

# San Mateo County (SMC) Sexually Transmitted Infections (STI) and HIV-AIDS Surveillance Annual Report, 2020



**SAN MATEO  
COUNTY HEALTH**

[www.smchealth.org/std](http://www.smchealth.org/std) • Provider STI Reporting 650-573-2346 • STI Clinic: 650-573-2385

• Aracely Tamayo PhD, Supervising Epidemiologist • Asa Ohsaki MPH, Epidemiologist

• Vivian Levy MD, STI Controller

• Scott Morrow MD, MPH, MBA, Health Officer



## Introduction and Acknowledgements

This is the 2020 report of data and program highlights from the STI/HIV Program in San Mateo County Health. For questions and feedback on this report or on the STI/HIV Program, please contact the Epidemiology unit.

San Mateo County Health  
Epidemiology  
225 W 37th Ave  
San Mateo, CA 94403  
epidemiology@smcgov.org  
650-573-2144

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### Note on data for previous years:

Numbers in the document listed for past years may not match totals in previous reports. Totals may increase due to late reports, may decrease when duplicate reports are removed or cases are subsequently identified as out of our jurisdiction, or when case definitions are changed. In addition, disease rates may have changed due to updated denominator data from the U.S. Census Bureau or the California Department of Finance.

The following contributed to the creation of this report: Matt Geltmaker, Sharon Jones, Marco Vergara, Wesley Yuen, Anna Branzuela, Losaline Baker, Jose Velazquez, Roberto Gonzalez, Ana Martinez, Moon Choi.

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### San Mateo County Health STI/HIV Program Overview

The STI/HIV Program was created in November 2008, with the merging of the long-standing STI and AIDS Programs, in order to integrate STI and HIV services within San Mateo County Health. The program aims to identify, prevent and treat Sexually Transmitted Infections (STIs) and HIV, as well as monitor STI/HIV disease trends in San Mateo County.

### Services of the STI/HIV Program

- Provide comprehensive primary and specialty medical care, psychosocial support and case management for persons living with HIV
- Provide STI and HIV screening and treatment through San Mateo County STI Clinic as well as mobile outreach and testing for high-risk populations
- Provide linkage to care services for newly diagnosed HIV-infected residents as well as HIV-infected patients who have fallen out of care
- Provide partner services for newly diagnosed HIV-infected patients as well as those already in care
- Provide HIV PrEP (Pre-Exposure Prophylaxis) information, referrals and linkage for high-risk individuals
- Provide STI and HIV prevention and treatment information through the San Mateo County Health web site: <http://www.smchealth.org/std>
- Conduct case and behavioral surveillance, analysis and reporting of syphilis, gonorrhea, chlamydia, and HIV
- Conduct analysis of disease trends using demographic, clinical, and interview data
- Conduct STI prevalence monitoring in high-risk settings such as STI clinic and correctional facilities
- Conduct disease intervention services, including field-delivered therapy and partner delivered therapy where appropriate
- Support training opportunities and distribute STI/HIV clinical educational materials to health care providers
- Partner with public and private laboratories offering STI/HIV testing
- Collaborate with public and private key stakeholders to identify and solve health problems

**External partners include:** California Department of Public Health, San Francisco Department of Public Health, San Francisco Mayor's Office of Housing and Community Development, California STD/HIV Controllers Association.

**Community partners include:** Mental Health Association of San Mateo County, AIDS Community Research Consortium.

### Funding and Grants

The STI/HIV Program received funding from the following sources in 2018:

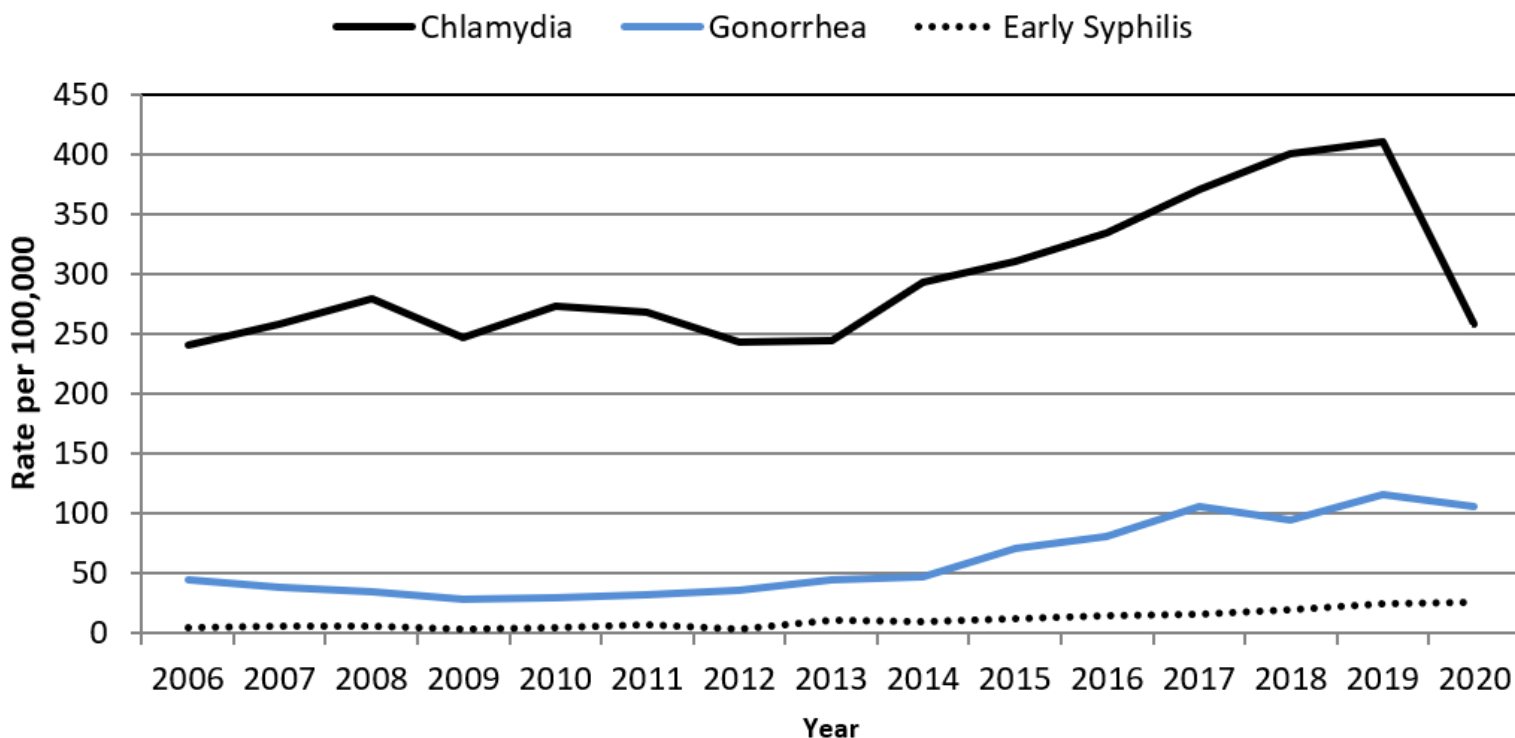
- San Mateo County General Fund
- Federal Health Resources and Services Administration (HRSA) - Ryan White Part A as part of the San Francisco Eligible Metropolitan Area (EMA)
- Federal Centers for Disease Control & Prevention (CDC) - HIV Prevention Funds through the California Department of Public Health – Office of AIDS
- Federal Housing and Urban Development (HUD) - Housing Opportunities for People with AIDS (HOPWA) as part of the San Francisco Eligible Metropolitan Statistical Area (EMSA)
- Federal Health Resources and Services Administration (HRSA) - Ryan White Part B through the California Department of Public Health – Office of AIDS
- Federal Health Resources and Services Administration (HRSA) - Ryan White Minority AIDS Initiative (MAI) through the California Department of Public Health – Office of AIDS
- California Department of Public Health (CDPH) – Core STD Program Management through STD Control Branch

## Bacterial STIs

### Overview

- The COVID-19 pandemic profoundly challenged SMC STI efforts by diverting the STI workforce, reducing STD clinic hours, and creating STI diagnostic molecular test kit shortages.
- Despite likely STI under-testing in 2020, SMC early syphilis cases (acquired in the last year) increased 9% from 2020 compared to 2019.
- Females comprised 12% of early syphilis cases in 2020, compared to 9% in 2019.
- SMC had 1 case of congenital syphilis each year in 2019 and 2020, which meets the definition of a high congenital syphilis morbidity county for each of these years with a rate of over 8.4 per 100,000 live births at 12.1 and 12.9, respectively.
- Gonorrhea cases were fairly stable in 2020 compared to 2019, with a 9% decrease in cases in 2020.
- Females comprised about one quarter of SMC Gonorrhea cases in 2020, similar to 2019.
- In 2019, California changed Chlamydia trachomatis (CT) reporting to Lab only, with clinicians no longer mandated to report.
- CT cases decreased 60% from 2019 to 2020.
- In March 2021, the SMC Public Health Lab instituted *mycoplasma genitalium* testing. This organism is an important cause of recurrent and persistent urethritis
- Programmatic priorities are educating providers on [2021 CDC STI Treatment guidelines](#) which include changes in gonorrhea, chlamydia, and pelvic inflammatory disease treatment recommendations.

Figure 1. STI Rates by Year in San Mateo County, 2006-2020



Early Syphilis is defined as primary, secondary, and early latent syphilis stages of disease. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS).

