2021

Border Health Status Report to the Legislature

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Introduction

The California border region, defined as the area within 62 miles (100 km) on the north side of the United States (U.S.) - Mexico border, is a unique region in the State of California. There are geographical, demographical, and health-related differences between this area and other regions of California. The goal of this report is to highlight those differences with a specific focus on health. This report summarizes demographic information and health indicators including obesity, diabetes, suicide, tuberculosis (TB), sexually transmitted infections (STIs), HIV/AIDS, select vaccine-preventable diseases, and COVID-19 in the California border region. This report describes the burden of each of these diseases in the California border region counties (San Diego and Imperial). To understand the health disparities that exist among the border region counties, it is important to include California as a reference point. Sources including Healthy Border 2020 and Healthy People 2030 were reviewed for guidance as to the most important health indicators in the California border region. The Healthy Border 2020 is a binational initiative that works in collaboration with Mexico to address priority binational health concerns along this border region. The Healthy People 2030 is a 10-year U.S. national initiative that works to improve the health of Americans. Furthermore, these health indicators were selected in previous years based on results from border health key-informant interviews and results obtained from a survey conducted among border health stakeholders. The indicators presented in the 2021 Border Health Status Report to the Legislature have remained constant since the 2016-2017 report to facilitate the identification of trends.

The population data used in this report were obtained from the California Department of Finance (DOF). Unemployment data were obtained from the Bureau of Labor Statistics (BLS), the main fact-finding organization in labor economics and statistics of the U.S. government. Race/ethnicity, income, education, obesity, and diabetes data were obtained from the 2020 California Health Interview Survey (CHIS). CHIS is the nation's largest state health survey and an important source of data for various health indicators at the ethnic and racial level. CHIS is conducted by the University of California Los Angeles, Center for Health Policy Research in collaboration with the California Department of Public Health (CDPH). Communicable disease data were obtained directly from the CDPH TB Control Branch, Sexually Transmitted Diseases Control Branch, Office of AIDS, Immunization Branch, and Coronavirus Science Branch. When available, we will present the number of cases and the rate (i.e., the number of cases divided by the population). For the CHIS data, we will provide the percent of cases, because the data obtained represent a randomly selected subgroup of the population, and total numbers are not provided.

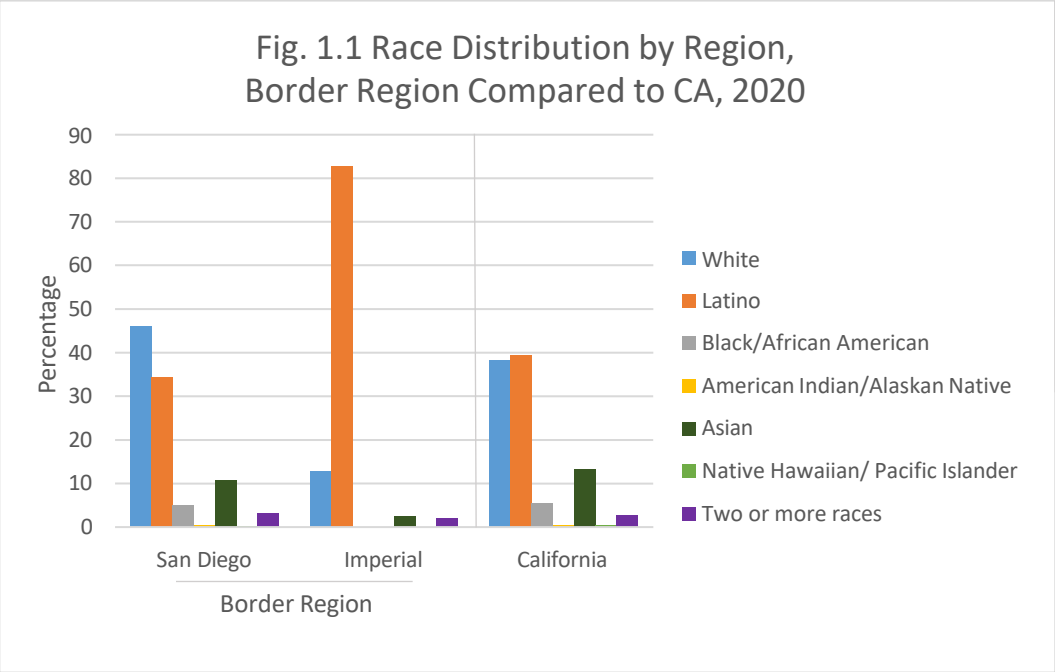
Throughout this report, the Office of Binational Border Health (OBBH) compares data primarily from Latino and White populations and includes other races when their rates or proportions were higher than the two main groups we are referencing for this report. Latino refers to the population of Latino/Hispanic ethnicity of any race. The term Latino will be used for race/ethnicity instead of Latino/Hispanic. Therefore, White in this report refers to the White, non-Hispanic population. Additionally, this report contains updated language when referring to racial and ethnic groups, in line with current perspectives on inclusive communication language (Center for Disease Control [CDC], 2022).

This report, "2021 Border Health Status Report to the Legislature", provides a summary of the current health status in the California border region. The report was prepared by CDPH's OBBH. This report summarizes important health indicators for border communities in California but is not a fully comprehensive report of all health issues in the California border region. Instead, the report aims to provide a general overview of the health status of the population living in the California border region.

Demographics

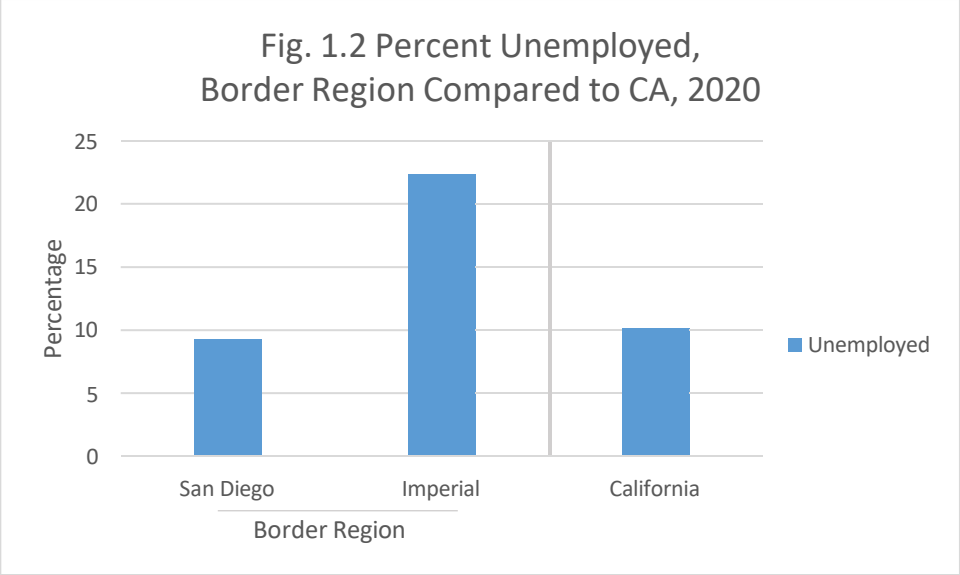
The population of the border region of California, composed of San Diego and Imperial counties, grew slightly in the last five years (2016 to 2021). During this period, San Diego County's population increased by 1%, and Imperial County's population increased by 0.6%, both of which are similar to the statewide increase of 0.9%. In 2021, DOF projected there were 3,501,438 individuals living in the border region, most of whom were living in San Diego County (n=3,315,404) and a smaller number of whom were living in Imperial County (n=186,034) (DOF, 2021).

The population in California, including the border region, is racially and ethnically diverse. In data from 2020, White persons made up the majority (46%) of the population in San Diego County, whereas Latino persons constituted a large minority group of 34%. In Imperial County, most of the population were Latino (83%), whereas the White population accounted for 13%. As shown in Figure 1.1, in the State of California, the White and Latino populations made up approximately the same proportion, at 38% and 39.5% of the total population, respectively (Fig. 1.1) (CHIS, 2020).



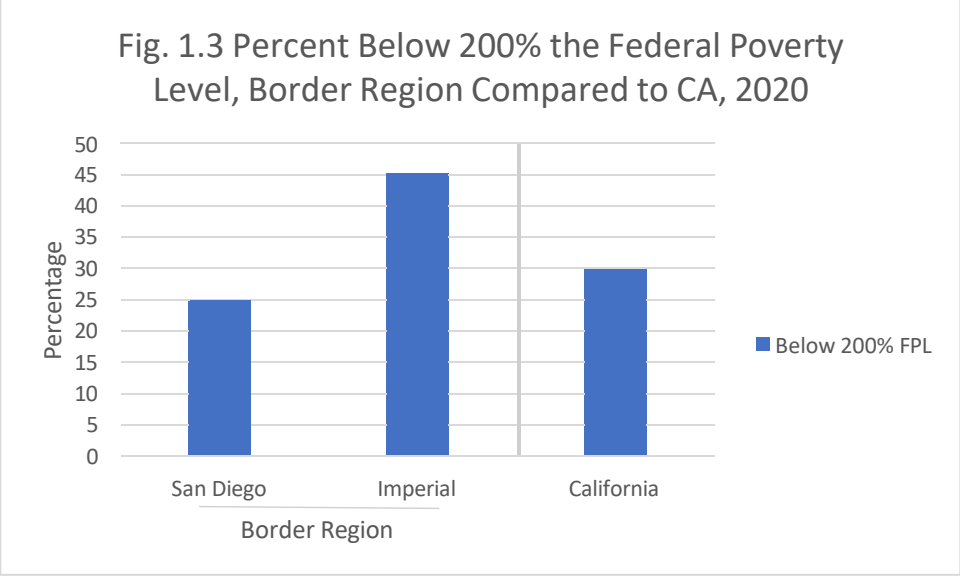
Source: California Health Interview Survey, 2020

In 2020, San Diego County reported that 9% of the labor force was unemployed (141,814 individuals), whereas Imperial County reported that approximately 22% of the labor force was unemployed (15,653 individuals) (BLS, 2020). Statewide, the unemployment rate was 10% (1,908,089 individuals) (Fig. 1.2) (BLS, 2020).



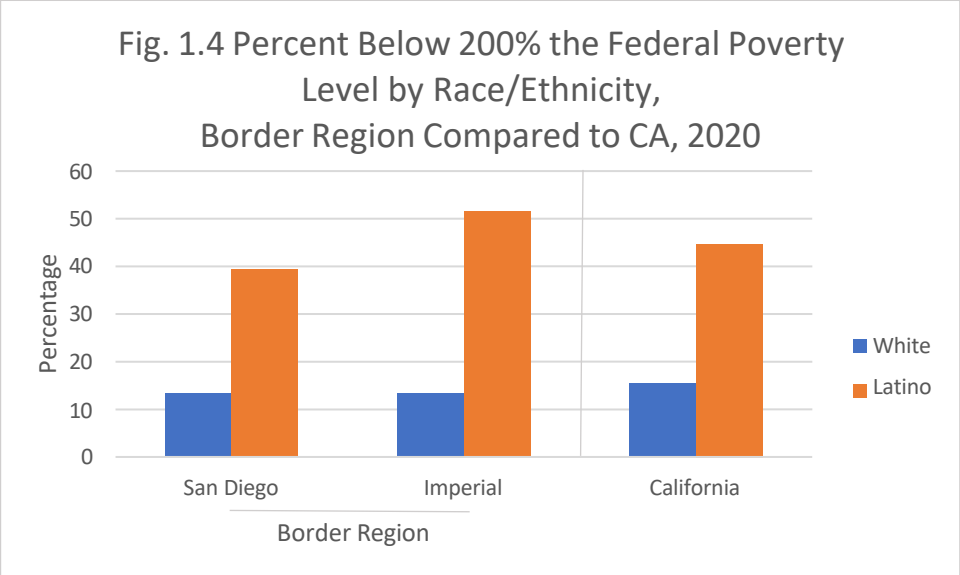
Source: Bureau of Labor Statistics, 2020

In 2020, 24% of San Diego County residents were living below 200% of the Federal Poverty Level (FPL), as compared with 45% of Imperial County residents and 29% of California residents (Fig. 1.3) (CHIS, 2020).



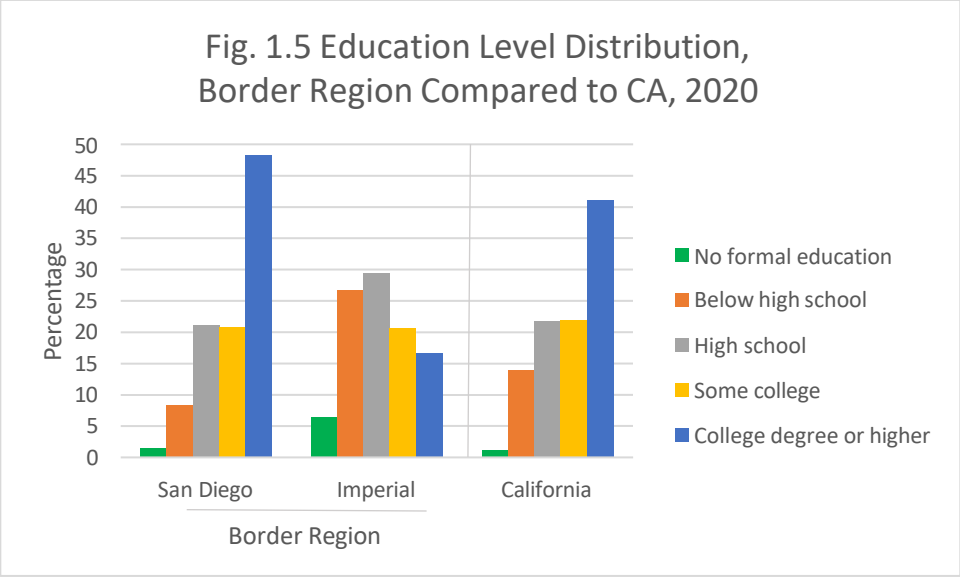
Source: California Health Interview Survey, 2020

A comparison by race/ethnicity indicated that the Latino population consistently had a higher percentage of people living below 200% of the FPL in the California border region. The same result was observed in California statewide (Fig. 1.4) (CHIS, 2020).



