

# **Report to the Legislature**

## **Annual Border Health Status Report, 2000**

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## **ACKNOWLEDGMENTS**

The California Office of Binational Border Health recognizes and appreciates the contribution and cooperation of various programs within the following agencies in producing this report:

Department of Health Services  
Department of Finance  
Office of Statewide Health Planning and Development  
County of San Diego Health and Human Services Agency  
Imperial County Public Health Department  
Los Angeles County Department of Health Services  
Orange County Health Care Agency

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## **EXECUTIVE SUMMARY**

The California - Mexico border region is an area of tremendous human contact where two cultures meet, flow back and forth across political borders, share common experiences, economic and environmental conditions, as well as, health and disease. Indeed, disease knows no boundaries, and because it is a porous border, the region can be considered one epidemiological area for approaching disease prevention and control, for reducing disease and injury risk factors, and for promoting health. It is a region of unique public health challenges.

These challenges include coordinating between two countries (and federal agencies), two states (and their departments), and many local communities (and their authorities). In logistical terms, this can mean differences in communications infrastructure (e.g., telephone and internet), disease case definitions, diagnostic criteria, laboratory protocols, emergency services, and the training of health professionals. More importantly, overcoming these differences requires a long-term investment in developing and maintaining trustworthy and respectful relationships with our Mexican counterparts.

### **The California Office of Binational Border Health**

Recognizing this importance, in 1999, California's Assembly Bill 63 officially created the California Office of Binational Border Health (COBBH) in January 2000. The mission of the Office is to protect and improve the health of California communities affected by border or binational conditions and activities through facilitating cooperation between California and Mexico health officials and health professionals.

Among other charges, the legislation requires the COBBH to prepare an annual border health status report to be submitted to the Department of Health Services Director, the California State Legislature, and the Governor of California. The present report is our first response to this charge.

### **California Border Health Status Report**

The report presents an overview of the COBBH, its partners, and the border region. Second, it reviews a list of border community health indicators, mostly based on the national Healthy People 2000 objectives selected for the border area, and available data with a focus on Latino populations. Third, it reviews present or ongoing programs and partnerships to improve border health. Finally, it provides a summary of the region's health status and recommendations for future action.

This is the first border health status report and it is not necessarily exhaustive, or comprehensive. It is intended to serve as a foundation to be built upon. In the future, the report will be expanded to include other counties and communities affected by conditions on the border, as well as information on border communities in Baja California.

## The Border Region

- The border region has been defined as the area within 62 miles (100km) of either side of the border. For California, that includes the counties of San Diego and Imperial, which share boundaries with the Mexican State of Baja California.

## Highlights

### Demographics

- The populations of San Diego and Imperial counties have been increasing steadily since 1990, about 20% and 30%, respectively. San Diego County is the fourth most populated county in the United States. Imperial County has the highest percentage of Hispanic/Latino residents in the state (70%), while San Diego County has had the second largest increase in Latino residents in the state.
- San Diego houses the busiest border in the world with over 55 million crossings last year.

### Economy

- Imperial County has the highest unemployment rate (23%) in the state of California. Also, the per capita income (\$14,790) is almost half that of the state. In contrast, San Diego has an unemployment rate significantly lower than the state's (3% vs. 5%).

### Access to Health Care

- People living in border communities have far less than desirable access to essential preventive and primary health care. Approximately 25% of all San Diegans lack health insurance, compared to 22% of all Californians. Between 1995 and 1999, Latino adults (42%) and children (29%) were even more likely to be uninsured.
- Both, Imperial and San Diego counties, are federally designated as partial county health professional shortage areas (HPSA) for primary medical care services. Also, both counties suffer a shortage of bilingual (Spanish/English) and culturally competent trained health professionals.

### Cancer

- In both, Imperial and San Diego counties, **female breast cancer** age-adjusted death rates for 1996-1998 (16.3 and 19.8, respectively) met the Healthy People 2000 objective of 20.6 deaths per 100,000. However, in San Diego, of all race/ethnic groups, Latina females had one of lowest proportion of breast cancer diagnosed at an early stage (61%).
- In San Diego County, the yearly death rates for **cervical cancer** in all women during the 1993-1998 period were up to twice the Year 2000 objective (1.3 per 100,000 females). In 1997, 51% of Latina females with invasive cervical cancer were diagnosed at an early stage, compared to 65% of White females.

### **Diabetes**

- In San Diego, in 1998, Latinos had diabetes age-adjusted mortality rates significantly higher (13.2) than Whites (6.6). Diabetes death rates for Latina females (14.4) were three times higher than for White females (4.8).

### **Lead Poisoning**

- Among the 614 cases identified in San Diego County since 1992, 84% were Hispanic/Latino and 58% were 1-2 years of age.
- Exposure from traditional medicines related to the Mexican culture and ceramic pottery from Central and South America are important considerations in binational communities.

### **HIV/AIDS**

- Since 1993, the incidence of AIDS cases in San Diego and California has been declining yearly. In San Diego, the AIDS epidemic has disproportionately affected minority groups. Among cases diagnosed in 1998 and 1999, 30% were Latino. Among Latinos, the incidence of AIDS has increased among the 20-29 years old population. Also, 54% of the 52 AIDS pediatric cases reported through 1999 were Latino.
- Although Imperial County has had until now a relatively low incidence of AIDS, it is a county that shares boundaries with high rate counties, such as San Diego and Riverside, and also with Baja California Norte, one of the Mexican states with highest incidence of AIDS in the country.

## **Immunization and Infectious Diseases**

### **Hepatitis A and B**

- Between 1996 and 1999, the incidence of **hepatitis A** decreased in San Diego County by 57% and in Imperial County by 52%. In 1999, rates for both counties were below (9.6 and 21.9 per 100,000 for San Diego and Imperial respectively) the Year 2000 Objective (23.0).
- In San Diego County, in 1999, the age group with highest incidence of hepatitis A was the 5 to 14 years old, with 26 cases per 100,000 population. Approximately 67% of the cases in that age group were Latinos.
- From 1994 through 1996, the incidence rate of **hepatitis B** declined by almost 37% in San Diego (from 2.1 to 1.3 per 100,000 people). A similar trend was observed statewide.

### **Tuberculosis (TB)**

- Although the number of TB cases is decreasing in California, the percentage of cases in foreign-born persons has increased significantly over the last five years (31% of whom are from Mexico).

- Rates of TB in Imperial County have been among the two highest in the state for most of the last decade.
- Interruptions in TB treatment are a concern for cases that move between the U.S. and Mexico frequently and can lead to increased risk of transmission and development of drug resistance.

### Immunization Coverage

- According to the 1999 Annual Kindergarten Assessment, as reported to the State by schools, the percentage of students fully immunized in Imperial County, San Diego and California were 88%, 94% and 92%, respectively.

### Injury and Violence Prevention

- For 1996-1998, Imperial County had an age-adjusted death rate for **motor vehicle crashes** (24.3) that was more than twice the rates in San Diego (9.2) and California (11.4) and also was higher than the Healthy People 2000 objective of 14.2 deaths per 100,000 population.
- The average age-adjusted death rate, for 1996-1998, due to **unintentional injuries** for Imperial County residents of all ages (46.0 per 100,000) was about two times higher than the rate for San Diego and California residents (22.7 and 24.2, respectively).

### Maternal, Infant and Child Health

- For 1996-1998, the percentage of **low birth weight** for Latino babies in Imperial and San Diego (5.6 and 6.1 per 1,000 live births, respectively) was lower than for Whites (7.0 and 7.3) and Asians (7.3 and 7.1).
- The three-year (1994-1996) average **infant mortality** rates for Imperial and San Diego counties (5.2 and 5.8, respectively) were significantly lower than the Healthy People 2000 Objective of 7.0 infant deaths per 1,000 live births.
- During the last decade, there have been improvements in both border counties in the percentage of mothers who initiated **prenatal care in the first trimester**. However, in 1998, only 73.6% of births in Imperial County were to mothers who initiated prenatal care in the first trimester. This was significantly lower than the percentages for San Diego (78.8%) and California (81.1%) and the Healthy People 2000 objective of 90%.
- In 1998, in Imperial and San Diego counties, Latina women were the group with highest proportion of mothers that had initiated prenatal care in the third trimester or not at all (6.7 and 8.5%, respectively).
- In 1998, the **adolescent birth rate** for Imperial County, 50.7 per 1,000 females 15-19 years old, was significantly higher than the rates in California (32.6) and San



Diego (29.0). In both border counties, teen birth rates were significantly higher for Latinos (70.6 and 48.3, respectively).

### **Oral Health**

- Although it remains one of easiest ways to prevent dental disease in large populations, no California border region communities currently have fluoridated water systems.
- There is a shortage of dentists in Imperial County. In 1996, there was one dentist for every 3,498 people in the county, compared to one for every 1,353 people in San Diego, and one per 1,383 people statewide.

### **Asthma**

- For 1995-1998, Imperial County had the highest rates of asthma hospitalizations in the state for all ages combined and for children 1-4 years old.

### **Substance Abuse**

- For 1996-1998, the average alcohol related motor vehicle crash death rate for Imperial County residents (13.5) was several times higher than rates for San Diego and California (3.1 and 3.5 per 100,000, respectively).

### **Food Safety**

- Food safety in the U.S.-Mexico border region is considered an issue of great importance. The border is a major entry point for foods coming into the U.S from Mexico and other Latin American countries.
- The rates for enteric diseases, such as giardiasis and salmonellosis, have been decreasing in San Diego by 37 and 46 percent respectively between 1994 and 1997. In San Diego and Imperial, Latinos were overrepresented in terms of shigella cases.

### **Border Crossing Deaths**

- In 1999, the number of deaths in California of people trying to cross the border illegally varied between 83 and 111, depending on the source and definition used by the Border Patrol and the California Rural Legal Assistance (using data provided by the Mexican Consulate), respectively.

### **Sexually Transmitted Diseases**

- In 1999, both San Diego and Imperial had incidence rates of primary and secondary **syphilis** of less than 1.0 per 100,000 population, which were below the Healthy People target (4).
- Rates of **gonorrhea** reported cases for San Diego (54.1) and Imperial County (14.4) were also below the Healthy People target (100 cases per 100,000 population).

### **Environmental Health**

- The legislation mandating this report mentions some important environmental health issues, such as air and water pollution. These topics will be covered in more detail in future reports. They are also being addressed, in large part, by the California Environmental Protection Agency through their California-Mexico Affairs unit.

### **General Recommendations**

With the intent of facilitating cooperation between California and Baja California, we make the following general recommendations. The advisory group to the COBBH, which is charged with developing a strategic plan, will deliberate specific recommendations for program priorities and strategies, and these will be included in future reports.

### **Assessment**

- Improve the infrastructure for assessing and continuously monitoring the health of border communities in a bi-state fashion. This should include collaborations in border and binational public health surveys and studies, and in collecting and regularly sharing information from surveillance, disease control efforts, immunization records, and other health data to help inform policy development. Such information exchange will greatly help in controlling disease outbreaks and dealing with bi-state public health emergencies.

### **Policy and Program Development**

- Develop, with Baja California, a bi-state strategic plan for border public health, with priorities and action steps for improving community health on both sides of the border. This would fit well with the efforts of the annual border Governors meetings and the recent sister-state relationship developed between our two states and signed by our Governors.
- Encourage and support the U.S.-Mexico Border Health Commission to consider creating a bi-state office of border health for shared cooperation. Such sharing would go tremendously far in encouraging binational cooperation and in the reach and impact of intervention programs for improving health and preventing disease along the border.

### **Assurance**

- Assure a more adequate infrastructure for efficient bi-state communications and program implementation in the border area through the abovementioned strategic plan.
- Consider important bi-state programs like community health educators, and promotoras de salud, a very successful model for health promotion in Mexico and a culturally acceptable way of augmenting the health care system.

- Continue and enhance support for bi-state partnerships and coalitions, such as the bi-national health councils of the US - Mexico Border Health Association, and cross-border health professional training programs.

# CALIFORNIA

## OFFICE OF BINATIONAL BORDER HEALTH

Being a binational border, the California - Mexico border region is a tremendous area of human contact where two cultures meet, flow back and forth across political borders, share common experiences, economic and environmental conditions, as well as, health and disease. Indeed, disease knows no boundaries, and because it is a porous border, the region can be considered one epidemiological area for approaching disease prevention and control, for reducing disease and injury risk factors, and for promoting health. It is a region of unique public health challenges.