# Bacterial STIs

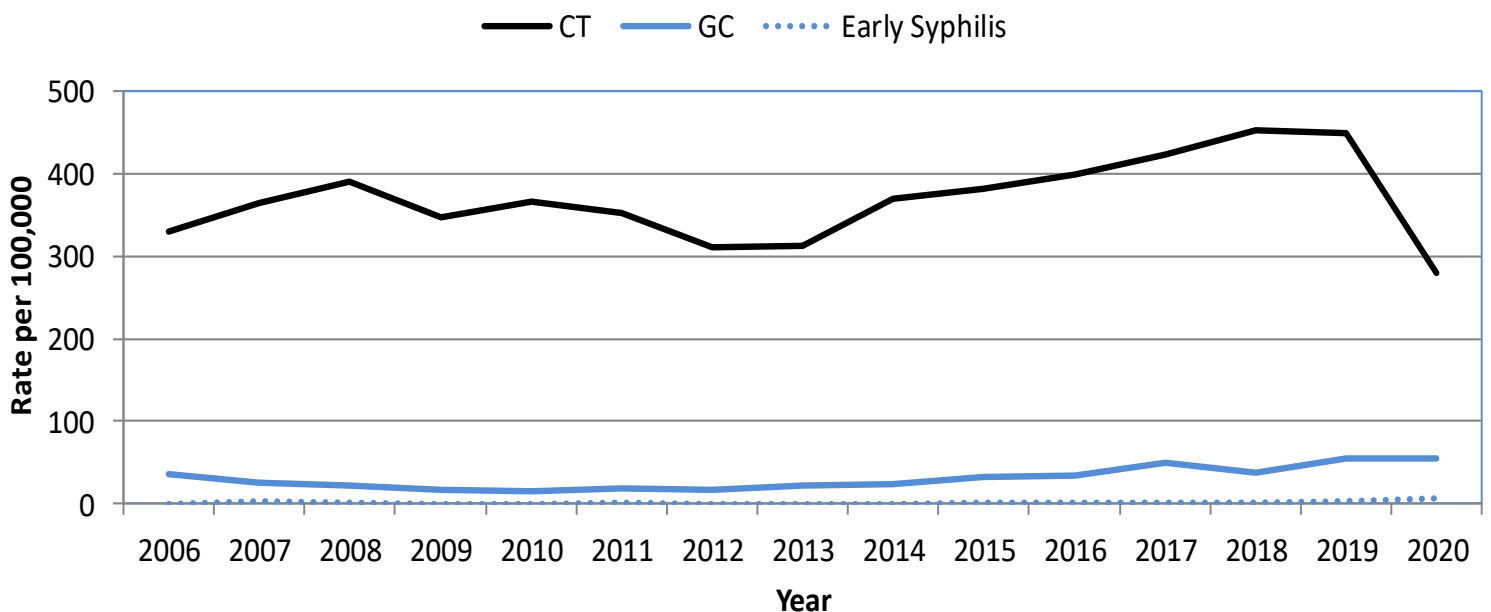
**Table 1. STI Cases and Rates by Year Reported in San Mateo County, 2006-2020**

<b>Reported Cases</b>															
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Chlamydia</b>	1,687	1,823	1,986	1,773	1,972	1,957	1,803	1,839	2,228	2,378	2,579	2,867	3,104	3,191	2,000
<b>Gonorrhea</b>	310	273	241	206	214	231	265	337	355	539	618	813	729	896	822
<b>Syphilis (Total)</b>	57	75	60	37	51	69	48	101	117	153	168	192	219	275	262
Primary	10	4	15	8	9	7	7	18	20	12	19	36	25	43	33
Secondary	17	22	11	11	13	28	7	39	30	43	41	26	52	47	61
Early Latent	7	13	11	5	13	13	9	22	24	41	55	61	73	96	109
<b>(Total Early Syphilis<sup>1</sup>)</b>	34	39	37	24	35	48	23	79	74	96	115	123	150	186	203
Late Latent	23	35	21	13	16	19	25	22	43	56	53	69	69	88	58
<b>Neurosyphilis<sup>2</sup></b>	0	0	0	2	0	2	2	1	0	2	2	4	0	1	4
<b>Congenital Syphilis<sup>3</sup></b>	0	1	2	0	0	2	0	0	0	1	0	0	0	1	1
<b>Rate<sup>4</sup></b>															
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Chlamydia</b>	241.2	258.8	279.2	247.5	273.4	267.9	242.8	245.0	293.9	310.5	335.1	371.1	400.6	411.2	258.0
<b>Gonorrhea</b>	44.3	38.8	33.9	28.8	29.7	31.6	35.7	44.9	46.8	70.4	80.3	105.2	94.1	115.5	106.0
<b>Syphilis (Total)</b>	8.1	10.5	8.2	5.2	7.1	9.4	6.5	13.5	15.4	20.0	21.8	24.9	28.3	35.4	33.8
Primary	1.4	0.6	2.1	1.1	1.2	1.0	0.9	2.4	2.6	1.6	2.5	4.7	3.2	5.5	4.3
Secondary	2.4	3.1	1.5	1.5	1.8	3.8	0.9	5.2	4.0	5.6	5.3	3.4	6.7	6.1	7.9
Early Latent	1.0	1.8	1.5	0.7	1.8	1.8	1.2	2.9	3.2	5.4	7.1	7.9	9.4	12.4	14.1
<b>(Total Early Syphilis<sup>1</sup>)</b>	4.9	5.5	5.2	3.4	4.9	6.6	3.1	10.5	9.8	12.5	14.9	15.9	19.4	24.0	26.2
Late Latent	3.3	5.0	3.0	1.8	2.2	2.6	3.4	2.9	5.7	7.3	6.9	8.9	8.9	11.3	7.5
<b>Neurosyphilis<sup>2</sup></b>	0.0	0.0	0.0	0.3	0.0	0.3	0.3	0.1	0.0	0.3	0.3	0.5	0.0	0.1	0.5
<b>Congenital Syphilis<sup>3</sup></b>	0.0	10.1	20.5	0.0	0.0	22.2	0.0	0.0	0.0	11.1	0.0	0.0	0.0	12.1	12.9

<sup>1</sup>Early syphilis includes primary, secondary and early latent syphilis stages. <sup>2</sup>Neurosyphilis cases are a sequelae of syphilis and not a stage, neurosyphilis cases are captured under other syphilis stages. <sup>3</sup>Rates equal cases per 100,000 live births per year based on CA Department of Finance, Demographic Research Unit, Historical and Projected Births by County. <sup>4</sup>Rates equal cases per 100,000 residents per year based on population data from the California Department of Finance. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS).

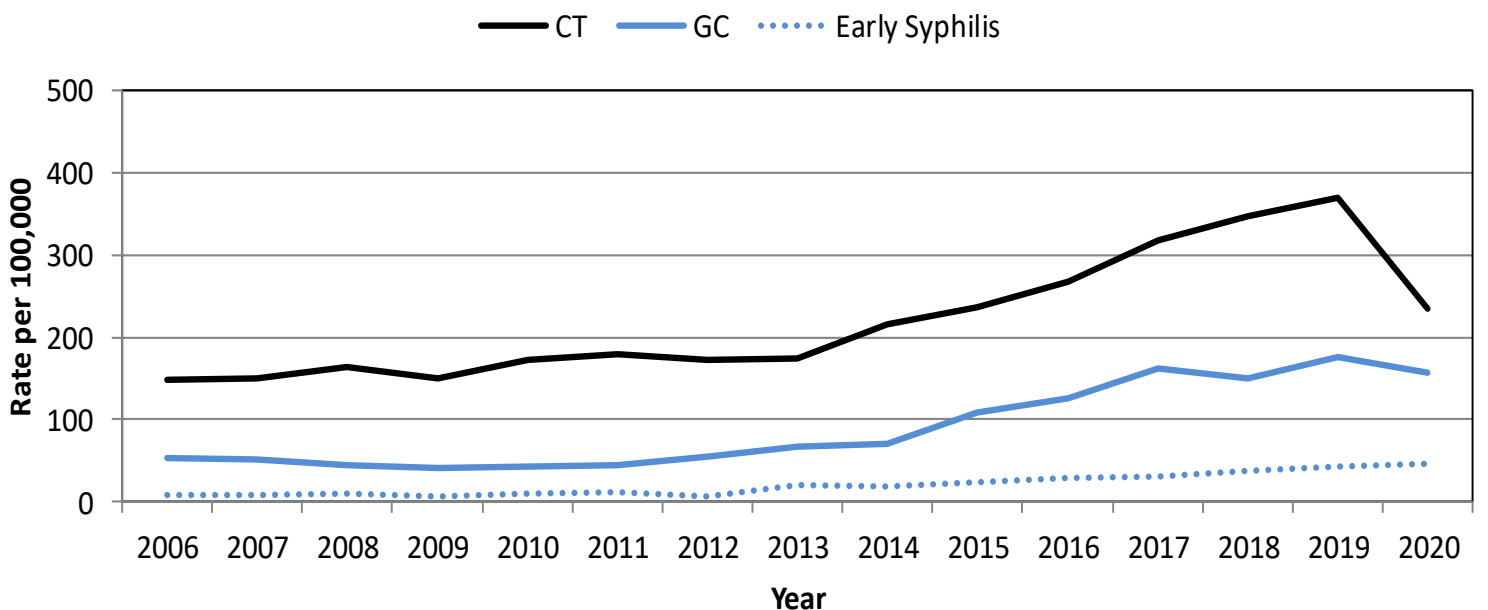
## Bacterial STIs

**Figure 2. STI Rates For Females by Year in San Mateo County, 2006-2020**



Early Syphilis is defined as primary, secondary, and early latent syphilis stages of disease. Rates equal cases per 100,000 female residents per year based on population data from the California Department of Finance. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS).

