-sponsored quarterly Latino Coalition for a Health California (LCHC)-San Diego Regional Meetings with Lupe Alonzo-Diaz, executive director of LCHC and COBBH Advisory Group member.

APPENDIX D

California Department of Health Services
OFFICE OF BINATIONAL BORDER HEALTH
STRATEGIC PLAN

EXECUTIVE SUMMARY

Overview

Over five million people reside in the border region between California and Baja California. The region is defined as the territory within 100 kilometers on both sides of the international boundary. This presents unique public health challenges due to the constant migration of individuals and goods, the economic characteristics of both countries, and their similar yet contrasting political and cultural differences. Activities that occur at the border also have a significant impact on "binational" communities (i.e., communities with a large concentration of Latino residents located throughout California, often far removed from the border throughout California).

To protect and improve public health in the state's border and binational communities, it is essential that California engage in collaborative initiatives with Mexico at all levels of government (i.e., federal, state, county, city, and municipality). These initiatives begin by fostering long-term relationships among key government and community leaders on both sides of the border that are built on mutual trust, respect, and a will and commitment to protect and promote public health.

Office of Binational Border Health

Assembly Bill (AB) 63 (Chapter 765, Statutes of 1999), officially created the Office of Binational Border Health (OBBH) within the California Department of Health Services (CDHS) and charged it with facilitating cooperation between health officials and health professionals in California and Mexico to protect and promote health in border and in binational communities throughout California. AB 63 also directed OBBH to convene a voluntary advisory group comprised of representatives from different sectors of the health community and seek their advice in developing and implementing a strategic plan.

OBBH also serves as a convener, facilitator, and collaborator for health-related public and private organizations at federal, state, regional, and local levels to address health issues on both sides of the border.

Early Warning Infectious Disease Surveillance (EWIDS) is a key program within OBBH. As part of an overall State plan to prepare for and respond to public health emergencies, including potential bioterrorism threats, the U.S. Department of Health

and Human Services, through the Centers for Disease Control and Prevention, has allocated federal funds for the EWIDS Program. The Program will build binational capacity and facilitate cooperation on early warning infectious disease surveillance in the California-Baja California border region.

Development of an OBBH Strategic Plan

In January 2002, the OBBH Advisory Group was convened to assist OBBH in developing a strategic plan. The strategic plan development process was designed to include interactive workshop sessions involving OBBH staff and the Advisory Group, and solicit input from other CDHS programs, Mexican border health officials, and public and private health stakeholders on the U.S. side of the border.

Highlights of the Strategic Plan

The OBBH mission is:

> *"To protect and improve the health of communities throughout California by facilitating communication, coordination, and collaboration between California and Mexico health officials and health professionals."*

The OBBH vision is:

"Healthy Binational and Border Communities."

To achieve this vision, the following goals were identified in fulfillment of the three fundamental functions of public health: assessment, policy development, and assurance.

Goal 1: **Assess and monitor border and binational public health issues.**

Goal 2: **Optimize border and binational communication, coordination, and collaboration on public health issues.**

Goal 3: **Build capacity in California and Baja California to effectively address public health issues.**

Goal 4: **Increase awareness among state and local agencies, policy makers, the public, and other stakeholders about border and binational public health issues, and the role of OBBH in addressing these issues.**

To attain these goals, OBBH recognizes the need to work closely with key partners on both sides of the border, in accordance with the following guiding principles:

- Communication, Coordination, and Collaboration
- Commitment to Public Service
- Cultural Competency

- Excellence
- Respect

Implementation of the OBBH Strategic Plan

The goals of the strategic plan will be achieved by implementing a work plan under a three-year contract approved by CDHS. The contract will be monitored and evaluated every four months to assess level and quality of outcomes and compliance with the contract. The strategic plan will be revised annually.

Office of Binational Border Health
Strategic Plan

Background

According to the 2000 Census, more than 11 million people residing in California identify themselves as Hispanic. This accounts for almost one-third of the total State population. Of those, 8.5 million, or 77%, are of Mexican origin, making the Mexican culture and traditions an integral part of many California communities, particularly in the border region.

The California-Mexico border is a crossroads for a highly mobile population and includes some of the busiest ports of entry in the world. The border region poses unique public health challenges due to the continual movement of people across the border, the physical and demographic diversity of the region, the economic characteristics of both countries, and their political and cultural differences. These challenges are apparent throughout the U.S.-Mexico border region and in communities located far from the border but with characteristics similar to border communities.[1]

Protecting and promoting public health in California's border and binational communities require the joint effort of two countries, two states, and several counties and municipalities. This collaboration is essential despite differences in communications infrastructure, disease case definitions, diagnostic criteria, laboratory protocols, emergency services, training of health professionals, resources, and infrastructure. In short, the different political, social, and economic conditions found in California and Mexico contribute to the health disparities on both sides of the border and impede the collaboration of public health professionals in addressing these disparities. More importantly, overcoming these differences requires a long-term investment in developing and maintaining ongoing, trusting, and respectful working relationships.

California Assembly Bill 63

In January 2000, California Assembly Bill (AB) 63 officially created the Office of Binational Border Health (OBBH). This legislation (see Attachment A) recognized the impact and complexity of border health issues and charged OBBH with facilitating cooperation between health officials and health professionals in California and Mexico as a means of reducing the risk of disease in the California border region. AB 63 also mandated that OBBH establish and convene a voluntary advisory group comprised of representatives from different sectors of the health community, and charged them to develop and assist OBBH in implementing the strategic plan. OBBH is additionally

[1] The following definitions are used in the Strategic Plan: The **"**border region" refers to the territory on either side of the border that is within 100 kilometers (62 miles) of the boundary (U.S. Congress, Public Law 103-400). **"**Binational communities" are beyond the 100 kilometers but are also affected by border and binational conditions and activities.

mandated to prepare an Annual Border Health Status Report that is submitted to the Director of Health Services, the Legislature, and the Governor.

Role of OBBH

As a unit within the California Department of Health Services (CDHS), OBBH's main role is to facilitate and coordinate the border and binational health activities of CDHS programs. OBBH recognizes the importance of collaboration and coordination in performing this role and has been working with key border health partners, especially San Diego and Imperial Counties, the other three U.S. border states (Arizona, New Mexico, and Texas), and Baja California in the following ways:

- Serving as the CDHS liaison to Baja California state health officials;
- Fostering binational partnerships with other U.S.-Mexico border states;
- Assessing the health status of border communities;
- Assisting in border health policy and program development;
- Informing the general public about border health; and
- Serving as an information clearinghouse.

In addition, OBBH maintains a close relationship with local and other state agencies, federal agencies, such as the Centers for Disease Control and Prevention (CDC), the Health Resources and Services Administration (HRSA), the Border 2012 Program of the U.S. Environmental Protection Agency (EPA), and the U.S.-Mexico Border Health Commission (USMBHC), and nongovernmental organizations such as the U.S.-Mexico Border Health Association (USMBHA).

OBBH Advisory Group

The OBBH Advisory Group is comprised of twelve key leaders in border and binational health representing county health departments in San Diego, Imperial, and Los Angeles, the California Conference of Local Health Officers, local governments, health plans, hospitals, community-based organizations, health consumers, and universities. Careful attention was given to have representation from different geographic regions of California, urban and rural communities, and different health disciplines.

The purpose of the Advisory Group is to support OBBH by:

1. Assisting in the development of the OBBH Strategic Plan.

2. Advising OBBH and the California members of the USMBHC on critical binational and border health issues.

3. Assisting in disseminating information to border and binational communities.

Demographic Profile

The California-Baja California border region spans a distance of 140 miles from the Pacific Ocean in the west to the Arizona-Sonora border in the east. It includes two counties in California (San Diego and Imperial) and three municipios in Baja California

(Tijuana, Tecate, and Mexicali). The largest cities in the region are San Diego (over two million residents) and Tijuana (approximately 1.2 million residents). To the east, Imperial County accounts for only 145,000 people living in small cities (El Centro and Calexico) and vast agricultural areas. Across the border from Calexico is Mexicali, the capital of Baja California, with a population of one million. It is important to note that the California-Baja California border region is home to 35-40 % of the total population residing within the entire length (1,952 miles) of the U.S.-Mexico border.

According to the 2000 U.S. Census, there were 627,562 American Indians residing in California. This included 333,346 declaring American Indian as their only race, and 294,216 people stating they were American Indian and one or more other races. In San Diego County, 24,337 people identified themselves as American Indian or Alaska Native (AI/AN), and an additional 21,840 reported being AI/AN in combination with one or more other races. In Imperial County, a total of 3,458 people reported being either AI/AN only or in combination with one or more other races (where 792 reported the latter).

Both California border counties are ethnically diverse and experiencing rapid growth, especially among minority populations. The racial/ethnic composition of the two counties has also been shifting over the last 30 years. Imperial County has the highest percentage of Hispanic/Latino residents (72%) among all counties in the state, while San Diego County is home to over 750,000 Hispanic residents, about 27 percent of the total population. As is the case in the rest of the state, Latino residents of the border counties are generally younger compared to other ethnic groups and are, therefore, projected to continue to increase their percentage of the total population in years to come.

The San Diego/Tijuana area has a combined population of over four million, making it the largest binational metropolitan area along the entire U.S.–Mexico border. There are three ports of entry into Mexico from San Diego County: San Ysidro, Otay Mesa, and Tecate. This area represents the busiest port of entry in the world, with over 55 million crossings in 1999. A recent study found that 96% of all legal crossings are made by “frequent” border crossers, i.e., those that cross at least four times a month. The study also revealed that the primary purpose for crossing is for social visits, shopping, or tourism. Border crossers from the U.S. do not come from just the immediate border area but from many communities in California and other states. Also, there are three ports of entry in the Imperial Valley/Mexicali area, which together experienced over 39 million crossings in 1999.

OBBH Strategic Plan

As directed by AB 63, OBBH convened its Advisory Group between 2002-2004 to assist in developing a five-year strategic plan that would represent a blueprint for border and binational health activities in California. The strategic planning process began with a thorough discussion of the key principles that would guide CDHS when addressing the many health issues and concerns at the border and in binational communities.

OBBH adopted the following guiding principles, and mission and vision statements to help frame its strategic plan.

Guiding Principles

Communication, Coordination, and Collaboration
Open communication and cooperation with stakeholders to address binational and border health issues.

Commitment to Public Service
Our work is motivated by a commitment to the public good.

Cultural Competency
Promoting and utilizing the competencies needed to work effectively in diverse communities.

Excellence
Continuously improving services and systems based on good science, research, and community input.

Respect
Recognition, support, acceptance, and celebration of differences in our binational and border communities.

MISSION

The OBBH mission is:

"To protect and improve the health of communities throughout California by facilitating communication, coordination, and collaboration between California and Mexico health officials and health professionals."

VISION

The over-arching vision of OBBH is to achieve:

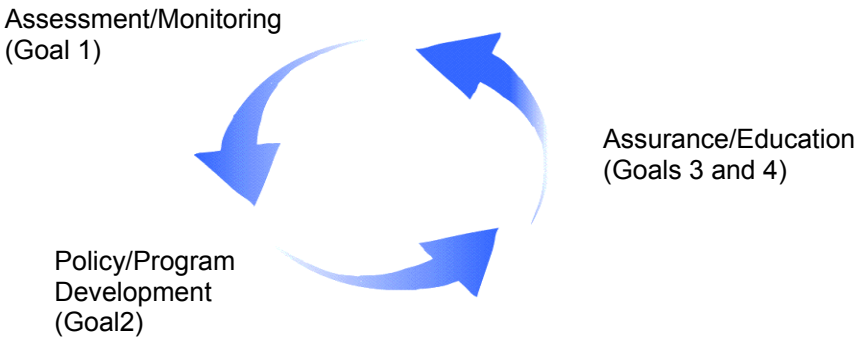
Healthy Binational and Border Communities

To fulfill this vision, goals and objectives were identified to establish a collaborative role that would assist California to exert its leadership in collaboration with the USMBHC and in support of Federal Healthy Border 2010 objectives (See Appendix B). This goal setting process was structured within the framework of the following three fundamental functions of public health:

1) assessment/monitoring;
2) policy/program development; and
3) assurance/education.

Assessment and monitoring of binational and border health status are the first steps towards implementing effective programs. From assessment findings, policies and programs are further developed and implemented to build and support binational and domestic coordination of disease control and prevention.

Assurance is the strengthening of service delivery and is essential for aligning end results with existing program policy. Education assists service delivery and improves the response to border health issues by training and educating health professionals, policymakers, and the public. Evaluation of services feeds into reassessment of health status, and the three components complete a cycle that is interdependent on one another.



GOALS

The following goals were identified to accomplish the basic public health functions in the border region:

1. Assess and monitor border and binational public health issues.

2. Optimize border and binational communication, coordination, and collaboration on public health issues.

3. Build capacity in California and Baja California to effectively address public health issues

4. Increase awareness among state and local agencies, policy makers, the public, and other stakeholders about border and binational public health issues and the role of OBBH.

Implementation, Monitoring, and Evaluation

Attaining "Healthy Binational Border Communities" will take more than five years, and will require the involvement and commitment of numerous stakeholders on both sides of the border. OBBH will take the lead role in implementing the strategic plan and will rely on the expertise of its Advisory Group to assist in guiding achievement of the strategic plan. Also, OBBH will play a key role in guiding CDHS border and binational activities so they support attainment of the CDHS mission. In addition, OBBH will foster collaborative relationships with key stakeholders and constituent groups on both sides of the border according to the plan's guiding principles.

The strategic plan is viewed as a working document that will be revised annually to respond to emerging issues and priority needs. Feedback received from CDHS management and relevant programs, the OBBH Advisory Group, and stakeholders vested and interested in border and binational health will assist in refocusing program priorities, as necessary.

Attachments

Attachment A: California Assembly Bill 63
Attachment B: Healthy Border 2010 Objectives
Attachment C: Healthy Gente Objectives

Attachment A

California Assembly Bill No. 63

CHAPTER 765

An act to add Part 3 (commencing with Section 475) to Division of the Health and Safety Code, relating to public health.

[Approved by Governor October 7, 1999. Filed
with Secretary of State October 10, 1999]

LEGISLATIVE COUNSEL'S DIGEST

AB 63, Ducheny. Office of Binational Border Health

Under existing law, the State Department of Health Services generally regulates issues of public health. Under existing federal law, the United States-Mexico Border Health Commission exists to address specified issues related to border health.

This bill would create the state Office of Binational Border Health, to facilitate cooperation between California and Mexican health officials and health professionals to reduce the risk of disease in the California border region. The bill would require the office to convene a voluntary community advisory group of representatives of border community-based stakeholders to develop a strategic plan, and would require the office to report its resulting recommendation to the California members of the federal commission, and to prepare an annual border health status report for submission to the Director of Health Services, the Legislature, and the Governor.

The people of the State of California do enact as follows:

Section 1. The Legislature finds and declares all of the following:

(a) Tuberculosis (TB) disease rates in southern California counties, including Los Angeles, San Diego, and Imperial, are higher than the rest of the state and the nation. Mexican-born patients comprise approximately 30 percent of southern California's reported TB cases, and rates of drug-resistant TB strains have been documented by the United States Public Health Services in a study of border counties to be almost seven times higher among foreign-born Hispanic patients than among United States-born non-Hispanic patients.
(b) Rates of hepatitis A and gastrointestinal illnesses such as shigella are higher in southern California than in the rest of the state and the nation, with the highest rates seen in Hispanics.
(c) Communicable disease tracking by public health authorities is often severely hampered by the movement of infections cases across the border.
(d) Imperial County does not meet California Environmental Protection Agency standards for ambient ozone levels, at least in part due to increasing traffic at the Calexico-Mexicali border, and Imperial County childhood asthma hospitalization rates have increased annual since 1989.
(e) The New River in Imperial County is the most polluted in the nation, containing more than 100 chemicals and receiving 76 million liters of raw sewage each day.
(f) Recent outbreaks of mercury poisoning related to a beauty cream, and hepatitis A related to contaminated strawberries, underscore the need for better notification systems between United

State and Mexican health authorities regarding contaminated commercial products and related investigations.

SEC. 2. Part 3 (commencing with Section 475) is added to Division 1 of the Health and Safety Code, to read:

PART 3. OFFICE OF BINATIONAL BORDER HEALTH

475. (a) (1) The State Department of Health Services shall establish a permanent Office of Binational Border Health to facilitate cooperation between health officials and health professionals in California and Mexico, to reduce the risk of disease in the California border region, and in those areas directly affected by border health conditions.

(2) The department shall administer the office, and shall seek available public or private funding, or both, to support the activities of the office.

(b) The office of Binational Border Health shall convene a voluntary community advisory group of representatives of border community-based stakeholders to develop a strategic plan with short-term, intermediate, and long-range goals and implementation actions. The advisory group shall include no more than 12 California representatives. The advisory group shall include, but not be limited to, members from local government, hospitals, health plans, community-based organizations, universities, Los Angeles, San Diego, and Imperial County health departments, and a representative from an association of local health officers specializing in border health issues. The office shall invite and request appropriate participation from representatives of the Baja California health department and other Mexican health departments affected by border health issues. Recommendations resulting from the strategic plan shall be developed and shared in consultation with the California appointees to the United States-Mexico Border Health Commission established pursuant to Section 290n of Title 22 of the United States Code, including the Director of Health Services. The office shall prepare an annual border health status report, and shall submit it to the Director of Health Services, the Legislature, and the Governor.

Attachment B

Healthy Border 2010 Objectives

Improve access to primary healthcare

1. ***Reduce by 25 percent the population lacking access to a primary healthcare provider.***

Reduce cancer mortality in women by improved screening for breast and cervical cancers

2. ***Reduce female breast cancer death rate by 20 percent.***
3. ***Reduce cervical cancer death rate by 30 percent.***

Reduce morbidity and mortality from diabetes mellitus

4. ***Reduce deaths due to diabetes by 10 percent.***
5. ***Reduce hospitalizations due to diabetes by 25 percent.***

Improve water quality through improved sanitation and reduce amount of acute pesticide poisoning

6. ***Reduce to zero the proportion of households not connected to compliant public sewage systems or septic tanks.***
7. ***Reduce number of hospital admissions for acute pesticide poisoning by 25 percent.***

Reduce transmission of HIV (Human Immunodeficiency Virus)

8. ***Reduce incidence of diagnosed HIV among adults and adolescents by 50 percent.***

Reduce transmission of hepatitis A and B and tuberculosis (TB)

9. ***Achieve/maintain 90 percent immunization coverage in children aged 19-35 months.***
10. ***Reduce incidence of hepatitis A by 50 percent and of hepatitis B by 30 percent.***
11. ***Reduce incidence of TB by 50 percent.***

Reduce mortality from unintentional injuries

12. Reduce motor vehicle crash death rate by 25 percent.
13. Reduce unintentional injury death rate in children by 30 percent.

Reduce infant mortality and increase the number of women receiving prenatal care

14. Reduce infant mortality by 15 percent.
15. Reduce infant mortality from congenital abnormalities by 30 percent.
16. Increase proportion of mothers beginning prenatal care in first trimester to 85 percent.
17. Reduce pregnancy rate among 15-17 year-old women by 33 percent.

Reduce the suicide mortality rate by improving mental health

18. Reduce suicide mortality rate by 15 percent.

Increase the usage of dental and oral health services

19. Increase proportion of population using oral health services to 75 percent per year.

Reduce morbidity and mortality from asthma

20. Reduce asthma hospitalization rate by 40 percent.

Attachment C

Healthy Gente Objectives

Healthy Gente includes a set of 25 health objectives for the U.S.-Mexico border region. These objectives are intended to apply to all sub-groups of the border community. While specific objectives may target the health problems of a particular gender, ethnic group, or other category, the intent is to apply these objectives to the entire border population, regardless of sex, race, ethnicity, or other designation. In particular, these objectives are intended to apply to the migrant worker population of the border as well as the non-migrant population.

The purpose of these 25 health objectives is to assist border health systems to focus on key health problems and to improve the allocation of health resources. The objectives are also intended to provide direction to organizations and communities supporting good health through health promotion policies, and to assist individuals in changing health behaviors.

The Healthy Gente Objectives are as follows:

Access to Care

1. Reduce by 25 percent the population of persons lacking access to a primary healthcare provider in underserved areas.

Cancer

2. Reduce the breast cancer death rate for women by 20 percent.
3. Reduce the cervical cancer death rate by 30 percent.

Diabetes

4. Reduce the diabetes death rate by 10 percent and diabetes morbidity (hospital admissions) by 25 percent.

Environmental Health

5. Reduce to zero the proportion of persons living in countries exceeding EPA air quality standards.
6. Reduce to zero the proportion of households not connected to either compliant public sewage systems or septic tanks.
7. Reduce by 25 percent the number of persons hospitalized for acute pesticide poisoning.

HIV (Human Immunodeficiency Virus)

8. Reduce the incidence of diagnosed HIV infection cases among adolescents and adults by 50 percent.

Immunization and Infectious Diseases

9. Reduce the incidence of hepatitis A and hepatitis B by 50 percent.
10. Reduce the incidence of tuberculosis cases by 50 percent.
11. Achieve and maintain immunization coverage rate of 90 percent for children 19-35 months.

Injury and Violence Prevention

12. Reduce the motor vehicle crash death rate by 25 percent.
13. Reduce the childhood (under age five) death rate due to unintentional injuries by 30 percent.

Maternal, Infant, and Child Health
14. Reduce the suicide death rate by 15 percent.
15. Reduce the infant mortality rate from birth defects by 30 percent.
16. Increase the proportion of women beginning prenatal care in the first trimester to 85 percent.
17. Reduce the pregnancy rate among 15-17 year-olds by 33 percent.

Mental Health
18. Reduce the suicide death rate by 15 percent.

Nutrition and Overweight
19. Reduce the proportion of adults who are obese to 15 percent.

Oral Health
20. Increase to at least 75 percent the proportion of the population served by community water systems with optimally fluoridated water.
21. Increase to at least 75 percent the proportion of children and adults who use the oral health care system each year.

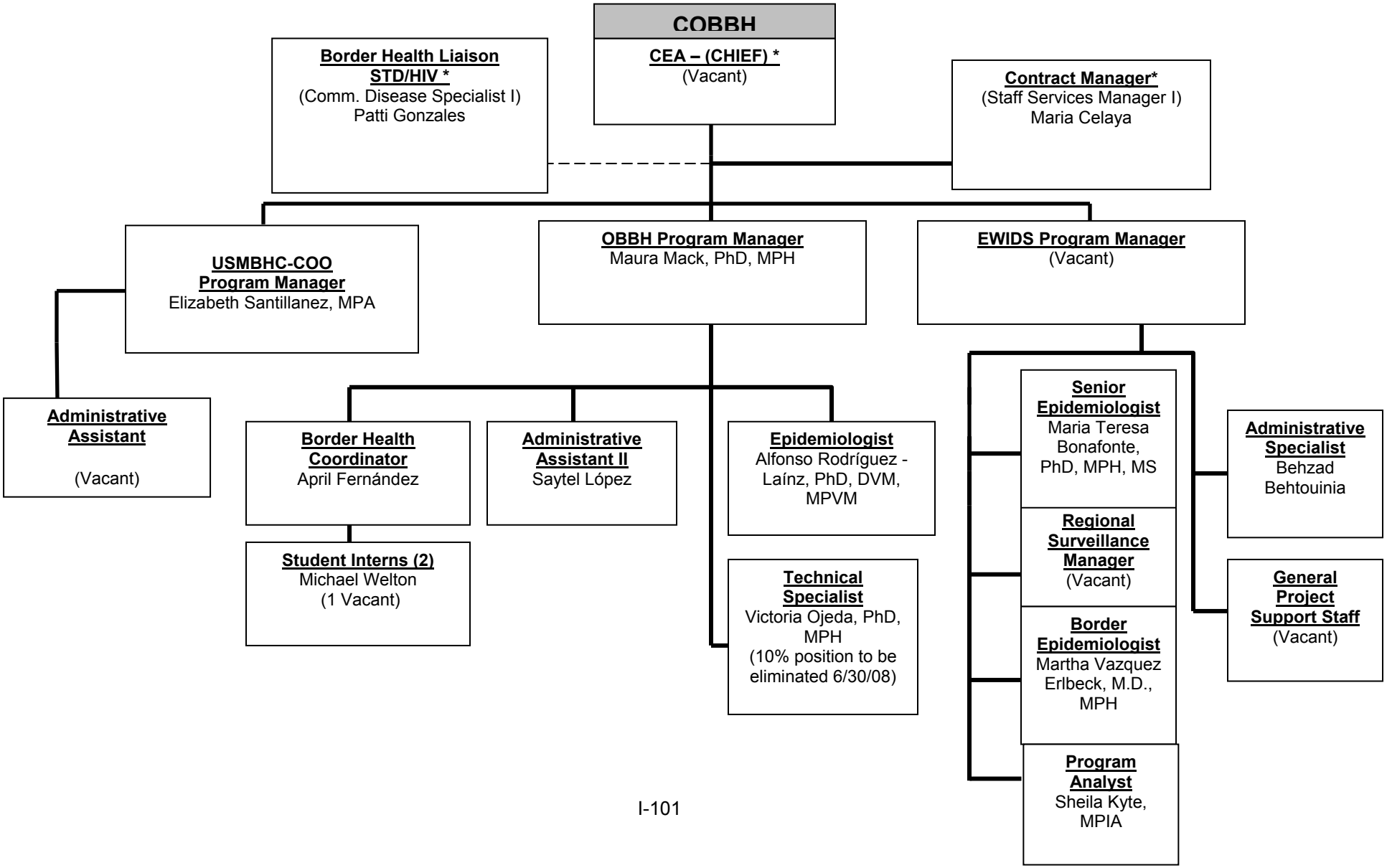
Respiratory Diseases
22. Reduce the asthma hospitalization rate by 40 percent.

Substance Abuse
23. Reduce the number of alcohol-related motor vehicle crash deaths by 50 percent.
24. Increase the proportion of 12-17 year-old youths not using alcohol or any illicit drugs during the past 30 days.

Tobacco Use
25. Reduce by 33 percent the proportion of adults and adolescents currently using tobacco.

APPENDIX E

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH
CALIFORNIA OFFICE OF BINATIONAL BORDER HEALTH (COBBH): Organizational Chart



APPENDIX F

California Department of Public Health
Office of Binational Border Health
5353 Mission Center Rd., Suite 215
San Diego, CA 92108
Tel: (619) 688-0263 Fax: (619) 688-0280

Janet Huston, *Associate Director, Office of External Affairs*
Focus: Oversees programs under the California Department of Public Health, Office of External Affairs
Employer: CDPH; Tel: (916) 558-1728 (office-direct); E-mail: janet.huston@cdph.ca.gov

Richard Rodriguez, MA, *Special Advisor to the Director, Border Health Issues*
Focus: Provides direction to all three programs in the Office of Binational Border Health
Employer: CDPH; Tel: (916) 558-1736; E-mail: Richard.rodriguez@cdph.ca.gov

Office of Binational Border Health (OBBH)

Maura Mack, PhD, MPH, *OBBH Program Manager*
Focus: Oversees program implementation; supervises staff, coordinates program activities with CDPH and external agencies.
Employer: UCSD (CDPH); Tel: (619) 688-0253; E-mail: Maura.Mack@cdph.ca.gov

Alfonso Rodríguez-Lainz, PhD, DVM, MPVM, *Epidemiologist*
Focus: Coordinates preparation of Annual Border Health Status Report. Facilitates projects with and provides technical assistance to CDPH and external agencies.
Employer: UCSD (CDPH); Tel: (619) 688-0178; E-mail: Alfonso.Rodriguez@cdph.ca.gov

April Fernández, *Border Health Coordinator*
Focus: Coordinates administrative duties of the office, including fiscal, personnel, staff training, and quarterly reports to the state. Coordinates education and community outreach activities.
Employer: UCSD (CDPH); Tel: (619) 688-0263/688-0218; E-mail: April.Fernandez@cdph.ca.gov

Victoria Ojeda, PhD, MPH, *Technical Specialist*
Focus: Implements grant-funded project awarded to the office. Employer: UCSD (CDPH); Tel: (619) 688-0180; E-mail: Victoria.Ojeda@cdph.ca.gov

Saytel Lopez, *Administrative Assistant II*
Focus: Provides administrative support to COBBH staff.
Employer: UCSD (CDPH); Tel: (619) 688-0181; E-mail: Saytel.Lopez@cdph.ca.gov

Michael Welton, Student Intern
Focus: Provides project support to COBBH staff.
Employer: UCSD (CDPH); Tel: (619) 688-0263; E-mail: Michael.Welton@cdph.ca.gov

Early Warning Infectious Disease Surveillance (EWIDS)

Vacant, *EWIDS Program Manager*
Focus: Oversees implementation of EWIDS Program; supervises EWIDS staff; coordinates program activities with CDPH and external agencies on infectious disease and emergency preparedness.
Employer: UCSD (CDPH); Tel: (619) 688-0159

María-Teresa Bonafonte, PhD, MPH, MS, *EWIDS Senior Epidemiologist*
Focus: Directs research projects on infectious diseases and oversees the implementation of infectious diseases binational surveillance.
Employer: UCSD (CDPH); Tel: (619) 688-0110;
E-mail: M-Teresa.Bonafonte@cdph.ca.gov

Martha Vazquez-Erlbeck, MD, MPH, *EWIDS Border Epidemiologist*
Focus: Serves as liaison between San Diego County and Baja California Health Officials and undertakes various epidemiology surveillance activities.
Employer: UCSD (CDPH); Tel: (619) 688-0111; E-mail: Martha.Erlbeck@cdph.ca.gov

Sheila M. Kyte, MPIA, *Program Analyst*
Focus: Provides programmatic support to EWIDS projects.
Employer: UCSD (CDPH); Tel: (619) 688-0111; Email: Sheila.Kyte@cdph.ca.gov

Veronica Keeler, *Administrative Analyst*
Focus: Coordinates administrative duties of the office, including fiscal, personnel, staff training, and quarterly reports to the state.
Employer: UCSD (CDPH); Tel: (619) 688-0146; Email: Veronica.Keeler@cdph.ca.gov

U.S.-Mexico Border Health Commission/California Outreach Office (USMBHC):

Elizabeth Santillanez, MPA, *Program Manager, California Outreach Office*
Focus: Implements and coordinates activities for California delegation, including budget and administration. Coordinates Commission work with Baja California delegation.
Employer: UCSD; Tel: (619) 688-0158; E-mail: Elizabeth.Santillanez@cdph.ca.gov

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH):

Patricia Gonzales, *Communicable Disease Specialist I*
Focus: Develops and maintains collaborative relationships with health officials and other governmental and non-governmental agencies on both sides of the border region, addressing issues of STD/HIV prevention and control efforts. Coordinates the development, implementation, and evaluation of special projects to enhance and support effective HIV/STD clinical and community-based prevention programs.
Employer: CDPH; Tel: (619) 688-0234; E-mail: Patricia.Gonzales@sdcounty.ca.gov

Maria J. Celaya, *Staff Services Manager I*
Focus: Assists in surveillance and bioterrorism preparedness planning activities with local health department counterparts on both sides of the border region (Imperial-Mexicali and San Diego-Tijuana) and oversees and monitors state contracts with COBBH, EWIDS, and U.S. Mexico Border Health Commission.
Employer: CDPH; Tel: (619) 688-0267; E-mail: Maria.Celaya@cdph.ca.gov

APPENDIX G

California EWIDS Major Accomplishments
August 31, 2006 – August 30, 2007

Early Warning Infectious Disease Surveillance (EWIDS)

- Throughout the year, EWIDS has led the Governor's binational pandemic and avian influenza initiative by convening several meetings and tabletop workshops, and developing a binational strategy document entitled, "ACTIONS FOR JOINT PREPAREDNESS AND RESPONSE BETWEEN CALIFORNIA AND BAJA CALIFORNIA: A Strategy Brief of the US-Mexico Border Avian and Pandemic Influenza Initiative."

- EWIDS conducted ILI surveillance at the only urban Native American Indian Health Center in San Diego; this activity will continue over the next year.

- EWIDS continues to expand the number of Baja California public health professionals who receive a translated summary of the CD Briefs.

- EWIDS worked on a binational project involving a collaborative effort among agencies at the local, state, and federal levels on both sides of the border to share information about binational infectious disease cases. EWIDS will incorporate this information into a binational protocol related to disease outbreak investigations.

- EWIDS continues developing a process of sharing information across the border in collaboration with colleagues in California and Baja California.

- EWIDS conducted several trainings and workshops; participants were public health professionals from the California-Baja California border region as well as from other U.S.-Mexico border states.

    - In April 2007, EWIDS implemented an Epi-X and CAHAN training.

    - In May 2007, EWIDS organized a workshop at the "Universidad Autónoma de Baja California." The workshop included training in EpiInfo and an outbreak investigation. Attendees were Tijuana University professors and Baja California physicians.

    - In May 2007, EWIDS hosted a binational pandemic and avian influenza preparedness and response tabletop workshop.

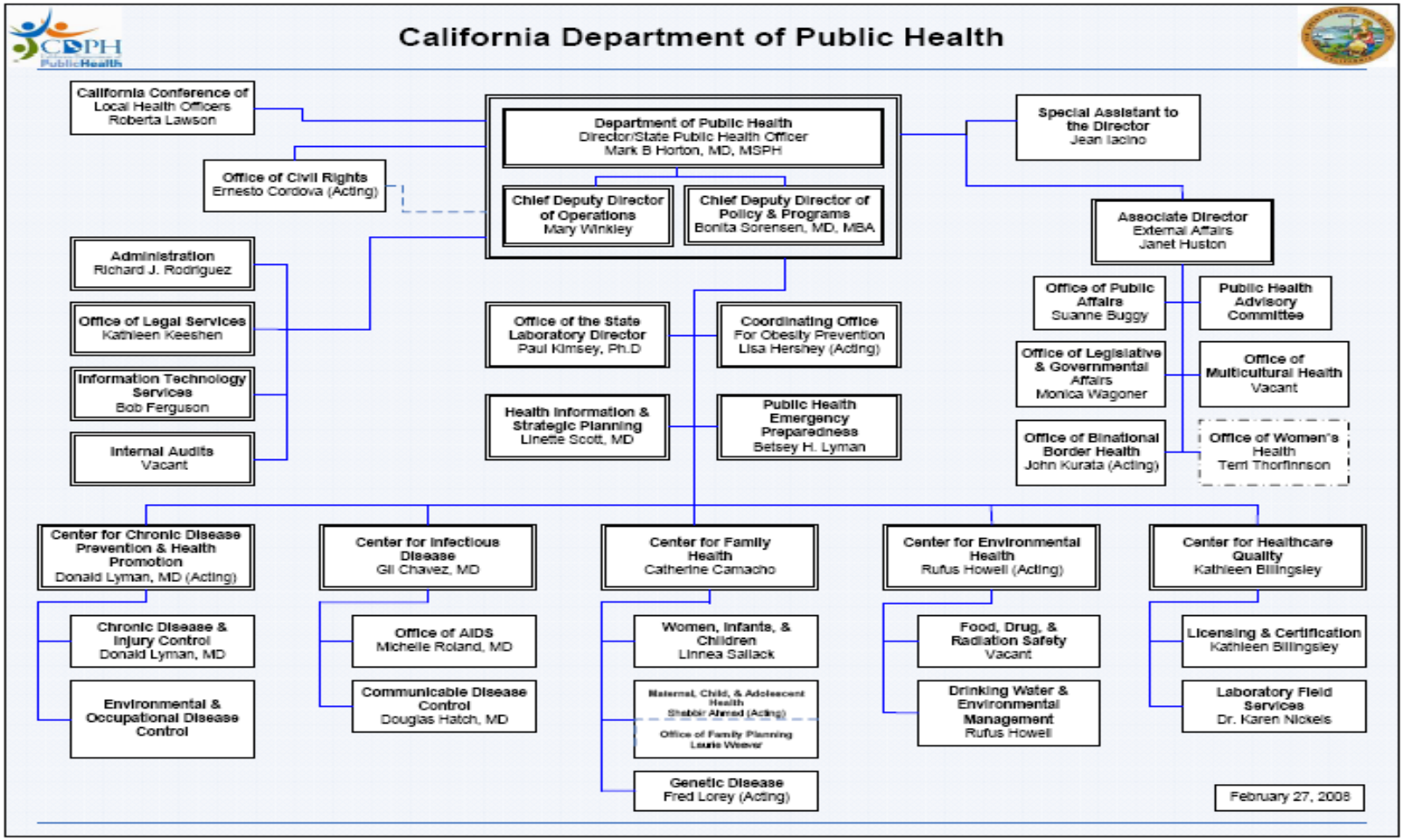
    - In August 2007, EWIDS sponsored flyers on foodborne illnesses.

- In August 2007, EWIDS hosted a Telemedicine and Telehealth in the US-Mexico Border Region meeting.

- In August 2007, EWIDS hosted a workshop on how to conduct rapid surveys. The workshop was conducted at the University of California, San Diego (UCSD).

- In August 2007, EWIDS hosted a binational pandemic and avian influenza preparedness and response tabletop workshop.

APPENDIX H


California Department of Public Health
California Conference of Local Health Officers
Roberta Lawson
Department of Public Health
Director/State Public Health Officer
Mark B Horton, MD, MSPH
Special Assistant to the Director
Jean Iacino
Office of Civil Rights
Ernesto Cordova (Acting)
Chief Deputy Director of Operations
Mary Winkley
Chief Deputy Director of Policy & Programs
Bonita Sorensen, MD, MBA
Associate Director External Affairs
Janet Huston
Administration
Richard J. Rodriguez
Office of Legal Services
Kathleen Keeshen
Information Technology Services
Bob Ferguson
Internal Audits
Vacant
Office of the State Laboratory Director
Paul Kimsey, Ph.D
Coordinating Office For Obesity Prevention
Lisa Hershey (Acting)
Health Information & Strategic Planning
Linette Scott, MD
Public Health Emergency Preparedness
Betsey H. Lyman
Office of Public Affairs
Suanne Buggy
Public Health Advisory Committee
Office of Legislative & Governmental Affairs
Monica Wagoner
Office of Multicultural Health
Vacant
Office of Binational Border Health
John Kurata (Acting)
Office of Women's Health
Terri Thorfinnson
Center for Chronic Disease Prevention & Health Promotion
Donald Lyman, MD (Acting)
Center for Infectious Disease
Gil Chavez, MD
Center for Family Health
Catherine Camacho
Center for Environmental Health
Rufus Howell (Acting)
Center for Healthcare Quality
Kathleen Billingsley
Chronic Disease & Injury Control
Donald Lyman, MD
Environmental & Occupational Disease Control
Office of AIDS
Michelle Roland, MD
Communicable Disease Control
Douglas Hatch, MD
Women, Infants, & Children
Linnea Sallack
Maternal, Child, & Adolescent Health
Shabbir Ahmad (Acting)
Office of Family Planning
Laurie Weaver
Genetic Disease
Fred Lorey (Acting)
Food, Drug, & Radiation Safety
Vacant
Drinking Water & Environmental Management
Rufus Howell
Licensing & Certification
Kathleen Billingsley
Laboratory Field Services
Dr. Karen Nickels
February 27, 2008

Appendix I

Additional Tables

1. **Demographics and Socioeconomic Characteristics**
2. **Chronic Diseases**
3. **Environmental Health**
4. **Infectious Diseases**

Demographics and Socioeconomic Characteristics

Table 1.3

California Border Counties and Statewide Population by Race and Percent of Total Population[a], 2001-2006												
Population	**2001**		**2002**		**2003**		**2004**		**2005**		**2006**	
	Population	**%**	**Population**	**%**	**Population**	**%**	**Population**	**%**	**Population**	**%**	**Population**	**%**
Imperial												
Asian/PacIs[b]	2,855	2	3,041	2	3,304	2.1	3,526	2.2	3,769	2.3	4,011	2.4
Black	5,221	3.6	5,327	3.6	5,454	3.5	5,570	3.5	5,678	3.5	5,884	3.5
Hispanic	107,081	73.3	110,783	74.1	115,418	74.9	119,888	75.6	124,520	76.1	129,336	76.5
Multi	783	0.5	822	0.5	850	0.6	895	0.6	940	0.6	950	0.6
NAAN[c]	1,843	1.3	1,888	1.3	1,955	1.3	2,018	1.3	2,076	1.3	2,155	1.3
White	28,652	19.6	28,358	19	28,175	18.3	27,947	17.6	27,757	17	27,897	16.5
All[a]	145,998	100	149,509	100	154,138	100	158,650	100	163,521	100	168,979	100
San Diego												
Asian/PacIs[b]	272,369	9.4	280,772	9.5	287,516	9.6	292,792	9.7	296,073	9.7	300,863	9.8
Black	158,280	5.5	157,394	5.3	155,440	5.2	152,515	5	148,610	4.9	144,991	4.7
Hispanic	776,674	26.8	796,451	27	815,741	27.2	834,197	27.6	852,606	27.9	870,415	28.3
Multi	64,472	2.2	66,886	2.3	68,405	2.3	69,270	2.3	69,597	2.3	67,044	2.2
NAAN[c]	18,078	0.6	20,490	0.7	22,165	0.7	23,372	0.8	23,891	0.8	24,574	0.8
White	1,602,696	55.4	1,627,704	55.1	1,645,920	54.9	1,658,909	54.8	1,664,001	54.5	1,668,460	54.2
All[a]	2,893,950	100	2,951,630	100	2,998,514	100	3,027,440	100	3,051,175	100	3,077,877	100
California												
Asian/PacIs[b]	4,015,633	11.6	4,138,163	11.7	4,246,858	11.8	4,335,235	11.9	4,393,010	11.9	4,475,811	12
Black	2,238,187	6.4	2,250,093	6.4	2,258,478	6.3	2,260,877	6.2	2,255,281	6.1	2,256,432	6
Hispanic	11,454,400	32.9	11,824,231	33.4	12,203,091	34	12,565,010	34.5	12,905,840	35	13,227,047	35.4
Multi	667,937	1.9	696,735	2	725,341	2	752,782	2.1	779,784	2.1	782,242	2.1
NAAN[c]	194,178	0.6	201,293	0.6	207,284	0.6	211,919	0.6	215,044	0.6	219,683	0.6
White	16,219,400	46.7	16,286,490	46.1	16,353,679	45.5	16,400,124	45	16,408,477	44.5	16,419,655	44
All[a]	34,766,730	100	35,361,187	100	35,944,213	100	36,454,471	100	36,896,220	100	37,332,976	100

[a] Population total in July

[b] Pacific Islander

[c] Native American / Alaska Native

Source: California Department of Finance, 2006

Demographics and Socioeconomic Characteristics

Table 1.4.

Border Crossings/Entries[a] in California by Year, 2001-2006						
	2001	**2002**	**2003**	**2004**	**2005**	**2006**
Train Passengers	7,204	4,154	2,072	2,162	1,972	2,190
Bus Passengers	1,402,404	1,813,716	1,576,737	1,315,400	1,289,332	1,425,872
Personal Vehicle Passengers	67,410,517	68,180,103	70,757,903	66,393,907	66,531,176	65,345,181
Pedestrians	21,699,797	18,628,200	18,193,283	18,197,094	16,462,335	15,517,700
Total Crossings	**90,519,922**	**88,626,173**	**90,529,995**	**85,908,563**	**84,284,815**	**82,290,943**

Source: California Department of Finance, 2006

Chronic Disease: Cervical Cancer

Table 2.1

Percent of Women Who Had a Pap Smear in the Last Three Years, 2001-2005									
Population	2001			2003			2005		
	%	95% C.I.[a]	Est. N[b]	%	95% C.I.	Est. N	%	95% C.I.	Est. N
Imperial									
Hispanic	84.7	(78.5 - 91.0)	22,000	80.3	(73.0 - 87.6)	25,000	78.4	(69.2 - 87.6)	24,000
White	77.4	(66.2 - 88.5)	6,000	80.7	(70.3 - 91.1)	7,000	85.3	(76.6 - 94.0)	9,000
All	83.3	(78.1 - 88.5)	31,000	80.7	(74.8 - 86.6)	35,000	80.9	(74.1 - 87.7)	36,000
San Diego									
Hispanic	81.9	(75.0 - 88.8)	168,000	83.1	(75.9 - 90.3)	196,000	85	(79.0 - 91.0)	165,000
White	91.7	(89.5 - 94.0)	456,000	86.2	(82.8 - 89.5)	476,000	85.5	(82.5 - 88.4)	453,000
All	85.5	(82.6 - 88.5)	749,000	84.4	(81.5 - 87.4)	838,000	84.5	(82.0 - 87.0)	777,000
California									
Hispanic	86	(84.5 - 87.4)	2,313,000	85.6	(84.1 - 87.2)	2,629,000	83.7	(81.9 - 85.6)	2,520,000
White	88.6	(87.8 - 89.3)	4,606,000	86.4	(85.5 - 87.2)	5,129,000	86.2	(85.2 - 87.2)	4,781,000
All	85.3	(84.6 - 86.0)	8,816,000	84.9	(84.2 - 85.6)	9,974,000	83.8	(83.0 - 84.6)	9,502,000

[a] 95% confidence interval
[b] estimated number of people in the population
Source: 2001, 2003, and 2005 California Health Interview Survey
Healthy People 2010 goal: 90% of women will have received a Pap test within the preceding three years.

Chronic Disease: Cervical Cancer

Table 2.2.

