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Border Health Status:
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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 as it relates to disease prevention, surveillance, and control. This report uses the most recent available data to cover the following indicators: demographics, access to care, obesity, diabetes, mental health, tuberculosis, STIs, HIV/AIDS, immunizations, and vaccine preventable diseases.

Demographics

- In 2015, the California Department of Finance (DOF) projected that there were 3,432,395 individuals living in the California border region, the majority of whom were living in San Diego County (n=3,244,706), and a smaller proportion in Imperial County (n=187,689).
- In the State of California, Whites and Hispanics/Latinos made up the same proportion at 39.0% of the total population. In Imperial County, however, Hispanics/Latinos made up the majority (81.4%) of the population, while Whites made up 13.0%. In San Diego County, the majority of the population was White (47.2%), while Hispanics/Latinos constituted the largest minority group at 33.2%.
- The percent of Hispanics/Latinos in California who had less than a high school education (31.6%) was close to ten times greater than that of Whites (3.2%). In San Diego County the percentage of Hispanics/Latinos who had less than a high school education (33.2%) was more than eleven times greater than that of Whites (2.8%). In Imperial County, the percentage of Whites who had less than a high school degree was 18.7%; among Hispanics/Latinos the percentage was almost double (31.2%).
- In 2014, more than half (57.3%) of Imperial County residents were living below 200% of the Federal Poverty Level (FPL), compared to 37.3% in San Diego County and 40.7% in California statewide.
- Across all ethnicities, there was a considerably higher percentage of the population living at or above 300% of the FPL in San Diego County (46.9%) and California (45.5%) than in Imperial County (25.4%). Additionally, in both border counties and California statewide, the percentage of Whites living at or above 300% of the FPL was at least three times as high as that of Hispanics/Latinos.
- In December of 2015, California reported that 5.7% of the population was unemployed, while San Diego County reported 4.7%. For the same year, the unemployment rate in Imperial County was 19.6%, the highest among all counties in California.

Access to Care

- In 2014, 88.1% of California residents were insured compared to 89.3% of San Diego residents and 91.9% of Imperial County residents.
- In San Diego County, 78.2% of Hispanics/Latinos had health insurance compared to 95.5% of Whites and 89.3% of all ethnicities combined. The proportion of Hispanics/Latinos with health insurance in San Diego is also less than that for Hispanics/Latinos in the State of California overall (80.9%). In Imperial County, 99.4% of Whites had health insurance compared to just 90.8% of Hispanics/Latinos, though these estimates are statistically unstable.
- Overall, in the State of California, employer based plans provide the bulk of health insurance, around 52.5%. In 2014, in San Diego County, employer-based plans provided around 50.9% of
the coverage. In Imperial County, however, Medi-cal covered the largest proportion of people (42.7%), followed by employer-based plans (34.7%).

- A breakdown of coverage by ethnicity, however, shows that Hispanics/Latinos in the border region, and across California, are covered by employer-based plans at notably lower proportions than Whites and, with the exception of Imperial County, all ethnicities combined. In San Diego County just 39.4% of insured Hispanics/Latinos were covered under employer-based plans, compared to 58.2% of Whites and 52.2% of all ethnicities combined. Similarly in Imperial County, 34.6% of insured Hispanics/Latinos had employer-based insurance compared to 40.7% of Whites and 34.7% of all ethnicities combined.
- During the first open enrollment period for Covered California, Imperial County reported 4,401 enrollees, and San Diego County reported 121,900 enrollees.
- During the second open enrollment period, Imperial County reported 2,441 new enrollees, while San Diego County reported 47,950 new enrollees.

Obesity

- In 2014, 24.8% of adults in San Diego County and 41.9% of adults in Imperial County were obese. Imperial County had one of the highest proportions of obesity of all California counties.
- The Hispanic/Latino population has a consistently higher percentage of obesity when compared to the White population and all other populations combined. In 2014, in Imperial County, 47.0% of Hispanics/Latinos were obese, nearly double the percentage of Whites (24.5%). This trend was similar among adults in San Diego County and the whole State of California.
- In Imperial County, 61.3% of people with obesity lived below 200% of the FPL, compared to 41.6% in San Diego County.
- In Imperial County, San Diego County and the entire State of California, obese adults were at least six times more likely to belong to the 40-to-64-year-old age group than to the 18-to-24-year-old age group.
- In 2014, Imperial County reported that 93.2% of women had ever breastfed, and 28.4% had exclusively breastfed. Imperial County ranked 50th among all California counties for exclusive breastfeeding. During the same period of time, in San Diego County, 95.9% of women reported any breastfeeding, while 77.7% reported exclusive breastfeeding. In comparison, in 2014 the whole State of California reported that 93.5% of women reported any breastfeeding and 66.6% reported exclusive breastfeeding.
- In Imperial County, 55.7% of the adult population reported consuming soda at least once a week; Hispanics/Latinos had a slightly higher proportion of soda consumption (61.6%). In San Diego County, 38.2% of the population reported consuming soda at least once a week, and 57.0% of Hispanics/Latinos specifically reported drinking soda at least once a week.
- In Imperial County, 85.8% of teens reported eating fast food at least once in the past week compared to 68.1% and 75.9% of teens in San Diego and the whole State of California respectively.