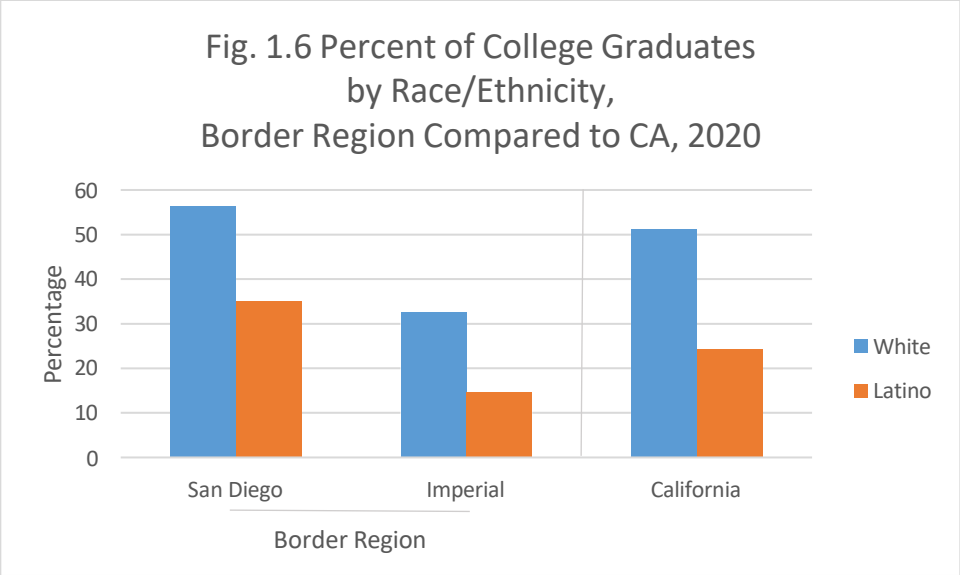
Source: California Health Interview Survey, 2020

In 2020, 48.3% of San Diego County residents had a college degree or higher, as compared with only 16.6% of Imperial County residents. Meanwhile, 26.8% of Imperial County residents had education below a high school diploma, as compared with 8.3% of San Diego County residents. Statewide, 41.1% of Californians had a college degree or higher, and 13.9% (n=4,138,000) had education below a high school diploma (Fig. 1.5) (CHIS, 2020).



Source: California Health Interview Survey, 2020

When the percent of college graduates was compared by race/ethnicity, the Latino population, when compared with the White population, consistently had a lower percentage of people in the California border region and in California statewide who did not graduate from college (Fig. 1.6) (CHIS, 2020).

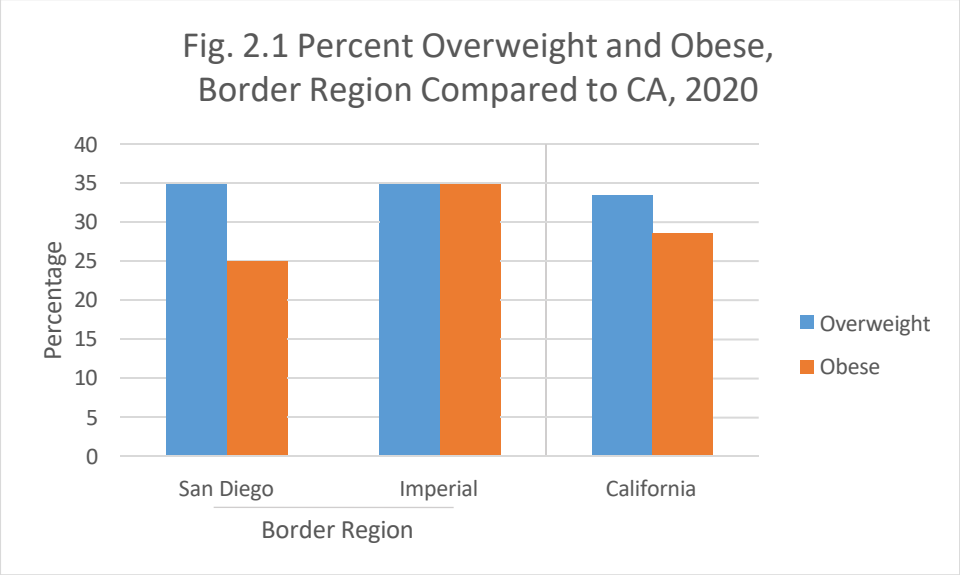


Source: California Health Interview Survey, 2020

Obesity

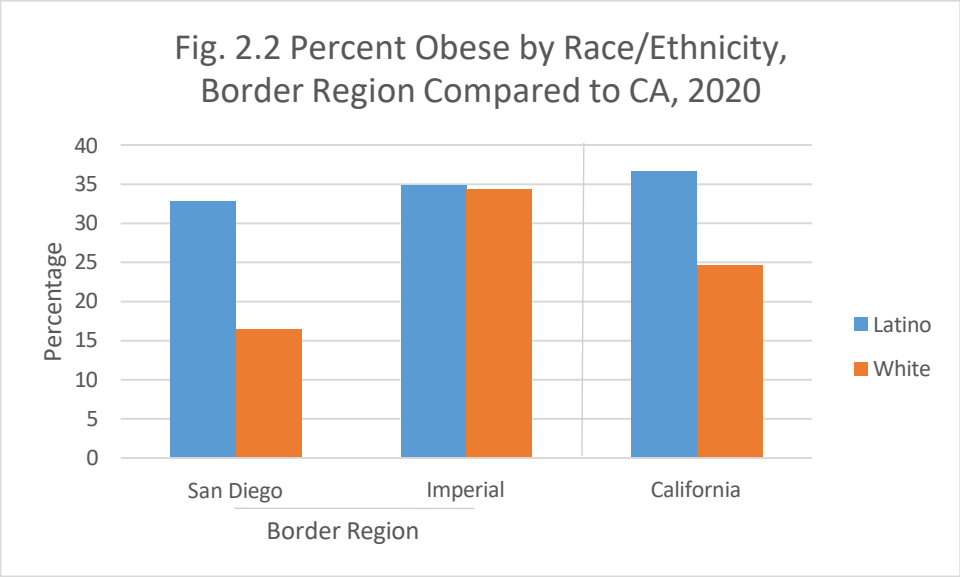
The California border region, like the rest of the state, has experienced an increase in obesity rates, particularly among the Latino population. Obesity is associated with various health risks, including some of the leading causes of death in the U.S. and worldwide, such as diabetes, heart disease, stroke and some types of cancer (National Institutes of Health [NIH], 2013). Various behavioral, societal and environmental factors are associated with obesity, such as caloric intake, physical inactivity, education and genetics (CDC, 2022). The most common estimator of body fat is the body mass index (BMI) measure. For adults, a BMI between 25 and 29.9 kg/m^2 is categorized as overweight, and a BMI of 30 kg/m^2 or above is categorized as obese (NIH, 2022).

Data for adults from 2020 indicated the prevalence of obesity in San Diego County to be 24%, whereas the percent of obesity in Imperial County was 34%. The combined percent of overweight and obese in San Diego County was 59%, and for Imperial County was 68.5%. The percentage of obesity in California was higher than that of San Diego County and lower than the percentage of obesity of Imperial County (Fig. 2.1) (CHIS, 2020).



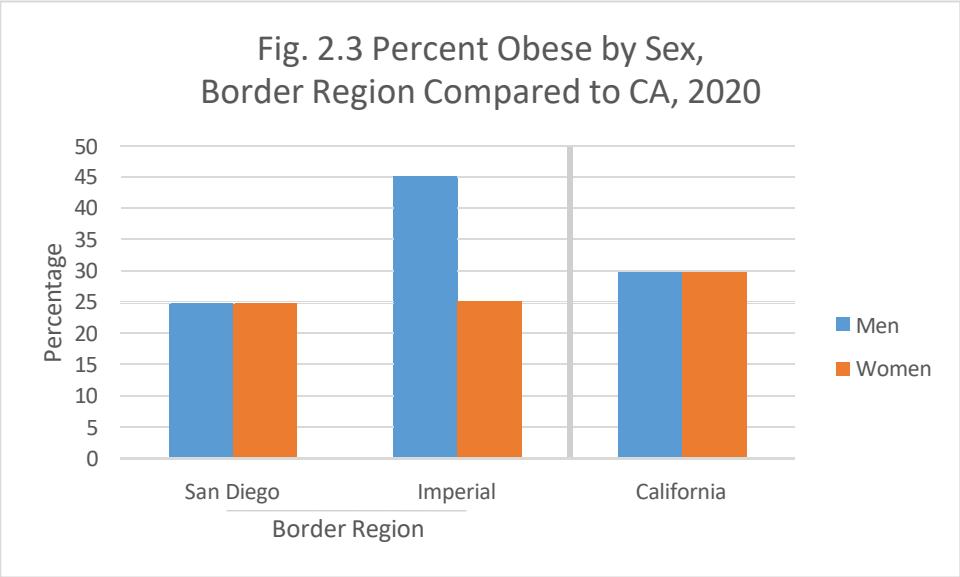
Source: California Health Interview Survey, 2020

Differences by race/ethnicity existed among obese adults in San Diego County and in California in 2020. In San Diego County, 33% of the Latino population were obese, as compared with only 16.5% of the White population. Meanwhile, in Imperial County, a similar proportion of obesity was seen in both groups; 35% of the Latino population was obese, as compared with 34% of the White population. In California statewide, 37% of the Latino population was obese, as compared with 25% of the White population (Fig. 2.2) (CHIS, 2020).



Source: California Health Interview Survey, 2020

Compared with women, men had a similar proportion of obesity in San Diego County and in California. However, a major difference between sexes was observed in Imperial County, where 46% of men were obese, as compared with 26% of women. Overall, women in the border counties had a lower percentage of obesity than those statewide (Fig. 2.3) (CHIS, 2020).

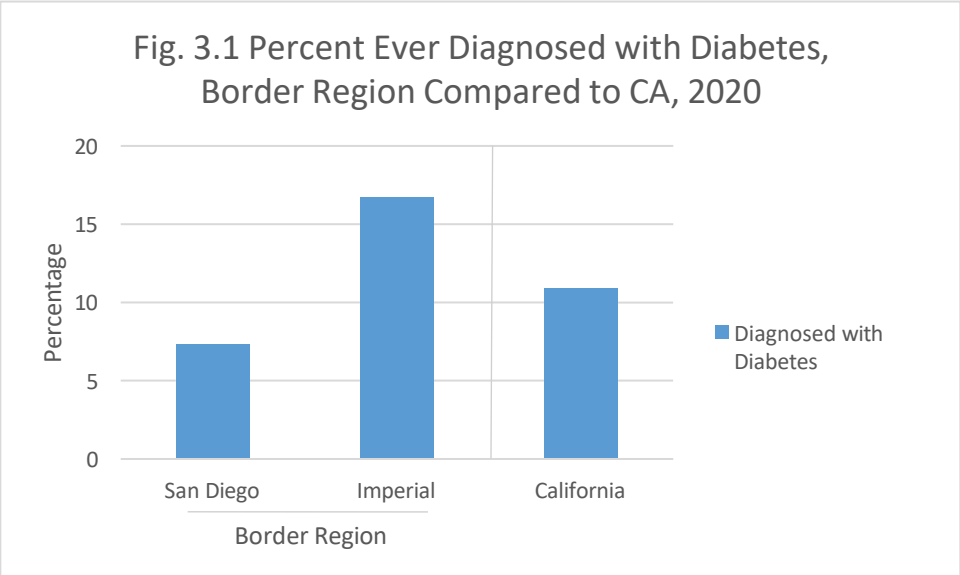


Source: California Health Interview Survey, 2020

Diabetes

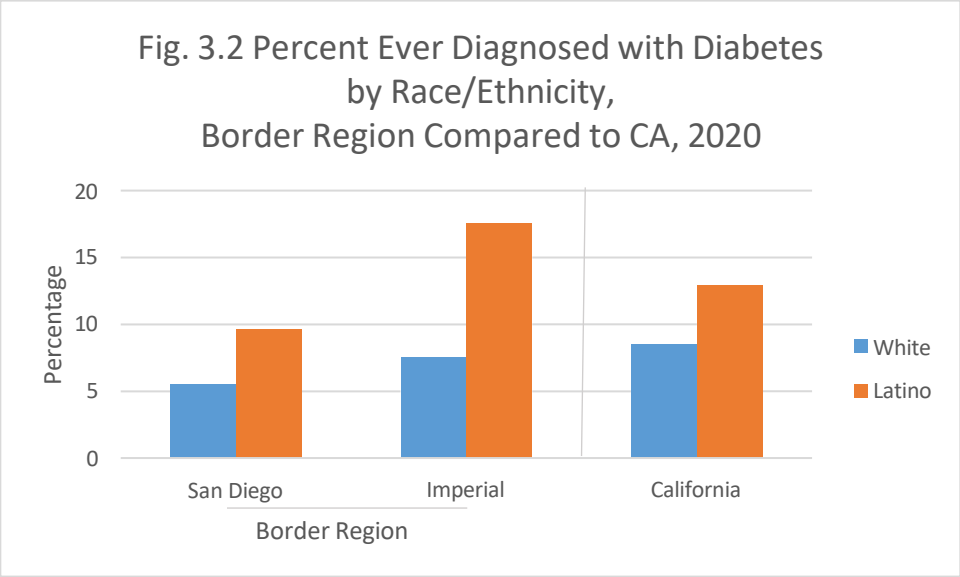
The border counties, particularly Imperial County, have among the highest diabetes rates in the State. In the U.S. and California, the Latino, Black, American Indian and Pacific Islander populations have a higher risk of type 2 diabetes (CDC, 2022).

