

TUBERCULOSIS FACT SHEET 2022



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 duration of contact, ventilation in the shared environment, site of TB disease, and degree of infectiousness of the person with TB. About 86% of active TB cases in California are related to progression of disease from untreated latent TB infection. 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 prolonged cough without alternative explanation for > 2 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 active 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 increased from 2021 to 2022 [Figure 1]. The TB rate in the County was above the State rate in 2022. Both rates have been much higher than the Healthy People 2030 objective rate of 1.4 per 100,000 population. There were 78 new TB cases among County residents in 2022, a slight increase compared to 2021.

TB Case Demographics

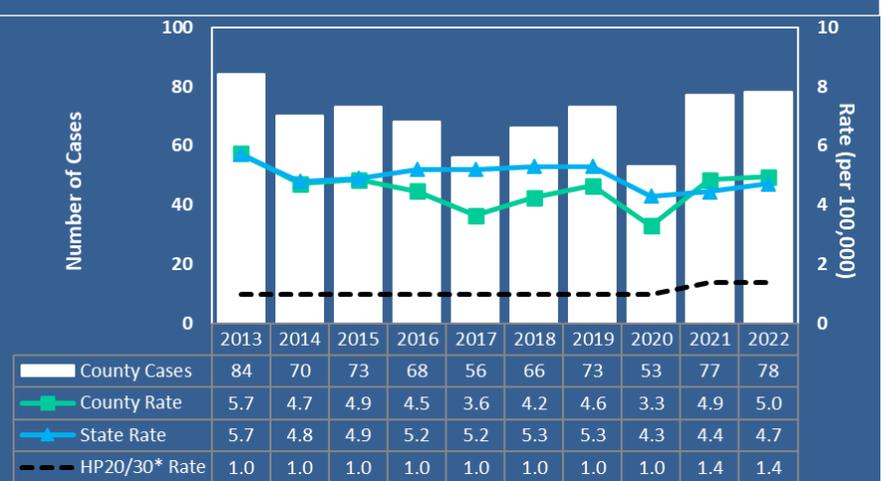
Race/ethnicity: About two-thirds (66.7%) of 2022 TB cases in the County were Asian/Pacific Islander despite comprising only about 15% of the County population [Figure 2].

Nativity: Most TB cases in the County (88.5%) were foreign-born persons, higher than the State value (83.0%) [Table 1]. The most common countries of birth among foreign-born cases were Vietnam (24.4%), Mexico (12.8%), Afghanistan (11.5%), China (9.0%), India (7.7%), and the Philippines (7.7%) [data not shown].

Sex: Over half (56.4%) of TB cases in 2022 occurred in males. The proportion of male cases increased compared to 2021 [figure 3]. The latter is a departure from the trend observed in 2019 to 2021.

Age: About a quarter (28.2%) of County TB cases in 2022 were among persons age 65 and older. Roughly one in ten (10.2%) were pediatric cases with age less than 15 [data not shown].

Figure 1. TB Case and Rates, Sacramento County vs. California, 2013-2022



*Healthy People 2020/2030

Figure 2. TB Cases by Race/Ethnicity, Sacramento County, 2022

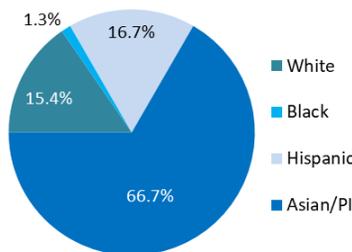


Table 1. TB Cases by Nativity, County vs. California, 2022

County/State	Foreign-Born	US-Born
Sacramento	88.5%	11.5%
California	83.0%	17.0%

Figure 3. Percent of TB Cases by Sex, Sacramento County, 2018-2022



TUBERCULOSIS FACT SHEET 2022



TB Risk Factors

Co-morbid conditions: In 2022, TB cases with diabetes mellitus (DM) decreased dramatically when compared to 2021 in both count and proportion of total cases [Figure 4]. In 2022, roughly one-fifth (17.9%) of TB cases had DM. There were no TB cases co-infected with HIV and two cases with documented non-HIV immunosuppressive conditions in 2022 [data not shown].

Close contact: Five (6.4%) 2022 County TB cases had close contact to an infectious TB case. The primary reason for TB disease evaluation was TB symptoms for a majority (60.3%) of cases [data not shown].

Living conditions: Homeless persons and persons living in congregate settings (such as correctional or long-term care facilities) are at increased risk of developing TB. These groups account for only one 2022 County TB case [Table 2].

Substance use: Substance use also increases the risk of developing TB disease and can complicate TB therapy. Neither injection nor non-injection drug use were reported among 2022 County TB cases. Excess alcohol use was reported by two cases. [Table 2].

Site of TB Disease

Roughly three-fourths (75.6%) of County TB cases in 2022 had pulmonary disease only [Figure 5]. Of the nineteen (24.4%) cases with at least one extrapulmonary site of disease, the most common sites of disease were cervical, pleural, and pericardial structure.

TB Drug Susceptibility and Resistance

In 2022, 45 (57.7%) County TB cases were culture-confirmed, and all had antimicrobial susceptibility testing performed. The most common types of front-line TB drug resistance among these cases were isoniazid and pyrazinamide (15.6%) [Figure 6]. Multi-drug resistance (MDR) is when the TB organism is resistant to isoniazid and rifampin. There were four MDR TB cases in the County in 2022.

Source: California Reportable Diseases Information Exchange

Figure 4. TB Cases with Diabetes, Sacramento County, 2018-2022



Table 2. Select Risk Factors of TB Cases, Sacramento County, 2022

Place of Residence		Substance Use within Past Year	
Long-term care	1 (1.3%)	Excess alcohol	2 (2.6%)
Corrections	0 (0.0%)	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, 2022

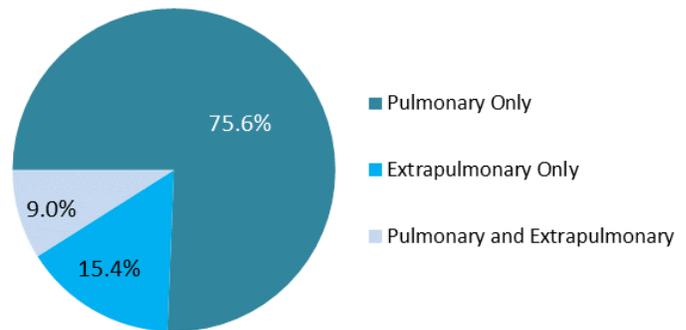


Figure 6. TB Drug Resistance, Sacramento County, 2022



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