Diabetes

- In 2014, according to CHIS Data, 8.9% of adult respondents in California had been diagnosed with diabetes, compared to 6.8% and 15.9% of adults in San Diego County and Imperial County, respectively.
- In 2014 in Imperial County, 18.4% of Hispanics/Latinos reported having diabetes compared to 15.9% of all ethnicities combined, though the percentage for Hispanics/Latinos is statistically unstable. Similarly in San Diego County, 8.0% of Hispanics/Latinos reported having diabetes in 2014, compared to 6.3% of Whites and 6.8% of all ethnicities combined.
• Hispanics/Latinos, both along the border region and across the State of California, overall, have higher diabetes-related mortality rates than Whites and all ethnicities combined, even after adjusting for age. In San Diego County, the diabetes-related mortality rate in 2014 was 24.2 per 100,000 for Hispanic/Latinos, compared to 16.0 for Whites. In Imperial County the rates were 28.0 for Hispanics/Latinos and 21.1 for Whites.

• Statewide 2014 data indicates persons diagnosed with diabetes in the 40-64 age group represent the highest proportion of people living with diabetes, followed by the 65-79 age group. Findings in Imperial County are consistent with these statewide trends. In San Diego County, the 65-79 age group represented the highest proportion of people diagnosed with diabetes at 45.2%. In comparison, 41.3% of people diagnosed with diabetes were between 40 and 64 years of age, and just 2.5% of persons diagnosed with diabetes were 25-39 years of age, although the data for ages 25-39 were statistically unstable.

**Mental Health**

• In San Diego County, during 2014, more persons who identified as Hispanic/Latino, than their White counterparts, reported experiencing social and family life impairment due to emotional stress. Among those who did report social life impairment, 10.5% of Hispanics/Latinos in San Diego County reported “severe” social life impairment in the past year compared to 4.2% of Whites. Similarly, 10.0% of Hispanics/Latinos in San Diego County reported “severe” family life impairment in the past 12 months due to emotions compared to 3.0% of Whites.

• During 2014, 7.8% of respondents in California reported having seriously considered committing suicide in the previous 12 months, compared to 9.4% and 2.2% of respondents in San Diego County and Imperial County respectively, though Imperial County data was statistically unstable.

• In California and the border counties, more Whites reported seriously considering suicide compared to Hispanics/Latinos and all ethnicities combined.

**Tuberculosis**

• California’s case rate remains consistently higher than the national case rate, with California reporting the most tuberculosis (TB) cases in the United States. In 2015, California reported 2,137 incident TB cases.

• California’s border counties carry most of the state’s overall TB burden. In 2015, Imperial County reported a case rate of 16.8 per 100,000 (n=31), the highest rate among all California counties. For the same year, San Diego County reported a case rate of 7.1 per 100,000 (n=234).

• Between 2011 and 2015, 36.0% of TB cases in California were of Hispanic/Latino ethnicity. During the same time period, Imperial and San Diego counties reported that 91.0% and 53.0% of TB cases were Hispanic/Latino, respectively.

• Between 2011 and 2015, 78.0% of TB cases in California were foreign-born, 22.0% of which were from Mexico. In Imperial County and San Diego County, 54.0% and 31.0% of all TB cases were born in Mexico, respectively.

• Between 2011 and 2015, California reported 12.0% of TB cases had a history of substance abuse, while 23.0% and 19.0% of TB cases in Imperial County and San Diego County, respectively, had a history of substance abuse.

• Approximately 24.0% of all TB cases in California, 21.0% of cases in Imperial County, and 22.0% of cases in San Diego County reported co-morbid diabetes during 2011-2015. In all three regions, Mexican-born TB cases were slightly more likely than other TB cases to report diabetes (32.0% in California, 26.0% in Imperial, and 27.0% in San Diego).
• In Imperial County, 5.0% of TB cases were co-infected with TB and HIV, and in San Diego County nearly 8.0% were co-infected. Overall, across the State, Mexican-born TB cases are more likely than other TB cases to be co-infected. San Diego is consistent with this trend, while Imperial County is not.
• Between 2011 and 2015, initial resistance to isoniazid (INH), a key first-line anti-TB drug, occurred in about 8.0% of California and San Diego TB cases. Resistance to INH occurred in nearly 5.0% of Imperial TB cases.
• In California, 1.3% of TB cases tested for drug resistance were determined to be multi-drug resistant TB during 2011-2015. In San Diego, 1.2% of cases were MDR TB. Imperial County reported one case of MDR TB during this time period.
• San Diego County reported higher completion rates than the State with 89.0% of all TB cases completing treatment, while 85.0% of Mexican-born TB cases completed treatment. In Imperial County, 70.0% of all TB cases were reported to have completed treatment.