According to CHIS data from 2020, only 7% of adults in San Diego County had ever been diagnosed with diabetes, as compared with 17% in Imperial County and 11% in California (CHIS, 2020) (Fig. 3.1).



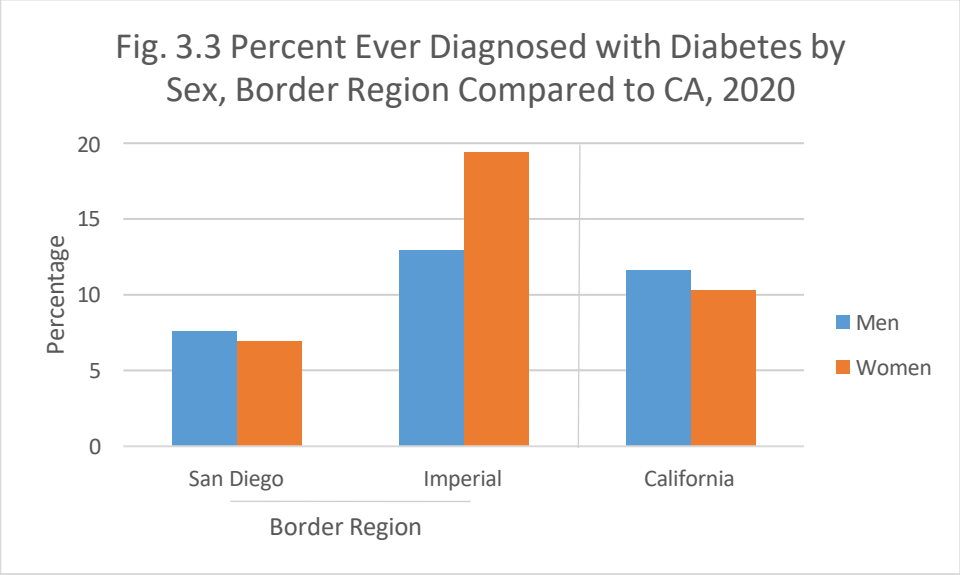
Source: California Health Interview Survey, 2020

Differences in race/ethnicity existed among adults diagnosed with diabetes in the California border region. The Latino population had a consistently higher proportion of diabetes than the White population. In San Diego County, 10% of Latino people and 5.5% of White people had ever been diagnosed with diabetes. Meanwhile, in Imperial County, 17.5% of Latino people and 7.5% of White people had ever been diagnosed with diabetes. The same was true for California, where 13% of Latino people and 8.5% of White people had ever been diagnosed with diabetes (Fig. 3.2) (CHIS, 2020).



Source: California Health Interview Survey, 2020

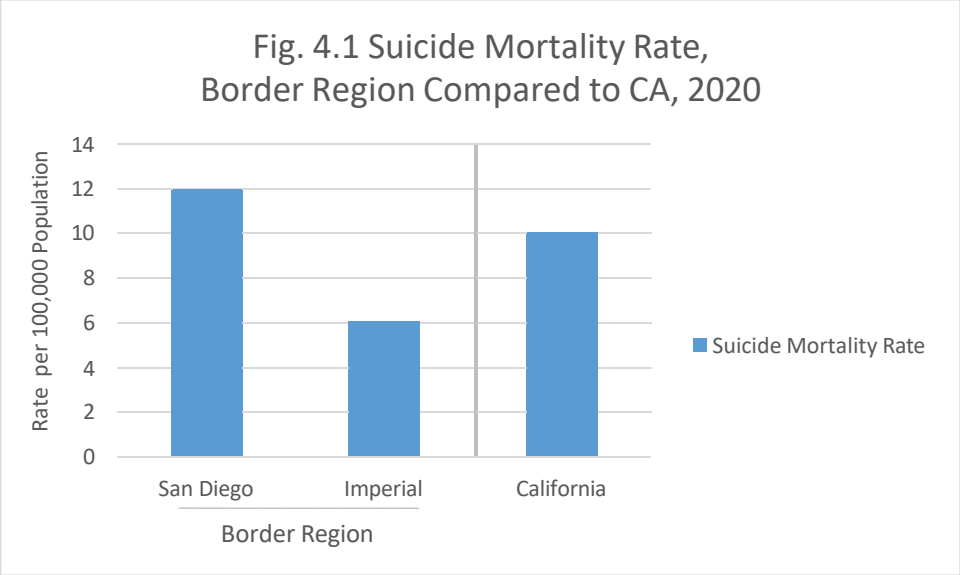
Compared with women, men had a similar proportion of diabetes in San Diego County and in California; in San Diego County, 8% of men had ever been diagnosed with diabetes, as compared with 7% of women, and in California statewide, 12% of men had ever been diagnosed with diabetes, as compared with 10% of women. However, a difference between sexes was observed in Imperial County, where 13% of men had been diagnosed with diabetes, as compared with 19% of women (Fig. 3.3) (CHIS, 2020).



Source: California Health Interview Survey, 2020

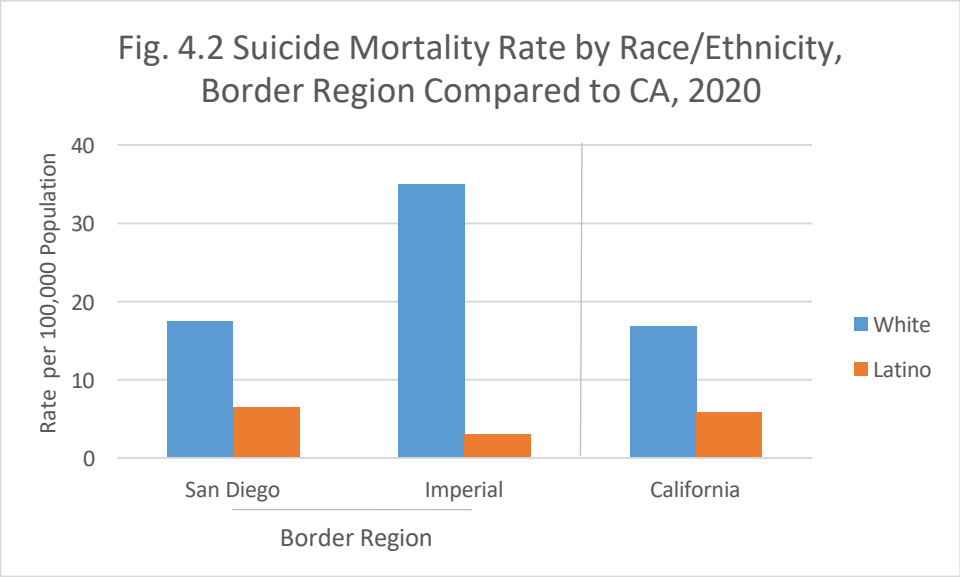
Suicide

Suicide is a serious but preventable public health problem that can have lasting harmful effects on individuals, families and communities (CDC, 2021). According to EpiCenter-California Injury Data, the rate of suicide in California was 10 suicides per 100,000 population in 2020 (4,140 cases). The suicide mortality rate in San Diego County was 12 suicides per 100,000 population (404 cases). Meanwhile, the suicide rate in Imperial County was 6.1 suicides per 100,000 population (12 cases) (Fig. 4.1) (CDPH, 2020). The border counties and California have achieved the Healthy People 2030 goal of a rate below 12.8 suicides per 100,000 population (Healthy People 2030, 2021).



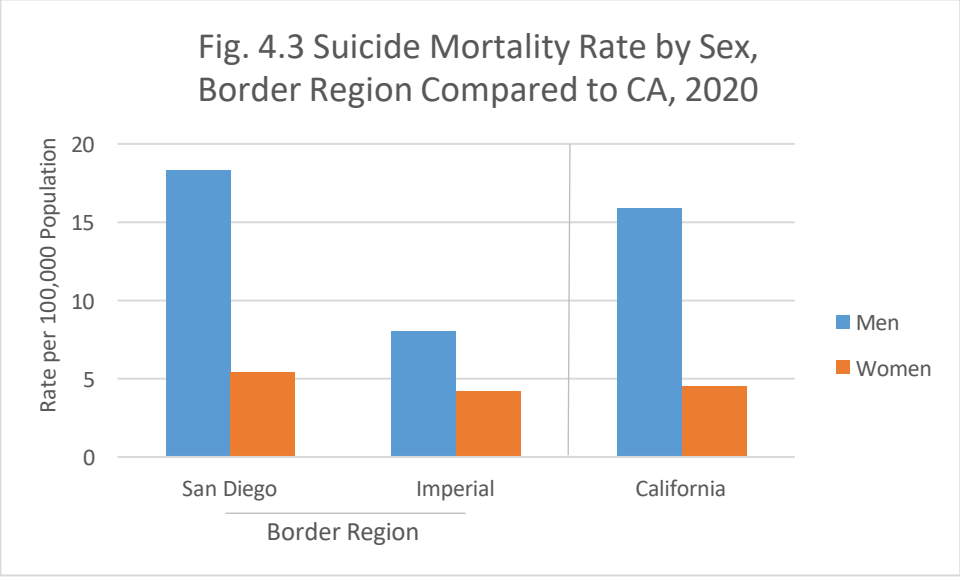
Source: EpiCenter, California Injury Data, 2020

Differences in race/ethnicity exist among adults who died by suicide in the California border region. The White population had a consistently higher rate of suicide than the Latino population. In San Diego County, the Latino population had a rate of 6.4 per 100,000 (76 cases), as compared with the White population with a rate of 17.5 per 100,000 (270 cases). In Imperial County, the Latino population had a rate of 3 per 100,000 (5 cases), and the White population had a rate of 35 per 100,000 (7 cases). In California, the Latino population had a rate of 5.8 per 100,000 (941 cases), and the White population had a rate of 17 per 100,000 (2,534 cases) (Fig. 4.2) (CDPH, 2020).



Source: EpiCenter, California Injury Data, 2020

Compared with women, men had a greater proportion of suicide in the border region and in California. In San Diego County, the rate of suicide in men was 18 per 100,000 (313 cases), as compared with 5.4 per 100,000 in women (91 cases). In Imperial County, the rate for men was 8 per 100,000 (8 cases), as compared with 4.2 per 100,000 in women (4 cases). California had a similar trend with a suicide rate of 16 per 100,000 in men (3,222 cases), as compared with 4.5 per 100,000 in women (918 cases) (Fig. 4.3) (CDPH, 2020).



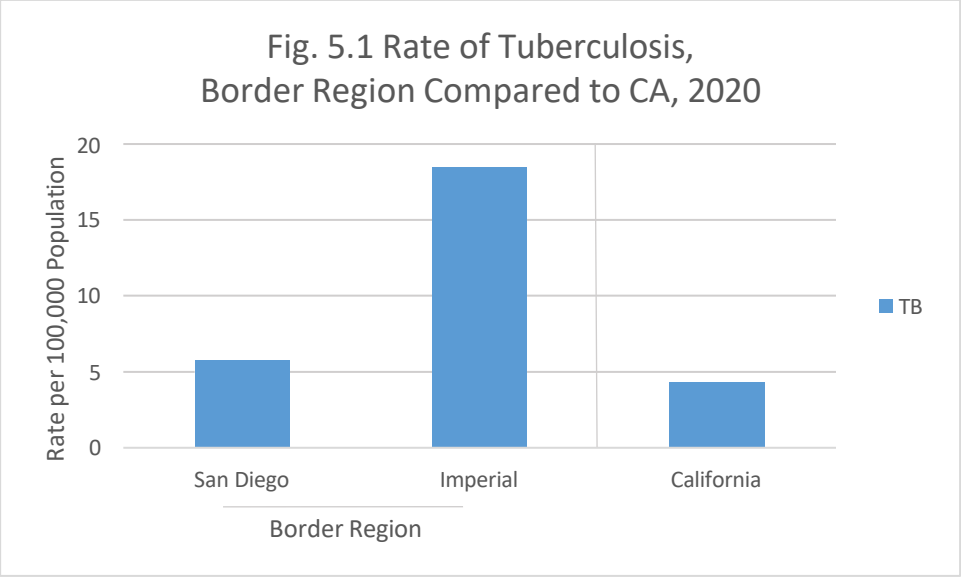
Source: EpiCenter, California Injury Data, 2020

Tuberculosis

In 2020, California reported 1,706 new TB cases, a nineteen percent decrease compared with 2,111 cases in 2019. Although the specific causes of the decline are unknown, it is likely that at least some of the decrease is related to the COVID-19 pandemic. The COVID-19 pandemic may have led to decreased detection of TB because of fewer patients seeking care or fewer TB diagnoses made when they sought care, decreased immigration because of travel restrictions or economic conditions, decreased transmission of TB because of masking and reduced movement outside of households, and/or changes in TB prevention activities that also lead to TB diagnoses. California's case rate (4.3 cases per 100,000) remained higher than the national case rate (2.2 per 100,000 in 2020), and California reported the most TB cases in the U.S. During 2017- 2019, for which recent complete outcome data are available, 657 persons (10.5% of TB cases) died with TB. Of those, 20% died before receiving TB treatment.