**Figure 3. STI Rates For Males by Year in San Mateo County, 2006-2020**



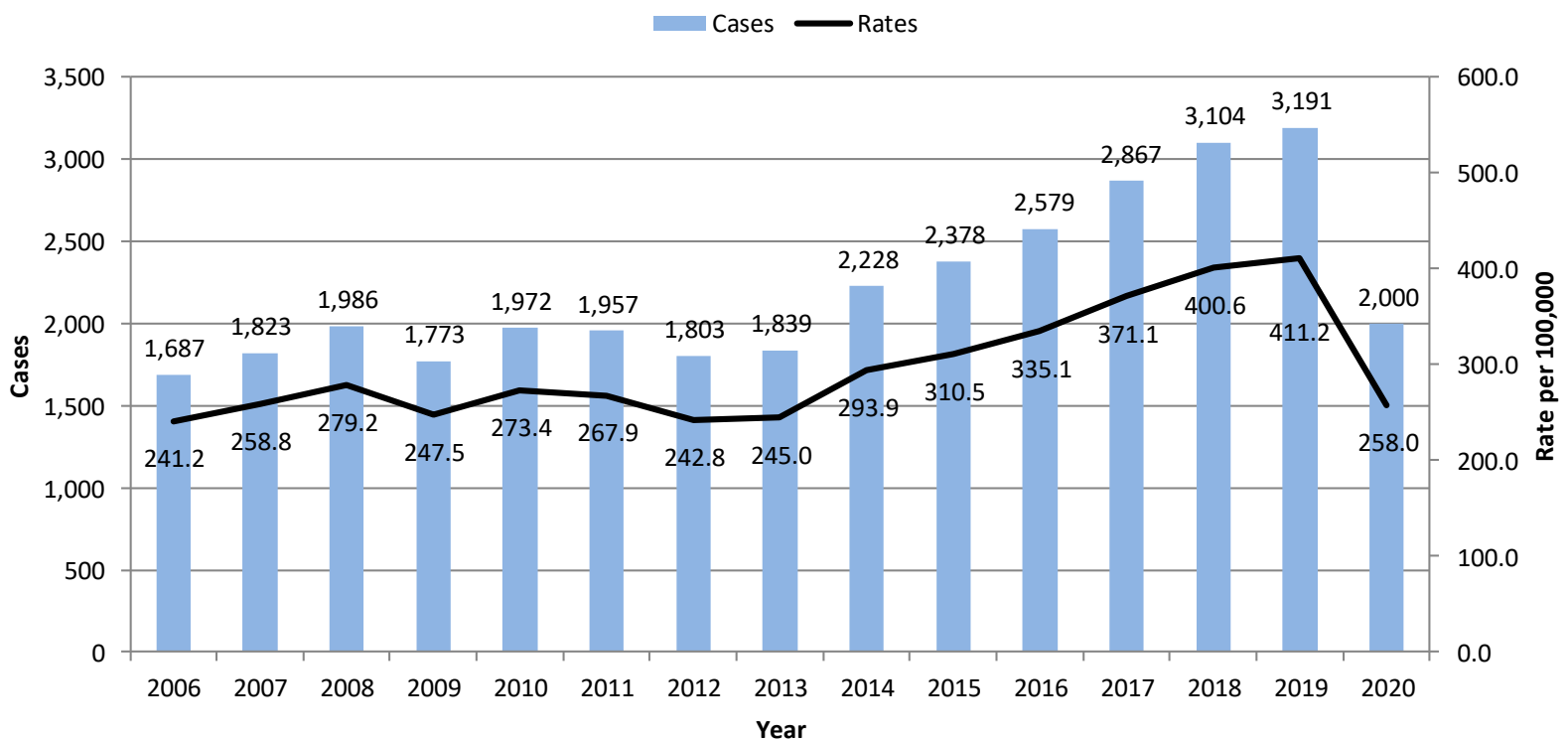
Early Syphilis is defined as primary, secondary, and early latent syphilis stages of disease. Rates equal cases per 100,000 male residents per year based on population data from the California Department of Finance. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS).

# Chlamydia

## Overview

- In 2019, California changed *Chlamydia trachomatis* (CT) reporting to via a lab report only, with clinicians no longer mandated to report.
- CT cases decreased 60% from 2019 to 2020, likely because of the impact of COVID-19 on STI testing.
- Anatomic site of infection was missing in over 60% of specimens.
- Given approximately half of all CT cases are asymptomatic, screening in women age 25 and under who have sex, men who have sex with men (MSM,) and heterosexuals at risk is recommended at least annually or more frequently based on risk.
- CT rectal testing can be done in women based on shared decision making with clinician.
- Doxycycline is now the first line treatment regimen for CT at all anatomic sites.

**Figure 4. Chlamydia Cases and Rates by Year in San Mateo County, 2006-2020**

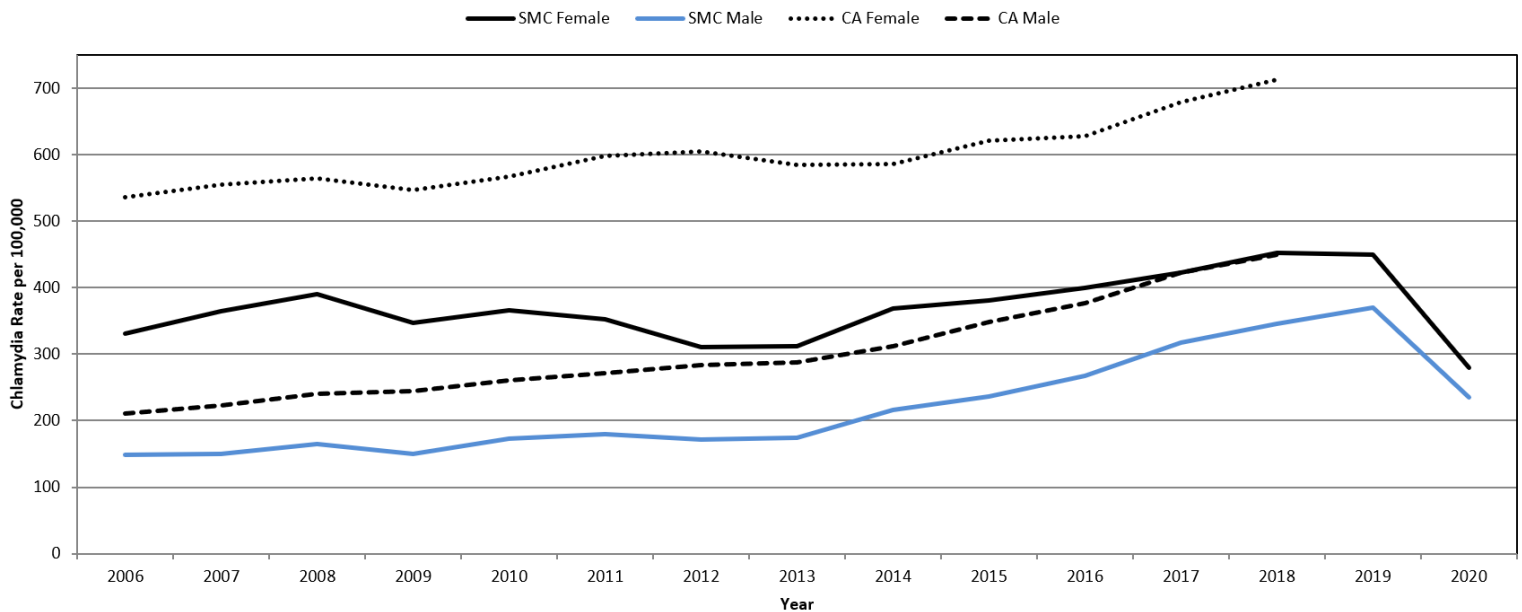


Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CaIREDIE) system and the Automated Vital Statistics System (AVSS). Rates equal cases per 100,000 residents per year based on population data from the California Department of Finance.



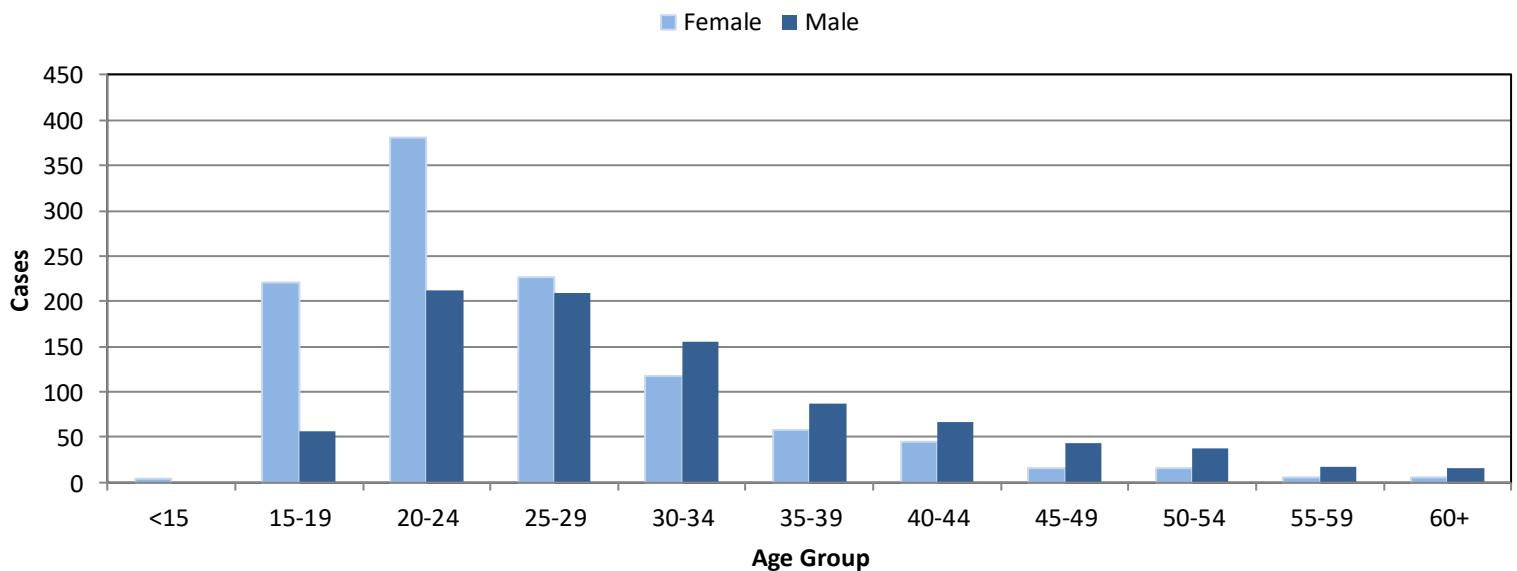
# Chlamydia

**Figure 5. Chlamydia Rates By Sex and Year in San Mateo County and State of California, 2006-2020**



Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS). Data for California rates was provided by the California Department of Public Health STD Control Branch. California rates were not available for 2019 and 2020. Rates equal cases per 100,000 sex specific residents per year based on population data from the California Department of Finance.

