

**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH
OFFICE OF BINATIONAL BORDER HEALTH**

BORDER HEALTH STATUS REPORT TO THE LEGISLATURE 2011

**Edmund G. Brown Jr.
Governor
State of California**

**Diana S. Dooley
Secretary
California Health and Human
Services Agency**

**Ron Chapman, MD, MPH
Director & State Health Officer
California Department
of Public Health**



AUTHORS

This report was prepared by the following staff in the California Department of Public Health (CDPH) California Office of Binational Border Health (COBBH): Michael Welton, Abel Martinez, Alison Olsen & April Fernandez

ACKNOWLEDGEMENTS

The California Office of Binational Border Health recognizes and appreciates the contributions and cooperation of the following agencies and individuals in producing this report:

COBBH Advisory Group

California Border Health Collaborative

Susannah Cohen
California Department of Public Health
Office of AIDS

Karen Ferran PhD, MPH
California Department of Public Health
Early Warning Infectious Disease Surveillance

Gary He, PhD
California Department of Public Health
California Diabetes Program

Esmeralda Iniguez-Stevens PhD, MPH
California Department of Public Health
Early Warning Infectious Disease Surveillance

Lisa Kennison
California Department of Public Health
Center for Infectious Disease

Michael Samuel, Dr.P.H
California Department of Public Health
Sexually Transmitted Disease Branch

Lori Copan, RPh, MPH
California Department of Public Health
Environmental Health Investigation Branch

Steven Starr
California Department of Public Health
Office of AIDS

Janice Westenhause, M.P.H.
California Department of Public Health
TB Control Branch

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EXECUTIVE SUMMARY

Highlights of the Annual Border Health Status: Report to the Legislature 2011

The border experiences public health challenges and issues that are distinctive to the region, due to the complexities of the relationship between the U.S. and Mexico. Often, there are challenges providing health care services, especially in disease prevention, surveillance, and control. This report covers the following: demographics for non-Hispanic Whites, Hispanics, and the total population in San Diego County, Imperial County, and California statewide. The report also covers health issues such as diabetes, obesity and overweight, tuberculosis, HIV/AIDS, vaccinations, influenza, and mercury in face creams.

Demographics

- In 2011 the total estimated population of the two California border counties was 3,429,192 (194,518 in Imperial County and 3,234,674 in San Diego County), representing nine percent of California's population.
- In San Diego County and California statewide, Hispanics make up the largest minority. In Imperial County, Hispanics are the majority.
- Approximately half (48.9%) of Imperial County population is living below the federal poverty level and in 2010 had the highest unemployment rate in the state (29.7%).
- In San Diego and Imperial Counties, and California as a whole, Hispanic populations are less likely to graduate from high school and receive a college level education or higher when compared to non-Hispanic Whites and all ethnicities combined.
- Northbound border crossing continues to decline. There were over 60 million northbound border crossings into California in 2010.

Diabetes

- In 2009, 9.6 percent of all adults in Imperial County had diagnosed diabetes compared to 7.8 percent in San Diego and 8.5 percent in California statewide.
- In all regions examined, Hispanic adults have a higher prevalence of diabetes than non-Hispanic Whites and all ethnicities combined.
- In California, from 2005 to 2009, there was a significant increase in adults who have been diagnosed with diabetes for all ethnicities combined and for Hispanics.
- In San Diego County and California statewide, the Hispanic population reports an approximately 50 percent higher diabetes age adjusted death rate than the rates for all ethnicities combined and about double the rate of the White population.

Obesity and Overweight

- In 2009, the majority of the population in San Diego County, Imperial County, and California was obese or overweight (55.3%, 68.1%, and 56.3% respectively).
- In San Diego County, Imperial County, and California, the Hispanic population reported a higher rate of obesity and overweight than their non-Hispanic white counterparts, and all ethnicities combined.
- In California, the rate of overweight and obesity in teenagers (11.9%) is more than double the Healthy People 2010 goal of 5 percent. None of the ethnic groups in any region meet the Healthy People 2010 goal.