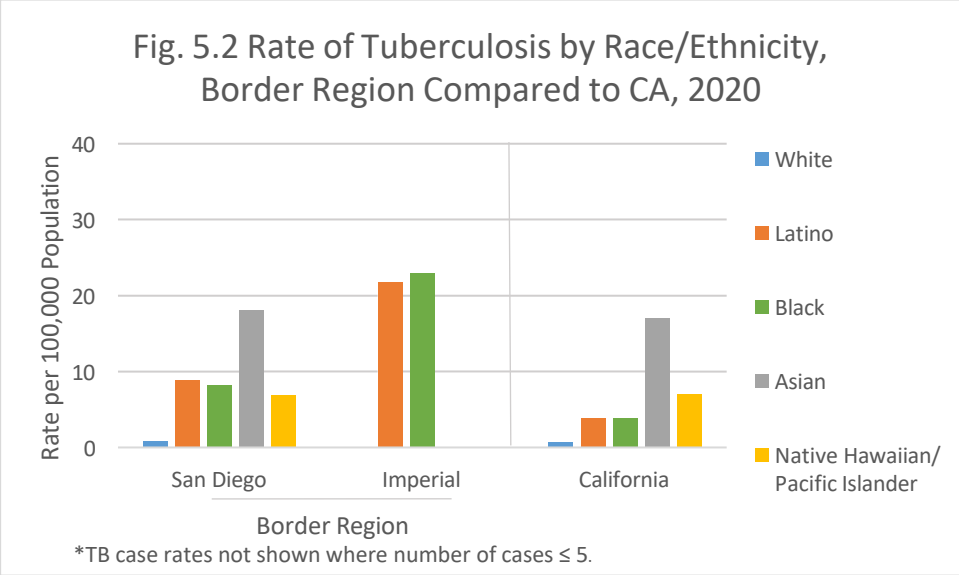
The majority of TB in California, approximately 87%, results from progression of latent TB infection (LTBI) to active TB. Identification and treatment of TB infection is vital to reducing the TB burden in the state. CDPH, in collaboration with local and national partners, continues to devote resources to increase testing and treating persons for TB infection, especially among high-risk groups. These efforts aim to reduce the risk of progression to TB disease, reduce health disparities, and speed progress towards TB elimination in the state.

California border counties bear a substantial portion of the state's TB cases, contributing 13% of the reported TB cases in 2020. During this time, Imperial County reported a case rate of 18.5 per 100,000 (33 cases), the highest rate among all California counties. San Diego County reported a case rate of 5.8 per 100,000 (192 cases). Both counties reported a higher rate than that of California (Fig. 5.1) (CDPH, 2020).



Source: California Department of Public Health, TB Control Branch, 2020

Differences in race/ethnicity existed among cases of TB in the California border region. In San Diego County, Asian-American people had the highest rate of infection with a rate of 18 per 100,000, as compared with Latino people, with a rate of 9 per 100,000, and White people, with a rate of 0.8 per 100,000. In Imperial County, Latino people had a rate of 22 per 100,000. There were no cases reported among White and Asian sub-groups. Of note, 97% of Imperial County TB cases were among Latino people compared to 53% in San Diego County and 36% statewide. The race disparity persisted on the state level with Asian-American people having the highest rate, 17 per 100,000, as compared with Latino people, with a rate of 4 per 100,000, and White people, with a rate of 0.7 per 100,000. Please note TB case rates are not shown on Figure 5.2 if the number of cases in that race/ethnicity group was less than or equal to five (Fig. 5.2) (CDPH, 2020).



Source: California Department of Public Health, TB Control Branch, 2020

Most people with TB in California in 2020 were born outside the U.S. (84%). The most common birth country was Mexico, which accounted for 21% (354 cases) of all California TB cases. Border counties reported a higher proportion of people with TB born in Mexico than the state average: 48% (16 cases) of all Imperial County TB cases and 31% (59 cases) of all San Diego County TB cases.

Mycobacterium bovis Surveillance

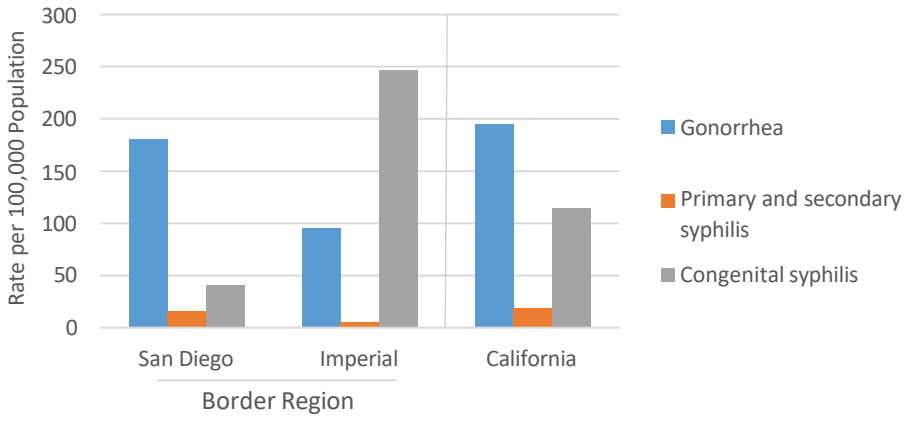
Mycobacterium bovis (*M. bovis*) is part of the *Mycobacterium tuberculosis* complex and causes TB disease in animals and humans, contributing to TB morbidity in children and adults. Transmission occurs through consumption of contaminated, unpasteurized dairy products. There were 54 cases (4% of genotyped cases) with genotyping results indicating *M. bovis* infection in California in 2020. During this time, San Diego County reported 37% of all *M. bovis* cases, the highest in California. Imperial County did not report *M. bovis* cases in 2020. Another 30% were reported in Los Angeles County.

Sexually Transmitted Infections

STIs represent a significant disease burden in California and in the California border region. In the past five years, the rates for STIs have increased in the U.S. and California, as well as the California border region. STIs can generally be treated and cured if diagnosed early; however, STIs often do not cause symptoms. Consequently, there is a high probability of individuals not seeking proper treatment, thus potentially leading to serious health complications. Moreover, because STIs are often asymptomatic and their identification is dependent on screening, the true burden of disease is many times greater than the actual number of reported cases (Satterwhite et al., 2013). Furthermore, some STI cases have demonstrated resistance to antibiotics, and the amount of antibiotic resistant STI cases is expected to continue to increase. This report will discuss the burden of two reportable bacterial STIs in Imperial and San Diego counties: gonorrhea and syphilis (primary, secondary, and congenital), which are among the most commonly reported STIs in California and the U.S.

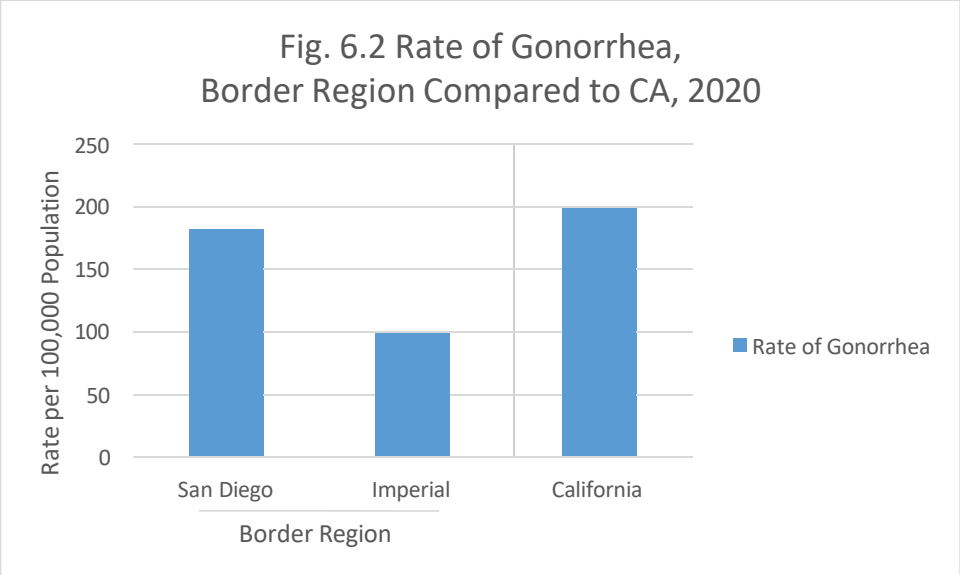
Data from 2020 are displayed below. We examine each category according to the number of cases and rates in the following graphs (Fig. 6.1) (CDPH, 2020).

Fig. 6.1 Rate of Sexually Transmitted Infections, Border Region Compared to CA, 2020



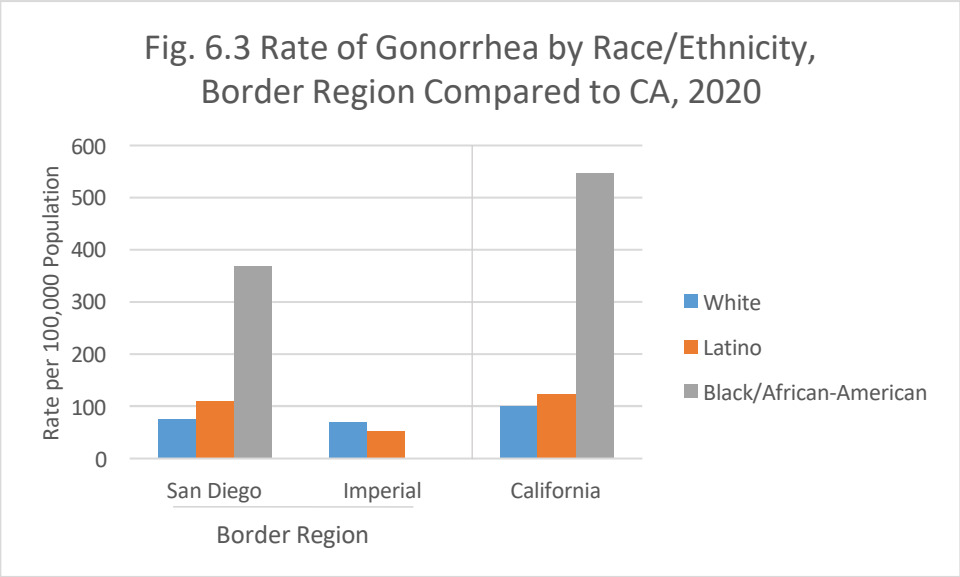
Source: California Department of Public Health, STD Control Branch, 2020

In San Diego County, the rate for gonorrhea was 181 per 100,000 (6,063 cases); meanwhile, in Imperial County, the rate was 95 per 100,000 (179 cases), as compared with California, which had a rate of 196 per 100,000 (77,823) (Fig. 6.2) (CDPH, 2020).



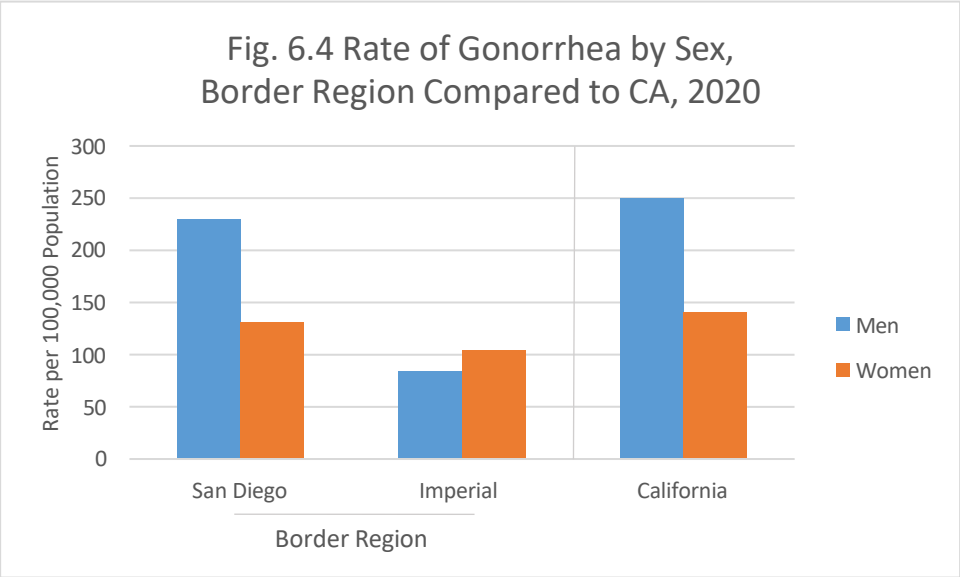
Source: California Department of Public Health, STD Control Branch, 2020

In 2020, the Black population in San Diego County and California had higher rates of gonorrhea than the White and Latino populations. In San Diego County, the Black population had a rate of 369 per 100,000 (625 cases) and in California had a rate of 548 per 100,000 (13,006 cases). The White population in Imperial County had a higher rate of gonorrhea than the Latino population (Fig. 6.3) (CDPH, 2020).