**Sexually Transmitted Infections**

• In 2014, chlamydia rates were higher in San Diego (481.7 per 100,000) than in Imperial County (394.5 per 100,000). In the border region and California, Hispanics/Latinos and African Americans/Blacks had higher rates when compared to Whites.
• In 2014, California received a total of 44,974 reports of gonorrhea cases, which constitutes a rate of 116.8 per 100,000. During the same time, Imperial County had a rate of 46.0 per 100,000, and San Diego had a rate of 104.7 per 100,000.
• In 2014, the primary and secondary syphilis rate in San Diego County was 11.5 per 100,000, compared to just 3.8 in Imperial County and 9.9 in the whole State of California.
• In San Diego County, 94.9% of primary and secondary syphilis cases were among males and 44.5% of the cases were among Whites. In Imperial County, on the other hand, the majority of cases were Hispanic/Latino males.
• In 2014, Imperial County had a higher rate of congenital syphilis than both San Diego County and the State of California overall (30.6, 15.7, and 19.6 per 100,000 live births, respectively).

**HIV/AIDS**

• In 2014, Imperial and San Diego counties had a total of 13,112 individuals diagnosed and living with HIV infection; of these, 41.9% were classified as HIV cases (non-AIDS) and 58.2% were classified as AIDS cases.
• In 2014 there were 498 new cases of HIV infection in the California border counties.
• In California and California border counties during 2014, the African-American/Black population represented the most affected race/ethnicity with the highest rate of persons living with HIV/AIDS (1,039.4 and 1,087.3 per 100,000 respectively) when compared to the Hispanic/Latino and White populations. The rate of HIV/AIDS for Hispanics/Latinos living in border counties was 359.1 per 100,000 (n= 4,402), while for Whites it was 423.7 per 100,000 (n= 6,430).
• In Imperial and San Diego counties, 60.0% of new HIV/AIDS diagnoses in 2014 were among people between the ages of 20 and 39 years, and 82.1% were between the ages of 20 and 49 years.
• Among new male cases diagnosed in Imperial and San Diego counties in 2014, 76.5% total were among men who have sex with men (MSM), including 5.2% who were also injection drug users (MSM/IDU). Among females diagnosed in these counties during 2014, the predominant
risk exposure was high-risk heterosexual contact, which accounted for 8.2% of all new cases and 83.7% of new diagnoses among females.

**Immunization and Vaccine Preventable Diseases**

- Over a four-year period (2011-2014), the proportion of vaccination coverage with all required immunizations among children four to six years of age in California and its border counties have remained close to or above 90.0%.
- In 2015, California reported that 92.8% of all school-age children entering kindergarten had all required immunizations, compared to 95.3% in Imperial County and 93.5% in San Diego County.
- In 2014, Imperial County reported one acute hepatitis B case (0.6 per 100,000) and 10 pertussis cases (5.5 per 100,000), while San Diego County reported 14 hepatitis A cases (0.4 per 100,000), seven acute hepatitis B cases (0.2 per 100,000), nine meningococcal disease cases (0.3 per 100,000), 2019 pertussis cases (62.9 per 100,000), and two varicella hospitalizations. In addition, six measles cases were reported in San Diego County in 2014.
- In 2014, there were 29.1 cases of pertussis per 100,000 in California, which represents an increased rate since the 2010 outbreak. In 2014, there were 62.9 cases of pertussis per 100,000 in San Diego County, which is higher than the California statewide rate. In comparison, in 2014 Imperial County had a rate of 5.5 cases per 100,000.
- In 2015, California had 97.8% of students with Tdap vaccination upon entry to seventh grade. Similarly, San Diego had 97.5% of students with Tdap vaccination, and Imperial County had 99.3%.
- In 2014, there were a total of 75 measles cases with disease onset in the State of California. Of the 75 cases, six cases were reported in San Diego County.

**CONCLUSION**

This report covered selected topics of border health such as: demographics, access to healthcare, obesity, diabetes, mental health, tuberculosis, sexually transmitted infections, HIV/AIDS, immunizations, and vaccine preventable diseases. The proximity between California and Baja California creates a complex and dynamic space where infectious diseases can easily cross borders. Furthermore, cultural characteristics, attitudes, and beliefs also impact the health of the population, particularly among Hispanics/Latinos living in the California border region.

The Office of Binational Border Health (OBBH)’s mission is to increase the communication and collaboration on the California Border region to improve health in the region. OBBH has collaborated with partners to address priority issues. Examples of collaborative projects include: binational symposia on childhood obesity and HIV/AIDS; a binational health summit to form workgroups on HIV/AIDS, mental health, obesity, and TB; and, binational epidemiology meetings on monitoring, notification, surveillance, and reporting of infectious diseases. Finally, OBBH is the co-lead for the Binational Consortium of the Californias, a mechanism developed for public, private, and academic entities that work on border health issues, to work together to optimize the health in the border region.

Differences in health outcomes highlight key regional health needs and help identify resources and services for California residents. The California Department of Public Health, OBBH develops this report to inform the legislature on the health needs of the California border region and to assist in the education of public health professionals. For more information about health
issues that affect California's border region, please visit the OBBH’s website at www.cdph.ca.gov/programs/cobbh.
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