- Hispanic teenagers in all three regions (18.2% and 20.4% in Imperial and San Diego Counties, and 16.1% in California) are significantly more overweight or obese than their white counterparts (6.6% in San Diego County and 7.7% in California)

Tuberculosis

- In 2010 San Diego County reported 10 percent of the state's total tuberculosis cases (7.0 per 100,000 population).
- Imperial County reported the highest case rate of all the California counties in 2010 (13.7 per 100,000).
- From 2007-2009, 76 percent of California's tuberculosis cases were born outside of the U.S. The most common birth country was Mexico, which accounted for 23 percent of all TB cases.

HIV/AIDS

- California has the second highest number of AIDS cases in the US and San Diego County has the third highest number in California.
- The majority of cases were White and between the ages of 30-39, and Hispanics have the second highest rate of HIV in California (second to Whites).
- Compared to the US, San Diego County and California as a whole had a lower rate of HIV among Blacks and a higher rate among Whites and Hispanics.

Vaccinations and Vaccine Preventable Disease

- In 2010, kindergarten immunization coverage was above 90% for each individual vaccine in California (90.7%), Imperial County (91.8%) and San Diego County (91.7%).
- In 2010, there were 11,868 (2.33%) students in California with personal belief vaccination exemptions, up three-fold since 2000. San Diego rates persist at levels higher than the State.
- In 2010, San Diego reported higher rates of measles than California Statewide.
- In 2010, Imperial County reported a higher rate of Hepatitis A than California Statewide and San Diego County.
- In 2011, pertussis rates dropped significantly though remained at rates higher than average levels, following record high rates throughout the State and its border counties in 2010

Influenza

- Influenza-like Illness (ILI) activity in the California/Baja California border region for the 2011-2012 influenza season was low when compared to previous influenza seasons.
- The peak of influenza activity in the border region occurred during week 4 (January 24-29, 2011), at under 2%.

Mercury

- Between the years 2009-2011, several skin lightening face cream products containing mercury were found and cases were reported in California, Illinois, Maryland, Minnesota, New York, Texas, and Virginia from skin cream products.
- Skin creams from Mexico found in California were tested and found to have up to 56,000 parts per million mercury (5.6%).

INTRODUCTION

California and Mexico border communities' health are linked in a variety of ways; through similar population characteristics and cultural practices, through trade, business, and transportation. All of these characteristics are fluid throughout the border region. The U.S.-Mexico border community is unique, due to this fluidity, which results in a mixture of cultures and traditions. Due to the high volume of individuals crossing the border every day for work, education, shopping, tourism, social visits, and other reasons, the border communities are closely interconnected.

The border experiences public health challenges and issues that are distinctive to the region, due to the complexities of the relationship between the U.S. and Mexico. Often, there are challenges providing health care services, especially in disease prevention, surveillance, and control. Cross border collaboration is essential for these services to be accurate and effective. The California Office of Binational Border Health (COBBH) was created to help identify health successes and challenges that are specific to the border region and California's Hispanic population. In order to do this, COBBH works in partnership with state and local agencies to produce Border Health Status Reports, which compile and analyze data from numerous sources. These legislatively mandated reports present important health indicators for border and binational communities in California. This report provides annual data for specific health issues as well as highlights emerging health issues. The 2011 Border Health Status Report covers the following: demographics, diabetes, obesity and overweight, tuberculosis, HIV/AIDS, vaccinations, influenza, and mercury in face creams.

DEMOGRAPHICS

In 2011 the total estimated population of the two California border counties was 3,429,192 (194,518 in Imperial County and 3,234,674 in San Diego County), representing nine percent of California's population. From 2000 to 2011, the border region experienced steady population growth. Imperial County's population increased by 32.8 percent, more than double the rate of increase in San Diego County (11.8%) and in California overall (13.9%) during the same period. California and especially the border region are racially and ethnically diverse. In Imperial County, Hispanics make up 78.0 percent of the entire population and non-Hispanic Whites make up 15.0 percent of the population. In San Diego County, there is a non-Hispanic White majority (53.0%) followed by the Hispanic population as the largest minority (30.0%). In California, Hispanics make up the largest minority (38.0%), while the non-Hispanic White majority makes up 42.0 percent of the population (CA DOF, 2011).

