

2021 Tuberculosis Annual Report

San Mateo County Health System Tuberculosis Control Program

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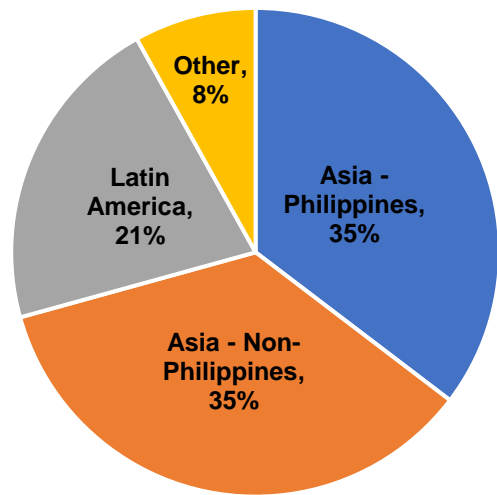
Tuberculosis in San Mateo County

- **50** new active cases
- Incidence: **6.3** cases/100,000 population
- SMC ranked **5th highest** incidence in CA
- TB-associated deaths: **0**
- No links among US born cases

Cases by Origin

- US Born: **2**
- Foreign Born: **48**

Foreign-born origins of TB cases



Country	Cases
Philippines	17
China	6
India	6
Mexico	4
Vietnam	3
Guatemala	2
Nicaragua	2
El Salvador	2
Canada	1
Hong Kong	1
Iran	1
Russia	1
Taiwan	1
Ukraine	1

Figure 1. About a third of foreign-born cases of active TB were in individuals born in the Philippines.

Patient Demographics

Tuberculosis Cases and Incidence Rates, 2017-2021	2021 Cases	2017-2021 Annual Average Number of Cases	2017-2021 Average Incidence Rate (per 100,000)
Sex			
Male	29	34.4	9
Female	21	22.4	5.7
Age Group			
0-4 yrs	0	0.4	0.9*
5-14 yrs	0	0.8	0.9*
15-24 yrs	5	3	3.8
25-44 yrs	12	12.2	6
45-64 yrs	12	18.2	8.3
65+ yrs	21	22.2	16.2
Race/Ethnicity			
Asian	35	43.4	22.2
Black	1	0.6	3*
Hispanic	10	9.2	4.5
Pacific Islander	0	0.8	7.2*
White	4	2.8	0.9

*These values are based on calculations using few cases of disease. Caution should be observed when interpreting rates based on few events and/or small populations.

Table 1. Based on 5-year average incidences, the groups most affected by TB in San Mateo County are: males, individuals 65 years of age and older, and Asians.

Incidence Trends

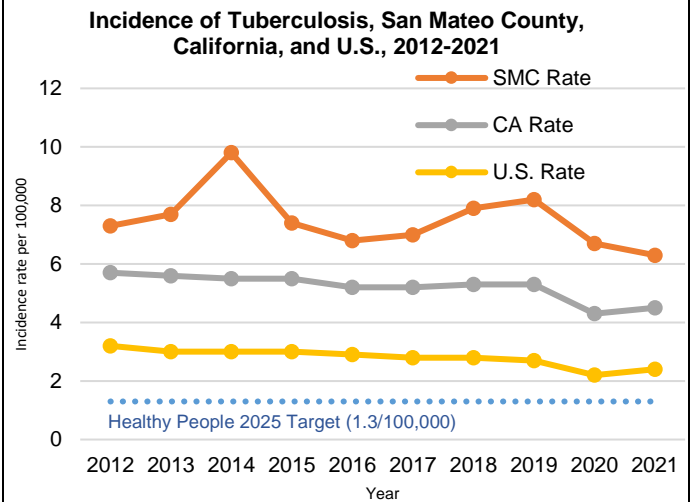
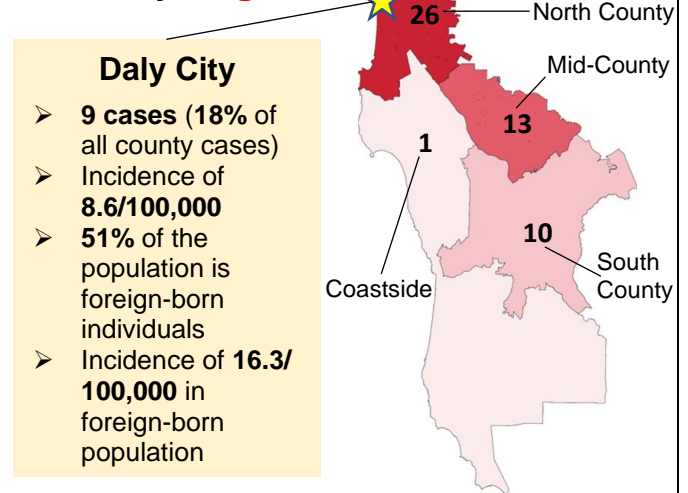


Figure 2. Incidence of TB in San Mateo County remains above the California and U.S. incidence rates (per 100,000).