Cervical Cancer Incidence by Ethnicity and Region, 2001-2005															
Population	**2001**			**2002**		**2003**		**2004**		**2005**			**2001-2005**		
	Cases	**Rates[a]**	**95% C.I.[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates***	**Cases**	**Rates[a]**	**95% C.I.**	**Cases**	**Rates[a]**	**95% C.I.**
Imperial															
Hispanic	-	-	-	-	-	-	-	-	-	-	-	-	25	11.2	(5.6 - 20.0)
White	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All	-	-	-	-	-	-	-	-	-	-	-	-	39	12.1	(8.6 -16.6)
San Diego															
Hispanic	31	10.9	(7.4 -15.5)	33	11.8	41	14.0	43	13.9	35	10.9	(7.6 -15.2)	183	12.3	(10.5 -14.1)
White	54	6.2	(4.7 - 8.1)	48	5.7	48	5.5	52	6.2	53	6.2	(4.6 - 8.1)	255	6.0	(5.2 - 6.7)
All	99	7.1	(5.8 - 8.6)	97	6.8	115	8.1	109	7.5	101	7.0	(5.6 - 8.4)	521	7.3	(6.7 - 7.9)
California															
Hispanic	565	14.4	(13.2 - 15.6)	611	15.0	565	13.2	531	12.0	591	13.1	(12.0- 14.2)	2863	13.5	(13.0 - 14.0)
White	648	7.1	(6.6 -7.6)	656	7.3	576	6.2	608	6.8	602	6.7	(6.2 - 7.2)	3090	6.8	(6.6 - 7.1)
All	1531	9.0	(8.5 - 9.5)	1550	9.0	1444	8.2	1430	8.1	1504	8.4	(8.0 - 8.8)	7459	8.5	(8.3 - 8.7)

[a] all rates are per 100,000. Rates are age-adjusted to the 2000 U.S. Standard Million Population.
[b] 95% confidence interval
- data not available or insufficient case number for reporting
Source: California Cancer Registry

Chronic Disease: Obesity and Overweight

Table 2.3

Overweight and Obesity, Adults Ages 18 and Over, by Ethnicity, Gender and Region, 2003-2006									
Population	2001			2003			2005		
	%	95% C.I.[a]	Population Estimate	%	95% C.I.	Population Estimate	%	95% C.I.	Population Estimate
Imperial									
Hispanic	68.6	(63.2 - 74.0)	43,000	71.1	(65.7 - 76.5)	53,000	66.9	(60.0 - 73.9)	55,000
Male	71.6	(63.4 - 79.8)	23,000	77.3	(69.3 - 85.4)	28,000	72.4	(62.3 - 82.6)	30,000
Female	65.4	(58.4 - 72.4)	20,000	65.1	(58.0 - 72.1)	25,000	61.3	(52.0 - 70.6)	25,000
White	63.2	(55.5 - 71.0)	13,000	67.9	(54.9 - 81.0)	13,000	69.6	(60.0 - 79.2)	15,000
Male	63.2	(55.5 - 71.0)	13,000	82.8	(71.8 - 93.8)	9,000	79.0	(66.9 - 91.1)	8,000
Female	49.9	(39.6 - 60.2)	5,000	47.8	(35.8 - 59.7)	4,000	60.5	(46.3 - 74.7)	7,000
All	67.0	(62.6 - 71.5)	60,000	69.3	(64.3 - 74.3)	70,000	67.1	(61.5 - 72.8)	74,000
Male	73.1	(66.6 - 79.5)	33,000	77.4	(70.6 - 84.2)	39,000	72.1	(63.9 - 80.4)	40,000
Female	60.7	(54.8 - 66.5)	26,000	61.0	(54.8 - 67.2)	31,000	62.0	(54.3 - 69.7)	34,000
San Diego									
Hispanic	57.1	(51.6 - 62.7)	275,000	61.5	(55.8 - 67.3)	364,000	62.2	(57.3 - 67.1)	327,000
Male	55.9	(47.4 - 64.4)	132,000	67.8	(59.4 - 76.1)	196,000	71.2	(63.6 - 78.7)	182,000
Female	58.3	(51.1 - 65.4)	144,000	55.6	(47.7 - 63.4)	168,000	53.7	(47.5 - 60.0)	145,000
White	51.4	(48.7 - 54.2)	612,000	52.9	(49.8 - 56.0)	636,000	53.6	(51.0 - 56.2)	679,000
Male	63.2	(59.1 - 67.4)	379,000	65.0	(60.7 - 69.4)	388,000	66.7	(62.9 - 70.5)	415,000
Female	39.5	(35.9 - 43.0)	233,000	41.0	(37.0 - 45.0)	248,000	41.0	(37.6 - 44.4)	264,000
All	51.8	(49.4 - 54.2)	1,046,000	54.0	(51.3 - 56.6)	1,172,000	54.7	(52.5 - 56.9)	1,186,000
Male	59.3	(55.7 - 62.9)	598,000	63.6	(59.8 - 67.5)	676,000	66.9	(63.6 - 70.1)	713,000
Female	44.3	(41.1 - 47.5)	448,000	44.7	(41.3 - 48.2)	497,000	42.9	(40.1 - 45.7)	474,000
California									
Hispanic	65.8	(64.5 - 67.0)	4,400,000	65.0	(63.7 - 66.4)	5,117,000	66.0	(64.6 - 67.5)	5,382,000
Male	70.9	(69.2 - 72.7)	2,481,000	71.1	(69.1 - 73.0)	2,831,000	73.5	(71.4 - 75.6)	3,055,000
Female	60.1	(58.4 - 61.8)	1,919,000	58.9	(57.0 - 60.7)	2,286,000	58.2	(56.3 - 60.2)	2,327,000
White	52.8	(52.1 - 53.5)	6,475,000	53.7	(52.9 - 54.5)	6,739,000	54.3	(53.5 - 55.2)	6,980,000
Male	64.0	(62.9 - 65.0)	3,856,000	64.9	(63.7 - 66.1)	3,977,000	65.2	(63.9 - 66.4)	4,094,000
Female	42.0	(41.1 - 43.0)	2,619,000	43.1	(42.0 - 44.1)	2,762,000	43.9	(42.8 - 45.0)	2,886,000
All	54.9	(54.3 - 55.5)	13,086,000	55.6	(54.9 - 56.2)	14,221,000	56.1	(55.4 - 56.8)	14,800,000
Male	63.8	(62.9 - 64.6)	7,546,000	64.5	(63.5 - 65.5)	8,091,000	65.6	(64.6 - 66.7)	8,497,000
Female	46.1	(45.3 - 46.9)	5,540,000	47.0	(46.1 - 47.8)	6,130,000	46.9	(46.0 - 47.8)	6,303,000

[a] C.I. = confidence interval, a measure of statistical uncertainty

Source: 2001, 2003, 2005 California Health Interview Survey

Healthy People 2010 Objective 19-1: No more than 40% of adults age 20 and older will be overweight or obese (BMI equal to or greater than 25).

Chronic Disease: Obesity and Overweight

Table 2.4

Overweight and Obesity, BMI-for-Age at or Above 95th Percentile, Adolescents Ages 12-17, 2003-2005		
Population	**2003-2005**	
	%	**95% C.I.[a]**
Imperial		
Hispanic	34.5	(22.8 - 46.1)
White	24.3*	(1.0 - 47.7)
All	31.9	(21.4 - 42.4)
San Diego		
Hispanic	21.6	(13.4 - 29.9)
White	5.8	(2.5 - 9.1)
All	12.5	(8.6 - 16.4)
California		
Hispanic	18.4	(16.3 - 20.5)
White	9.1	(7.7 - 10.4)
All	13.3	(12.2 - 14.4)

[a] C.I. = Confidence Interval, a measure of statistical uncertainty

* = statistically unstable

Source: 2003, 2005 California Health Interview Survey
HP 2010 Objective 19-3: No more than 5% of children and adolescents ages 6-19 will be overweight or obese.

Chronic Disease: Obesity and Overweight

Table 2.5

Vigorous Physical Activity, Adults Ages 18 and Over, 2005			
Population	**%**	**95% C.I.[a]**	**Population Estimate**
Imperial			
Hispanic	25.8	(15.7 - 36.0)	10,000
Male	34.9	(18.2 - 51.7)	7,000
Female	16.5*	(6.3 - 26.7)	3,000
White	21.9*	(5.8 - 38.0)	2,000
Male	24.3*	(2.0 - 46.7)	1,000
Female	18.8*	(0 - 41.8)	1,000
All	25.5	(17.0 - 34.1)	12,000
Male	34.0	(20.1 - 48.0)	8,000
Female	16.8	(7.8 - 25.7)	4,000
San Diego			
Hispanic	33.0	(25.3 - 40.6)	65,000
Male	35.7	(24.6 - 46.9)	38,000
Female	29.7	(19.2 - 40.3)	27,000
White	38.8	(34.9 - 42.7)	222,000
Male	47.7	(41.8 - 53.6)	134,000
Female	30.2	(25.3 - 35.0)	88,000
All	36.5	(33.3 - 39.7)	333,000
Male	43.4	(38.5 - 48.4)	205,000
Female	29.1	(25.0 - 33.2)	129,000
California			
Hispanic	29.6	(27.4 - 31.8)	1,013,000
Male	34.6	(31.3 - 37.9)	662,000
Female	23.3	(20.7 - 25.9)	351,000
White	34.5	(33.3 - 35.8)	2,008,000
Male	40.4	(38.4 - 42.3)	1,173,000
Female	28.7	(27.1 - 30.3)	835,000
All	32.7	(31.6 - 33.7)	3,731,000
Male	38.7	(37.0 - 40.3)	2,284,000
Female	26.2	(25.0 - 27.5)	1,448,000

[a] C.I. = Confidence Interval, a measure of statistical uncertainty

* = statistically unstable

Source: 2005 California Health Interview Survey
Healthy People 2010 Objective 22-3: At least 30% of adults will engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness for at least 20 minutes per day 3 or more days per week.

Chronic Disease: Obesity and Overweight

Table 2.6

Vigorous Physical Activity at Least 3 Days Per Week, Adolescents Ages 12-17, 2003			
Population	**%**	**95% C.I.[a]**	**Population Estimate**
Imperial			
Hispanic	61.7	(48.3 - 75.0)	9,000
White	28.6*	(0 - 59.0)	1,000
All	54.9	(42.5 - 67.4)	10,000
San Diego			
Hispanic	69.1	(54.6 - 83.6)	70,000
White	70.6	(60.0 - 81.1)	73,000
All	67	(58.8 - 75.3)	173,000
California			
Hispanic	63.9	(60.3 - 67.4)	893,000
White	72	(69.2 - 74.9)	833,000
All	65.8	(63.7 - 68.0)	2,146,000

[a] C.I. = Confidence Interval, a measure of statistical uncertainty

* = statistically unstable

Source: 2003 California Health Interview Survey

Healthy People 2010 Objective 22-7: At least 85% of adolescents will engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days a week for 20 or more minutes per occasion.

Environmental Health: Asthma

Table 3.1.

Lifetime Asthma Prevalence by Age, Ethnicity, and Region, 2003 and 2005												
	All Ages				Adults (18+)				Kids (1-17)			
Population	2003		2005		2003		2005		2003		2005	
	%	95% CI [a]	%	95% CI [a]	%	95% CI [a]	%	95% CI [a]	%	95% CI [a]	%	95% CI [a]
Imperial												
Hispanic	10.4	(7.3 - 13.5)	10.2	(6.0 - 14.5)	7.7	(4.4 - 11.0)	6.9	(3.2 - 10.6)	16	(9.5 - 22.5)	-	-
White	27.1	(20.7 - 33.6)	23.8	(15.7 - 32.0)	25.7	(19.2 - 32.2)	24.9	(15.7 - 34.1)	32.4	(14.2 - 50.7)	-	-
All	14.2	(11.4 - 16.9)	14.7	(11.0 - 18.4)	11.8	(9.0 - 14.6)	12.8	(9.0 - 16.5)	19.3	(13.2 - 25.5)	19.4	(10.7 - 28.1)
San Diego												
Hispanic	6.2	(3.3 - 9.0)	9	(6.7 - 11.3)	4.2	(2.0 - 6.4)	7.3	(4.6 - 10.0)	-	-	12.3	(8.2 - 16.5)
White	13	(11.3 - 14.8)	13.1	(11.4 - 14.8)	13.1	(11.1 - 15.1)	12.4	(10.6 - 14.2)	12.7	(8.6 - 16.8)	15.5	(11.6 - 19.3)
All	10.9	(9.6 - 12.3)	12.4	(11.1 - 13.7)	10.6	(9.2 - 12.1)	11.8	(10.3 - 13.3)	12	(8.7 - 15.3)	14.1	(11.6 - 16.7)
California												
Hispanic	10.3	(9.5 - 11.1)	9.8	(9.0 - 10.6)	8.7	(7.8 - 9.6)	8.4	(7.5 - 9.3)	13.7	(12.1 - 15.3)	12.8	(11.3 - 14.4)
White	14.3	(13.8 - 14.8)	15.5	(15.0 - 16.1)	13.9	(13.4 - 14.5)	15	(14.4 - 15.6)	15.7	(14.4 - 16.9)	17.5	(16.1 - 18.9)
All	13.1	(12.7 - 13.5)	13.6	(13.2 - 14.0)	12.3	(11.9 - 12.8)	12.7	(12.3 - 13.2)	15.4	(14.5 - 16.4)	16.1	(15.2 - 17.1)

[a] 95% confidence interval
- statistically unstable estimates
Source: 2003 and 2005 California Health Interview Survey

Environmental Health: Asthma

Table 3.2

Asthma Emergency Department Visits, Age-Adjusted Rates, by Age, Ethnicity, and Region, 2006									
Population	**All Ages**			**Adults (18+)**			**Children (0-17)**		
	Cases	**Rates [a]**	**95% CI [b]**	**Cases**	**Rates [a]**	**95% CI [b]**	**Cases**	**Rates [a]**	**95% CI [b]**
Imperial									
Hispanic	1,095	86.2	(81.1-91.5)	429	50.3	(45.6-55.1)	666	182.9	(169.4-196.9)
White	194	86.7	(75.5-98.6)	111	48.6	(39.6-58.5)	83	170.8	(135.9-209.6)
All	1,382	82.8	(78.5-87.2)	596	50.9	(47.0-55.0)	786	174.6	(162.6-187.0)
San Diego									
Hispanic	3,332	34.5	(33.2-35.9)	1,305	24.4	(23.0-25.9)	2,027	62.7	(59.9-65.5)
White	4,078	28.3	(27.5-29.1)	2,972	22.9	(22.0-23.7)	1,106	33.5	(31.6-35.5)
All	10,618	35.5	(34.8-36.2)	6,122	25.8	(25.1-26.5)	4,496	63.1	(61.4-64.9)
California									
Hispanic	52,410	37.5	(37.1-37.9)	24,457	30.9	(30.5-31.4)	27,953	57.6	(57.0-58.3)
White	57,837	39.3	(39.0-39.6)	42,131	32.9	(32.6-33.2)	15,706	50.9	(50.1-51.7)
All	164,334	44.1	(43.9-44.3)	98,995	35.8	(35.6-36.0)	65,339	68	(67.5-68.5)

[a] age-adjusted rate per 10,000 population
[b] 95% confidence interval
Source: California Office of Statewide Health Planning and Development (OSHPD) Emergency Department Databases

Environmental Health: Asthma

Table 3.3

Age-Adjusted Asthma Hospitalization Rates for all Ages, by Ethnicity, and Region, 2000-2006									
Population	**2000**			**2003**			**2006**		
	Cases	**Rates [a]**	**95% CI [b]**	**Cases**	**Rates [a]**	**95% CI [b]**	**Cases**	**Rates [a]**	**95% CI [b]**
Imperial									
Hispanic	223	21.3	(18.4-24.4)	247	21.8	(19.1-24.8)	210	16.7	(14.5-19.1)
White	58	24.5	(18.9-30.8)	63	25.8	(19.9-32.5)	47	22.9	(17.3-29.2)
All	301	21.1	(18.7-23.6)	328	21.3	(19.1-23.7)	275	16.5	(14.6-18.5)
San Diego									
Hispanic	645	15.5	(14.5-16.5)	711	9.3	(8.6-10.0)	485	6.2	(5.7-6.8)
White	1,190	8.5	(8.0-9.0)	1,183	7.7	(7.3-8.2)	875	5.5	(5.1-5.9)
All	2,463	9.4	(9.0-9.7)	2,619	9.3	(8.9-9.6)	1,898	6.4	(6.1-6.7)
California									
Hispanic	10,295	10.2	(10.0-10.4)	11,472	11.0	(10.8-11.2)	9,718	8.7	(8.5-8.9)
White	15,440	10.0	(9.8-10.2)	16,672	10.3	(10.1-10.4)	13,227	8.0	(7.9-8.1)
All	37,096	11.0	(10.9-11.1)	39,904	11.1	(11.0-11.2)	33,235	9.0	(9.0-9.2)

[a] age-adjusted rate per 10,000 population
[b] 95% confidence interval
Source: California Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Databases

Environmental Health: Asthma

Table 3.4

Age-Adjusted Asthma Hospitalization Rates, by Age Group, Ethnicity, and Region, 2003 and 2006												
Population	All Ages				Adults (18+)				Kids (1-17)			
	2003		2006		2003		2006		2003		2006	
	Rates [a]	95% CI [b]	Rates [a]	95% CI [b]	Rates [a]	95% CI [b]	Rates [a]	95% CI [b]	Rates [a]	95% CI [b]	Rates [a]	95% CI [b]
Imperial												
Hispanic	21.8	(19.1-24.8)	16.7	(14.5-19.1)	13	(10.5-15.8)	8.3	(6.4-10.3)	47.4	(40.7-54.7)	40	(33.6, 46.4)
White	25.8	(19.9-32.5)	22.9	(17.3-29.2)	16.2	(11.2-22.1)	7.3	(4.1-11.4)	55.2	(36.3-77.9)	59.1	(38.9, 86.0)
All	21.3	(19.1-23.7)	16.5	(14.6-18.5)	12.7	(10.6-14.9)	7.8	(6.3-9.5)	46.2	(40.2-52.7)	41.7	(35.8, 47.6)
San Diego												
Hispanic	9.3	(8.6-10.0)	6.2	(5.7-6.8)	7.1	(6.4-7.9)	5.7	(5.1-6.4)	15.8	(14.3-17.3)	7.7	(6.8-8.7)
White	7.7	(7.3-8.2)	5.5	(5.1-5.9)	6.7	(6.2-7.2)	4.8	(4.4-5.2)	10.6	(9.5-11.8)	5.7	(5.0-6.6)
All	9.3	(8.9-9.6)	6.4	(6.1-6.7)	7.1	(6.4-7.9)	5.7	(5.1-6.4)	13.8	(12.9-14.6)	8.6	(8.0-9.3)
California												
Hispanic	11	(10.8-11.2)	8.7	(8.5-8.9)	10	(9.8-10.3)	8.1	(7.9-8.3)	13.7	(13.4-14.1)	10.4	(10.1-10.6)
White	10.3	(10.1-10.4)	8	(7.9-8.1)	8.9	(8.7-9.1)	7.1	(7.0-7.3)	14.2	(13.7-14.6)	9.6	(9.3-10.0)
All	11.1	(11.0-11.2)	9	(9.0-9.2)	9.6	(9.4-9.7)	8.1	(8.0-8.2)	15.5	(15.3-15.8)	11.9	(11.7-12.1)

[a] age-adjusted rate per 10,000 population
[b] 95% confidence interval
Source: California Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Databases

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.1.

Campylobacteriosis Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI**
Imperial														
Hispanic	15	10.2	(5.7-16.8)	31	25.5	30	25.99	25	20.85	14	11.24	0	0	0
White	1	3.49	(0.1-19.4)	7	24.68	4	14.2	2	7.16	1	3.6	1	3.58	(0.1-19.9)
All	21	14.38	(8.9-22.0)	39	26.09	35	22.71	29	18.28	23	14.07	46	27.22	(19.9-36.3)
San Diego														
Hispanic	179	15.9	(13.6-18.2)	231	29.2	232	28.44	217	26.01	180	21.11	145	16.66	(13.9-19.4)
White	219	13.66	(11.9-15.5)	206	12.66	255	15.49	200	12.06	194	11.66	183	10.97	(9.4-12.6)
All	491	16.97	(15.5-18.5)	559	18.94	580	19.34	534	17.64	487	15.96	1,197	38.89	(36.7-41.1)
California														
Hispanic	1,594	13.92	(13.2-14.6)	1,674	14.16	1,513	12.4	1,258	10.01	1,224	9.48	1,185	8.96	(8.4-9.5)
White	1,382	8.52	(8.1-9.0)	1,296	7.96	1,288	7.88	1,250	7.62	1,165	7.1	1,197	7.29	(6.9-7.7)
All	5,747	16.53	(16.1-17.0)	5,848	16.54	5,451	15.17	5,099	13.99	4,780	12.96	4,640	12.43	(12.1-12.8)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.2

Giardiasis Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI[b]**
Imperial														
Hispanic	4	3.74	(1.0-9.6)	4	3.61	3	2.6	8	6.67	1	0.8	2	1.55	(0.2-5.6)
White	0	0	0	0	0	0	0	0	0	1	3.6	0	0	0
All	6	4.11	(1.5-8.9)	5	3.34	4	2.6	9	5.67	4	2.45	3	1.78	(0.4-5.2)
San Diego														
Hispanic	43	5.54	(4.0-7.5)	33	4.2	37	4.54	29	3.48	28	3.28	37	4.25	(3.0-5.9)
White	156	9.73	(8.2-11.3)	90	5	115	6.99	101	6.09	104	6.25	106	6.35	(5.1-7.6)
All	298	10.3	(9.1-11.5)	191	6.47	192	6.4	174	5.75	166	5.44	231	7.51	(6.5-8.5)
California														
Hispanic	672	5.87	(5.4-5.3)	521	4.41	416	3.41	357	2.84	367	2.84	412	3.11	(2.8-3.4)
White	926	5.71	(5.3-6.1)	778	4.78	708	4.33	559	3.41	688	4.19	671	4.08	(3.8 -4.4)
All	3,080	8.86	(8.5-9.2)	2,561	7.24	2281	6.35	2,160	5.93	2,404	6.52	2,305	6.17	(5.9-6.4)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.3

Amebiasis Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI[b]**
Imperial														
Hispanic	0	0	0	1	0.9	0	0	0	0	1	0.8	0	0	0
White	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All	0	0	0	1	0.67	0	0	0	0	1	0.61	0	0	0
San Diego														
Hispanic	5	0.64	(0.2-1.5)	5	0.63	3	0.37	6	0.72	3	0.35	4	0.46	(0.1-1.2)
White	9	0.56	(0.3-1.1)	9	0.55	1	0.06	7	0.42	4	0.24	2	0.12	(0.0-0.4)
All	33	1.14	(0.8-1.6)	22	0.75	13	0.43	16	0.53	12	0.39	21	0.68	(0.4-1.0)
California														
Hispanic	168	1.47	(1.2-1.7)	160	1.35	114	0.93	106	0.84	106	0.82	96	0.73	(0.6-0.9)
White	162	1	(0.8-1.2)	163	1	158	0.97	103	0.63	153	0.93	120	0.73	(0.6-0.9)
All	568	1.63	(1.5-1.8)	459	1.3	425	1.18	336	0.92	377	1.02	341	0.91	(0.8-1.0)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.4

E. Coli Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI[b]**
Imperial														
Hispanic	2	1.87	(0.2-6.8)	1	3.53	0	0	1	0.83	1	0.8	1	0.77	(0.0-4.3)
White	1	3.49	(0.1-19.4)	0	0	1	3.55	0	0	0	0	0	0	0
All	3	2.05	(0.4-6.0)	1	0.67	1	0.65	1	0.63	1	0.61	1	0.59	(0.0-3.3)
San Diego														
Hispanic	5	0.64	(0.2-1.5)	2	0.25	6	0.74	1	0.12	3	0.35	2	0.23	(0.0-0.8)
White	14	0.87	(0.5-1.5)	17	1.11	27	1.64	8	0.48	9	0.54	8	0.48	(0.2-0.9)
All	23	0.79	(0.5-1.2)	22	0.75	39	1.3	14	0.46	15	0.49	11	0.35	(0.2-0.6)
California														
Hispanic	47	0.41	(0.3-0.5)	48	0.41	37	0.3	23	0.18	27	0.21	47	0.36	(0.3-0.5)
White	120	0.74	(0.6-0.9)	148	0.91	170	1.04	111	0.68	92	0.56	132	0.8	(0.7-0.9)
All	254	0.73	(0.6-0.8)	293	0.83	291	0.81	238	0.65	182	0.49	264	0.71	(0.6-0.8)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.5

Shigellosis Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI[b]**
Imperial														
Hispanic	15	14.01	(7.8-23.1)	54	44.4	13	11.26	25	20.85	15	12.05	3	2.32	0.5-6.8
White	2	6.98	(0.8-25.2)	3	8.5	3	10.65	2	7.16	3	10.81	3	10.75	2.2-31.4
All	21	14.38	(8.9-22.0)	53	35.45	18	11.68	27	17.02	36	22.02	25	14.79	9.6-21.8
San Diego														
Hispanic	105	13.52	(10.9-16.1)	191	21.1	126	15.45	103	12.35	102	11.96	158	18.15	15.3-21.0
White	90	5.62	(4.5-6.9)	89	5	61	3.71	56	3.38	59	3.55	105	6.29	5.1-7.5
All	221	7.64	(6.6-8.6)	327	11.08	232	7.74	193	6.38	207	6.78	325	10.56	9.4-11.7
California														
Hispanic	938	8.19	(7.7-8.7)	1,405	11.88	1,120	9.18	928	7.39	1,185	9.18	963	7.28	6.8-7.7
White	621	3.83	(3.5-4.1)	598	3.67	471	2.88	348	2.12	425	2.59	416	2.53	2.3-2.8
All	2,149	6.18	(5.9-6.4)	2,742	7.75	2,149	5.98	1,774	4.87	2,278	6.17	1,873	5.02	4.8-5.2

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.6

Salmonellosis Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI[b]**
Imperial														
Hispanic	14	13.07	(7.1-21.9)	20	16.5	19	16.46	17	14.18	28	22.49	9	6.96	(3.2-13.2)
White	3	10.47	(2.2-30.6)	5	14.2	4	21.79	6	21.47	4	14.41	0	0	0
All	21	14.38	(8.9-22.0)	27	18.06	25	16.22	23	14.5	48	29.35	27	15.98	(10.5-23.3)
San Diego														
Hispanic	85	10.94	(8.7-13.5)	89	11.2	126	15.45	153	18.34	126	14.78	166	19.07	(16.2-22.0)
White	167	10.42	(8.8-12.0)	155	8.7	209	12.7	172	10.37	179	10.76	251	15.04	(13.2-16.9)
All	491	16.97	(15.5-18.5)	553	18.74	436	14.54	452	14.93	443	14.52	520	16.89	(15.4-18.3)
California														
Hispanic	1137	9.93	(9.4-10.5)	1,286	10.88	1,278	10.47	1,314	10.46	1,373	10.64	1,539	11.64	(11.1-12.2)
White	1,176	7.25	(6.8-7.7)	1,150	7.06	1,101	6.73	1,191	7.26	1,293	7.88	1,554	9.46	(9.0-9.9)
All	5,747	16.53	(16.1-17.0)	5,848	16.54	4,126	11.48	4,282	11.75	4,546	12.32	4,940	13.23	(12.9-13.6)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.7

Cysticercosis Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI[b]**
Imperial														
Hispanic	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White	0	0	0	6	21.16	0	0	0	0	0	0	0	0	0
All	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Diego														
Hispanic	4	3.5	(1.0-9.0)	0	0	1	0.12	4	0.48	2	0.23	0	0	0
White	0	0	0	0	0	1	0.06	0	0	1	0.06	1	0.06	(0.0-0.3)
All	6	0.21	(0.1-0.5)	6	0.2	2	0.07	6	0.2	2	0.07	2	0.06	(0.0-0.2)
California														
Hispanic	67	6.5	(5.0-8.3)	4	6.6	40	0.33	57	0.45	43	0.33	41	0.31	(0.2-0.4)
White	5	0.3	(0.1-0.7)	0	0	6	0.04	2	0.01	1	0.01	3	0.02	(0.0-0.1)
All	86	0.25	(0.2-0.3)	82	0.23	52	1.73	70	2.31	53	1.74	50	1.62	(1.2-2.1)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.8

Listeriosis Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI[b]**
Imperial														
Hispanic	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All	0	0	0	9	6.02	0	0	0	0	0	0	0	0	0
San Diego														
Hispanic	1	0.13	(0.0-0.7)	3	0.38	3	0.37	8	0.96	3	0.35	8	0.92	(0.4-1.8)
White	8	4.99	(2.2-9.8)	6	0.37	7	0.43	2	0.12	7	0.42	10	0.6	(0.3-1.1)
All	15	0.52	(0.3-0.9)	10	0.34	12	0.4	14	0.46	17	0.56	25	0.81	(0.5-1.2)
California														
Hispanic	23	0.2	(0.1-0.3)	21	0.18	27	0.22	37	0.29	40	0.31	0	0	0
White	47	0.29	(0.2-0.4)	29	0.18	33	0.2	32	0.2	50	0.3	48	0.29	(0.2-0.4)
All	122	0.35	(0.3-0.4)	83	0.23	98	0.27	114	0.31	132	0.36	124	0.33	(0.3-0.4)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.9

Cryptosporidiosis Rates by Ethnicity and Region, 2001-2006														
Population	2001			2002		2003		2004		2005		2006		
	Cases	Rates[a]	95% CI[b]	Cases	Rates[a]	Cases	Rates[a]	Cases	Rates[a]	Cases	Rates[a]	Cases	Rates[a]	95% CI[b]
Imperial														
Hispanic	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Diego														
Hispanic	3	0.39	(0.1-1.1)	5	0.63	9	1.1	2	0.24	11	1.29	14	1.61	(0.9-2.7)
White	5	0.31	(0.1-0.7)	11	0.68	15	0.91	7	0.42	5	0.3	2	0.12	(0.0-0.4)
All	30	1.04	(0.7-1.5)	37	1.25	46	1.53	29	0.96	24	0.79	27	0.88	(0.6-1.3)
California														
Hispanic	44	0.38	(0.3-0.5)	30	0.25	65	0.53	50	0.4	48	0.37	64	0.48	(0.4-0.6)
White	65	0.4	(0.3-0.5)	75	0.46	92	0.56	117	0.71	62	0.38	101	0.62	(0.5-0.7)
All	229	0.66	(0.6-0.7)	200	0.57	287	0.8	297	0.81	214	0.58	340	0.91	(0.8-1.0)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Foodborne and Waterborne Diseases

Table 4.10

Hepatitis A Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% CI[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% CI[b]**
Imperial														
Hispanic	10	9.34	(4.5-17.2)	13	11.73	16	13.86	7	5.84	2	1.61	5	3.87	(1.3-9.0)
White	1	3.49	(0.1-19.4)	0	0	2	7.1	0	0	0	0	1	3.58	(0.1-19.9)
All	14	9.59	(5.2-16.1)	14	9.36	20	12.98	10	6.3	3	1.83	7	4.14	(1.7-8.5)
San Diego														
Hispanic	62	7.98	(6.1-10.2)	64	8.04	57	6.99	30	3.6	27	3.17	22	2.53	(1.6-3.8)
White	57	3.56	(2.7-4.6)	78	4.79	47	2.86	34	2.05	14	0.84	29	1.74	(1.2-2.5)
All	148	5.11	(4.3-5.9)	175	5.93	130	4.34	81	2.68	76	2.49	82	2.66	(2.1-3.3)
California														
Hispanic	655	5.72	(5.3-6.2)	416	3.52	350	2.87	256	2.04	276	2.14	285	2.15	(1.9-2.4)
White	612	3.77	(3.5-4.1)	574	3.52	383	2.34	283	1.73	326	1.99	354	2.16	(1.9-2.4)
All	1,848	5.32	(5.1-5.6)	1,452	4.11	1,147	3.19	885	2.43	971	2.63	992	2.66	(2.5-2.8)

[a] rates calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health

Infectious Disease: Sexually Transmitted Diseases

Table 4.11

Chlamydia Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rates[a]**	**95% C.I.[b]**	**Cases**	**Rates[a]**	**Cases**	**Rates***	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**Cases**	**Rates[a]**	**95% C.I.[b]**
Imperial														
Hispanic	297	277.4	(245.9 - 308.9)	228	205.8	199	172.4	146	121.8	255	204.8	363	280.7	(251.8 - 309.6)
White	30	104.7	(67.2 - 142.2)	18	63.5	9	31.9	11	39.4	9	32.4	17	60.9	(35.5 - 97.5)
All	450	308.2	(279.7 - 336.7)	470	314.4	414	268.6	360	226.9	401	245.2	587	347.4	(319.3 - 375.5)
San Diego														
Hispanic	1,777	228.8	(218.2 - 239.4)	2,188	274.7	2,071	253.9	2,279	273.2	2,177	255.3	2,339	268.7	(257.8 - 279.6)
White	1,188	74.1	(69.9 - 78.3)	1,335	82.0	1,336	81.2	1,459	87.9	1,363	81.9	1,312	78.6	(74.3 - 82.9)
All	9,094	314.2	(307.7 - 320.7)	10,320	349.6	10,266	342.4	10,784	356.2	11,164	365.9	11,881	386.0	(379.1 - 392.9)
California														
Hispanic	34,031	297.1	(293.9 - 300.3)	37,645	318.4	39,628	324.7	40,944	325.9	43,970	340.7	45,384	343.1	(339.9 - 346.3
White	11,741	72.4	(71.1 - 73.7)	13,634	83.7	16,461	100.7	17,375	105.9	17,617	107.4	17,573	107.0	(105.4 - 108.6)
All	101,590	292.2	(290.4 - 294.0)	110,763	313.2	116,390	323.8	123,482	338.7	129,134	350.0	136,217	364.9	(363.0 - 366.8)

[a] rate is calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health, STD Control Branch

Infectious Disease: Sexually Transmitted Diseases

Table 4.12

Gonorrhea Rates by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rate[a]**	**95% C.I.[b]**	**Cases**	**Rate[a]**	**Cases**	**Rate[a]**	**Cases**	**Rate[a]**	**Cases**	**Rate[a]**	**Cases**	**Rate[a]**	**95% C.I.[b]**
Imperial														
Hispanic	23	21.5	(13.6, 32.3)	28	25.3	18	15.6	18	15.0	36	28.9	24	18.6	(11.9, 27.7)
White	2	7.0	(0.8, 25.3)	2	7.1	2	7.1	3	10.7	4	14.4	0	0.0	N/A
All	40	27.4	(19.6, 37.3)	63	42.1	37	24.0	48	30.3	64	39.1	43	25.4	(18.4, 34.2)
San Diego														
Hispanic	220	28.3	(24.6, 32.0)	236	29.6	284	34.8	327	39.2	288	33.8	299	34.4	(30.5, 38.3)
White	410	25.6	(23.1, 28.1)	449	27.6	376	22.8	413	24.9	323	19.4	261	15.6	(13.7, 17.5)
All	1,872	64.7	(61.8, 67.6)	2,129	72.1	1,982	66.1	2,354	77.8	2,632	86.3	2,767	89.9	(86.6, 93.2)
California														
Hispanic	3,879	33.9	(32.8, 35.0)	4,413	37.3	5,096	41.8	6,132	48.8	7,229	56.0	6,929	52.4	(51.2, 53.6)
White	3,475	21.4	(20.7, 22.1)	3,945	24.2	4,927	30.1	5,587	34.1	5,983	36.5	5,547	33.8	(32.9, 34.7)
All	23,285	67.0	(66.1, 67.9)	24,673	69.8	25,694	71.5	30,483	83.6	34,097	92.4	33,778	90.5	(90.0, 91.5)

[a] rate is calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health, STD Control Branch

Infectious Disease: Sexually Transmitted Diseases

Table 4.13

Primary and Secondary Syphilis by Ethnicity and Region, 2001-2006														
Population	2001			2002		2003		2004		2005		2006		
	Cases	Rate[a]	95% C.I.[b]	Cases	Rate[a]	Cases	Rate[a]	Cases	Rate[a]	Cases	Rate[a]	Cases	Rate[a]	95% C.I.[b]
Imperial														
Hispanic	0	0	0	0	0	2	1.7	0	0	1	0.8	1	0.8	(0.0 - 4.5)
White	0	0	0	0	0	0	0	0	0	0	0	1	3.6	(0.1 - 20.1)
All	0	0	0	0	0	2	1.3	0	0	1	0.6	2	1.2	(0.1 - 4.3)
San Diego														
Hispanic	12	1.5	(0.8 - 2.6)	10	1.3	29	3.6	35	4.2	55	6.5	66	7.6	(5.9 - 9.7)
White	14	0.9	(0.5 - 1.5)	18	1.1	76	4.6	82	4.9	109	6.6	140	8.4	(7.0 - 9.8)
All	28	1.0	(0.7 - 1.4)	39	1.3	111	3.7	136	4.5	192	6.3	239	7.8	(6.8 - 8.8)
California														
Hispanic	177	1.5	(1.3 - 1.7)	269	2.3	359	2.9	370	2.9	475	3.7	550	4.2	(3.8 - 4.6)
White	240	1.5	(1.3 - 1.7)	587	3.6	739	4.5	717	4.4	805	4.9	865	5.3	(4.9 - 5.7)
All	547	1.6	(1.5 - 1.7)	1,064	3.0	1305	3.6	1374	3.8	1,607	4.4	1,847	4.9	(4.7 - 5.1)

[a] rate is calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health, STD Control Branch

Infectious Disease: Sexually Transmitted Diseases

Table 4.14

Congenital Syphilis by Ethnicity and Region, 2001-2006														
Population	**2001**			**2002**		**2003**		**2004**		**2005**		**2006**		
	Cases	**Rate[a]**	**95% C.I.[b]**	**Cases**	**Rate[a]**	**Cases**	**Rate[a]**	**Cases**	**Rate[a]**	**Cases**	**Rate[a]**	**Cases**	**Rate[a]**	**95% C.I.[b]**
Imperial														
Hispanic	1	43.9	(1.1 - 244.6)	0	0	1	38.8	3	118.1	2	73.0	1	35.4	(0.9 - 197.2)
White	0	0	0	0	0	0	0.0	0	0.0	0	0.0	0	0	0
All	1	38.5	(1.0 - 214.5)	0	0	1	34.4	3	104.9	2	65.4	1	32.0	(0.8 - 178.3)
San Diego														
Hispanic	6	31.0	(11.4 - 67.5)	3	15.3	8	40.1	5	25.3	5	24.6	10	48.7	(23.4 - 89.6)
White	0	0.0	0	0	0	1	6.1	0	0.0	1	6.5	1	6.5	(0.2 - 36.2)
All	7	16.0	(6.4 - 60.6)	3	6.8	10	22.0	7	15.3	7	15.3	12	25.6	(13.2 - 44.7)
California														
Hispanic	45	17.2	(12.5 - 23.0)	35	13.3	45	16.7	42	15.3	39	13.8	53	18.1	(13.6 - 23.7)
White	6	3.7	(1.4 - 8.1)	4	2.5	5	3.1	6	3.8	8	5.1	5	3.2	(1.0 - 7.5)
All	62	11.8	(9.0 - 15.1)	50	9.4	69	12.8	63	11.6	70	12.8	70	12.5	(9.7 - 15.8)

[a] Rate is calculated per 100,000 population
[b] 95% confidence interval
Source: California Department of Public Health, STD Control Branch

Infectious Disease: Sexually Transmitted Diseases

Table 4.15

Total HIV Cases by Ethnicity, Gender and Region, 2003-2005									
Population	**2003**			**2004**			**2005**		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Border Counties[a]									
Hispanic	290	60	350	154	22	176	90	21	111
White	890	69	959	367	20	387	262	26	288
all	1,347	178	1,525	615	62	677	409	69	478
California									
Hispanic	3,333	663	3,996	2,101	382	2,483	1,586	246	1,832
White	7,207	570	7,777	3,696	305	4,001	2,579	208	2,787
all	13,859	2,236	16,095	7,398	1,176	8,574	5,601	854	6,455

[a] San Diego and Imperial counties

Source: California Department of Health Services, Office of AIDS, HIV/AIDS Case Registry Section, data as of 3/31/06

Infectious Disease: Sexually Transmitted Diseases

Table 4.16

Total HIV/AIDS Cases by Ethnicity, Gender and Region, 2003-2005									
Population	**2003**			**2004**			**2005**		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Border Counties[a]									
Hispanic	152	30	182	158	22	180	136	27	163
White	242	20	262	222	12	234	188	6	194
all	484	70	554	455	46	501	369	44	413
California									
Hispanic	1,821	281	2,102	1,412	187	1,599	1,060	133	1,193
White	2,373	202	2,575	1,694	130	1,824	1,205	88	1,293
all	5,437	818	6,255	3,941	524	4,465	2,913	389	3,302

[a] San Diego and Imperial counties

Source: California Department of Health Services, Office of AIDS, HIV/AIDS Case Registry Section, data as of 3/31/06

Infectious Disease: Sexually Transmitted Diseases

Table 4.17

Male HIV Cases by Transmission Category as Percent of Total Male Cases by Ethnicity and Region, 2005											
Population	MSM[b]		IDU[c]		MSM & IDU		Heterosexual Contact		Other[d]		Total
	Male Cases	% of Male Cases	Male Cases	% of Male Cases	Male Cases	% of Male Cases	Male Cases	% of Male Cases	Male Cases	% of Male Cases	Male Cases
Border Counties[a]											
Hispanic	64	71.1%	5	5.6%	5	5.6%	*	*	*	*	90
White	221	84.4%	20	7.6%	7	2.7%	*	*	*	*	262
all	319	78.0%	33	8.1%	14	3.4%	12	2.9%	31	7.6%	409
California											
Hispanic	1,088	68.6%	73	4.6%	61	3.8%	46	2.9%	318	20.1%	1,586
White	2,003	77.7%	119	4.6%	173	6.7%	41	1.6%	243	9.4%	2,579
all	3,839	68.5%	287	5.1%	271	4.8%	175	3.1%	1,029	18.4%	5,601

[a] San Diego and Imperial counties
[b] men who have sex with men
[c] intravenous drug use
[d] hemophiliac, transfusion of blood, or blood products/transplant; confirmed other risk; no identified risk; and pediatric
Source: California Department of Health Services, Office of AIDS, HIV/AIDS Case Registry Section, data as of 3/31/06

Infectious Disease: Tuberculosis

Table 4.18

Tuberculosis Cases and Rates, 2003-2006														
Population	2001			2002		2003		2004		2005		2006		
	Cases	Rate[a]	95% C.I.[b]	Cases	Rate[a]	Cases	Rate[a]	Cases	Rate[a]	Cases	Rate[a]	Cases	Rate[a]	95% C.I.[b]
Imperial														
Hispanic	21	19.6	(12.1-30.0)	27	24.4	25	21.7	28	23.4	30	24.1	30	23.9	(16.1- 34.1)
White	2	7.0	(0.8 -25.3)	1	3.5	0	0.0	2	7.15	1	3.6	2	7.4	(0.9 -26.7)
All	25	15.5	(10.0 - 22.9)	29	17.3	25	16.1	31	19.4	32	19.4	33	19.4	(13.4, 27.2)
San Diego														
Hispanic	164	21.1	(17.9 - 24.3)	154	19.3	159	19.5	177	21.2	161	18.9	168	20.2	(17.1-23.3)
White	49	3.1	(2.3 - 4.1)	46	2.8	41	2.5	25	1.5	31	1.9	26	1.6	(1.0 - 2.3)
All	332	11.0	(9.8 - 12.2)	326	10.6	316	10.6	320	10.6	305	10.0	315	10.2	(9.1 - 11.3)
California														
Hispanic	1,252	10.9	(10.3 - 11.5)	1,273	10.8	1,281	10.5	1,173	9.3	1,126	8.7	1068	7.9	(7.4 - 8.4)
White	365	2.3	(2.1 -2.5)	323	2.0	332	2.0	293	1.8	267	1.6	267	1.7	(1.5 - 1.9)
All	3,332	9.5	(9.2 - 9.8)	3,169	8.9	3,227	9.0	2,989	8.2	2,903	7.9	2,779	7.4	(7.1 - 7.7)

[a] Rates calculated per 100,000 population
[b] 95% confidence interval
Healthy People 2010 Objective 14-11: 1.0 new cases per 100,000 population
Source: California State TB Control Branch

Infectious Disease: Tuberculosis

Table 4.19

Tuberculosis Cases Among Mexican-born, by Time in U.S., 2003-2006						
Population	<1 Years	1-2 Years	3-5 Years	6-10 Years	11-20 Years	>20 Years
	%	%	%	%	%	%
Imperial	6.0	2.4	3.6	2.4	11.9	73.8
San Diego	19.9	2.6	12.0	7.9	20.8	36.1
California	16.6	4.7	13.7	10.2	19.5	31.5

Source: California State TB Control Branch

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

OFFICE OF BINATIONAL BORDER HEALTH

SECTION II

BORDER HEALTH STATUS

REPORT TO THE LEGISLATURE

2007-2008

AUTHORS

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EXECUTIVE SUMMARY

The health of California and Mexico border communities is closely connected through similar population characteristics, culture, trade and business, and transportation. Communities located near the U.S.-Mexico boundary have created a “blended“ culture, a mixture of traditions from both sides of the border. The border communities have close relationships due to the high volume of people crossing the U.S.-Mexico border in both directions for work, education, shopping, tourism, social visits and other purposes.

This close relationship can present public health challenges and difficulty in providing healthcare services. This is especially true for disease prevention, surveillance and control. The California Office of Binational Border Health (COBBH) was created “to facilitate cooperation between health officials and health professionals in California and Mexico, to reduce the risk of disease in the California border region, and in those areas directly affected by border health conditions”. To do this, COBBH works in partnership with state and local agencies to produce Border Health Status Reports, which compile and analyze data from numerous sources. These reports allow observation of important health indicators for border and binational communities in California. The 2007-2008 Border Health Status Report covers general health status, health insurance coverage, diabetes, lifestyle indicators, and maternal and child health.

Highlights of the Border Health Status Report

Demographics

The California border region consists of a culturally and linguistically diverse, highly mobile population. The total estimated population for the two California border counties was 3,318,180 in 2008 (179,798 in Imperial County and 3,138,382 in San Diego County). This represents 8.7 percent of California’s population. The border region has seen steady population growth from 2000 to 2008. During this period, Imperial County experienced a population increase of 25.1 percent, which is more than double the population rate increase seen in either San Diego County (10.7%) or California (12.1%).

Hispanics in Imperial County make up the majority of the population (76.7%), whereas non-Hispanic whites make up a minority (15.6%). In San Diego County there is a non-Hispanic white majority (53.7%) and Hispanics comprise the largest minority (28.9%). This demographic relationship is seen throughout California as a whole, where the non-Hispanic white population is the majority (43.0%) and the Hispanic population is the largest minority population (36.2%).

From 2000 to 2008, the Hispanic population increased 25.3 percent, while the non-Hispanic white population remained steady (rising 1.8%). In that same time period, the non-Hispanic white population in San Diego County increased 6.7 percent, while the Hispanic population increased roughly 19.7 percent. The non-Hispanic white population

in Imperial County decreased from 2000 to 2008, while the Hispanic population increased 32.2 percent.

Limited ability to speak and write English can be a major barrier to primary and secondary disease prevention. In California statewide 27.8 percent of the Hispanic population where English is not the primary language spoken in their household speaks English "very well". This is significantly lower than the Hispanic population in San Diego (37.8%) and not significantly different from the Hispanic population in Imperial County.

A significantly higher proportion of Imperial County's population (27.1%) is living below the federal poverty level (FPL)($20,650 a year for a family of four in 2007) than San Diego County's population (11.0%) or California statewide (15.7%). In San Diego, Imperial, and in California statewide, in 2007, there is a significantly higher proportion of the Hispanic population living below the FPL than the non-Hispanic white population. In Imperial County, the rate of Hispanics living below the FPL is nearly four times that of the non-Hispanic white population.

In 2007 in California statewide, 5.0 percent of the population was unemployed and looking for employment. Hispanics in California statewide reported slightly higher rates of full-time employment (57.9%) compared with non-Hispanic whites (55.1%) and the population as a whole (55.3%).

Disparities in education attainment are evident in the California border counties and in California statewide. In San Diego County, Imperial County and in California statewide, Hispanic populations are less likely to receive a college-level education or more when compared with non-Hispanic whites and all ethnicities combined. In California, the percent of Hispanics who have less than a high school education (37.5%0 is approximately seven times greater than the rate in the non-Hispanic white population (5.8%).

Health Status at the Border

Health status can be defined by an individual's own perception of wellness and well-being, which is influenced by outside determinants such as income, education, access to health insurance and healthcare, and other disparities associated with race and ethnicity.

In 2007, 47.9 percent of Hispanics residing in Imperial County and 50.7 percent of Hispanics residing in San Diego County thought that they were in excellent or very good health overall, with 45.2 percent of Hispanics reporting that finding statewide. These are lower percentages when compared with the non-Hispanic white populations in these same areas. In California, fewer U.S.-born Hispanics reported having fair or poor health (39.1%) when compared with Mexican-born Hispanics (73.4%). In 2007, a significantly larger portion of the San Diego County residents classified their health as excellent or very good (61.5%), compared with those in Imperial County (48.5%) and statewide (55.4%).

The ability to achieve and maintain wholesome living is constrained by the lack of access to healthcare. Having health insurance is a significant measure of a population's access to healthcare. Across all regions examined (San Diego County, Imperial County and California statewide), the Hispanic population reports the lowest rates of health insurance coverage compared with non-Hispanic whites and all ethnicities combined. In Imperial County non-Hispanic whites report 95.5 percent coverage vs. 79.1 percent of Hispanics. There has been no significant improvement in health insurance coverage in the border counties from 2001 to 2007.

Maternal, Child and Adolescent Health

Maternal and child health is a good indicator of the health in a population. It is both a gauge of the current health of a population and a predictor of the next generation's health.

Life expectancy from birth has improved vastly due to advances in public health. Many of these advances focused on improving health and reducing complications in maternal and infant health. Due to this and also medical advances, infant mortality rates have drastically decreased worldwide. In addition, the burden of disease due to infectious diseases has decreased because of regular immunizations.

Imperial County reports one of the highest teen pregnancy rates in the state (29.6 per 1,000 females ages 15-17), which is significantly higher than the teen pregnancy rate in San Diego County (17.7 per 1,000 females ages 15-17). Infant mortality rate data for Imperial County are lower compared with San Diego County (4.6 compared with 5.0 per 1,000 live births). In California and San Diego County, Hispanics have a significantly lower rate of low birth weight (LBW) than non-Hispanic whites and all ethnicities combined. California has a significantly higher rate of LBW than does San Diego County and Imperial County. From 1995-2006 the rate of LBW in the population as a whole in all three regions examined has increased significantly. Breastfeeding rates have generally increased in the border region. In Imperial County breast- feeding rates among Hispanics increased from 2001 to 2007 (79.4% to 87.8%) as well as among non-Hispanic whites (79.9% to 87.4%). In San Diego County the breast feeding rate among Hispanics hasn't changed (~90.4%), but the non-Hispanic white population showed an increase (91.7% to 92.2%). Vaccine coverage in the border region is good. Imperial County reports a higher rate of kindergarten vaccination for individual vaccines and complete vaccine coverage compared with San Diego County (94.6% vs. 94%).