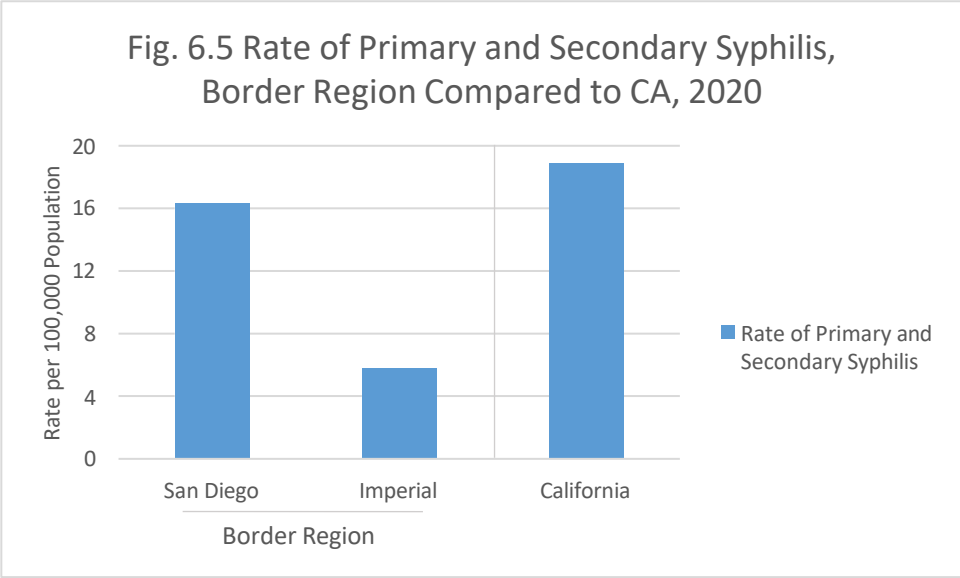
Source: California Department of Public Health, STD Control Branch, 2020

Compared with women during 2020, men had a higher rate of gonorrhea in San Diego County and California, but not in Imperial County. In San Diego County, the rate was 229 per 100,000 (3,875 cases) among men and 131 per 100,000 (2,173 cases) among women; in Imperial County, the rate was 83.5 per 100,000 (79 cases) among men and 105 per 100,000 (98 cases) among women. In California, the rate was 250 per 100,000 (49,424 cases) among men and 141 per 100,000 (28,151 cases) among women (Fig. 6.4) (CDPH, 2020).



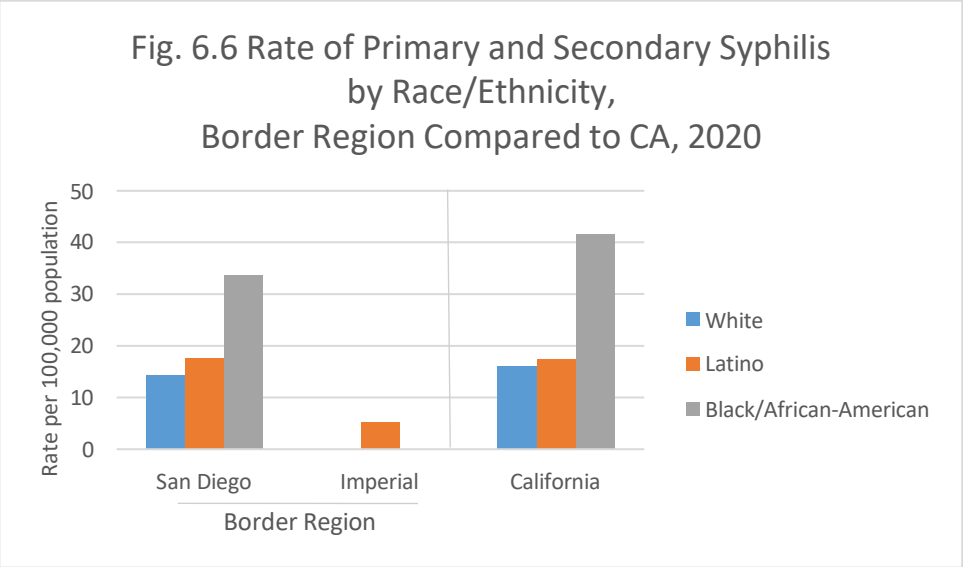
Source: California Department of Public Health, STD Control Branch, 2020

During 2020, the rate of primary and secondary syphilis in San Diego County was 16 per 100,000 (546 cases). Imperial County had a rate of 6 per 100,000 (11 cases), and California had a rate of 19 per 100,000 (7,505 cases) (Fig. 6.5) (CDPH, 2020).



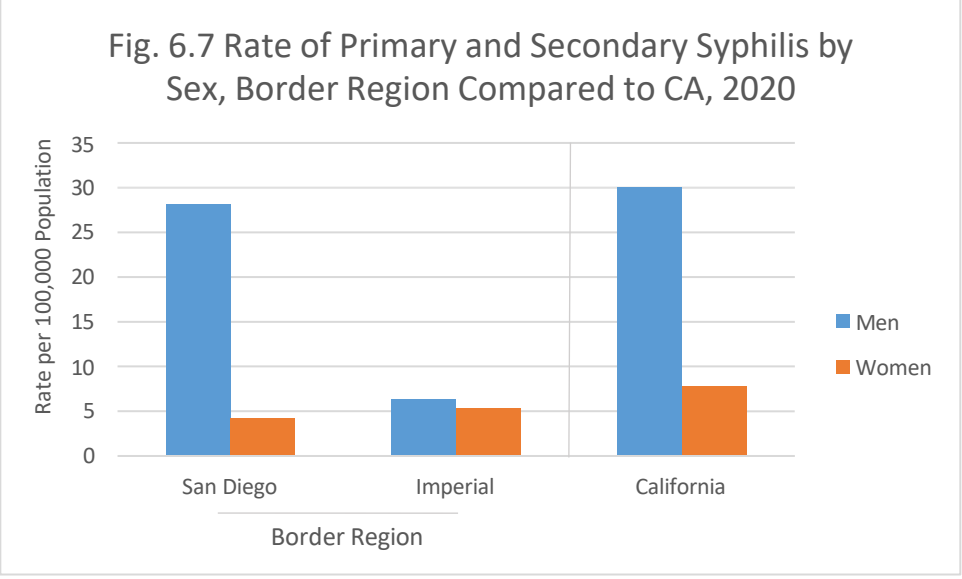
Source: California Department of Public Health, STD Control Branch, 2020

Rates of primary and secondary syphilis in San Diego County and California were higher in the Black population than those among the White and Latino populations. In 2020, in San Diego County, the Black population had a rate of 34 per 100,000 (57 cases), the Latino population had a rate of 18 per 100,000 (194 cases), and the White population had a rate of 14 per 100,000 (216 cases). In Imperial County, the rate was 5 per 100,000 (8 cases) for the Latino population. There were no reported cases of primary and secondary syphilis among the Black and White populations in Imperial County. As compared with the rate in California of 42 per 100,000 (987 cases) among Black persons, the rate among Latino persons was 17 per 100,000 (2,672 cases), and among White persons was 16 per 100,000 (2,324 cases) (Fig. 6.6) (CDPH, 2020).



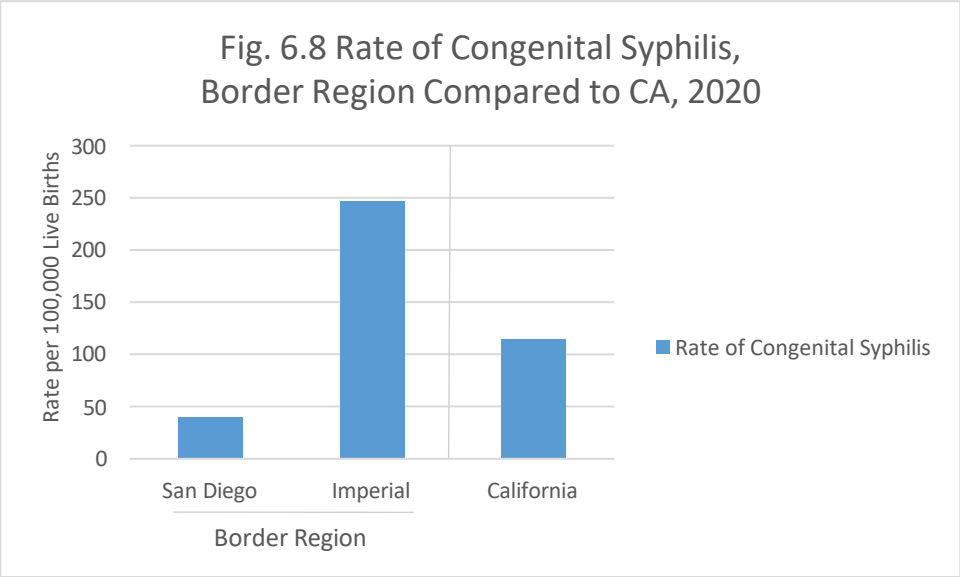
Source: California Department of Public Health, STD Control Branch, 2020

During 2020, men had a higher rate than women of primary and secondary syphilis in the border region and California. In San Diego County, the rate among men was 28 per 100,000 (477 cases), and the rate among women was 4 per 100,000 (69 cases). In Imperial County, the rate among men was 6 per 100,000 (6 cases), and that among women was 5 per 100,000 (5 cases). In California, the rate among men was 30 per 100,000 (5,934 cases) and the rate among women was 8 per 100,000 (1,565 cases) (Fig. 6.7) (CDPH, 2020).



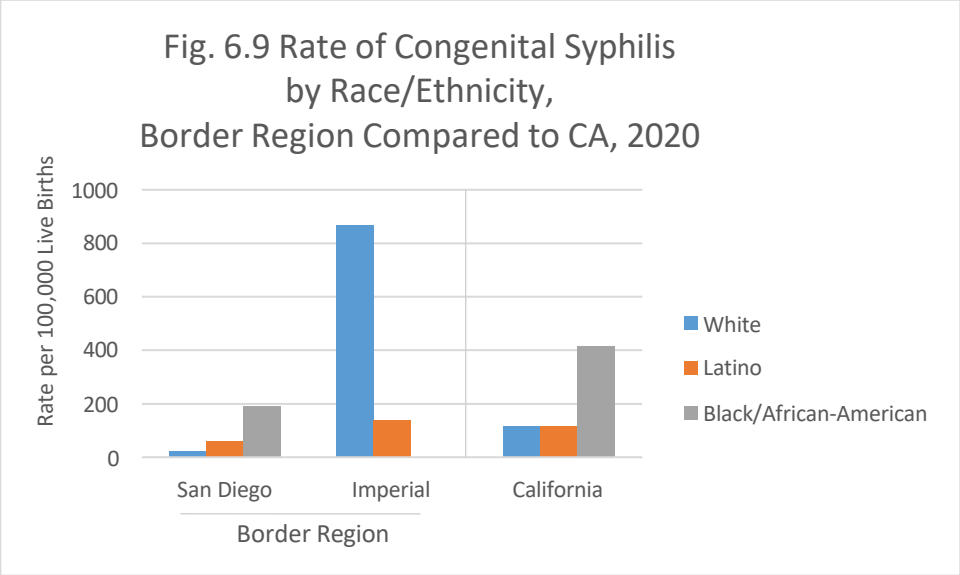
Source: California Department of Public Health, STD Control Branch, 2020

The rates for congenital syphilis in the California border region and in California have been increasing in the past five years. In 2020, the rate was 40 per 100,000 live births (15 cases) in San Diego County. Imperial County had a rate of 247 per 100,000 (6 cases). California had a rate of 114 per 100,000 (481 cases) (Fig. 6.8) (CDPH, 2020). The rates in San Diego County, Imperial County, and California were greater than the Healthy People 2030 goal of fewer than 33.9 new cases per 100,000 live births for congenital syphilis (Healthy People 2030, 2021).



Source: California Department of Public Health, STD Control Branch, 2020

In a comparison by race/ethnicity, the rates of congenital syphilis were higher among the Black population than the Latino and White populations in San Diego County and California. There were no reported cases among Black persons in Imperial County (Fig. 6.9) (CDPH, 2020).

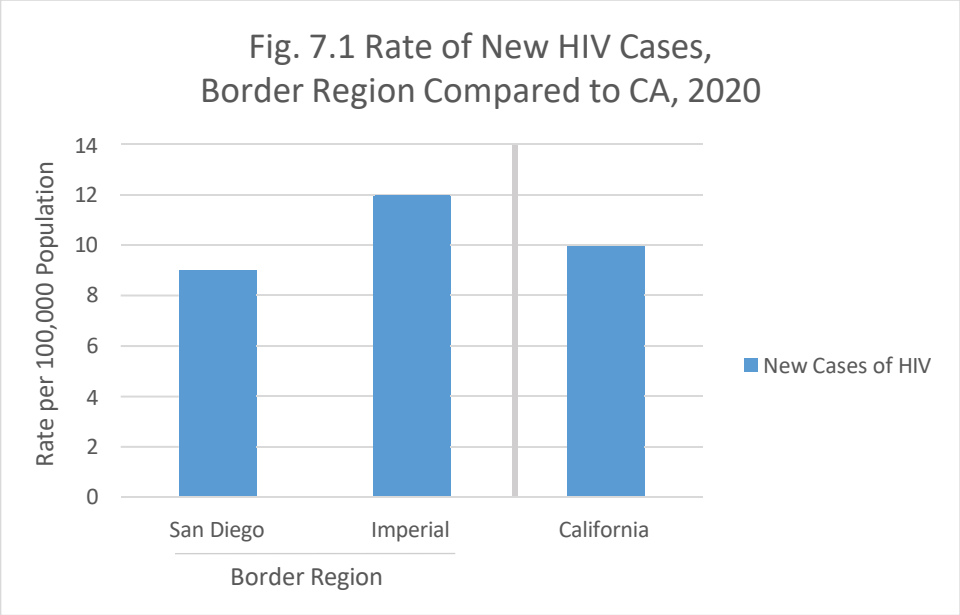


Source: California Department of Public Health, STD Control Branch, 2020

HIV/AIDS

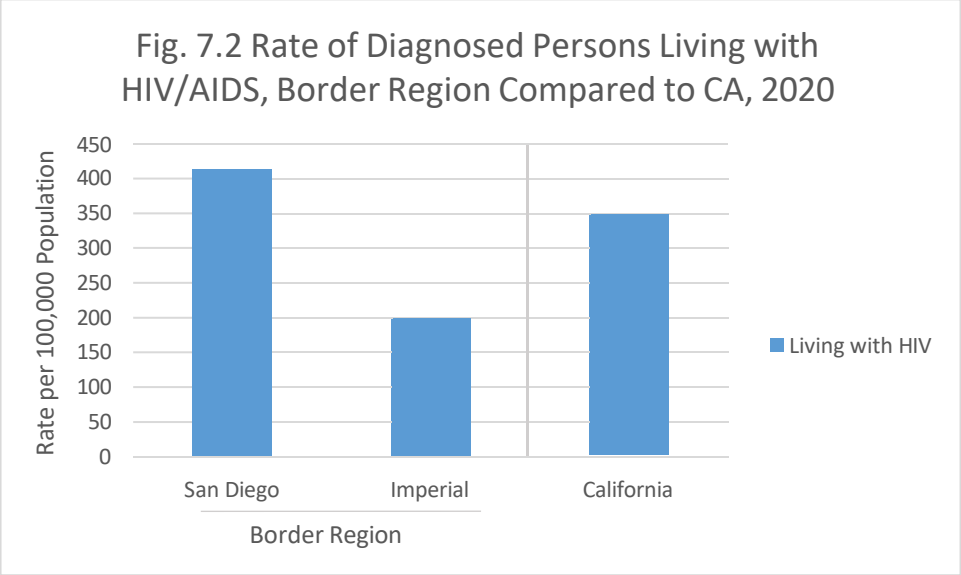
During 2020, the border counties and California had a similar rate of new HIV cases. In this chapter, OBBH presents two types of data: new cases of HIV for 2020, and cases of all diagnosed individuals living with HIV up to the end of 2020.