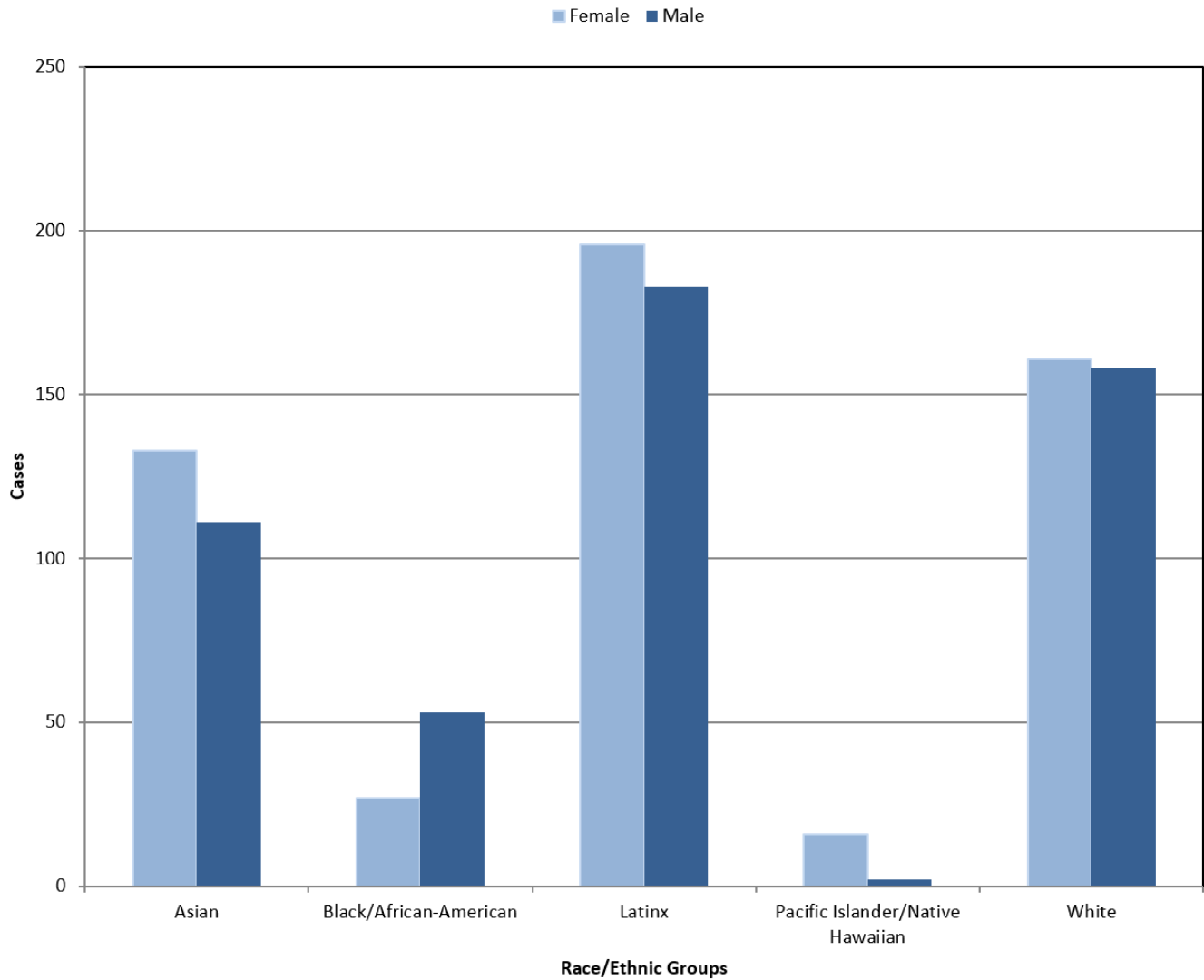
**Figure 6. Chlamydia Cases by Sex and Age in San Mateo County, 2020**



Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system.

## Chlamydia

**Figure 7. Chlamydia Cases by Sex and Selected Race/Ethnic Groups in San Mateo County, 2020 (n=2,000)**



Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system.

**Table 2. Chlamydia Cases and Rates by Demographic and Clinical Characteristics by Sex in San Mateo County, 2019 and 2020**

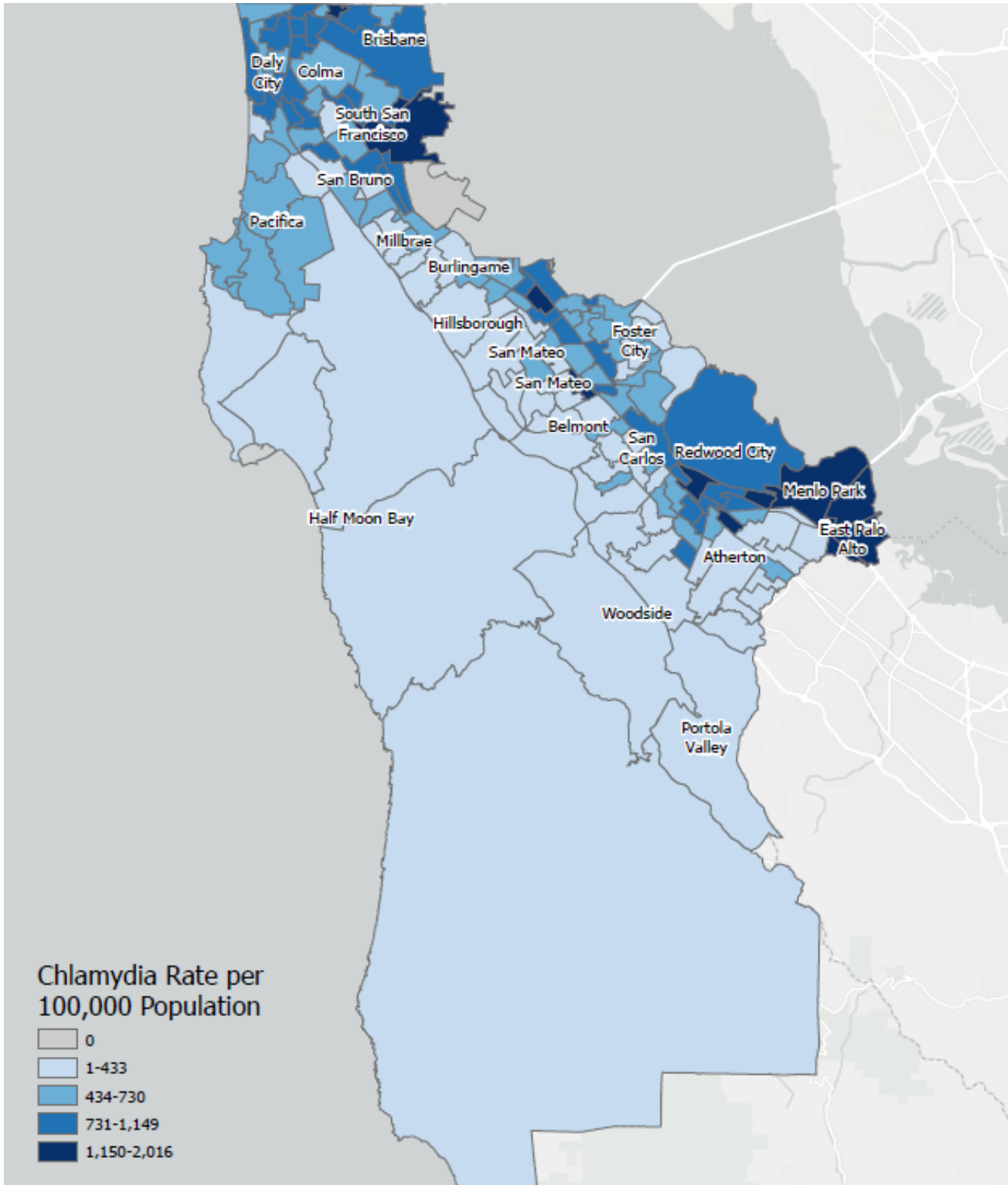
	Female						Male					
	2020			2019			2020			2019		
	Cases	Percent	Rate <sup>1</sup>	Cases	Percent	Rate <sup>1</sup>	Cases	Percent	Rate <sup>1</sup>	Cases	Percent	Rate <sup>1</sup>
<b>County Total</b>	2,000	100.0	258.0	3,191	100.0	411.2	2,000	100.0	258.0	3,191	100.0	411.2
<b>Sex Total</b>	1,096	54.8	279.5	1,763	55.2	449.2	898	44.9	234.44	1,418	44.4	369.7
<b>Age</b>												
<15	4	0.4	6.1	5	0.3	7.5	0	0.0	0.0	0	0.0	0.0
15-19	221	20.2	1084.	322	18.3	1609.6	56	6.2	261.2	84	5.9	396.0
20-24	381	34.8	2113.	646	36.6	3532.4	212	23.6	1106.8	347	24.5	1810.6
25-29	226	20.6	1058.	366	20.8	1722.8	209	23.3	928.2	332	23.4	1453.5
30-34	117	10.7	498.0	180	10.2	739.4	155	17.3	610.2	230	16.2	883.0
35-39	58	5.3	220.2	97	5.5	364.7	87	9.7	318.4	160	11.3	580.2
40-44	45	4.1	167.5	69	3.9	255.4	66	7.4	239.6	84	5.9	303.4
45-49	15	1.4	52.5	33	1.9	112.0	43	4.8	148.3	70	4.9	236.7
50-54	16	1.5	55.0	16	0.9	56.4	38	4.2	134.8	43	3.0	153.3
55-59	5	0.5	18.1	9	0.5	32.1	17	1.9	63.4	38	2.7	142.2
60+	6	0.6	5.7	17	1.0	16.6	15	1.7	17.1	30	2.1	35.0
Missing	2	0.2	0.0	3	0.2	0.0	0	0.0	0.0	0	0.0	0.0
<b>Race/Ethnicity</b>												
American Indian/Alaska Native	1	0.1	148.6	5	0.3	748.5	0	0	0	1	0.1	157.7
Asian	133	12.1	128.4	265	15.0	255.8	111	12.4	120.3	242	17.1	262.1
Black/African-American	27	2.5	286.9	78	4.4	822.3	53	5.9	515.1	91	6.4	886.9
Latinx	196	17.9	195.5	622	35.3	622.2	183	20.4	177.6	388	27.4	377.4
Multirace	2	0.2	14.4	9	0.5	65.7	3	0.3	21.5	7	0.5	50.6
Pacific Islander/Native Hawaiian	16	1.5	275.3	60	3.4	1032.5	2	0.2	37.8	22	1.6	415.7
White	161	14.7	101.6	256	14.5	160.7	158	17.6	100.3	303	21.4	191.3
Other/Unknown <sup>3</sup>	560	51.1	-	468	26.6	NA	388	43.2	-	364	25.7	-
<b>Anatomic Site of Infection</b>												
Urine	264	24.1	-	664	37.7	-	231	25.7	-	588	41.5	-
Genitourinary	135	12.3	-	492	27.9	-	8	0.9	-	34	2.4	-
Rectal/Pharyngeal	5	0.5	-	18	1.0	-	122	13.6	-	346	24.4	-
Other/Unknown	692	63.1	-	589	33.4	-	537	59.8	-	450	31.7	-