In each region examined the Hispanic population is less likely to speak English well or very well compared with the population as a whole. In San Diego County, Imperial County, and California as a whole, Hispanic populations are less likely to receive a college level education or higher when compared to non-Hispanic Whites and all ethnicities combined. In San Diego County and in California, non-Hispanic Whites

are more than three times as likely to graduate from college when compared to the Hispanic population. The Hispanic population is also less likely to graduate from high school (CHIS, 2009).

Approximately half (48.9%) of Imperial County is living below 200% Federal Poverty Level (FPL), compared with 29 percent in San Diego County and 36.4 percent in California statewide. In San Diego County and California, a significantly higher percent of the Hispanic population is living below 200% FPL compared with the population as a whole. In 2010 California reported that 12.4 percent of the population was unemployed and looking for employment (CHIS, 2009). For all years examined (2001-2010), Imperial County has reported higher rates of unemployment than California and San Diego County. In 2010, Imperial County (29.7%) had the highest unemployment rate in the state (LAUS, 2012).

DIABETES

Diabetes is a chronic medical condition marked by high levels of blood glucose resulting from defects in insulin production, insulin action, or both. The number of people diagnosed with diabetes in California continues to rise. In 2008, 2.3 million people, or 1 out of every 7 Californians, had been diagnosed with diabetes, up from 1.5 million in 2001. Apart from the 2.3 million diagnosed cases, 1.4 million Californians had diabetes but were not aware that they did (CDPH-CDP-DIRC, 2010). Diabetes prevalence among adults along the U.S./Mexico border region is 2-3 times higher than that in the United States (PAHO, 2010). In 2009, 9.6 percent of all adults in Imperial County had diagnosed diabetes. This appears to be higher than San Diego County (7.8%) and statewide (8.5%), though the differences are not statistically significant. In all regions examined, Hispanic adults have a higher prevalence of diabetes than non-Hispanic Whites and all ethnicities combined. In California, from 2005 to 2009, there was a significant increase in adults who have been diagnosed with diabetes for all ethnicities combined and for Hispanics (CHIS, 2005, 2007, 2009). Between 2002 and 2009, the age-adjusted death rate due to diabetes has showed no sign of improvement in any of the regions examined. In San Diego County and California statewide, the Hispanic population reports a 50 percent higher diabetes age-adjusted death rate than the rates for all ethnicities combined and close to double the rate of the White population (CDPH-VSQS, 2009).

OBESITY AND OVERWEIGHT

Obesity and overweight are terms used to define ranges of weight that are greater than what is considered healthy for a given height. For adults, obesity and overweight are most commonly measured in terms of a number called the body mass index (BMI). This is a calculated measure of weight in relation to height. Adults are considered obese when they have a BMI greater than 30 kg/m² and overweight when their BMI is between 25 and 29.9 kg/m². Adults are considered obese when they have a BMI greater than 30 kg/m² and overweight when their BMI is between 25 and 29.9 kg/m². Overweight and obese people are at increased risk for disability,

premature death, and many health conditions, including type 2 diabetes, hypertension, coronary heart disease, cardiovascular disease, and some cancers. In 2009, the majority of the population in San Diego County, Imperial County, and California were obese or overweight (55.3%, 68.1%, and 56.3% respectively). In all regions examined, the Hispanic population reported a higher rate of obesity and overweight than their non-Hispanic White counterparts, and all ethnicities combined. Hispanic teenagers in all three regions (18.2% and 20.4% in Imperial and San Diego Counties, and 16.1% in California) were significantly more overweight or obese than their White counterparts (6.6% in San Diego County and 7.7% in California) (CHIS, 2009).