### History and Background

There has been a State Office of Border Health since 1993. However, Assembly Bill 63, (Chapter 765, Statutes of 1999) officially created the COBBH in January 2000.<sup>a</sup>

**The mission of the Office is to protect and improve the health of California communities affected by border or binational conditions and activities through facilitating cooperation between California and Mexico health officials and health professionals.**

**The 1999 legislation charged the Office with:**

- **Convening a community advisory group to develop a strategic plan with goals and action steps;**
- **Working with the California members of the U.S.- Mexico Border Health Commission (USMBHC); and,**
- **Preparing an annual border health status report to be submitted to the Department of Health Services Director, the State Legislature and the Governor of California.**

This is the first annual border health status report as required by the legislation. It first presents a brief overview of the office and its partners, region, demographics, economy, and health infrastructure to provide a picture of the challenges of bringing together and facilitating cooperation between two states of different countries to protect and improve community health. It then reviews a list of community health indicators, presents available data, and makes comparisons in order to identify areas needing more attention. Third, it briefly reviews present programs and partnerships as important strategies that have been undertaken to date to improve border health. Finally, it provides a summary and recommendations for future action.

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<sup>a</sup> The appendix includes the full text of Assembly Bill 63.

## **Roles**

In addition to the obligations mandated by the legislation, the COBBH has identified several roles and responsibilities in carrying out its mission. These roles are to:

- Serve as a liaison to Baja California State health officials;
- Foster binational partnerships;
- Assess the health status of border communities;
- Assist in border health policy and program development;
- Inform and educate the general public about border health; and,
- Serve as an information clearinghouse.

## **Partnerships**

The COBBH recognizes the importance of collaboration and coordination in the California border region. Below are brief descriptions of the COBBH's major partners.

### **California Office of Binational Border Health Community Advisory Group**

The legislation establishing the COBBH calls for a 12-member voluntary community advisory group to develop a strategic plan with goals and actions. Additionally, it calls for the recommendations from the strategic plan to be developed and shared in consultation with the California members of the U.S. - Mexico Border Health Commission. Representatives to this advisory group are to include designees from the San Diego, Imperial, and Los Angeles County Health Departments, and from the California Conference of Local Health Officers. Further, the legislation calls for other representatives to come from local government, hospitals, health plans, community-based organizations, and universities.

### **CDC and HRSA**

The COBBH maintains close liaison with the Centers for Disease Control and Prevention (CDC), as well as the Health Resources and Services Administration (HRSA), as the Office houses representatives from both agencies. A Senior Public Health Advisor from HRSA helps to coordinate HRSA funded projects and programs in the region with a focus on access to care issues. CDC has assigned a senior Medical Epidemiologist from the National Center for Infectious Diseases to coordinate border infectious disease issues, as well as a Public Health Prevention Specialist from the Epidemiology Program Office, Division of Applied Public Health Training.

### **U.S. – Mexico Border Health Commission**

In 1994, the U.S. Congress passed a law authorizing the President to conclude an agreement with Mexico to establish a United States - Mexico Border Health Commission. The primary charges of the Commission are 1) to assess the public health of border communities, 2) and to coordinate public and private resources, to address the needs and educate the general public on border health issues. The U.S. section includes thirteen members, three of whom are from California. The work of the Commission in California, including outreach, education, needs assessment, data sharing, program and policy development is supported by COBBH, and the Coordinator for the California members is also housed within the Office.

### **County Border Health Offices**

County health departments in San Diego, Imperial, Los Angeles, and Orange counties have recognized the importance of border health issues and dedicated staff to coordinating border or binational community health improvement activities.

### **Project Concern International**

Project Concern International (PCI) is a non-governmental international health organization focused on improving the health of children and families. The COBBH partners with the Border Health Initiative (BHI), a program of PCI to build binational coalitions, plan for new strategies, train health providers and professionals, and build capacity for local health programs and resource development, particularly in the areas of HIV/AIDS, sexually transmitted diseases, tuberculosis and substance abuse.

### **U.S. – Mexico Border Health Association and Binational Councils**

The U.S. - Mexico Border Health Association is an association of health professionals that promotes public and individual health along the U.S. - Mexico border through reciprocal technical cooperation. It also promotes and supports sister city relationships through its Binational Health Councils, including coordination, joint planning and program implementation.

### **Pan American Health Organization**

The Pan American Health Organization (PAHO) is an international public health agency with almost 100 years of experience working to improve the health and living standards of the people of the Americas. Its mission is to strengthen national and local health systems and improve health, by working with Ministries of Health, other government and international agencies, nongovernmental organizations, universities, social security agencies, community groups, and many others. PAHO has a field office in El Paso dedicated to border health activities.

### **U.S. EPA Border XXI and Cal-EPA**

The U.S. - Mexico Border XXI Program is an innovative binational effort that brings together the diverse U.S. and Mexican federal entities responsible for the shared border environment to work cooperatively toward sustainable development through protection of human health and the environment and proper management of natural resources in both countries. Cal-EPA works with the Border XXI Program, as well as their counterparts in Baja California to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality of California.

## CALIFORNIA BORDER REGION

The California border region poses unique public health challenges because of the constant migration of people across the border; the physical and demographic diversity of the region; the economic characteristics of both countries; as well as, political and cultural differences. Some of these challenges are similar to other regions on the U.S.-Mexico border; however, there are also major differences among all these factors between the two California border counties that add to the complexity of health issues in the region.

### Geography

The California border region includes the 140-mile section of the 1,952-mile border between the United States and Mexico that is within the states of California on the U. S. side and Baja California on the Mexican side. The La Paz Agreement of 1983 further defined a binationally agreed upon border region as the area within 62 miles (100km) of either side of the border equaling an area of approximately 250,000 square miles total.<sup>a</sup>

The California border region is comprised of two counties, San Diego and Imperial. San Diego County contains the large urban area of San Diego, whose sister city in Mexico is Tijuana. In Imperial County, El Centro and Calexico are mirrored by the capital of Baja California, Mexicali, on the Mexican side.

The California border region is physically diverse. San Diego and Imperial counties have a multitude of climates and topographies including coastal areas, mountain ranges, desert, sand dunes, national forests, and irrigated agricultural land. In addition to the border communities within this region, there are binational communities that are outside the 100 kilometers of the border, but have similar patterns of migration, socio-economic characteristics, health conditions and close relations with Mexico, as the border communities.

### California and Baja California Norte



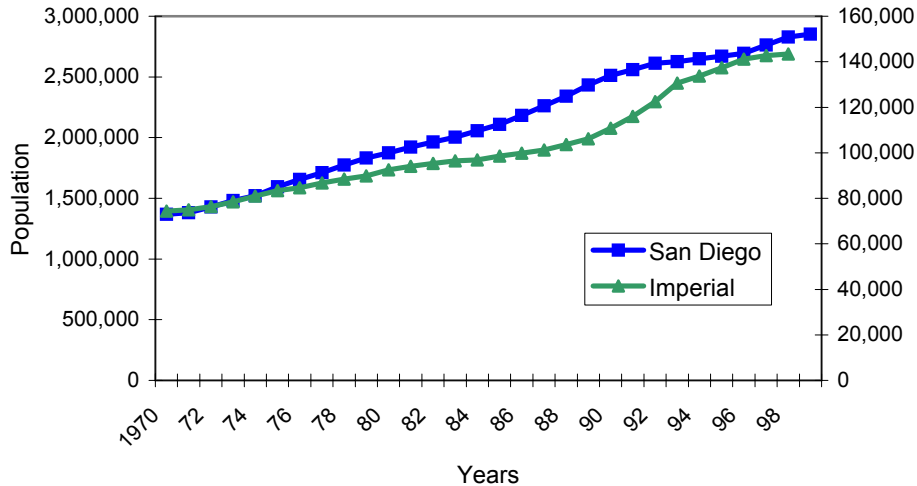
<sup>a</sup> Agreement signed by the United States of America and the United Mexican States on cooperation for the protection and improvement of the environment in the border area. Signed at La Paz on August 14, 1983 and entered into force February, 16, 1984.

Figure 1

### Demographics

Populations along the U.S. – Mexico border are culturally diverse and highly mobile. While this makes it difficult to monitor for health status purposes, we do know that the California border region is home to about 40 percent of the U.S. – Mexico borderwide population.<sup>44</sup>

Population Growth in Imperial and San Diego Counties, 1970 - 1999



Source: Department of Finance<sup>48</sup>

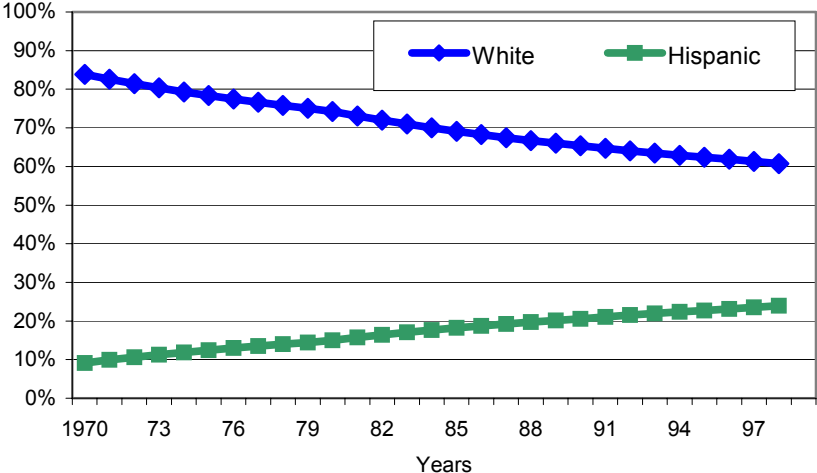
Figure 2

Both counties are ethnically diverse and experiencing rapid growth, especially among groups who were historically racial/ethnic minorities. The populations of both counties have been increasing steadily since 1990, about 20% and 30% for San Diego and Imperial respectively. San Diego County is the fourth most populated county in the United States. 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<sup>a</sup> residents in the state (70%), while San Diego County has had the second largest increase in Latino residents in the state.<sup>31</sup>

<sup>a</sup> The terms Hispanic and Latino are used interchangeably in this report. While Hispanic generally refers to those with Spanish heritage or a Spanish surname in addition to those of Latin American descent, it is the term currently used to report ethnicity in most government statistics. Latino generally refers to populations within the United States with Latin American or Spanish speaking Caribbean heritage.



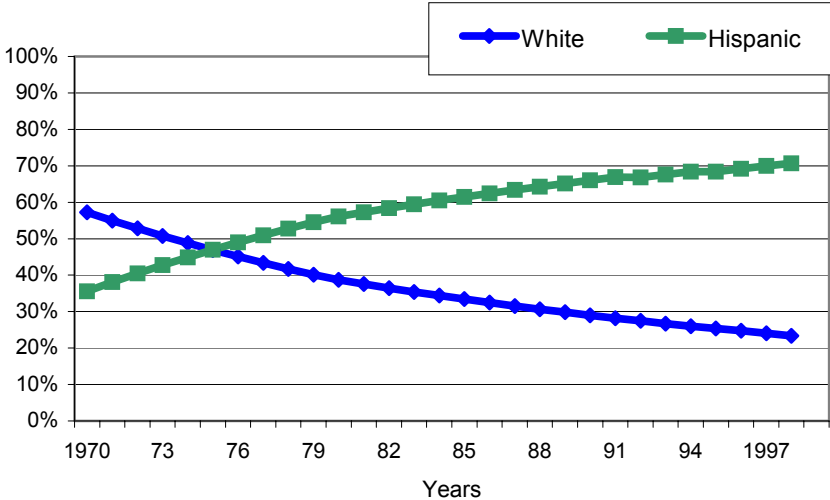
### Hispanic and White Populations, San Diego County, 1970-1999



Source: Department of Finance<sup>49</sup>

Figure 3

### Hispanic and White Populations, Imperial County, 1970-1999

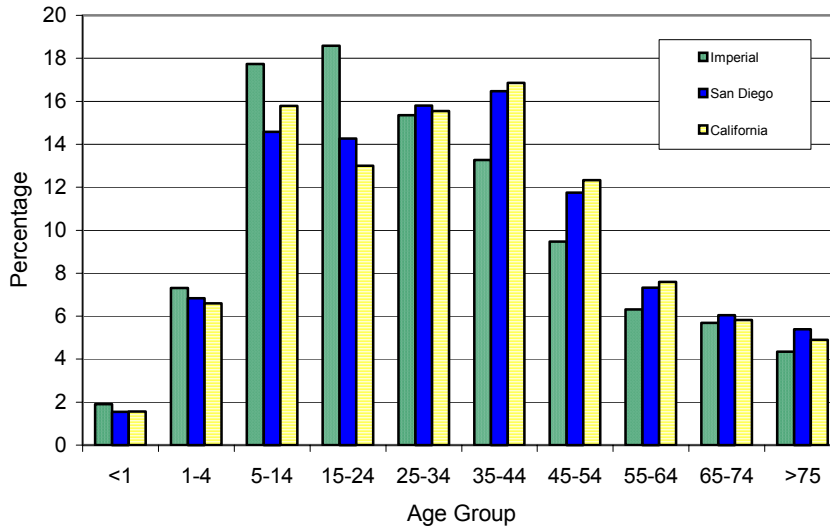


Source: Department of Finance<sup>49</sup>

Figure 4

As the graph below shows, Imperial County’s age distribution is younger than California, which is also true for San Diego County’s Latino population.