Case data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE). <sup>1</sup> Rates equal cases per 100,000 sex and age or race/ethnicity specific residents per year based on population data from the California Department of Finance. <sup>2</sup> Race/ethnicity data not available for many cases as positive tests for infections are automatically reported from testing laboratories and no follow-up interviews are conducted for chlamydia cases. Note: There were 10 transgender/other/unknown CT cases in 2019 and 6 transgender/other/unknown CT cases in 2020.

## The Geography of Chlamydia in San Mateo County

The highest rates of chlamydia infections in 2020 were seen in census tracts in parts of East Palo Alto, Redwood City, San Mateo, and South San Francisco.

**Figure 8. Chlamydia Rates by Census Tract in San Mateo County, 2020**



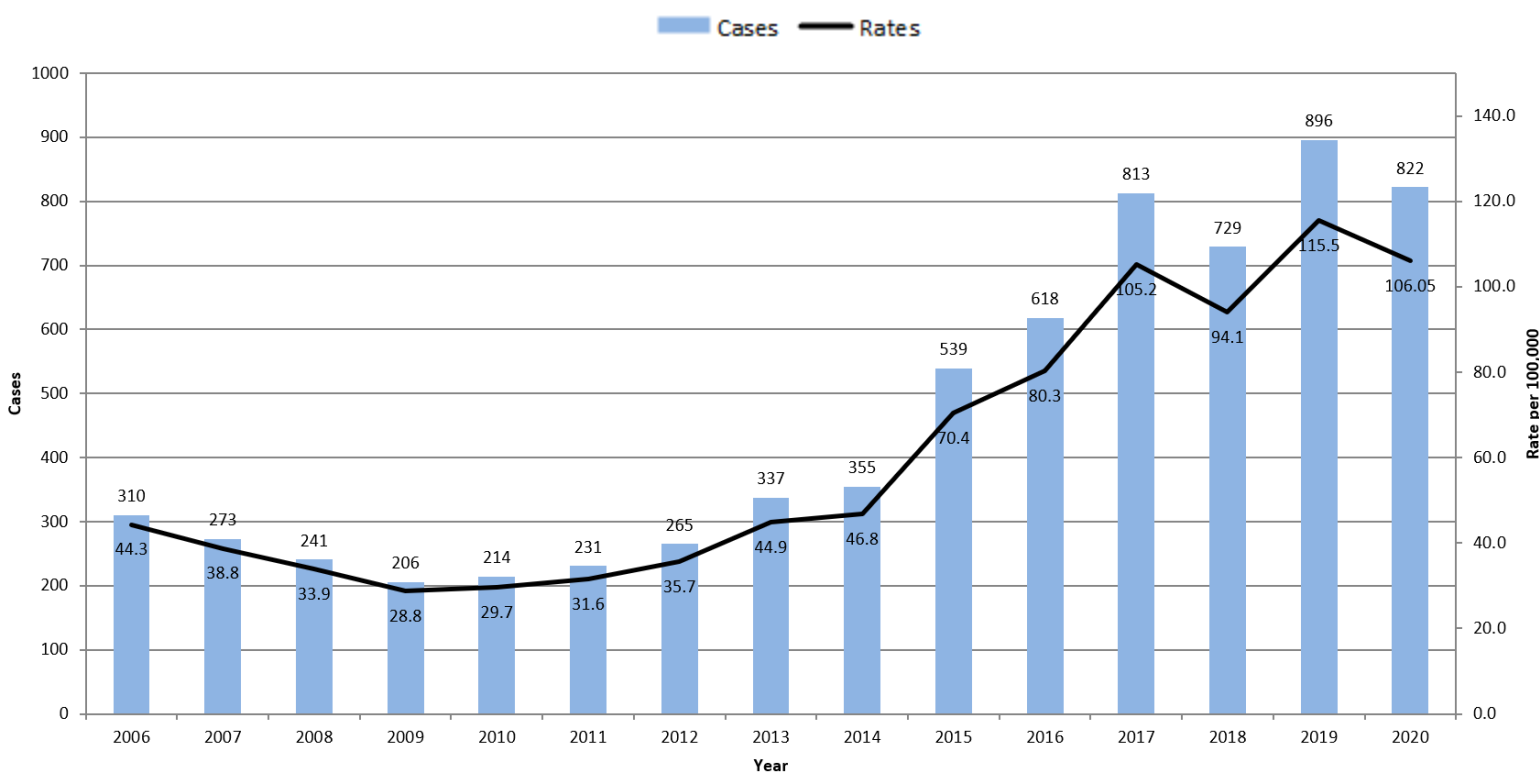
Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates equal count of 2020 chlamydia cases per census tract population.

# Gonorrhea

## Overview

- Gonorrhea cases were fairly stable in 2020 compared to 2019, with a 9% decrease in cases in 2020.
- Females comprised about one quarter of SMC gonorrhea cases in 2020, similar to 2019.
- In 2020, gonorrhea treatment recommendation changed to Ceftriaxone intramuscularly alone when CT has been excluded. This recommendation change was due to Azithromycin microbiome impact and resistance impact on co-occurring organisms.
- A test of cure should be done for all pharyngeal gonorrhea 14 days after treatment.
- The San Mateo County (SMC) STD clinic can culture gonorrhea specimens. The SMC Public Health Lab participates in a surveillance gonorrhea culture project (Strengthening the United States Response to Resistant Gonorrhea, or SURRG) in collaboration with the San Francisco Department of Public Health to maintain lab culture capacity.