TUBERCULOSIS (TB)

Tuberculosis (TB) is one of the leading causes of death from infectious diseases worldwide. California's border counties are major contributors to the state's TB burden. San Diego County reported 10 percent (222 cases) of the state's TB cases in 2010 (7.0 per 100,000 population). Like California, San Diego County has experienced a decrease in cases and case rates during the past decade. While Imperial County has a lower TB case count (26 cases), this county reported the highest case rate per capita of all the California counties in 2010 (13.7 per 100,000) and has consistently had a rate higher than the state average. A large proportion of California cases are of Hispanic ethnicity (38 percent from 2008-2010). In 2007-2009, the proportions of Hispanic TB cases were much higher in Imperial (93%) and San Diego (51%) counties than the rest of the state. Additionally, the TB case rate among Hispanics was much higher than that of Whites statewide and in the border counties. From 2007-2009, 76 percent of California's TB cases were born outside of the U.S. The most common birth country was Mexico, which accounted for 23 percent of all TB cases. (CDPH-TBCB, 2012).

HIV/AIDS

Human immunodeficiency virus (HIV) is the virus that can lead to acquired immune deficiency syndrome (AIDS). HIV is primarily found in the blood, semen and vaginal fluids and is transmitted in 3 main ways; having unprotected sex with someone who has HIV, sharing paraphernalia for injecting drugs, and being born to or breastfeeding from an infected mother. There are many risk factors that increase a person's likelihood of getting infected with HIV including having multiple sex partners, having other sexually transmitted diseases, or having been diagnosed with tuberculosis or Hepatitis A. California has the second highest number of AIDS cases in the US and San Diego County has the third highest number in California. The majority of cases were White and between the ages of 30-39, and Hispanics have the second highest rate of HIV in California. Compared to the US, San Diego County and California as a whole had lower rate of HIV among Blacks and a higher rate among Whites and Hispanics. (CDPH – OA, 2011).

VACCINATIONS AND VACCINE PREVENTABLE DISEASE

In California, in 2009, all ethnicities examined failed to meet Healthy People 2010 goals for complete vaccination coverage for children 19-35 months of age (CDC, 2009). Though California children did not meet HP2010 goals for complete coverage for 19-35 months old, by the time the children reach kindergarten, they complete coverage, and coverage for each individual vaccination is over 90 percent (CDPH-IZ, 2009). Between 2000 and 2010, kindergarten students with personal belief exemptions (PBE) in San Diego and Imperial Counties increased. In San Diego County and California the PBE rate tripled. In California it rose from 0.77-2.33% in San Diego 1.09-3.15%. Pertussis rates were at epidemic levels in 2010. In September 2010, Governor Schwarzenegger signed AB 354 – Chapter 434, 2010 requiring Tdap booster vaccination for California students. Under the new law, all 7th-12th grade students in school year 2011-12 will need to have received a dose of Tdap before starting classes. In subsequent years, the requirement will apply only to 7th graders (CDPH, 2010).

In 2011 pertussis rates in San Diego County and in California remained at levels much higher than normal (though drastically lower than 2010). In San Diego County pertussis rates persisted at levels higher than the State and Imperial County. In 2010, the pertussis rate in San Diego County was approximately 50% higher than the state's rate (35.7 vs. 23.4 cases per 100,000 population) and in 2011 the rate in San Diego County was approximately 65% higher than the State (12.6% vs. 7.5%). In 2010, San Diego reported higher rates of measles than California Statewide. Imperial County reported a higher rate of Hepatitis A than California Statewide and San Diego County. All other vaccine preventable diseases reported are lower in Imperial County than California Statewide and San Diego County.

INFLUENZA

Every year in the United States an average of 5 to 20 percent of the population gets the flu. More than 200,000 people are hospitalized from flu-related complications and about 36,000 people die from flu-related causes. The influenza virus is continuously changing slightly, adapting to its environment slowly. Every once in a while there is an abrupt shift or change in its genetic make-up. In March 2009, influenza A (H1N1) was first detected in Brawley, CA (Imperial County) during the off-season for regular seasonal influenza. In California, influenza A H1N1 resulted in 2,008 severe cases, 2,020 Intensive Care Unit (ICU) cases, and 596 deaths. In San Diego, for the same time period, there were 228 severe cases, 219 ICU cases, and 56 deaths (3rd highest county death toll, behind Los Angeles and Orange County). In Imperial County there were nine severe cases, eight ICU cases and two deaths (CDPH, Provisional Number of Confirmed/probable Pandemic (H1N1) 2009 Severe Cases).

