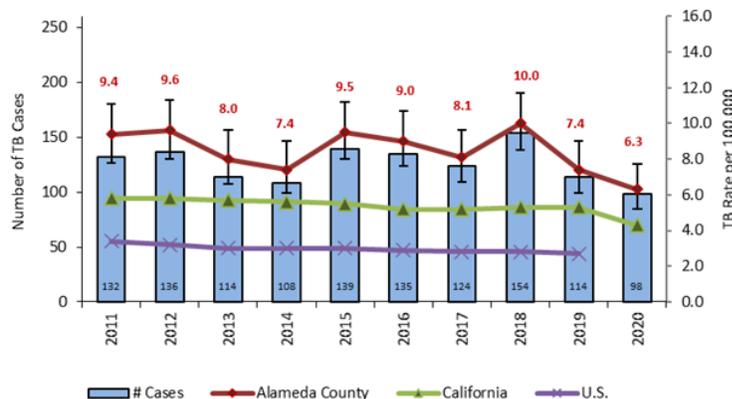


# Tuberculosis Fact Sheet— Alameda County, 2020

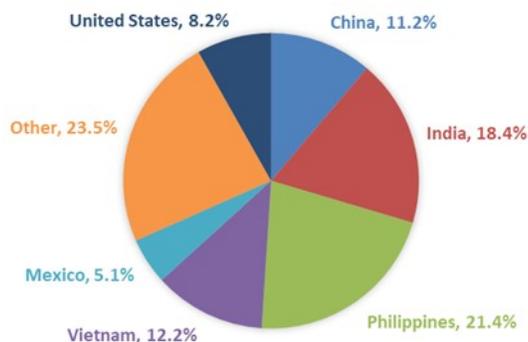
## OVERVIEW

During 2020, 98 tuberculosis (TB) cases were reported to Alameda County (excluding the City of Berkeley). The 2020 TB case rate in Alameda County was 6.3 cases per 100,000 residents, a 15% decrease from the 2019 rate. The 2020 rate ranks sixth among all jurisdictions in California and is 0.5-fold higher than the California state rate of 4.3 cases per 100,000 residents. Compared to other Bay Area jurisdictions, the Alameda County rate ranks lower than San Francisco (6.6 per 100,000), Santa Mateo (6.7 per 100,000), and Santa Clara (7.7 per 100,000), similar to Solano (6.4 per 100,000), and higher than Contra Costa (3.4 per 100,000) counties.

**Figure 1. Number of TB Cases and Rate per 100,000, Alameda County, 2011-2020**



**Figure 2: Percent of TB Cases, by Place of Birth, Alameda County, 2020**



**Table 1. Number of TB Cases and Rates per 100,000, Alameda County, 2018-2020**

		Number of 2020 Cases (N=98)	Percent	Average Case Rate per 100,000 (2018-2020)
<b>Sex</b>	Males	58	59.2%	9.8
	Females	40	40.8%	6.2
<b>Age Group</b>	0-4 yrs	0	0.0%	*
	5-14 yrs	0	0.0%	*
	15-24 yrs	10	10.2%	5.6
	25-44 yrs	19	19.4%	6.8
	45-64 yrs	29	29.6%	9.3
	65+ yrs	40	40.8%	19.2
<b>Race / Ethnicity</b>	Black/African American	8	8.2%	*
	Asian/Pacific Islander	72	73.5%	18.6
	Amer Ind/Native AK	0	0.0%	*
	Hispanic/Latino	8	8.2%	4.0
	White	10	10.2%	*
<b>Birthplace</b>	United States	8	8.2%	1.0
	Outside of United States	90	91.8%	22.3

\* Categories with <10 average annual cases are unstable and not presented

## PATIENT DEMOGRAPHICS

Similar to previous years, the majority of TB cases were male (59%). During 2020, the largest proportion of TB cases occurred among adults aged 65 years old and older (41%), and the lowest proportion occurred among children 0 to 14 years old (0%) (Table 1).

The majority of 2020 TB cases (90%) occurred among non-White residents (Table 1). From 2018 to 2020, Asian/Pacific Islander (API) residents in Alameda County had an average annual case rate of 18.6 cases per 100,000 residents, followed by Hispanic residents at 4.0 cases per 100,000 residents.

During 2020, 92% of TB cases were born outside of the U.S. (Table 1). The most frequent birthplaces outside of the U.S. remain the Philippines, India, Vietnam, China, and Mexico (Figure 2). The 2018-2020 average annual case rate for cases born outside of the U.S. was 22.3 per 100,000, 22 times the rate for cases born in the U.S. (1.0 per 100,000). For 2020 cases born outside of the U.S., 66% resided in the U.S. for 10 or more years before being diagnosed with TB.

The largest proportion of 2020 TB cases occurred among residents of Oakland (30%) and Fremont (22%). Five-year average rates were highest in Downtown Oakland and South Fremont (more than twice the five-year county average of 8.1 per 100,000) (Figure 3).

### CLINICAL CHARACTERISTICS

Of all 2020 TB cases, 71% had pulmonary involvement and 29% were extrapulmonary only (Table 2). Of all pulmonary cases, a majority (58%) were acid-fast bacilli (AFB) smear-negative and 61% did not have evidence of cavitary disease on chest radiography. No 2020 TB cases were co-infected with HIV. The most common comorbidity was diabetes (34%).

