

TUBERCULOSIS FACT SHEET 2019



Tuberculosis (TB) is an infectious disease caused by the bacterium *Mycobacterium tuberculosis*. TB is spread through the air from person to person. The risk of exposure and subsequent infection is linked with the intimacy and duration of contact, ventilation in the shared environment, and degree of infectiousness of the person with TB. About 5-10% of infected persons who do not receive treatment for latent TB infection (LTBI), a form of TB without clinical manifestation, will later develop TB disease. Symptoms of TB depend on the site of infection, often the lungs (pulmonary TB), but TB infection can occur outside the lungs (extrapulmonary TB). Common symptoms of pulmonary TB include a cough lasting at least three weeks, chest pain, and coughing up blood or sputum (phlegm in lungs). TB skin tests (TST) and TB blood tests are used to detect TB bacteria in the body. Other tests, such as a chest x-ray and a sample of sputum, are needed to see if a person has TB disease. LTBI and TB disease are treatable with specific drug regimens. Treatment can be long and complicated depending on the characteristics of the patient (e.g., HIV co-infection) and infection (e.g., drug resistance).

Source: Centers for Disease Control and Prevention (CDC)

Trends in TB Disease

The rate of TB disease in Sacramento County has been steady over the last ten years [Figure 1]. The TB rate in the County has fluctuated by year and was below the State rate in 2019. Both rates have been much higher than the Healthy People 2020 objective rate of 1.0 per 100,000 population. There were 73 new TB cases among County residents in 2019, an increase from 2018.

TB Case Demographics

Race/ethnicity: About two-thirds (64.4%) of 2019 TB cases in the County were Asian/Pacific Islander, despite comprising only about 15% of the County population [Figure 2].

Nativity: Most TB cases in the County (76.7%) were foreign-born persons, slightly lower than the State value (82.0%) [Table 1]. The most common countries of birth among foreign-born cases were the Philippines (15.1%), Vietnam (12.3%), India (10.6%), Laos (8.2%), China (8.2%), and Pakistan (5.5%) [data not shown].

Sex: Almost two-thirds (65.8%) of TB cases in 2019 occurred in males, and the proportion of male cases grew compared to 2018 [figure 3].

Age: Over one-third (41.1%) of County TB cases in 2019 were among persons age 65 and older. Roughly one in twenty (5.5%) were pediatric cases with age less than 15 [data not shown].

Figure 1. TB Case and Rates, Sacramento County vs. California, 2010-2019

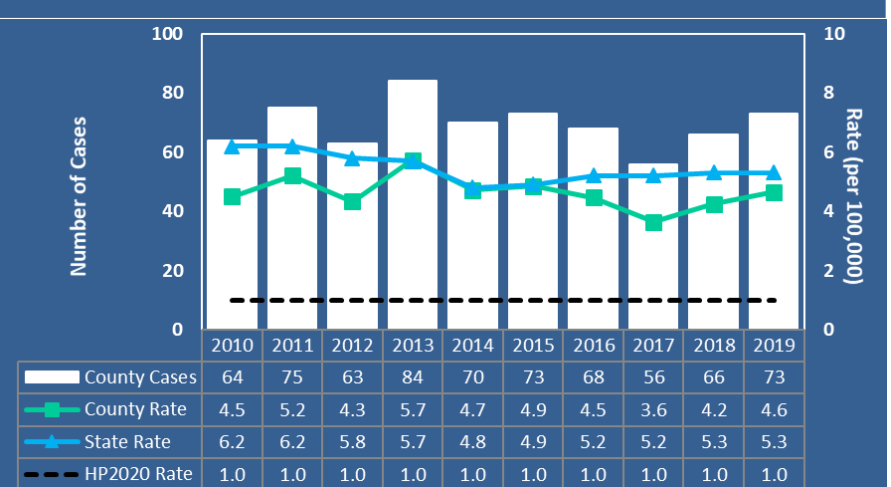


Figure 2. TB Cases by Race/Ethnicity, Sacramento County, 2019

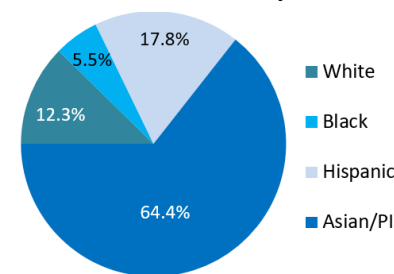
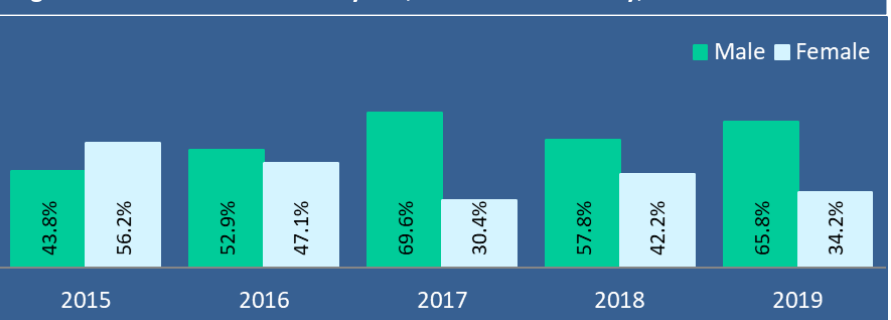


Table 1. TB Cases by Nativity, County vs. California, 2019

County/State	Foreign-Born	US-Born
Sacramento	76.7%	23.3%
California	82.0%	18.0%

Figure 3. Percent of TB Cases by Sex, Sacramento County, 2015-2019



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TB Risk Factors

Co-morbid conditions: In 2019, TB cases with diabetes mellitus (DM) increased when compared to 2018, as did the overall proportion of TB cases with DM [Figure 4]. In 2019, roughly one-third (34.2%) of TB cases had DM. There were two TB cases co-infected with HIV and one case with documented non-HIV immunosuppressive conditions in 2019 [data not shown].