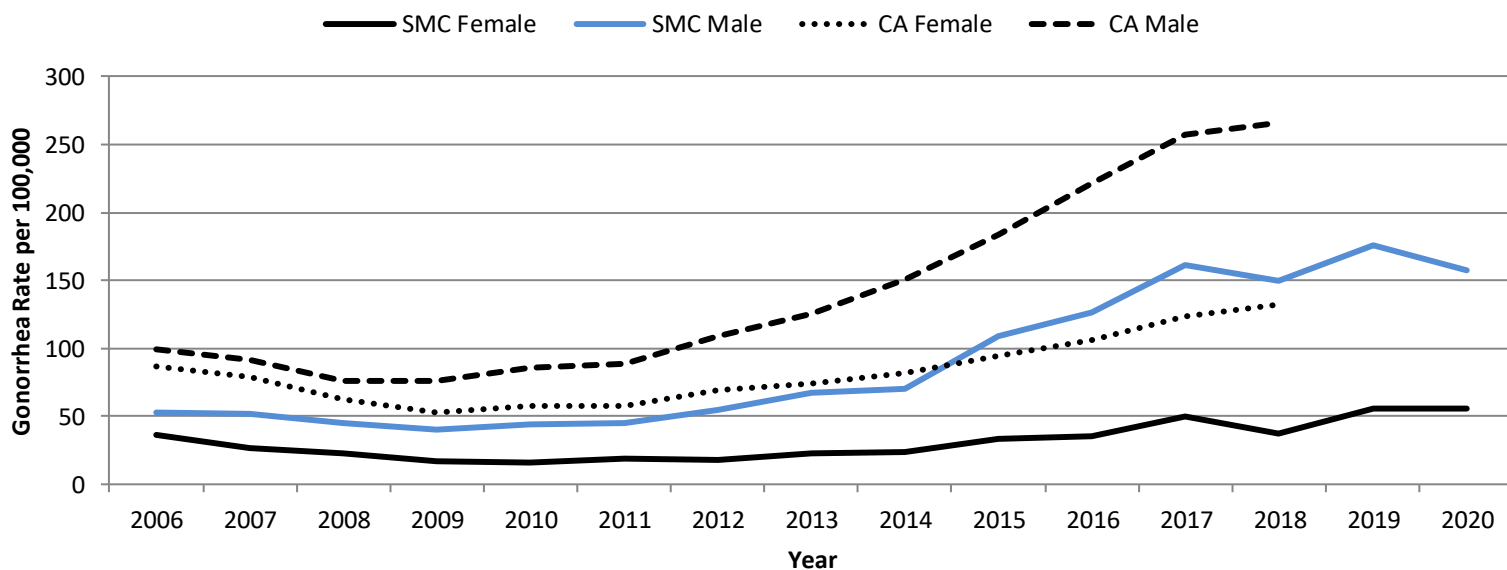
**Figure 9. Gonorrhea Cases and Rates by Year in San Mateo County, 2006-2020**



Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CaIREDIE) system and the Automated Vital Statistics System (AVSS). Rates equal cases per 100,000 residents per year based on census data from the California Department of Finance.

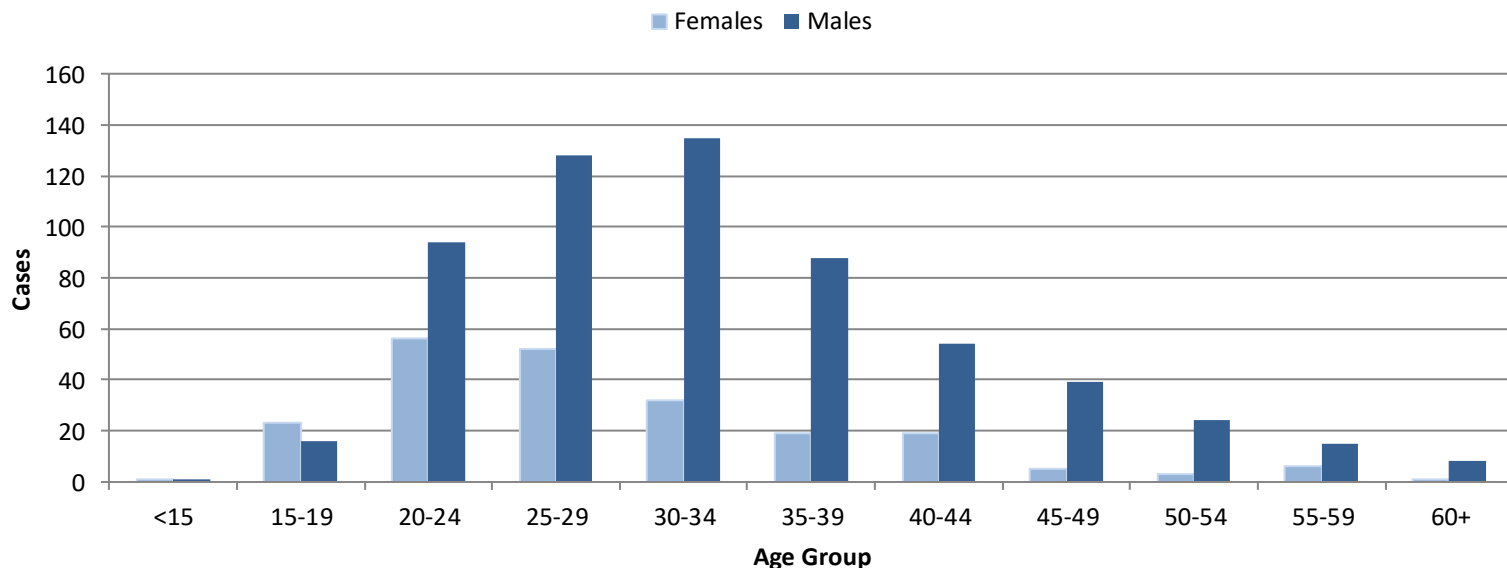
# Gonorrhea

**Figure 10. Gonorrhea Rates By Sex and Year in San Mateo County and State of California, 2006-2020**



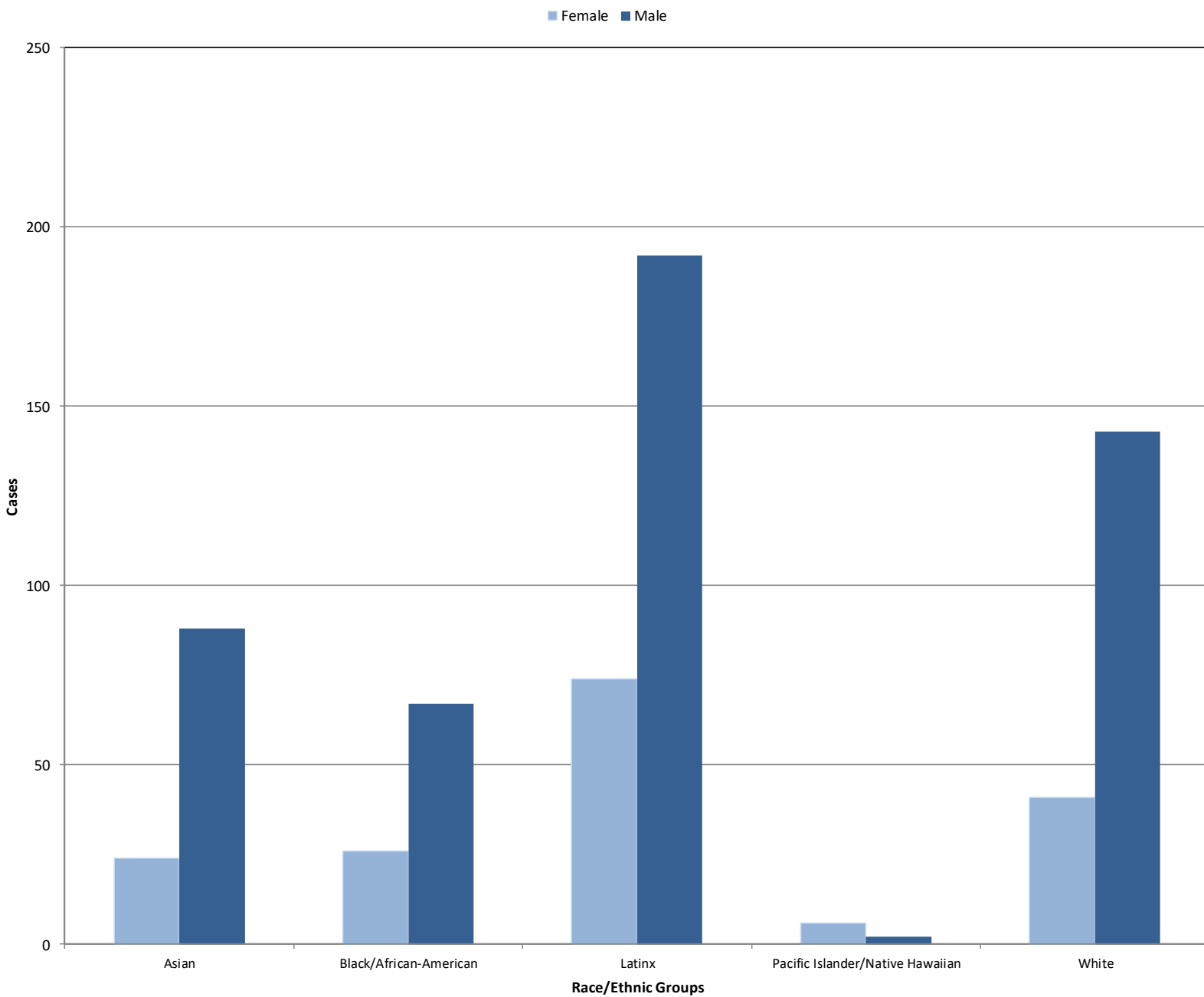
Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS). Data for California rates was provided by the California Department of Public Health STD Control Branch. California rates not available for 2019 and 2020. Rates equal cases per 100,000 sex specific residents per year based on population data from the California Department of Finance.

**Figure 11. Gonorrhea Cases by Sex and Age in San Mateo County, 2020**



Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system.