### DRUG RESISTANCE

A similar proportion of drug-resistant isolates were identified among culture-positive cases in 2020 and 2019 (14% and 13%, respectively). During 2020, all 11 TB cases resistant to any TB treatment drug were resistant to at least one of the first-line TB medications (i.e., isoniazid, rifampin, ethambutol or pyrazinamide). Of all TB cases with drug susceptibility tests reported, 8 cases (10%) were resistant to isoniazid only, and 2 (3%) were resistant to pyrazinamide only. Alameda County had one multidrug resistant TB case.

### DIAGNOSTIC TESTING

Among 2020 TB cases with any pulmonary disease who had a sputum smear performed, 85% received a nucleic acid amplification (NAA) test at diagnosis, a higher proportion than among 2019 cases (69%). Similar to 2019, more 2020 cases with positive sputum AFB smears received NAA tests compared to patients with negative sputum AFB smears (93% and 80%, respectively); a larger proportion of 2020 cases with negative sputum AFB smears received a NAA test compared to 2019 (79% and 47%, respectively).

### SUMMARY

TB remains an important public health problem in Alameda County. The reduction in TB cases and rates in Alameda County are consistent with findings in other California counties and with statewide data. Although the cause for the reduction in TB cases and rates is unknown, it is possible that the Coronavirus disease 2019 pandemic may have impacted the number of patients who presented for care and were diagnosed with TB. A large proportion of Alameda County TB cases continue to occur among older adults, those born outside of the U.S., and non-U.S.-born cases who have been in the U.S. for 10 or more years before TB diagnosis; all are known risk factors for latent TB infection (LTBI). Reports have also indicated that 80%-85% of all TB cases are due to LTBI reactivation. Therefore, identifying and treating LTBI is a key TB control strategy. TB Control also continues to encourage early diagnosis through the use of NAA tests, as this practice may facilitate earlier TB treatment initiation and reduce disease transmission.

Figure 3: Average Annual TB Rates per 100,000, by Zip Code, Alameda County, 2016-2020

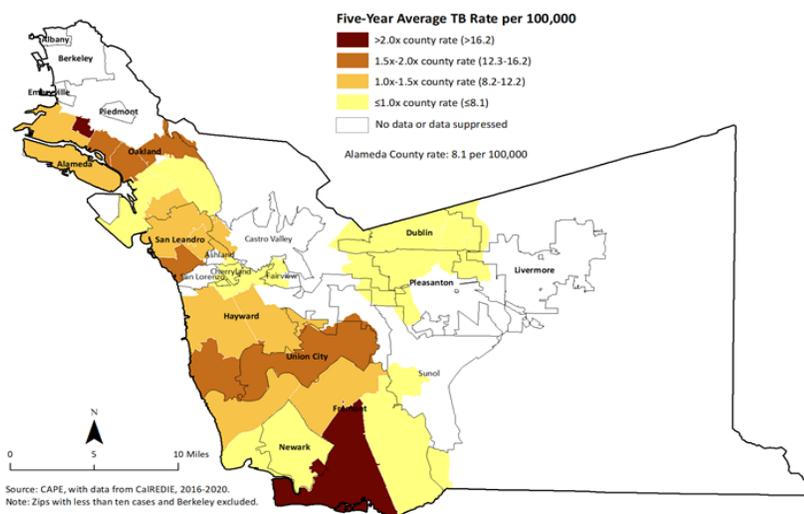


Table 2: Clinical and Laboratory Characteristics of TB Cases, Alameda County, 2020

		Number	Percent	
<b>Site of disease</b>	Pulmonary only	58	59.2%	
	Extrapulmonary only	28	28.6%	
	Both	12	12.2%	
<b>Among cases with any pulmonary disease (N=70)</b>				
Sputum smear	Positive	28	40.0%	
	Negative	39	55.7%	
	Not done	3	4.3%	
Cavitary disease*	Present	27	38.6%	
	Absent	43	61.4%	
<b>Comorbidities</b>	HIV/AIDS	0	0.0%	
	Diabetes	33	33.7%	
	End-stage renal disease	5	5.1%	
	Other immunosuppression**	12	12.2%	
<b>Drug resistance among culture-positive cases</b>	Resistance to any TB medications	11	13.9%	
	Resistance to INH only	8	10.1%	
	Resistance to PZA only	2	2.5%	
	Multidrug resistance	1	1.3%	
<b>Nucleic Acid Amplification Test (NAAT) at TB diagnosis</b>	<b>Among cases with any pulmonary disease and sputum smear performed (N=67)</b>			
	Sputum smear positive (N=28)	NAAT performed	26	92.9%
		NAAT positive	26	100.0%
	Sputum smear negative (N=39)	NAAT performed	31	79.5%
NAAT positive		21	67.7%	

\* Per X-ray, CT, or other chest imaging; \*\* Due to a medical condition, such as hematologic or reticuloendothelial malignancies or immunosuppressive therapy, such as prolonged use of high-dose adrenocorticosteroids.

For questions or additional information, contact:

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