

# 2023 Tuberculosis Annual Report

## San Mateo County Health System Tuberculosis Control Program

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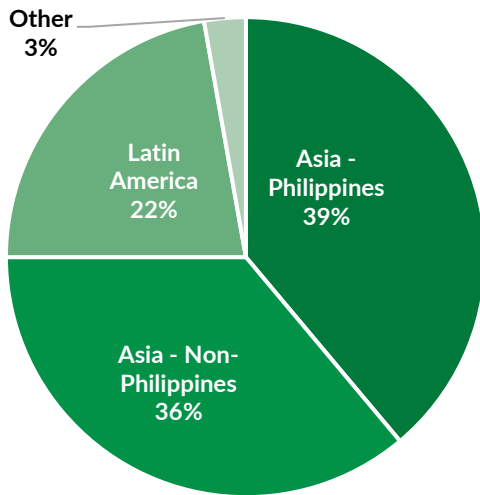
Kismet Baldwin-Santana, MD—Health Officer

### Tuberculosis in San Mateo County

- 42 new active cases
- Incidence: **5.6** cases/100,000 persons
- SMC ranked **14<sup>th</sup> highest** incidence in California
- TB-associated deaths: **2**
- No links among US born cases

### Cases by Origin

- US Born: **6**
- Foreign Born: **36**



Country	Cases
Philippines	14
China	3
India	3
Myanmar	3
Peru	3
Mexico	2
Mongolia	2
Cambodia	1
El Salvador	1
Guatemala	1
Honduras	1
Hong Kong	1
United Kingdom	1

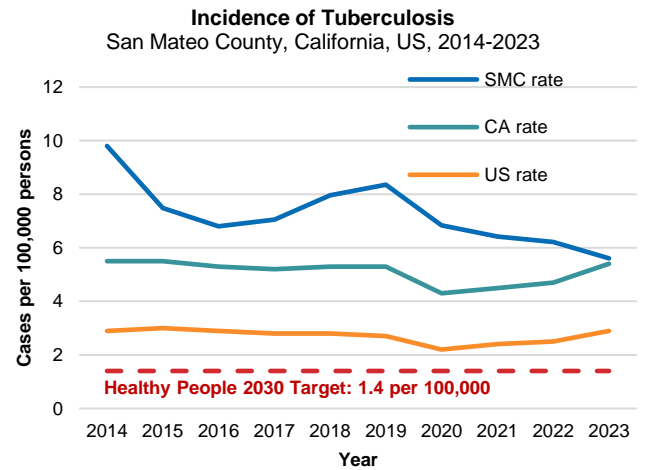
**Figure 1.** Over one-third of foreign-born cases of active TB were in individuals born in the Philippines.

### Patient Demographics

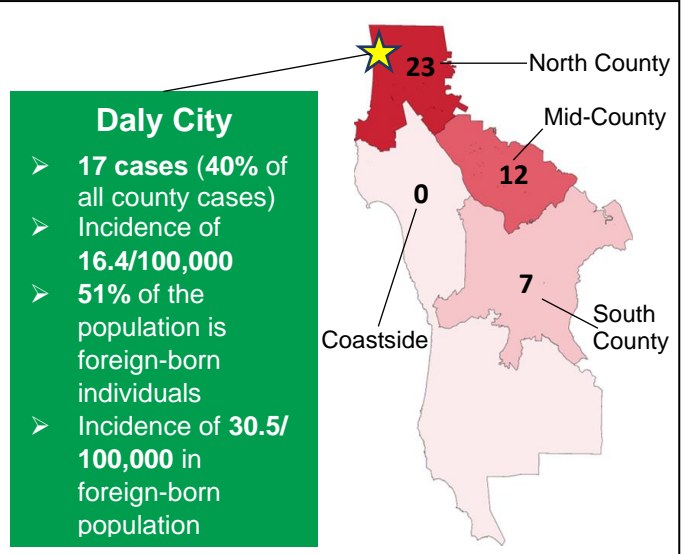
		2023 Cases	2019-2023 Annual Average Number of Cases	2019-2023 Average Incidence Rate (per 100,000)
<b>Sex (n=42)</b>	Male	27	31.8	8.6
	Female	15	18.6	4.9
<b>Age (n=42)</b>	0-4	1	0.4	1.0
	5-14	0	0.6	0.7
	15-24	5	4.2	5.1
	25-44	6	9.2	5.1
	45-64	13	15.8	7.7
	65+	17	20.2	13.2
<b>Race/Ethnicity (n=42)</b>	Asian	29	35.8	15.9
	Black	0	0.8	4.7
	Hispanic	8	9.6	5.3
	Other	3	0.4	-
	Pacific Islander	0	0.8	8.2
	White	3	3.0	1.0

**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 Asian populations.

### Incidence Trend



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



### Demographic Highlights

- Median age: **60 years old**
- Age range: **0-90 years old**
- **1** pediatric case (0-14 years old)

### Social Risk Factors

(within past 12 months)

- Unhoused: **0**
- Correctional facility: **0**
- Long-term care housing: **1**
- Substance use disorder (including alcohol): **6**

