

2020 Tuberculosis Annual Report

San Mateo County Health System Tuberculosis Control Program

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Tuberculosis in San Mateo County

- 52 new active cases
- Incidence: 6.7 cases / 100,000 population
- SMC ranked 3rd highest incidence in CA
- TB-associated deaths: 0
- No links among US born cases

Cases by Origin

- US Born: 4
- Foreign Born: 48

Foreign-born origins of TB cases

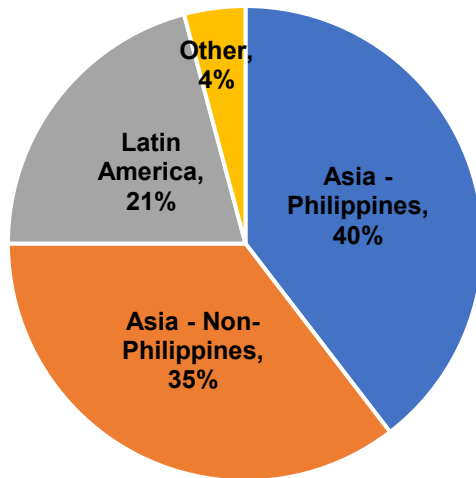


Figure 1. Almost half of foreign-born cases of active TB were in individuals born in the Philippines.

Country	Cases
Philippines	19
China	5
India	4
Mexico	4
Vietnam	4
El Salvador	2
Brazil	1
Ecuador	1
Guatemala	1
Iran	1
Nepal	1
Peru	1
Russia	1
Taiwan	1
Thailand	1
Tonga	1

Incidence Trends

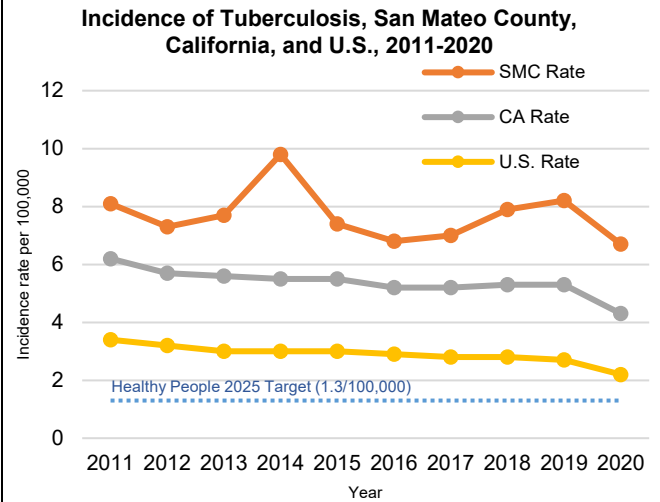
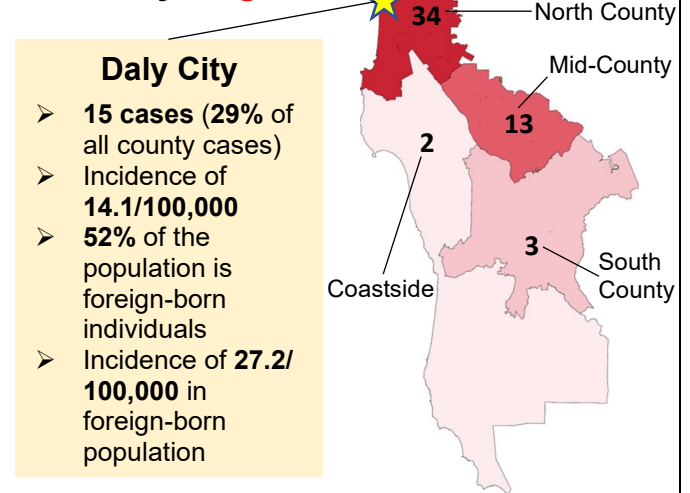


Figure 2. Incidence of TB in San Mateo County remains above the California and U.S. incidence rates.

