

TUBERCULOSIS FACT SHEET 2015



Tuberculosis (TB) is an infectious disease caused by the bacterium *Mycobacterium Tuberculosis*. TB usually involves the lungs (pulmonary TB) but can infect almost any organ in the body. 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 later develop TB disease. Symptoms of TB depend on the site of TB infection. 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. Both latent TB infection and TB disease can be treated, with specific drug regimens. Treatment can be long and complicated depending on 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 California has declined 36.4% over the most recent ten years [Figure 1]. The TB rate in the County has fluctuated by year and was above the State rate in 2015. Both the State and County 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 2015, a slight increase from 2014.

TB Case Demographics

Race/ethnicity: The vast majority (80.8%) of TB cases in the County were Asian/Pacific Islander, despite comprising only about 15 percent of the total County population [Figure 2].

Nativity: Most TB cases in the County (84.9%) were foreign-born persons, slightly higher than the State average (81.8%) [Table 1]. The most common countries of birth among foreign-born cases were Vietnam (25.1%), Phillipines (16.1%), India (9.7%) and Mexico (9.7%).

Sex: The number of TB cases among females has surpassed the number of cases among males in the most recent two years [Figure 3].

Age: Over one-third (35.6%) of County TB cases in 2015 were among persons age 65 and older and less than five percent (4.1%) were pediatric cases age less than 15 [data not shown].

Figure 1. TB Case and Rates, Sacramento County vs. California, 2006-2015

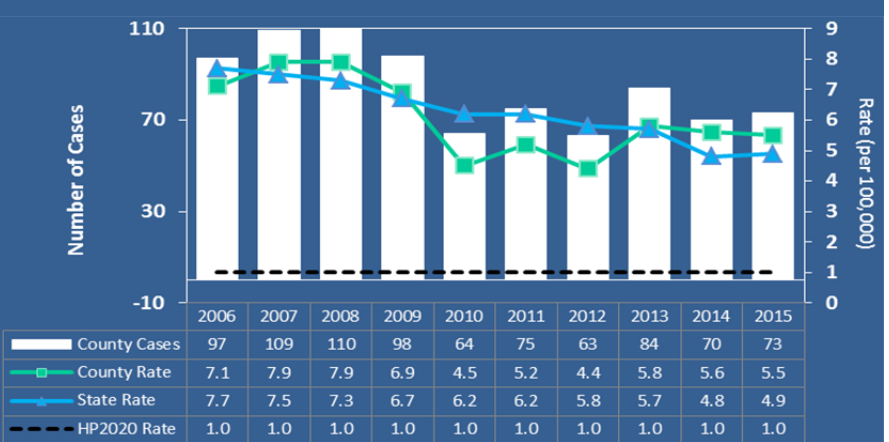


Figure 2. TB Cases by Race/Ethnicity, Sacramento County, 2015

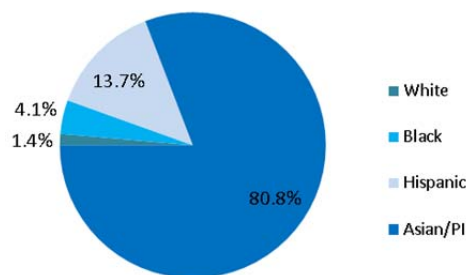
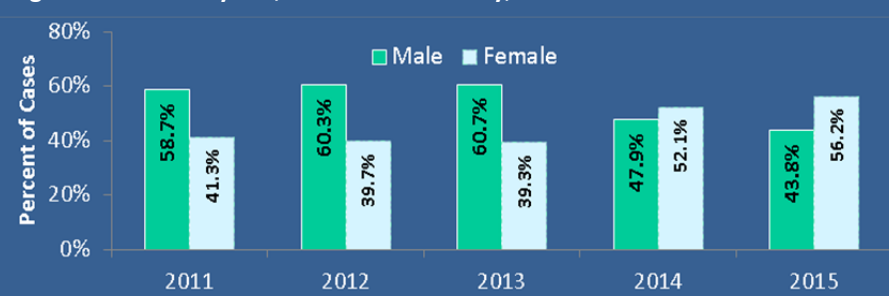


Table 1. TB Cases by Nativity, Sacramento County vs. California, 2015

County/State	Foreign-Born	US-Born
Sacramento	84.9%	15.1%
California	81.1%	18.9%

Figure 3. TB Case by Sex, Sacramento County, 2011-2015



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TB Risk Factors

Co-morbid conditions: The number and proportion of TB cases in the County with Diabetes Mellitus (DM) has more than doubled over the most recent five years [Figure 4]. In 2015, nearly one-third (31.5%) of TB cases had DM. There was only one County TB case (1.4%) co-infected with HIV and none with other documented non-HIV immunosuppressive conditions in 2015 [data not shown].

Close contact: Nine (12.3%) 2015 County TB cases had close contact to an infectious TB case. The primary reason seven (9.9%) cases were evaluated for TB disease was because of a public health contact investigation [data not shown].

Living conditions: Homeless persons and persons living in congregate settings are at increased risk of developing TB, but they account for very few of the 2015 County TB cases [Table 2]. For the third straight year, none of the County TB cases were among homeless persons.

Substance use: Substance use also increases the risk of developing TB disease and can complicate TB therapy, but very few County TB cases reported recent substance use [Table 2].

Site of TB Disease

About three-fourths (74.0%) of TB cases in the County in 2015 had pulmonary disease only [Figure 5]. Of the 19 (26.0%) cases with at least one extrapulmonary site of disease, the most common sites of disease were pleural (47.4%) and cervical (15.8%).

TB Drug Susceptibility and Resistance

In 2015, 59 (58.8%) of 73 County TB cases were culture-confirmed, and 58 (98.3%) of these had antimicrobial susceptibility testing performed. The most common type of front-line TB drug resistance among these cases was isoniazid (19.0%), followed by pyrazinamide (12.1%) [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 2015.

Figure 4. TB Cases with Diabetes, Sacramento County, 2011-2015



Table 2. Select Risk Factors of TB Cases, Sacramento County, 2015

Living Conditions/Setting	Number (Percent)	Substance Use within Past Year	Number (Percent)
Long-term care	2 (2.7%)	Excess alcohol	3 (4.1%)
Corrections	0 (0.0%)	Injection drugs	1 (1.4%)
Homeless	0 (0.0%)	Non-injection drugs	2 (2.7%)

Figure 5. TB Cases by General Site of Disease, Sacramento County, 2015

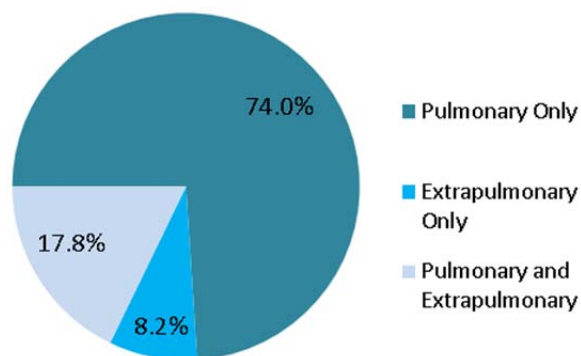


Figure 6. TB Drug Resistance, Sacramento County, 2011-2015



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