**Population Age Distribution, 1998**



Source: Department of Finance<sup>48</sup>

**Figure 5**

Immigration and border crossings have a large impact on the demographics of the two counties as well. There are three ports of entry into Mexico within San Diego County: San Ysidro, Otay Mesa and Tecate. The San Diego/Tijuana sister community has a population of approximately 4 million, making it the largest binational metropolitan area in the entire U.S. – Mexico border area.<sup>44</sup> In addition, it houses the busiest port of entry in the world with over 55 million crossings last year.<sup>46</sup> A 1994 study of the San Diego/Tijuana region found that frequent crossers, those who cross more than four times a month, made 96% of the legal crossings.<sup>45</sup> The study also found that more Mexicans cross into the United States, than do U.S. residents into Mexico. The majority of crossers’ primary purpose for crossing is for social visits, shopping or tourism. In Imperial County there are three border crossings in the Imperial Valley/Mexicali area, which serviced over 39 million crossings in 1999.<sup>31</sup> Imperial County is the only rural county throughout the U.S. – Mexico border that is bordered by a metropolitan region on the Mexican side, Mexicali, which has a population of over 800,000 residents.<sup>41</sup>

**Economy**

The 1990s saw an increase in industry along the border due to the North American Free Trade Agreement (NAFTA) and the creation of enterprise zones on the border. The State of Baja California reported that as of May 2000, there were 1,199 maquiladoras<sup>a</sup> employing over 267,000 people in the state. Further evidence of growth can be seen in the 44% increase in truck border crossings at the Calexico/Mexicali port of entry

<sup>a</sup> Assembly plants typically located on the Mexican side of the border for access to lower cost labor and fewer regulations.

between 1991 and 1995.<sup>47</sup> About one-fifth of Imperial County is irrigated for agricultural purposes, which is the dominant industry in the county and one of the main employment opportunities for those crossing the border. In 1999, agricultural work accounted for over 30 percent of all employment. Imperial County serves as a congregate site for labor contractors and migrant farmworkers, where at peak season close to 18,000 workers cross the border looking for work. Imperial County has the highest unemployment rate (23%) in the state of California. In Imperial County, the per capita income is \$14,790, almost half that of the state.<sup>3</sup>

Those who cross to work in San Diego County are most often employed in the service sector, including cooks, bartenders and waiters. The service industry accounts for one third of the employment in the county.<sup>36</sup> In contrast, San Diego is a growing, thriving county with an unemployment rate significantly lower than the state's (3% vs. 5%). The San Diego County border communities of Chula Vista and San Ysidro have considerably lower per capita incomes than the county, state, and country.<sup>3</sup>

## Health System

The following section of this report will present a more detailed description of the health status of border communities; however, it is important to also describe the border region's public health and health care infrastructure.

Most health care in the United States is provided through managed care organizations and other private health insurance companies and providers. The Medicare and Medicaid programs provide subsidized health coverage to elderly and lower income Americans. The public health departments in Imperial and San Diego counties provide community health services, alcohol and drug services and mental health services; relying on community and migrant health centers to provide primary care to the under and uninsured.

In contrast, Mexico's government subsidizes health insurance for those who work in the formal sector through their social security system. The many Mexicans who do not have health insurance rely on primary care clinics run by the health department or private providers who charge for each visit.

Protecting and improving the health of California's border and binational communities is a major challenge. It involves coordinating the work of two countries, two states and many local communities. In addition to the basic differences between the public health and health care systems in Mexico and the United States, there are the obvious differences in culture, language, political and economic systems, as well as a legacy of mistrust between the two governments. In logistical terms, this can mean differences in communications infrastructure (telephone and internet), case definitions, diagnostic criteria, laboratory protocols, emergency services, and the training of health professionals. More importantly, overcoming these differences requires an investment in developing and maintaining trustworthy and respectful relationships with our Mexican counterparts.

# HEALTH STATUS OF THE CALIFORNIA BORDER REGION

This section describes the health status of communities in the California border region. First, the Healthy People and Healthy Border (HB) programs are described. Second, data are presented using the HB framework for the counties that neighbor the California - Mexico border. In the future this report will be expanded to include other counties and communities affected by conditions on the border. Whenever possible, data are compared to Healthy People 2000 and HB indicators. Following this section is a summary and recommendations for action.

## Healthy People and Healthy Border

In 1990, the United States Department of Health and Human Services created Healthy People 2000, a comprehensive prevention agenda organized into 22 priority areas, with 319 supporting objectives to be achieved by the year 2000.<sup>52</sup> The three overarching goals of the objectives were to increase years of healthy life, reduce disparities in health among different population groups, and achieve access to preventive health services. In January 2000 a new set of objectives, Healthy People 2010, were released with similar goals for the year 2010.<sup>53</sup>

The HB Program outlines a similar health promotion and disease prevention agenda through the year 2010 for the U.S. communities that border Mexico. Healthy Border (HB) 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.<sup>53</sup> Healthy Border aims to develop preventive goals, objectives and strategies that can be used by the four U.S. border states, local communities and private-sector partners.

As with Healthy People 2010, the overarching goals of the HB program are to:

- Increase quality and years of healthy life, and
- Eliminate health disparities in the U.S. – Mexico border region.

The 25 HB objectives<sup>a</sup> cover the majority of the focus areas set out in the list of national health objectives, Healthy People 2010. The HB objectives are all measurable, however information for some of these measures is not yet available for the border communities. This report uses the HB focus areas as a framework for presenting the health status of the California border region.

## Why Use Healthy Border to Assess Border Health Status?

The idea of establishing health objectives for the border region was an outgrowth of preparatory work for the U.S. – Mexico Border Health Commission (USMBHC). A team that included the directors of the four U.S. State border health offices, commission

<sup>a</sup> The full text of the 25 objectives is in the appendix.

member nominees, and federal staff developed the objectives. The team used four principles to guide the selection of objectives:

- a) The extent to which they addressed key health issues on the border;
- b) That they should be limited in number;
- c) To the extent possible, the objectives should be measurable; and
- d) That they should be compatible with Federal and State objectives.

The purpose of these health objectives is to assist border health systems to focus on key community health problems and to guide 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.

Within each U.S. border state, the HB program will be implemented in border communities by a consortium of state and local organizations, including the state health department, border health office, local health departments, private health programs and private businesses. Because the HB objectives have gone through a rigorous selection process and are being used borderwide, they provide an excellent framework for describing the border region's community health status in California and making comparisons to other regions. Mexico's government is planning to establish similar objectives for the priority health concerns of Mexico's border states from their list of 40 national public health indicators. The USMBHC is committed to integrating initiatives on both sides of the border.

In addition to using the HB framework, we have presented county and state statistics when possible. Because the COBBH charge is to facilitate cooperation with Mexico so as to improve health in border and binational communities, the following data focus on Latino health measures more than other racial/ethnic groups. In addition, in some focus areas information was not provided or available for Imperial County due to small numbers or the lack of surveillance. There are many factors that can influence health statistics and these factors can vary among communities. Therefore, the purpose of this report is not to make comparisons between San Diego County, Imperial County and the state. Instead, we are using the Healthy People 2000 objectives (represented as dashed lines in the charts that follow) as a standard by which to assess the status of the health indicators in each region. In the future, Healthy People 2010 goals will be included, as well.

Some of the figures in this report include the upper and lower 95% confidence limits for rates, which can be used to evaluate the reliability and statistical significance of those rates (for more information: see Technical Notes in Appendix).

## A. Access to Health Care

### HB 1. ACCESS TO PRIMARY CARE PROVIDER

People living in border communities have far less access to the essential preventive and primary health care they need for a variety of reasons. While there are little data available on the proportion of persons lacking a primary care provider, the following indicators serve as a surrogate measure for access to care.

#### Lack of Health Insurance

- Approximately 25% of all San Diegans lack health insurance, compared to 22% of all Californians. Between 1995 and 1999, Latino adults (42%) and children (29%) were more likely to be uninsured than other racial/ethnic groups.<sup>35</sup>
- In San Diego County, the major sources of employment include service jobs such as restaurant work, construction and seasonal farm work, all occupations that traditionally do not provide health insurance.
- The 1998 Imperial County Health Risk Survey, a countywide random digit-dial telephone survey, reported that 29% of adult respondents did not have health insurance and 41% did not have a usual source of care.
- In Imperial County, agriculture is the primary source of employment, providing thousands of jobs to migrant and seasonal farmworkers each year, but providing no health insurance.

#### Shortage of Health Care Professionals

- San Diego County is federally designated a partial county health professional shortage area (HPSA) for primary medical care services. A HPSA designation indicates a ratio of less than one health professional per 3,000 people.<sup>50</sup>
- Imperial County is also designated as a partial county HPSA for primary medical care services. The designation covers more than 75 percent of the county's population and is adjusted to include migrant farm workers. The population's health needs are served in part by physicians who travel from the cities of San Diego and Los Angeles or by health care providers in Mexico.<sup>50</sup>
- There are 23.2 primary care providers in Imperial County per 100,000 people compared to 65.7 primary care providers per 100,000 for the entire country.<sup>50</sup>
- Imperial and San Diego Counties suffer a shortage of bilingual (Spanish/English) and culturally competent trained health professionals.

**Access to Prescription Drugs**

- Partly due to high prices and lack of health insurance, many Californians are buying medications without a prescription from unlicensed sources in California or are crossing into Mexico to purchase them.
- Focus group data, comments from individuals at farmers markets and health fairs, and case workers of HIV/AIDS patients, all indicate that the practice is common; but there are no quantitative data available to truly assess the extent of the problem.

**Other Barriers to Accessing Health Care**

- The high cost of health care, concerns about residency or immigration status being affected by attending publicly funded clinics and a lack of culturally and linguistically trained health providers limit access to care.

**B. Cancer**

**HB 2. BREAST CANCER**

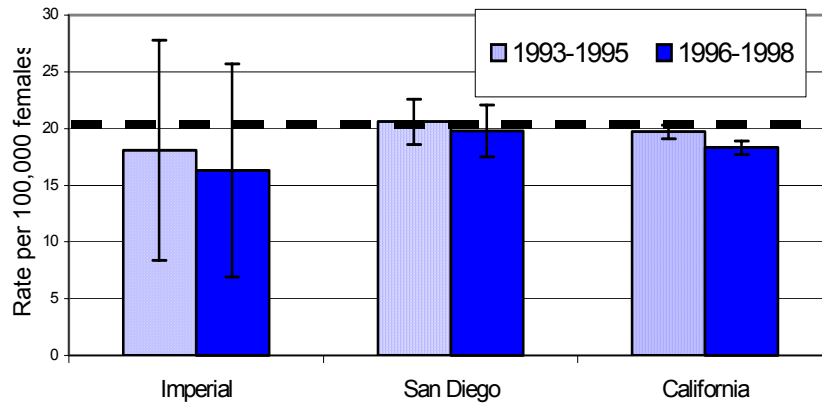
- Breast cancer is the most common cancer among females in California among all racial/ethnic groups. However, there are major differences in their breast cancer experience. Latino and Asian/Pacific Islander American women are less likely to develop breast cancer than women of other racial/ethnic groups.<sup>2</sup>
- Women who develop breast cancer are much more likely to survive when they are diagnosed early. During 1997, in both California and San Diego, Latina females had a low proportion of breast cancer diagnosed at an early stage (61% in San Diego). Statewide, about 70% of female breast cancers were diagnosed early.<sup>2</sup>

**Table 1  
Female Breast Cancer Mortality, 1996-1998**

	Average Number of Deaths	Age-Adjusted Death Rates (per 100,000 females)
<b>Healthy People 2000 Objective</b>		20.6
<b>Imperial</b>	13	16.3
<b>San Diego</b>	366	19.8
<b>California</b>	4160	18.3

Source: California Department of Health Services<sup>5</sup>

### Female Breast Cancer Mortality Rates, 3-Year Averages\*



\*Error bars represent 95% confidence limits.  
 Source: Department of Health Services<sup>4,5</sup>

