

2022 Tuberculosis Annual Report

San Mateo County Health System Tuberculosis Control Program

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Tuberculosis in San Mateo County

- 46 new active cases
- Incidence: **6.2** cases/100,000 population
- SMC ranked **6th highest** incidence in CA
- TB-associated deaths: **0**
- No links among US born cases

Cases by Origin

- US Born: **2**
- Foreign Born: **44**

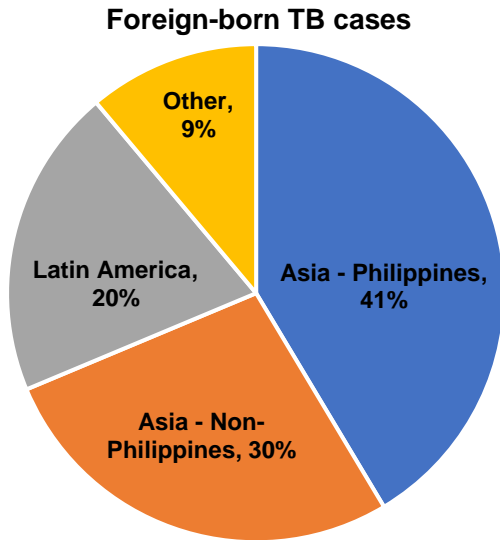


Figure 1. Over a third of foreign-born cases of active TB were in individuals born in the Philippines.

Country	Cases
Philippines	18
China	5
Mexico	5
Myanmar	2
El Salvador	2
Vietnam	2
Fiji	1
Greece	1
Guatemala	1
Hong Kong	1
Nepal	1
Pakistan	1
Panama	1
Tonga	1
Taiwan	1
Uganda	1

Incidence Trends

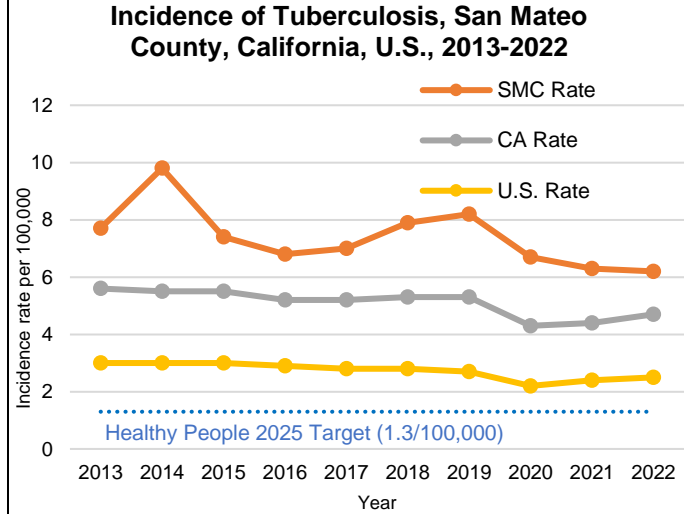
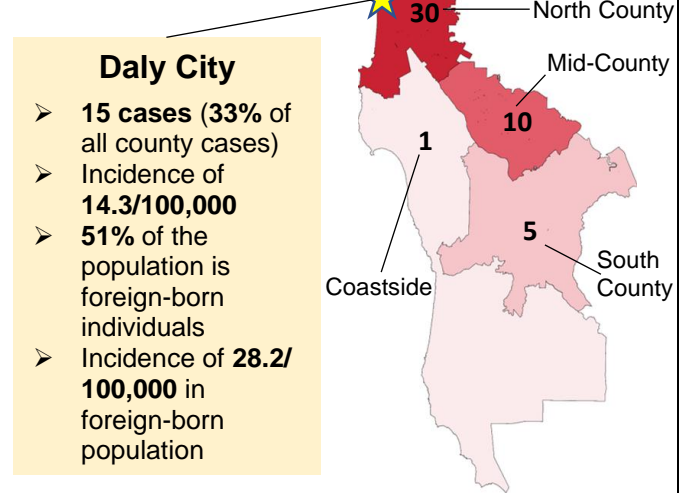


Figure 2. Incidence of TB in San Mateo County remains above the California and U.S. incidence rates (per 100,000).

Cases by Region



Patient Demographics

Tuberculosis Cases and Incidence Rates, 2018-2022	2022 Cases	2018-2022 Annual Average Number of Cases	2018-2022 Average Incidence Rate (per 100,000)
Sex			
Male	28	33.8	8.8
Female	18	21.0	5.4
Age Group			
0-4 yrs	0	0.4	0.5*
5-14 yrs	0	0.6	0.3*
15-24 yrs	5	4.0	1.8
25-44 yrs	10	10.8	7.6
45-64 yrs	13	18.0	22.7
65+ yrs	18	21.0	10.4
Race/Ethnicity			
Asian	31	40.6	20.7
Black	2	1.0	5.1*
Hispanic	10	9.6	4.7
Pacific Islander	2	1.0	9.0*
White	1	2.6	0.8*

*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 45-64 years of age and Asians.