Cases by Region



Demographic Highlights

- Median age: 58 years old
- Age range: 0-93 years old
- 3 pediatric cases (0-14 years old)

Patient Demographics

Tuberculosis Cases and Incidence Rates, 2016-2020	2020 Cases	2016-2020 Annual Average Number of Cases	2016-2020 Average Incidence Rate
Sex			
Male	27	34.8	9.1
Female	25	22.4	5.7
Age Group			
0-4 yrs	1	0.4	0.9*
5-14 yrs	2	0.8	0.9*
15-24 yrs	2	2.8	3.5*
25-44 yrs	11	11.8	5.8
45-64 yrs	17	20.4	9.3
65+ yrs	19	21	15.8
Race/Ethnicity			
Asian	37	43.6	13.7
Hispanic	10	9.6	4.9
Pacific Islander	1	1	9*
White	4	2.6	1.3*

*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.

Social Risk Factors

(within past 12 months)

- Homeless: 1
- Correctional facility: 0
- Long-term care housing: 0
- Substance abuse (including alcohol): 2

Clinical Characteristics

Clinical Characteristics of TB Cases, 2020		Number of cases	Percent
Site of disease	Pulmonary only	36	69.2%
	Extrapulmonary only	12	23.1%
	Both pulmonary and extrapulmonary	4	7.7%
Culture status (sputum cultures from cases with any pulmonary infection) n=38*	Culture Positive	33	82.5%
	Clinical Case	5	12.5%
Sputum smear status (for cases with positive sputum cultures) n=33	Positive	21	63.6%
	Negative	12	36.4%
Comorbidities	HIV/AIDS	1	4.3%**
	Diabetes mellitus	17	73.9%
	End-stage renal disease	0	0.0%
	Other immunosuppression	5	21.7%

*Two cases (pulmonary only) were based on a lung culture, no sputum culture was done; this case is not included in this total; **Of 48 cases with known HIV status

Table 2. Over 60% of culture-positive sputum samples were smear-negative. The most common reported comorbidity was diabetes mellitus.

Microbiological Characteristics

Microbiological Characteristics of TB Cases, 2020		Number of cases	Percent
Culture Status (All)	Culture Positive	44	84.6%
	Clinical Case	8	15.4%
Drug Susceptibility (Culture positive only)	Susceptible	36	81.8%
	Resistant	8	18.2%
Anti-TB Drug Resistance	INH Only	3	-
	PZA	3	-
	Streptomycin	2	-

Table 3. Over 80% of TB cases were culture positive; 81.8% of culture positive cases were drug susceptible. Only 8 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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Data sources:

CA Dept Public Health (2020 CA and US incidence rates, from 'TB in California: 2020 Snapshot'); CA Dept of Finance (population estimates for incidence calculations, from July 2020 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 **55 potential cases** and **389 contacts** in 2020. The treatment of **57 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

B-notifications

The CDC sends B notifications to health departments as follow-up to the screening mandated by U.S. immigration law. In 2020, San Mateo County received **27 B notifications**.

2020 in Summary

Due to the COVID pandemic the TB Annual report for 2020 was delayed.

2020 saw the lowest incidence of TB in San Mateo County (6.7 cases/100,000 persons), California (4.3 cases/100,000 persons), and the US (2.2 cases/100,000) over the last 17 years. Compared to 2019 (8.2 cases/100,000 persons), TB incidence in San Mateo County decreased 18.3% in 2020. Despite the downward incidence trends, these incidences are still above the Healthy People 2025 Target (1.3 cases/100,000 persons).

Per the California Department of Public Health, California saw a 19% decrease in new cases compared to 2019 which is the biggest percent decrease since 1981.

It is unknown why TB cases declined in 2020 however it is likely that the decrease is related to the COVID-19 pandemic. Some reasons may include but are not limited to, decreased detection of TB because of fewer patients seeking care or fewer TB diagnoses made when they sought care, decreased immigration because of travel restrictions or economic conditions, decreased transmission of TB because of masking and reduced movement outside of households, and changes in TB prevention activities that also lead to TB diagnoses.

In 2020, in keeping with the requirement to report latent tuberculosis infection to local health departments, civil surgeons reported 114 cases of latent tuberculosis. During the civil surgeon screening process 2 cases of active TB were detected.

Diabetes continues to be the most common comorbidity found in our patients with active TB.

The US born cases were not epidemiologically linked and there was no evidence of ongoing local transmission of TB.



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