ILI activity in the California/Baja California border region for the 2011-2012 influenza season has been slightly lower when compared to activity during the 2010-2011 influenza season. The peak of influenza activity occurred during week 4 (January 24-29, 2011) at under 2%, and has maintained relatively low percentage of ILI when

compared to the previous season. For the State of California, ILI activity has been lower than the 2010-2011 influenza season. California's ILI activity peaked at week 52 (December 26, 2010 – January 1, 2011), and has decreased thereafter.

The California Department of Public Health, San Diego County Health and Human Services, and the Imperial County Public Health Department have worked cooperatively with the CDC to support activities to prevent influenza outbreaks in the border region. In addition to national and state surveillance activities, the Early Warning Infectious Disease Surveillance Program (EWIDS), which is part of the California Department of Public Health's Office of Binational Border Health (COBBH), collaborates with several Mexican Public Health officials both in the private and public sector along the US/Mexico border to conduct binational influenza surveillance. EWIDS Binational Surveillance is complementary to the state and county surveillance activities, and includes sentinel sites in northern Baja California from the public and private, and tribal health center outpatient provider sites, which include internal medicine/family practice, school-based and pediatric clinics.

MERCURY

Mercury exposure can cause neurological problems and present symptoms such as fatigue, nervousness and/or irritability, severe headaches, insomnia, memory loss, loss of strength in legs, tingling and burning sensations, tremors or shaking of the hands, and depression (Copan, 2011). In very serious cases, it can result in irreversible renal and central nervous system damage or death (CDC, 2012). In the U.S./Mexico Border Region and regions beyond, cosmetic skin creams, primarily skin whitening creams and anti-wrinkle creams, containing mercury are still being produced and purchased. Though illegal, these products are manufactured abroad and sold illegally in the United States, often in shops in Hispanic, Asian, African, or Middle Eastern neighborhoods. Additionally, these products have been sold online.

The usage of skin creams containing mercury has become a growing public health concern. Between the years 2009-2011, several products containing mercury were found and cases were reported in California (9 cases), Illinois, Maryland, Minnesota, New York (12 cases), Texas (18 cases), and Virginia (8 cases) from skin cream products (CDC, 2012; Copan, 2011; Texas Department of State Health, 2011). Face creams containing mercury can harm both the user and non-users, as mercury can be absorbed through the skin and users may contaminate objects they come in contact with or through breastfeeding. In California creams were tested and found to have up to 56,000 parts per million mercury (5.6%). (Copan, 2011).

In California, health alerts (http://www.ehib.org/papers/CDPH_Mercury_Health_Alert_Skin_Cream.pdf) and educational flyers were made available to the public in both English and Spanish languages by the California Department of Public Health (Copan, 2011). Public service announcements were broadcast in California by Radio Bilingüe as well as in the metro areas of Los Angeles, San Francisco and Santa Rosa by Univision affiliated radio stations. The FDA also issued nationally a consumer alert (<http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm294849.htm>) warning of

the dangers of possible mercury poisoning associated with the use of skin products (FDA, 2012). Continued education and awareness efforts at U.S./Mexico Border Region and throughout California are crucial to inform the public of the harmful effects of mercury exposure and to prevent future cases.

CONCLUSION

The California border region experiences public health challenges and issues that are distinctive to the region. Health issues that impact the region's 3.5 million residents are important to California Statewide. Significant geographic and ethnic disparities exist for each of the health issues covered in this report: Diabetes, Obesity and Overweight, Tuberculosis, HIV/AIDS, Vaccinations, Influenza, and Mercury in face creams. The California Department of Public Health Office of Binational Border Health (COBBH) is in place to help identify health successes and challenges that are specific to the border region and California's Hispanic population. For more information about health issues that affect California's border region, visit the Office of Binational Border Health's website at www.cdph.ca.gov/programs/cobbh.

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