Although there are great improvements in maternal and child health, there are still major disparities observed along racial and socioeconomic divides.

Diabetes, Physical Activity, Nutrition, Obesity and High Blood Pressure

Diabetes is a syndrome of disordered metabolism that results in abnormally high blood sugar levels. Blood sugar levels are controlled by complex biochemical pathways in the body. Diabetes can result in a number of health complications, including blindness,

heart and blood vessel disease, stroke, kidney failure, amputations and nerve damage. Uncontrolled diabetes can complicate pregnancy; birth defects are more common in babies born to diabetic women.

In the border region, the prevalence of diabetes is twice that of California. Imperial County has the highest prevalence of diabetes (11.0%) out of all other counties in California. San Diego County has significantly lower rates of diabetes (6.3%), as does the state in general (7.8%). The adult Hispanic population in California has higher rates of diabetes (9.2%) compared with non-Hispanic whites (6.7%) and all of California (7.8%). This appears to be true in San Diego County as well, although the differences are not statistically significant. Non-Hispanic whites in Imperial County have a higher rate of diabetes compared with the Hispanic population (12.8% vs. 10.4%, respectively) and the whole county (11.0%), although the difference is not statistically significant.

The cause of diabetes is still not well understood. Both genetic and environmental factors appear to be important in the development of diabetes. These factors include physical activity, nutrition, obesity and overweight, and high blood pressure.

Regular physical activity is important for good health and is especially important when trying to lose weight or maintaining a healthy weight. Physical activity reduces risks associated with cardiovascular disease and diabetes. In California, non-Hispanic white children (79.3%) had a significantly higher percentage of children who engage in vigorous physical activity compared with Hispanic children (65.3%). Non-Hispanic white children report higher rates of vigorous physical activity than Hispanic children in all three regions. Teens and adults in Imperial County are less likely to have visited a park, playground or open space in the last month than their counterparts in San Diego County and California.

Nutrition is essential for growth and development, health, and well-being. Behaviors to promote health should start early in life with breastfeeding and continue with the development of healthy eating habits. For 2007 in California, 48.2 percent of children ages 2-11 report eating five or more servings of fruits and vegetables per day. Only non-Hispanic white children (38.8%) in Imperial County reported significantly fewer children eating five or more servings of fruits and vegetables per day. In 2007 for California, 18.8 percent of the population reported eating fast food three or more times per week. In California non-Hispanic whites eat significantly less (16.5%) and Hispanics eat significantly more (21.3%) fast food.

Over the last decade there has been a rapid increase in the prevalence of obesity and overweight, both nationwide and in California. Overweight and obese people are at increased risk for disability, premature death, and many health conditions, including type 2 diabetes, hypertension, coronary heart disease, cardiovascular disease, and some cancers. In 2007, the rate of obesity in adults ages 20 and older in Imperial County (42.0%) was significantly higher than San Diego County (22.3%) and California statewide (23.2%). Obesity rates for San Diego County and California, for all ethnicities examined, have significantly increased from 2001 to 2007. A higher percentage of

Hispanics in Imperial and San Diego counties, as well as California (43.9%, 31.4%, and 31.1%, respectively) are obese compared with non-Hispanic whites (35.4%, 19.7%, and 20.8%, respectively), though the difference is not statistically significant in Imperial. In California, men report a significantly higher percent of obesity than women.

In California, the rate of overweight and obesity in teenagers (13.3%) is close to triple the Healthy People 2010 goal of 5 percent. In 2007 for California, the rate of overweight in children (not factoring height) (11.2%) is more than double the Healthy People 2010 goal of 5 percent.

Having high blood pressure increases one's chance for developing heart disease, stroke and other serious conditions. When a person has high blood pressure and diabetes, his or her risk for cardiovascular disease doubles. In the entire state, 1 in 4 adults (27.1%) report having ever been diagnosed with high blood pressure. There has been a steady increase of high blood pressure in California statewide, as well as in San Diego County from 2001 to 2007.

INTRODUCTION

California's relationship with Mexico is significant on many levels. Mexico and California share a deep, rich history that has resulted in a singular relationship between the two countries. They share a strongly intertwined, unique heritage of culture and commerce. Mexico is California's principal trading partner, and that relationship has a huge fiscal impact on California's economy. Billions of dollars in trade and thousands of California jobs exist because of the relationship between California and Mexico. More than one-third of Californians self-identify as Latino or Hispanic, of which more than 8 million are of Mexican origin. The border region is an amalgamation of these two countries, culturally and demographically.

Many people cross the U.S.-Mexico border every day for work, school, shopping, tourism, social occasions or other reasons. This creates a close connection between the border communities. This large volume of movement across the border poses many public health challenges and problems in providing healthcare to such a highly mobile population. This is especially true for disease prevention, surveillance, and control. These issues show how vital are collaborations between health agencies in California and Mexico. However, binational and border-related health issues are not isolated. They extend beyond just the populations closest to the U.S.-Mexico border, affecting the health and well-being of all Californians.

In 1983, the La Paz Agreement defined a binationally agreed-upon border region as the area within 62 miles (100 km) of either side of the border, which encompasses approximately 250,000 square miles.[2] Of the 1,952-mile boundary between the United States and Mexico, California's border region spans 140 miles, including San Diego and Imperial counties, the state's southernmost counties. This area is remarkable because of its varied geography and culturally and linguistically diverse population, which is highly mobile.

In 2007, 37.9 million people crossed the border at San Ysidro. Of these, more than 20 million were foreign citizens, mostly from Mexico, according to U.S. Customs and Border Protection. This data demonstrate that when it comes to health issues, the border area should be considered a single, unique region.

In recognition of this situation, in 1999 Assembly Bill 63 (Chapter 765, Ducheny, Division One, Part Three, Health and Safety Code) established a permanent California Office of Binational Border Health (COBBH) within the California Department of Health Services (CDHS) "to facilitate cooperation between health officials and health professionals in California and Mexico, to reduce the risk of disease in the California border region and in those areas directly affected by border health conditions" (Appendix C: Attachment A). COBBH began operating in January 2000 and was located organizationally within CDHS Prevention Services. In July 2007, following the

[2] Agreement signed by the United States of America and the United Mexican States on cooperation for the protection and improvement of the environment in the border area. The agreement was signed in La Paz, Baja California, on August 14, 1983, and took effect on February 16, 1984.

reorganization of CDHS and the establishment of the California Department of Public Health (CDPH), COBBH was placed organizationally within CDPH External Affairs.

To fulfill its mission, COBBH works closely with many groups and organizations, including the COBBH Advisory Group; local health departments in San Diego, Imperial, Los Angeles, and Orange counties; California Environmental Protection Agency (Cal/EPA); Baja California Secretariat of Health; Offices of Border Health in Arizona, New Mexico, and Texas; U.S. Department of Health and Human Services (DHHS); U.S. Environmental Protection Agency (EPA); U.S.-Mexico Border Health Commission (USMBHC); U.S.-Mexico Border Health Association (USMBHA); Pan American Health Organization (PAHO); and Project Concern International.

COBBH collaborates with state and local partner agencies to create Border Health Status Reports that enable monitoring of priority health indicators for border and binational communities in California. The main objective of the report is to inform policymakers, health department personnel, and the public about priority border health issues.

The 2007-2008 Border Health Status Report provides current data on key border and binational health indicators. The 2007-2008 Border Health Status Report covers general health status, maternal and child health, and chronic diseases. Each year the focus shifts to address the most prevalent health issues.

Healthy People and Healthy Border 2010 Goals and Objectives

In 2000, the U.S. Department of Health and Human Services (DHHS) released the Healthy People 2010 program, a comprehensive prevention agenda with two overarching goals: increase quality and years of healthy life, and eliminate health disparities (HHS, 2000).

The Healthy Border 2010 program outlines a similar health promotion and disease prevention agenda through the year 2010 for the U.S. communities that border Mexico (U.S.-Mexico Border Health Commission, 2003). Healthy Border 2010 draws on the national health objectives defined in Healthy People 2010, identifying 25 of the most important objectives for the distinct needs and concerns of the border (Appendix C:, Attachment B). Healthy Border 2010 aims to develop prevention goals, objectives, and strategies that can be used by the four U.S. border states, local communities, and private-sector partners.

This report uses the Healthy Border 2010 and Healthy People 2010 objectives as a framework for presenting the health status of the California border region. Throughout the report, border county and state statistics are presented.

DEMOGRAPHICS AND SOCIOECONOMIC CHARACTERISTICS

What Is It?

Many factors influence a community's health outcomes, which are reflected in birthrates, death rates, hospitalization rates, and disease incidence. Among those factors are demographic and socioeconomic conditions such as income, employment, housing status, literacy, and education.

Why Is It Important?

Age, race or ethnicity, household income, employment status, and educational attainment have a significant impact on health status. Economic status is an important predictor of health. Inequalities in income and education underlie many health disparities. Income and education are intrinsically related and often serve as proxy measures for each other. In general, population groups that have the worst health status are also those with the highest poverty rates and low levels of higher education. Disparities in income and education levels are associated with differences in the occurrence of illness and death, diabetes, obesity, heart disease, and low birth weight. Higher incomes permit increased access to medical care, and enable people to afford better housing, live in safer neighborhoods, and have increased opportunities to engage in health-promoting behaviors (HHS, 2000).

What Is the Status in the Border Region?

General Population Characteristics

Table 1.1 shows the population for California border counties. In 2008, the total estimated population of the two California border counties was 3,318,180 (179,798 in Imperial County and 3,138,382 in San Diego County), representing 8.7 percent of California's population. From 2000 to 2008, the border region experienced steady population growth. Imperial County's population increased 25.1 percent, more than double the rate of increase in San Diego County (10.7%) and California statewide (12.1%) during the same period (Table 1.1).

Table 1.1

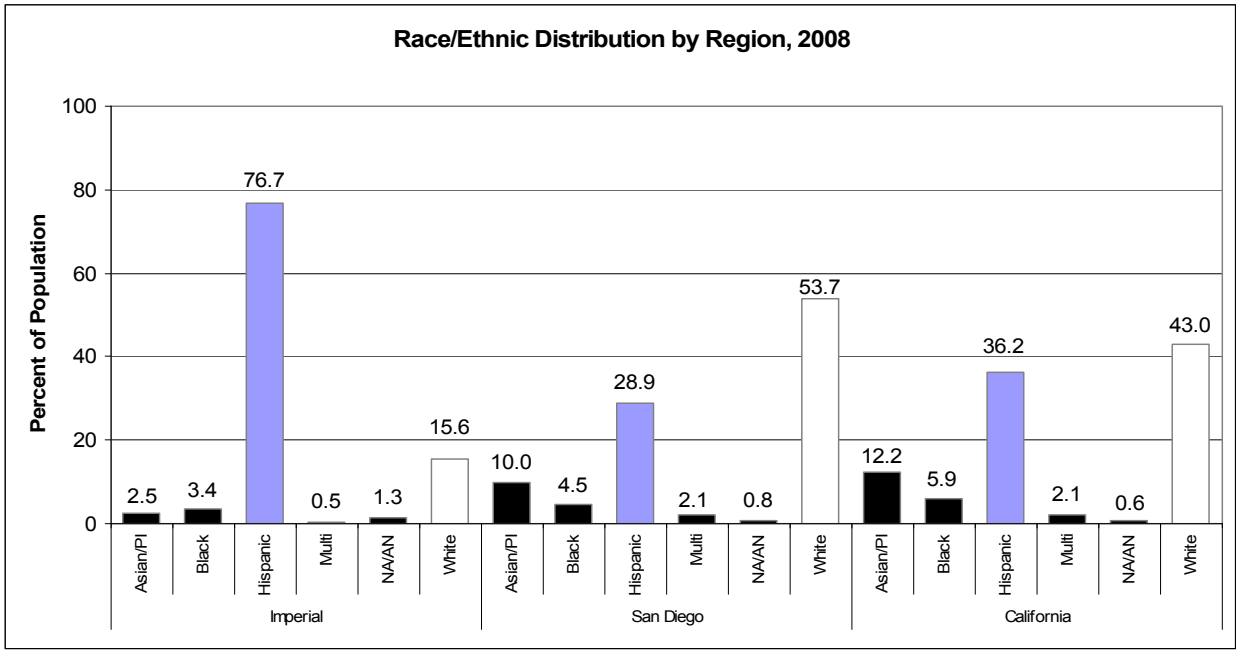
Percent Change in California Border Counties and Statewide Population[a] by Race, 2000-2008			
Population	**2000**	**2008**	**% Change**
Imperial			
Asian/Pacific Islander	2,746	4,423	61.1
Black	5,214	6,191	18.7
Hispanic	104,267	137,841	32.2
Multi	754	970	28.6
Native American/Alaska Native	1,817	2,284	25.7
Non-Hispanic White	28,965	28,089	-3.0
All	143,763	179,798	25.1
San Diego			
Asian/Pacific Islander	263,964	312,699	18.5
Black	159,068	140,930	-11.4
Hispanic	757,055	906,152	19.7
Multi	62,195	67,459	8.5
Native American/Alaska Native	15,713	26,675	69.8
Non-Hispanic White	1,578,308	1,684,467	6.7
All	2,836,303	3,138,382	10.7
California			
Asian/Pacific Islander	3,872,349	4,656,623	20.3
Black	2,218,281	2,271,258	2.4
Hispanic	11,057,467	13,858,454	25.3
Multi	637,010	801,827	25.9
Native American/Alaska Native	185,996	230,198	23.8
Non-Hispanic White	16,134,334	16,428,238	1.8
All	34,105,437	38,246,598	12.1

[a] Population total in July

Source: State of California, Department of Finance, *Race/Ethnic Population With Age and Sex Detail, 2000–2050.* Sacramento, CA, July 2007

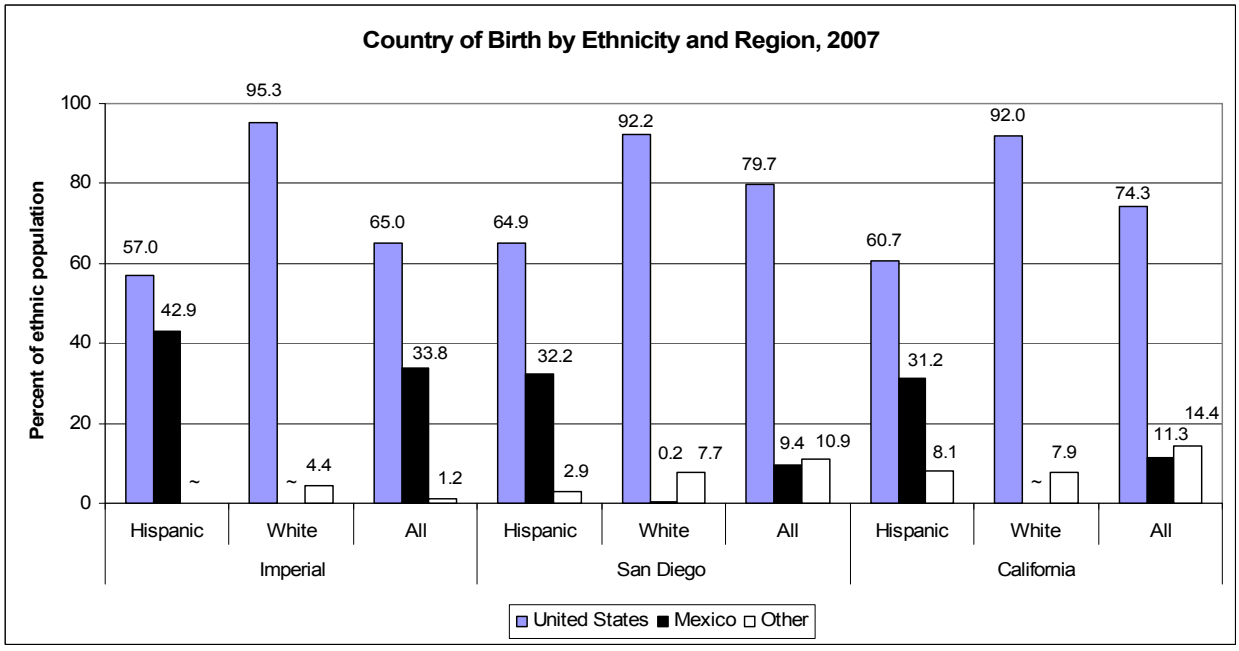
California and its border counties are racially and ethnically diverse. Table 1.1 and Figure 1.1 display ethnicity by percents of the total population within San Diego County, Imperial County, and California statewide in 2008. Residents of Hispanic origin and non-Hispanic white origin make up either the majority or the largest minority in each of the regions examined. In Imperial County, Hispanics make up 76.7 percent of the entire population and non-Hispanic whites make up 15.6 percent of the population. In San Diego County there is a non-Hispanic white majority (53.7%) followed by the Hispanic population as the largest minority (28.9%). In California, Hispanics make up the largest minority (36.2%), while the non-Hispanic white majority makes up 43.0 percent of the population. From 2000 to 2008 in California, the Hispanic population increased 25.3 percent while the non-Hispanic white population remained steady, increasing 1.8 percent. In San Diego County, the non-Hispanic white population increased 6.7 percent, and the Hispanic population increased approximately 19.7 percent, for the same time period. In Imperial County, there has been a decrease in the non-Hispanic white population while the Hispanic population has increased 32.2 percent from 2000 to 2008.

Figure 1.1



Source: State of California, Department of Finance, 2007, *Race/Ethnic Population With Age and Sex Detail, 2000–2050*

Figure 1.2



~ Insufficient data to calculate an accurate percentage
Source: 2007 California Health Interview Survey

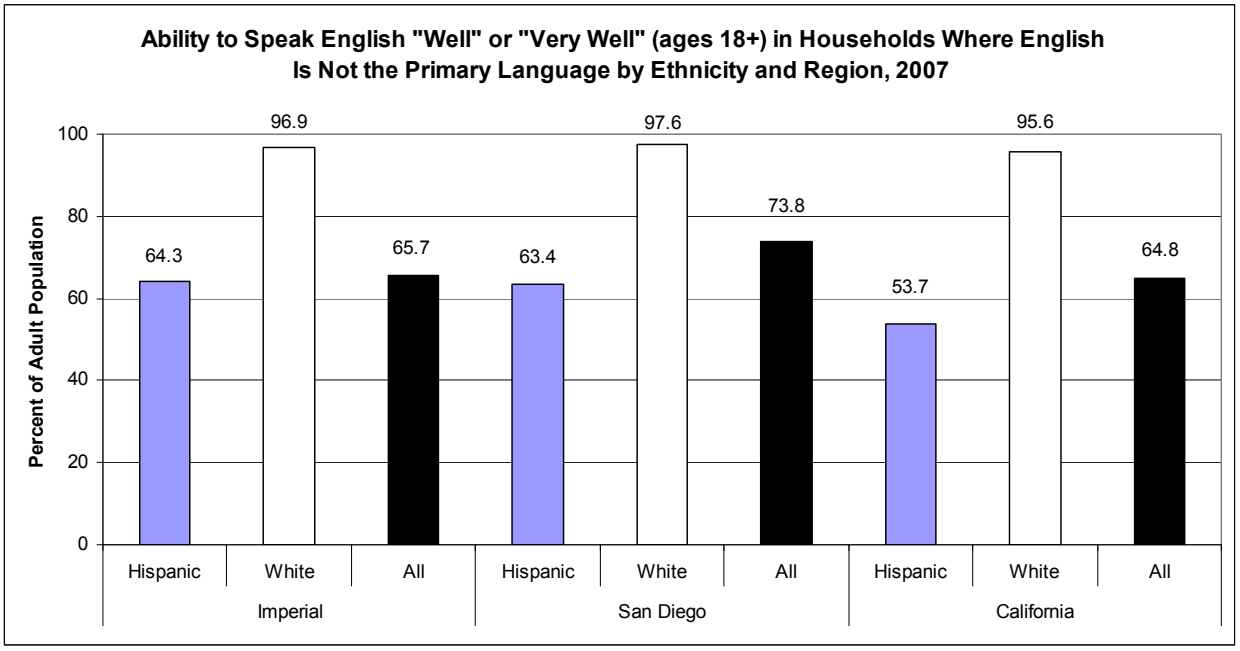
Hispanic-Ethnic Population in California

Approximately 36 percent (13.5 million) of the population in California in 2008 was of Hispanic ethnicity (Figure 1.1). Among persons of Hispanic ethnicity, 31.2 percent were born in Mexico and 60.7 percent were born in the United States (Figure 1.2). Origin can be viewed as "the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the U.S." (U.S. Census Bureau, 2003).

English Speaking Ability

Limited ability to speak and write English can be a major barrier to primary and secondary disease prevention. This can lead to diminished comprehension, misinformation, noncompliance, and eventually poorer health outcomes (Calderon and Beltran, 2004). In California statewide, for households where English is not the primary language spoken, the percentage of Hispanics who spoke English "Not Well/Not at All" was higher (46.3%) than Hispanics in San Diego County (36.6%) and Imperial County (35.7%). (Figure 1.3, Appendix F: Table 1.4).

Figure 1.3

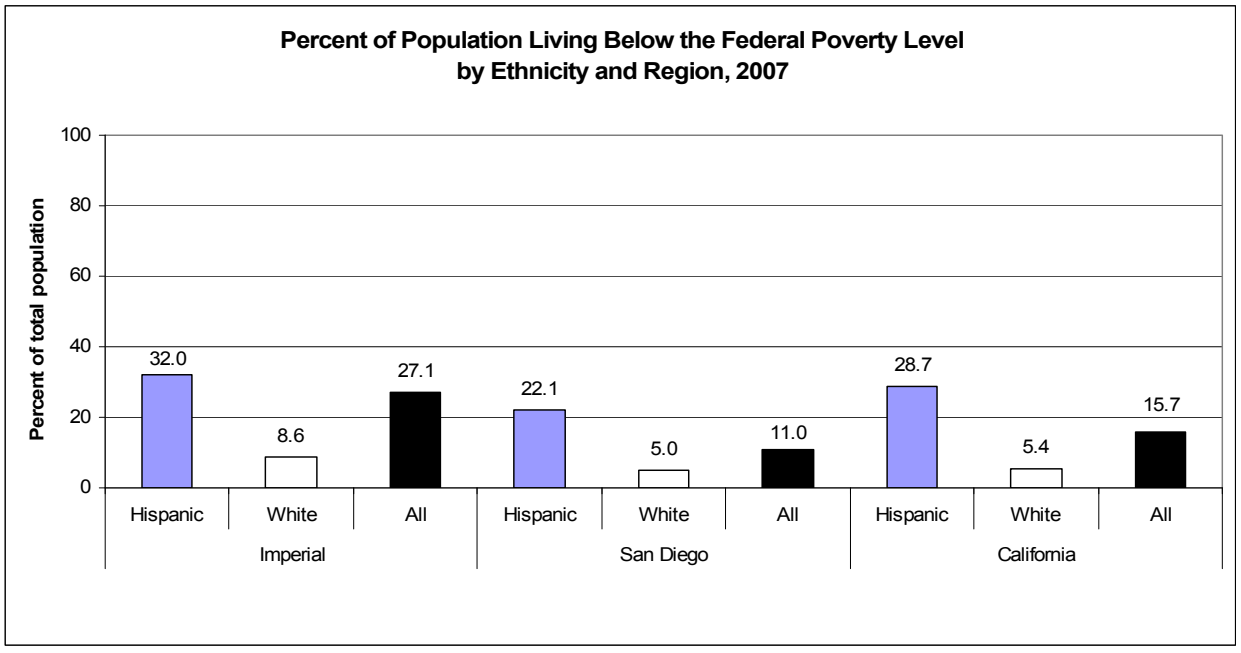


Source: 2007 California Health Interview Survey

Socioeconomic Status

A significantly higher proportion of Imperial County's population is living below the federal poverty level (FPL) ($20,650 a year for a family of four in 2007) than San Diego County's population or the state of California's. In 2007, 27 percent of Imperial County's population was living below the FPL, compared with 11 percent of San Diego County's and 16 percent of California's statewide population. In each region, there is a higher proportion of the Hispanic population living below the FPL than the non-Hispanic white population. In Imperial County, the percent of the Hispanic population living below the FPL is nearly four times that of the non-Hispanic white population. San Diego County and California statewide mirror this disparity. Additionally, in California and San Diego County, the rate of Hispanics living below the FPL is nearly twice that of the population as a whole (Figure 1.4). Trends are as expected on the other end of the scale. There is a significantly higher percent of the population living at or above 300 percent FPL in San Diego County (60.3%) and California (52.9%) than in Imperial County (33.2%). Additionally, in each region, the percent of non-Hispanic whites living at or above 300 percent FPL is at least twice as high as the Hispanic population (Appendix F: Table 1.5).

Figure 1.4

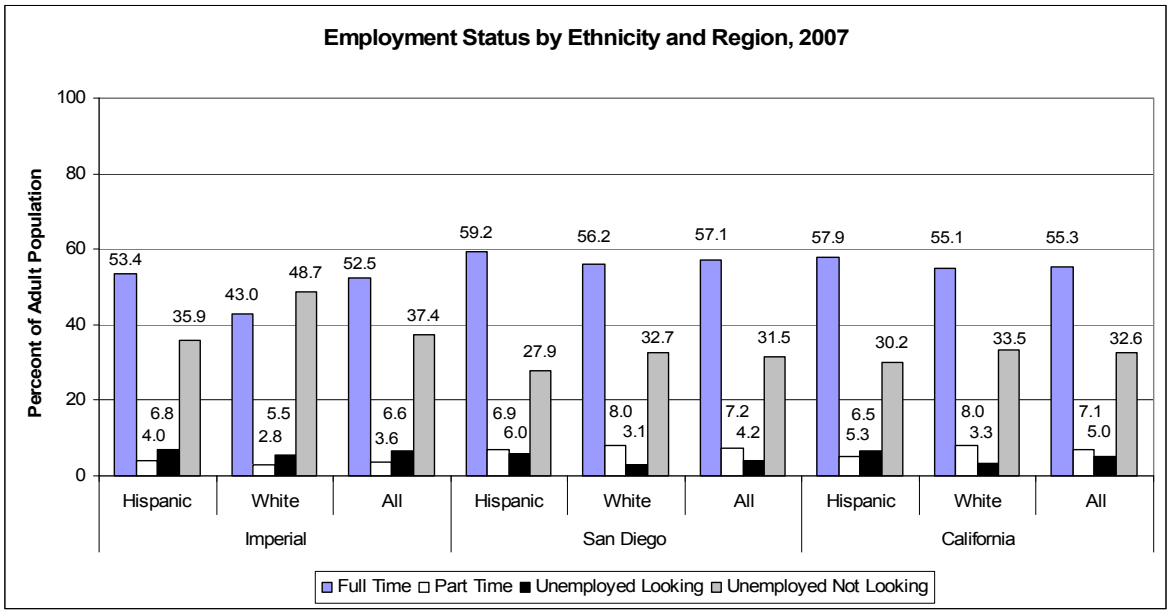


Source: 2007 California Health Interview Survey

Employment

In 2007 in California statewide, 5.0 percent of the population was unemployed and looking for employment, 55.3 percent was employed full-time and 7.1 percent were employed part-time. Hispanics in California statewide reported slightly higher rates of full-time employment (55.1%) compared with non-Hispanic whites (55.1%) and the population as a whole (55.3%). This trend appears to be mirrored in the border counties, though the differences are slight and not statistically significant (Figure 1.5, Appendix F: Table 1.6).

Figure 1.5



Source: 2007 California Health Interview Survey

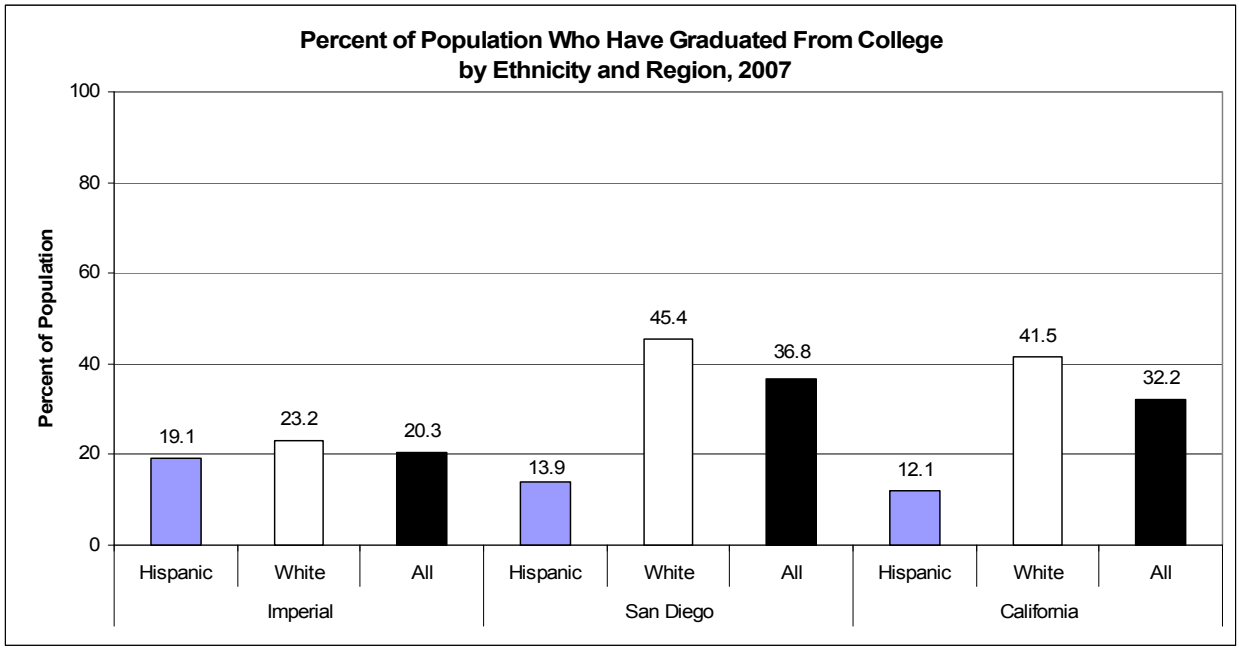
Education

Although education does not act directly on health outcomes, it is considered to be at least as important as a predictor of health outcomes as socioeconomic status. Populations with more years of schooling tend to have better health and practice healthier lifestyles (OECD, 2006).

Disparities in education attainment are evident in the California border counties and in California statewide. In San Diego County, Imperial County and in California statewide, Hispanic populations are less likely to receive a college-level education or more when compared with non-Hispanic whites and all ethnicities combined. In San Diego County, and in California, non-Hispanic whites are more than three times as likely to graduate from college when compared with the Hispanic population (Figure 1.6). The Hispanic population is also less likely to graduate from high school. In California, the percent of

Hispanics who have less than a high school education (37.5%) is approximately seven times greater than the rate in the non-Hispanic white population (5.8%) (Appendix F: Table 1.7).

Figure 1.6



Source: 2007 California Health Interview Survey

HEALTH STATUS AT THE BORDER

This section describes the overall health status of communities in the California border region and presents data related to access to healthcare. The overall health of the California population is the primary goal of the California Health and Human Services Agency, stating its vision as, "All Californians, especially those most at risk or in need, have the opportunity to enjoy a high quality of life as measured by the sound physical, mental and financial health of children, adolescents and adults; strong and well-functioning families; safe and sustainable communities; and dignity for all."

Overall Health Status

What Is It?

Global assessments, in which a person rates his or her health as poor, fair, good, very good or excellent, can be reliable indicators of one's perceived health. Health status can be defined by an individual's own perception of wellness and well-being, which is influenced by outside determinants such as income, education, access to health insurance and healthcare, and other disparities associated with race and ethnicity. Overall health status is a measure of general health, both physical and mental. In this section, health status is measured by a self-assessment survey, which focuses on how people view their own health.

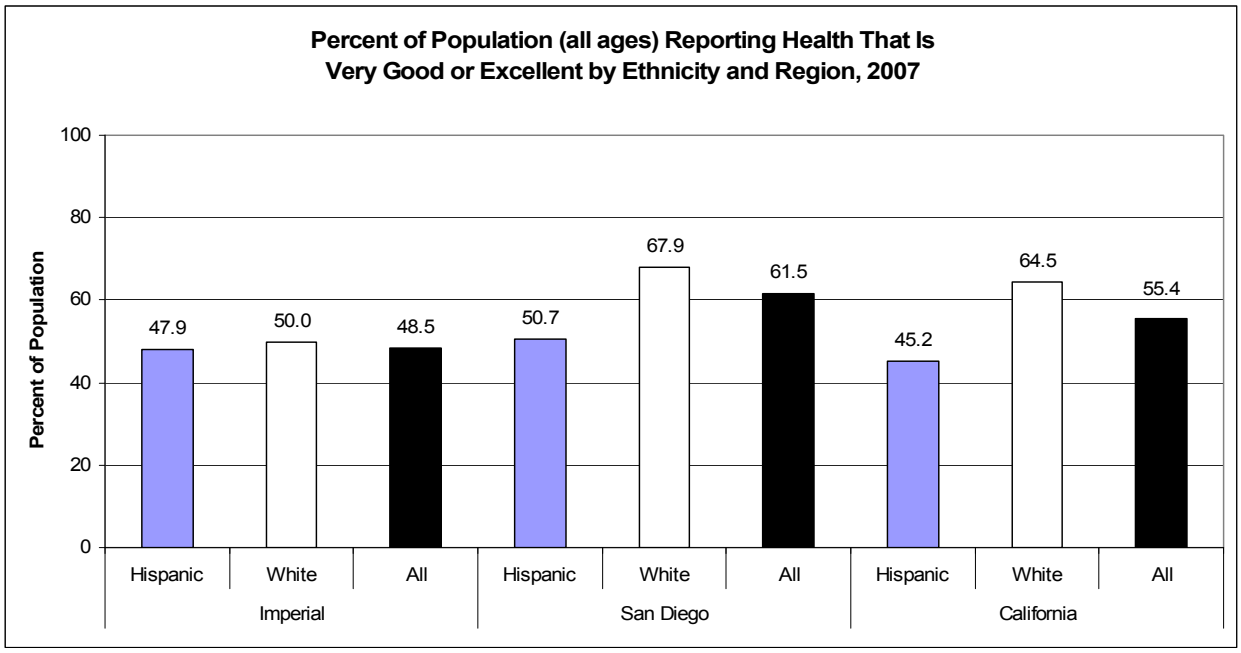
Why Is It Important?

It is essential to monitor and evaluate the consequences of the determinants of health to understand the health status of a population. Tracking health status indicators in different populations can identify subgroups with poor physical or mental health. This information can be used to determine areas to target resources to prevent illness and other health problems, as well as improve the overall health in the community.

What Is the Status in the Border Region?

In the 2007 California Health Interview Survey (CHIS), respondents were asked to classify their overall health status as excellent, very good, good, fair or poor. In general, disparities in perceived health status were present among the ethnicities and regions examined. Imperial County (48.5%) reported significantly fewer people who considered themselves as being in either very good or excellent health than San Diego County (61.5%) and California (55.4%) as a whole. Additionally, in each region the Hispanic population reported smaller percentages of people in very good or excellent health than the population as a whole and the non-Hispanic white population. Though these differences were marginal in Imperial County, the disparity was drastic in San Diego and California statewide. For example, in California statewide, there were 40 percent more non-Hispanic whites in very good or excellent health than there were Hispanics (Figure 2.1, Appendix F: Table 2.1).

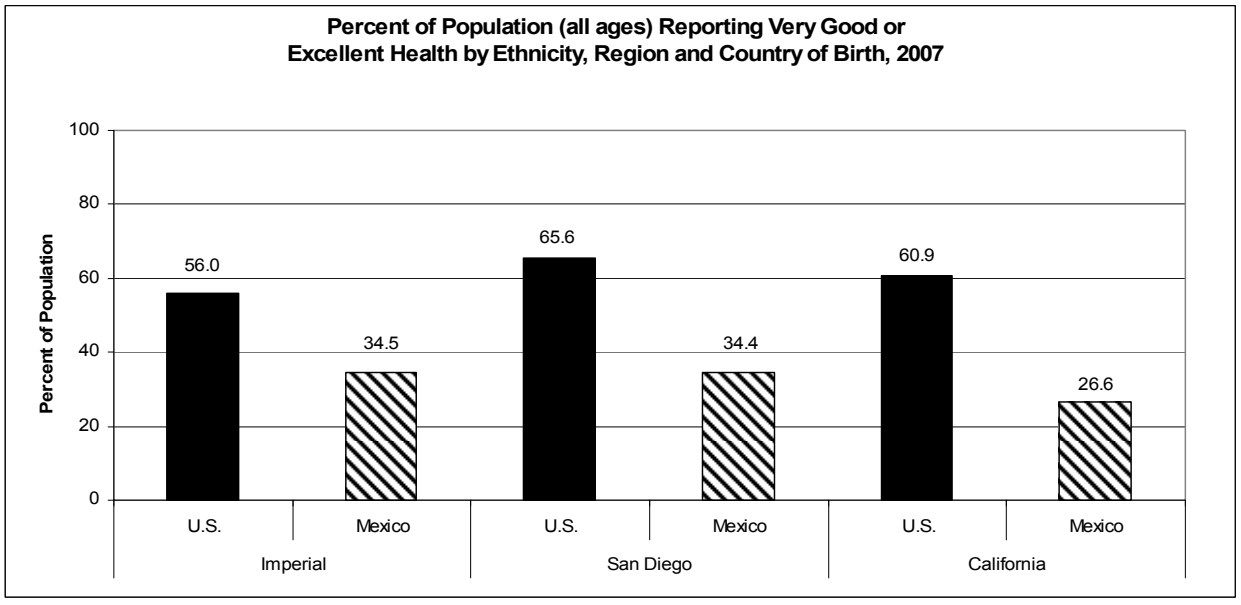
Figure 2.1



Source: 2007 California Health Interview Survey

In San Diego County, Imperial County and in the state of California, a significantly smaller percent of individuals born in Mexico report being in either very good or excellent health than individuals born in the U.S. In California the rate of U.S.-born individuals who report very good or excellent health is more than two times as high (60.9% vs. 26.6%) (Figure 2.2, Appendix F: Table 2.2).

Figure 2.2



Source: 2007 California Health Interview Survey

What Is Being Done?

The goal of the California Department of Public Health (CDPH) is to improve the overall health of all Californians. The California Legislature established the California Office of Binational Border Health (COBBH) in 1999 (AB 63) to coordinate programs and interventions focused on border communities and binational health issues and to collaborate with Mexico to improve the overall health in the border region (Appendix D: Attachment A).

One effort to improve border health is conducted by the University of California at Berkeley-Health Initiative of the Americas (HIA), which is made up of representatives from government, academia, the private sector, and community-based organizations of both countries. This collaborative works to improve the health of Mexican immigrants and their families by coordinating and optimizing the availability of health resources for that population through training, research, and health promotion activities. HIA's efforts have focused on the Mexican states with the highest international mobility and selected California counties with high proportions of immigrant populations. COBBH and HIA have worked together on several activities, including Binational Health Week, which offered health education and promotion activities, a media campaign, and a Binational Public Policy Forum on Migrant Health.

Access to Healthcare

What Is It?

Access to healthcare includes, but is not limited to, availability of the following: clinical preventive care, primary care, emergency services, and long-term and rehabilitative care. Out-of-pocket medical expenses have been identified as a barrier to healthcare. Having health insurance is a significant measure of a population's access to healthcare.

Why Is It Important?

The ability to achieve and maintain wholesome living is constrained by the lack of access to healthcare. Individuals who do not receive healthcare risk greater morbidity and premature mortality. It is estimated that 18,000 unnecessary deaths occur every year due to lack of health insurance in the United States (IOM, 2004).

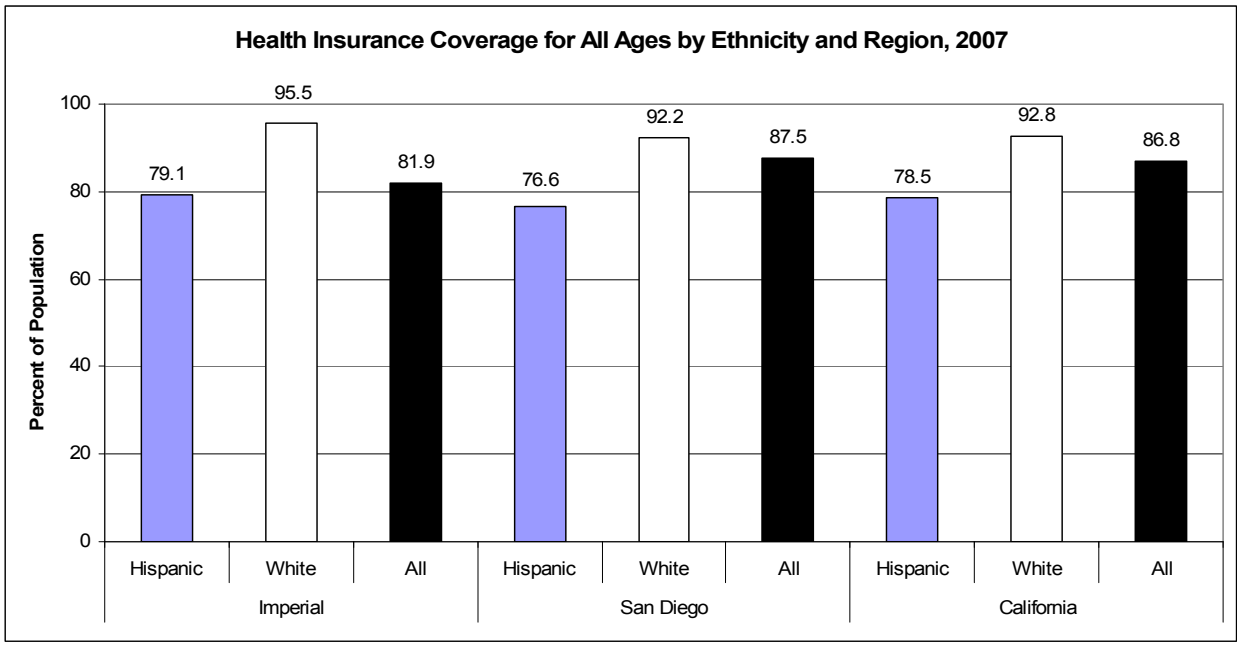
What Is the Status in the Border Region?

Health Insurance Coverage

Healthy People 2010 Objective 1-1 is to increase the proportion of persons with health insurance to complete coverage (100%) (HHS, 2000). The Healthy Border 2010 Objective is to reduce by 25 percent the population lacking access to a primary health

provider. Across the regions examined, the Hispanic population reports the lowest rates of health insurance coverage compared with non-Hispanic whites and all ethnicities combined. Hispanics reported significantly lower rates of health insurance coverage compared with non-Hispanic whites in Imperial County, San Diego County and California. For example, in Imperial County, non-Hispanic whites report 95.5 percent coverage vs. 79.1 percent of Hispanics. On the other hand, non-Hispanic whites have significantly higher rates of insurance coverage than the overall population in San Diego County and California statewide (Figure 2.3, Appendix F: Table 2.3).

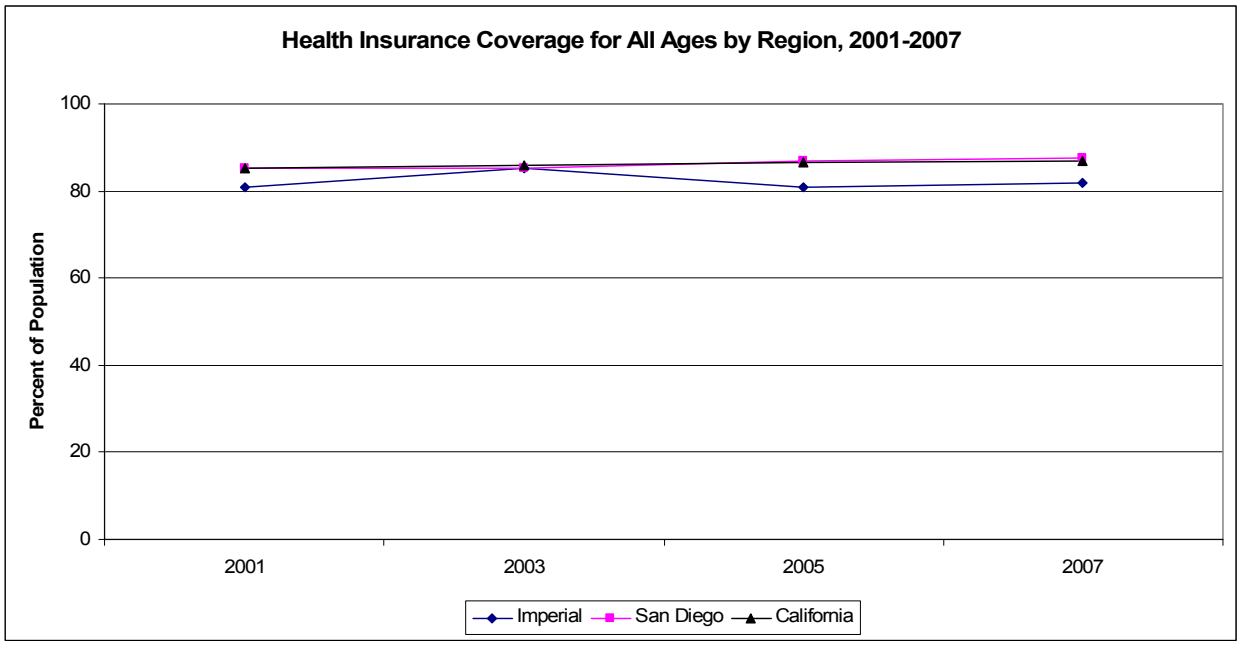
Figure 2.3



Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 1-1: Increase the proportion of persons with health insurance to 100 percent

From 2001 to 2007, there has been a slight increase in the percent of insurance coverage in California, from 85.4 percent to 86.8 percent. This increase is not apparent in either of the border counties or for the ethnicities examined. That is, there has been no significant improvement in health insurance coverage in the border counties from 2001 to 2007 and no evidence that either county is approaching the 2010 goal (Figure 2.4, Appendix F: Table 2.4).