Data from 2020 indicate that the rate for new cases of HIV was 9 per 100,000 (303 cases) among adults in San Diego County; meanwhile, in Imperial County, the rate was 12 per 100,000 (23 cases) among adults, as compared with the California rate of 10 per 100,000 (3,965 cases) among adults (Fig. 7.1) (CDPH, 2020).



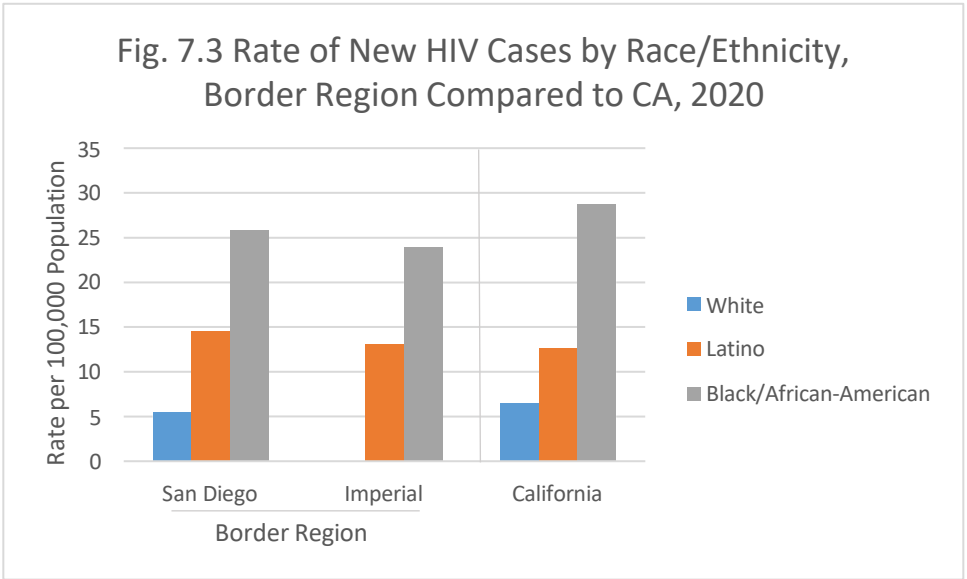
Source: California Department of Public Health, Office of AIDS, 2020

The rate of cases living with HIV in San Diego County was 413.5 per 100,000 (13,935 cases) and in Imperial County was 194 per 100,000 (372 cases). California had a rate of 348 per 100,000 (139,703 cases) living with HIV (Fig. 7.2) (CDPH, 2020).



Source: California Department of Public Health, Office of AIDS, 2020

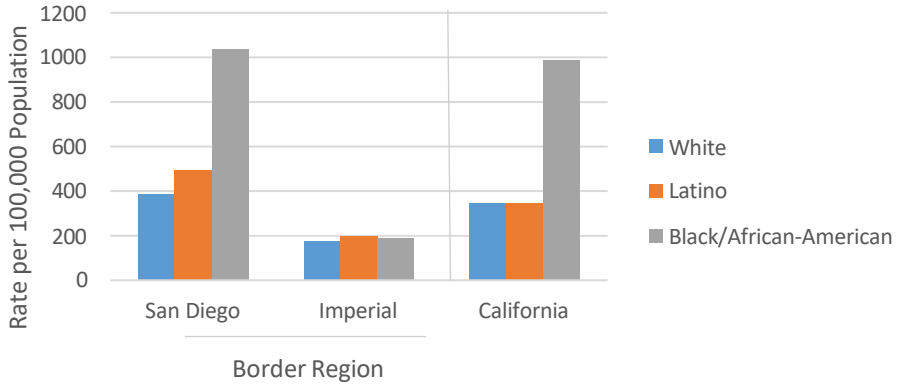
Differences in race/ethnicity existed among new cases of HIV in the California border region. In San Diego County, the Black population had a rate of 26 per 100,000 (44 cases), as compared with the Latino population, with a rate of 15 per 100,000 (161 cases), and the White population, with a rate of 5.5 per 100,000 (83 cases). In Imperial County, the Black population had a rate of 24 per 100,000 (one case), as compared with the Latino population, which had a rate of 13 per 100,000 (21 cases). There were no new cases reported in the White population in Imperial County. In California, the race/ethnicity disparity persisted: Black people had a rate of 29 per 100,000 (688 cases), Latino people had a rate of 13 per 100,000 (1,987 cases), and White people had a rate of 6.5 per 100,000 (955 cases) (Fig. 7.3) (CDPH, 2020).



Source: California Department of Public Health, Office of AIDS, 2020

Differences in race/ethnicity existed among cases living with HIV in the California border region. In San Diego County, the Black population had a rate of 1,035 per 100,000 (1,761 cases), as compared with the Latino population, with a rate of 494 per 100,000 (5,457 cases), and the White population, with a rate of 388 per 100,000 (5,853 cases). In Imperial County, the Latino population had a rate of 199 per 100,000 (320 cases), as compared with the Black population which had a rate of 191 per 100,000 (8 cases), and the White population, with 175 per 100,000 (38 cases). In California, the Black population had the highest rate of 988 per 100,000 (23,643 cases), as compared with the White population, with 345 per 100,000 (50,746 cases), and the Latino population, with a rate of 344.5 per 100,000 (53,824 cases) (Fig. 7.4) (CDPH, 2020).

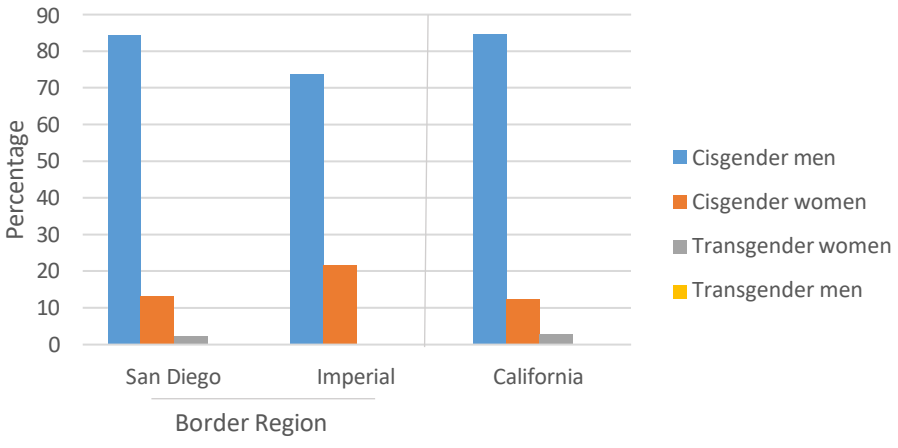
Fig. 7.4 Rate of Diagnosed Persons Living with HIV/AIDS by Race/Ethnicity, Border Region Compared to CA, 2020



Source: California Department of Public Health, Office of AIDS, 2020

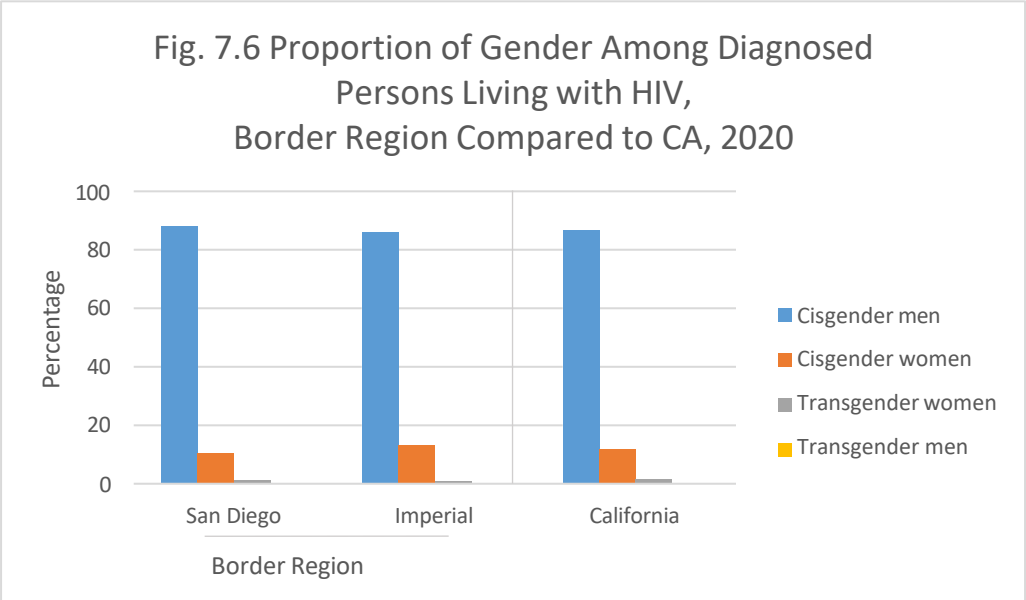
In 2020, cisgender men had a greater proportion than cisgender women of new cases of HIV in the border region and California. In San Diego County, 84.5% of new cases were among cisgender men (256 cases). In Imperial County, 74% of new cases of HIV were among cisgender men (17 cases). In California, 85% of new cases were among cisgender men (3,358 cases). In the border region, there were fewer than 10 new cases of HIV among transgender women; in California, there were 111 new cases in the transgender women population, which represented approximately 2.8% of the total cases (Fig. 7.5) (CDPH, 2020).

Fig. 7.5 Proportion of Gender Among New HIV Cases, Border Region Compared to CA, 2020



Source: California Department of Public Health, Office of AIDS, 2020

In 2020, cisgender men had a greater proportion than cisgender women of cases living with HIV in the border region and in California. In San Diego County, 88% of cases living with HIV were among cisgender men (12,298 cases). In Imperial County, 86% of cases living with HIV were among cisgender men (320 cases). As compared with the findings for California, where 87% of cases living with HIV was among the cisgender men population (121,054 cases). For the transgender women population, the proportion was less than 2% of the cases for the California border region and California (Fig. 7.6) (CDPH, 2020).



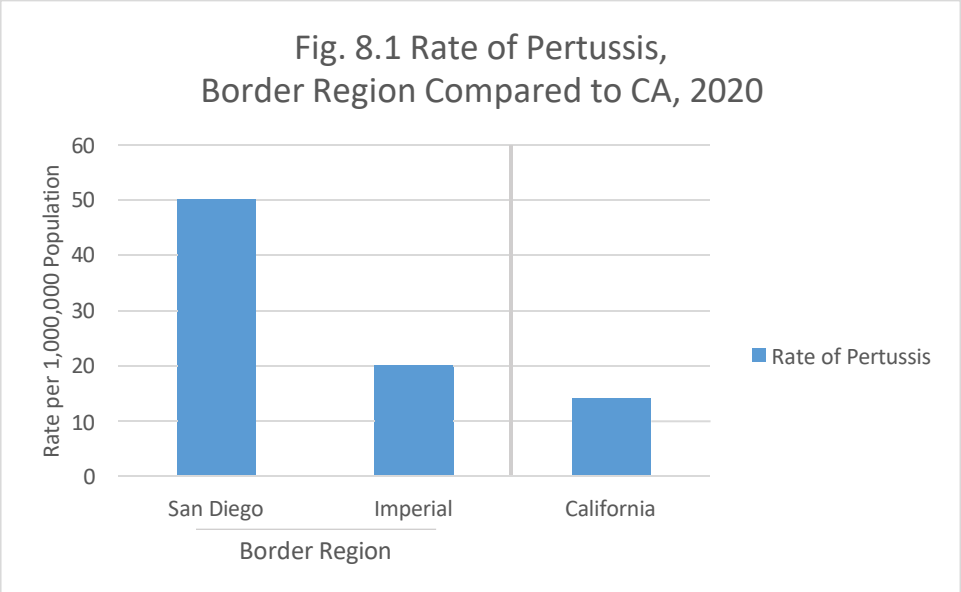
Source: California Department of Public Health, Office of AIDS, 2020

Vaccine Preventable Diseases

In the California border region, maintaining high rates of vaccination is vital to provide better control of communicable diseases, given the dynamic population mobility characteristic of the region. Immunization is one of the best ways to prevent dangerous or even potentially lethal infectious diseases. Vaccines have prevented millions of deaths worldwide. California has experienced two major outbreaks of pertussis within the past ten years (2010 and 2014), which resulted in hospitalizations and infant deaths. In 2014, there was a large measles outbreak in California associated with a theme park. Measles is a highly preventable disease but continues to affect many living in the U.S. today. These highly contagious yet preventable diseases are still prevalent in the U.S. and continue to remain on the radar of health departments. This report will discuss the burden of these two vaccine-preventable diseases (pertussis and measles) in the border region and California.