## Clinical Characteristics

Clinical Characteristics of TB Cases (2023)	Feature	Cases	Percent
Site of Disease (n=42)	Pulmonary only	26	61.9%
	Extrapulmonary only	7	16.7%
	Both pulmonary and extrapulmonary	9	21.4%
Comorbidities (n=42)	HIV/AIDS	0	0.0%
	Diabetes mellitus	12	28.6%
	End-stage renal disease	2	4.8%
	Other immunosuppression	5	11.9%

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

## Microbiological Characteristics

Microbiological Characteristics of TB Cases (2023)	Feature	Cases	Percent
Culture Status (n=42)	Culture positive	33	78.6%
	Clinical case	9	21.4%
Sputum Smear Status* *for cases with positive sputum cultures (n=25)	Positive	12	48.0%
	Negative	13	52.0%
Drug Susceptibility* *culture positive only (n=33)	Susceptible	25	75.8%
	Resistant	8	24.2%
Anti-TB Drug Resistance (n=8)	INH only	4	50.0%
	PZA only	3	37.5%
	Multiple	1	12.5%

**Table 3.** Over 75% of TB cases were culture positive, and 75.8% of culture positive cases were drug susceptible. 8 cases were drug resistant.

## For Further Information

- Call **650-573-2346**
- Visit [smchealth.org/TB](https://smchealth.org/TB)

## Additional Resources

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

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### Data sources:

- State of California, Department of Finance. Demographic Research Unit. State And County Population Projections 2020-2060. Sacramento, California. July 2023.
- California Department of Health. Website. California Reportable Disease Information Exchange (CalREDIE) [www.cdph.ca.gov/data/informatics/tech/Pages/CalREDIE.aspx](https://www.cdph.ca.gov/data/informatics/tech/Pages/CalREDIE.aspx) Accessed 5 July 2024
- U.S. Census Bureau. (2024). 2022 American Community Survey 5-year Public Use Microdata Samples [S0501]. Retrieved from <https://data.census.gov/table/ACSST5Y2022.S0501?q=daly%20city>
- California Department of Public Health, Tuberculosis Control Branch. California Provisional Data Tables, 2023. <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/TB-Disease-Data.aspx>
- Williams PM, Pratt RH, Walker WL, Price SF, Stewart RJ, Feng PI. Tuberculosis — United States, 2023. MMWR Morb Mortal Wkly Rep 2024;73:265–270. DOI: <http://dx.doi.org/10.15585/mmwr.mm7312a4>
- Centers for Disease Control and Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, Division of Tuberculosis Elimination. Reported Tuberculosis in the United States, 2022. Table 1. Tuberculosis Cases, Incidence Rates per 100,000 Population, Deaths, Death Rates per 100,000 Population, and Percentage Change: United States, 1953–2022. <https://www.cdc.gov/tb/statistics/reports/2022/table1.htm>

## TB Control Workload

Forty-two active TB cases received TB case management services by the TB Control team's Public Health Nurses and were monitored by TB Community Workers using directly observed therapy (DOT) and video observed therapy (VOT) methods. This helps to ensure appropriate isolation of infectious TB cases and proper administration of TB treatment.

The Communicable Disease Investigators (CDI) interviewed 35 infectious TB cases with 274 elicited contacts who were notified of their TB exposure. CDIs followed up with these 274 persons to ensure TB evaluation was completed. CDIs received 25 Interjurisdictional and Airline Notifications reporting 143 San Mateo County residents who were exposed to TB outside of San Mateo County and require a TB evaluation. 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 2023, San Mateo County received notification of and followed up with 192 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). In 2023, San Mateo County received 121 LTBI reports from civil surgeons and provided follow-up including health education and referral for treatment. Lastly, our program received notification of 29 Unaccompanied Minors found to have LTBI when screened at detention centers who were released to family members residing in our county.

## 2023 in Summary

In 2023, San Mateo County had the lowest number of cases (42) and incidence rate (5.6 cases/100,000 persons) of TB in 20 years. However, compared to 2022, California had a 15% increase in the annual TB incidence rate (5.4 cases/100,000 persons), and the nation overall had a 16% increase in the annual TB incidence rate (2.9 cases/100,000 persons). Since 2020, while TB cases and incidence rates have been increasing each year in California and nation-wide, they have been decreasing in San Mateo County.

In 2021, there was a TB outbreak involving 113 patients, which occurred after surgical implantation of contaminated bone allografts. This outbreak had a very high attack rate, where most individuals who received the contaminated product developed signs and/or symptoms of TB and some died. In 2023, two cases of TB, in otherwise healthy individuals, were noted and reported to the CDC. Subsequently, the CDC confirmed a second nationwide bone allograft-related outbreak affecting 36 recipients in seven states, one of which resided in San Mateo County. Thirty-six people had surgery or dental procedures using this product. All unused units of the product lot were removed from inventory and were not used. The CDC recommended that all persons who received these products begin treatment for TB disease, even if they were asymptomatic. San Mateo County TB Control worked closely with state and federal health agencies to investigate this case and assisted with the treatment and management of the recipient and any potentially exposed healthcare personnel. Given these two nationwide outbreaks of TB caused by bone allograft product containing live human cells surgically implanted during orthopedic or dental surgeries, the CDC has proposed additional measures the allograft industry could adopt to prevent future events.



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