Close contact: Six (8.2%) 2019 County TB cases had close contact to an infectious TB case. The primary reason for TB disease evaluation was TB symptoms for a majority (67.1%) of cases [data not shown].

Living conditions: Homeless persons and persons living in congregate settings are at increased risk of developing TB, but they account for only six of 2019 County TB cases [Table 2]. Of those, four TB cases were amongst homeless individuals, one case was amongst correctional facility residents, and one was amongst long-term care facility residents in 2019.

Substance use: Substance use also increases the risk of developing TB disease and can complicate TB therapy. Two TB County cases reported excess alcohol use; one case reported use of injection drugs [Table 2].

Site of TB Disease

Over four-fifths (80.8%) of County TB cases in 2019 had pulmonary disease only [Figure 5]. Of the fourteen (19.2%) cases with at least one extrapulmonary site of disease, the most common site of disease was lymphatic.

TB Drug Susceptibility and Resistance

In 2019, 59 (80.8%) County TB cases were culture-confirmed, and all but one (98.3%) had antimicrobial susceptibility testing performed. The most common type of front-line TB drug resistance among these cases was isoniazid (7.5%) [Figure 6]. Multi-drug resistance (MDR) is when the TB organism is resistant to at least isoniazid and rifampin. There was one case of MDR TB in the County in 2019.

Figure 4. TB Cases with Diabetes, Sacramento County, 2015-2019

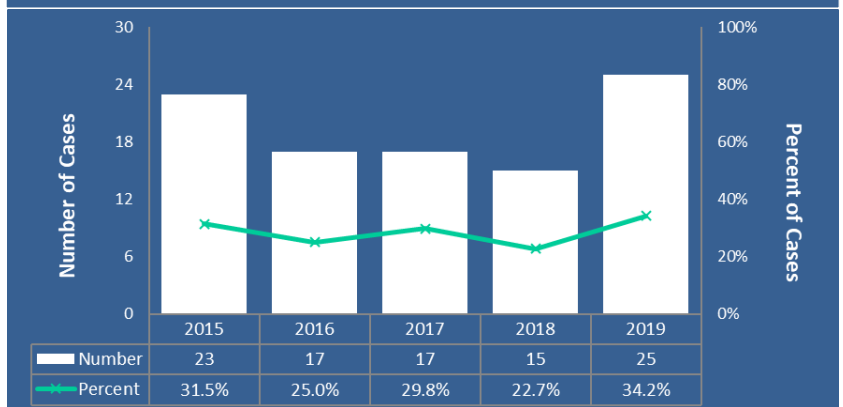


Table 2. Select Risk Factors of TB Cases, Sacramento County, 2019

Place of Residence		Substance Use within Past Year	
Long-term care	1 (1.4%)	Excess alcohol	2 (2.7%)
Corrections	1 (1.4%)	Injection drugs	0 (0.0%)
Homeless	4 (5.5%)	Non-injection drugs	1 (1.4%)

Figure 5. TB Cases by General Site of Disease, Sacramento County, 2019

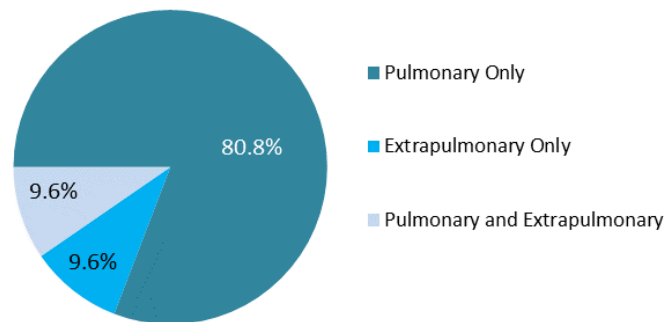
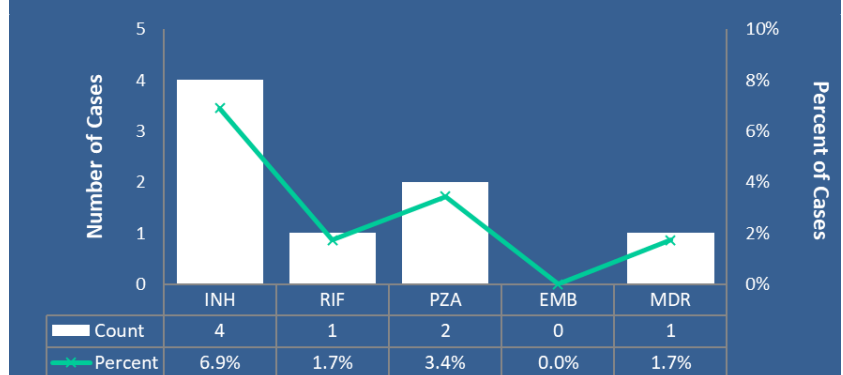


Figure 6. TB Drug Resistance, Sacramento County, 2019



INH = isoniazid; RIF = rifampin; PZA = pyrazinamide; EMB = ethambutol; MDR = multi-drug resistant