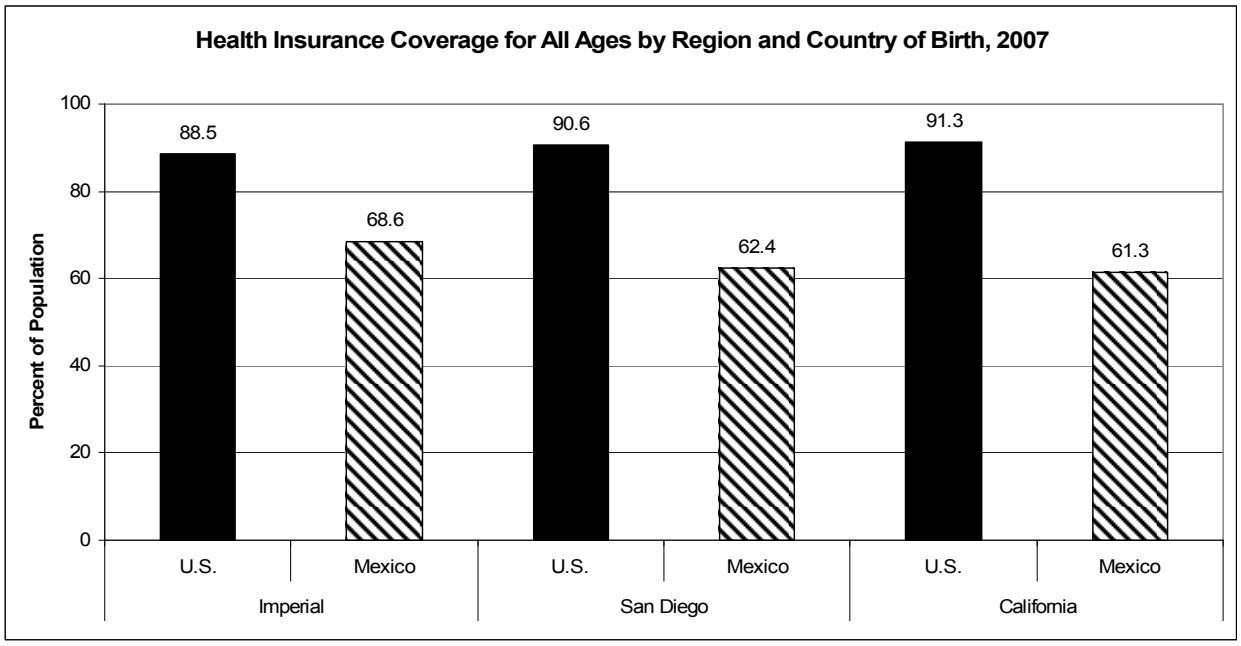
Figure 2.4



Source: 2001, 2003, 2005, and 2007 California Health Interview Survey
Healthy People 2010 Objective 1-1: Increase the proportion of persons with health insurance to 100 percent

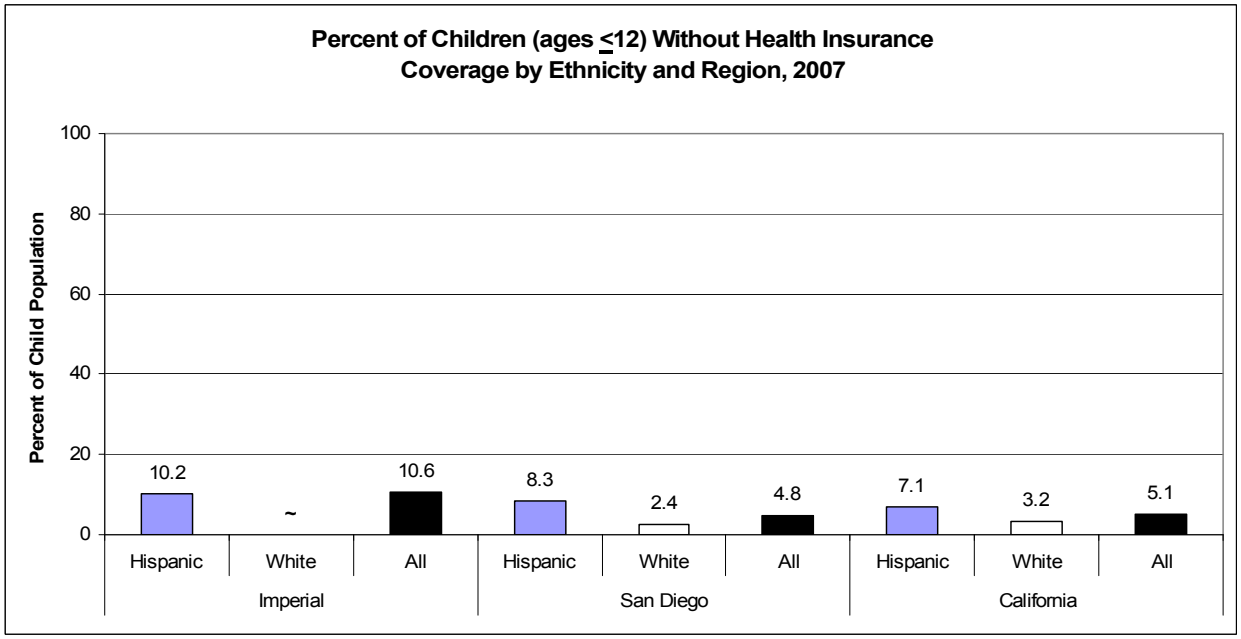
Country of birth presents disparities in health insurance coverage. In Imperial County, San Diego County and in California statewide, individuals who are born in Mexico are less likely to have health insurance. For example, in California statewide, the proportion of U.S.-born individuals who have health insurance is approximately 50 percent higher than the proportion of individuals born in Mexico who are insured (91.3% vs. 61.3.%) (Figure 2.5, Appendix F: Table 2.5).

Figure 2.5



Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 1-1: Increase the proportion of persons with health insurance to 100 percent

Figure 2.6



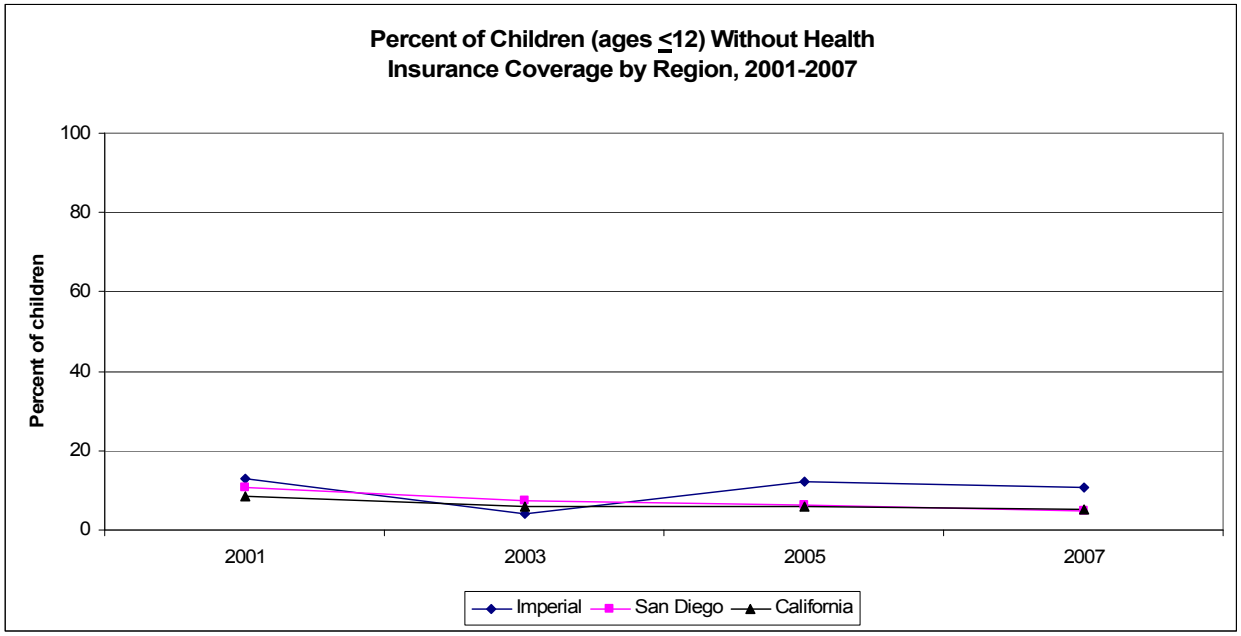
Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 1-1: Increase the proportion of persons with health insurance to 100 percent

Health Insurance Coverage - Children

California and San Diego County both have significantly more health insurance coverage for children compared with Imperial County. In Imperial County, more than 10 percent of children under the age of 12 are uninsured. In California (5.1%) and San Diego County (4.8%), non-Hispanic whites report significantly lower rates of uninsured children than Hispanics (7.1% vs. 8.3%) (Figure 2.6, Appendix F: Table 2.4).

From 2001 to 2007, there has been a significant decrease in the rate of uninsured children in both California statewide and San Diego County. Additionally, this improvement is observed in the Hispanic population of these regions. For example, Hispanics in San Diego County decreased rates of uninsured children from 20.4 percent in 2001 to 8.3 percent in 2007. In Imperial County there was no significant improvement observed from 2001 to 2007 (Figure 2.7, Appendix F: Table 2.4).

Figure 2.7



Source: 2001, 2003, 2005 and 2007 California Health Interview Survey
Healthy People 2010 Objective 1-1: Increase the proportion of persons with health insurance to 100 percent

What Is Being Done?

The state of California has several health insurance programs to help ensure a safety net for Californians who are uninsured or underinsured:

Medi-Cal is California's state Medicaid program, administered jointly by the California State Department of Health Care Services (DHCS) and the Centers for Medicare and

Medicaid Services (CMS). Medi-Cal is designed to provide health insurance to individuals who meet certain income criteria, as well as those who are disabled or aged.

California Health Insurance Counseling and Advocacy Program (HICAP) provides one-on-one counsel for Medicare beneficiaries with questions about any facet of Medicare, at no cost.

California Major Risk Medical Insurance Program (MRMIP) offers coverage to individuals who have been rejected for individual policies because of preexisting health conditions. MRMIP coverage is limited to 36 months. However, once they have exhausted their MRMIP eligibility, individuals are promised the right to purchase a private policy.

Through the Children's Health Insurance Program Reauthorization Act (CHIPRA), the Children Health Insurance Program (CHIP, previously known as SCHIP) in California pays for coverage of more than 1 million formerly uninsured children. California's main CHIP program, known as Healthy Families, is the largest in the country, with enrollment exceeding the combined total of New York and Texas--the second and third largest programs in the country. Healthy Families provides health insurance coverage for children under age 19 whose families meet certain income criteria. The health insurance plans are offered at a discounted rate that range from $4 to $45 a month.

MATERNAL AND CHILD HEALTH

Maternal, infant, and child health is considered an index of overall health within a community. The health of mothers, infants, and children is of vital importance, both as a reflection of the current health status of a large segment of the U.S. population and as a predictor of the health for the next generation (HHS, 2000*).*

Due to advances in public health, many maternal and child health complications have significantly improved throughout the world. For instance, life expectancy at birth worldwide during 1950-1955 was 46.5 years. Fifty years later (1995-2000) the life expectancy rate worldwide had increased to 65.0 years (WHO, 2005). Additionally, advances in medicine have drastically decreased worldwide infant mortality rates and decreased the burden of disease through regular vaccinations. Though the general trends of maternal and child health have been improving, there are still major disparities observed along racial and socioeconomic divides.

Maternal and child health encompasses a large variety of issues. This report focuses on the following; teen pregnancy, infant mortality, low and very low birth weight, breast-feeding, and childhood immunization.

Teen Pregnancy

What Is It?

Teen birthrate is defined as the number of live births to mothers who are 19 years of age or younger per 1,000 female population in that age group.

Why Is It Important?

Clear, negative consequences of teen childbirth have been demonstrated in several areas. Teen mothers exhibit poorer psychological functioning, lower levels of education, more single parenthood and less stable employment. Additionally, teen mothers experience more pregnancy-related problems, are less likely to get prenatal care and gain appropriate weight, have less healthy infants, and are more likely to smoke during and after pregnancy (CDC, 2009a). Children of teen mothers show more delay of cognitive development, more behavior problems, more aggressive behavior, and higher rates of grade failure, delinquency, and earlier sexual activity. Children of teen mothers are also more likely to experience neglect and abuse, and be placed in foster care. Moreover, fathers of children of teen mothers earn lower salaries and achieve less education than their non-parenting peers (Constantine, Nevarez, and Jerman, 2008).

In 2006, each teen birth cost California taxpayers $2,493. The current annual net costs to taxpayers of births to teen mothers in California are estimated to be $1.7 billion, and

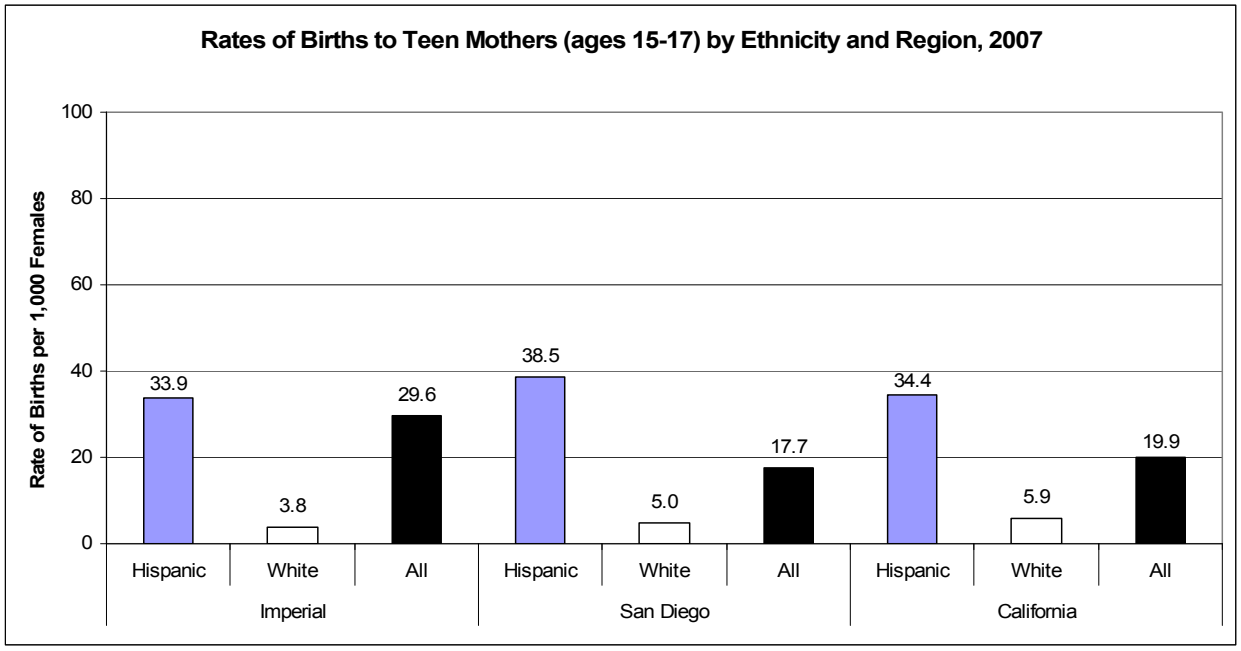
the current annual total net costs to society run $3.8 billion (Constantine, Nevarez, and Jerman, 2008).

What Is the Status in the Border Region?

Healthy People 2010 Objective 9-7 is to reduce the rate of teen pregnancies to 43 per 1,000 teen females. Healthy Border 2010 aims to reduce the pregnancy rate among adolescents by 33 percent. Teen pregnancy data are not available; therefore this report will use the rate of births to teenage mothers as a proxy.

In San Diego County, Imperial County, and California statewide, the rate of birth to teen mothers is significantly higher among Hispanics than non-Hispanic whites and all other ethnicities combined. In California, the rate of births to teen mothers is more than fivefold greater among Hispanics compared with non-Hispanic whites. This disparity is inflated in the border counties. Imperial County reports one of the highest rates of birth to teenage mothers in the state. Its rate per 1,000 females ages 15-17 (29.6) is significantly higher than San Diego County's (17.7) and California statewide (19.9). This disparity has continued over the years (Figure 3.1, Appendix F: Table 3.1).

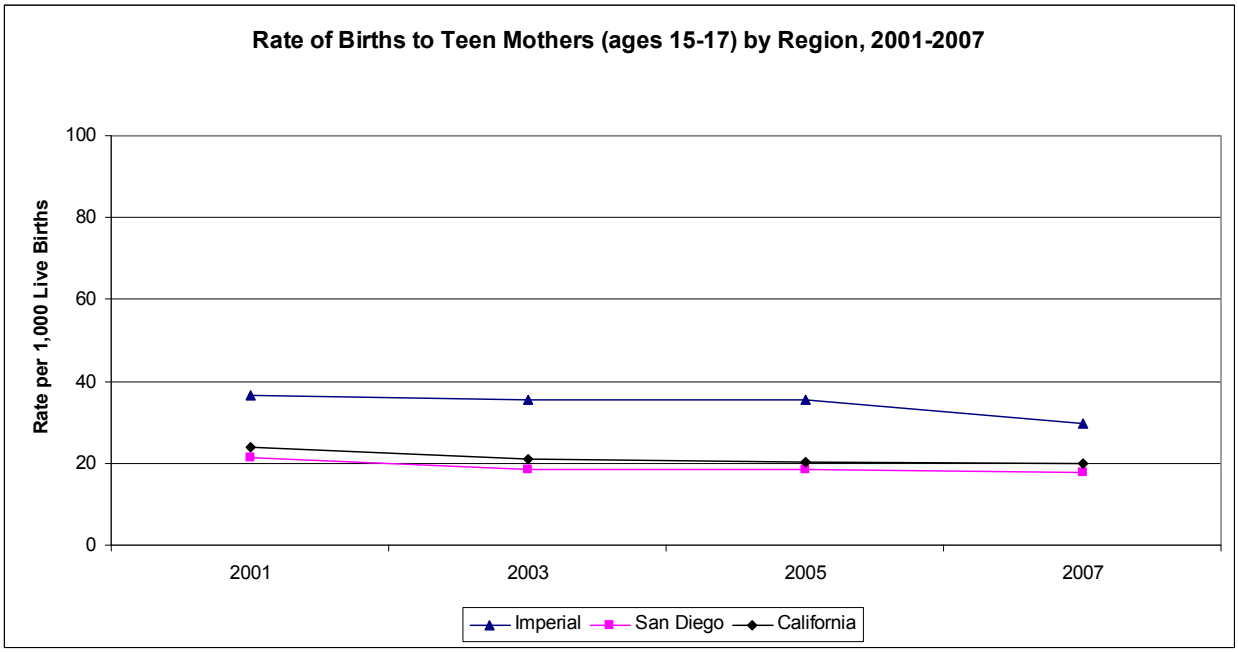
Figure 3.1



Source: Center for Health Statistics, Vital Statistics Query System, California Department of Public Health
Healthy People 2010 Objective 9-7: Reduce the rate of pregnancies among adolescents to 43 per 1,000 pregnancies
Note: CHIS data look at rate of births for teen mothers ages 15-17. The Healthy People 2010 Objective is for pregnancies to adolescents ages 15-17

From 2001 until 2007, there has not been a statistically significant improvement in either border county or California statewide. Throughout these years, Imperial County has persisted with a significantly higher teen pregnancy rate than San Diego County or California statewide (Figure 3.2).

Figure 3.2



Source: Center for Health Statistics, Vital Statistics Query System, California Department of Public Health
Healthy People 2010 Objective 9-7: Reduce the rate of pregnancies among adolescents to 43 per 1,000 pregnancies
Note: CHIS data look at rate of births for teen mothers ages 15-17. The Healthy People 2010 Objective is for pregnancies to adolescents 15-17

What Is Being Done?

California as a state focuses on investing in research-based policies and programs for positive adolescent development and teen pregnancy prevention. These include: consistent refusal to participate in abstinence-only education programs, enactment of legislation that school-based and other state-funded sexuality education must be comprehensive, age appropriate, and medically accurate; state-funded reproductive health programs administered by the California Department of Public Health; state-funded teen pregnancy prevention programs administered by the California Department of Public Health, the California Department of Social Services, and the California Department of Education, and grant initiatives funded by philanthropic foundations in California.

For example, the Adolescent Family Life Program (AFLP) and Cal-Learn specifically provide services to teen parents. The AFLP provides voluntary case management for pregnant and parenting teens ages 19 and under to ensure that they receive prenatal care. This program emphasizes prenatal care, parenting skills resource management, goal setting, school attendance, health education, and other assistance as needed. Cal-Learn provides mandatory case management for pregnant or parenting teens ages 19 and under who participate in the CalWORKS program and have not yet graduated from high school. Participants receive financial bonuses or sanctions based primarily on their report cards and high school graduation.

Infant Mortality Rates

What Is It?

The infant mortality rate is defined as the number of deaths among infants, 1 year of age or younger, per 1,000 live births. Neonatal mortality rates refer to infant deaths at 27 days old or younger, and postneonatal mortality refers to infant deaths from 28 days old to 1 year old.

Why Is It Important?

Infant mortality is one of the most important health indicators of a nation. It is associated with various health factors, such as maternal health, quality and access to medical care, socioeconomic conditions, and public health practices. The United States' infant mortality rate has continued to steadily decline since 1900, from 100 infant deaths per 1,000 live births, to 6.9 infant deaths per 1,000 live births in 2008 (HHS, 2006). However, even with the steady decline in infant mortality, the United States' infant mortality rate is higher than in most other developed countries. The United States ranks 29th worldwide in infant mortality, according to data collected in 2004. This ranking is due in large part to disparities that continue to exist among various racial and ethnic groups in this country (CDC, 2009d). The position of the United States in comparison with countries with the lowest infant mortality rates appears to be worsening (CDC, 2008).

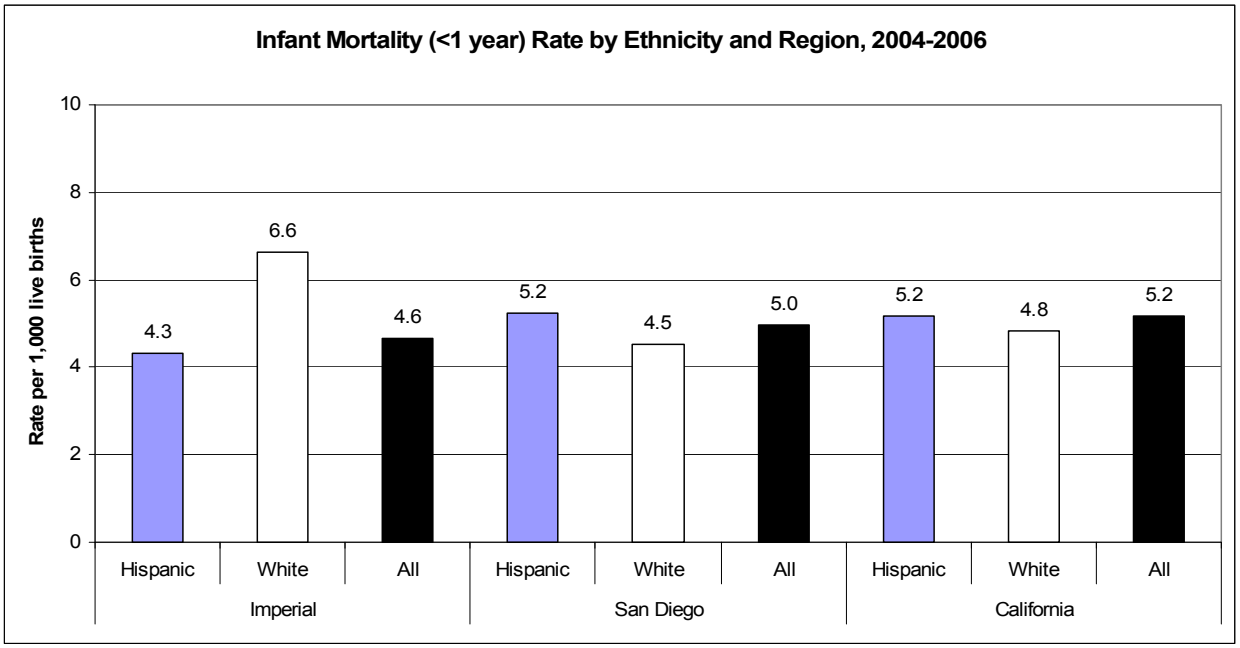
In California, the infant mortality rate of 5.2 is lower than the nationwide infant mortality rate of 6.9. Since 1980, the infant mortality rate in California has been lower compared with that of the national rate (CDPH, 2004).

What Is the Status in the Border Region?

Healthy People 2010 Objective 16-1 is to reduce the infant mortality rate to 4.5 deaths, neonatal mortality rate to 2.9 deaths, and postneonatal mortality rate to 1.2 deaths per 1,000 live births. Healthy Border 2010 aims to reduce the infant mortality rate by 15 percent. As of 2006, data show that Imperial County is close to achieving the Healthy People 2010 objectives with an overall infant mortality rate of 4.6. San Diego County has an infant mortality rate of 5.0, which is slightly higher than Imperial County, but is lower than the statewide infant mortality rate of 5.2 (Figure 3.3). Neonatal mortality and postneonatal mortality rates are illustrated in Appendix F: Tables 3.3 and 3.4.

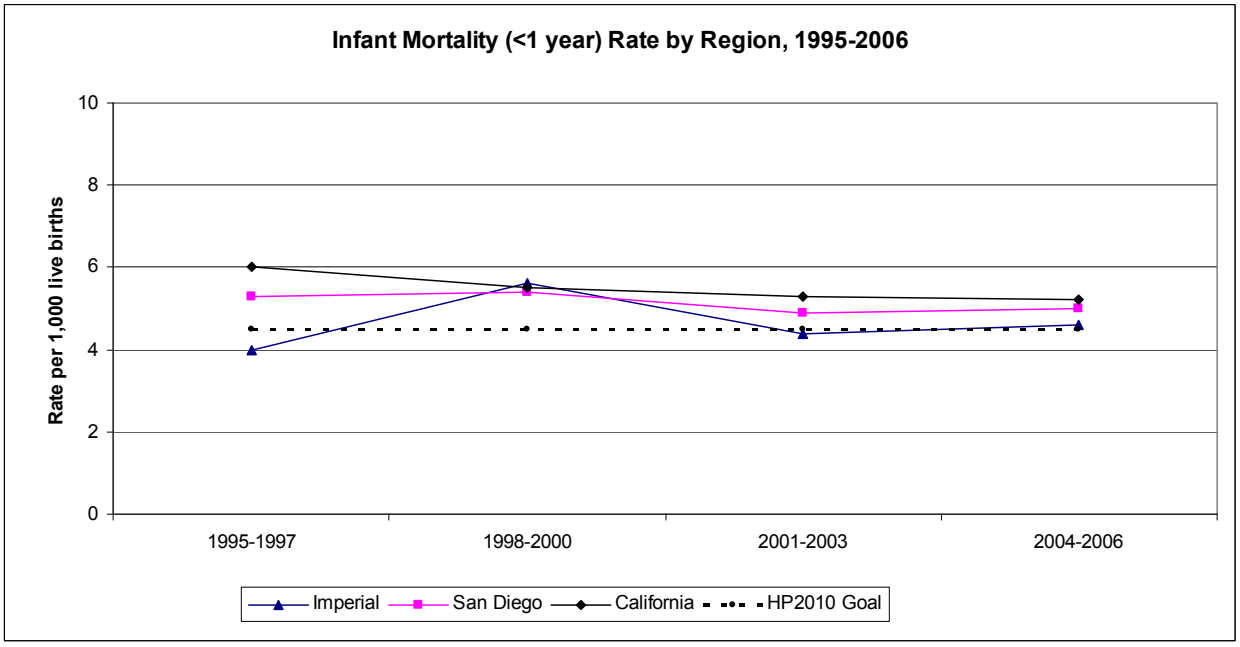
There were no significant differences in infant mortality rates between Imperial County, San Diego County and California as a whole. From 1995-2006, infant mortality rates ranged from 4.0 to 4.6 deaths per 1,000 live births in Imperial County (1995-1997 vs. 2004-2006), and 5.3 to 5.0 deaths per 1,000 live births in San Diego County (1995-1997 vs. 2004-2006) (Figure 3.4, Appendix F: Tables 3.2, 3.3, 3.4).

Figure 3.3



Source: Birth and Death death records, California Department of Public Health
Healthy People 2010 Objective 16-1c: Reduce all infant deaths (within 1 year) to 4.5 per 1,000 live births

Figure 3.4



Source: Birth and death records, California Department of Public Health
Healthy People 2010 Objective16-1c: Reduce all infant deaths (within 1 year) to 4.5 per 1,000 live births

Infant Mortality Due to Birth Defects

The Healthy Border objective is to reduce infant mortality from congenital abnormalities by 30 percent. Birth defects, or conditions resulting from abnormal prenatal development, are abnormalities of structure, function, or body metabolism present at birth. One in 33 babies are born with structural birth defects or mental retardation. More than 1 in 3 babies who die have structural birth defects, which make them the leading cause of infant mortality in California and nationwide (CBDMP, 2008b). The most common birth defects have major public health impacts because they require extensive medical treatment or result in lifelong disability (CBDMP, 2008a). The Healthy People 2010 objective is to reduce the infant mortality rate due to birth defects to 1.1 per 1,000 live births.

Infant Mortality Due to Sudden Infant Death Syndrome (SIDS)

SIDS is the sudden death of an infant, under 1 year of age, which remains unexplained after a thorough case investigation, including a complete autopsy, examination of the death scene, and review of the clinical history (Willinger, James and Catz, 1991).

Since 1983, the rate of SIDS has fallen by more than 50 percent. However, there are still about 2,500 deaths per year in the United States (ASI, 2009). SIDS is the leading cause of death among infants ages 1–12 months (postneonatal). It most commonly affects infants between the ages of 2 and 4 months, with 90 percent of cases in infants under 6 months (The Nemours Foundation, 2008). SIDS is the third leading cause overall of infant mortality in the United States.

SIDS is responsible for roughly 1 death per 2,000 births in the U.S. It is responsible for far fewer deaths than congenital disorders and disorders related to short gestation. SIDS deaths in the U.S. decreased from 4,895 in 1992 to 2,247 in 2004. However, during a similar time period, 1989 to 2004, SIDS being listed as the cause of death decreased from 80 percent to 55 percent. Although the overall rate of SIDS in the United States has declined by more than 50 percent since 1983, there is some speculation that the decrease is due to code shifting on death certificates (Bowman and Hargrove, 2007). Preventing SIDS remains an important public health priority (CDC, 2009e).

What Is Being Done?

Nationwide efforts to prevent infant mortality include programs to improve access to prenatal and newborn care, including Healthy Start, Medicaid and the State Children's Health Insurance Program (CHIP). Health and Human Services (HHS) also supports public health campaigns to promote healthy habits among expectant parents or those caring for an infant to prevent child malnutrition. HHS also supports medical research to better understand and prevent birth defects, premature birth and Sudden Infant Death Syndrome, and to promote healthier growth and development (HHS, 2006).

In California, the Fetal and Infant Mortality Review Program (FIMR) exists to empower local community members to take necessary steps to prevent fetal and infant mortality within their communities. FIMR works to reduce racial disparities in fetal and infant deaths. Another program in California is the Sudden Infant Death Syndrome Program, which works to reduce the number of SIDS deaths and help families and others deal with the tragedy of SIDS. The SIDS program runs outreach programs that educate parents, families, and child-care providers how to reduce the risk of SIDS. FIMR also runs trainings for hospital staff, public health nurses, emergency responders, coroners, child-care providers, foster parents, and the general public on SIDS facts and how to deal with the emotional impact of a SIDS-related death.

Low Birth Weight

What Is It?

Low birth weight (LBW) is defined as a newborn weighing less than 2,500 grams (5.5 pounds). An infant born weighing less than 1,500 grams (about 3.3 pounds) is considered to be very low birth weight (VLBW). LBW and VLBR are the result of either preterm birth or restricted fetal growth. Each is associated with fetal and neonatal mortality and morbidity, inhibited growth and cognitive development, and chronic disease later in life (UNICEF, 2004).

Why Is It Important?

LBW and VLBW are considered important indicators of future health for the infant as well as for the general public. LBW statistics present a general summary of a community's long-term maternal malnutrition, ill health, and poor pregnancy healthcare (UNICEF, 2004). Individually, LBW and VLBW are associated with an array of developmental disabilities and long-term disabilities, such as cerebral palsy, autism, mental retardation, and vision and hearing impairments (HHS, 2000). Low birth weight infants are approximately 20 times more likely to die than infants who weigh more (UNICEF, 2004).

Many of the predisposing factors for LBW are derived from low socioeconomic conditions such as poor nutrition, chronic poor health, pregnancy complications, non-specific infections, and unhealthy work environments (UNICEF, 2004). Additionally, the use of alcohol, tobacco, and other illicit drugs is a major risk factor for LBW and VLBW.

It is important to monitor the incidence of LBW and VLBW and implement effective interventions to treat them. LBW and VLBW are both the cause of and the effect of disease, representing an unhealthy cycle in individuals as well as in entire communities.

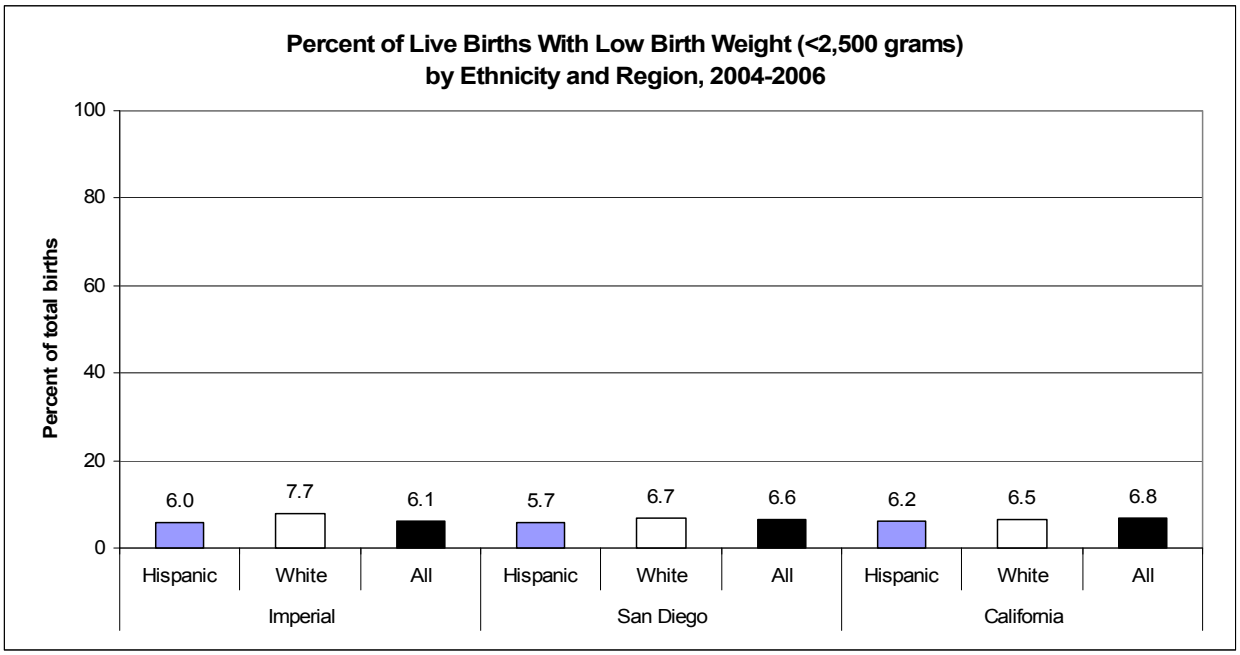
What Is the Status in the Border Region?

Low Birth Weight

Healthy People 2010 Objective 16-10 is to reduce low birth weight babies to 5 percent of all live births. All ethnicities in all regions examined do not meet the Healthy People 2010 goal for low birth weight.

In California and San Diego County, Hispanics have a significantly lower rate of LBW than non-Hispanic whites and all ethnicities combined. There is no significant difference in Imperial County between the ethnicities examined with regards to LBW. California has a significantly higher rate of LBW than does San Diego County and Imperial County (Figure 3.5, Appendix F: Table 3.5). There are no other significant differences between ethnicities or regions in the populations examined (Appendix F: Table 3.7).

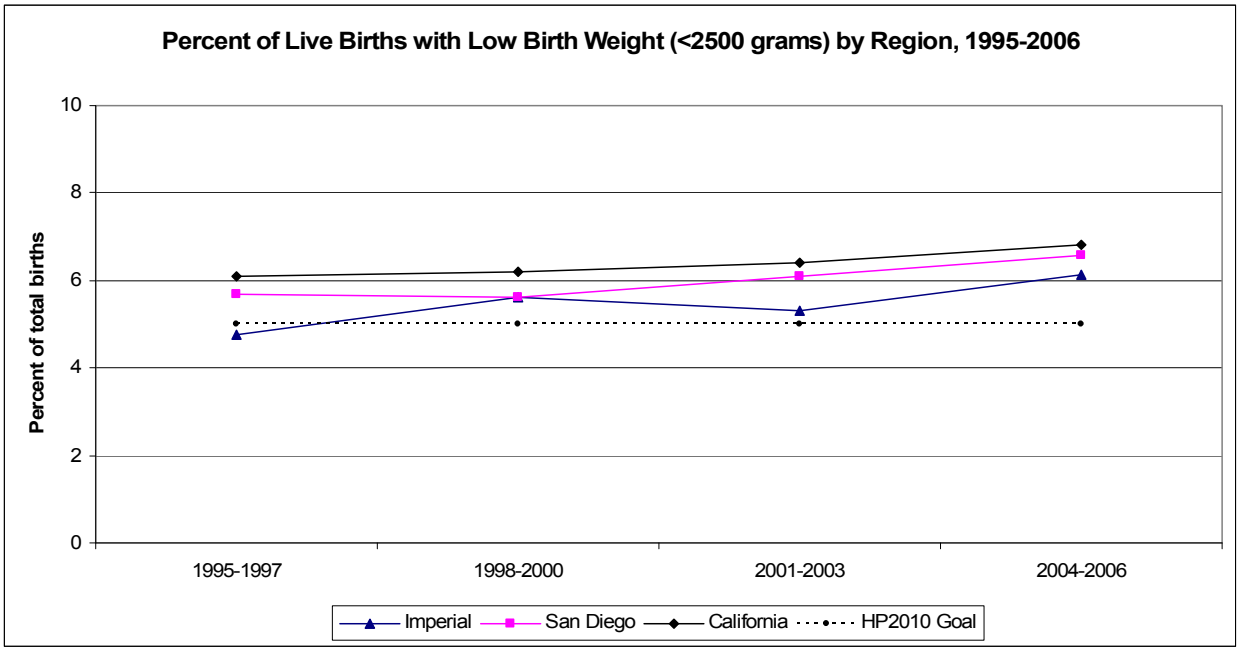
Figure 3.5



Source: Birth and death records, California Department of Public Health
Healthy People 2010 Objective 16-10a: Reduce low birth weight (LBW) to 5.0 percent

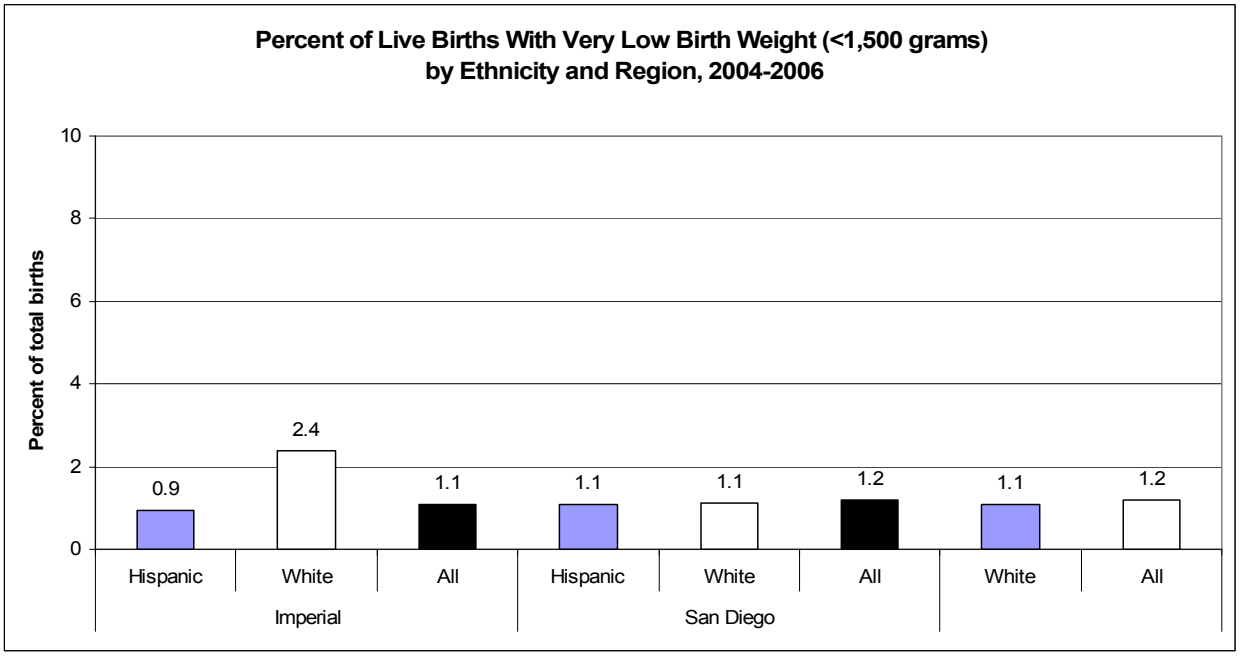
There is no indication that any of the populations examined are approaching the Healthy People 2010 objectives. On the contrary, the rate of LBW in the population as a whole in all three regions examined has increased significantly (Figure 3.6). From 1995-2006, the only population that has not shown a significant increase in LBW rate is the non-Hispanic white population in Imperial County (Appendix F: Table 3.5).

Figure 3.6



Source: Birth and death records, California Department of Public Health
Healthy People 2010 Objective 16-10a: Reduce low birth weight (LBW) to 5.0 percent

Figure 3.7

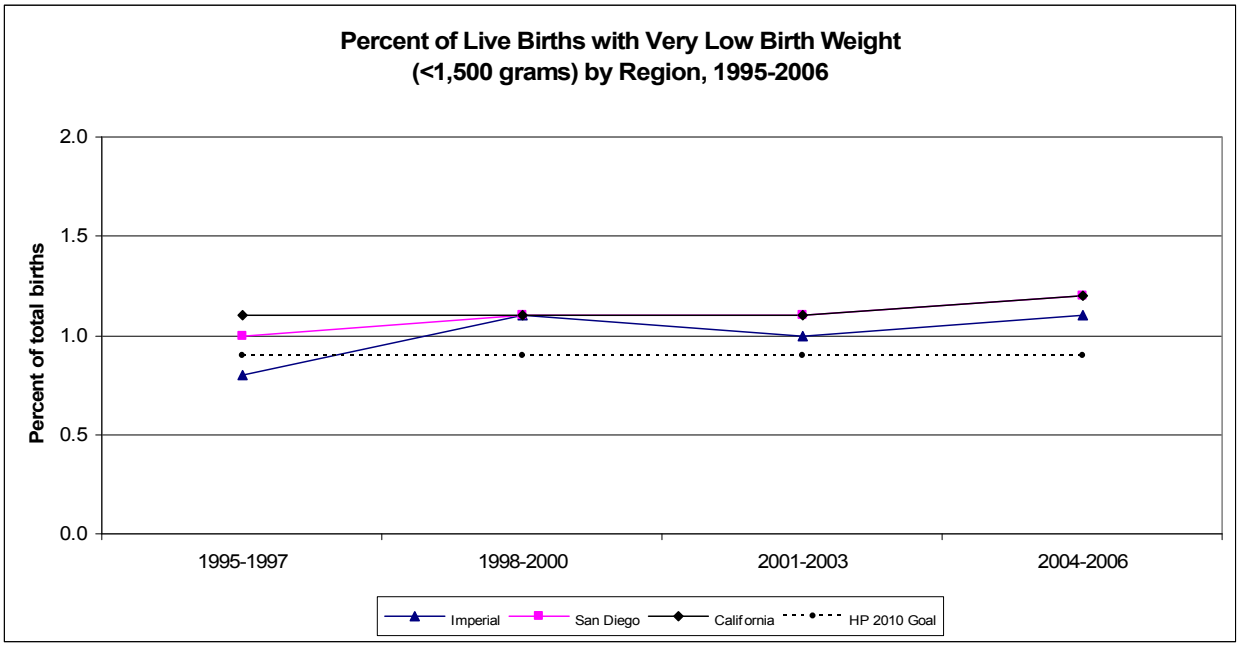


Source: Family Health Outcomes Project, Maternal, Child and Adolescent Health Program, California Department of Public Health
Healthy People 2010 Objective 16-10b: Reduce very low birth weight (VLBW) to 0.9 percent

Very Low Birth Weight

In Imperial County, Hispanics and all ethnicities combined have significantly lower rates of VLBW than non-Hispanic whites. There is no significant difference in San Diego County between the ethnicities examined with regard to VLBW (Figure 3.7). There are no other significant differences between ethnicities or regions in the populations examined (Appendix F: Table 3.6).
There is no indication that any of the regions examined are approaching the Healthy People 2010 objectives. Only Hispanics in Imperial County meet the Healthy People 2010 goal for very low birth weight. On the contrary, from 1995-2006, the rate of VLBW in the non-Hispanic white population has increased significantly in Imperial County. In San Diego County and California statewide, the rate of VLBW has increased for Hispanic, non-Hispanic white, and all ethnicities combined (Figure 3.8).

Figure 3.8



Source: Family Health Outcomes Project, Maternal, Child and Adolescent Health Program, California Department of Public Health
Healthy People 2010 Objective 16-10b: Reduce very low birth weight (VLBW) to 0.9 percent

What Is Being Done?

The California Perinatal Quality Care Collaborative (CPQCC) is a group of public and private California leaders in healthcare committed to improving care and outcomes for the state's pregnant mothers and newborns. It provides tool kits statewide on how to care for low birth weight infants in the delivery room and nutritionally (CPQCC, 2008).

San Diego and Imperial counties participate in the Comprehensive Perinatal Services Program (CPSP), which works to decrease the incidence of low birth weight in infants and improve the outcome of every pregnancy. CPSP services are available from the beginning of pregnancy until 60 days after the baby is born (CDPH, 2007a).

Early Postpartum Breastfeeding

What Is It?

A mother's milk has the perfect amount of fat, sugar, water, and protein that is needed for a baby's growth and development. Most babies find it easier to digest breast milk than they do formula. Breast milk has antibodies to help protect infants from bacteria and viruses and to help fight off infection and disease. In addition to that, human milk straight from the breast is always sterile.

The U.S. surgeon general recommends that babies be fed with only breast milk for the first six months of life. Recent studies show that babies who are exclusively breastfed for six months are less likely to develop ear infections, diarrhea, and respiratory illnesses, and may be less likely to develop childhood obesity. Breast-fed babies are sick less often and have fewer visits to healthcare providers. Both babies and mothers gain many benefits from breastfeeding. Research indicates that women who breastfeed may have lower rates of certain breast and ovarian cancers. Breastfeeding also helps the uterus shrink back to its original size as well as decreases uterine bleeding that can occur after giving birth (HHS, 2004).

Why Is It Important?

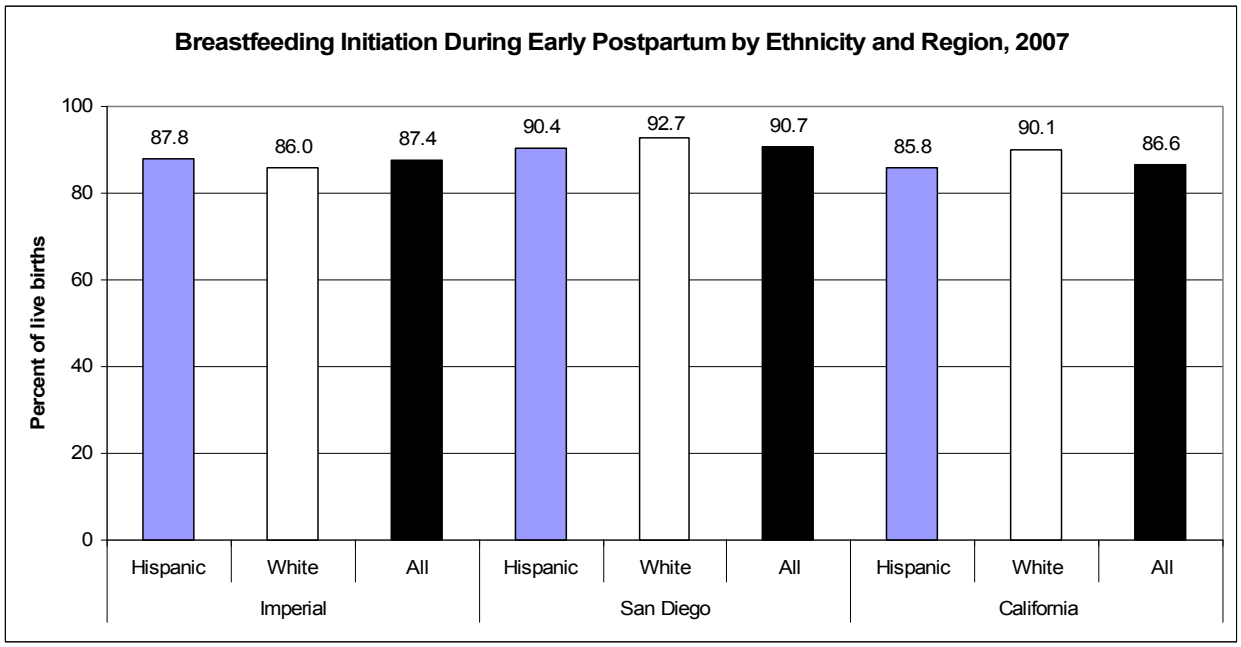
Although more than 86 percent of California mothers start breastfeeding in the hospital, many stop within the first few days or weeks (HHS, 2004).