Cases by Region



Demographic Highlights

- Median age: **62** years old
- Age range: **20-88** years old
- **0** pediatric cases (0-14 years old)

Social Risk Factors

(within past 12 months)

- Homeless: **0**
- Correctional facility: **1**
- Long-term care housing: **3**
- Substance abuse (including alcohol): **0**

Clinical Characteristics

Clinical Characteristics of TB Cases, 2021		Number of cases	Percent
Site of disease	Pulmonary only	37	74.0%
	Extrapulmonary only	10	20.0%
	Both pulmonary and extrapulmonary	3	6.0%
Culture status (sputum cultures from cases with any pulmonary infection) n=39*	Culture Positive	31	77.5%
	Clinical Case	8	20.0%
Sputum smear status (for cases with positive sputum cultures) n=31	Positive	24	77.4%
	Negative	7	22.6%
Comorbidities (n=50)	HIV/AIDS	0	0.0%
	Diabetes mellitus	14	28.0%
	End-stage renal disease	5	10.0%
	Other immunosuppression	4	8.0%

*One case (pulmonary only) was based on a lung culture, no sputum smear was done; this case is not included in this total

Table 2. Over 20% of culture-positive sputum samples were smear-negative. The most common reported comorbidity was diabetes mellitus.

Microbiological Characteristics

Microbiological Characteristics of TB Cases, 2021		Number of cases	Percent
Culture Status (All)	Culture Positive	41	82%
	Clinical Case	9	18%
Drug Susceptibility (Culture positive only)	Susceptible	34	83%
	Resistant	7	17%
Anti-TB Drug Resistance	INH Only	4	-
	PZA Only	2	-
	INH, RIF, and EMB	1	-

Table 3. Over 80% of TB cases were culture positive; 83% of culture positive cases were drug susceptible. Only 7 cases were drug resistant.

For further information

Call **650-573-2346** Visit smchealth.org/TB

Additional resources:

- California Department of Public Health: cdph.ca.gov/Programs/CID/DCDC/Pages/TBCB.aspx
- Centers for Disease Control: cdc.gov/tb

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April 2022

Data sources:

CA Dept Public Health (2021 CA and US incidence rates, from 'TB in California: 2021 Snapshot'); CA Dept of Finance (population estimates for incidence calculations, from August 2021 P2 data projections); US Census Bureau (city-level population estimates, from American Community Survey 5-Year Estimates)

TB Control's Work Load

The TB Control team followed up with **61 potential cases** and **561 contacts** in 2021.

The treatment of **63 TB cases**, including those confirmed and suspected, were monitored by the TB Control team using directly observed therapy (DOT) and video observed therapy (VOT) methods.

Foreign born immigrants from areas with a high prevalence of TB are medically screened before entering the United States. The CDC sends notifications to health departments as follow-up to the screening mandated by U.S. immigration law. In 2021, San Mateo County received notification of **82 persons** arriving in our county who required further TB screening.

Civil Surgeon Cases

The CDC requires that civil surgeons report latent tuberculosis infection (LTBI) diagnosis to health departments as part of the immigration screening requirements. In 2021, San Mateo County received **130 civil surgeon cases** of LTBI and provided follow-up.

2021 in Summary

2021 saw the lowest incidence of TB in San Mateo County (6.3 cases/100,000 persons), California (4.5 cases/100,000 persons), and the US (2.4 cases/100,000) over the last 18 years. Compared to 2020 (6.7 cases/100,000 persons), TB incidence decreased 6.0% in 2021. Despite the downward incidence trends, these incidences are still above the Healthy People 2025 Target (1.3 cases/100,000 persons).

In 2021, San Mateo County reported 50 new active tuberculosis cases, which was a slight drop compared to 52 cases reported in 2020. In 2021, California reported 1,750 new TB cases compared to 1,706 in 2020. However, in San Mateo County and California, cases were down compared to 2019 (65 new cases and 2,115 new cases respectively). The overall decrease in TB cases since 2019 is partially due to the COVID-19 pandemic. Possible reasons include fewer cases in persons born outside the U.S. because of decreased international travel and immigration during the pandemic, fewer patients seeking care or receiving a diagnosis of TB, and decreased transmission of TB due to masking and other COVID restrictions.

The vast majority of cases were attributable to progression of LTBI to active TB, emphasizing the need for screening and treating latent TB infection.

There are new shorter treatment regimens that are now available for both pan-susceptible TB as well as multidrug-resistant (MDR) TB. In 2021, San Mateo County successfully treated a case of MDR TB with a new 6 month regimen of bedaquiline, pretomanid, and linezolid (BPAL) along with levofloxacin. This is a significant improvement over the traditional 18-24 month treatment regimens for MDR TB.



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