**Figure 6**

- In Imperial and San Diego Counties, female breast cancer age-adjusted death rates for 1996-1998 did not significantly change from 1993-1995 rates (Table 6).<sup>4,5</sup> Both counties met the Healthy People 2000 objective (indicated by the dashed line in the chart).
- In San Diego County, in 1998, Latina females had a lower age-adjusted death rate than White women (13.6 versus 22). Rates for the other racial/ethnic groups were based on a small number of deaths and were not significantly different from Whites and Latinos.<sup>10</sup>
- In California, Latinas had lower breast cancer mortality rates than other racial/ethnic groups.<sup>10</sup>

### HB 3. CERVICAL CANCER

- Cervical cancer is among the ten most common cancers among females in California. In contrast to breast and other types of cancers, Latina women in California have the highest risk of developing cervical cancer among all racial/ethnic groups. Unfortunately, together with Asian women, they are also the racial/ethnic group least likely to be screened for this type of cancer.<sup>2</sup>



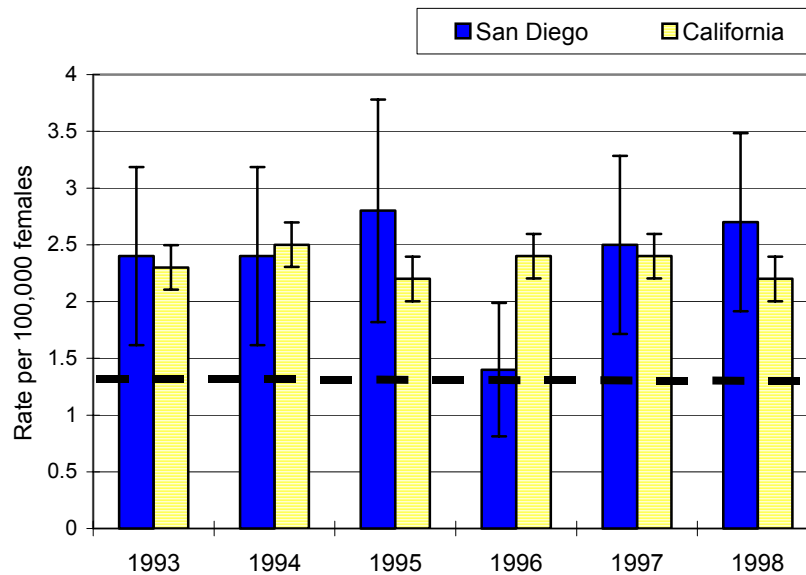
**Table 2  
Cervical Cancer Mortality, 1998**

	Number of Deaths	Age-Adjusted Death Rates (per 100,000 females)
<b>Healthy People 2000 Objective</b>		1.3
<b>Imperial</b>	3	2.1
<b>San Diego</b>	43	2.7
<b>California</b>	452	2.2

Source: California Department of Health Services<sup>10</sup>

- In Imperial County, the average number of deaths in females due to cervical cancer during 1996-1998 was 2.3 per year.<sup>10</sup>
- In San Diego County, the yearly death rates did not change significantly during the period between 1993-1998, and have remained above the Healthy People 2000 objective (indicated by the dashed line).<sup>10</sup>

**Cervical Cancer Mortality Rates, 1993-1998\***



\*Error bars represent 95% confidence limits.  
Source: California Department of Health Services<sup>10</sup>

**Figure 7**

- In San Diego, there were no significant differences among the racial/ethnic groups in death rates due to cervical cancer.<sup>10</sup>
- Deaths from cervical cancer can be greatly reduced by routine screening.<sup>53</sup> In San Diego, only 51% of Latina females with invasive cervical cancer were diagnosed at an early stage, compared to 65% of White females during 1997. In California, there

were no significant differences among racial/ethnic groups in the proportion of early diagnosis of cervical cancer.<sup>2</sup>

### C. Diabetes

Diabetes is a common chronic disease associated with serious complications, such as blindness, lower extremity amputations and end-stage renal disease.<sup>25</sup> The incidence of diabetes has been increasing nationwide and affects minority populations and the elderly disproportionately.<sup>53</sup> This increase in the number of cases may be due in part to improved screening. Still, nationwide, millions of individuals with diabetes are not aware that they have the disease.<sup>25</sup>

- It is projected that Imperial County will have almost 7,000 adults diagnosed with diabetes in 2000, 76% of whom will be Latino. Of San Diego’s approximately 100,000 projected cases, almost 30% will be Latino.<sup>7</sup>
- Lack of access to health care along the border contributes to high rates of complications and increased health expenditures due to diabetes.

#### HB 4. DIABETES MORTALITY

- Diabetes is underreported in death certificates because people with diabetes are more likely to die of complications, which are then listed as the cause of death; therefore, these rates may be a significant undercount.<sup>25,9</sup>

**Table 3  
Diabetes Related Mortality, 1998**

	Number of Deaths	Age-Adjusted Death Rates (per 100,000 population)
<b>Imperial</b>	16	7.9
<b>San Diego</b>	360	8.3
<b>California</b>	5,796	11.6

Source: California Department of Health Services<sup>10</sup>

- In San Diego, diabetes age-adjusted mortality rates did not change significantly from 1994 to 1998. Hispanics had death rates significantly higher (13.2) than Whites (6.6). Diabetes death rates for Hispanic females (14.4) were three times higher than for White females (4.8).<sup>10</sup>

## D. Environmental Health

### HB 5. COUNTIES MEETING FEDERAL AIR QUALITY STANDARDS

- Ground-level ozone, the primary ingredient of smog, is San Diego's main pollution problem.
- For the first time in 40 years in monitoring ozone, San Diego County met the federal one-hour ozone standard for the entire year of 1999. In addition, it met federal air quality standards for carbon monoxide, nitrogen dioxide, inhalable particulates and lead.<sup>31</sup>

### HB 6. HOUSEHOLDS CONNECTED TO PUBLIC SEWAGE SYSTEMS OR SEPTIC TANKS

- Almost all households in Imperial and San Diego Counties are connected to public sewage systems or septic tanks (over 95%). California's border region is doing well in this area compared to other areas on the border.<sup>21</sup>
- There are concerns that raw sewage is being dumped into border region rivers on the Mexican side.

### HB 7. HOSPITALIZATIONS DUE TO ACUTE PESTICIDE POISONINGS

- California has one of the most effective pesticide illness reporting systems in the country.<sup>22</sup> In future reports, we will include data on the number of hospitalizations due to pesticide poisonings.
- Imperial County physicians reported 8 probable cases of pesticide illness in 1998. San Diego County physicians reported 44 probable or definite cases of pesticide illness in 1998. Overall there were 621 probable or definite cases in the state that year.<sup>14</sup>

### Lead Poisoning

California is considering mandating universal testing and reporting of blood lead levels so as to obtain accurate prevalence data which are currently not available.<sup>40</sup>

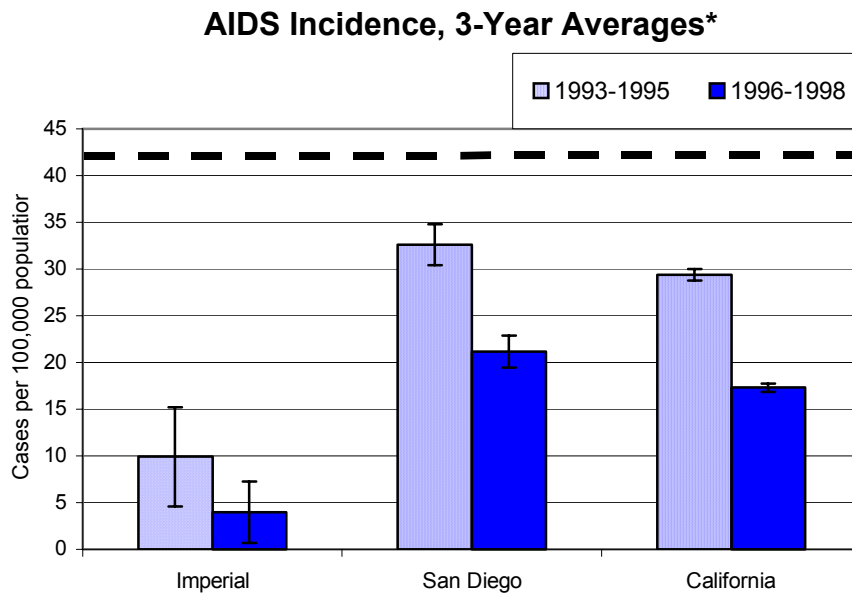
- There were five cases of lead poisoning identified between 1998 and 2000 in Imperial County among children.
- Among the 614 cases identified in San Diego County since 1992, 84% were Hispanic/Latino and 58% were 1-2 years of age.<sup>28</sup>

- Exposure to lead from traditional medicines related to the Mexican culture and ceramic pottery from Central and South America are important considerations in binational communities.

## E. HIV

### HB 8. HIV INFECTIONS

- As of December 1999, a cumulative total of 10,224 San Diego County residents had been diagnosed with AIDS. The county ranks sixth in the incidence rate of AIDS in California.<sup>33</sup> Among Imperial County residents, the cumulative total of AIDS cases is 108.<sup>17</sup>



**Figure 8**

- Since 1993, the incidence rate of AIDS cases in San Diego and California has been declining yearly.<sup>29</sup> In Imperial County, the yearly number of AIDS cases varied from 12 in 1993 to a peak of 21 cases in 1995 and afterwards decreased yearly down to 2 cases diagnosed in 1999. The Healthy People 2000 objective, 43 per 100,000, is indicated by the dashed line in the chart above.<sup>17</sup> For the year 2010, the national objective is to reduce the incidence of AIDS to 1.0 per 100,000.
- In San Diego, the AIDS epidemic has disproportionately affected minority groups. Among cases diagnosed in 1998 and 1999, 30% were Latino. The incidence of AIDS in Latinos has increased among 20-29 years old, suggesting a shift in the epidemic to a younger age group in this community.<sup>33</sup>

- In Imperial County, of 42 cases diagnosed between 1995-1999, 74% were Latino.<sup>17</sup>
- In San Diego County, a total of 52 AIDS pediatric cases were reported through 1999. The majority of those cases were Latino (54%). In Imperial County there was one pediatric AIDS case reported during the same period.<sup>10, 29</sup>
- In San Diego County, the reported mode of transmission varied by gender and by race/ethnicity. However, for males, men having sex with men (MSM) continued to be the exposure most frequently reported. For women, heterosexual contact is the most frequently reported mode of transmission and its proportion has been increasing in recent years.<sup>29</sup>
- Although Imperial County has had until now a relatively low incidence of AIDS, it is a county that shares boundaries with high rate counties, such as San Diego and Riverside, and also with Baja California Norte, one of the Mexican states with highest cumulative rate and incidence of AIDS in the country.
- HIV infection has not been a reportable condition in California. However, proposed regulations for a non-name system of HIV reporting have a targeted implementation date of July 2002. Information is fundamental for tracking the current status of the epidemic. Between 9,762 and 13,510 of San Diego County residents are estimated to be living with HIV infection or AIDS, representing a prevalence of 0.34-0.47%, and making San Diego the county with the third highest prevalence in California. Latinos represent 27% of the total county prevalence.<sup>30</sup> In 1996, 100 to 200 Imperial County residents were estimated to be living with HIV or AIDS (prevalence: 0.07-0.15%).<sup>16</sup>
- Early death associated with AIDS results in a great loss in years of productive life, which also affects minorities disproportionately. In San Diego, a Latino AIDS death represents 37.2 years of potential life lost, 34 years for Blacks and 30.7 for Whites.<sup>33</sup>

## **F. Immunization and Infectious Diseases**

### **HB 9. HEPATITIS A AND HEPATITIS B**

#### **Hepatitis A**

Hepatitis A is a viral disease most commonly transmitted by drinking water or eating food that has been contaminated with fecal matter containing the virus. Although the severity of the disease tends to increase with age, most people recover from hepatitis A without serious consequences. There is a safe and effective hepatitis A vaccine available for prevention and control of the disease.<sup>27</sup>

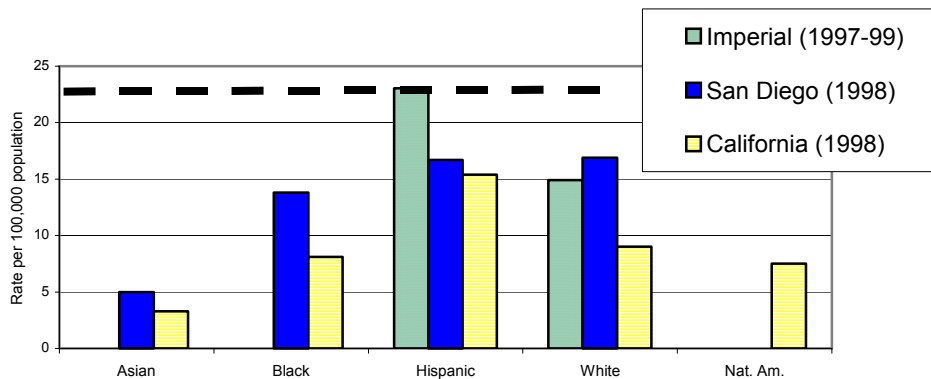
**Table 4  
Hepatitis A Incidence, 1999**

	Number of Cases	Cases/100,000
<b>Healthy People 2000 Objective</b>		23.0
<b>Imperial</b>	33	21.9
<b>San Diego</b>	276	9.6
<b>California</b>	3,439	10.1

Source: California Department of Health Services<sup>20</sup>

- Between 1996 and 1999, the incidence of hepatitis A decreased in San Diego County by 57% and in Imperial County by 52%.<sup>a</sup> In 1999, the San Diego rate (9.6) and the Imperial County rate (21.9) were below the Healthy People objective (23.0).
- In San Diego County, the age group with highest incidence of hepatitis A reported during 1999 was the 5 to 14 years old, with 26 cases per 100,000 population. Approximately 67% of the cases in that age group were Latinos.<sup>31</sup>
- The following graph shows that rates of Hepatitis A are higher among Latinos in Imperial County and California, although below the Healthy People 2000 objective. Rates for Latinos and Whites were similar in San Diego County.