**Figure 12. Gonorrhea Cases By Sex and Selected Race/Ethnic Groups in San Mateo County, 2020 (n=822)**



**Table 3. Gonorrhea Cases and Rates by Demographic and Clinical Characteristics by Sex in San Mateo County, 2019 and 2020**

	<u>Female</u>						<u>Male</u>					
	2020			2019			2020			2019		
	Cases	Percent	Rate <sup>1</sup>	Cases	Percent	Rate <sup>1</sup>	Cases	Percent	Rate <sup>1</sup>	Cases	Percent	Rate <sup>1</sup>
<b>County Total</b>	822	100	106.0	896	100	115.5	822	100	106.1	896	100	115.5
<b>Sex Total</b>	217	26.4	55.3	217	24.2	55.3	602	73.2	157.2	673	75.1	175.5
<b>Age</b>												
<15	1	0.5	1.5	1	0.5	1.5	1	0.2	1.5	0	0	0
15-19	23	10.6	112.9	24	11.1	120.0	16	2.7	74.6	15	2.2	70.7
20-24	56	25.8	310.7	70	32.3	382.8	94	15.6	490.7	106	15.8	553.1
25-29	52	24.0	243.6	39	18.0	183.6	128	21.3	568.5	176	26.2	770.5
30-34	32	14.8	136.2	34	15.7	139.7	135	22.4	531.5	152	22.6	583.5
35-39	19	8.8	72.1	13	6.0	48.9	88	14.6	322.1	71	10.6	257.5
40-44	19	8.8	70.7	17	7.8	62.9	54	9.0	196.0	46	6.8	166.2
45-49	5	2.3	17.5	10	4.6	33.9	39	6.5	134.5	33	4.9	111.6
50-54	3	1.4	10.3	5	2.3	17.6	24	4.0	85.1	35	5.2	124.8
55-59	6	2.8	21.7	3	1.4	10.7	15	2.5	56.0	24	3.6	89.8
60+	1	0.5	1.0	1	0.5	1.0	8	1.3	9.1	14	2.1	16.3
Missing	0	0	-	0	0	-	0	0	-	1	0.2	-
<b>Race/Ethnicity</b>												
American Indian/Alaska Native	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	2	0.3	315.5
Asian	24	11.1	23.2	32	14.8	30.9	88	14.6	95.4	116	17.2	125.6
Black/African-American	26	12.0	276.3	22	10.1	231.9	67	11.1	651.2	64	9.5	623.8
Latinx	74	34.1	73.8	75	34.6	75.0	192	31.9	186.4	236	35.1	229.5
Multirace	5	2.3	36.1	2	0.9	14.6	5	0.8	35.8	3	0.5	21.7
Pacific Islander/Native Hawaiian	6	2.8	103.3	5	2.3	86.0	2	0.3	37.8	9	1.3	170.1
White	41	18.9	25.9	48	22.1	30.1	143	23.8	90.8	162	24.1	102.3
Other/Unknown <sup>2</sup>	41	18.9	-	33	15.2	-	105	17.4	-	81	12.0	-
<b>Anatomic Site of Infection</b>												
Urine	111	51.2	-	116	53.5	-	227	37.7	-	274	40.7	-
Genitourinary	70	32.3	-	75	34.6	-	19	3.2	-	24	3.6	-
Rectal/Pharyngeal	27	12.4	-	19	8.8	-	322	53.5	-	346	51.4	-
Other/Unknown	9	4.2	-	7	3.2	-	34	5.7	-	29	4.3	-

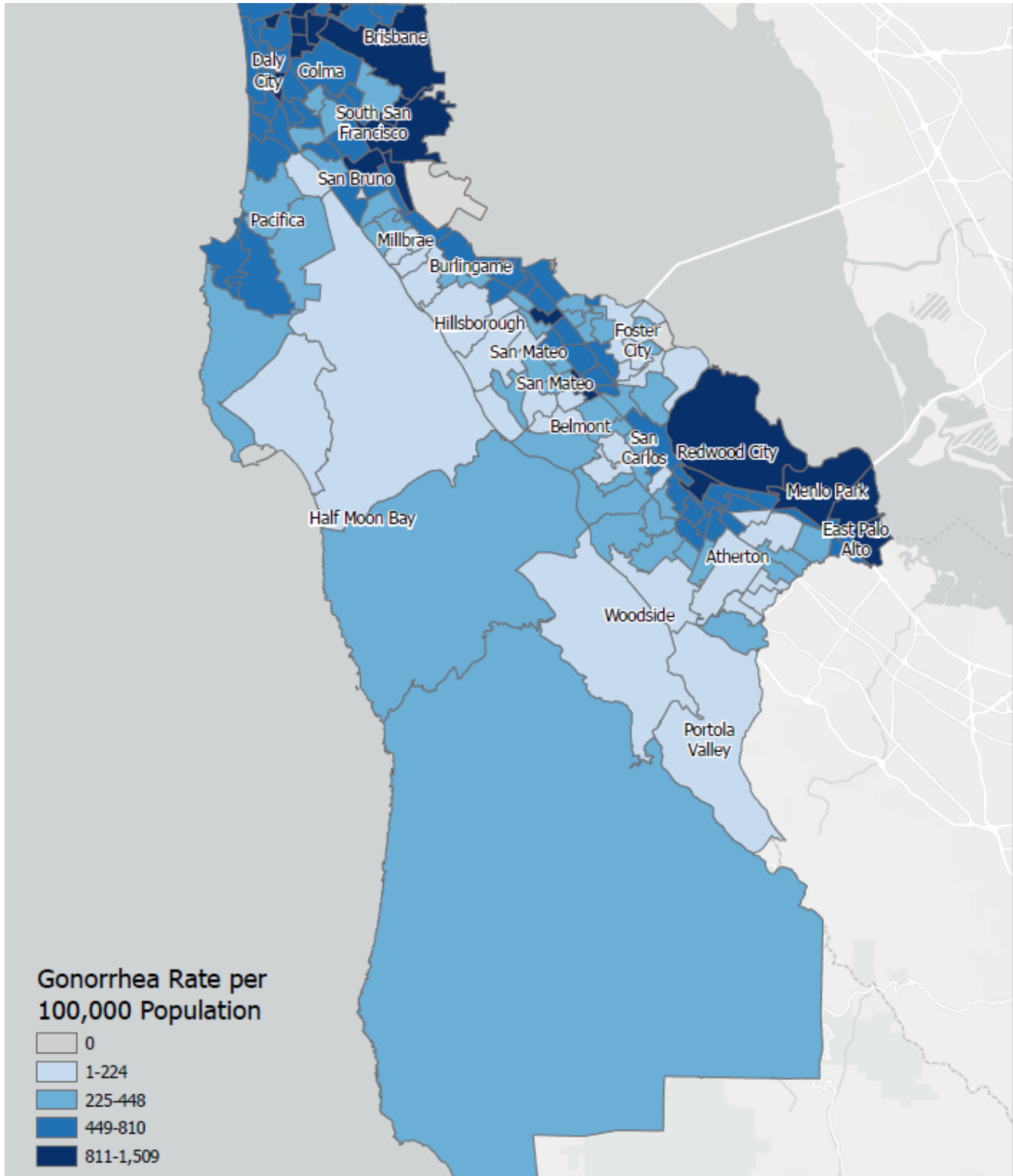
Case data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE). <sup>1</sup>Rates equal cases per 100,000 sex and age or race/ethnicity specific residents per year based on population data from the California Department of Finance. <sup>2</sup>Race/ethnicity data not available for many cases as positive tests for infections are automatically reported to testing laboratories and no follow-up interviews are conducted for gonorrhea cases. Note: There was 3 transgender/other/unknown GC cases in 2020 and 6 transgender/other/unknown GC cases in 2019.



## The Geography of Gonorrhea in San Mateo County

- The highest rates of gonorrhea infections in 2016-2020 were seen in census tracts in parts of Brisbane, Daly City, East Palo Alto, Menlo Park, Redwood City, and South San Francisco.

**Figure 13. Gonorrhea Rates by Census Tract in San Mateo County, 2016-2020**



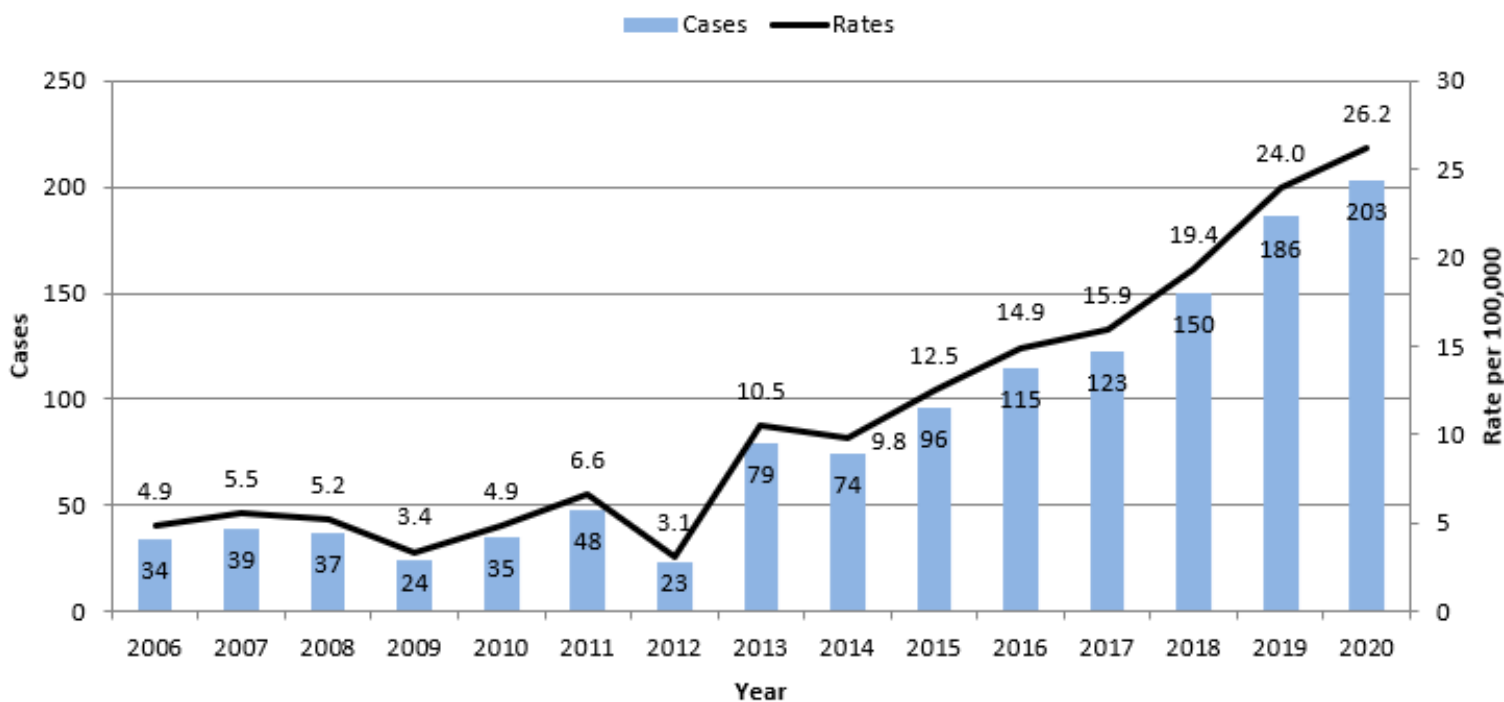
Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates are average annual rate for 2016-2020 per census tract population.