Breast-fed children have a decreased risk of postneonatal death in the United States (Chen, 2004). The odds of dying among infants who are not breast-fed in the United States are more than 20 percent higher compared with infants who are breast-fed. One study has shown that premature infants who were fed breast milk from a bottle did better on follow-up testing than children who were fed formula (Lucas et al., 1992).

What Is the Status in the Border Region?

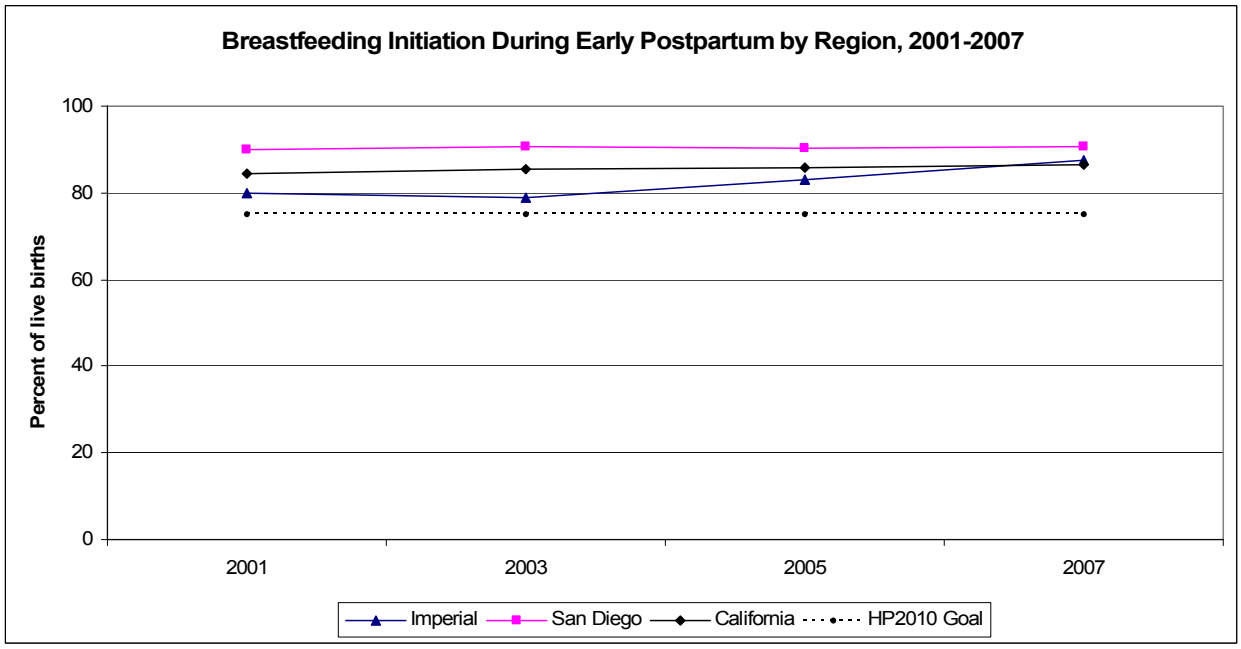
The statewide breastfeeding rate for all populations was 84.4 percent in 2001. By 2007, the statewide rate increased to 86.6 percent (Figure 3.9, Appendix F: Table 3.7). In Imperial County, the breastfeeding rate among Hispanics in 2007 was 87.8 percent, an increase from 79.4 percent in 2001. The non-Hispanic white population in Imperial County also saw a significant increase to 87.4 percent from 79.9 percent. In San Diego County, the Hispanic population breastfeeding rate showed no significant change from 2001 to 2007. The non-Hispanic white population had an increase from 2001 to 2007, from 91.7 percent to 92.2 percent (Figure 3.10, Appendix F: Table 3.7). All ethnicities and regions examined meet the Healthy People 2010 goal of 75 percent of mothers who breast-feed in early postpartum. This does not necessarily meet the surgeon general's recommendation.

Figure 3.9



Source: Maternal, Child, and Adolescent Health Program, California Department of Public Health
Healthy People 2010 Objective 16-19: Increase the proportion of mothers who breast-feed their babies in early postpartum to 75 percent

Figure 3.10



Source: Maternal, Child, and Adolescent Health Program, California Department of Public Health
Healthy People 2010 Objective 16-19: Increase the proportion of mothers who breast-feed their babies in early postpartum to 75 percent

What Is Being Done?

San Diego County Breastfeeding Coalition/Imperial County Breastfeeding Coalition is a nonprofit association whose mission is to promote and support breastfeeding through education, outreach and advocacy in their respective communities (SDCBC, n.d.).

Childhood Immunizations

What Is It?

Immunizations are one of public health's greatest achievements. Immunizations, also called vaccines, prevent and protect from dangerous illnesses. Many infectious diseases that were once common in the United States are now rare or have been virtually eliminated. Vaccines have helped in the control of various infectious diseases such as polio, measles, whooping cough, and chicken pox.

Why Is It Important?

There are many serious consequences that can occur from lack of vaccination. Infants and children are especially vulnerable to infectious diseases. Because infants are too young to receive all immunizations, they are at especially high risk of hospitalization or serious complications from vaccine-preventable diseases. Immune systems develop as children age, which is why many vaccines are given throughout childhood. Many vaccine-preventable diseases during infancy and childhood, such as whooping cough, measles and polio, can cause lifelong disabilities or death. Fortunately, many of these diseases are under control in the United States.

Vaccine-preventable disease levels are at or near record lows. However, high immunization coverage levels should not be taken for granted. Children and adults who are not immunized benefit from the rest of the population being vaccinated. Immunizations are not just for infants and children. People of all ages need immunizations to prevent disease and to stay healthy. To continue to protect America's children and adults, maximum immunization coverage must be obtained in all populations (CDC, 2009f).

What Is the Status in the Border Region?

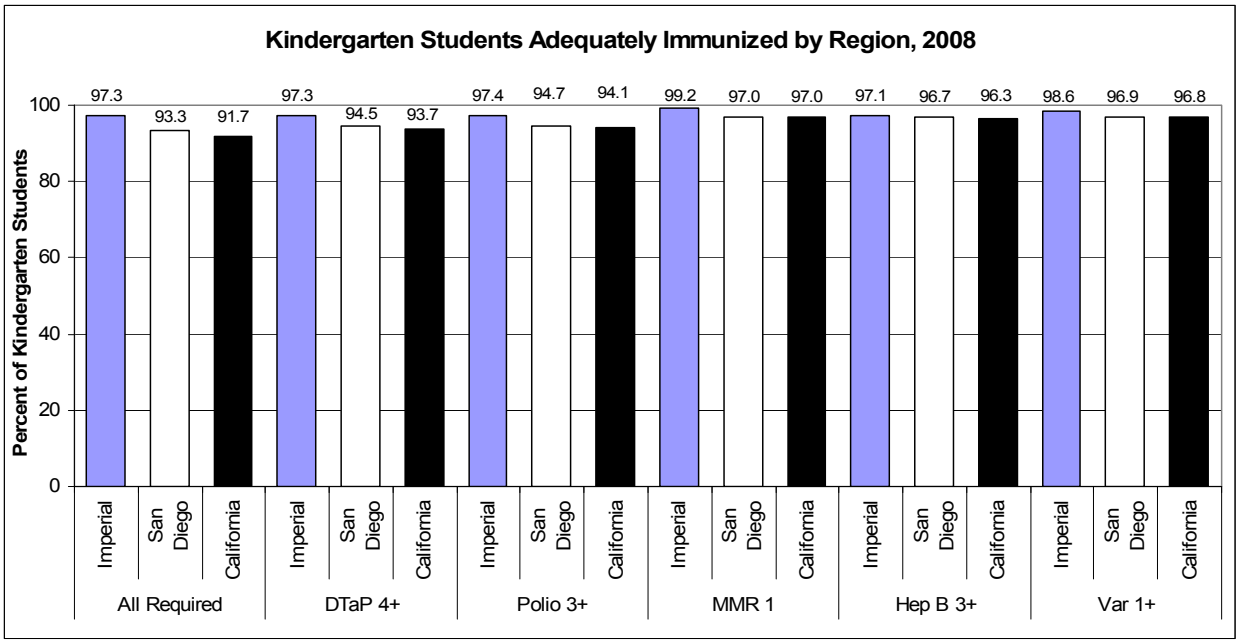
California's local health departments, immunization coalitions, healthcare providers and other immunization partners work closely to promote and maintain high immunization coverage levels throughout the state. Healthy People 2010 has a number of objectives related to immunization coverage. California's immunization coverage goal for 2010 is in line with Healthy People 2010 objectives, with 90 percent coverage for each of the following individual vaccines: 4 doses DtaP, 3 doses Hib, 3 doses Hep b, 1 dose MMR,

3 doses of polio and 1 dose varicella, and 80 percent coverage for all childhood vaccine series by 19-35 months of age (CDPH, 2009). Healthy Border 2010 aims to achieve and maintain an immunization coverage rate of 90 percent for children ages 19-35 months as well. Additionally, Healthy People 2010 aims to achieve 95 percent coverage for DtaP, MMR and polio for all children in day care and in kindergarten through first grade.

To prevent some of the most serious infections, the California School Immunization Law requires that children receive a series of immunizations before entry to schools, child-care centers, or family child-care homes. In addition, the California Immunization Law requires schools, child-care centers, and family child-care homes to enforce immunization requirements, to maintain immunization records of all children enrolled, and to submit reports to the health departments.

Data presented in this report are from California's Kindergarten and Child-Care Immunization Assessments (California Health and Safety Code, Division 105, Part 2, Chapter 1, 120325). In California children entering kindergarten are between 56 and 68 months old (California Education Code 48000), thus the data presented in this report are a proxy for the 2010 goals and do not represent exact adherence to the objectives' age range. Supplemental data are from the California Kindergarten Retrospective Survey 2008 for children 24 months old. Additional data are presented from the National Immunization Survey (NIS) that are representative of 2010 goals, though this data are limited to the state level.

Figure 3.11



Source: Kindergarten Assessment Results, Immunization Branch, California Department of Health Services, 2008

Imperial County and San Diego County, as well as California as a whole, report vaccine coverage in kindergarten children in excess of 90 percent for individual vaccines and complete vaccine coverage (Figure 3.11, Appendix F: Table 3.8). For each vaccine and

for complete coverage, Imperial County reports a higher rate of kindergarten vaccination than San Diego County. Both border counties report higher rates than California statewide. This trend is also mirrored in the border counties for all children entering child-care (Appendix F: Table 3.9).

Though kindergarten children meet California state and Healthy People 2010 objectives, NIS data for California report that children ages 19-35 months do not meet the objective for DTaP 4+ (84.9%) or for complete coverage (77.1%). Additionally, the Kindergarten Retrospective Survey indicates that children at 24 months of age do not adhere to the goals for DTaP 4+ (79.4%), Var 1+ (87.2%), or complete coverage (70.2%) (CDPH, 2009). Data presented by the CA Retrospective Survey along with the NIS data show that although children in California ultimately reach the Healthy People 2010 objective, there is a significant delay in attainment.

What Is Being Done?

The Vaccines for Children Program, established by an act of Congress in 1993, helps families by providing free vaccines to doctors who serve eligible children 0 through 18 years of age. The VFC program is administered at the national level by the U.S. Centers for Disease Control and Prevention (CDC) through the National Center for Immunization and Respiratory Diseases. CDC contracts with vaccine manufacturers to buy vaccines at reduced rates. Enrolled VFC providers are able to order vaccines through their state VFC Program and receive routine vaccines at no cost. This allows them to provide routine immunizations to eligible children without high out-of-pocket costs. The California Vaccines for Children (VFC) Program is managed by the California Department of Health Services, Immunization Branch (California Vaccine Program, 2008).

The California Office of Binational Border Health facilitates collaboration among many border health organizations to promote immunizations, including the San Diego County and Imperial County health departments and counterparts across the border. Although the U.S. and Mexico have strong immunization programs, vaccine delivery and recommended schedules differ. These differences provide ample opportunity for partnership and dialogue. COBBH, the local health departments, and Mexican counterparts have a long-standing collaborative relationship. Several education and outreach, and training activities have been organized and facilitated including Vaccination Week in the Americas celebrations and *promotoras* trainings.

DIABETES AND LIFESTYLE

Diabetes is widely recognized as one of the leading causes of death and disability in the United States. In 2006, it was the seventh leading cause of death. Diabetes is associated with long-term health complications that can affect almost every part of the body. The disease often leads to blindness, heart and blood vessel disease, stroke, kidney failure, amputations, and nerve damage. Uncontrolled diabetes can complicate pregnancy; birth defects are more common in babies born to diabetic women.

Diabetes, Physical Activity, Nutrition, Obesity, and High Blood Pressure

The cause of diabetes continues to be a mystery, although both genetics and environmental factors, such as obesity and lack of exercise, appear to play roles. People with diabetes can take steps to control the disease and lower the risk of complications. General good health behaviors are important in combating the development and regulating the progression of diabetes.

Physical activity and good nutrition are important tools in preventing diabetes and reducing diabetic complications. Both of these are important in dealing with obesity as well. Obesity is an important underlying health factor in the development and progression of diabetes. Obese people tend to have higher blood pressure than people within a normal weight range, and obesity is a factor in the development of Type 2 diabetes.

High blood pressure is an important risk factor for the development and worsening of many diabetic complications. Diabetes increases the risk of developing high blood pressure and other cardiovascular problems, because it adversely affects arteries. This can potentially result in atherosclerosis, causing high blood pressure. Having a normal blood pressure is as important to managing diabetes as having good control of blood sugar when it comes to preventing diabetes complications. Working together, people with diabetes and their healthcare providers can reduce the occurrence of these and other diabetes complications by controlling the levels of blood sugar and blood pressure, and by receiving other preventive care practices in a timely manner.

Diabetes

What Is It?

Diabetes is a chronic medical condition marked by high levels of blood glucose (a form of sugar) resulting from defects in insulin production, insulin action or both (NDIC, 2008). There are several types of diabetes including:

- **Type 1 diabetes**, previously known as juvenile diabetes, is an autoimmune disease in which the body does not produce the hormone insulin. There is no known way to prevent type 1 diabetes.

- **Type 2 diabetes**, previously known as adult-onset diabetes, is a metabolic disease in which the body does not make enough insulin or use it effectively. Type 2 diabetes can be prevented or delayed by maintaining a healthy weight and exercising regularly.

- **Gestational diabetes** occurs in pregnant women who have never had diabetes before but have higher than normal blood glucose levels during pregnancy. Without intervention women with gestational diabetes have a 40% to 60 percent chance of developing type 2 diabetes within five to 10 years.

- **Prediabetes** is a condition that raises the risk of developing Type 2 diabetes, heart disease, and stroke. People with prediabetes have blood glucose levels higher than normal but not high enough to be classified as diabetes. Without intervention, about 25 percent of people with prediabetes will develop diabetes within three to five years.

Diabetes, particularly type 2 diabetes, is a significant and growing health problem that affects adults and children, causing a number of serious complications including blindness, amputations, and kidney failure. Type 2 diabetes is a major contributor to heart attacks and strokes. Overall, the risk for death among people with diabetes is about twice that of people of similar age without diabetes (CDC, 2007b).

Certain racial/ethnic groups have rates of diabetes that are higher than the national average. These include Hispanic/Latinos, African Americans, Native Americans, and Asian/Pacific Islanders. Hispanics of Mexican heritage have higher rates of diabetes than other Hispanics. Recent increases in the rates of diabetes nationally are attributed to the increase in obesity and lack of physical activity (Diamant et al., 2007).

Why Is It Important?

The number of people diagnosed with diabetes in California continues to rise. In 2007, 2.1 million adults had been diagnosed with diabetes, up from 1.5 million in 2001, and 9.2 percent of adult Hispanics in California have diagnosed diabetes (Figure 4.1,

Appendix F: Table 4.1). It is estimated that about 660,000 adults have undiagnosed diabetes. Total healthcare and related costs for the treatment of diabetes for the state of California is about $24.5 billion per year. Direct medical costs (e.g. hospitalizations, medical care, and treatment supplies) account for about $18.7 billion, with the other $5.8 billion accounting for indirect costs such as disability payments, time lost from work, and premature death (California Diabetes Program, 2008). In 2008, diabetes was the seventh leading cause of death in the United States. It is also the leading cause of blindness, amputations, and kidney failure, in addition to being a contributing factor to cardiovascular disease, such as hypertension, heart attacks, and strokes. Cardiovascular disease is the leading cause of death among people with diabetes. The overall risk for death among people with diabetes is about twice that of people without diabetes (National Diabetes Education Program, 2008).

Prevalence rates of diabetes are consistently highest among individuals with low income and lower levels of education. Diabetes prevalence is higher among those with a family income below 100 percent of the federal poverty level (FPL) (9.6%) compared with those whose income is about 300 percent of the FPL (5.1%). Diabetes prevalence is much higher among those with less than a ninth-grade education (13.7%) compared with those with a college degree or higher (4.7%) (Diamant et al., 2007).

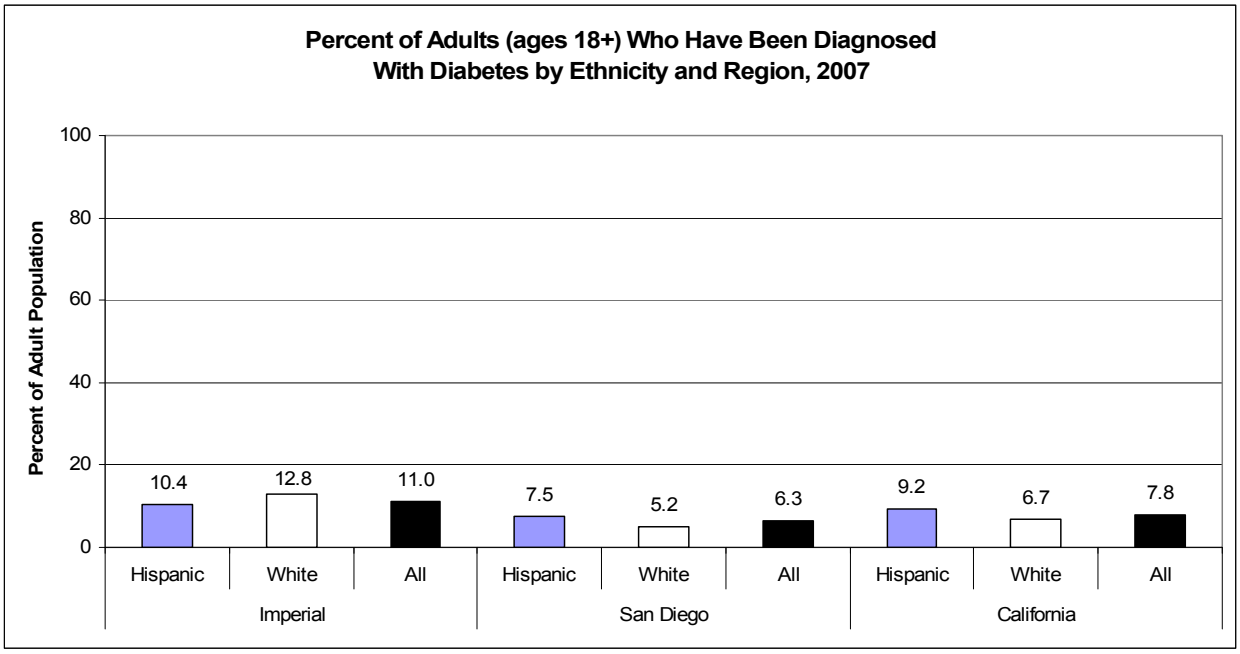
In California, individuals can never be turned down for health insurance offered by an employer; however, health insurance providers are allowed to refuse health insurance coverage for individuals based on their health status. In most cases, diabetes is considered an uninsurable condition (American Diabetes Association, 2009). In California, 11 percent of those who have been diagnosed with diabetes are currently uninsured. In California's Hispanic population, 20 percent of individuals who have been diagnosed with diabetes are uninsured (CHIS, 2007).

What Is the Status in the Border Region?

Diabetes prevalence along the U.S./Mexico border region, defined as 100 kilometers north and south of the border, is about twice as high as that in California statewide (PAHO, 2007). The Healthy People 2010 national objective is to reduce the prevalence of clinically diagnosed diabetes to 25 cases per 1,000 population (2.5%). Imperial County, San Diego County, and California have not met this objective.

In 2007, Imperial County reported the highest diabetes prevalence (11.0%) of all California counties (CHIS, 2007). This is significantly higher than San Diego County (6.3%) and statewide (7.8%). In California, Hispanic adults (9.2%) have a higher prevalence of diabetes than non-Hispanic whites (6.7%) and California statewide (7.8%). San Diego County appears to follow the same trend, though the differences are not statistically significant. In Imperial County, non-Hispanic whites (12.8%) appear to have a higher prevalence of diabetes than Hispanics (10.4%), but the difference is not statistically significant (Figure 4.1, Appendix F: Table 4.1).

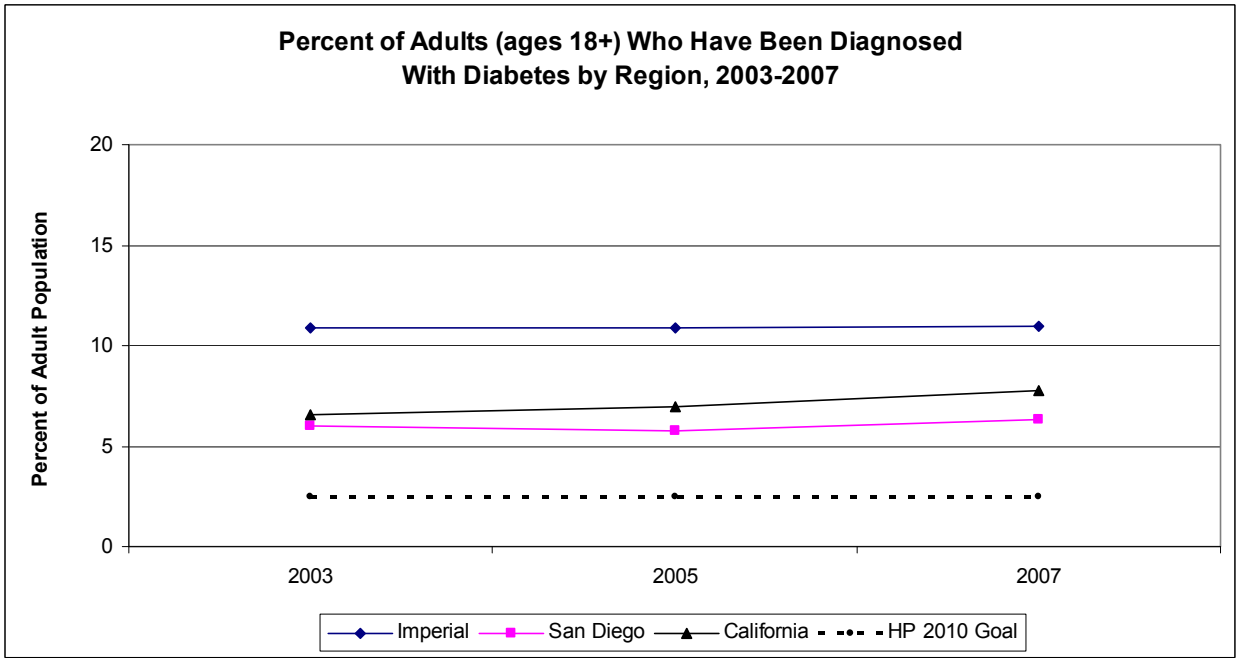
Figure 4.1



Source: 2007 California Health Interview Survey
Healthy People 2010 Objective:

5-2: Prevent Diabetes, Target: 2.5 new cases per 1,000 population per year
5-3: Reduce the overall rate of diabetes that is clinically diagnosed, Target: 25 overall cases per 1,000 population
5-4: Increase the proportion of adults with diabetes whose condition has been diagnosed, Target: 80 percent

Figure 4.2



Source: 2003, 2005 and 2007 California Health Interview Survey
Healthy People 2010 Objective:

5-2: Prevent Diabetes, Target: 2.5 new cases per 1,000 population per year
5-3: Reduce the overall rate of diabetes that is clinically diagnosed, Target: 25 overall cases per 1,000 population
5-4: Increase the proportion of adults with diabetes whose condition has been diagnosed, Target: 80 percent

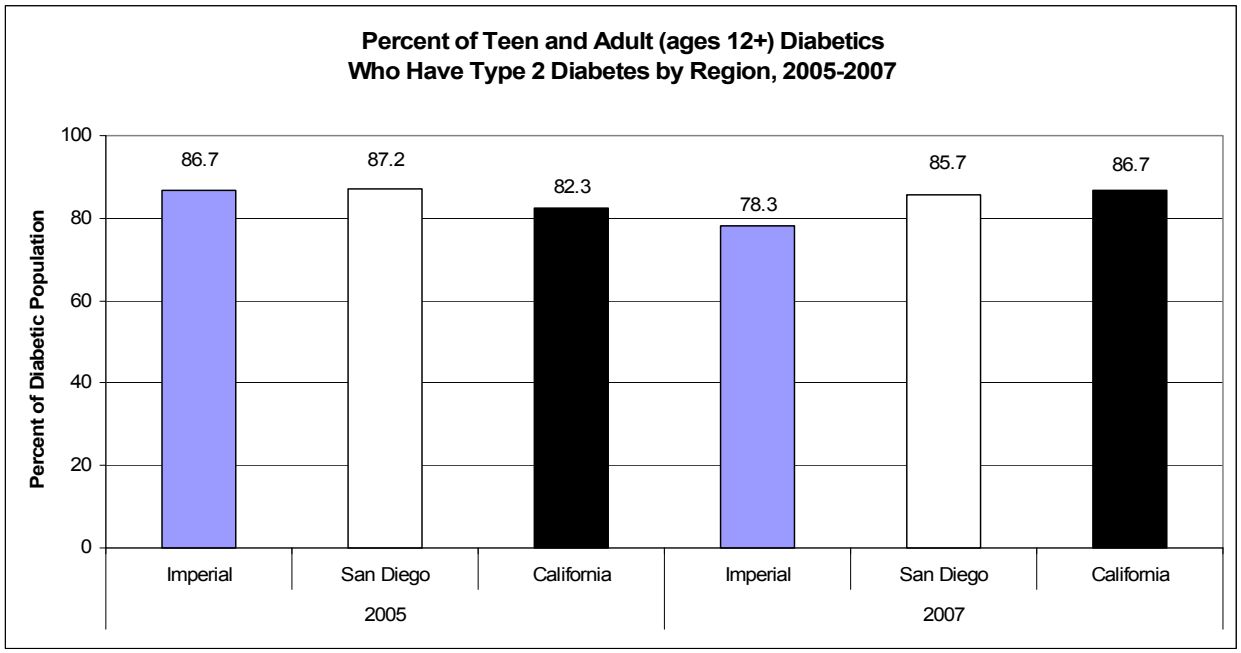
In California, from 2003 to 2007, there has been a significant increase in adults who have been diagnosed with diabetes for all ethnicities, Hispanics, and non-Hispanic whites. In Imperial County and San Diego County for all ethnicities, Hispanics, and non-Hispanic whites, there has not been a decrease in the prevalence of adults diagnosed with diabetes from 2003 to 2007. In fact, these trends seem to increase slightly, but this increase is not statistically significant (Figure 4.2).

Type 2 Diabetes

In 2007 for teens and adults (ages 12 and older) in California, the majority of cases of diabetes are type 2 (86.7%). Teen and adult diabetics in Imperial County (78.3%) have significantly lower rates of type 2 diabetes than San Diego County (85.7%) and California statewide (86.7%). Though not statistically significant, Imperial and San Diego counties see a slight decrease of type 2 diabetes within the teen and adult diabetic population from 2005 to 2007. California, on the other hand, shows a significant increase of type 2 diabetes from 2005 to 2007 (Figure 4.3, Appendix F: Table 4.2).

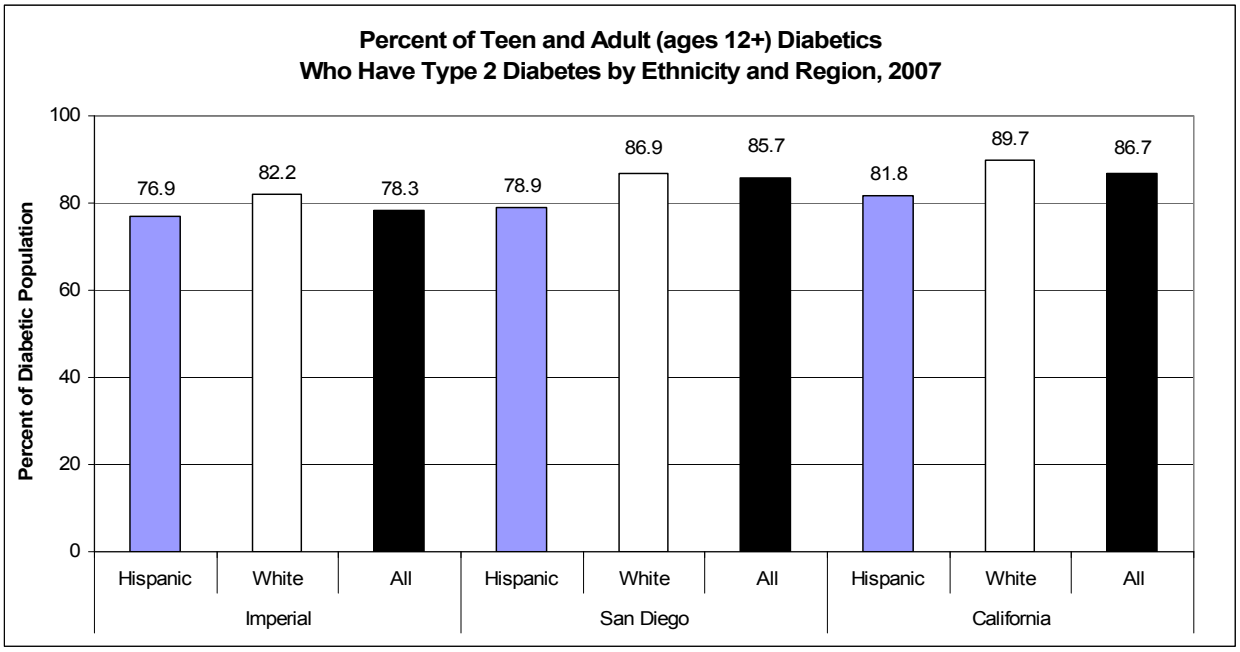
Of all teen and adult diabetics in 2007, non-Hispanic whites in California (89.7%) report the highest rate of type 2 diabetes. In San Diego and Imperial counties, non-Hispanic white teens and adults report a higher rate of type 2 diabetes among diabetics than their Hispanic counterparts and all ethnicities combined (Figure 4.4, Appendix F: 4.3).

Figure 4.3



Source: 2005 and 2007 California Health Interview Survey
Healthy People 2010 Objective:
5-2: Prevent Diabetes, Target: 2.5 new cases per 1,000 population per year
5-3: Reduce the overall rate of diabetes that is clinically diagnosed, Target: 25 overall cases per 1,000 population

Figure 4.4



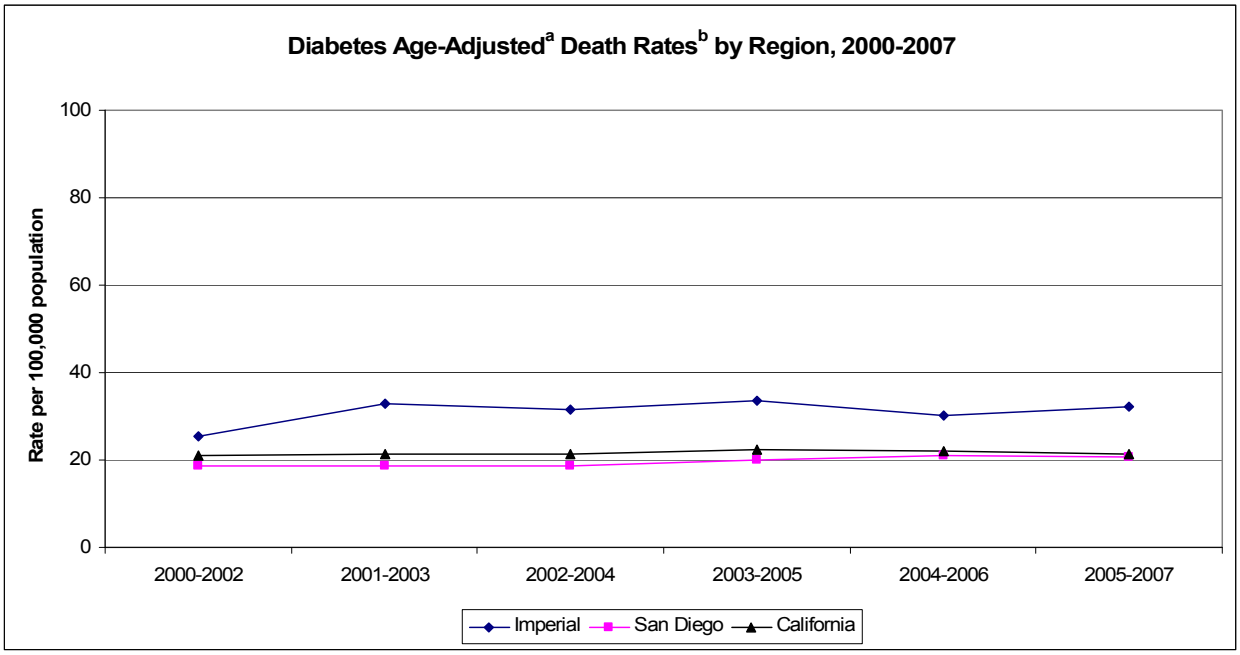
Source: 2007 California Health Interview Survey
Healthy People 2010 Objective:
5-2: Prevent Diabetes, Target: 2.5 new cases per 1,000 population per year
5-3: Reduce the overall rate of diabetes that is clinically diagnosed, Target: 25 overall cases per 1,000 population

Diabetes Mortality

Healthy People Objective 5-5 is to reduce the diabetes death rate to 45 deaths per 100,000. Healthy Border 2010 aims to reduce diabetes mortality by 10%. The national objective for diabetes mortality is based on both underlying and contributing causes of death. Data regarding multiple causes of death are not yet available for California, therefore the following data presented are used as a proxy for meeting the Healthy People objective.

Since 2000, the age-adjusted death rate due to diabetes has increased significantly in San Diego County and in California. In Imperial County the age-adjusted death rate has increased as well, though the increase is not statistically significant. During 2005-2007 for Imperial County the age-adjusted death rate due to diabetes (32.1 deaths per 100,000 population) is higher than in San Diego County (20.6 deaths per 100,000) and higher than the California average (21.9 deaths per 100,000) (Figure 4.5, Appendix F: Table 4.4).

Figure 4.5



[a] Age-adjusted to 2000 population
[b] Rate per 100,000 population
Source: County Health Status Profiles, California Department of Public Health, 2002-2008
Healthy People 2010 Objective 5-5: Reduce the diabetes death rate to 45 deaths per 100,000 population

What Is Being Done?

The California Diabetes Program (CDP) is a partnership between the California Department of Public Health and the University of California, San Francisco. It is funded primarily by the Centers for Disease Control and Prevention (CDC). The program is a coordinating leader for hundreds of multi-sector partners at the individual, community, healthcare, policy, and environmental levels. CDP works with many partner organizations to promote awareness of diabetes risk factors, increase prediabetes screening and support healthy communities that encourage healthy lifestyles.

The California Diabetes and Pregnancy Program (CDAPP) provides comprehensive health services and promotes improved pregnancy outcomes for high-risk pregnant women with preexisting diabetes and women who develop diabetes while pregnant, gestational diabetes mellitus (GDM). The program's goal is to reduce maternal and infant morbidity and mortality for this high-risk group to approximate the outcomes of the low–risk perinatal population.

The U.S.-Mexico Border Diabetes Prevention and Control Project aims to reduce the impact of diabetes among residents along the U.S.-Mexico border, through a model of participation and shared leadership throughout the U.S.-Mexico border region. The project was funded in 1999. In the first phase, the collaborators designed and conducted a prevalence study of diabetes and related biological and behavioral factors, including prediabetes, overweight and obesity, and preventive health practices. In the second phase, the project will undertake a pilot study of the effectiveness of an

intervention model aimed at improving the self-management of diabetes among those individuals living with type 2 diabetes, and to prevent or delay the onset of diabetes among those at high risk.

The Diabetes Coalition of California (DCC) is an independent organization consisting of individuals and agencies dedicated to the recognition and reduction of the adverse personal and public impact of diabetes in the state's diverse communities. The Coalition is composed of representatives from the general public, local health departments, universities, insurance and pharmaceutical companies, and a variety of community-based, voluntary, health and professional organizations.

Physical Activity

What Is It?

Physical activity is defined as movement of the body that uses energy. For health benefits, physical activity should be moderate or vigorous and add up to at least 30 minutes a day (USDA, 2009). Regular physical activity throughout life is important for maintaining a healthy body, enhancing psychological well-being, and preventing premature death (HHS, 2000).

Why Is It Important?

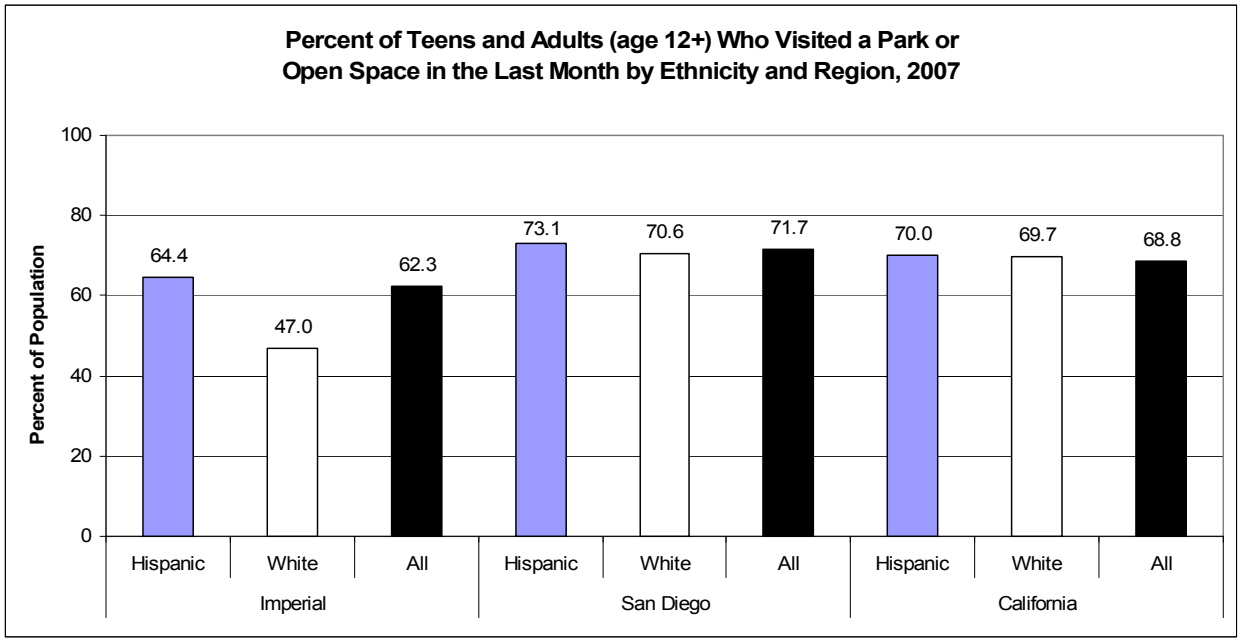
Research has demonstrated that virtually all individuals will benefit from regular physical activity. A surgeon general's report on physical activity and health concluded that moderate physical activity can substantially reduce the risk of developing or dying from heart disease, diabetes, colon cancer, and high blood pressure (HHS, 1996).

Regular physical activity is important for good health and is especially important when trying to lose weight or maintaining a healthy weight. Physical activity reduces risks associated with cardiovascular disease and diabetes, beyond that produced by weight reduction alone. Physical activity also helps reduce the risk for several forms of cancer, arthritis pain and associated disability, osteoporosis and falls, and symptoms of depression and anxiety (CDC, 2009c).

What Is the Status in the Border Region?

In 2007 62 percent of teens and adults in Imperial County visited a park, playground or open space in the last month. This is significantly less than in San Diego County (71.7%) and California statewide (68.8%). Of the regions and ethnicities examined, non-Hispanic whites in Imperial County report the lowest percent visiting a park, playground, or open space (47.0%). This rate is significantly lower than each ethnicity in both San Diego County and California statewide (Figure 4.6, Appendix F: Table 4.5).

Figure 4.6

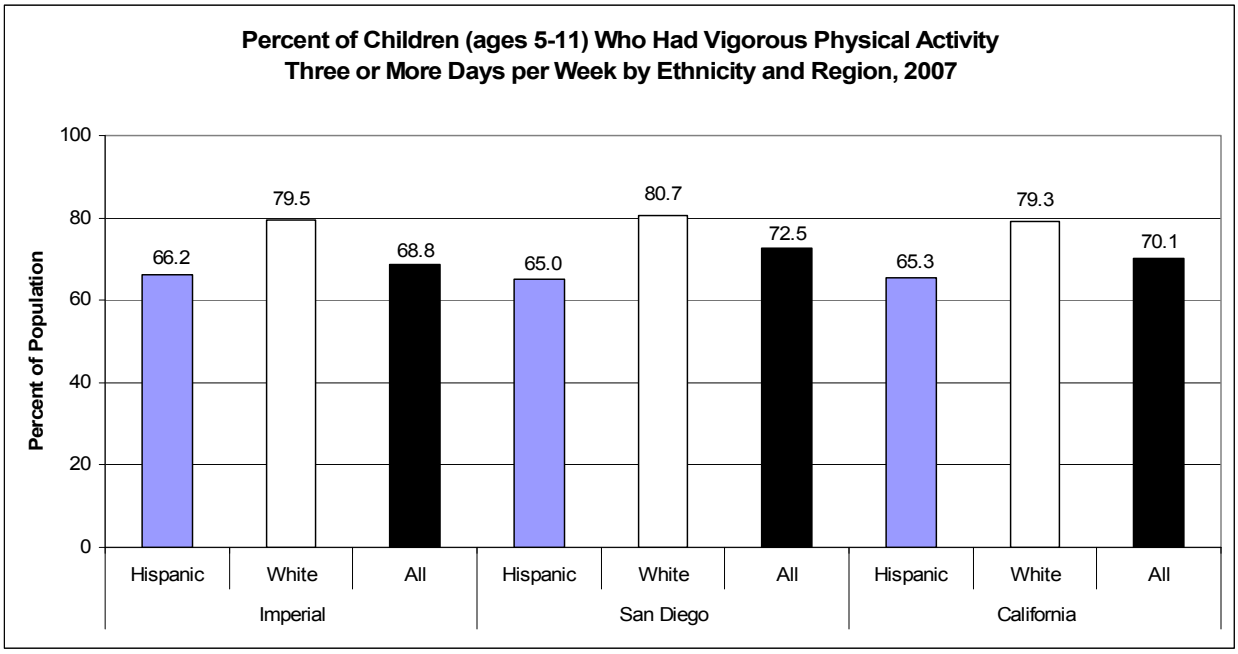


Source: 2007 California Health Interview Survey

Vigorous Physical Activity-Children

In 2007 there was no significant difference by region in the percentage of children engaging in vigorous physical activity. A significantly smaller percentage of Hispanic children (65.0%) in San Diego County engaged in vigorous physical activity than non-Hispanic white children (80.7%). In all three regions, non-Hispanic white children reported higher rates of vigorous physical activity, though the only significant difference is in California as a whole. In California, non-Hispanic white children (79.3%) had a significantly higher percentage of children who engage in vigorous physical activity compared with Hispanic children (65.3%). There is no Healthy People 2010 objective for vigorous physical activity for children, though the goal for vigorous physical activity for teens is at least 85 percent of adolescents to engage in vigorous physical activity three or more days a week (Figure 4.7).

Figure 4.7



Source: 2007 California Health Interview Survey

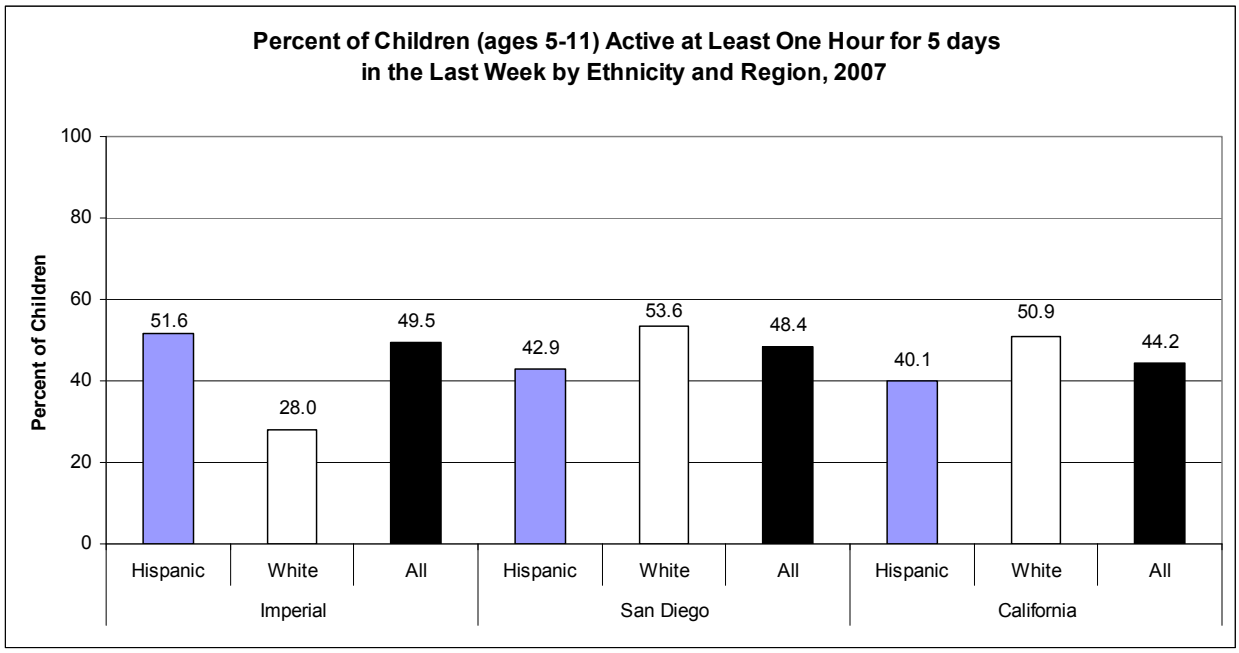
The percent of non-Hispanic white children ages 5-11 (51%) that engage in a least one hour of physical activity five or more days a week is significantly greater than California statewide (44.2%) and Hispanics (40%) in California. This trend is not necessarily mirrored in the border counties. For example, 52 percent of Hispanic children in Imperial County engage in at least one hour of physical activity five or more days a week, vs. 28 percent of non-Hispanic white children in Imperial County (this is not significantly different). There is no significant difference between ethnicities in San Diego County (Figure 4.8, Appendix F: Table 4.6).

Vigorous Physical Activity-Adolescents

The Healthy People 2010 Objective 22-7 aims for at least 85 percent of adolescents to engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days a week for 20 or more minutes per occasion.