**Hepatitis A Incidence by Race/Ethnicity\***



\*Error bars represent 95% confidence limits.  
Source: San Diego and Imperial Counties<sup>31, 40</sup>

**Figure 9**

## Hepatitis B

Most people with acute hepatitis B infection do not show recognizable clinical signs of illness. However, depending on age, a small proportion of those infected will become carriers and/or progress to chronic liver disease, cirrhosis or cancer.<sup>27, 40</sup>

<sup>a</sup> Rates for hepatitis A and B in Imperial County should be interpreted with caution, because of small numbers and the fact that a percentage of these cases are among populations in correctional facilities.

**Table 5  
Hepatitis B Incidence, 1999**

	Number of Cases	Cases/100,000
<b>Healthy People 2000 Objective</b>		40.0
<b>Imperial</b>	12	8.0
<b>San Diego</b>	38	1.3
<b>California</b>	1234	3.6

Source: California Department of Health Services<sup>20</sup>

- From 1994 through 1996, the incidence rate of hepatitis B declined by almost 37% in San Diego (from 2.1 to 1.3 per 100,000 people). During the same period, hepatitis B rates in California decreased by more than 46%.<sup>20, 31, 40</sup>
- Although hepatitis B rates for Imperial County tended to be higher than San Diego County or California, they were unstable because of the small number of cases involved and, therefore, should be interpreted with caution.<sup>20, 40</sup>
- Hepatitis B rates in both San Diego and Imperial Counties were below the Healthy People objective.

**HB 10. TUBERCULOSIS**

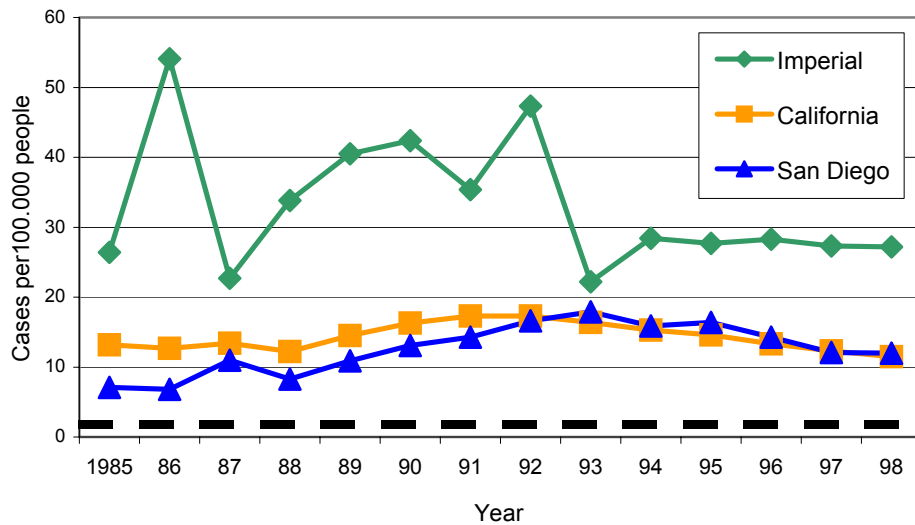
**Table 6  
Tuberculosis Incidence Rates, 1999**

	No. of Cases	Cases/100,000
<b>Healthy People 2000 Objective</b>		3.5
<b>Imperial</b>	38	26.1
<b>San Diego</b>	296	10.3
<b>California</b>	3,608	10.6

Source: California Department of Health Services<sup>12</sup>

- Over the past 8 years, the number of TB cases in California has declined. However, the percentage of cases in foreign-born persons has increased significantly over the last five years. In 1999, almost 70% of TB cases in California were foreign-born. Of those, 32.7% (823 cases) were from Mexico.<sup>12</sup> According to the San Diego County tuberculosis program, in 1999, 44% of the 200 foreign-born TB cases were from Mexico.
- For more than a decade, San Diego and Imperial Counties have had higher TB incidence rates than the national averages. Both counties' incidence rates are far from reaching the 2000 Healthy People Objective of 3.5/100,000 (Table 6 and Figure 10).
- Rates in Imperial County have been among the two highest in the state for most of the last decade.<sup>12</sup> Forty percent of TB cases reported between 1993-1998 in Imperial County were among farm workers.<sup>40</sup>

### Tuberculosis Incidence, 1985-1999



Source: California Department of Health Services<sup>12</sup>

**Figure 10**

- Foreign-born TB cases are not necessarily recent arrivals. In California, 43% of foreign-born cases occurred in those living in the U.S. for 11 years or more. In both border counties, a high percentage of foreign-born TB cases occurred in those living in the U.S. for 11 years or more (43% in San Diego and 78% in Imperial).<sup>12</sup>
- In 1999, 92% of the reported TB cases were Latino compared to less than 1% non-Latino White in Imperial County. In San Diego County, 46% were Latino compared to 12% non-Latino White.<sup>12</sup>
- A 1998 study reported that contact between Mexicans with TB and persons residing in the U.S. contribute to bi-directional transmission across the U.S.-Mexico border. From 1997 to 1999, *the CURE-TB: U.S.-Mexico Binational Referral Program* referred 165 active TB cases from California to more than 25 Mexican states.<sup>43</sup>
- In 1999, TB drug resistance to at least one of the four major first-line drugs was found in 27% of the specimens tested in San Diego, compared to 15.5% of specimens tested statewide<sup>12</sup>. Because of the high mobility and the frequent interruptions in TB treatment regimens, the border populations are at a high risk of developing drug resistance TB.



**HB 11. IMMUNIZATION COVERAGE**

- Both the U.S. and Mexico are attempting to eliminate measles. In 1999, indigenous cases of measles were 1 for San Diego, none for Imperial and 14 for California. Mexico did not have any measles case reported from 1993 to 1999.
- In 1998, a San Diego County Department of Health Services random digit dialing survey found that 77% of children in the county were fully immunized by age 2.<sup>31</sup>
- According to the 1999 Annual Kindergarten Assessment, as reported to the State by schools, the percentage of students fully immunized in Imperial County, San Diego and California were 88%, 94% and 92%, respectively.<sup>13</sup>
- In 2000, after a binational outbreak of rubella, the Imperial County Health Department did a random survey to estimate vaccination coverage among students enrolled in public schools. Ninety-four percent of students were able to provide written proof of MMR vaccination. Compliance for MMR requirements was much lower among private school students (49%), most likely due to a high proportion of private school students coming from Mexico. Mexico began including rubella vaccine on their routine vaccination schedule in 1998.<sup>40</sup>
- Mexico has maintained excellent vaccination rates in recent years and has also begun immunizing against Haemophilus Influenza Type B (HIB).

**G. Injury and Violence Prevention**

**HB 12. MOTOR VEHICLE CRASH DEATH RATE**

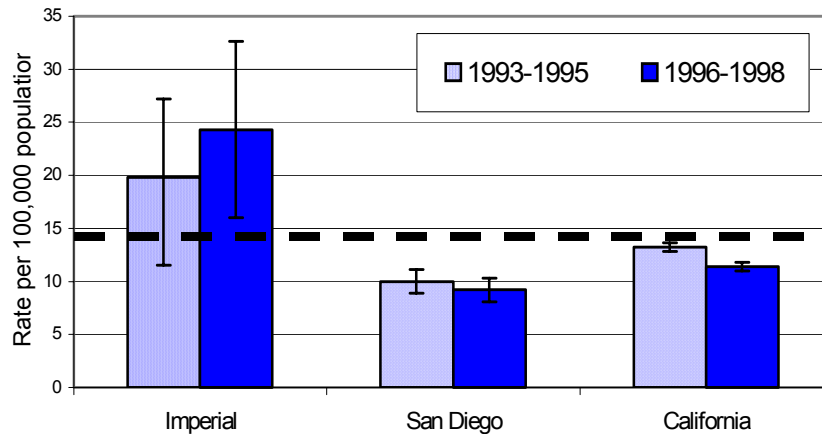
**Table 7  
Motor Vehicle Crash Mortality, 1996-98**

	Average Number of Deaths	Age-Adjusted Death Rates (per 100, 000 population)
<b>Healthy People 2000 Objective</b>		14.2
<b>Imperial</b>	36.3	24.3
<b>San Diego</b>	265.3	9.2
<b>California</b>	3787	11.4

Source: California Department of Health Services<sup>4</sup>

- Imperial County had an age-adjusted motor vehicle crash death rate for 1996-1998 that was twice the rate of San Diego (9.2) and California (11.4) and was also higher than the Healthy People 2000 objective of 14.2 deaths per 100,000 population (Table 7 and Figure 11).<sup>4</sup>

**Motor Vehicle Crash Mortality, 3-Year Averages\***



\*Error bars represent 95% confidence limits.  
 Source: California Department of Health Services<sup>4, 5</sup>

**Figure 11**

- Motor vehicle crashes were the leading cause of injury deaths in San Diego County. Twelve percent of all injury crashes were due to driving while under the influence of alcohol or drugs.<sup>31</sup>
- In both, Imperial County and California, there were no significant differences between Latinos and Whites in the age-adjusted rates for motor vehicle crash deaths. In San Diego, Latinos had higher death rates than Whites (12.4 versus 8.0, respectively).<sup>10</sup>

**HB 13. CHILDHOOD UNINTENTIONAL INJURIES**

**Table 8**  
**Average Number of Childhood Deaths**  
**Due to Unintentional Injuries**

	1993-1995	1996-1998
<b>Imperial</b>	3.3	1.3
<b>San Diego</b>	17.7	16.3

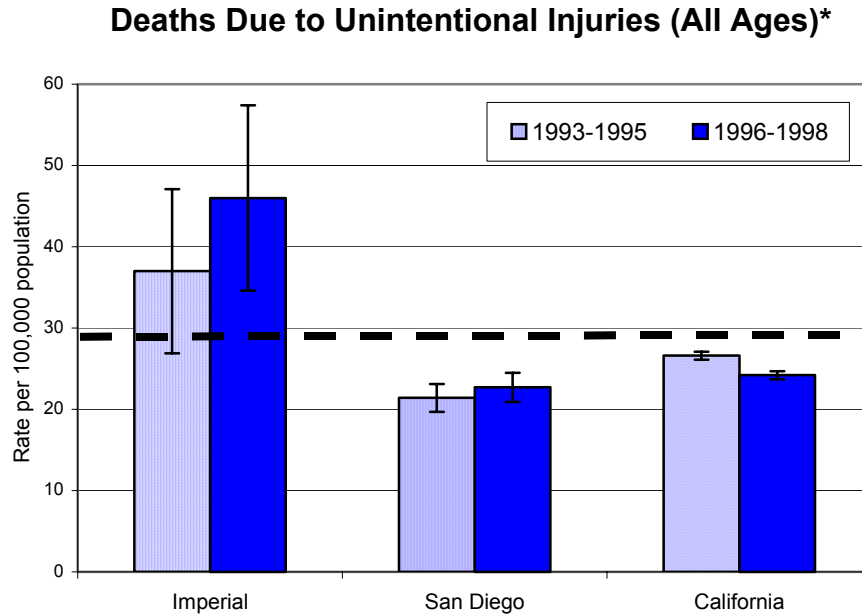
Source: California Department of Health Services<sup>10</sup>