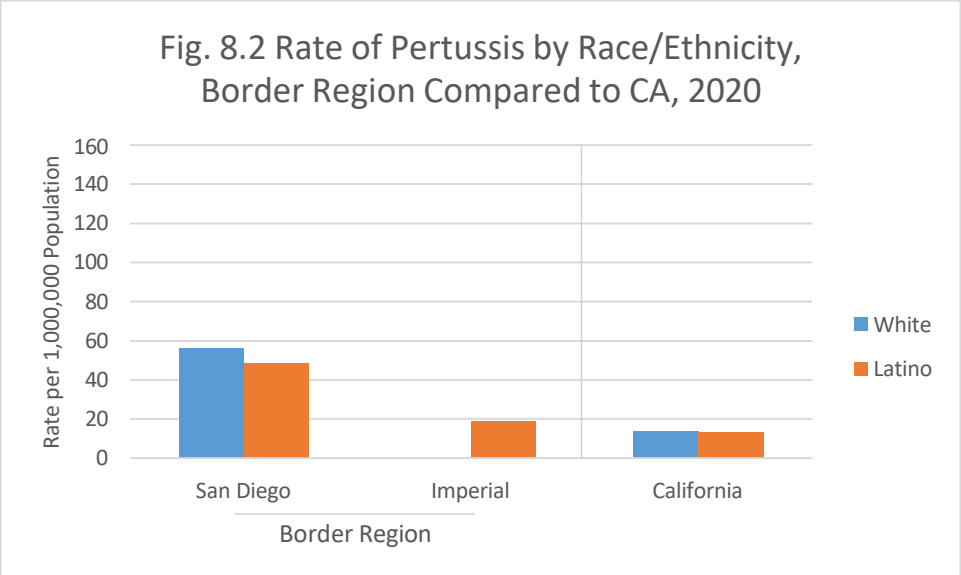
In 2020 in San Diego County, there was a pertussis rate of 50.4 per 1,000,000* (169 cases); in Imperial County, the rate was 21 per 1,000,000 (4 cases), as compared with that in California, with 14 per 1,000,000 (566 cases) (Fig. 8.1) (CDPH, 2020).

*The rate for vaccine-preventable disease was calculated per 1,000,000 population.



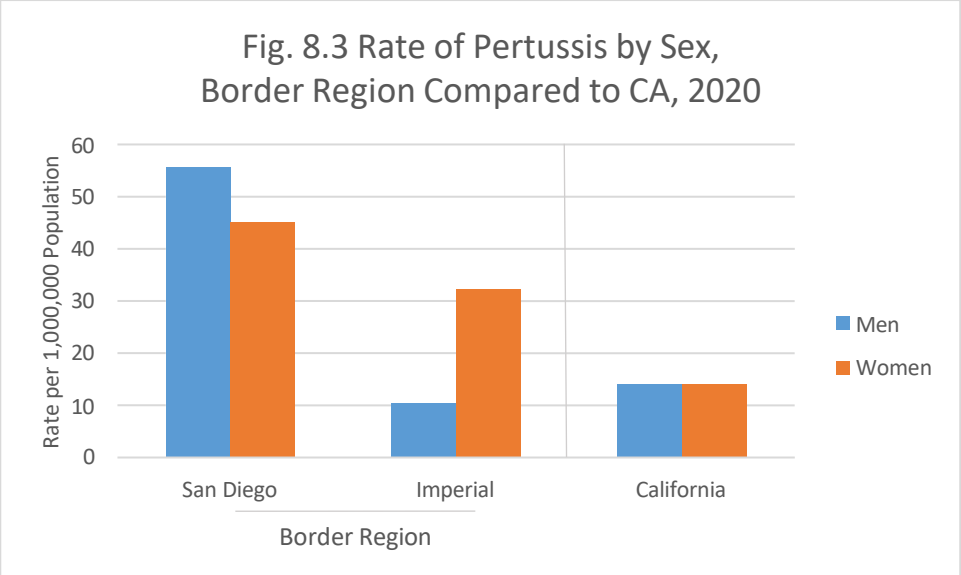
Source: California Department of Public Health, Immunization Branch, 2020

A comparison by race/ethnicity indicated that in San Diego County, the rate of pertussis for the White population was 56 per 1,000,000 (81 cases); for the Latino population, the rate was 48 per 1,000,000 (56 cases). In Imperial County, the rate for the Latino population was 19 per 1,000,000 (3 cases), and there were no cases among the White population. In comparison with the border region, California had a rate of 14 per 1,000,000 among White persons (194 cases) and 13 per 1,000,000 among Latino persons (212 cases) (Fig. 8.2) (CDPH, 2020).



Source: California Department of Public Health, Immunization Branch, 2020

In a comparison by sex, the rates were similar for men and women; in California, both men and women had a rate of 14 per 1,000,000 (282 and 283 cases, respectively). In Imperial County, the rate was 10.5 per 1,000,000 for men (one case) and for women was 32 per 1,000,000 (three cases). In San Diego County, the rate for men was 56 per 1,000,000 (94 cases); and that for women was 45 per 1,000,000 (75 cases) (Fig. 8.3) (CDPH, 2020).



Source: California Department of Public Health, Immunization Branch, 2020

In 2020, the measles rate in California was 0.1 per 1,000,000 (5 cases). There were no cases of measles in San Diego County and Imperial County during the same period (CDPH, 2020).

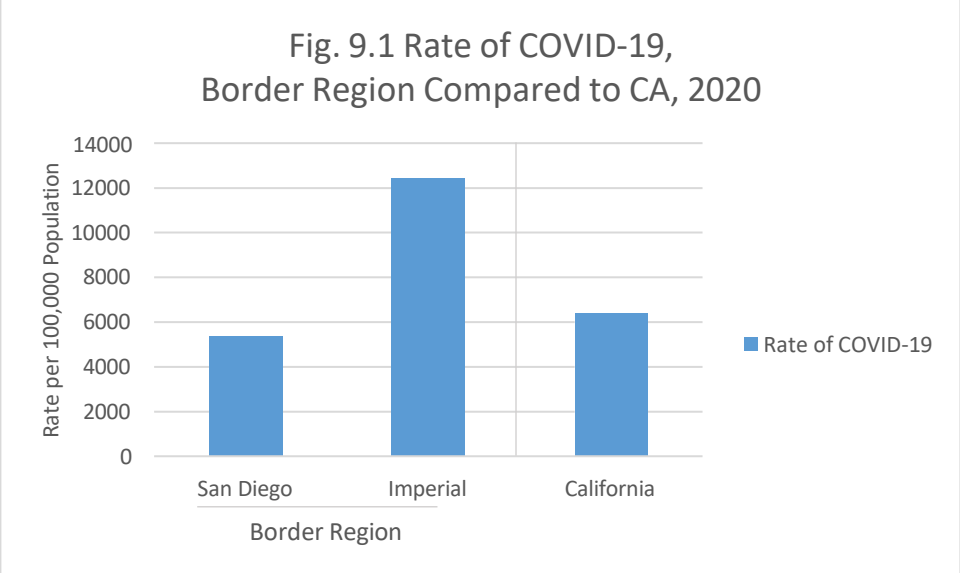
California had a measles rate of 0.1 per 1,000,000 among the Latino and White populations (1 case each) (CDPH, 2020). In a comparison by sex, the measles rate for women in California was 0.2 per 1,000,000 (3 cases). This rate was similar to that in men, with 0.1 per 1,000,000 (2 cases) (CDPH, 2020).

No graphs are shown for rates of measles comparing the border region to California, given there were no measles cases reported in the border counties.

COVID-19

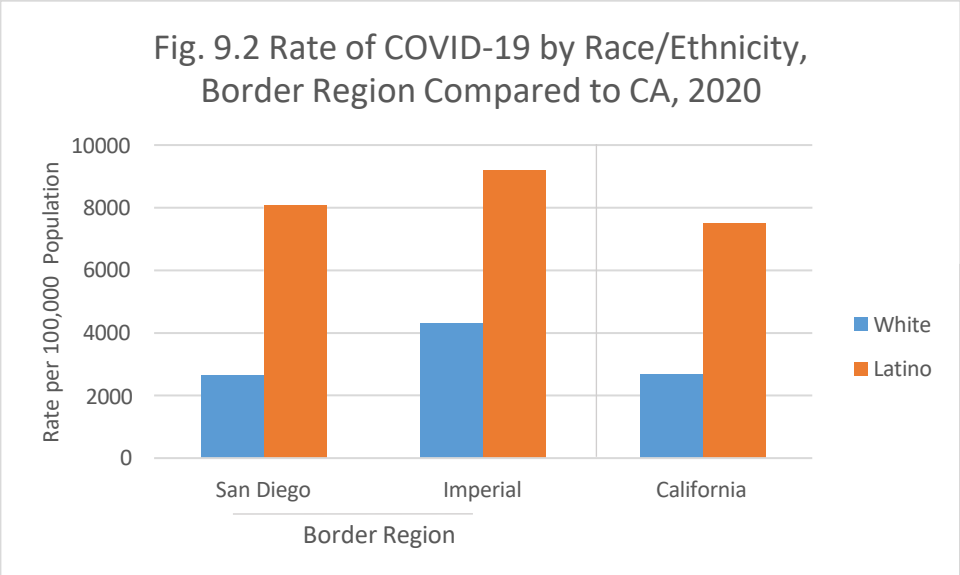
In 2020, the virus responsible for coronavirus disease 2019 (COVID-19) spread worldwide resulting in a pandemic of unprecedented proportions. To date, the ongoing COVID-19 pandemic has resulted in over half a billion cases globally. COVID-19 causes respiratory symptoms which can be mild for some, but severe for others. Older adults and those with certain underlying medical conditions are most at risk. The virus has also disproportionately affected racial and ethnic minority groups, highlighting the role that social determinants of health play in the spread and burden of this disease. COVID-19 can affect most body systems including heart, lung, kidney, skin, and brain functions and in some cases can lead to long-term effects. Early in the pandemic, public health measures such as lockdowns, facial coverings and physical distancing were key to controlling the virus. Emergency use authorization for the first COVID-19 vaccine was granted in December 2020 by the U.S. Food and Drug Administration. Vaccines against COVID-19 are safe and effective, and at the time of writing, are now approved for use in adults and children over the age of five in the U.S. This report will discuss the burden of COVID-19 in the border region and California in 2020.

In 2020, California had a COVID-19 rate of 6,415 per 100,000 (2,574,414 cases). In the border region, San Diego County had a rate of 5,382 per 100,000 (181,412 cases), whereas in Imperial County the rate was much higher at 12,447 per 100,000 (23,855 cases) (Fig. 9.1) (CDPH, 2020).



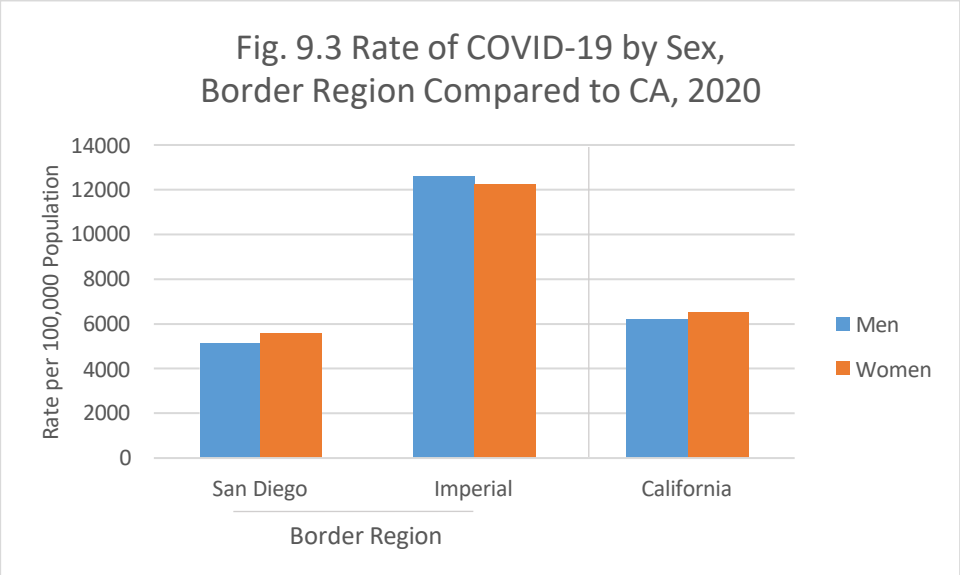
Source: California Department of Public Health, Coronavirus Science Branch, 2020

A comparison by race/ethnicity throughout the border region and California exemplifies the disproportionate risk of COVID-19 cases in the Latino population. In San Diego County, the rate of COVID-19 for the White population was 2,639 per 100,000 (39,795 cases); whereas for the Latino population, the rate was 8,061 per 100,000 (89,091 cases). In Imperial County, the rate among Latino persons was 9,192 per 100,000 (14,770 cases); among White persons, the rate was 4,303 per 100,000 (934 cases). Similarly, California had a rate of 7,516 per 100,000 among the Latino population (1,174,424 cases) and among the White population a rate of 2,688 per 100,000 (394,983 cases) (Fig. 9.2) (CDPH, 2020). For the border region and statewide, the COVID-19 rate for the Latino population was at least 2-fold the rate of the White population, underlining racial and ethnic disparities present in COVID-19.