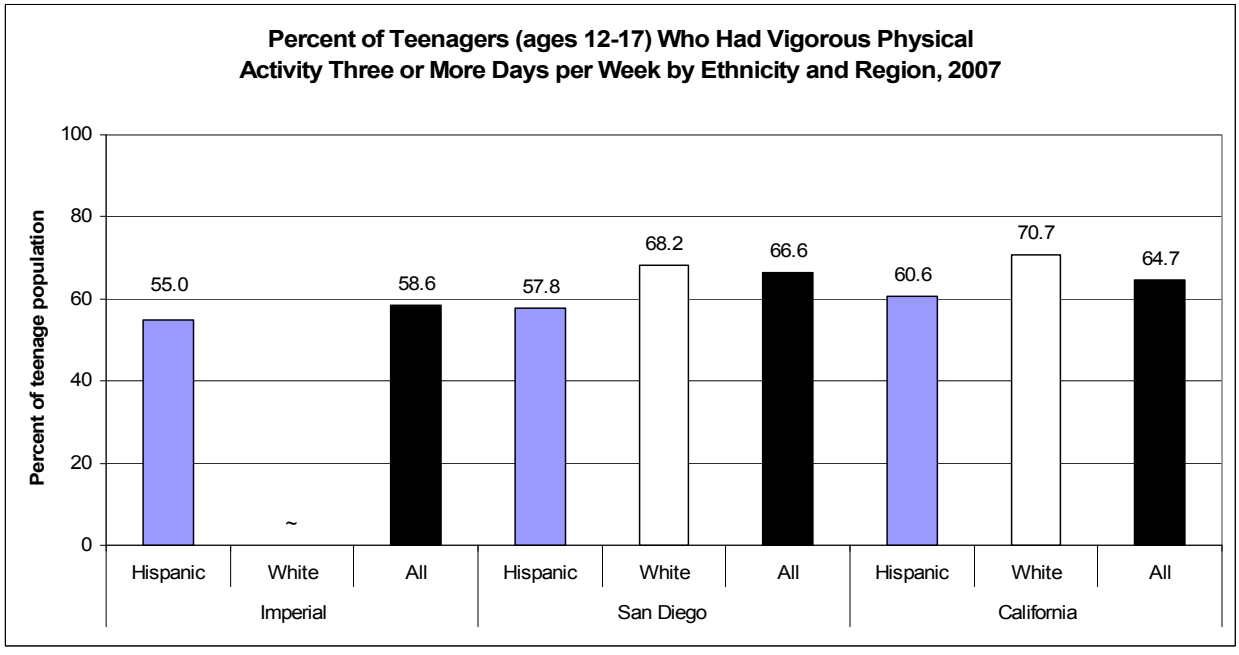
There was no significant difference by region in the percentage of adolescents engaging in vigorous physical activity. A significantly smaller percentage of Hispanic adolescents (61%) and all ethnicities (65%) in California engaged in vigorous physical activity than non-Hispanic white adolescents (71%). None of the population groups have met the Healthy People 2010 Objective (Figure 4.9, Appendix F: Tables 4.7, 4.8).

Figure 4.8



Source: 2007 California Health Interview Survey

Figure 4.9



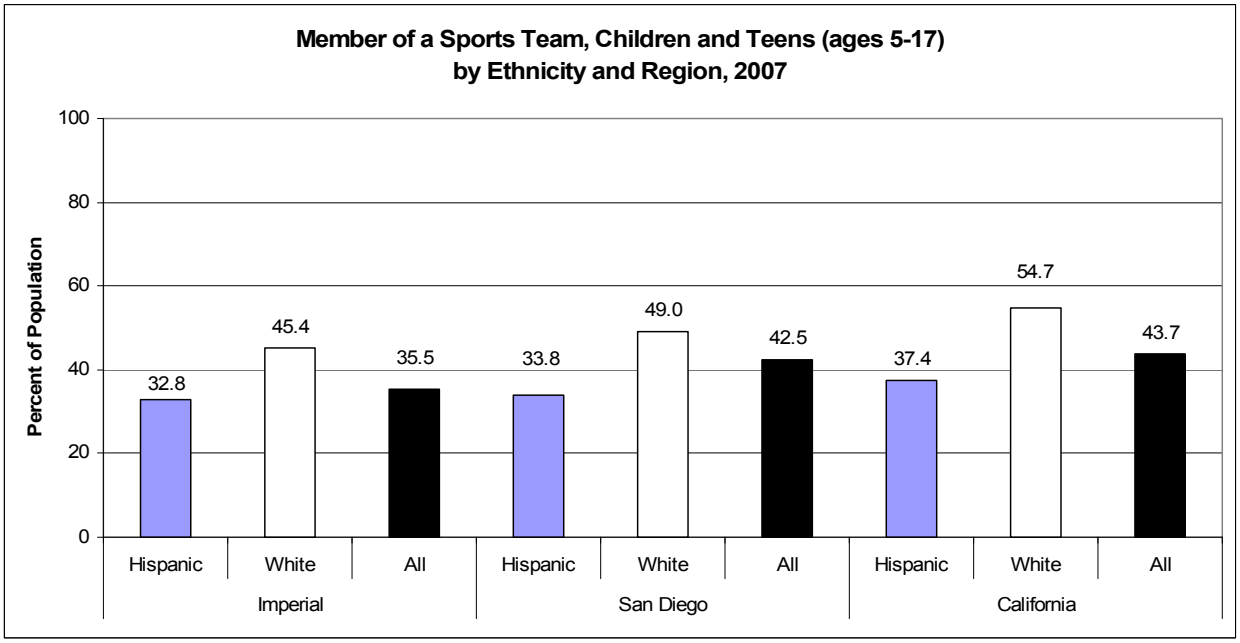
~ Insufficient data to calculate an accurate percentage
Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 22-7: At least 85 percent of adolescents will engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days a week for 20 or more minutes per occasion

Recreational Activities

Participation in sports teams, such as basketball, baseball, or soccer not only increases physical activity and results in the expected benefits of regular exercise, but also promotes healthy lifestyles via social environmental pathways. Youth participation in sports teams has been associated with a decrease in the use of tobacco, alcohol, and illicit drugs. Sports team participants are also more likely to disapprove of peers' use of cigarettes, alcohol, or marijuana. Team sports also foster basic values such as fair play, competitiveness, and achievement (Pate et al., 2000).

Forty-four percent of Californian children and teens were a member of a sports team in the last year. Non-Hispanic whites (54.7%) have a significantly higher percentage compared with California statewide (43.7%), while Hispanic (37.4%) children and teens have a significantly lower percentage than California state. This trend is mirrored in both border counties, though the differences are not statistically significant. Imperial County has significantly fewer children and teens participating on sports teams vs. California. There is no significant difference between San Diego County and California statewide. Of the populations examined, Hispanics in Imperial County report the lowest percentage of participation in sports teams (32.8%) (Figure 4.10, Appendix F: Table 4.9).

Figure 4.10



Source: 2007 California Health Interview Survey

Nutrition

What Is It?

Nutrition is essential for growth and development, health, and well-being. Behaviors to promote health should start early in life with breastfeeding and continue with the development of healthy eating habits.

Why Is It Important?

Nutritional, or dietary, factors contribute substantially to the burden of preventable illnesses and premature deaths in the United States. Indeed, dietary factors are associated with 4 of the 10 leading causes of death: coronary heart disease (CHD), some types of cancer, stroke, and type 2 diabetes. These health conditions are estimated to cost society more than $200 billion each year in medical expenses and lost productivity. Dietary factors also are associated with osteoporosis, which affects more than 25 million people in the United States and is the major underlying cause of bone fractures in postmenopausal women and elderly people (HHS, 2000).

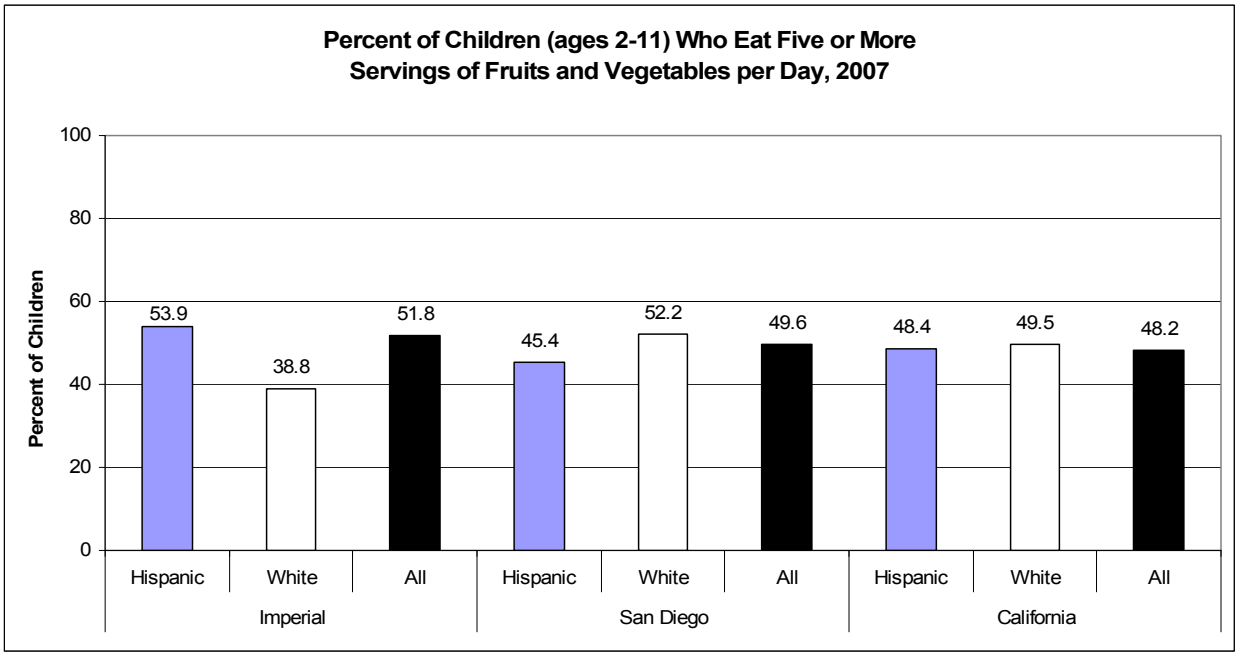
Disparities in health status indicators and risk factors for diet-related disease are evident in many segments of the population based on gender, age, race and ethnicity, and income. For example, overweight and obesity are observed in all population groups, but obesity is particularly common among Hispanic, African American, Native American, and Pacific Islander women. Furthermore, despite concerns about the increase in overweight and certain excesses in U.S. diets, segments of the population also suffer from malnutrition, including people who are socially isolated and poor.

Latinos in California have many of the risk factors predisposing them to an unhealthy weight, especially unhealthy eating and inactivity. Many Latino communities have a low socioeconomic status and many Latinos live in low-income, sometimes unsafe neighborhoods that have limited access to affordable, healthy food and provide limited recreation and exercise opportunities (Latino Coalition for a Healthy California, 2006).

What Is the Status in the Border Region?

For 2007 in California, 48.2 percent of children ages 2-11 report eating five or more servings of fruits and vegetables per day. Only non-Hispanic white children (38.8%) in Imperial County reported significantly fewer children eating five or more servings of fruits and vegetables per day (Figure 4.11, Appendix F: Table 4.10).

Figure 4.11



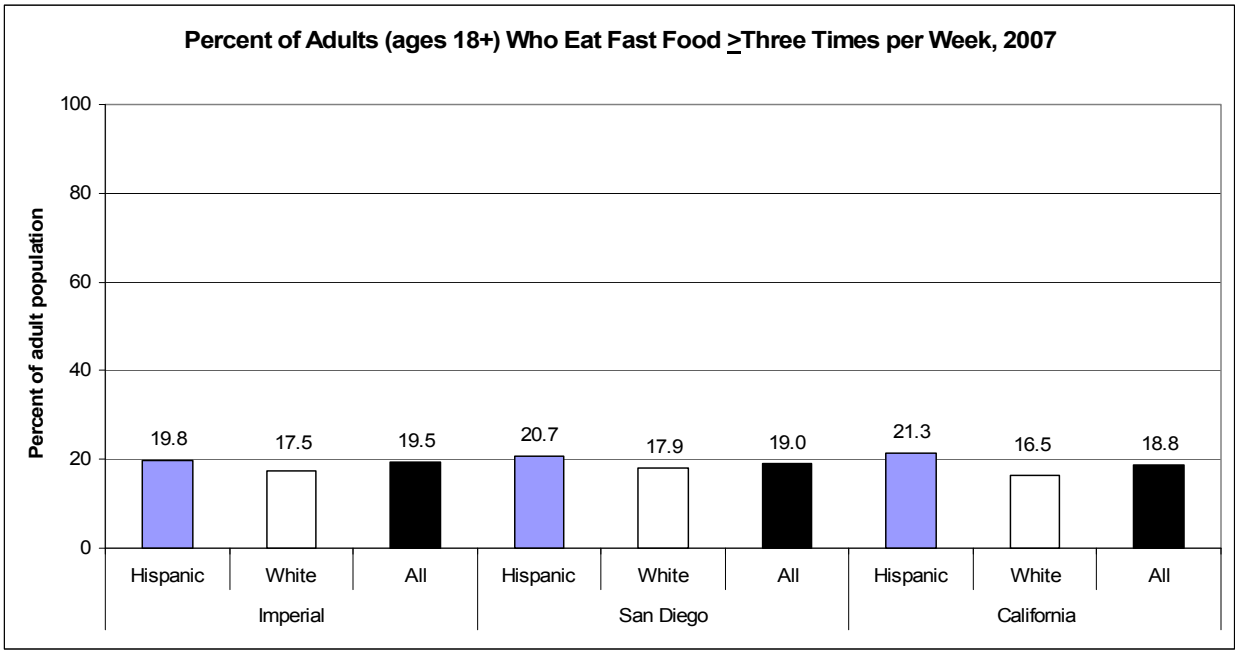
Source: 2007 California Health Interview Survey
Healthy People 2010 Objective:

19-5: Increase the proportion of persons ages 2 years and older who consume at least two daily servings of fruit

19-6: Increase the proportion of persons ages 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables

In 2007 for California, 18.8 percent of the population reported eating fast food three or more times per week. In California non-Hispanic whites eat significantly less (16.5%) and Hispanics eat significantly more (21.3%) fast food. There are no significant differences between ethnicities in San Diego or Imperial counties (Figure 4.12, Appendix F: Table 4.11).

Figure 4.12



Source: 2007 California Health Interview Survey

What Is Being Done?

Women, Infants, and Children (WIC) is a federally funded health and nutrition program for women, infants, and children. WIC helps families by providing checks for buying healthy supplemental foods from WIC-authorized vendors, nutrition education, and help finding healthcare and other community services. Participants must meet income guidelines and be pregnant women, new mothers, infants or children under age 5 (CDPH, 2007b).

The county of San Diego Child Health and Disability Prevention (CHDP) Program nutrition unit provides a multitude of resources and technical assistance to community-based organizations, schools, health professionals as well as the public, on childhood nutrition and associated chronic diseases (County of San Diego, 2009).

The Coalition on Children and Weight San Diego is a collaboration of hundreds of individuals from various sectors of the community who are working to combat childhood obesity throughout San Diego County. The coalition provides resources and conducts regular meetings for community members to learn about current childhood overweight issues, share information, and become engaged in prevention efforts, including the activities of the domains listed above (San Diego County Childhood Obesity Initiative, 2009).

The San Diego and Imperial Nutrition Network has more than 100 partner organizations devoted to promoting healthy eating and physical activity policies to make San Diego and Imperial counties the healthiest counties in the U.S. The mission of this

organization is to unite, educate and advocate for healthier food choices and increased physical activity for the people of San Diego and Imperial counties (Network for a Healthy California, 2009).

Healthy Kids' Choice! is an innovative initiative facilitated by the San Diego and Imperial Nutrition Network to help children eat more nutritious foods and make healthier choices while eating out. Healthy Kids' Choice! brings together local restaurant managers, health promotion organizations, and community members to create positive solutions for combating childhood obesity (Healthy Kids' Choice, 2009).

The San Diego Food Bank, established in 1977, is a critical component to the welfare of San Diego County, providing food to people in need, advocating for the hungry and educating the public about hunger-related issues. Through a combination of government programs and partnerships with more than 300 San Diego County nonprofit charities, SDFB acts as a central repository and distribution point for government and donated food. Funded by foundations, grants, USDA, corporations, sponsors and individual donors, SDFB distributes nearly 10 million pounds of food annually to individuals, families and a network of nonprofit organizations that work to alleviate hunger throughout the county (San Diego Food Bank, 2009).

The Imperial County Nutrition and Health Promotion Program focuses on creating environments and empowering individuals, families and communities to choose and prepare nutritious foods and to be physically active in order to decrease the risk of diet-related chronic diseases, especially cancer, heart diseases, and obesity, and improve overall quality of life (Imperial County Public Health Department, 2008).

Obesity and Overweight

What Is It?

Obesity and overweight are terms used to define ranges of weight that are greater than what is considered healthy for a given height. There are a variety of methods to define these weight ranges and estimate body fat, including measurement of waist circumference, or techniques such as, ultrasound and magnetic resonance imaging. For adults, obesity and overweight are most commonly measured in terms of a number called the body mass index (BMI). This is a calculated measure of weight in relation to height. Adults are considered obese when they have a BMI greater than 30 kg/m^2 and overweight when their BMI is between 25 and 29 kg/m^2. Corresponding BMI ranges for children and teens takes into account normal differences in body fat between boys and girls and differences in body fat at various ages. Although BMI correlates well with the amount of body fat, it does not directly measure body fat (CDC, 2009b).

Why Is It Important?

Over the last decade there has been a rapid increase in the prevalence of obesity and overweight, both nationwide and in California (California Department of Health Services, 2005). According to the U.S. surgeon general, obesity has reached epidemic proportions in adults, adolescents, and children (U.S. Department of Health and Human Services, 2001). Overweight and obese people are at increased risk for disability, premature death, and many health conditions, including type 2 diabetes, hypertension, coronary heart disease, cardiovascular disease, and some cancers.

There are several complex causes of overweight and obesity, but no single identified cause or cure for the epidemic of obesity. Genes, metabolism, behavior, environment, culture, and socioeconomic status can all play an important role. Most frequently, an unhealthy weight is the result of an energy imbalance over a long period of time. This involves consuming too many calories and not getting enough physical activity (HHS, 2001). Individuals with lower income and education levels and certain minority groups, such as African Americans and Hispanics, have a higher risk of obesity. Physical inactivity, obesity, and overweight cost California an estimated $21.7 billion a year in direct and indirect medical care (California Department of Health Services, 2005).

There is evidence that acculturation has an impact on obesity in Mexican-origin residents in the United States. Mexican-origin residents born in the United States tend to be more obese than their Mexican-born counterparts. This may be due to differences in diet. Diets of Mexican-born persons who reside in the United States are lower in fat and generally more “heart healthy” than diets of Mexican-origin persons born in the United States (Dixon, Sundquist, and Winkleby, 2000).

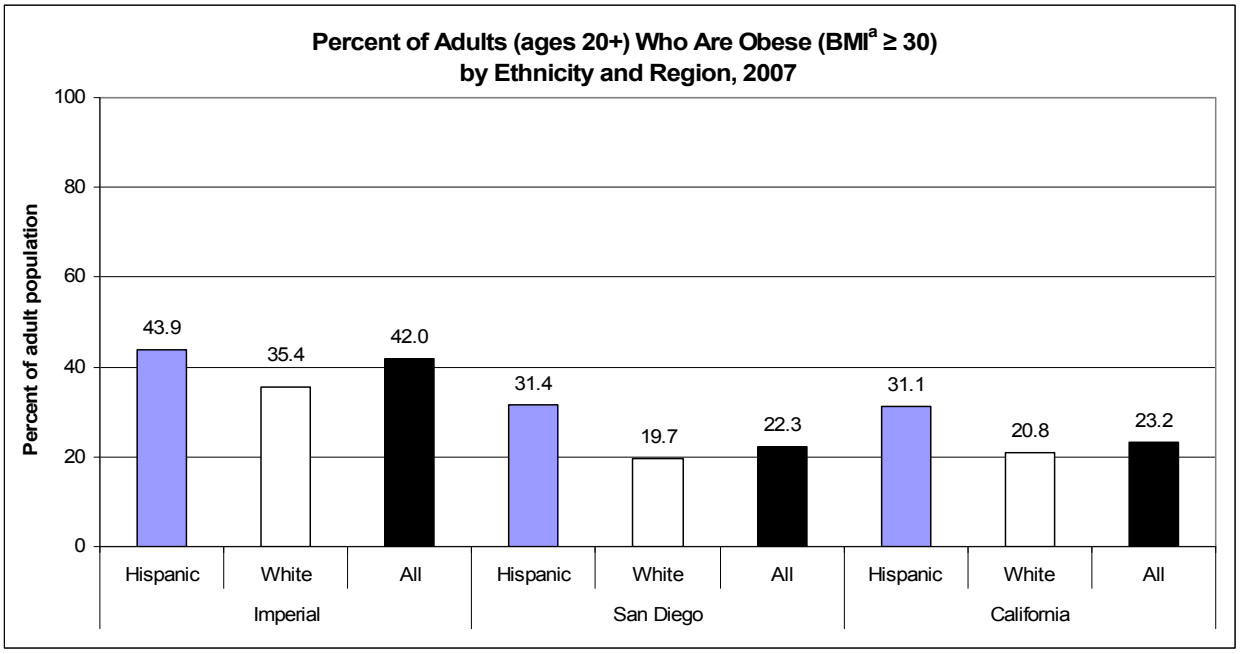
What Is the Status in the Border Region?

Obesity in Adults

The Healthy People 2010 Objective 19-3 sets a goal that no more than 15 percent of adults ages 20 and older will be obese (defined as a BMI equal to or greater than 30). In 2007, the rate of obesity in adults ages 20 and older in Imperial County (42.0%) was significantly higher than San Diego County (22.3%) and California statewide (23.2%). Obesity rates for San Diego County and California, for all ethnicities examined, have significantly increased from 2001 to 2007. This trend is mirrored in Imperial County but the difference is not statistically significant (Figure 4.13, Appendix F: Table 4.14). All ethnicities examined in San Diego County, Imperial County and California exceed the 2010 goal, and there is no noted improvement in any geographic or ethnic group.

A higher percentage of Hispanics in Imperial and San Diego counties, as well as California (43.9%, 31.4%, and 31.1%, respectively) were obese compared with non-Hispanic whites (35.4%, 19.7%, and 20.8%, respectively), though this difference is not statistically significant in Imperial (Figure 4.13, Appendix F: Table 4.14).

Figure 4.13



[a] Body mass index (BMI) is calculated by dividing weight (in kilograms) by height squared (in meters)
Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 19-2: Reduce the proportion of adults who are obese to 15 percent

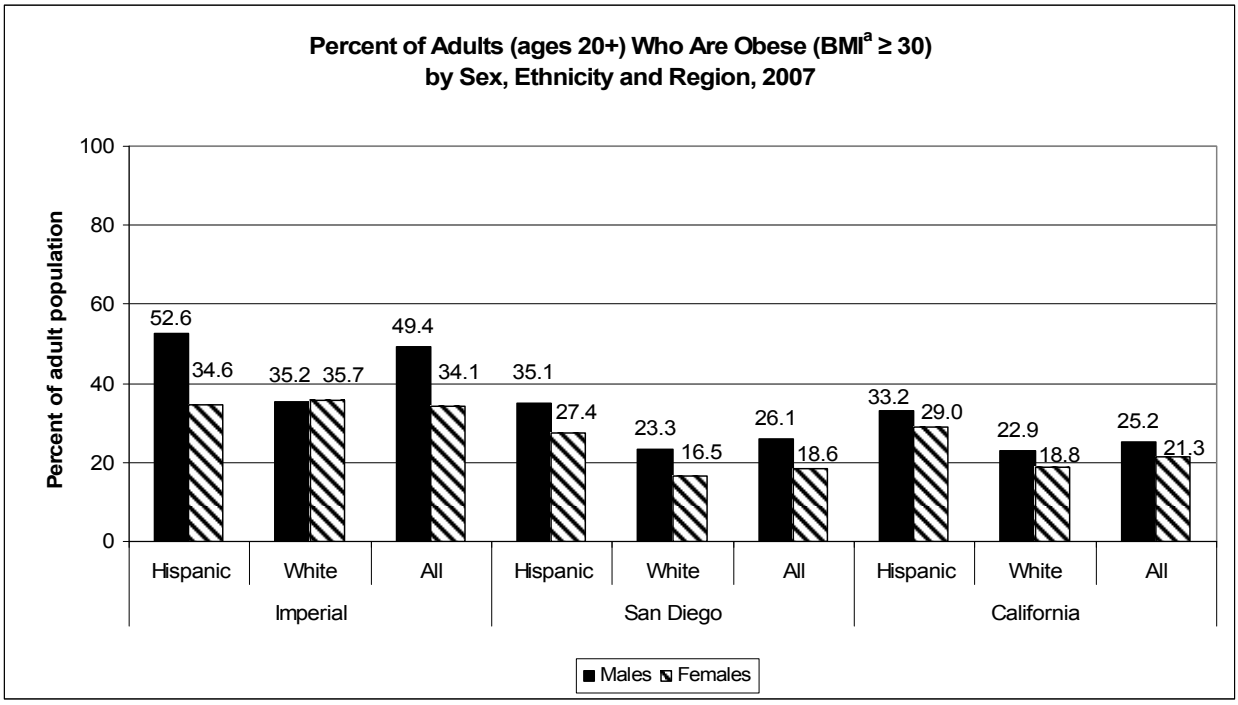
In California, men report a significantly higher percent of obesity than women. This trend is repeated in both border counties and for all ethnicities examined, with the exception of non-Hispanic white men and women in San Diego County. Men in Imperial County report the highest rate of obesity (49.4%); this is almost twice as high as men in California and significantly higher than women in Imperial County.

In San Diego County and California, non-Hispanic males, and males overall had significantly higher rates of obesity than the corresponding groups of females (Figure 4.14, Appendix F: Table 4.13). In Imperial County, those differences were not statistically significant. Hispanic men in Imperial County have the highest rates of obesity (52.6%) of all ethnic and gender groups. Imperial County also reported significantly higher rates of obesity when compared with San Diego and California Hispanic, non-Hispanic white, and all population groups.

Rates of obesity have increased in the adult population in all three regions. Though rates of obesity in Imperial County have increased since 2001, the increase was not statistically significant. However, San Diego County and California saw significant increases in the rates of obesity in Hispanic, non-Hispanic white, and all ethnicities from 2002 to 2007.

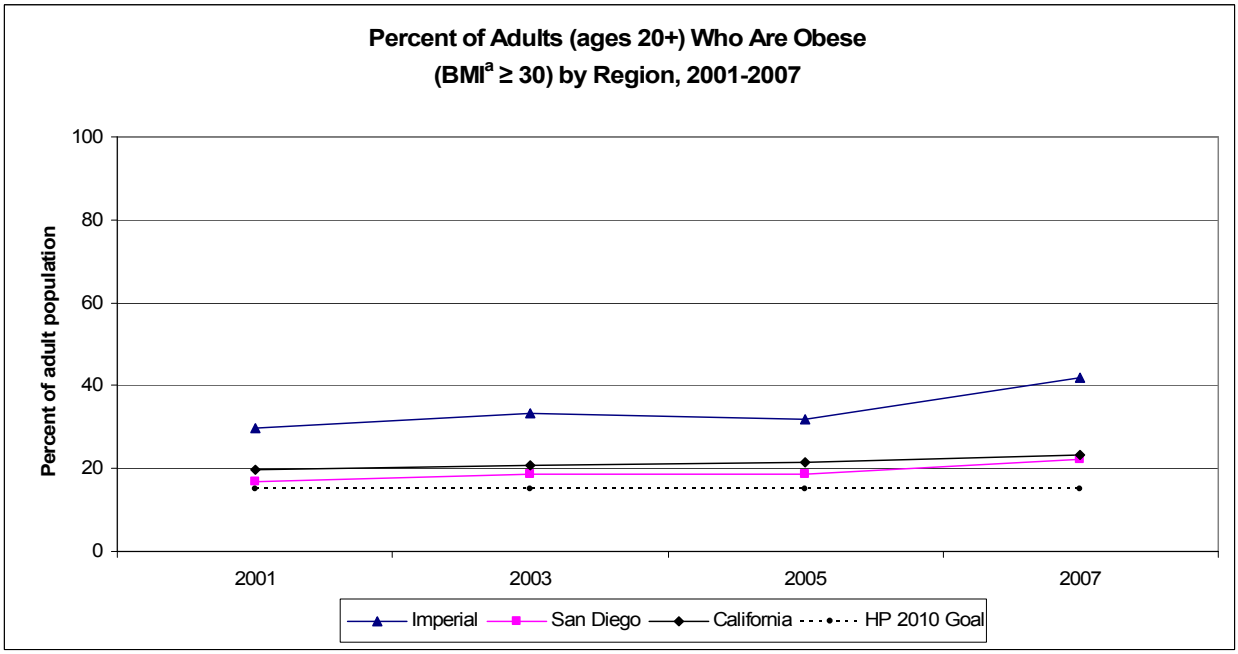
None of the population groups have achieved the Healthy People 2010 objective. Instead, the rate of obesity in adults has increased from 2001 to 2007 in all regions (Figure 4.15, Appendix F: Table 4.14).

Figure 4.14



[a] Body mass index (BMI) is calculated by dividing weight (in kilograms) by height squared (in meters)
Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 19-2: Reduce the proportion of adults who are obese to 15%

Figure 4.15



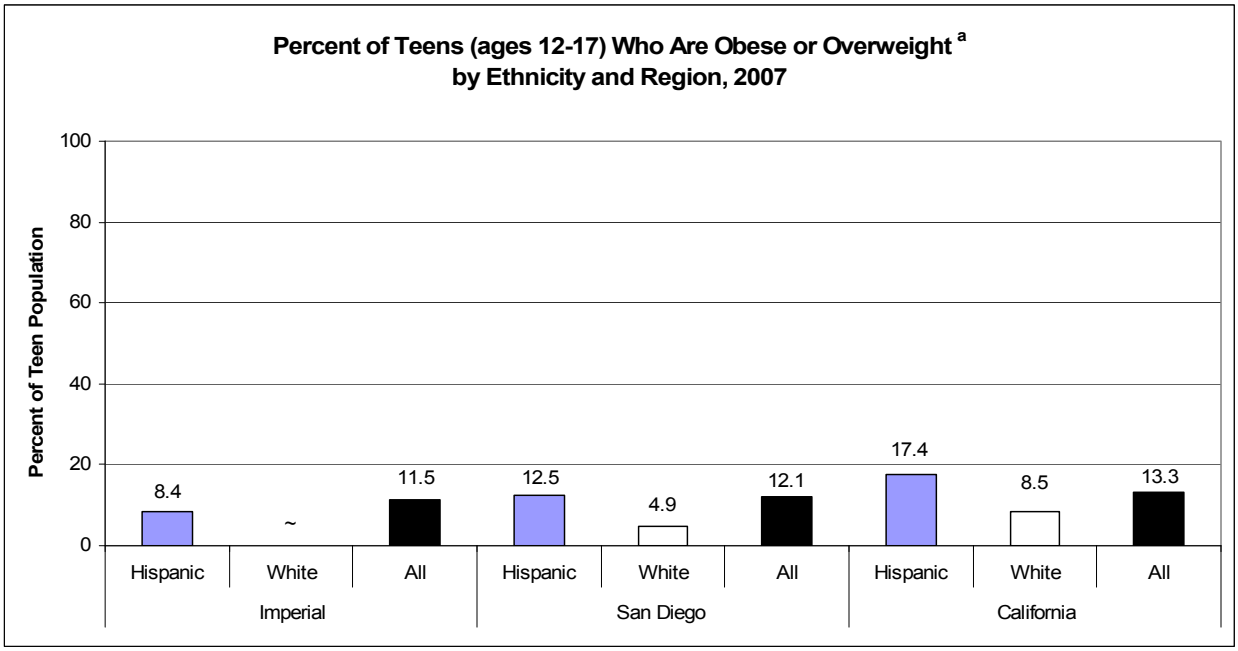
[a] Body mass index (BMI) is calculated by dividing weight (in kilograms) by height squared (in meters)
Source: 2001, 2003, 2005 and 2007 California Health Interview Survey
Healthy People 2010 Objective 19-2: Reduce the proportion of adults who are obese to 15 percent

Overweight and Obesity in Children and Adolescents

Healthy People 2010 Objective 19-3 states that no more than 5 percent of children and adolescents ages 6-19 will be overweight or obese. For this report, an overweight child is defined as younger than 12 years old and an adolescent is defined as a 12 to 17 year-old with a BMI at or above the 95th percentile for age and sex.

In California, the rate of overweight and obesity in teenagers (13.3%) is close to triple the Healthy People 2010 goal of 5 percent. None of the regions or ethnicities examined met the Healthy People 2010 objectives for overweight and obesity in adolescents, in 2007. Hispanic teenagers in California statewide (17%) are significantly more overweight and obese than their non-Hispanic white counterparts (8.5%) and appear to be more overweight and obese than all ethnicities combined, though the difference is not statistically significant (Figure 4.16, Appendix F: Table 4.13).

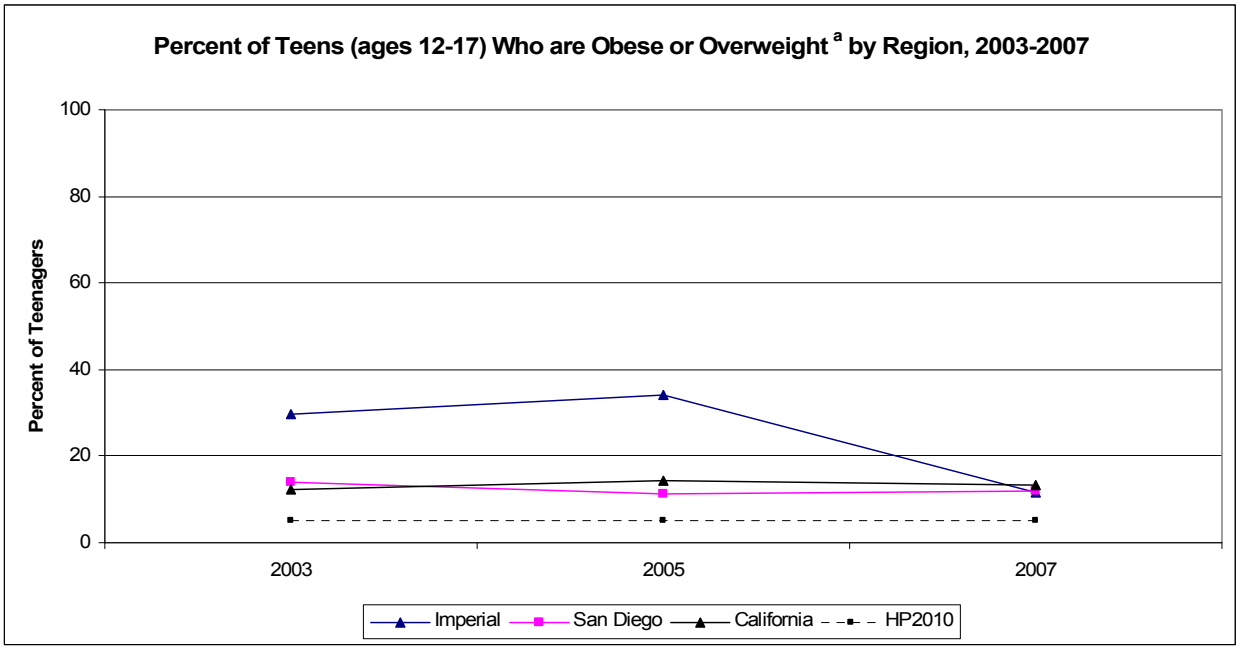
Figure 4.16



~ Insufficient data to calculate an accurate percentage
[a] Obese or overweight is defined as at or above the gender- and age-specific 95th percentile of body mass index (BMI).
Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 19-3: Reduce the proportion of adolescents who are overweight or obese to 5 percent

There have been improvements; Imperial County as a whole has decreased from 30 percent in 2003 to 12 percent in 2007. There has not been a significant change in San Diego County, though Hispanics appear to show a decreasing trend but the decrease is not statistically significant. Non-Hispanic white teenagers in San Diego County are the only population examined that meet the Healthy People 2010 goals (Figure 4.16, Appendix F: Table 4.12). However, none of the regional teenage populations meet the Healthy People 2010 objective (Figure 4.17).

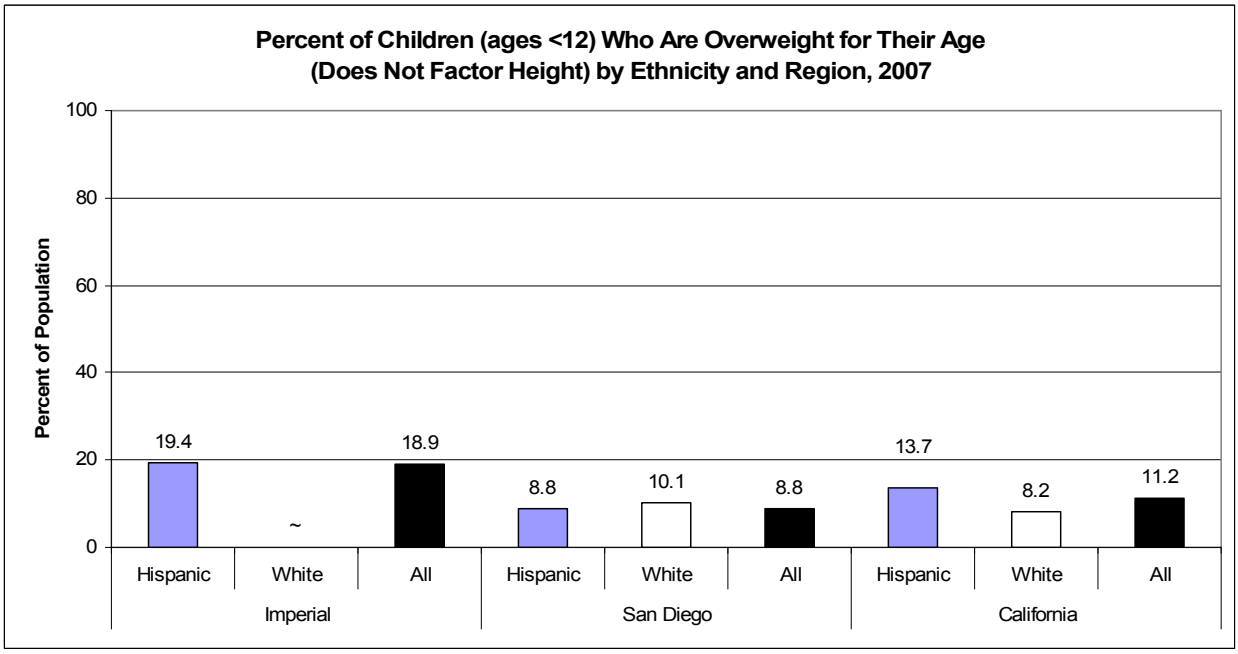
Figure 4.17



[a] Obese or overweight is defined as at or above the gender- and age-specific 95th percentile of body mass index (BMI)
Source: 2003, 2005 and 2007 California Health Interview Survey
Healthy People 2010 Objective 19-3: Reduce the proportion of adolescents who are overweight or obese to 5 percent

In 2007 for California, the rate of overweight in children (not factoring height) (11.2%) is more than double the Healthy People 2010 goal of 5 percent. None of the ethnicities or regions examined meet the 2010 objectives. In California statewide, Hispanic children (13.7%) are significantly more overweight than non-Hispanic white children (8.2%) and all ethnicities (11.2%). The percent of children in Imperial County who were overweight for their age (19.9%) is significantly higher than all children in San Diego County (9.9%) and all children in California (11.2%) (Figure 4.18, Appendix F: Table 4.14).

Figure 4.18



~ Insufficient data to calculate an accurate percentage
[a] Obese or overweight is defined as at or above the gender- and age-specific 95th percentile of body mass index (BMI)
Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 19-3: Reduce the proportion of adolescents who are overweight or obese to 5 percent

What Is Being Done?

Unfortunately, there are few public programs to assist adults with issues dealing with obesity and being overweight. Most programs focus on childhood obesity, teaching children appropriate health behaviors to stop the development of being overweight or obese later in life.

The California Endowment is a private, statewide health foundation that works to expand access to affordable, quality healthcare for underserved individuals and communities, and to promote fundamental improvements in the health status of all Californians. Many of its programs are focused on preventing obesity in communities in California. It actively promotes and supports an array of local grass-roots coalitions deeply rooted in communities. Together, these individuals, organizations and coalitions act to influence health decision makers and shape policies and systems at all levels so that they reflect ideas that emerge from the grass roots and work for everyone.

The San Diego County Childhood Obesity Initiative is a public/private partnership whose mission is to reduce and prevent childhood obesity in San Diego County by creating healthy environments for all children and families through advocacy, education, policy development, and environmental change. To fulfill its mission, the initiative creates, supports, and mobilizes partners from multiple domains (i.e., sectors); provides leadership and vision; and coordinates countywide efforts in the prevention and reduction of childhood obesity.

Healthy Eating, Active Communities is a four-year, $26-million program sponsored by the California Endowment. It aims to fight the growing childhood obesity epidemic in California and to develop state policy changes that will reduce the risk factors for diabetes and obesity.

The Network for a Healthy California–Latino Campaign is a public health initiative led by the California Department of Public Health and administered by the Public Health Institute. Its purpose is to empower low-income Latino adults and their families to consume the recommended amount of fruits and vegetables and enjoy physical activity every day. The Latino Campaign also works with communities throughout California to create environments where these behaviors are socially supported and accessible. The fruit, vegetable, and physical activity objectives are designed to reduce the risk of chronic diseases, especially cancer, heart disease, type 2 diabetes, and obesity.

High Blood Pressure

What Is It?

Blood pressure is a result of the heart pumping blood throughout the body. It is a measure of the force of blood against the artery walls. Blood pressure normally rises and falls throughout the day. When it consistently stays too high for too long, it is called hypertension.

- High blood pressure or hypertension for adults is defined as a systolic blood pressure of 140 mmHg or higher or a diastolic blood pressure of 90 mmHg or higher.

- Normal blood pressure is a systolic blood pressure of less than 120 mmHg and a diastolic blood pressure of less than 80 mmHg.

- Prehypertension is defined as a systolic blood pressure of 120–139 mmHg or a diastolic blood pressure of 80–89 mmHg. Persons with prehypertension are at increased risk to progress to hypertension (CDC, 2007a).

Why Is It Important?

It is estimated that 1 out of 3 American adults has high blood pressure or hypertension. Having high blood pressure increases one's chance for developing heart disease, stroke and other serious conditions.

High blood pressure is sometimes called the "silent killer" because it usually has no noticeable warning signs or symptoms until other serious problems arise; therefore, many people do not know that they have it. All people, including children, can develop high blood pressure. However, high blood pressure is easily detectable and usually can

be controlled. Maintaining a healthy blood pressure is an important public health strategy (CDC, 2007a).

Sustained higher blood pressure results in pathological changes in the blood vessels. This leads to cardiovascular disease, as well as damage to organs, such as the eye and kidney (Reynen et al., 2007).

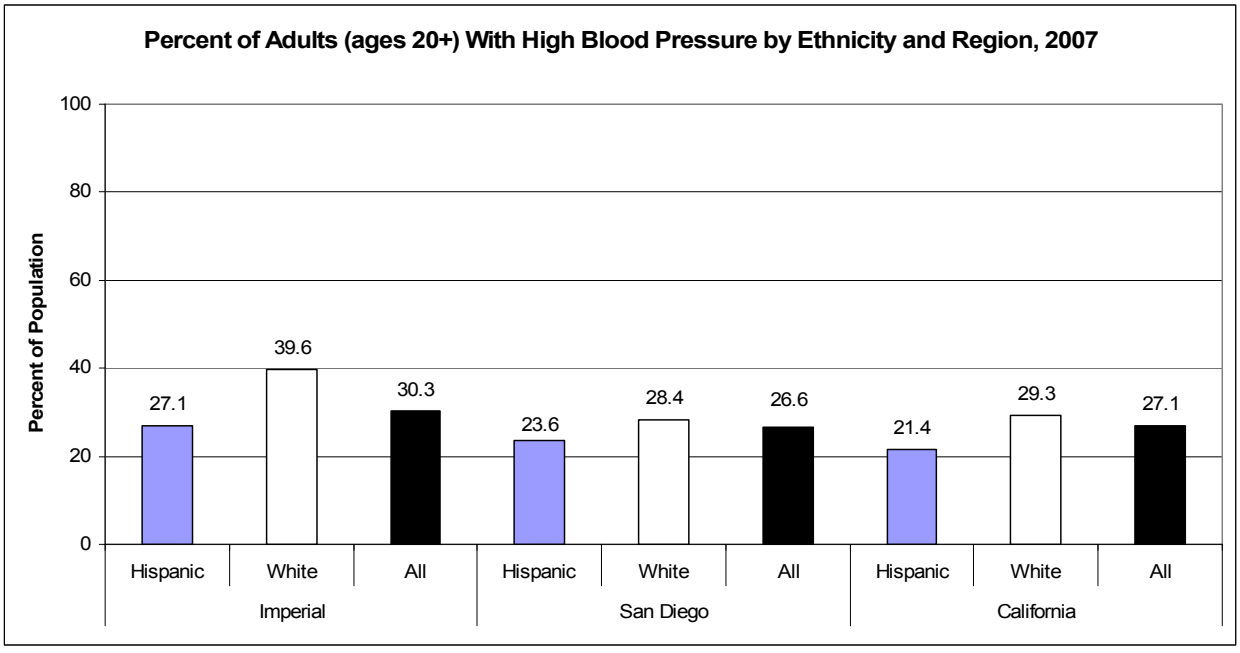
When a person has high blood pressure and diabetes, his or her risk for cardiovascular disease doubles (American Heart Association, 2008).

More than 70 percent of adults with diabetes have blood pressure greater than or equal to 130/80 mmHg or use prescription medications for hypertension. A person with diabetes and high blood pressure is four times more likely to develop heart disease compared with someone who does not have either of the conditions. Diabetics are twice as likely to have high blood pressure as non-diabetics.

What Is the Status in the Border Region?

Healthy People 2010 Objective 12-9 is to reduce the proportion of adults with high blood pressure to 16 percent. In the entire state, 1 in 4 adults (27.1%) report having ever been diagnosed with high blood pressure. This rate does not differ significantly in San Diego County or Imperial County. Only non-Hispanic whites in Imperial County report a higher rate of high blood pressure (39.6%) (Figure 4.18, Appendix F: Table 4.15).

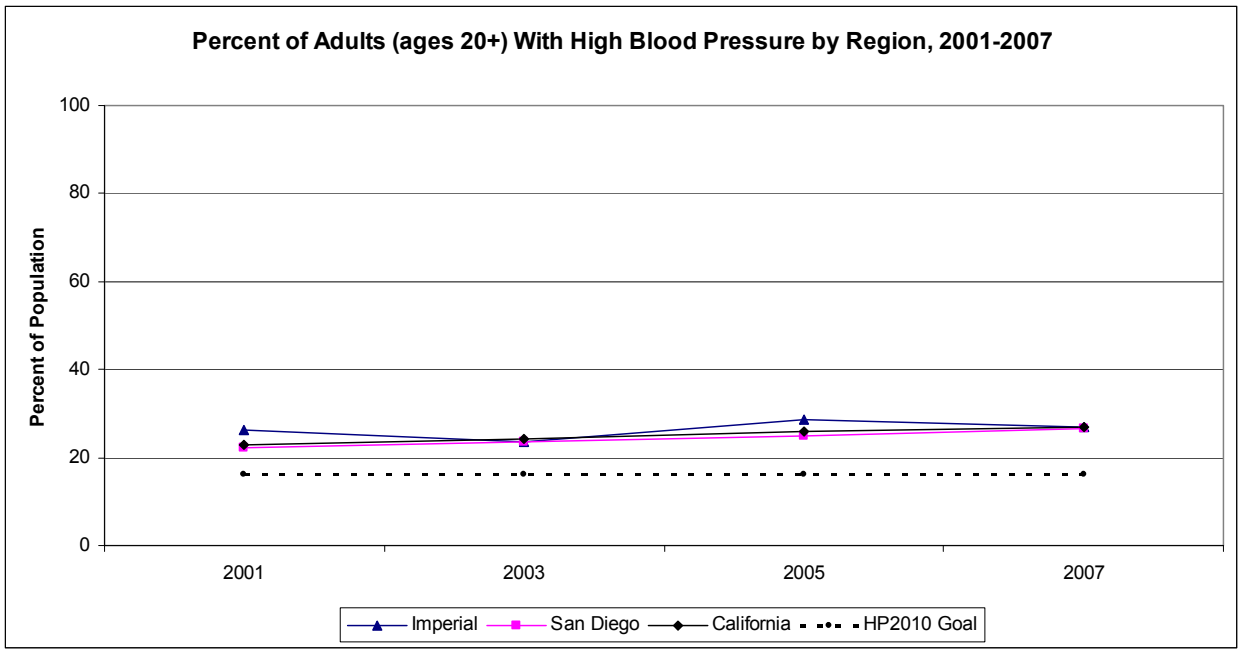
Figure 4.19



Source: 2007 California Health Interview Survey
Healthy People 2010 Objective 12-9: Reduce the proportion of adults with high blood pressure to 16 percent

These California regions do not appear to be making progress toward attainment of the 2010 goals. There has been a steady increase of high blood pressure in California statewide, as well as in San Diego County from 2001 to 2007. There has not been a significant increase or decrease in Imperial County; however, Imperial County consistently reports higher high blood pressure results than San Diego County or California statewide. All geographies and ethnicities examined significantly exceed Healthy People 2010 objectives (Figure 4.19).