- There were no significant changes between the 1993-1995 and 1996-1999 three-year average number of childhood deaths due to unintentional injuries in San Diego or Imperial Counties. Although rates for Imperial (1.3 per 100,000) and San Diego

(6.9 per 100,000) are based on small numbers, they appear to be lower than the state rates (10.2).<sup>10, a</sup>

**Unintentional Injuries (All Ages)**

- The average age-adjusted death rate, for 1996-1998, due to unintentional injuries for Imperial County residents (46.0 per 100,000) was significantly higher than the rate for San Diego and California residents (22.7 and 24.2, respectively) and the year 2000 objective of 29.3/100,000 (Figure 12).<sup>4, 5</sup>



\*Error bars represent 95% confidence limits.  
 Source: California Department of Health Services<sup>4, 5</sup>

**Figure 12**

**H. Maternal, Infant and Child Health**

- In 1998, Imperial County had a higher fertility rate (81.6 per 1,000 females aged 15-44) than San Diego County or California (71.2).<sup>34, 40</sup> The fertility rate is a good indicator of the childbearing patterns because it takes into consideration the age and gender structure of the population.<sup>31</sup>
- Latina women had the highest fertility rate in San Diego County (average rate for 1997-1998: 117.8). In Imperial County, the 2-year average fertility rate for Latina mothers (80.9) was only slightly higher than the rate for White mothers (77.2).<sup>10</sup>

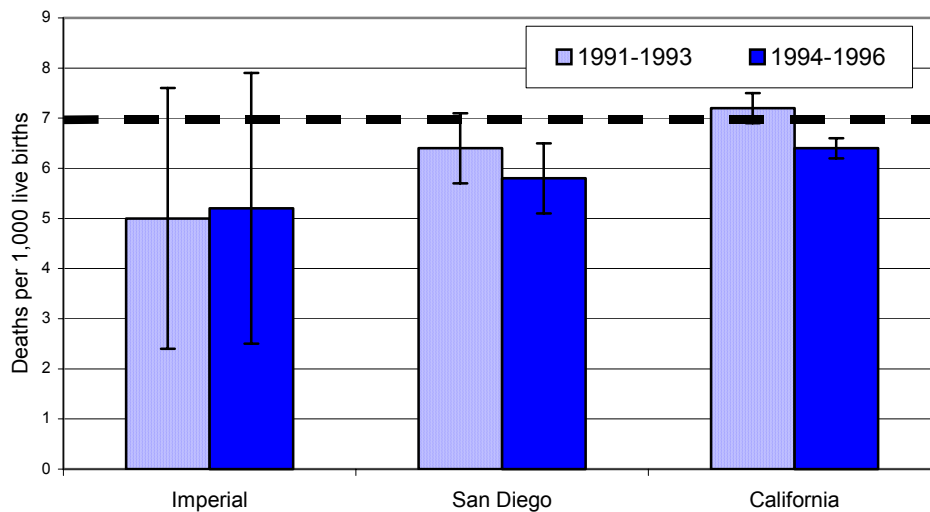
<sup>a</sup> According to a report by the Family Health Outcomes Project, University of California, San Francisco many of the deaths due to unintentional injuries in Imperial County are apparently underreported to state agencies.<sup>58</sup>

### Low Birth Weight<sup>a</sup>

- There was no significant difference between Imperial and San Diego in the average percent of babies born with low birth weight during the 1996-1998 period (5.4, and 5.9 percent, respectively).<sup>5</sup> These percentages are slightly higher than the Healthy People 2000 objective of 5.0%.
- For 1996-1998, the percentage of low birth weight Latino babies in Imperial and San Diego (5.6 and 6.1 per 1,000 live births, respectively) was lower than Whites (7.0 and 7.3) and Asians (7.3 and 7.1).<sup>10</sup>

### HB 14. INFANT MORTALITY

Infant Mortality, 3-Year Averages\*



\*Error bars represent 95% confidence limits.  
Source: California Department of Health Services<sup>4, 5</sup>

Figure 13

- Figure 13 above shows there were no significant differences between the three-year (1994-1996) average birth cohort<sup>b</sup> infant mortality rates for Imperial, San Diego and California.<sup>4</sup> Also, all rates met the Healthy People 2000 Objective of 7 infant deaths per 1,000 live births.
- Average infant mortality rates for 1994-1996 for Imperial and San Diego were not significantly different than 1991-1993 average rates; while, in California, infant mortality rates significantly decreased from 7.2 to 6.4 infant deaths per 1,000 live births.<sup>4, 5</sup>

<sup>a</sup> Babies born weighting less than 2,500 grams

<sup>b</sup> Birth cohort infant death data are based upon births during a calendar year (a cohort) tracked individually for 365 days to determine whether or not death occurred

**HB 15. BIRTH DEFECTS MORTALITY**

Birth defects are abnormalities of structure, function or body metabolism present at birth. Such defects may result in physical or mental disability or death. They are the leading cause of infant mortality and childhood disability.<sup>6</sup> Birth defects can be inherited or be a consequence of infection, substance abuse or exposure to environmental chemicals and pollutants during pregnancy.<sup>42</sup>

- In 1995, it was estimated that 694 children less than 1-year old in San Diego were diagnosed with significant structural birth defects, corresponding with a rate of 16.8 per 1,000 live births. In Imperial County, the estimate was 43 cases (rate 16.3).<sup>6</sup>
- In general, there are not large differences in birth defects rates among racial/ethnic groups in California. However, for neural tube defects, a congenital anomaly resulting in spina bifida and anencephaly (absence of brain), babies of Mexican-born mothers have a 1.7 times greater risk than U.S.-born mothers of all races.<sup>6</sup>

**Table 9  
Infant Mortality due to Birth defects, 1998**

	Number of Deaths	Death Rates (per 1,000 live births)
<b>Imperial</b>	5	2.0*
<b>San Diego</b>	56	1.29
<b>California</b>	785	1.51

Source: California Department of Health Services<sup>10</sup>

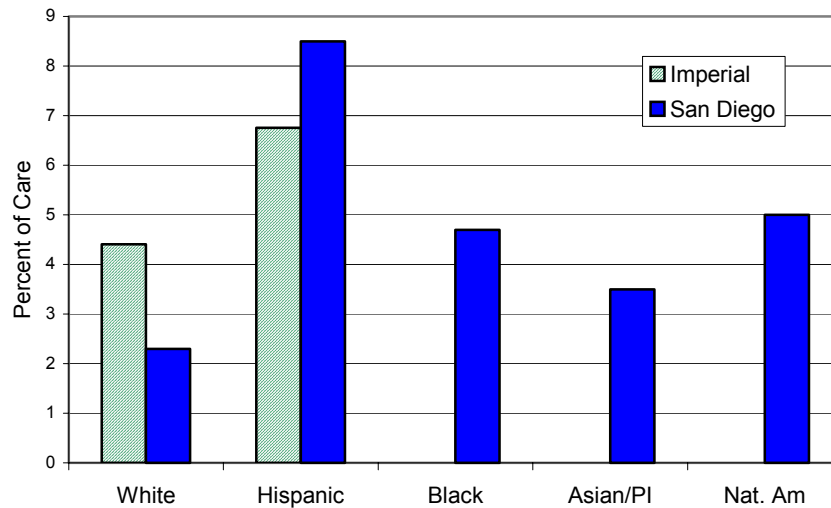
- In San Diego, in 1998, of the 56 infant deaths due to birth defects, 25 were among Latinos (rate: 1.4 per 1,000 live births) and 21 were Whites (1.2).<sup>10</sup>
- In California, in 1998, blacks and Latinos had higher rates of infant mortality due to birth defects (2.02 and 1.59, respectively), compared to Asians and Whites (1.30 and 1.36, respectively).<sup>10</sup>

**HB 16. PRENATAL CARE**

- In 1998, 73.6% of births in Imperial County were to mothers who initiated prenatal care in the first trimester. This was significantly lower than the percentages of first trimester prenatal care in San Diego (78.8%) and California (81.1%).<sup>10</sup> The Healthy People 2000 objective is to increase to at least 90% of women who receive prenatal care in the first trimester of pregnancy.
- Since 1990, the percentage of mothers with first trimester prenatal care has increased by 29.6% in Imperial County, 8% in San Diego County and by almost 9% in California.<sup>10</sup>

- In 1998, in Imperial and San Diego Counties, Latina women were the group with highest proportion of mothers that had initiated prenatal care in the third trimester or not at all (6.7 and 8.5%, respectively).<sup>10</sup>
- For the period 1996-1998, of the three regions compared, Imperial County had the lowest three-year average percentage of mothers with adequate/adequate plus<sup>a</sup> prenatal care (65.4%). For San Diego County, the percentage (69.2%) was also significantly lower than the state (70.5%).<sup>5</sup> All three regions were much lower than the Healthy People 2010 Objective of 90%.

**Late or No Prenatal Care by Race/Ethnicity, 1998\***



\*Error bars represent 95% confidence limits.  
 Source: California Department of Health Services<sup>10</sup>

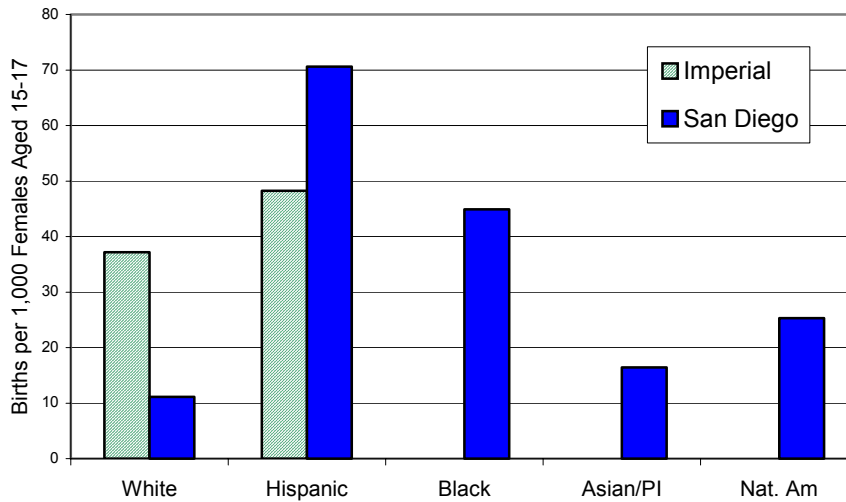
**Figure 14**

**HB 17. TEEN PREGNANCY**

Although the HB 2000 objective refers to teen pregnancies, that information is not regularly collected. As a proxy, information on births among teenagers is included.<sup>34</sup>

<sup>a</sup> Women with “adequate/adequate plus” prenatal care includes mothers who initiated prenatal care by the fourth month of pregnancy and had greater than or equal to 80 percent of the expected number of prenatal visits recommended by the American College of Obstetricians and Gynecologists.

**Teen Birth Rates by Race/Ethnicity, 1996-1998\***



\*Error bars represent 95% confidence limits.  
Source: California Department of Health Services<sup>10</sup>

**Figure 15**

- In 1998, the adolescent birth rate for Imperial County, 50.7 per 1,000 females 15-19 years old, was significantly higher than the rates in California (32.6) and San Diego (29.0).<sup>10</sup>
- Teen birth rates for San Diego and California have significantly declined from rates in 1992 (by 24.5% and 28.5%, respectively). In contrast, rates for Imperial County have not changed significantly during the same period.<sup>10</sup>
- In both, San Diego and Imperial Counties, teen birth rates were significantly higher for Latinos (70.6 and 48.3, respectively) than for others (Figure 15).<sup>10</sup>

**I. Mental Health**

**HB 18. SUICIDE DEATH RATE**

**Table 10  
Suicide Mortality, 1996-98**

	Average Number of Deaths	Age-Adjusted Death Rates
<b>Healthy People 2000 Objective</b>		10.5
<b>Imperial</b>	8	5.6
<b>San Diego</b>	328.7	11.1
<b>California</b>	3,349	9.4

Source: California Department of Health Services<sup>4</sup>

- The age adjusted death rates for all three regions, for 1996-1998, met the Healthy People 2000 objective (Table 10).
- In 1998, in both San Diego and California, male suicide rates (15.6 and 14.0, respectively) were significantly higher than for females (5.0 and 3.8, respectively).<sup>10</sup>
- In 1998, in San Diego, suicide death rates were higher among the older age groups, with the highest rate for those 75 years and older (27.9 per 100,000).<sup>31</sup> Also, the age-adjusted death rates for Latino males were half that of White males (8.9 versus 18.7 per 100,000 population).<sup>10</sup>

## **J. Nutrition and Obesity**

There is little ongoing surveillance of these conditions. However, recently a Department of Health Services study reported data on obesity and physical inactivity for California, San Diego and the Central Valley Region (in which Imperial County was included) from 1992-1994.<sup>8</sup>

### **HB 19. OBESITY**

- Latino and White men and women in the Central Valley Region were more likely to be overweight than those in San Diego County or the state as a whole (ranging from 28-43% of the population). The Healthy People 2000 objective is to reduce obesity to 15% of the population.
- Percentages of physically inactive men and women were similar for the Central Valley Region, San Diego County and California (42-51% for women; 64-74% of men).