Demographic Highlights

- Median age: **60** years old
- Age range: **15-97** years old
- **0** pediatric cases (0-14 years old)

Social Risk Factors

(within past 12 months)

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

Clinical Characteristics

Clinical Characteristics of TB Cases, 2022		Number of cases	Percent
Site of disease	Pulmonary only	34	73.9%
	Extrapulmonary only	10	21.7%
	Both pulmonary and extrapulmonary	2	4.3%
Comorbidities (n=46)	HIV/AIDS	0	0.0%
	Diabetes mellitus	21	45.7%
	End-stage renal disease	2	4.3%
	Other immunosuppression	8	17.4%

Table 2. The most common reported comorbidity was diabetes mellitus.

Microbiological Characteristics

Microbiological Characteristics of TB Cases, 2022		Number of cases	Percent
Culture Status (All)	Culture Positive	43	93.5%
	Clinical Case	3	6.5%
Sputum smear status (for cases with positive sputum cultures) n=29	Positive	19	65.5%
	Negative	10	34.5%
Drug Susceptibility (Culture positive only)	Susceptible	37	86%
	Resistant	6	14%
Anti-TB Drug Resistance	INH Only	2	-
	PZA Only	4	-

Table 3. Over 90% of TB cases were culture positive; 86% of culture positive cases were drug susceptible. Only 6 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/TB_CB.aspx
- Centers for Disease Control: cdc.gov/tb

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Data sources:

CA Dept Public Health (2022 CA and US incidence rates, from 'TB in California: 2022 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 Workload

The treatment of 46 active TB cases, including those confirmed and suspected, received case management by the TB Control team Public Health Nurses and were monitored by the Community Workers using directly observed therapy (DOT) and video observed therapy (VOT) methods to ensure appropriate isolation and treatment TB.

The Communicable Disease Investigators (CDI) interviewed 28 potential TB cases with 438 elicited contacts who were notified of exposure and recommended evaluation and 31 Interjurisdictional Notifications/Airline Notifications with 84 associated contacts. The CDI's also follow-up with multiple categories of immigrant populations. Immigrants granted US Residency from countries with a high prevalence of TB are medically screened before entering the U.S., some findings require additional TB evaluation upon arrival to the U.S. The CDC sends notifications to the local health jurisdiction (LHJ) as mandated by U.S. immigration law for those who require additional TB screening. In 2022, San Mateo County received notification of and followed up with 112 persons arriving in our county who met these criteria. Additionally, all persons living in the U.S. who apply to adjust their immigration status are required by the CDC to undergo a complete medical examination for TB disease as part of the application process. Civil surgeons must report all applicants with confirmed or suspected TB, as well as all applicants diagnosed with latent tuberculosis infection (LTBI), to the LHJ. In 2022, San Mateo County received 100 LTBI reports from civil surgeons and provided follow-up including health education and referral for treatment. In 2022, the U.S. Government launched Uniting for Ukraine, granting nationals from Ukraine a two-year parole to the U.S., which requires a TB screening to be completed within 90 days of arrival. San Mateo County supported 27 arrivals from Ukraine and 1 arriver from Venezuela with completing this screening requirement. Lastly, our program received notification of 15 Unaccompanied Minors found to have LTBI when screened at detention centers who were released to family members residing in our county.

2022 in Summary

2022 saw the lowest incidence of TB in San Mateo County (6.2 cases/100,000 persons), California (4.7 cases/100,000 persons), and the U.S. (2.5 cases/100,000) over the last 19 years. Compared to 2021 (6.3 cases/100,000 persons), TB incidence decreased 1.6% in 2022. Despite the downward incidence trends, these incidences are still above the Healthy People 2025 Target (1.3 cases/100,000 persons).

2022 had the lowest number of active TB cases since before 1995. In the years just prior to COVID-19, TB disease diagnoses were declining nationally but were increasing slightly in San Mateo County. In 2020, with the onset of the COVID-19 pandemic, the TB case rate in San Mateo dropped sharply and has declined each year. This decline may be related to the COVID-19 pandemic. For example, widespread disruptions to health care and similarities in symptoms between COVID-19 and TB may have led to delayed or missed TB diagnoses. At the same time, efforts to prevent COVID-19, such as masking and social distancing, may have resulted in a true reduction of TB incidence.

On April 21, 2022, President Biden announced Uniting for Ukraine, a new streamlined process to provide Ukrainian citizens who have fled Russia's unprovoked war of aggression opportunities to come to the U.S. The Program is a pathway for Ukrainian citizens and their immediate family members who are outside the U.S. to come to the U.S. and stay temporarily in a two-year period of parole. Ukrainians participating in the Program must meet specific requirements, including a health attestation for tuberculosis screening. The requirement for tuberculosis testing with an interferon-gamma release assay (IGRA) must be met within 90 days of entry. In 2022, the San Mateo TB Control Program evaluated and followed up on 28 Ukrainian parolees. It is anticipated that this number will be higher in 2023 and include parolees from Cuba, Haiti, Venezuela, and Nicaragua.



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