Figure 4.20



Source: 2001, 2003, 2005 and 2007 California Health Interview Survey
Healthy People 2010 Objective 12-9: Reduce the proportion of adults with high blood pressure to 16 percent

What Is Being Done?

The California Heart Disease and Stroke Prevention (CHDSP) Program aims to reduce premature death and disability from heart disease and stroke among Californians. The CHDSP Program fills a unique niche at the California Department of Public Health: targeting Californians at risk for heart disease and stroke, including people with high blood pressure, high cholesterol, and multiple risk factors, as well as people with prior heart attack or stroke. Interventions with these populations directly address Healthy People 2010 objectives for heart disease and stroke (CDPH, 2009).

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APPENDIX A

Technical Notes

Race/Ethnicity

The race/ethnicity categories used in this report are mutually exclusive and are the same as the ones used by the California Department of Finance (2007) for producing California population estimates, and by the UCLA Center for Health Policy Research (Holtby et al., 2006). The UCLA method defines “Latino” as a mutually exclusive race category, along with white, African American, American Indian/Alaska Native, and Asian. In this report, the terms “Hispanic” and “Latino” are used interchangeably.

Rates

A **crude rate** is defined as the number of cases of vital events (e.g., cases or deaths) divided by the population at risk, and then multiplying by some convenient basis (e.g., 100,000). The age composition of communities may greatly influence their rates for certain health events. For example, older communities will likely have higher death rates than younger communities. Rates were calculated by gender, race, age, and county using yearly population estimates by the California Department of Finance (2007).

Age-adjusted rates can be used to make fair comparisons among communities with different age compositions. Age-adjusted rates were calculated using the 2000 United States Standard Million Population.

Reliability of Rates

Statistical rates are subject to random variation. Rate estimates based on a small number of events (e.g., cases or deaths) are more unstable and, therefore, unreliable, and should be interpreted with caution.

Most of the tables in this report include the upper and lower 95% confidence interval limits, which provide a means for assessing the degree of stability of the estimated rates. The upper and lower limits define the range within which the rate probably would occur in 95 out of 100 independent sets of data similar to the present set. The wider the intervals, the less reliable the rates. For example, Table 2.3 shows that 81.9% of the population in Imperial County had health insurance in 2007. Also, the confidence interval for this population group is 77.0%-86.8%. This means we are 95% certain that the true percent of adults in Imperial County who had health insurance is somewhere between the lower and upper limits. We estimate that it is 81.9%, but it may be as low as 77.0% or as high as 86.8%.

If the sample size is small, the confidence interval may be very wide and in some cases it is so wide that the result is not a stable estimate. An estimate is considered unstable (i.e., unreliable) if the coefficient of variation (CV) is equal to or greater than 30%. In this report, unreliable estimates are replaced with a dash in the tables ("-").

Assessing Statistically Significant Differences

Confidence intervals provide an easy way to determine if differences among groups (or years) are statistically significant:

- If the 95% confidence intervals of two different estimates (i.e., the percents or rates) do not overlap, it can be safely concluded that the difference is statistically significant and not due to chance. However, if the intervals do overlap, the difference between the two percents is assumed not to be statistically significant. However, the reader should be aware that according to the National Center for Health Statistics (2003) "this is a conservative test for statistical significance. Thus, caution needs to be observed when interpreting a nonsignificant difference between rates or proportions, especially when the lower and upper limits being compared overlap only slightly."

- If the 95% confidence intervals of two different estimates share a boundary, it means the lower boundary of one confidence interval is the same as the upper boundary of a confidence interval with which it is being compared. In these cases, we took a conservative approach and did not consider the differences significant because the confidence intervals did overlap, albeit at one point only.

Healthy People 2010 Objectives

Healthy People 2010 is a set of health objectives for the United States to achieve over the first decade of the new century. The specific objectives for each health topic and other useful background information can be found at www.healthypeople.gov/Data/midcourse/html/default.htm.

The narrative describes whether the objective was met overall and whether it was met among specific demographic groups. To meet the objective, both the point estimate and the estimate's 95% confidence interval must be equal to or better than the percent or rate associated with the Healthy People objective.

California Health Interview Survey (CHIS): Data Limitations

Information for many health indicators in this report was obtained from the California Health Interview Survey (CHIS), using the interactive Web-based tool “AskCHIS” (CHIS, 2008). CHIS is the largest state health survey and one of the largest health surveys in the United States. The CHIS data are self-reported by respondents to the survey. Therefore, the data may be subject to error, such as from respondent failure to recall information about existing health conditions or behavior. Only persons living in households with telephones are included in the survey. Participation is voluntary; persons who refused to participate may be different from those who were interviewed. Details on response rates and other survey information can be obtained at the CHIS website (CHIS, 2008).

Tables

For tables developed using CHIS data, the **population estimates** are the estimated number of Californians in each population group that has the health condition or behavior described in the title of the table. The population estimates were calculated by CHIS by multiplying the weighted sample percents by the Department of Finance figure for each row in the table, after adjusting for sampling error. The numbers are rounded to the nearest thousand.

California Department of Public Health
California Office of Binational Border Health
Core Program

Overview

The California Office of Binational Border Health (COBBH) was created in 1999 by legislation (AB 63, Ducheny) as a unit of the California Department of Public Health (CDPH).

The COBBH Core Program mission is "to protect and improve the health of California communities by facilitating communication, coordination and collaboration among California and Mexico health officials and health professionals."

The main roles of the COBBH Core Program are the following:

- Serve as the CDPH liaison to Baja California state and Mexican health officials
- Foster binational partnerships with other U.S.-Mexico border states
- Assess the health status of border communities
- Assist in border health program development
- Inform and educate the general public about border health
- Serve as an information clearinghouse

COBBH Core Program goals include:

5. Assess and monitor border and binational public health issues
6. Optimize border and binational communication, coordination and collaboration on public health issues
7. Build capacity in California and Baja California to effectively address public health issues
8. Increase awareness among state and local agencies, policymakers, the public and other stakeholders about border and binational public health issues and the role of the COBBH Core Program in addressing these issues

2008 Accomplishments

In fulfillment of these goals, some of the COBBH Core Program accomplishments for 2008 include the following:

- Produced annual report on the health status of populations residing in the California-Baja California border region
- Established and co-chaired, with ISESALUD, the California-Baja California Environmental Health Task Force under the U.S.-Mexico Border 2012 Program
- In collaboration with the California Department of Pesticide Regulation, ISESALUD in Baja California, Imperial County Public Health Department and other state and local

partners was awarded a U.S. EPA-funded grant to develop the California-Baja California Integrated Pesticide Illness Surveillance and Exposure Prevention Protocol project. This year a pesticide illness poster, flyer, and information card were developed to inform farmworkers and health providers on reporting pesticide illness and exposure.

- Through the U.S.-Mexico Lead Initiative, in collaboration with the U.S.-Mexico Border Health Commission (USMBHC) and federal and state partners, cooperated in reducing exposure to lead in candy, traditional pottery and home remedies in the U.S. and Mexico. Produced a flyer, poster, 15-second public service announcement and brochure in English and Spanish to create awareness about lead in traditional ceramic ware.
- Developed in collaboration with state and local border health partners 30-second and 60-second public service announcements to help increase the cervical cancer screening rate among Latina women in California
- Developed a contact list of key public health officials in Mexico
- Conducted a pilot study, funded by the PIMSA (*Programa de Investigación en Migración y Salud*) Program, in collaboration with the School of Medicine, *Benemérita Universidad Autónoma de Puebla*, on the use of social marketing for health education among migrant populations in California and Mexico
- In collaboration with Health Initiative of the Americas, developed a Binational Directory of Researchers in Migration and Health to create networks between Mexican institutions and selected researchers who are interested in migration and health issues at universities in California, Arizona, Texas, Illinois and New York. .http://hia.berkeley.edu/rfp_research.shtml
- Organized multiple presentations and seminars to educate public health students and professionals about border and binational health issues
- Coordinated several technical trainings and workshops for public health professionals to enhance their capacity to assess and respond to health issues in the border region

Funding Sources

California Department of Public Health
U.S. EPA Border 2012 Program

Additional information and outreach materials can be accessed at:
http://www.cdph.ca.gov/programs/cobbh/Pages/default.aspx

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California Department of Public Health
OFFICE OF BINATIONAL BORDER HEALTH
STRATEGIC PLAN

Executive Summary

Overview

More than 5 million people reside in the border region between California and Baja California. The region is defined as the territory within 100 kilometers on both sides of the international boundary. This presents unique public health challenges due to the constant migration of individuals and goods, the economic characteristics of both countries and their similar yet contrasting political and cultural traditions. Activities that occur at the border also have a significant impact on "binational" communities (i.e., communities with a large concentration of Latino residents located throughout California, often far removed from the border).

To protect and improve public health in the state's border and binational communities, it is essential that California engage in collaborative initiatives with Mexico at all levels of government (i.e., federal, state, county, city, and municipality). These initiatives begin by fostering long-term relationships among key government and community leaders on both sides of the border that are built on mutual trust, respect and a will and commitment to protect and promote public health.

Office of Binational Border Health

Assembly Bill (AB) 63 (Chapter 765, Statutes of 1999), officially created the Office of Binational Border Health (COBBH) within the California Department of Public Health (CDPH) and charged it with facilitating cooperation between health officials and health professionals in California and Mexico to protect and promote health in border and binational communities throughout California. AB 63 also directed COBBH to convene a voluntary advisory group composed of representatives from different sectors of the health community and seek its advice in developing and implementing a strategic plan.

COBBH also serves as a convener, facilitator, and collaborator for health-related public and private organizations at federal, state, regional, and local levels to address health issues on both sides of the border.

Early Warning Infectious Disease Surveillance (EWIDS) is a key program within COBBH. As part of an overall state plan to prepare for and respond to public health emergencies, including potential bioterrorism threats, the U.S. Department of Health and Human Services, through the Centers for Disease Control and Prevention, has

allocated federal funds for the EWIDS Program. The program will build binational capacity and facilitate cooperation on early warning infectious disease surveillance in the California-Baja California border region.

Development of a COBBH Strategic Plan

In January 2002, the COBBH Advisory Group was convened to assist COBBH in developing a strategic plan. The strategic plan development process was designed to include interactive workshop sessions involving COBBH staff and the Advisory Group, and solicit input from other CDPH programs, Mexican border health officials, and public and private health stakeholders on the U.S. side of the border.

Highlights of the Strategic Plan

The COBBH mission is:

> *"To protect and improve the health of communities throughout California by facilitating communication, coordination and collaboration between California and Mexico health officials and health professionals."*

The COBBH vision is:

"Healthy binational and border communities"

To achieve this vision, the following goals were identified in fulfillment of the three fundamental functions of public health: assessment, policy development, and assurance.

Goal 1: **Assess and monitor border and binational public health issues**

Goal 2: **Optimize border and binational communication, coordination, and collaboration on public health issues.**

Goal 3: **Build capacity in California and Baja California to effectively address public health issues**

Goal 4: **Increase awareness among state and local agencies, policymakers, the public, and other stakeholders about border and binational public health issues, and the role of COBBH in addressing these issues.**

To attain these goals, COBBH recognizes the need to work closely with key partners on both sides of the border, in accordance with the following guiding principles:

- Communication, coordination, and collaboration
- Commitment to public service
- Cultural competency
- Excellence
- Respect

Implementation of the COBBH Strategic Plan

The goals of the strategic plan will be achieved by implementing a work plan under a three-year contract approved by CDPH. The contract will be monitored and evaluated every four months to assess level and quality of outcomes and compliance with the contract. The strategic plan will be revised annually.

Office of Binational Border Health
Strategic Plan

Background

According to the 2000 Census, more than 11 million people residing in California identify themselves as Hispanic. This accounts for almost one-third of the total state population. Of those, 8.5 million, or 77%, are of Mexican origin, making the Mexican culture and traditions integral parts of many California communities, particularly in the border region.

The California-Mexico border is a crossroads for a highly mobile population and includes some of the busiest ports of entry in the world. The border region poses unique public health challenges due to the continual movement of people across the border, the physical and demographic diversity of the region, the economic characteristics of both countries and their political and cultural differences. These challenges are apparent throughout the U.S.-Mexico border region and in communities located far from the border but with characteristics similar to border communities.[3]

Protecting and promoting public health in California's border and binational communities require the joint effort of two countries, two states and several counties and municipalities. This collaboration is essential despite differences in communications infrastructure, disease case definitions, diagnostic criteria, laboratory protocols, emergency services, training of health professionals, resources and infrastructure. In short, the different political, social and economic conditions found in California and Mexico contribute to the health disparities on both sides of the border and impede the collaboration of public health professionals in addressing these disparities. More important, overcoming these differences requires a long-term investment in developing and maintaining ongoing, trusting and respectful working relationships.

California Assembly Bill 63

In January 2000, California Assembly Bill (AB) 63 officially created the Office of Binational Border Health (COBBH). This legislation (see Appendix A) recognized the impact and complexity of border health issues and charged COBBH with facilitating

[3] The following definitions are used in the Strategic Plan: The **"**border region" refers to the territory on either side of the border that is within 100 kilometers (62 miles) of the boundary (U.S. Congress, Public Law 103-400). **"**Binational communities" are beyond the 100 kilometers but are also affected by border and binational conditions and activities.

cooperation between health officials and health professionals in California and Mexico as a means of reducing the risk of disease in the California border region. AB 63 also mandated that COBBH establish and convene a voluntary advisory group composed of representatives from different sectors of the health community and charged it to develop and assist COBBH in implementing the strategic plan. COBBH is additionally mandated to prepare an Annual Border Health Status Report that is submitted to the director of public health, the Legislature and the governor.

Role of COBBH

As a unit within the California Department of Public Health (CDPH), COBBH's main role is to facilitate and coordinate the border and binational health activities of CDPH programs. COBBH recognizes the importance of collaboration and coordination in performing this role and has been working with key border health partners, especially San Diego and Imperial counties, the other three U.S. border states (Arizona, New Mexico and Texas), and Baja California in the following ways:

- Serving as the CDPH liaison to Baja California state health officials
- Fostering binational partnerships with other U.S.-Mexico border states
- Assessing the health status of border communities
- Assisting in border health policy and program development
- Informing the general public about border health
- Serving as an information clearinghouse

In addition, COBBH maintains close relationships with local and other state agencies; federal agencies, such as the Centers for Disease Control and Prevention (CDC), the Health Resources and Services Administration (HRSA), the Border 2012 Program of the U.S. Environmental Protection Agency (EPA), and the U.S.-Mexico Border Health Commission (USMBHC); and nongovernmental organizations such as the U.S.-Mexico Border Health Association (USMBHA).

COBBH Advisory Group

The COBBH Advisory Group is composed of 12 key leaders in border and binational health representing county health departments in San Diego, Imperial, and Los Angeles, the California Conference of Local Health Officers, local governments, health plans, hospitals, community-based organizations, health consumers, and universities. Careful attention was given to have representation from different geographic regions of California, urban and rural communities, and different health disciplines.

The purpose of the Advisory Group is to support COBBH by:

1. Assisting in the development of the COBBH Strategic Plan
2. Advising COBBH and the California members of the USMBHC on critical binational and border health issues
3. Assisting in disseminating information to border and binational communities

Demographic Profile

The California-Baja California border region spans a distance of 140 miles from the Pacific Ocean in the west to the Arizona-Sonora border in the east. It includes two counties in California (San Diego and Imperial) and three municipios in Baja California (Tijuana, Tecate, and Mexicali). The largest cities in the region are San Diego (more than 2 million residents) and Tijuana (approximately 1.2 million residents). To the east, Imperial County accounts for only 145,000 people living in small cities (El Centro and Calexico) and vast agricultural areas. Across the border from Calexico is Mexicali, the capital of Baja California, with a population of 1 million. It is important to note that the California-Baja California border region is home to 35%-40 % of the total population residing within the entire length (1,952 miles) of the U.S.-Mexico border.

According to the 2000 U.S. Census, there were 627,562 American Indians residing in California. This included 333,346 declaring American Indian as their only race, and 294,216 people stating they were American Indian and one or more other races. In San Diego County, 24,337 people identified themselves as American Indian or Alaska Native (AI/AN), and an additional 21,840 reported being AI/AN in combination with one or more other races. In Imperial County, a total of 3,458 people reported being either AI/AN only or in combination with one or more other races (where 792 reported the latter).

Both California border counties are ethnically diverse and experiencing rapid growth, especially among minority populations. The racial/ethnic composition of the two counties has also been shifting over the last 30 years. Imperial County has the highest percentage of Hispanic/Latino residents (72%) among all counties in the state, while. San Diego County is home to more than 750,000 Hispanic residents, about 27 percent of the total population. As is the case in the rest of the state, Latino residents of the border counties are generally younger compared with other ethnic groups and are, therefore, projected to continue to increase their percentage of the total population in years to come.

The San Diego/Tijuana area has a combined population of more than 4 million, making it the largest binational metropolitan area along the entire U.S.–Mexico border. There are three ports of entry into Mexico from San Diego County: San Ysidro, Otay Mesa, and Tecate. This area represents the busiest port of entry in the world, with more than 55 million crossings in 1999. A recent study found that 96% of all legal crossings are made by "frequent" border crossers, i.e., those who cross at least four times a month. The study also revealed that the primary purpose for crossing is for social visits, shopping, or tourism. Border crossers from the U.S. do not come from just the immediate border area but from many communities in California and other states. Also, there are three ports of entry in the Imperial Valley/Mexicali area, which together experienced more than 39 million crossings in 1999.

COBBH Strategic Plan

As directed by AB 63, COBBH convened its Advisory Group between 2002-2004 to assist in developing a five-year strategic plan that would represent a blueprint for border and binational health activities in California. The strategic planning process began with a thorough discussion of the key principles that would guide CDPH when addressing the many health issues and concerns at the border and in binational communities.

COBBH adopted the following guiding principles, and mission and vision statements to help frame its strategic plan.

Guiding Principles

Communication, Coordination, and Collaboration
Open communication and cooperation with stakeholders to address binational and border health issues

Commitment to Public Service
Our work is motivated by a commitment to the public good

Cultural Competency
Promoting and utilizing the competencies needed to work effectively in diverse communities

Excellence
Continuously improving services and systems based on good science, research , and community input

Respect
Recognition, support, acceptance, and celebration of differences in our binational and border communities

MISSION

The COBBH mission is:

"To protect and improve the health of communities throughout California by facilitating communication, coordination, and collaboration between California and Mexico health officials and health professionals."

VISION

The overarching vision of COBBH is to achieve:

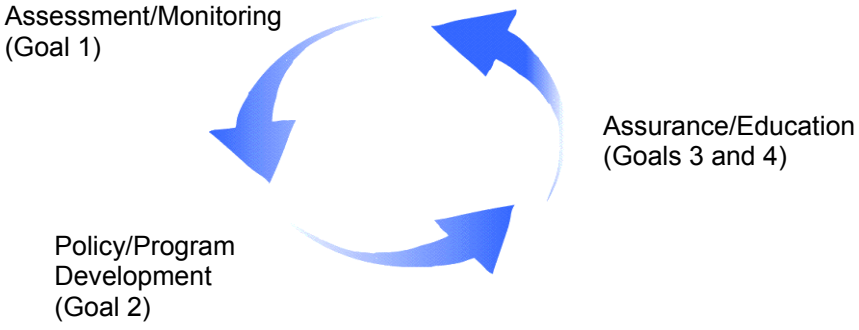
Healthy binational and border communities

To fulfill this vision, goals and objectives were identified to establish a collaborative role that would assist California to exert its leadership in collaboration with the USMBHC and in support of Federal Healthy Border 2010 objectives (See Appendix B). This goal-setting process was structured within the framework of the following three fundamental functions of public health:

4) assessment/monitoring
5) policy/program development
6) assurance/education

Assessment and monitoring of binational and border health status are the first steps toward implementing effective programs. From assessment findings, policies and programs are further developed and implemented to build and support binational and domestic coordination of disease control and prevention.

Assurance is the strengthening of service delivery and is essential for aligning end results with existing program policy. Education assists service delivery and improves the response to border health issues by training and educating health professionals, policymakers, and the public. Evaluation of services feeds into reassessment of health status, and the three components complete a cycle that is interdependent on one another.



GOALS

The following goals were identified to accomplish the basic public health functions in the border region:

1. Assess and monitor border and binational public health issues

2. Optimize border and binational communication, coordination, and collaboration on public health issues

3. Build capacity in California and Baja California to effectively address public health issues

4. Increase awareness among state and local agencies, policymakers, the public, and other stakeholders about border and binational public health issues and the role of COBBH

Implementation, Monitoring, and Evaluation

Attaining "healthy binational border communities" will take more than five years, and will require the involvement and commitment of numerous stakeholders on both sides of the border. COBBH will take the lead role in implementing the strategic plan and will rely on the expertise of its Advisory Group to assist in guiding achievement of the strategic plan. Also, COBBH will play a key role in guiding CDPH border and binational activities so they support attainment of the CDPH mission. In addition, COBBH will foster collaborative relationships with key stakeholders and constituent groups on both sides of the border according to the plan's guiding principles.

The strategic plan is viewed as a working document that will be revised annually to respond to emerging issues and priority needs. Feedback received from CDPH management and relevant programs, the COBBH Advisory Group, and stakeholders vested and interested in border and binational health will assist in refocusing program priorities, as necessary.

Attachments

Attachment A: California Assembly Bill 63
Attachment B: Healthy Border 2010 Objectives
Attachment C: Healthy Gente Objectives

Attachment A

California Assembly Bill No. 63

CHAPTER 765

An act to add Part 3 (commencing with Section 475) to Division of the Health and Safety Code, relating to public health.

[Approved by Governor October 7, 1999. Filed with Secretary of State October 10, 1999]

LEGISLATIVE COUNSEL'S DIGEST

AB 63, Ducheny. Office of Binational Border Health

Under existing law, the State Department of Health Services generally regulates issues of public health. Under existing federal law, the United States-Mexico Border Health Commission exists to address specified issues related to border health.

This bill would create the state Office of Binational Border Health, to facilitate cooperation between California and Mexican health officials and health professionals to reduce the risk of disease in the California border region. The bill would require the office to convene a voluntary community advisory group of representatives of border community-based stakeholders to develop a strategic plan, and would require the office to report its resulting recommendation to the California members of the federal commission, and to prepare an annual border health status report for submission to the Director of Health Services, the Legislature, and the Governor.

The people of the State of California do enact as follows:

Section 1. The Legislature finds and declares all of the following:

(a) Tuberculosis (TB) disease rates in southern California counties, including Los Angeles, San Diego, and Imperial, are higher than the rest of the state and the nation. Mexican-born patients comprise approximately 30 percent of southern California's reported TB cases, and rates of drug-resistant TB strains have been documented by the United States Public Health Services in a study of border counties to be almost seven times higher among foreign-born Hispanic patients than among United States-born non-Hispanic patients.

(b) Rates of hepatitis A and gastrointestinal illnesses such as shigella are higher in southern California than in the rest of the state and the nation, with the highest rates seen in Hispanics.

(c) Communicable disease tracking by public health authorities is often severely hampered by the movement of infections cases across the border.

(d) Imperial County does not meet California Environmental Protection Agency standards for ambient ozone levels, at least in part due to increasing traffic at the Calexico-Mexicali border, and Imperial County childhood asthma hospitalization rates have increased annual since 1989.

(e) The New River in Imperial County is the most polluted in the nation, containing more than 100 chemicals and receiving 76 million liters of raw sewage each day.

(f) Recent outbreaks of mercury poisoning related to a beauty cream, and hepatitis A related to contaminated strawberries, underscore the need for better notification systems between United State and Mexican health authorities regarding contaminated commercial products and related investigations.

SEC. 2. Part 3 (commencing with Section 475) is added to Division 1 of the Health and Safety Code, to read:

PART 3. OFFICE OF BINATIONAL BORDER HEALTH

475. (a) (1) The State Department of Health Services shall establish a permanent Office of Binational Border Health to facilitate cooperation between health officials and health professionals in California and Mexico, to reduce the risk of disease in the California border region, and in those areas directly affected by border health conditions.

(2) The department shall administer the office, and shall seek available public or private funding, or both, to support the activities of the office.

(b) The office of Binational Border Health shall convene a voluntary community advisory group of representatives of border community-based stakeholders to develop a strategic plan with short-term, intermediate, and long-range goals and implementation actions. The advisory group shall include no more than 12 California representatives. The advisory group shall include, but not be limited to, members from local government, hospitals, health plans, community-based organizations, universities, Los Angeles, San Diego, and Imperial County health departments, and a representative from an association of local health officers specializing in border health issues. The office shall invite and request appropriate participation from representatives of the Baja California health department and other Mexican health departments affected by border health issues. Recommendations resulting from the strategic plan shall be developed and shared in consultation with the California appointees to the United States-Mexico Border Health Commission established pursuant to Section 290n of Title 22 of the United States Code, including the Director of Health Services. The office shall prepare an annual border health status report, and shall submit it to the Director of Health Services, the Legislature, and the Governor.

Attachment C

California Office of Binational Border Health Advisory Group 2009

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Attachment C

Healthy Border 2010 Objectives

Improve access to primary healthcare

21. Reduce by 25 percent the population lacking access to a primary healthcare provider

Reduce cancer mortality in women by improved screening for breast and cervical cancers

22. Reduce female breast cancer death rate by 20 percent
23. Reduce cervical cancer death rate by 30 percent

Reduce morbidity and mortality from diabetes mellitus

24. Reduce deaths due to diabetes by 10 percent.
25. Reduce hospitalizations due to diabetes by 25 percent

Improve water quality through improved sanitation and reduce amount of acute pesticide poisoning

26. Reduce to zero the proportion of households not connected to compliant public sewage systems or septic tanks
27. Reduce number of hospital admissions for acute pesticide poisoning by 25 percent

Reduce transmission of HIV (Human Immunodeficiency Virus)

28. Reduce incidence of diagnosed HIV among adults and adolescents by 50 percent

Reduce transmission of hepatitis A and B and tuberculosis (TB)

29. Achieve/maintain 90 percent immunization coverage in children aged 19-35 months
30. Reduce incidence of hepatitis A by 50 percent and of hepatitis B by 30 percent
31. Reduce incidence of TB by 50 percent

Reduce mortality from unintentional injuries

32. Reduce motor vehicle crash death rate by 25 percent
33. Reduce unintentional injury death rate in children by 30 percent

Reduce infant mortality and increase the number of women receiving prenatal care

34. Reduce infant mortality by 15 percent
35. Reduce infant mortality from congenital abnormalities by 30 percent
36. Increase proportion of mothers beginning prenatal care in first trimester to 85 percent
37. Reduce pregnancy rate among 15- to 17-year-old women by 33 percent

Reduce the suicide mortality rate by improving mental health

38. Reduce suicide mortality rate by 15 percent

Increase the usage of dental and oral health services

39. Increase proportion of population using oral health services to 75 percent per year

Reduce morbidity and mortality from asthma

40. Reduce asthma hospitalization rate by 40 percent

Attachment D

Healthy Gente Objectives

Healthy Gente includes a set of 25 health objectives for the U.S.-Mexico border region. These objectives are intended to apply to all sub-groups of the border community. While specific objectives may target the health problems of a particular gender, ethnic group, or other category, the intent is to apply these objectives to the entire border population, regardless of sex, race, ethnicity, or other designation. In particular, these objectives are intended to apply to the migrant worker population of the border as well as the non-migrant population.

The purpose of these 25 health objectives is to assist border health systems to focus on key health problems and to improve the allocation of health resources. The objectives are also intended to provide direction to organizations and communities supporting good health through health promotion policies, and to assist individuals in changing health behaviors.

The Healthy Gente Objectives are as follows:

Access to Care

1. Reduce by 25 percent the population of persons lacking access to a primary healthcare provider in underserved areas.

Cancer

2. Reduce the breast cancer death rate for women by 20 percent.
3. Reduce the cervical cancer death rate by 30 percent.

Diabetes

4. Reduce the diabetes death rate by 10 percent and diabetes morbidity (hospital admissions) by 25 percent.

Environmental Health

5. Reduce to zero the proportion of persons living in countries exceeding EPA air quality standards.
6. Reduce to zero the proportion of households not connected to either compliant public sewage systems or septic tanks.
7. Reduce by 25 percent the number of persons hospitalized for acute pesticide poisoning.

HIV (Human Immunodeficiency Virus)

8. Reduce the incidence of diagnosed HIV infection cases among adolescents and adults by 50 percent.

Immunization and Infectious Diseases

9. Reduce the incidence of hepatitis A and hepatitis B by 50 percent.
10. Reduce the incidence of tuberculosis cases by 50 percent.
11. Achieve and maintain immunization coverage rate of 90 percent for children 19-35 months.

Injury and Violence Prevention

12. Reduce the motor vehicle crash death rate by 25 percent.
13. Reduce the childhood (under age five) death rate due to unintentional injuries by 30 percent.

Maternal, Infant, and Child Health
14. Reduce the suicide death rate by 15 percent.
15. Reduce the infant mortality rate from birth defects by 30 percent.
16. Increase the proportion of women beginning prenatal care in the first trimester to 85 percent.
17. Reduce the pregnancy rate among 15-17 year-olds by 33 percent.

Mental Health
18. Reduce the suicide death rate by 15 percent.

Nutrition and Overweight
19. Reduce the proportion of adults who are obese to 15 percent.

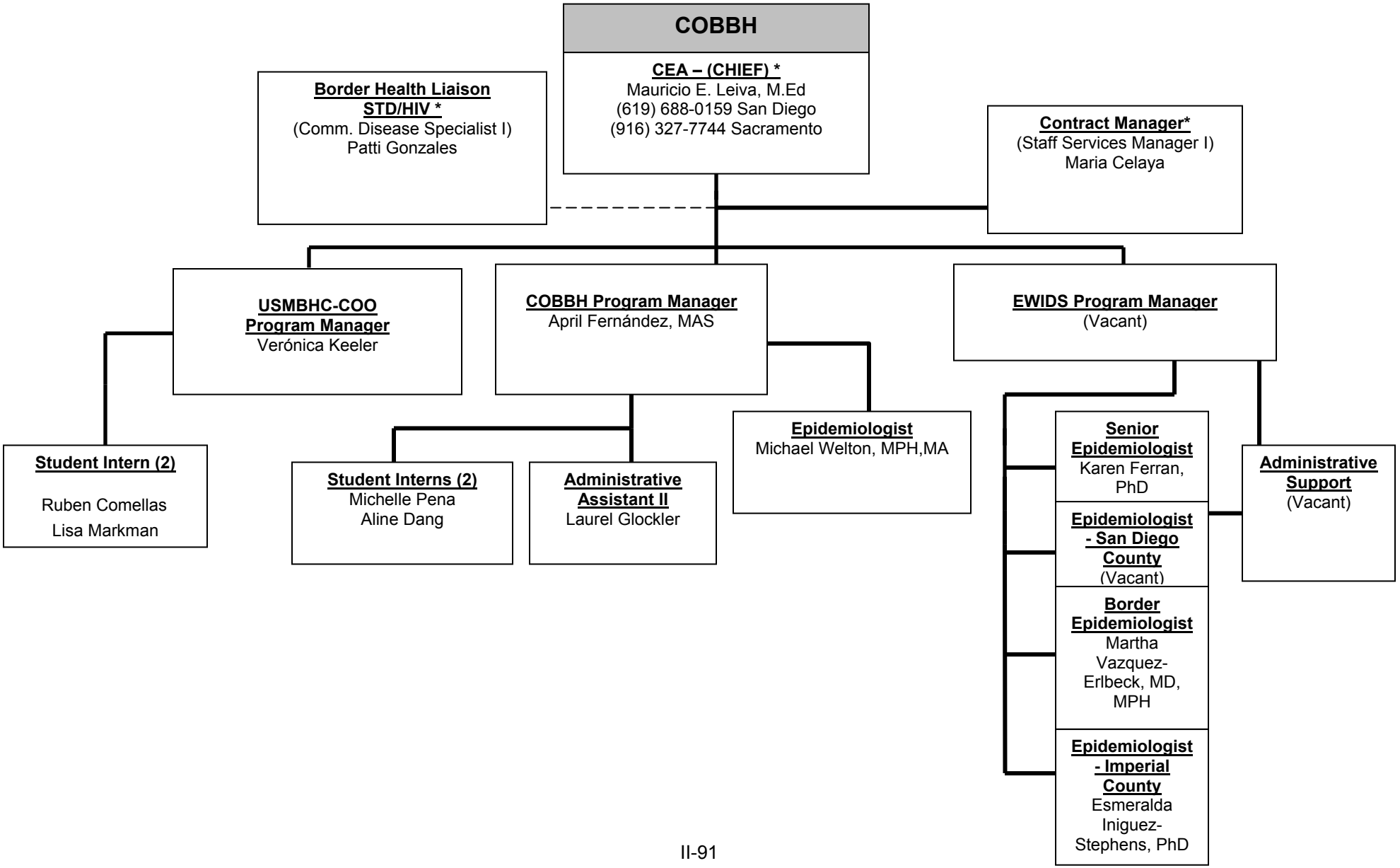
Oral Health
20. Increase to at least 75 percent the proportion of the population served by community water systems with optimally fluoridated water.
21. Increase to at least 75 percent the proportion of children and adults who use the oral health care system each year.

Respiratory Diseases
22. Reduce the asthma hospitalization rate by 40 percent.

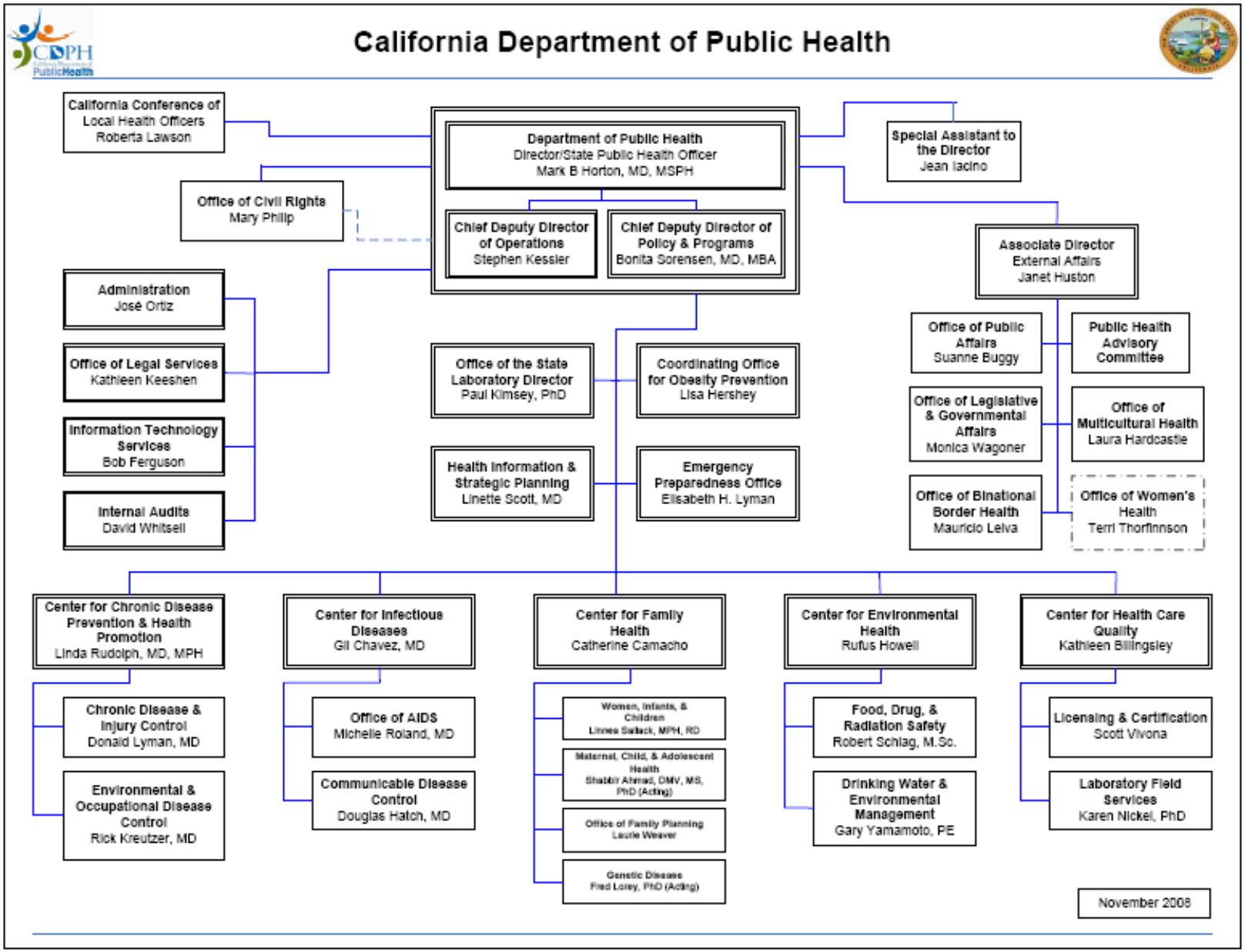
Substance Abuse
23. Reduce the number of alcohol-related motor vehicle crash deaths by 50 percent.
24. Increase the proportion of 12-17 year-old youths not using alcohol or any illicit drugs during the past 30 days.

Tobacco Use
25. Reduce by 33 percent the proportion of adults and adolescents currently using tobacco.

Appendix D – Office of Binational Health Organizational Chart



Appendix E – California Department of Public Health Organizational Chart



Appendix F

Additional Tables

1. **Demographics and Socioeconomic Characteristics**
2. **General Health and Access to Healthcare**
3. **Maternal and Child Health**
4. **Diabetes and Lifestyle**

Demographics and Socioeconomic Characteristics
Table 1.2

California Border Counties and Statewide Population by Race and Percent of Total Population, 2000-2008										
Population	**2000**		**2002**		**2004**		**2006**		**2008**	
	Population	**% of Pop.**	**Population**	**% of Pop.**	**Population**	**% of Pop.**	**Population**	**% of Pop.**	**Population**	**% of Pop.**
Imperial										
Asian/PacIs[b]	2,746	1.9	3,041	2.0	3,526	2.2	4,011	2.4	4,423	2.5
Black	5,214	3.6	5,327	3.5	5,570	3.5	5,884	3.5	6,191	3.4
Hispanic	104,267	72.5	110,783	73.7	119,888	75.0	129,336	76.0	137,841	76.7
Multi	754	0.5	822	0.5	895	0.6	950	0.6	970	0.5
NAAN[c]	1,817	1.3	1,888	1.3	2,018	1.3	2,155	1.3	2,284	1.3
White	28,965	20.1	28,358	18.9	27,947	17.5	27,897	16.4	28,089	15.6
All[a]	143,763	100	150,219	100	159,844	100	170,233	100	179,798	100
San Diego										
Asian/PacIs[b]	263,964	9.3	280,772	9.5	292,792	9.7	300,863	9.8	312,699	10.0
Black	159,068	5.6	157,394	5.3	152,515	5.0	144,991	4.7	140,930	4.5
Hispanic	757,055	26.7	796,451	27.0	834,197	27.5	870,415	28.3	906,152	28.9
Multi	62,195	2.2	66,886	2.3	69,270	2.3	67,044	2.2	67,459	2.1
NAAN[c]	15,713	0.6	20,490	0.7	23,372	0.8	24,574	0.8	26,675	0.8
White	1,578,308	55.6	1,627,704	55.2	1,658,909	54.7	1,668,460	54.2	1,684,467	53.7
All[a]	2,836,303	100	2,949,697	100	3,031,055	100	3,076,347	100	3,138,382	100
California										
Asian/PacIs[b]	3,872,349	11.4	4,138,163	11.7	4,335,235	11.9	4,475,811	12.0	4,656,623	12.2
Black	2,218,281	6.5	2,250,093	6.4	2,260,877	6.2	2,256,432	6.0	2,271,258	5.9
Hispanic	11,057,467	32.4	11,824,231	33.4	12,565,010	34.5	13,227,047	35.4	13,858,454	36.2
Multi	637,010	1.9	696,735	2.0	752,782	2.1	782,242	2.1	801,827	2.1
NAAN[c]	185,996	0.5	201,293	0.6	211,919	0.6	219,683	0.6	230,198	0.6
White	16,134,334	47.3	16,286,490	46.1	16,400,124	45.0	16,419,655	44.0	16,428,238	43.0
All[a]	34,105,437	100	35,361,187	100	36,454,471	100	37,332,976	100	38,246,598	100

[a] Population total in July

[b] Pacific Islander

[c] Native American/Alaska Native

Source: State of California, Department of Finance, *Race/Ethnic Population With Age and Sex Detail, 2000–2050.* Sacramento, CA, July 2007

Demographics and Socioeconomic Characteristics

Table 1.3

Country of Birth by Ethnicity and Region, 2007						
Population	**United States**		**Mexico**		**Other**	
	%	**95% C.I. [a]**	**%**	**95% C.I. [a]**	**%**	**95% C.I. [a]**
Imperial						
Hispanic	57.0	(49.7, 64.3)	42.9	(35.6, 50.2)	-	~
White	95.3	(92.1, 98.6)	-	~	4.4	(1.1, 7.6)
All	65.0	(59.2, 70.8)	33.8	(28.0, 39.5)	1.2	(0.4, 2.0)
San Diego						
Hispanic	64.9	(61.1, 68.7)	32.2	(28.5, 35.8)	2.9	(1.8, 4.0)
White	92.2	(90.8, 93.5)	0.2	(0.0, 0.3)	7.7	(6.3, 9.0)
All	79.7	(78.1, 81.3)	9.4	(8.3, 10.6)	10.9	(9.7, 12.2)
California						
Hispanic	60.7	(59.4, 62.0)	31.2	(29.9, 32.5)	8.1	(7.4, 8.9)
White	92.0	(91.5, 92.4)	0.1	(0.0, 0.1)	7.9	(7.5, 8.4)
All	74.3	(73.6, 74.9)	11.3	(10.8, 11.8)	14.4	(13.9, 14.9)

(-) Estimate is less than 500 people

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Demographics and Socioeconomic Characteristics

Table 1.4

English Speaking Ability (ages 18+) in Households Where English Is Not the Primary Language by Ethnicity and Region, 2007

Population	Very Well		Well		Not Well/Not At All	
	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]
Imperial						
Hispanic	32.3	(20.0, 44.5)	32	(22.8, 41.2)	35.7	(26.5, 44.9)
White	74.4	(68.8, 80.0)	22.5	(17.1, 28.0)	~	~
All	34.4	(22.9, 45.9)	31.3	(22.6, 40.1)	34.3	(25.7, 42.9)
San Diego						
Hispanic	37.8	(30.6, 45.0)	25.6	(20.6, 30.5)	36.6	(30.7, 42.5)
White	73.4	(64.6, 82.2)	24.2	(15.7, 32.6)	~	~
All	46.5	(41.5, 51.5)	27.3	(23.5, 32.1)	26.2	(22.1, 30.2)
California						
Hispanic	27.8	(26.0, 29.5)	25.9	(24.2, 27.6)	46.3	(44.3, 48.3)
White	72.9	(70.3, 75.4)	22.7	(20.4, 25.0)	4.4	(3.1, 5.7)
All	36.4	(35.0, 37.8)	28.4	(27.1, 29.7)	35.2	(33.8, 36.6)

~ Insufficient data to calculate an accurate percentage

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Demographics and Socioeconomic Characteristics

Table 1.5

Federal Poverty Level (FPL) by Ethnicity and Region, 2007								
Population	**0-99% FPL**		**100-199% FPL**		**200-299% FPL**		**300% FPL and above**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial								
Hispanic	32.0	(26.1, 37.9)	29.1	(22.7, 35.5)	12.3	(5.9, 18.7)	26.6	(18.6, 34.6)
White	8.6	(4.7, 12.6)	14.6	(9.1, 20.1)	16.1	(9.3, 22.9)	60.6	(52.2, 69.1)
All	27.1	(22.5, 31.8)	27.0	(21.8, 32.1)	12.7	(7.5, 17.9)	33.2	(26.8, 39.6)
San Diego								
Hispanic	22.1	(18.8, 25.5)	26.3	(22.9, 29.7)	15.2	(12.7, 17.7)	36.4	(32.0, 40.8)
White	5.0	(3.7, 6.3)	9.1	(7.4, 10.7)	11.7	(9.9, 13.4)	74.3	(71.8, 76.7)
All	11.0	(9.6, 12.3)	15.5	(13.9, 17.0)	13.3	(11.9, 14.7)	60.3	(58.2, 62.3)
California								
Hispanic	28.7	(27.5, 29.9)	27.6	(26.4, 28.8)	14.9	(14.0, 15.8)	28.8	(27.6, 29.9)
White	5.4	(4.9, 5.8)	10.1	(9.6, 10.7)	12.8	(12.2, 13.4)	71.7	(70.9, 72.5)
All	15.7	(15.1,16.3)	17.8	(17.2, 18.3)	13.7	(13.2, 14.1)	52.9	(52.2, 53.5)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Demographics and Socioeconomic Characteristics

Table 1.6

Employment Status by Ethnicity and Region, 2007								
Population	Full-time Employed (21≤ hours a week)		Part-time Employed (20≥ hours a week)		Unemployed and Looking for Work		Unemployed and Not Looking for Work	
	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]
Imperial								
Hispanic	53.4	(43.3, 63.4)	4.0	(4.6, 6.0)	6.8	(0.9, 12.6)	35.9	(26.9, 44.9)
White	43.0	(33.8, 52.2)	2.8	(1.0, 4.5)	5.5	(0.0, 11.2)	48.7	(39.5, 58.0)
All	52.5	(44.5, 60.5)	3.6	(1.7, 5.4)	6.6	(1.9, 11.3)	37.4	(30.2, 44.5)
San Diego								
Hispanic	59.2	(53.6, 64.9)	6.9	(3.8, 10.0)	6.0	(2.5, 9.4)	27.9	(22.9, 32.9)
White	56.2	(53.4, 59.1)	8.0	(6.1, 9.9)	3.1	(2.0, 4.1)	32.7	(30.2, 35.2)
All	57.1	(54.6, 59.6)	7.2	(5.8, 8.6)	4.2	(3.0, 5.4)	31.5	(29.2, 33.7)
California								
Hispanic	57.9	(56.3, 59.6)	5.3	(4.6, 6.0)	6.5	(5.6, 7.5)	30.2	(28.7, 31.7)
White	55.1	(54.2, 56.1)	8.0	(7.5, 8.6)	3.3	(2.9, 3.8)	33.5	(32.7, 34.4)
All	55.3	(54.5, 56.1)	7.1	(6.7, 7.6)	5.0	(4.5, 5.4)	32.6	(31.9, 33.3)