## **K. Oral Health**

### **HB 20. FLUORIDATION OF COMMUNITY WATER SYSTEMS**

- Although it remains one of easiest ways to prevent dental disease, no California border region communities currently have fluoridated water systems.

### **HB 21. ACCESS TO DENTAL CARE**

- There are no comprehensive data on access to dental care in border communities.
- Some data exists from small surveys in San Diego County. A 1993 Healthy Start survey of 200 parents of elementary school children indicated two-thirds had no dental care for either themselves or their children.<sup>37</sup> A 1992 study by the American



Academy of Pediatrics, San Diego County Community Access to Child Health Committee reported that 46% of low-income persons did not have a dentist for their child.<sup>1</sup>

- There are also shortages of dentists in border communities. In 1996, Imperial County had one dentist for every 3,498 people, San Diego County had one for every 1,353 people, while the state overall had one per 1,383 people.<sup>15</sup>

## L. Respiratory Diseases

### HB 22. ASTHMA

- In California, a half million children suffer from asthma and it is the most common cause of childhood hospitalizations and school absences.<sup>37</sup>
- For 1995-1997, Imperial County had the highest rates of asthma hospitalizations in the state for all ages combined and for children 1-14 years of age. The tables below illustrate the differences between the counties and how they compare to statewide rates.

**Table 11**  
**Asthma Hospitalization Rates by**  
**Race/Ethnicity, All Ages, 1995-1997\***

	Non-Hispanic White	Black	Hispanic	Asian/Pacific Islander	Total
<b>Imperial</b>	262	781	179	--	207
<b>San Diego</b>	75	279	88	102	94
<b>California</b>	100	355	106	88	120

\*Age-adjusted to the 1990 California population. Hospitalizations per 100,000 person-years.  
Rate not presented if the number of cases per group was less than 20.  
Source: California Department of Health Services<sup>14</sup>

**Table 12**  
**Asthma Hospitalization Rates by**  
**Race/Ethnicity, Ages 0-14, 1995-1997\***

	Non-Hispanic White	Black	Hispanic	Asian/Pacific Islander	Total
<b>Imperial</b>	704	2610	480	--	556
<b>San Diego</b>	117	483	141	152	163
<b>California</b>	167	678	183	141	216

\*See Table 11  
Source: California Department of Health Services<sup>14</sup>

## M. Substance Abuse

- Young people (under age 21) and adults frequently visit Mexico’s border areas for recreation, socializing, and partying. Mexico is less expensive and has a lower drinking age of 18 years that attracts adolescents and young adults across the border where binge drinking occurs (five or more drinks at a time within the last two weeks).
- Serious consequences to alcohol, tobacco and other drug use include: death and injuries related to driving under the influence (DUI) vehicle crashes; fights, injuries and domestic violence; alcohol-related crimes including murder, rape and armed robbery; poor school performance and drop-out rates from high schools, colleges and universities; exposure to sexually transmitted diseases, including HIV; and teen pregnancies.

### HB 23. ALCOHOL RELATED MOTOR VEHICLE CRASH DEATHS

Table 13  
Alcohol-Related Motor Vehicle Crash Deaths, 1996-1998

	Average Number of Deaths	Crude Death Rates
Imperial	19.3	13.5
San Diego	85.7	3.1
California	1,142	3.5

Source: California Highway Patrol<sup>24</sup>

- In Imperial County, the average number of alcohol-related motor vehicle crash deaths during 1996-1998 increased by 31% compared to the average number of deaths reported during 1993-1995. For the same two periods, the number of alcohol related motor vehicle crash deaths in San Diego County decreased by almost 24% (from 112.3 to 85.7 deaths).<sup>24</sup>
- For 1996-1998, the average alcohol-related motor vehicle crash death rate for Imperial County residents (13.5) was several times higher than rates for San Diego and California (3.1 and 3.5 per 100,000, respectively) (Table 13).<sup>24</sup>

### HB 24. ALCOHOL/ILLICIT DRUG USE AMONG YOUTH

- In 1999, 39% of San Diego County high school youth reported drinking alcohol in the last 30 days; 22% reported binge drinking in the last 30 days and 22% reported marijuana use in the last 30 days.<sup>2</sup>
- In Imperial County, 53% of students surveyed in grade 11 reported using alcohol within the past 30 days.<sup>23</sup>

## N. Tobacco Use

### HB 25. TOBACCO USE AMONG YOUTH

- In 1999, 23% of San Diego high school students reported using tobacco products in the last 30 days.<sup>2</sup>
- In Imperial County, 31% of students surveyed in grade 11 reported using cigarettes within the past 30 days.<sup>23</sup>
- Data from San Diego and Imperial Counties cannot be compared due to the lack of standardized collection methods. County departments of alcohol and drug services collect treatment admissions for State-funded programs. County offices of education rely on student surveys that vary from county to county and cannot be compared between counties nor statewide.

## Other Issues of Concern in the California Border Region

### Food Safety

- Food safety in the U.S. - Mexico border region is considered an issue of great importance. The border is a major entry point for foods coming into the U.S from Mexico and other Latin American countries. Another concern is the unregulated, small quantities of food that are brought into the U.S. on a daily basis for family consumption, or to be sold in small restaurants, meat shops, or by street vendors.<sup>51</sup>
- Enteric illnesses are generally the result of ingesting fecally contaminated food or water, or of ingesting infected animal products. Although the rates for enteric diseases, such as giardiasis, campylobacteriosis, salmonellosis, and shigellosis have been decreasing, there has been a steady increase in the number of reported foodborne outbreaks in California.<sup>11</sup> Some recent foodborne outbreaks have been due to emerging pathogens and involved imported raw fruit and vegetables. For example, a 1997 outbreak of *Salmonella saphra*, associated with cantaloupes,<sup>a</sup> and another outbreak of *Shigella sonnei*, associated with fresh parsley, were traced back to products imported from Mexico.<sup>b</sup>
- In San Diego County, 13 outbreaks involving hundreds of people were reported in 1999.<sup>31</sup> Since 1994, only one foodborne disease outbreak was reported in Imperial County.

<sup>a</sup> Source: MMWR, 1999; 48(14): 285-289

<sup>b</sup> Source: Mohle-Boetani JC, et al. J. Infect Dis, 1999; 180(4): 1361-4

**Giardia**

- In Imperial County, during the last six years, there was an average of six cases of giardiasis reported annually. In San Diego and California, giardia rates decreased 37% and 42%, respectively, between 1994 and 1999.<sup>20, 40</sup>

**Salmonella (Non-Typhoid)**

**Table 14  
Salmonella Incidence, 1999**

	Number of Cases	Cases/100,000
<b>Healthy People 2000 Objective</b>		16.0
<b>Imperial</b>	17	11.3
<b>San Diego</b>	364	12.8
<b>California</b>	4208	12.4

Source: California Department of Health Services<sup>20</sup>

- In San Diego, salmonella rates in 1999 (12.8 per 100,000) were 46% lower than in 1996 (23.1). Also, salmonella rates in 1999 were similar among Latinos, blacks and Whites.<sup>31</sup> In Imperial, the annual average number of cases reported for 1996-1999 (27.3) decreased by 27% from the average number of cases for 1994-1996 (37.3). 85% of cases reported in 1995 -1999 were Latinos.<sup>40</sup>
- Similar to statistics at the national level, children less than one year old in San Diego had a salmonella infection rate about seven times higher than other age groups.<sup>31</sup> In Imperial, more than 55% of cases reported were less than five years old.<sup>40</sup>

**Campylobacter**

**Table 15  
Campylobacter Incidence, 1999**

	Number of Cases	Cases/100,000
<b>Healthy People 2000 Objective</b>		25.0
<b>Imperial</b>	14	9.3
<b>San Diego</b>	410	14.2
<b>California</b>	5,461	16.0

Source: California Department of Health Services<sup>20</sup>

- In San Diego, Latinos had the highest rates of infection of all racial/ethnic groups for campylobacter.<sup>31</sup>

**Shigella**

- In San Diego, in 1999, Latinos had the highest rate of shigella of all racial/ethnic groups.<sup>31</sup> In Imperial, about 90% of cases reported were Latinos.<sup>40</sup>

- In Imperial, more than 74% of shigella cases reported since 1995 have occurred in children under 15 years old, with more than one third of the cases in children under the age of five.<sup>40</sup>

**Border Crossing Deaths**

- In 1994, the U.S. Border Patrol began Operation Gatekeeper, a project to further deter illegal border crossings in the California border region. The project has involved a dramatic increase in infrastructure and resources for the San Diego and El Centro sectors.
- The Border Patrol, as well as California Rural Legal Assistance, Inc. (using data provided by the Mexican Consulate) maintain statistics on the number of border crossing deaths that occur each year in California. Numbers differ due to varying definitions of what qualifies as a border crossing death.

**Table 16  
Border Crossing Deaths by Source and County, 1993-2000**

	Border Patrol*		CRLA San Diego and Imperial
	San Diego	Imperial	
<b>1993</b>	42	--	--
<b>1994</b>	24	--	--
<b>1995</b>	51	--	61
<b>1996</b>	47	--	59
<b>1997</b>	33	32	89
<b>1998</b>	36	90	147
<b>1999</b>	20	63	111
<b>2000</b>	31	--	79
<b>Total</b>	284	185	546

\*Numbers are for fiscal year (Oct – Sept). Dashes indicate that data is not available.

- Both the Border Patrol and California Rural Legal Assistance, Inc. have reported that the El Centro/Calexico region has had the highest number of deaths of any area in the U.S. – Mexico border region in 1999 and 2000.

**Sexually Transmitted Diseases**

**Table 17  
Sexually Transmitted Diseases, Cases and Crude Rates, 1999**

	Syphilis***		Congenital Syphilis		Gonorrhea		Chlamydia	
	No.	Rate*	No.	Rate**	No.	Rate*	No.	Rate*
<b>Healthy People 2000</b>		4.0		40.0		100.0		
<b>Imperial</b>	0		1	39.8	21	14.4	244	167.6
<b>San Diego</b>	25	0.9	14	32.2	1,561	54.1	7,591	263.3
<b>California</b>	283	0.8	96	18.4	18,664	54.8	85,129	250.1

\*Rates per 100,000, \*\* Cases per 100,000 live births, \*\*\* Primary and secondary syphilis  
Source: California Department of Health Services<sup>19</sup>

**Syphilis**

- Reported cases of primary and secondary syphilis have been decreasing in California during the last decade.<sup>18</sup> In 1999, all three regions, California, San Diego and Imperial, had incidence rates less than 1.0 per 100,000 population, which were below the Healthy People target.<sup>19</sup>
- In San Diego County, from 1997 to 1999, there were historically low numbers of cases reported. About 30% of those cases reported were considered imported, most of them with a likely source in Mexico.<sup>18</sup>
- In Imperial County, after one individual case in 1993, there have been no other cases of primary or secondary syphilis reported.<sup>19</sup>
- The California Department of Health Services, together with other organizations, has launched the California Syphilis Elimination Initiative, with the mission to eliminate indigenous transmission of syphilis by 2005. Collaboration with Mexican health authorities in syphilis programs at the border is important in achieving and maintaining this goal.

**Gonorrhea and Chlamydia**

Gonorrhea and chlamydia are diseases of special concern because their incidence is higher among adolescents and young adults, and they are most commonly asymptomatic, yet can have serious complications if left untreated.<sup>20</sup>

- In the last decade, the incidence rate of gonorrhea in San Diego has decreased by almost 70%.<sup>31</sup>
- Current rates for Imperial and San Diego are below the Healthy People 2000 objective.
- In 1999, Latinos in San Diego had a rate of 47.1 per 100,000 compared to 30.8 for whites.<sup>30</sup>

- Similar to California, Latinos and blacks in San Diego also had the highest rates of chlamydia (429.6 and 953.3, respectively), while whites had a rate of 130.8 per 100,000.<sup>31</sup>

# STRATEGIES TO IMPROVE BORDER HEALTH

The COBBH, with its partners, has already taken many steps to improve the health status of those living in the California border region. This section provides a summary of current projects and describes some of the planned programs.

