

TUBERCULOSIS FACT SHEET 2018



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 declined 37.7% over the last ten years [Figure 1]. The TB rate in the County has fluctuated by year and was below the State rate in 2018. Both rates have been much higher than the Healthy People 2020 objective rate of 1.0 per 100,000 population. There were 66 new TB cases among County residents in 2018, an increase from 2017.

TB Case Demographics

Race/ethnicity: About three-fourths (69.7%) of 2018 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 (80.3%) were foreign-born persons, slightly lower than the State value (83.0%) [Table 1]. The most common countries of birth among foreign-born cases were the Philippines (16.7%), Vietnam (16.7%), India (10.6%), Laos (9.1%), China (4.6%), and Mexico (4.6%) [data not shown].

Sex: The number of TB cases among males surpassed those among females in 2018, despite growth in the proportion of female cases in 2018 [figure 3].

Age: About one-third (31.8%) of County TB cases in 2018 were among persons age 65 and older. Less than five percent (3.0%) were pediatric cases with age less than 15 [data not shown].

Figure 1. TB Case and Rates, Sacramento County vs. California, 2009-2018



Figure 2. TB Cases by Race/Ethnicity, Sacramento County, 2018

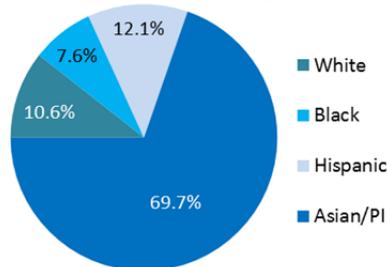
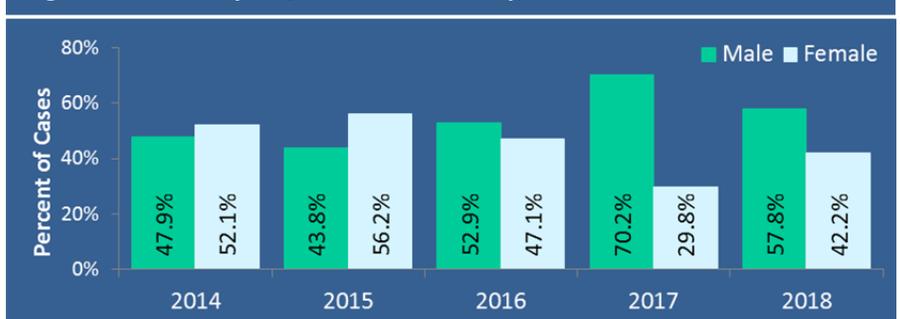


Table 1. TB Cases by Nativity, Sacramento vs. California, 2018

County/State	Foreign-Born	US-Born
Sacramento	80.3%	19.7%
California	83.0%	17.0%

Figure 3. TB Case by Sex, Sacramento County, 2014-2018



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TB Risk Factors

Co-morbid conditions: 2018 TB cases in the County with diabetes mellitus (DM) declined when compared to 2017, as did the overall proportion of TB cases with DM [Figure 4]. In 2018, roughly one-fourth (22.7%) of TB cases had DM. There were three TB cases co-infected with HIV and no cases with other documented non-HIV immunosuppressive conditions in 2018 [data not shown].

Close contact: Three (5.3%) 2018 County TB cases had close contact to an infectious TB case. The primary reason for TB disease evaluation was TB symptoms for a majority (72.7%) 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 three of the 2018 County TB cases [Table 2]. There were no TB cases amongst homeless individuals and two cases amongst individuals residing in a correctional facility in 2018.

Substance use: Substance use also increases the risk of developing TB disease and can complicate TB therapy. Five TB County cases reported excess alcohol use, but no cases reported use of injection or non-injection drugs [Table 2].

Site of TB Disease

Nearly two-thirds (65.2%) of County TB cases in 2018 had pulmonary disease only [Figure 5]. Of the 23 (35.1%) cases with at least one extrapulmonary site of disease, the most common site of disease was spinal.

TB Drug Susceptibility and Resistance

In 2018, 55 (83.3%) County TB cases were culture-confirmed, and all but two (96.4%) of these had antimicrobial susceptibility testing performed. The most common type of front-line TB drug resistance among these cases was isoniazid (11.3%), followed by pyrazinamide (7.5%) [Figure 6]. Multi-drug resistance (MDR) is when the TB organism is resistant to at least isoniazid and rifampin. There were two cases of MDR TB in the County in 2018.

Figure 4. TB Cases with Diabetes, Sacramento County, 2014-2018



Table 2. Select Risk Factors of TB Cases, Sacramento County, 2018

Place of Residence		Substance Use within Past Year	
Long-term care	1 (1.5%)	Excess alcohol	5 (7.6%)
Corrections	2 (3.0%)	Injection drugs	0 (0.0%)
Homeless	0 (0.0%)	Non-injection drugs	0 (0.0%)

Figure 5. TB Cases by General Site of Disease, Sacramento County, 2018

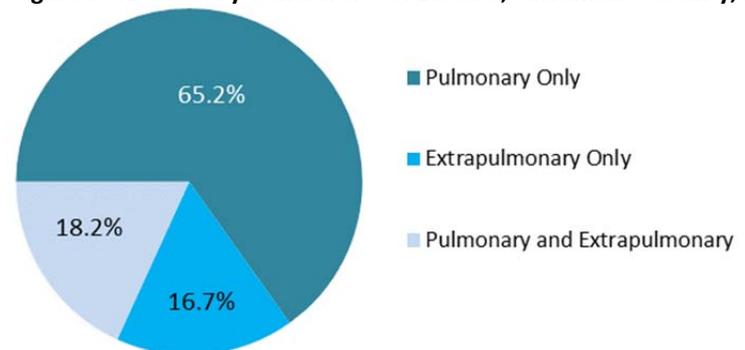


Figure 6. TB Drug Resistance, Sacramento County, 2018



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