[a]95 percent confidence interval

Source: 2007 California Health Interview Survey

Demographics and Socioeconomic Characteristics

Table 1.7

Education Level Completed by Ethnicity and Region, 2007								
Adult Population	**Less Than High School**		**Graduated High School**		**Some College, Vocational School, or AA/AS Degree**		**BA/BS, MA/MS or PhD Degree**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial								
Hispanic	32.3	(21.5, 41.6)	31.6	(21.5, 41.6)	17.0	(11.6, 22.4)	19.1	(9.3, 29.0)
White	14.6	(8.0, 21.2)	31.8	(22.5, 41.2)	30.4	(21.9, 39.0)	23.2	(15.4, 30.9)
All	28.1	(21.4, 34.9)	30.7	(22.8, 38.7)	20.9	(15.9, 25.9)	20.3	(12.5, 28.0)
San Diego								
Hispanic	30.8	(25.8, 35.8)	31.4	(25.6, 37.3)	23.9	(18.5, 29.2)	13.9	(10.9, 16.9)
White	5.9	(3.7, 8.2)	22.1	(19.6, 24.6)	26.5	(24.0, 29.1)	45.4	(42.5, 48.3)
All	12.4	(10.5, 14.4)	25.1	(22.7, 27.5)	25.7	(23.5, 27.9)	36.8	(34.5, 39.0)
California								
Hispanic	37.5	(35.8, 39.2)	30.6	(29.0, 32.2)	19.8	(18.4, 21.1)	12.1	(11.2, 13.1)
White	5.8	(5.2, 6.3)	25.2	(24.3, 26.1)	27.5	(26.7, 28.4)	41.5	(40.6, 42.4)
All	16.6	(15.9, 17.3)	27.0	(26.2, 27.7)	24.3	(23.6, 25.0)	32.2	(31.5, 32.9)

(-) Estimate is less than 500 individuals

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Health Status at the Border

Table 2.1

General Health (all ages) by Ethnicity and Region, 2007										
Population	Excellent		Very Good		Good		Fair		Poor	
	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]
Imperial										
Hispanic	18.0	(13.3, 22.8)	29.9	(21.0, 38.7)	31.1	(24.6, 37.5)	15.3	(11.2, 19.4)	5.7	(3.2, 8.3)
White	21.5	(14.5, 28.5)	28.5	(20.3, 36.7)	29.7	(21.2, 38.2)	15.5	(9.0, 22.0)	4.8	(2.1, 7.5)
All	18.5	(14.5, 22.5)	30.0	(22.8, 37.2)	31.0	(25.7, 36.3)	15.1	(11.7, 18.5)	5.4	(3.3, 7.5)
San Diego										
Hispanic	24.2	(20.5, 27.8)	26.5	(22.8, 30.2)	32.1	(28.1, 36.2)	14.7	(11.9, 17.5)	2.5	(1.5, 3.5)
White	30.8	(28.4, 33.1)	37.2	(34.8, 39.6)	22.9	(20.7, 25.1)	7.3	(5.8, 8.7	1.9	(1.5, 2.3)
All	28.2	(26.4, 30.0)	33.3	(31.4, 35.2)	26.2	(24.4, 28.1)	10.1	(8.8, 11.4)	2.2	(1.7, 2.7)
California										
Hispanic	21.4	(20.3, 22.4)	23.8	(22.7, 24.9)	34.0	(32.7, 35.3)	17.6	(16.6, 18.7)	3.2	(2.8, 3.6)
White	28.8	(28.1, 29.6)	35.7	(34.9, 36.5)	24.2	(23.5, 25.0)	8.2	(7.8, 8.6)	3.0	(2.8, 3.3)
All	25.0	(24.4, 25.6)	30.4	(29.8, 31.0)	28.8	(28.1, 29.4)	12.5	(12.0, 13.0)	3.3	(3.0, 3.5)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Health Status at the Border

Table 2.2

Percent of Population (all ages) Reporting Very Good or Excellent Health by Ethnicity, Region and Country of Birth, 2007				
Population	**Born in U.S.**		**Born in Mexico**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial				
Hispanic	57.9	(47.8, 68.0)	34.6	(24.2, 44.9)
White	50.2	(41.1, 59.4)	-	~
All	56.0	(48.4, 63.6)	34.5	(24.2, 44.8)
San Diego				
Hispanic	59.3	(53.7, 64.9)	33.5	(27.1, 39.9)
White	68.4	(65.9, 70.9)	-	~
All	65.6	(63.3, 67.9)	34.4	(32.1, 36.7)
California				
Hispanic	55.3	(53.6, 56.9)	26.5	(24.2, 28.7)
White	64.7	(63.9, 65.6)	50.7	(25.1, 76.4)
All	60.9	(60.2, 61.6)	26.6	(24.4, 28.9)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

(-) Estimate is less than 500 individuals

Health Status at the Border

Table 2.3

Health Insurance Coverage for All Ages by Ethnicity and Region, 2001-2007								
Population	**2001**		**2003**		**2005**		**2007**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial								
Hispanic	76.9	(73.1, 80.7)	82.0	(78.1, 85.9)	79.1	(74.2, 84.0)	79.1	(73.0, 85.1)
White	94.0	(89.6, 98.3)	95.9	(92.4, 99.4)	87.6	(79.7, 95.5)	95.5	(92.7, 98.4)
All	81.0	(77.9, 84.1)	85.2	(82.1, 88.3)	80.8	(76.7, 84.9)	81.9	(77.0, 86.8)
San Diego								
Hispanic	69.5	(65.4, 73.6)	70.4	(65.7, 75.1)	75.6	(72.2, 79.0)	76.6	(72.4, 80.7)
White	92.7	(91.2, 94.3)	92.7	(91.1, 94.3)	92.5	(91.1, 93.9)	92.2	(90.3, 94.0)
All	85.3	(86.3, 87.0)	85.2	(83.3, 87.1)	86.9	(85.5, 88.3)	87.5	(85.8, 89.3)
California								
Hispanic	74.0	(73.1, 74.9)	75.8	(74.8, 76.8)	77.3	(76.2, 78.3)	78.5	(77.3, 79.7)
White	92.4	(92.2, 92.8)	92.6	(92.2, 93.1)	92.9	(92.5, 93.4)	92.8	(92.2, 93.3)
All	85.4	(85.5, 85.8)	86.0	(85.5, 86.4)	86.5	(86.0, 87.0)	86.8	(86.3, 87.4)

[a] 95 percent confidence interval

Healthy People 2010 Objective 1-1: Increase the proportion of people with health insurance to 100 percent

Source: 2001, 2003, 2005 and 2007 California Health Interview Survey

Health Status at the Border

Table 2.4

Health Insurance Coverage for All Ages by Ethnicity, Region and Country of Birth, 2007				
Population	**Born in U.S.**		**Born in Mexico**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial				
Hispanic	86.8	(68.7, 78.9)	68.7	(58.4, 78.9)
White	95.9	(93.0, 98.8)	-	~
All	88.5	(84.0, 93.0)	68.6	(58.4, 78.8)
San Diego				
Hispanic	84.0	(78.4, 89.6)	62.0	(55.5, 68.5)
White	92.4	(90.5, 94.4)	-	~
All	90.6	(88.7, 92.5)	62.4	(55.9, 68.8)
California				
Hispanic	88.8	(87.7, 90.0)	61.1	(58.6, 63.7)
White	92.8	(92.3, 93.4)	92.7	(81.4, 100)
All	91.3	(90.8, 91.8)	61.3	(58.7, 63.8)

~ Insufficient data to calculate an accurate percentage

[a] 95 percent confidence interval

Healthy People 2010 Objective 1-1: Increase the proportion of people with health insurance to 100 percent

Source: 2007 California Health Interview Survey

Health Status at the Border

Table 2.5

Percent of Children (≤ 12 years) Without Health Insurance Coverage by Ethnicity and Region, 2001-2007

Population	2001		2003		2005		2007	
	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]
Imperial								
Hispanic	13.8	(7.2, 20.4)	4.9	(0.7, 9.1)	10.3	(3.8, 16.7)	10.2	(5.9, 14.6)
White	~	~	~	~	~	~	~	~
All	12.9	(7.2, 18.7)	4.0	(0.6, 7.5)	12.3	(4.6, 20.0)	10.6	(6.6, 14.6)
San Diego								
Hispanic	20.4	(12.7, 28.2)	14.0	(6.3, 21.7)	9.9	(6.5, 13.4)	8.3	(4.3, 11.7)
White	5.0	(1.7, 8.3)	0.9	(0.0, 2.2)	2.9	(1.1, 4.6)	2.4	(0.9, 4.0)
All	10.7	(7.2, 14.2)	7.3	(3.8, 10.9)	6.1	(4.4, 7.8)	4.8	(3.2, 6.4)
California								
Hispanic	13.7	(12.3, 15.1)	8.8	(7.4, 10.1)	8.7	(7.3, 10.2)	7.1	(5.8, 8.3)
White	4.0	(3.2, 4.7)	2.5	(1.8, 3.3)	3.0	(2.1, 4.0)	3.2	(2.3, 4.1)
All	8.4	(7.7, 9.1)	5.9	(5.1, 6.6)	5.9	(5.1, 6.7)	5.1	(4.4, 5.8)

~ Insufficient data to calculate an accurate percentage

[a] 95 percent confidence interval

Healthy People 2010 Objective 1-1: Increase the proportion of people with health insurance to 100 percent

Source: 2001, 2003, 2005, and 2007 California Health Interview Survey

Maternal and Child Health

Table 3.1

Rate of Births to Teen Mothers (ages 15-19) by Ethnicity and Region, 2001-2007												
Population	2001			2003			2005			2007		
	Total Births	Rate[a]	95% C.I.[b]	Total Births	Rate[a]	95% C.I.[b]	Total Births	Rate[a]	95% C.I.[b]	Total Births	Rate[a]	95% C.I.[b]
Imperial												
Hispanic	134	42.5	(35.3, 49.7)	143	40.6	(33.9, 47.3)	168	42.1	(35.7, 48.5)	142	33.9	(28.3, 39.5)
White	7	12.4	(5.0, 25.5)	6	11.4	(4.2, 24.8)	2	3.8	(0.5, 13.7)	2	3.8	(0.5, 13.7)
All	144	36.7	(30.7, 42.7)	153	35.4	(29.8, 41.0)	170	35.6	(30.2, 41.0)	148	29.6	(24.8, 34.4)
San Diego												
Hispanic	909	43.4	(40.6, 46.2	836	34.7	(32.3, 37.1)	904	40.0	(37.4, 42.6)	943	38.5	(36.0, 41.0)
White	160	6.5	(5.5, 7.5)	157	6.3	(5.3, 7.3)	180	5.8	(5.0, 6.6)	165	5.0	(4.2, 5.8)
All	1,223	21.4	(20.2, 22.6)	1,131	18.3	(17.2, 19.4)	1,225	18.6	(17.6, 19.6)	1,226	17.7	(16.7, 18.7)
California												
Hispanic	12,525	42.9	(42.1, 43.7)	12,024	37.4	(36.7, 38.1)	12,782	36.9	(36.3, 37.5)	13,660	34.4	(33.8, 35.0)
White	2,377	8.6	(8.3, 8.9)	2,012	7.2	(6.9, 7.5)	1,894	6.2	(5.9, 6.5)	1,820	5.9	(5.6, 6.2)
All	17,307	23.8	(23.4, 24.2)	16,193	21.1	(20.8, 21.4)	16,740	20.3	(20.0, 20.6)	17,582	19.9	(19.6, 20.2)

[a] Rate per 100,000 population. Rates are age-adjusted to the 2000 U.S. Standard Million Population

[b] 95 percent confidence interval

Healthy People 2010 Goal: Reduce the rate among adolescent females to 43 per 1,000

Note: CHIS data look at rate of births for teen mothers ages 15-17. The Healthy People 2010 Objective is for pregnancies to adolescents ages 15-17

Source: Center for Health Statistics, Vital Statistics Query System, California Department of Public Health

Maternal and Child Health

Table 3.2

Infant Deaths (< 1 year old) Rates by Ethnicity and Region, 1995-2006

Population	1995-1997				1998-2000				2001-2003				2004-2006			
	Infant Deaths	Total Births	Rate[a]	95% C.I.[b]	Infant Deaths	Total Births	Rate[a]	95% C.I.[b]	Infant Deaths	Total Births	Rate[a]	95% C.I.[b]	Infant Deaths	Total Births	Rate[a]	95% C.I.[b]
Imperial																
Hispanic	27	6,405	4.2	(2.8, 6.1)	34	5,980	5.7	(3.9, 8.0)	31	7,157	4.3	(2.9, 6.1)	35	8,108	4.3	(3.0, 6.0)
White	3	937	3.2	(0.7, 9.4)	5	1,382	3.6	(1.2, 8.4)	5	806	6.2	(2.0, 14.5)	5	752	6.6	(2.1, 15.4)
All	30	7,515	4.0	(2.7, 5.7)	42	7,536	5.6	(4.0, 7.6)	36	8,167	4.4	(3.1, 6.1)	42	9,046	4.6	(3.3, 6.2)
San Diego																
Hispanic	264	54,197	4.9	(4.3, 5.5)	286	55,742	5.1	(4.5, 5.7)	256	58,914	4.3	(3.8, 4.8)	318	60,609	5.2	(4.6, 5.8)
White	277	56,662	4.9	(4.3, 5.5)	265	53,001	5.0	(4.4, 5.6)	243	51,682	4.7	(4.1, 5.3)	252	55,808	4.5	(3.9, 5.1)
All	705	134,043	5.3	(4.9, 5.7)	711	130,955	5.4	(5.0, 5.8)	654	133,076	4.9	(4.5, 5.3)	689	138,531	5.0	(4.6, 5.4)
California																
Hispanic	4,250	757,193	5.6	(5.4, 5.8)	4,009	755,007	5.3	(5.1, 5.5)	4,096	793,709	5.2	(5.0, 5.4)	4,408	851,286	5.2	(5.0, 5.4)
White	3,208	565,910	5.7	(5.5, 5.9)	2,617	529,773	4.9	(4.7, 5.1)	2,573	511,459	5.0	(4.8, 5.2)	2,437	503,527	4.8	(4.6, 5.0)
All	9,754	1,614,028	6.0	(5.9, 6.1)	8,663	1,570,623	5.5	(5.4, 5.6)	8,500	1,597,439	5.3	(5.2, 5.4)	8,547	1,655,529	5.2	(5.1, 5.3)

[a] Rate per 1,000 live births

[b] 95 percent confidence interval

Source: Center for Health Statistics, Vital Statistics Query System, California Department of Public Health

Healthy People 2010 Goal 16-1: Reduce the rate of all infant deaths (within 1 year) to 4.5 per 1,000 live births

Maternal and Child Health

Table 3.3

Neonatal (birth to 27 days old) Death Rates by Ethnicity and Region, 1995-2006

Population	1995-1997				1998-2000				2001-2003				2004-2006			
	Neonatal Deaths	Total Births	Rate[a]	95% C.I.[b]	Neonatal Deaths	Total Births	Rate[a]	95% C.I.[b]	Neonatal Deaths	Total Births	Rate[a]	95% C.I.[b]	Neonatal Deaths	Total Births	Rate[a]	95% C.I.[b]
Imperial																
Hispanic	18	6405	2.8	(1.7, 4.4)	22	5980	3.7	(2.3, 5.6)	23	7157	3.2	(2.0, 4.8)	22	8108	2.7	(1.7, 4.1)
White	2	937	2.1	(0.3, 7.6)	2	1382	1.4	(0.2, 5.1)	3	806	3.7	(0.8, 10.8)	4	752	5.3	(1.4, 13.6)
All	20	7515	2.7	(1.6, 4.2)	25	7536	3.3	(2.1, 4.9)	26	8167	3.2	(2.1, 4.7)	26	9046	2.9	(1.9, 4.9)
San Diego																
Hispanic	177	54197	3.3	(2.8, 3.8)	203	55742	3.6	(3.1, 4.1)	175	58914	3.0	(2.6, 3.4)	218	60609	3.6	(3.1, 4.1)
White	179	56662	3.2	(2.7, 3.7)	195	53001	3.7	(3.2, 4.2)	167	51682	3.2	(2.7, 3.7)	193	55808	3.5	(3.0, 4.0)
All	466	134043	3.5	(3.2, 3.8)	511	130955	3.9	(3.6, 4.2)	460	133076	3.5	(3.2, 3.8)	500	138531	3.6	(3.3, 3.9)
California																
Hispanic	2785	757193	3.7	(3.6, 3.8)	2745	755007	3.6	(3.5, 3.7)	2762	793709	3.5	(3.4, 3.6)	3071	851286	3.6	(3.5, 3.7)
White	2046	565910	3.6	(3.4, 3.8)	1756	529773	3.3	(3.1, 3.5)	1748	511459	3.4	(3.2, 3.6)	1651	503527	3.3	(3.1, 3.5)
All	6252	1614028	3.9	(3.8, 4.0)	5785	1570623	3.7	(3.6, 3.8)	5712	1597439	3.6	(3.5, 3.7)	5825	1655529	3.5	(3.4, 3.6)

[a] Rate per 1,000 live births

[b] 95 percent confidence interval

Source: Center for Health Statistics, Vital Statistics Query System, California Department of Public Health

Healthy People 2010 Goal 16-1: Reduce the rate of all neonatal deaths (within the first 27 days of life) to 2.9 per 1,000 live births

Maternal and Child Health

Table 3.4

Postneonatal (28 days to 1 year old) Death Rates by Ethnicity and Region, 1995-2006

Population	1995-1997				1998-2000				2001-2003				2004-2006			
	Deaths	Total Births	Rate[a]	95% C.I.[b]	Deaths	Total Births	Rate[a]	95% C.I.[b]	Deaths	Total Births	Rate[a]	95% C.I.[b]	Deaths	Total Births	Rate[a]	95% C.I.[b]
Imperial																
Hispanic	9	6405	1.4	(0.6, 2.7)	12	5980	2.0	(1.0, 3.5)	8	7157	1.1	(0.5, 2.2)	13	8108	1.6	(0.9, 2.7)
White	1	937	1.1	(0, 6.1)	3	1382	2.2	(0.5, 6.4)	2	806	2.5	(0.3, 9.0)	1	752	1.3	(0, 7.2)
All	10	7515	1.3	(0.6, 2.4)	17	7536	2.3	(1.3, 3.7)	10	8167	1.2	(0.6. 2.2)	16	9046	1.8	(1.0, 2.9)
San Diego																
Hispanic	87	54197	1.6	(1.3, 2.0)	83	55742	1.5	(1.2, 1.9)	81	58914	1.4	(1.1, 1.7)	100	60609	1.6	(1.3, 1.9)
White	98	56662	1.7	(1.4, 2.1)	70	53001	1.3	(1.0, 1.6)	76	51682	1.5	(1.2, 1.9)	59	55808	1.1	(0.8, 1.4)
All	239	134043	1.8	(1.6, 2.0)	200	130955	1.5	(1.3, 1.7)	194	133076	1.5		189	138531	1.4	(1.2, 1.6)
California																
Hispanic	1465	757193	1.9	(1.8, 2.0)	1264	755007	1.7	(1.6, 1.8)	1334	793709	1.7	(1.6, 1.8)	1337	851286	1.6	(1.5, 1.7)
White	1162	565910	2.1	(2.0, 2.2)	861	529773	1.6	(1.5, 1.7)	825	511459	1.6	(1.5, 1.7)	786	503527	1.6	(1.5, 1.7)
All	3502	1614028	2.2	(2.1, 2.3)	2878	1570623	1.8	(1.7, 1.9)	2788	1597439	1.7	(1.6, 1.8)	2722	1655529	1.6	(1.5, 1.7)

[a] Rate per 1,000 live births

[b] 95 percent confidence interval

Source: Center for Health Statistics, Vital Statistics Query System, California Department of Public Health

Healthy People 2010 Goal 16-1: Reduce the rate of all postneonatal deaths (between 28 days and 1 year) to 1.2 per 1,000 live births

Maternal and Child Health

Table 3.5

Percent of Low Birth Weight (LBW)(<2,500 grams) by Ethnicity and Region, 1995-2006

Population	1995-1997				1998-2000				2001-2003				2004-2006			
	LBW Infants	Total Births	%	95% C.I.[a]	LBW Infants	Total Births	%	95% C.I.[a]	LBW Infants	Total Births	%	95% C.I.[a]	LBW Infants	Total Births	%	95% C.I.[a]
Imperial																
Hispanic	306	6,397	4.8	(4.3, 5.3)	299	5,961	5.0	(4.4, 5.6)	372	7,144	5.2	(4.7, 5.7)	483	8,093	6.0	(5.5, 6.5)
White	40	935	4.3	(3.1, 5.9)	96	1,380	7.0	(5.7, 8.5)	45	805	5.6	(4.1, 7.5)	58	751	7.7	(5.8, 10.0)
All	356	7,505	4.7	(4.2, 5.2)	420	7,515	5.6	(5.1, 6.1)	436	8,153	5.3	(4.8, 5.8)	554	9,030	6.1	(5.6, 6.6)
San Diego																
Hispanic	2,724	54,076	5.0	(4.8, 5.2)	2,885	55,595	5.2	(5.0, 5.4)	3,139	58,774	5.3	(5.1, 5.5)	3,453	60,468	5.7	(5.5, 5.9)
White	3,036	56,514	5.4	(5.2, 5.6)	3,013	52,869	5.7	(5.5, 5.9)	3,006	51,559	5.8	(5.6, 6.0)	3,746	55,727	6.7	(6.5, 6.9)
All	7,671	133,740	5.7	(5.6, 5.8)	7,803	138,449	5.6	(5.5, 5.7)	8,075	132,770	6.1	(6.0, 6.2)	9,097	138,275	6.6	(6.5, 6.7)
California																
Hispanic	41,551	755,655	5.5	(5.4, 5.6)	41,984	753,309	5.6	(5.5, 5.7)	46,035	792,168	5.8	(5.7, 5.9)	52,690	849,876	6.2	(6.1, 6.3)
White	31,440	564,498	5.6	(5.5, 5.7)	30,159	528,511	5.7	(5.6, 5.8)	30,925	510,305	6.1	(6.0, 6.2)	32,706	502,626	6.5	(6.4, 6.6)
All	98,318	1,610,619	6.1	(6.1, 6.1)	96,776	1,567,237	6.2	(6.2, 6.2)	102,485	1,594,347	6.4	(6.4, 6.4)	112,427	1,652,839	6.8	(6.8, 6.8)

[a] 95 percent confidence interval

Source: Family Health Outcomes Project, California Department of Public Health

Healthy People 2010 Goal 16-10: Reduce low birth weight to 5 percent

Maternal and Child Health

Table 3.6

Percent of Very Low Birth Weight (VLBW)(<1,500 grams) by Ethnicity and Region, 1995-2006

Population	1995-1997				1998-2000				2001-2003				2004-2006			
	VLBW Infants	Total Births	%	95% C.I.[a]	VLBW Infants	Total Births	%	95% C.I.[a]	VLBW Infants	Total Births	%	95% C.I.[a]	VLBW Infants	Total Births	%	95% C.I.[a]
Imperial																
Hispanic	54	6397	0.8	(0.6, 1.0)	56	5961	0.9	(0.7, 1.2)	68	7144	1.0	(0.8, 1.3)	76	8093	0.9	(0.7, 1.1)
White	5	935	0.5	(0.2, 1.2)	12	1380	0.9	(0.5, 1.6)	9	805	1.1	(0.5, 2.1)	18	751	2.4	(1.4, 3.8)
All	60	7505	0.8	(0.6, 1.0)	79	7515	1.1	(0.9, 1.4)	84	8153	1.0	(0.8, 1.2)	97	9030	1.1	(0.9, 1.3)
San Diego																
Hispanic	461	54076	0.9	(0.8, 1.0)	562	55595	1.0	(0.9, 1.1)	559	58774	1.0	(0.9, 1.1)	657	60468	1.1	(1.0, 1.2)
White	487	56514	0.9	(0.8, 1.0)	566	52869	1.1	(1.0, 1.2)	556	51559	1.1	(1.0, 1.2)	633	55727	1.1	(1.0, 1.2)
All	1315	133740	1.0	(0.9, 1.1)	1536	138449	1.1	(1.0, 1.2)	1472	132770	1.1	(1.0, 1.2)	1634	138275	1.2	(1.1, 1.3)
California																
Hispanic	7563	755655	1.0	(1.0, 1.0)	7740	753579	1.0	(1.0, 1.0)	8366	792168	1.1	(1.1, 1.1)	9388	849876	1.1	(1.1, 1.1)
White	5227	564498	0.9	(0.9, 0.9)	5325	528511	1.0	(1.0, 1.0)	5349	510305	1.0	(1.0, 1.0)	5459	502626	1.1	(1.1, 1.1)
All	17407	1610619	1.1	(1.1, 1.1)	17837	1567237	1.1	(1.1, 1.1)	18296	1594347	1.1	(1.1, 1.1)	19700	1652839	1.2	(1.2, 1.2)

[a] 95 percent confidence interval

Source: Family Health Outcomes Project, California Department of Public Health

Healthy People 2010 Goal 16-10: Reduce low birth weight to 5 percent

Maternal and Child Health

Table 3.7

Breastfeeding Initiation During Early Postpartum by Ethnicity and Region, 2001-2007								
Population	**2001**		**2003**		**2005**		**2007**	
	% [a]	**95% C.I.[b]**	**% [a]**	**95% C.I.[b]**	**% [a]**	**95% C.I.[b]**	**% [a]**	**95% C.I.[b]**
Imperial								
Hispanic	79.4	(77.6, 81.1)	78.5	(76.8, 80.1)	83.3	(81.7, 84.7)	87.8	(86.5, 89.0)
White	86.3	(81.5, 90.1)	84.6	(79.1, 88.9)	83.8	(78.6, 87.9)	86.0	(80.9, 89.9)
All	79.9	(78.2, 81.4)	78.8	(77.2 - 80.3)	82.9	(81.5, 84.2)	87.4	(86.2, 88.6)
San Diego								
Hispanic	90.5	(90.1, 90.9)	91.3	(90.9, 91.7)	90.3	(89.8, 90.7)	90.4	(90.0, 90.8)
White	91.7	(91.2, 92.1)	92.7	(92.3, 93.2)	91.8	(91.3, 92.3)	92.7	(92.2, 93.2)
All	89.8	(89.5, 90.1)	90.8	(90.5, 91.1)	90.1	(89.8, 90.4)	90.7	(90.4, 90.9)
California								
Hispanic	84.0	(83.8, 84.1)	85.1	(85.0, 85.2)	85.7	(85.6, 85.8)	85.8	(85.6 , 85.9)
White	88.7	(88.6, 88.9)	89.3	(89.2, 89.5)	89.6	(89.5, 89.8)	90.1	(89.9, 90.3)
All	84.4	(84.3, 84.5)	85.6	(85.5, 85.7)	86.3	(86.2, 86.4)	86.6	(86.5, 86.7)

[a] Percent of live births

[b] 95 percent confidence interval

Source: Maternal, Child, and Adolescent Health Program, California Department of Public Health

Healthy People 2010 Objective

16-19: Increase the proportion of mothers who breast-feed their babies

Target: 75 percent of mothers who breast-feed in early postpartum

Maternal and Child Health

Table 3.8

Kindergarten Students Adequately Immunized by Region, 2008													
Population	Total Students	All Required		DTaP 4+		Polio 3+		MMR 1		Hep B 3+		Var 1+	
		#	%	#	%	#	%	#	%	#	%	#	%
Imperial	2,891	2,812	97.3	2,812	97.3	2,817	97.4	2,868	99.2	2,806	97.1	2,849	98.6
San Diego	40,748	38,019	93.3	38,518	94.5	38577	94.7	39,539	97.0	39,348	96.7	39,463	96.9
California	501,046	459,261	91.7	469,373	93.7	471708	94.14	485,752	97.0	482,714	96.34	484,739	96.8

Source: Kindergarten Assessment Results, Immunization Branch, California Department of Health Services, 2008
Healthy People 2010 Objective: Maintain vaccination coverage levels (95%) for children in licensed day-care facilities and children in kindergarten through first grade

Table 3.9

Children Entering Child Care for All Child-Care Centers Adequately Immunized by Region, 2008															
Population	Total Children Entering Day Care	All Required		DTaP 4+		Polio 3+		MMR 1		HIB 1+		Hep B 3+		Var 1+	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
Imperial	2,791	2,640	94.6	2,641	94.6	2,764	99	2,778	99.5	2,781	99.6	2,744	98.3	2,769	99.2
San Diego	48,858	45,893	94	46,800	95.8	47,039	96.3	47,531	97.3	47,811	97.9	47,075	96.4	47,161	96.5
California	515,675	478,868	92.9	489,213	94.9	497,557	96.5	498,149	96.6	502,439	97.4	494,146	95.8	494,488	95.9

Source: Kindergarten Assessment Results, Immunization Branch, California Department of Health Services, 2008
Healthy People 2010 Objective: Maintain vaccination coverage levels (95%) for children in licensed day-care facilities and children in kindergarten through first grade

Diabetes and Lifestyle

Table 4.1

Percent of Adults (ages 18+) Who Have Been Diagnosed With Diabetes by Ethnicity and Region, 2003-2007

Population	2003		2005		2007	
	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]
Imperial						
Hispanic	9.4	(6.1, 12.6)	10.4	(6.5, 14.2)	10.4	(6.8, 14.1)
White	11.8	(0.0, 23.8)	12.6	(6.1, 19.1)	12.8	(6.8, 18.8)
All	10.9	(7.1, 14.7)	10.9	(7.7, 14.2)	11	(7.9, 14.1)
San Diego						
Hispanic	5.5	(3.0, 8.0)	6.5	(4.4, 8.6)	7.5	(5.3, 9.6)
White	5.2	(4.0, 6.4)	5.1	(4.1, 6.1)	5.2	(4.2, 6.2)
All	6.0	(4.8, 7.2)	5.8	(4.8, 6.7)	6.3	(5.2, 7.3)
California						
Hispanic	7.5	(6.7, 8.2)	8.2	(7.4, 9.0)	9.2	(8.2, 10.2)
White	5.6	(5.2, 5.9)	5.8	(5.5, 6.2)	6.7	(6.3, 7.1)
All	6.6	(6.2, 6.9)	7.0	(6.6, 7.3)	7.8	(7.4, 8.2)

[a] 95 percent confidence interval

Source: 2003, 2005, and, & 2007 California Health Interview Survey

Healthy People 2010 Objective:

5-2: Prevent Diabetes, Target: 2.5 new cases per 1,000 population per year
5-3: Reduce the overall rate of diabetes that is clinically diagnosed, Target: 25 overall cases per 1,000 population
5-4: Increase the proportion of adults with diabetes whose condition has been diagnosed, Target: 80 percent

Diabetes and Lifestyle

Table 4.2

Percent of Teen and Adult (ages 12+) Diabetics Who Have Type 2 Diabetes, 2005-2007				
Population	**2005**		**2007**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial				
Hispanic	84.0	(71.9, 96.2)	76.9	(67.4, 86.3)
White	92.5	(78.0, 100.0)	82.2	(80.7, 83.7)
All	86.7	(77.4, 95.9)	78.3	(69.7, 86.9)
San Diego				
Hispanic	76.2	(64.4, 88.0)	78.9	(68.3, 89.6)
White	89.7	(83.7, 95.8)	86.9	(81.4, 92.5)
All	87.2	(82.4, 91.9)	85.7	(80.5, 90.9)
California				
Hispanic	89.7	(88.0, 91.5)	81.8	(77.5, 86.2)
White	89.7	(88.0, 91.5)	89.7	(88.0, 91.5)
All	82.3	(80.2, 84.4)	86.7	(84.8, 88.6)

[a] 95 percent Confidence Interval

Source: 2005 and 2007 California Health Interview Survey

Diabetes and Lifestyle

Table 4.3

Diabetes Age-Adjusted[a] Death Rates[b] by Region, 2000-2007												
Population	2000-2002		2001-2003		2002-2004		2003-2005		2004-2006		2005-2007	
	Rate[b]	95% C.I.[c]	Rate[b]	95% C.I.[c]	Rate[b]	95% C.I.[c]	Rate[b]	95% C.I.[c]	Rate[b]	95% C.I.[c]	Rate[b]	95% C.I.[c]
Imperial	25.4	(16.6, 34.3)	32.8	(22.2, 43.3)	31.4	(21.3, 41.6)	33.5	(23.5, 43.6)	30.3	(21.0, 39.7)	32.1	(22.7, 41.4)
San Diego	18.5	(16.8, 20.2)	18.6	(17.0, 20.3)	18.8	(17.2, 20.4)	20	(18.3, 21.6)	21.1	(19.3, 22.8)	20.6	(18.9, 22.3)
California	21	(20.5, 21.5)	21.3	(20.8, 21.8)	21.3	(20.8, 21.8)	22.3	(21.8, 22.8)	22.1	(21.6, 22.6)	21.9	(21.4, 22.4)

[a] Age-adjusted to 2000 population

[b] Rate per 100,000 population

[c] 95 percent confidence interval

Source: County Health Status Profiles, California Department of Public Health, 2004-2009

Healthy People 2010 Objective 5-5: Reduce the diabetes death rate to 45 per 100,000 population

Diabetes and Lifestyle

Table 4.4

Teens and Adults (ages 12+) Who Visited a Park, Playground or Open Space in the Last Month by Ethnicity and Region, 2007		
Population		
	%	**95% C.I.[a]**
Imperial		
Hispanic	64.4	(55.3, 73.4)
White	47.0	(37.6, 56.3)
All	62.3	(55.0, 69.5)
San Diego		
Hispanic	73.1	(68.6, 77.6)
White	70.6	(67.9, 73.3)
All	71.7	(69.5, 73.8)
California		
Hispanic	70.0	(68.5, 71.4)
White	69.7	(68.9, 70.5)
All	68.8	(68.1, 69.5)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Diabetes and Lifestyle

Table 4.5

Vigorous Physical Activity for Children (ages 2-11) at Least Three Days per Week by Ethnicity and Region, 2007		
Population	**%**	**95% C.I.[a]**
Imperial		
Hispanic	66.2	(57.1, 75.2)
White	79.5	(60.0, 99.0)
All	68.8	(60.8, 76.9)
San Diego		
Hispanic	65.0	(57.2, 72.8)
White	80.7	(74.7, 86.7)
All	72.5	(67.8, 77.3)
California		
Hispanic	65.3	(62.3, 68.3)
White	79.3	(77.1, 81.5)
All	70.1	(68.3, 71.9)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Diabetes and Lifestyle

Table 4.6

Number of Days Physically Active at Least One Hour for Children (ages 5-11) in the Past Week by Ethnicity and Region, 2007						
Population	**Less Than Three Days/Week**		**Three to Four Days/Week**		**Five or More Days/Week**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial						
Hispanic	33.8	(24.8, 42.9)	14.5	(8.2, 20.9)	51.6	(39.1, 64.2)
White	-	~	51.5	(36.9, 66.2)	28.0	(23.1, 32.9)
All	31.2	(23.1, 39.2)	19.3	(11.9, 26.8)	49.5	(38.1, 60.9)
San Diego						
Hispanic	35.0	(27.2, 42.8)	22.2	(15.5, 28.8)	42.9	(34.7, 51.0)
White	19.3	(13.3, 25.3)	27.2	(18.5, 22.9)	53.6	(45.9, 61.3)
All	27.5	(22.7, 32.2)	24.1	(19.7, 28.6)	48.4	(43.2, 53.6)
California						
Hispanic	34.7	(31.7, 37.7)	25.2	(22.4, 28.1)	40.1	(37.1, 43.1)
White	20.7	(18.5, 22.9)	28.4	(25.9, 30.8)	50.9	(48.1, 53.7)
All	29.9	(28.1, 31.7)	25.9	(24.2, 27.6)	44.2	(42.2, 46.1)

(-) Estimate is less than 500 people

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Diabetes and Lifestyle

Table 4.7

Vigorous Physical Activity for Teenagers (ages 12-17) Three or More Days per Week by Ethnicity and Region, 2005-2007				
	2005		2007	
Population	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial				
Hispanic	55.0	(42.2, 67.8)	55.0	(42.2, 67.8)
White	–	~	–	~
All	57.2	(40.6, 73.8)	58.6	(47.2, 70.0)
San Diego				
Hispanic	57.8	(48.7, 66.8)	57.8	(48.7, 66.8)
White	68.2	(59.7, 76.6)	68.2	(59.7, 76.6)
All	66.6	(60.5, 72.7)	66.6	(60.5, 72.7)
California				
Hispanic	60.6	(56.8, 64.4)	60.6	(56.8, 64.4)
White	70.7	(67.7, 73.7)	70.7	(67.7, 73.7)
All	66.5	(64.3, 68.7)	64.7	(62.4, 67.0)

* statistically unstable

[a] 95 percent confidence interval

Source: 2005 and 2007 California Health Interview Survey

Diabetes and Lifestyle

Table 4.8

Member of a Sports Team, Children and Teens (ages 5-17) by Ethnicity and Region, 2007		
Population	**%**	**95% C.I.[a]**
Imperial		
Hispanic	32.8	(24.3, 41.3)
White	45.4	(37.9, 52.9)
All	35.5	(27.4, 43.7)
San Diego		
Hispanic	33.8	(27.8, 39.8)
White	49.0	(43.5, 54.4)
All	42.5	(38.7, 46.3)
California		
Hispanic	37.4	(35.2, 39.6)
White	54.7	(52.7, 56.7)
All	43.7	(42.4, 45.1)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Diabetes and Lifestyle

Table 4.9

Percent of Children (ages 2-11) Who Eat Five or More Servings of Fruits and Vegetables per Day, 2007				
Population	**> Five Servings**		**< Five Servings**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial				
Hispanic	53.9	(43.0, 64.7)	46.1	(35.3, 57.0)
White	38.8	(31.2, 46.4)	61.2	(53.6, 68.8)
All	51.8	(41.7, 51.8)	48.2	(38.2, 58.3)
San Diego				
Hispanic	45.4	(38.3, 52.6)	54.6	(47.4, 61.7)
White	52.2	(45.9, 58.5)	47.8	(41.5, 54.1)
All	49.6	(45.3, 53.9)	50.4	(46.1, 54.7)
California				
Hispanic	48.4	(45.8, 51.0)	51.6	(49.0, 54.2)
White	49.5	(47.1, 51.8)	50.5	(48.2, 52.9)
All	48.2	(46.5, 49.8)	51.8	(50.2, 53.5)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Healthy People 2010 Objective:

19-5: Increase the proportion of people ages 2 years and older who consume at least two daily servings of fruit

19-6: Increase the proportion of people ages 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables

Diabetes and Lifestyle

Table 4.10

Percent of Adults (ages 18+) Who Eat Fast Food per Week by Ethnicity and Region, 2007						
Population	No Times		One or Two Times		Three or More Times	
	%	95% C.I.[a]	%	95% C.I.[a]	%	95% C.I.[a]
Imperial						
Hispanic	28.8	(21.3, 36.2)	51.4	(43.7, 59.2)	19.8	(14.8, 24.8)
White	35.0	(26.7, 43.3)	47.5	(38.6, 56.4)	17.5	(10.3, 24.7)
All	30.6	(24.5, 36.7)	49.9	(43.5, 56.3)	19.5	(15.3, 23.8)
San Diego						
Hispanic	27.2	(23.7, 30.7)	52.1	(47.7, 56.5)	20.7	(16.6, 24.8)
White	38.7	(36.3, 41.1)	43.4	(40.9, 46.0)	17.9	(15.6, 20.1)
All	34.5	(32.6, 36.4)	46.5	(44.4, 48.6)	19.0	(17.1, 20.9)
California						
Hispanic	28.9	(27.7, 30.1)	49.8	(48.4, 51.1)	21.3	(20.2, 22.5)
White	41.1	(40.3, 41.9)	42.4	(41.6, 43.3)	16.5	(15.7, 17.2)
All	35.8	(35.2, 36.5)	45.4	(44.7, 46.1)	18.8	(18.2, 19.3)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Diabetes and Lifestyle

Table 4.11

Percent of Adults (ages 20+) Who Are Obese (BMI[a] ≥ 30) by Ethnicity and Region, 2001-2007								
Population	**2001**		**2003**		**2005**		**2007**	
	%	**95% C.I.**	**%**	**95% C.I.**	**%**	**95% C.I.**	**%**	**95% C.I.**
Imperial								
Hispanic	30.6	(25.5, 35.7)	35.9	(30.0, 41.8)	29.8	(23.1, 36.5)	43.9	(32.5, 55.3)
White	23.8	(17.2, 30.4)	28.6	(15.1, 42.2)	37.0	(26.3, 47.7)	35.4	(26.4, 44.5)
All	29.7	(25.5, 33.9)	33.2	(27.9, 38.5)	31.9	(26.3, 37.6)	42.0	(32.9, 51.0)
San Diego								
Hispanic	21.2	(16.8, 25.5)	25.9	(20.7, 31.1)	26.8	(22.2, 31.3)	31.4	(25.5, 37.3)
White	15.3	(13.4, 17.2)	16.4	(14.2, 18.6)	16.5	(14.7, 18.4)	19.7	(17.2, 22.2)
All	16.9	(15.2, 18.6)	18.8	(16.8, 20.9)	18.5	(16.9, 20.2)	22.3	(20.0, 24.6)
California								
Hispanic	26.3	(25.1, 27.4)	27.5	(26.2, 28.7)	28.4	(27.0, 29.9)	31.1	(29.5, 32.8)
White	17.9	(17.3, 18.4)	18.5	(17.9, 19.2)	19.5	(18.8, 20.1)	20.8	(20.1, 21.6)
All	19.8	(19.3, 20.3)	20.8	(20.3, 21.4)	21.6	(21.0, 22.2)	23.2	(22.5, 23.9)

[a] Body mass index (BMI) is calculated by dividing weight (in kilograms) by height squared (in meters)

[b] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Healthy People 2010 Objective 19-2: Reduce the proportion of adults who are obese to 15 percent

Diabetes and Lifestyle

Table 4.12

Percent of Adults (ages 20+) Who Are Obese (BMI[a] ≥ 30) by Sex, Ethnicity and Region, 2007						
Population	**Males**		**Females**		**Total**	
	%	**95% C.I.[b]**	**%**	**95% C.I.[b]**	**%**	**95% C.I.[b]**
Imperial						
Hispanic	52.6	(35.8, 69.5)	34.6	(22.4, 46.9)	43.9	(32.5, 55.3)
White	35.2	(20.7, 49.6)	35.7	(23.6, 47.9)	35.4	(26.4, 44.5)
All	49.4	(35.6, 63.3)	34.1	(24.6, 43.7)	42.0	(32.9, 51.0)
San Diego						
Hispanic	35.1	(25.9, 44.3)	27.4	(20.5, 34.3)	31.4	(25.5, 37.3)
White	23.3	(19.3, 27.4)	16.5	(13.4, 19.6)	19.7	(17.2, 22.2)
All	26.1	(22.4, 29.8)	18.6	(16.0, 21.2)	22.3	(20.0, 24.6)
California						
Hispanic	33.2	(30.6, 35.7)	29.0	(27.1, 31.0)	31.1	(29.5, 32.8)
White	22.9	(21.7, 24.1)	18.8	(17.9, 19.7)	20.8	(20.1, 21.6)
All	25.2	(24.1, 26.3)	21.3	(20.5, 22.1)	23.2	(22.5, 23.9)

[a] *Body mass index (BMI) is calculated by dividing weight (in kilograms) by height squared (in meters)*

[b] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Healthy People 2010 Objective 19-2: Reduce the proportion of adults who are obese to 15 percent

Diabetes and Lifestyle

Table 4.13

Percent of Teens (ages 12-17) Who Are Obese or Overweight[a] by Ethnicity and Region, 2003-2007						
Population	**2003**		**2005**		**2007**	
	%	**95% C.I.[b]**	**%**	**95% C.I.[b]**	**%**	**95% C.I.[b]**
Imperial						
Hispanic	30.9	(18.3, 43.5)	38.0	(18.3, 57.7)	8.4	(4.0, 12.7)
White	26.1	(0.0, 55.4)	-	~	-	~
All	29.6	(18.3, 40.8)	34.3	(16.6, 52.0)	11.5	(7.3, 15.6)
San Diego						
Hispanic	22.7	(9.6, 35.8)	20.6	(10.4, 30.7)	12.5	(7.7, 17.3)
White	4.9	(0.1, 9.7)	6.7	(2.2, 11.2)	11.4	(5.5, 17.2)
All	13.9	(7.4, 20.3)	11.2	(6.8, 15.6)	12.1	(7.8, 16.5)
California						
Hispanic	17.1	(14.3, 19.8)	19.8	(16.6, 23.0)	17.4	(14.4, 20.3)
White	9.1	(7.1, 11.0)	9.1	(7.2, 10.9)	8.5	(6.7, 10.3)
All	12.4	(10.9, 13.9)	14.2	(12.5, 15.9)	13.3	(11.6, 14.9)

(-) Insufficient data to calculate an accurate percentage

[a] Obese or overweight is defined as at or above the gender- and age-specific 95th percentile of body mass index (BMI)

[b] 95 percent confidence interval

Source: 2003, 2005 and 2007 California Health Interview Survey

Healthy People 2010 Objective 19-3: Reduce the proportion of adolescents who are overweight or obese to 5 percent

Diabetes and Lifestyle

Table 4.14

Percent of Children (ages <12) Who Are Overweight for Their Age (Does Not Factor Height) by Ethnicity and Region, 2003-2007						
Population	**2003**		**2005**		**2007**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial						
Hispanic	22.4	(12.2, 32.6)	24.3	(12.6, 36.1)	19.4	(11.9, 26.8)
White	28.9	(0.2, 57.6)	14.0	(0.0, 35.5)	~	-
All	22.5	(13.3, 31.7)	23.7	(13.2, 34.2)	18.9	(12.5, 25.4)
San Diego						
Hispanic	19.3	(10.7, 27.9)	13.4	(8.9, 17.9)	8.8	(5.3, 12.2)
White	8.9	(4.1, 13.6)	8.3	(5.8, 10.9)	10.1	(6.3, 13.9)
All	12.5	(8.2, 16.7)	11.6	(9.3, 13.9)	8.8	(6.6, 11.0)
California						
Hispanic	16.8	(15.0, 18.6)	15.7	(13.8, 17.6)	13.7	(12.0, 15.4)
White	9.6	(8.2, 10.9)	10.3	(9.0, 11.7)	8.2	(7.1, 9.3)
All	13.4	(12.4, 14.5)	13.4	(12.3, 14.5)	11.2	(10.2, 12.2)

~ Insufficient data to calculate an accurate percentage

[a] 95 percent confidence interval

Source: 2003, 2005, and 2007 California Health Interview Survey

Healthy People 2010 Objective 19-3: Reduce the proportion of children who are overweight or obese to 5 percent

Diabetes and Lifestyle

Table 4.15

Percent of Adults (ages 20+) With High Blood Pressure by Ethnicity and Region, 2001-2007								
Population	**2001**		**2003**		**2005**		**2007**	
	%	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**	**%**	**95% C.I.[a]**
Imperial								
Hispanic	26.2	(21.7, 30.8)	23.7	(18.9, 28.6)	28.5	(22.1, 35.0)	27.1	(18.7, 35.4)
White	36.8	(29.2, 44.4)	28.9	(15.6, 42.2)	35.8	(25.8, 45.8)	39.6	(30.7, 48.5)
All	29.5	(25.6, 33.3)	24.9	(20.3, 29.6)	30.0	(24.6, 35.4)	30.3	(23.5, 37.1)
San Diego								
Hispanic	16.9	(13.1, 20.8)	21.0	(16.1, 25.9)	17.6	(13.5, 21.6)	23.6	(18.3, 28.8)
White	23.7	(21.5, 26.0)	24.6	(22.1, 27.0)	27.1	(24.8, 29.3)	28.4	(26.0, 30.8)
All	22.1	(20.2, 24.0)	23.6	(21.4, 25.7)	24.8	(23.0, 26.7)	26.6	(24.5, 28.7)
California								
Hispanic	17.5	(16.6, 18.5)	18.9	(17.8, 20.0)	19.8	(18.6, 20.9)	21.4	(20.0, 22.7)
White	25.4	(24.8, 26.0)	26.5	(25.8, 27.2)	28.7	(28.0, 29.4)	29.3	(28.5, 30.1)
All	23.0	(22.5, 23.5)	24.3	(23.7, 24.9)	25.8	(25.2, 26.4)	27.1	(26.5, 27.8)

[a] 95 percent confidence interval

Source: 2007 California Health Interview Survey

Healthy People 2010 Objective12-9: Reduce the proportion of adults with high blood pressure to 16 percent