Source: California Department of Public Health, Coronavirus Science Branch, 2020

In a comparison by sex, COVID-19 rates were similar for men and women; in California, men had a rate of 6,175 per 100,000, whereas women had a rate of 6,498 per 100,000 (1,231,372 and 1,311,718 cases, respectively). In Imperial County, the rate was 12,584 per 100,000 for men (12,128 cases) and for women was 12,223 per 100,000 (11,645 cases). In San Diego County, the rate for men was 5,139 per 100,000 (87,362 cases); and that for women was 5,571 per 100,000 (93,051 cases) (Fig. 9.3) (CDPH, 2020).



Source: California Department of Public Health, Coronavirus Science Branch, 2020

Conclusion

This report covered a wide variety of health topics that help illustrate the health status of the California border counties, San Diego and Imperial. It is essential to understand the unique challenges these communities face in combating obesity, diabetes, suicide, TB, STIs, HIV/AIDS, vaccine-preventable diseases, and COVID-19. This section will outline changes in the reported health indicators by comparing the data reflected in our last report (the 2020 Border Health Status Report) to this year's report. The fold change will be reported for indicators reported as a percentage of the population, such as CHIS and BLS data, and the percent change in the rate will be reported for all other data.

The population of California and the border region has remained relatively steady in the last five years (2016 to 2021). San Diego County's population increased by 1% in the last year, while Imperial County's population increased by 0.6%. In terms of race/ethnicity, in Imperial County, the Latino population makes up most of their residents, whereas, in San Diego County, they are the largest minority group. Between 2019 to 2020, the percentage of the Latino and Black populations remained steady in the border region and California. In contrast, there was a slight decrease in the combined Asian, Native Hawaiian, and Pacific Islander populations in the border region and California as a whole (0.8- and 0.9-fold decrease, respectively).

Unemployment rates substantially increased between 2019 to 2020 in the border region and California. For example, the San Diego County population reached an unemployment rate of 9.3%, representing nearly a 3-fold increase in the unemployment rate reported in 2019. Furthermore, Imperial County residents continued to experience a much higher proportion of unemployed labor force, with 22% for year 2020. However, there was a reduction in the population living at or below 200% the FPL, especially statewide, where 10% of Californians lived at or below 200% of the FPL, representing a 0.3-fold decrease from 2019 to 2020. Regarding education, the San Diego County Latino population with a college degree rose from 28% in 2019 to 35% in the past year (a 1.3-fold increase). Conversely, in Imperial County, the percentage of Latino college graduates decreased from 25% in 2019 to 15% in 2020 (0.6-fold decrease). Of note, Latino persons in the border region and California are still less likely to have graduated from college and are more likely than Whites to live at or below 200% of the FPL.

Chronic diseases are important indicators of the health of communities. This report includes data on obesity, diabetes, and suicide. In 2020, Imperial County met the Healthy People 2030 target to reduce the proportion of adults who are obese to at or below 36% of the adult population, from 40% to 34% (0.9-fold decrease). This decrease was reflected in both the Latino and White populations and was primarily due to a reduction in the proportion of obese individuals among women, where a 0.7-fold decrease in obesity percentage was observed. As in 2019, San Diego County also met the Healthy People 2030 target in the past year and further reported a decrease in obesity from 28% to 24% (0.9-fold decrease). However, the proportion of overweight adults in San Diego County increased from 28% in 2019 to 35% in 2020 (1.2-fold increase). Notably, the proportion of overweight men in San Diego County increased significantly from 32% in 2019 to 43% in 2020 (1.3-fold increase), while the proportion of overweight women remained the same from 2019 to 2020.

Although diabetes is a significant challenge in the region, the proportion of the population who had ever had a diabetes diagnosis decreased in the border region from 2019 to 2020, even while rates increased in the state as a whole. Throughout California, this increase was most seen in the Latino population, with an increase from 11% in 2019 to 13% in 2020 (1.2-fold increase). However, this increase was not reflected in the Latino populations in the border region, among whom diabetes rates remained the same from 2019 to 2020. Among the White population in Imperial County, rates of diabetes dropped significantly from 16% in 2019 to 7.5% in 2020 (0.5-fold decrease).

In 2020, Latinos continued to have considerably lower rates of suicide than Whites along the California border, a pattern that was also noted in our previous report. In San Diego County, the suicide rate for the Latino population decreased from 7.7 per 100,000 in 2019 to 6.4 per 100,000 in 2020 (a 17% rate decrease). The suicide rates for the border counties and California statewide are lower than the Healthy People 2030 goal of less than 12.8 suicides per 100,000. Of note, the suicide rates in Imperial County should be compared to previous years with caution, as the small number of cases (less than 20) introduces high variability in the rates reported.

Infectious diseases, such as TB, STIs, HIV/AIDS and pertussis, continue to be a significant challenge along the California border. In California and the border counties, the rate of TB was higher among the Latino population than the White population. Markedly, almost all the TB cases in Imperial County (97% of total cases) and the majority of cases in San Diego County (53%) were among the Latino population. In contrast, Latino persons represented a smaller proportion of cases in California (36%). In 2020, Imperial County again reported the highest rate of TB among all California counties; this rate was three times higher than the TB rate in California. Between 2019 and 2020, a decrease in TB rates was observed for San Diego County (28% rate decrease) and Imperial County (42% rate decrease). Similarly, the rate decreased statewide by 19% in the same period. These changes are possibly due to the effects of the COVID-19 pandemic on access to care and diagnostic services, changes in population mobility, and the effect of lockdowns and other non-pharmaceutical interventions aimed at reducing COVID-19 transmission. The border region experiences a higher incidence of *M. bovis* cases than the statewide incidence; in 2020, San Diego County cases accounted for nearly two-fifths of *M. bovis* cases in California. CDPH is committed to preventing and controlling TB in California. Continued collaboration with international health partners, especially those in Mexico, as well as public health interventions aimed at reducing TB are essential in effectively controlling TB in California.

STIs in California increased in recent years. However, between 2019 and 2020, the rates of gonorrhea remained relatively stable in California and the border region. Imperial County saw an increase in primary and secondary syphilis and congenital syphilis rates between 2019 and 2020. However, the discrete number of cases should be considered as it can introduce variability in annual rates. For gonorrhea, in San Diego County, the rate in the Latino population decreased by 28% in this period. Most of the STI cases in the California border region were among men, and a comparison by race/ethnicity indicated that the highest rates were among the Black population. In 2019, the rate of gonorrhea was 202 per 100,000 in California, which remained similar in 2020, with a slight decrease to 196 per 100,000 (a 3% rate decrease). The rates of congenital syphilis in California and the border region rose significantly between 2019 and 2020. California had a rate of 100 per 100,000 live births in 2019 and 114 per 100,000 in 2020 (a 15% increase). When examined by race/ethnicity, the congenital syphilis rates in California rose by 9% in the White population and 8% in the Latino population between 2019 and 2020 (for congenital syphilis, the race/ethnicity is based on the race/ethnicity of the mother). San Diego County had 15 cases of congenital syphilis, and Imperial County had six cases in 2020. Congenital syphilis is preventable with access to prenatal care and timely treatment.

The California border counties had 14,307 total individuals living with HIV infection in 2020, up slightly from 14,204 last year. In addition, the California border counties reported 326 new cases of HIV during the same year, down from 406 reported in the previous year. Most of the population living with HIV and the individuals newly diagnosed with HIV in the border region are men. The rate of new HIV cases decreased for the Latino population in San Diego County from 18 per 100,000 in 2019 to 15 per 100,000 in 2020 (a 19% rate decrease). Meanwhile, the White population saw a 20% rate decrease and the Black population an 8% rate decrease. However, for San Diego County and Imperial County, the highest rates for individuals living with HIV and new HIV cases were in the Black population. The number of new HIV cases for transgender women in California remained unchanged at 111 new cases in 2019 and in 2020.

In 2020, the border region and California saw decreased rates of pertussis. There were 169 cases in San Diego County and four cases in Imperial County that year. In 2019, the rate of pertussis cases for San Diego County was twice the rate in California; however, in 2020, San Diego County had a rate of 50.4 per 1,000,000, three times the rate of California with 14.2 per 1,000,000. The White population in the border region and California had consistently higher rates of pertussis than the Latino population, except in Imperial County, where no cases among the White population were reported. In 2020, there were five cases of measles reported in California, a marked reduction from the 72 cases of measles reported in California in 2019. As in last year's report, there were no cases of measles reported in San Diego County and Imperial County in 2020.

COVID-19 was first identified in 2019 in hospitalized individuals with respiratory symptoms of unknown etiology. Over the past two years, COVID-19 has spread globally, causing over half a billion cases worldwide. To date, the U.S. has seen over 80 million cases and almost a million deaths associated with COVID-19. This disease has disproportionately affected racial and ethnic minority groups in the U.S., including California, underlining the social factors contributing to a higher risk of COVID-19 spread and its burden on specific populations. In 2020, California reported 2.5 million COVID-19 cases, with the Latino population reporting almost three times the rate of COVID-19 as the White population, exhibiting the disproportionate burden of COVID-19 on Latino people. In the border counties, the same pattern was noted, with the rate of COVID-19 in the Latino population of San Diego (8,061 per 100,000) being twice the rate of COVID-19 among the White population (2,639 per 100,000); in Imperial County, Latino persons had three times the rate of COVID-19 as White persons (9,192 per 100,000 vs. 4,303 per 100,000). Notably, Imperial County was disproportionately impacted by COVID-19, with a rate of 12,447 per 100,000, twice the rate of COVID-19 in San Diego and statewide.

Differences in health outcomes highlight the key health needs of the region and can aid in identifying necessary resources and services for California border residents. CDPH develops this report annually to inform and educate the California Legislature on the health needs of the California border region. This information is important to enable a more focused approach to address the region's needs. Further information about health issues that affect California's border region can be found at OBBH's website at https://www.cdph.ca.gov /Programs/CID/OBBH/Pages/OBBHome.aspx

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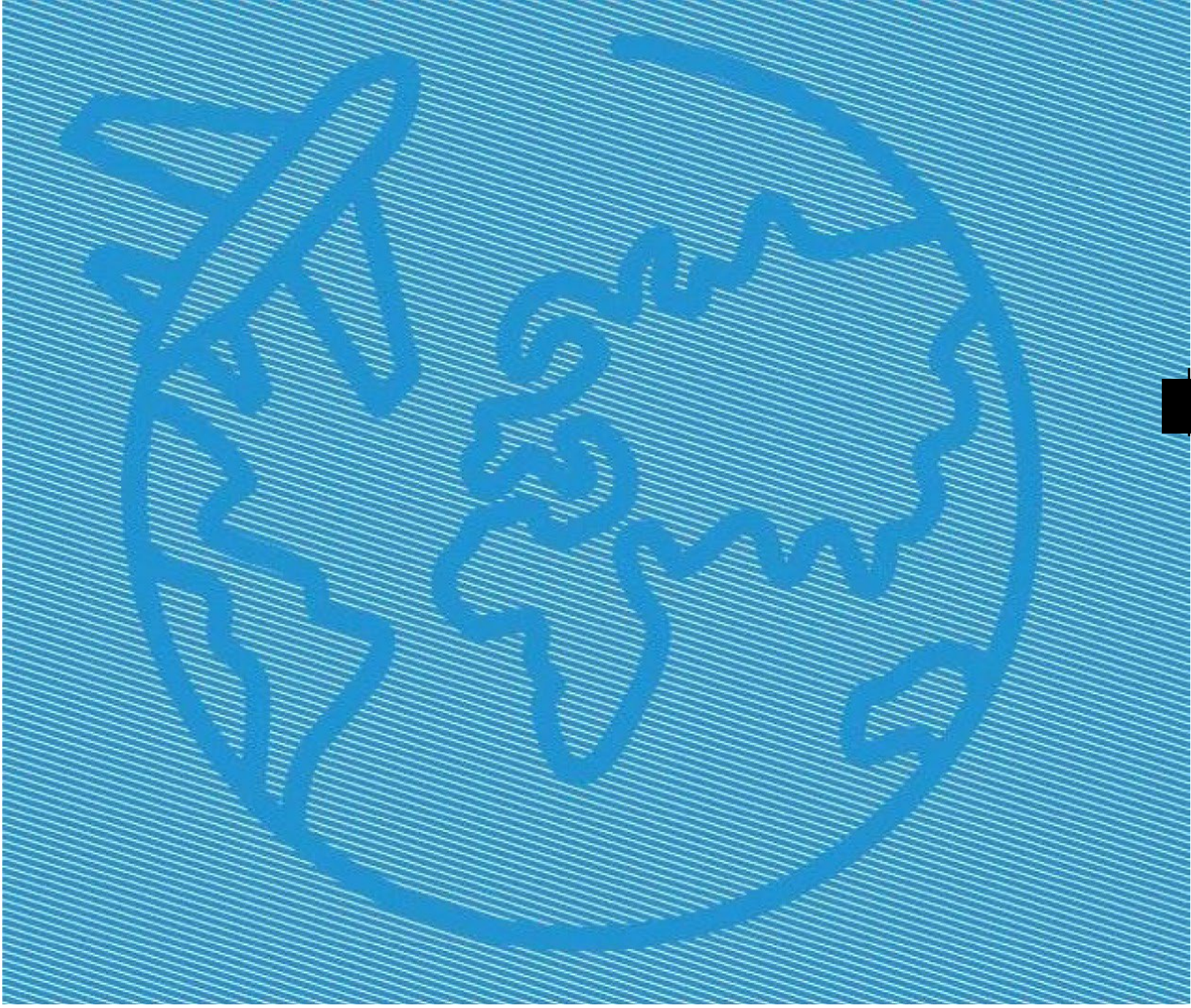

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