## Activities and Programs

### **Border Infectious Disease Surveillance Project (BIDS)**

BIDS is a CDC-supported sentinel surveillance system for infectious diseases for the U.S. – Mexico border region. The four U.S. and six Mexico border states partner to gather and exchange disease incidence and risk factor information, improve local laboratory diagnostic capabilities, develop educational and training opportunities for local public health practitioners and improve binational communications and data exchange between public health officials.

Initially focusing on clinical syndromes of hepatitis and fever with rash, the project strategy is eventually to track additional important endemic or emerging infectious diseases and thus provide an **effective early warning and disease prevention system for the border**. Sentinel sites in the region include primary care clinics, a hospital in south San Diego County, and the downtown Tijuana general primary care clinic, with plans to expand to Imperial County and Mexicali.

### **Ten Against Tuberculosis (TATB)**

TATB is an effort of the four U.S. and six Mexico border states, along with CDC, HRSA, the Mexico TB program, and the Pan American Health Organization. The COBBH represents California on the Steering Council and the State Tuberculosis Control Branch represents California on the Technical Committee. Current TATB priority areas are:

- Establishing a surveillance system for binational TB cases,
- Outreach and education,
- Laboratory infrastructure, and
- Case management.

Grant proposals and specific projects to address these priorities include:

- Building infrastructure for binational case management and directly observed therapy activities in Mexico;
- Binational case conferences;
- Analyzing the TB registries of sister communities;
- Acquisition of second line drugs for multi-drug resistant patients; and
- Computer and communications infrastructure improvement.

### **Outreach and Education to Policy Makers**

The California members of the U.S.-Mexico Border Health Commission are involved with a proposal planning project to develop outreach and education strategies to provide border health status information, priorities, and potential actions to key policy-makers at



the local, state and federal levels. This may serve as a model for outreach and education efforts by the full U.S. – Mexico Border Health Commission.

### **Border Environmental Health Assessment**

A strategic planning conference was conducted in November 2000 to assess gaps in knowledge, services and coordination and to develop border environmental health improvement strategies to recommend to the COBBH, the U.S. – Mexico Border Health Commission, and the California DHS.

### **Cross-Border Emergency Medical Services**

The COBBH has been involved with San Diego County Health and Human Services Agency and the Imperial County Public Health Department efforts to develop a plan for cross-border emergency medical services. This plan will address strategies for a standard data reporting system, surveillance, and identifying and resolving issues of cross-border patient transport.

### **Pharmaceutical Safety Programs**

Los Angeles and Orange Counties' border health offices are conducting outreach and education on the dangers and risks of purchasing prescription medicines in California or Mexico without physician supervision. The offices are currently collecting data on the extent of the problem and have developed and distributed electronic and print media messages educating the public on pharmaceutical safety.

### **CURE TB**

The COBBH partners with and assists San Diego County with the Department of Health Services, Tuberculosis Control Branch funded project that refers TB patients binationally to assure treatment completion and follow-up. It facilitates the exchange of information between health departments and health care providers in both the U.S. and Mexico.

### **HIV/AIDS Care Innovations**

The COBBH assisted San Diego and Imperial Counties in their collaboration to request and receive a HRSA Special Projects of National Significance grant to improve medical and case management services provided to HIV-infected persons in these counties and Mexico. Part of this effort will integrate HIV services with the CURE TB program to create a new program, CURE +.

### **Border Diabetes Prevalence Study**

The COBBH has assisted BHI with the CDC-funded study. The COBBH assisted in the preliminary planning and partnership identification at the county and binational levels. Through partnerships with PAHO and the state diabetes control programs, the project will measure diabetes prevalence on the border and be followed by an intervention to diminish the impact of diabetes on border populations.

### **U.S. – Mexico Border Health Association and Binational Health Councils**

The COBBH has participated in and provided funding for the USMBHA Annual Conferences, as well as provided technical assistance, coordination, and planning for the Binational Health Councils in the California border region (Imperial/Mexicali and San Diego/Tijuana).

### **U.S. EPA Border XXI and Cal-EPA**

The COBBH has assisted in meetings of the Border XXI's borderwide environmental improvement efforts and updating their long-term plans. In addition, the COBBH has worked with the Cal-EPA California Border Coordinators Group on their bi-state strategic plan development and other efforts.

### **Childhood Asthma Study**

This project will involve working with Baja California health officials and health professionals from Colegio de la Frontera Norte to study the prevalence of childhood asthma in Imperial County and Mexicali and develop improved community education for control. The study will be conducted by the California Division of Environmental and Occupational Disease Control and facilitated by the COBBH.

### **Syphilis Elimination**

The California Syphilis Elimination Initiative headed by DHS and UCSF is extending control efforts to Tijuana and Mexicali in cooperation with public health authorities in Tijuana, Mexicali, and Baja California. The COBBH will facilitate this process, which will include:

- Enhanced case follow-up, partner notification and referral, outbreak investigation and screening activities;
- Enhanced confirmatory testing; and,
- Pilot testing a pharmacist education program.

# SUMMARY AND RECOMMENDATIONS

## Summary

The health status of the California border region is complex. There are strengths that are important to maintain and protect, as well as health disparities that need to be addressed. While there are many important factors in each of the focus areas described above, this section summarizes some of the most important areas.

### Areas with Favorable Indicators

#### 1. Breast Cancer Mortality

Both Imperial and San Diego Counties' rates of breast cancer mortality were below Healthy People 2000 objectives, with Latina women showing lower rates than other racial/ethnic groups. However, screenings are still low for Latinas.

#### 2. Infant Mortality and Low Birth Weight

Latino babies had lower percentages of low birth weight than other racial/ethnic groups in both Imperial and San Diego Counties, despite relatively poor access to prenatal care. In addition, the infant mortality rates for both counties were better than the state's rates overall and below the Healthy People objective for 2000.

### Areas of Concern

#### 1. Access to Health Care

Populations in the California border region suffer not only from lack of health insurance and a shortage of health care professionals, but also experience many other barriers to accessing health care. Transportation and the lack of culturally competent and bilingual providers are particularly important in border communities. In addition, lack of access to primary care, dental care, and prenatal care needs to be addressed.

#### 2. Tuberculosis

Although the number of TB cases is gradually decreasing in California, it remains a critical border health issue. San Diego and Imperial Counties' TB programs continue to struggle with issues of binational transmission and case management, as well as treating drug resistant cases.

#### 3. HIV/AIDS

HIV/AIDS is a top priority for both U.S. and Mexican health officials in border states, especially in more urban areas like San Diego and Tijuana. HIV is increasing among young Latinos resulting in a tragic loss of life and large economic costs to the region.

#### **4. Injury**

Motor vehicle crashes and unintentional injuries are among the leading causes of death in Imperial County. Border communities face added challenges of how to coordinate emergency response and binational policy development and education to decrease deaths due to injuries.

#### **5. Asthma**

Childhood asthma is an ongoing issue of concern in California's border region, especially in Imperial County. This health problem has multiple causes. The role of air pollution in increasing asthma incidence in this region requires further study, along with efforts to reduce air pollution from binational sources.

### **General Recommendations**

This report presents available information on the status of public health in the border region, and does not represent an exhaustive, comprehensive analysis. With an eye to best facilitating cooperation between California and Mexico, we here make some general recommendations for improving bi-state efforts. The Advisory Group to the COBBH, which is charged with developing a strategic plan, will deliberate specific recommendations for program area focus and strategies.

#### **Assessment**

- One clear need is to improve the infrastructure for assessing and continuously monitoring the health of border communities in a bi-state fashion. This could include collaborations in border and binational (e.g., bi-directional migrants and disease reporting, or cultural factors influencing health) public health surveys and studies. This should also include collecting and regularly sharing information from surveillance, disease control efforts, immunization records, and other health data to help inform policy development. Such information exchange will greatly help in providing early warning in controlling disease outbreaks and dealing with bi-state public health emergencies.

#### **Policy and Program Development**

- To help encourage and guide cooperation, California should develop, with Baja California, a bi-state strategic plan for border public health, with priorities and action steps for together improving community health on both sides of the border. This would fit well with the efforts of the annual border Governors meetings and with the recent sister-state relationship developed between our two states. This relationship was established in a bi-state Memorandum of Understanding (MOU), signed by Governors Davis and Elorduy on December 3, 2001, to "... promote and expand effective and mutual cooperation beneficial to the citizens of Baja California and California." The MOU specifically includes public health and safety.
- California should encourage and support the U.S.-Mexico Border Health Commission to consider creating a bi-state office of border health for shared

cooperation. The Commission's central office in El Paso is shared by the executive directors of both the U.S. and Mexico sections. Such sharing would go tremendously far in facilitating binational cooperation and in the reach and impact of intervention programs for improving health and preventing disease along the border.

**Assurance**

- A strategic plan agreement could help assure a more adequate infrastructure for efficient bi-state communications and program implementation.
- Important bi-state programs to consider and encourage include community health educators, and promotoras de salud, a very successful model for health promotion in Mexico and a culturally acceptable way of augmenting the health care system. Additionally, bi-state community health education efforts would be a way of assuring that health messages are similar in both states as, for example, through the media.
- A concerted continuing effort is needed to support bi-state partnerships and coalitions, such as the binational health councils of the U.S. - Mexico Border Health Association, and cross-border health professional training programs.

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# APPENDIX A

## Technical Notes

### 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.
- **Age-adjusted rates** can be used to make fair comparisons among communities with different age composition. Age-adjusted rates were calculated using the 1940 United States Standard Million Population.

### Reliability of rates

Statistics rates are subject to random variation. Rate estimates based on small number of events (e.g., cases or deaths) are more unstable and, therefore, “unreliable”, and should be interpreted with caution. The National Center for Health Statistics recommends that death rates can be considered statistically reliable when they are based upon 20 or more events.

Some of the figures in this report include the upper and lower 95% confidence 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 are the rates. If the 95% confidence intervals of two rates overlap, then the difference between the two rates is not **statistically significant**.

For some health indicators in this report, three-year average rates are used instead of single year rates because they tend to reduce the year-to-year fluctuations and increase the stability of the estimates.

### Mortality data

The following codes from the International Classification of Diseases, 9<sup>th</sup> Revision (ICD-9) were used for this report:

<u>Cause</u>	<u>ICD-9 Code</u>
Female breast cancer	174
Cervical cancer	180
Diabetes-related	250
Birth defects	740-759
Motor vehicle crashes	E810-E825
Unintentional injuries	E800-E949
Suicides	E950-E959

## **Communicable disease data**

The communicable disease data presented in this document are based on reports submitted to the Department of Health Services 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 notified to the State. The proportion of underreporting varies greatly by disease.
- Some case reports have incomplete information (e.g., race/ethnicity).
- Cases identified in a county may have been acquired outside the country. This may be especially true for the border Latino population. At the same time, because part of the border population may receive health care in Mexico, cases acquired in California may never be reported here.

# APPENDIX B

## Assembly Bill 63

### Assembly Bill No. 63

#### CHAPTER 765

An act to add Part 3 (commencing with Section 475) to Division 1 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 relating 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 recommendations 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 infectious 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 annually 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 States 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.

# APPENDIX C

## Healthy Border Objectives

### A. Access to Care

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

#### **Related Objective:**

Oral Health: Access to oral health care system.

### B. Cancer

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

### C. Diabetes

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

### D. Environmental Health

5. Reduce to zero the proportion of persons living in counties 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 50 percent the number of persons hospitalized for acute pesticide poisoning.

### E. HIV

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

### F. Immunization and Infectious Diseases

9. Reduce the incidence of hepatitis A and hepatitis B cases 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.

### G. Injury and Violence Prevention

12. Reduce the motor vehicle crash death rate by 25 percent.

#### **Related Objective:**

Substance Abuse: Alcohol-related motor vehicle crash deaths.

13. Reduce the childhood (under age 5) death rate due to unintentional injuries by 30 percent.

#### **H. Maternal, Infant and Child Health**

14. Reduce the infant mortality rate due to all causes by 25 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.

#### **Related Objective:**

Injury and violence Prevention: Child deaths due to unintentional injuries.

#### **I. Mental Health**

18. Reduce the suicide death rate by 15 percent.

#### **J. Nutrition and Obesity**

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

#### **K. 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.

#### **L. Respiratory Diseases**

22. Reduce the asthma hospitalization rate by 40 percent.

#### **M. 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 youth not using alcohol or any illicit drugs during the past 30 days.

#### **N. Tobacco Use**

25. Reduce by 33 percent the proportion of young people in grades 9-12 who have used tobacco products in the last 30 days.



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