# Syphilis

## Overview

- Despite likely STI under-testing in 2020 due to the pandemic, SMC early syphilis cases (acquired in the last year) increased 9% from 2020 compared to 2019.
- Early syphilis cases increased 50% in females in 2020 compared to 2019.
- SMC had one congenital syphilis case in 2020. A public health priority is to adequately treat all pregnant women with syphilis at least 30 days before delivery.
- Pregnant women should be tested three times for syphilis during their pregnancy: in the first trimester, third trimester (28-32 weeks) and at delivery unless low risk and negative in the third trimester.
- SMC had four neurosyphilis cases in 2020, which is an increase from one case in 2019. Neurosyphilis and ocular syphilis need 10-14 days of intravenous penicillin treatment.

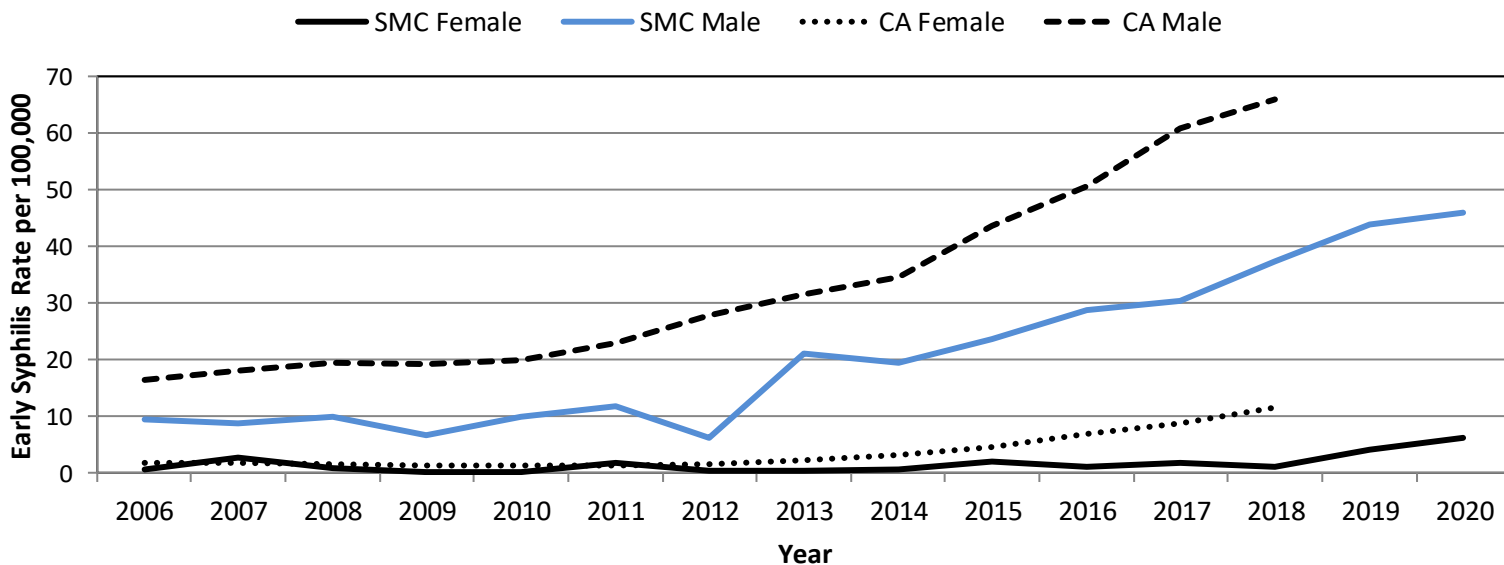
**Figure 14. Early Syphilis Cases and Rates by Year San Mateo County, 2006-2020**



Early Syphilis includes primary, secondary, and early latent stages of syphilis. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS). Rates equal cases per 100,000 residents per year based on population data from the California Department of Finance.

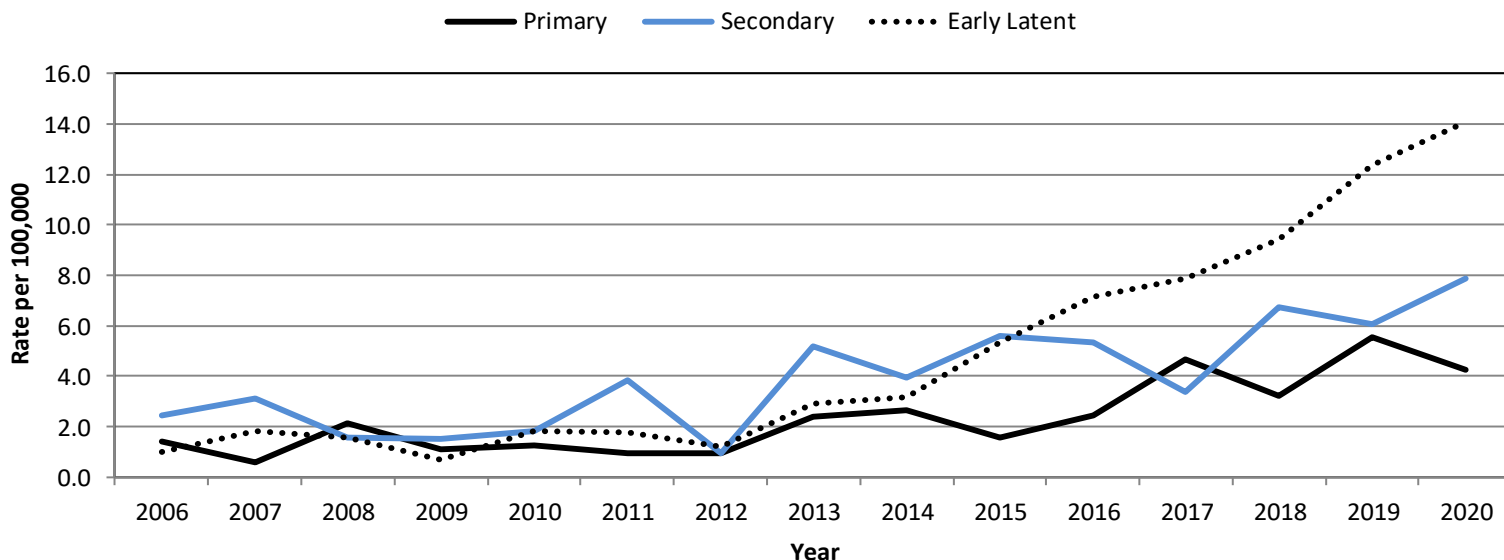
# Syphilis

**Figure 15. Early Syphilis Rates by Sex and Year in San Mateo County and State of California, 2006-2020**



Early Syphilis includes primary, secondary, and early latent stages of syphilis. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS). Data for California rates was provided by the California Department of Public Health STD Control Branch. California rates not available for 2019 and 2020. Rates equal cases per 100,000 residents per year based on population data from the California Department of Finance.

**Figure 16. Early Syphilis Rates by Syphilis Stage and Year in San Mateo County, 2006-2020**



Early Syphilis includes primary, secondary, and early latent stages of syphilis. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS). Rates equal cases per 100,000 residents per year based on population data from the California Department of Finance.

**Table 4. Syphilis Cases and Rates by Syphilis Stage, Early Syphilis Demographic Characteristics and Risk Factors, San Mateo County, 2019 and 2020**

	2020			2019		
	Cases	Percent	Rate <sup>1</sup>	Cases	Percent	Rate <sup>1</sup>
<b>Syphilis County Total</b>	262	100	33.8	275	100	35.4
<b>Primary</b>	33	12.6	4.3	43	15.6	5.5
<b>Secondary</b>	61	23.3	7.9	47	17.1	6.1
<b>Early Latent</b>	109	41.6	14.1	96	34.9	12.4
<b>Late Latent</b>	58	22.1	7.5	88	32.0	11.3
<b>Congenital Syphilis</b>	1	0.4	0.1	1	0.4	0.1
<b>Neurosyphilis</b>	4	1.5	0.5	1	0.4	0.1
<b>Early Syphilis<sup>2</sup></b>	203	100.0	26.2	186	100.0	24.0
<b>Sex</b>						
Male	176	86.7	46.0	168	90.3	43.8
Female	24	11.8	6.1	16	8.6	4.1
Transgender/Other/Unknown	3	1.5	-	2	1.1	-
<b>Ages</b>						
<15 years old	7	3.5	16.7	3	1.6	7.3
15-19	22	10.8	59.2	26	14.0	69.4
20-24	38	18.7	86.6	44	23.7	99.8
25-29	44	21.7	90.0	33	17.7	65.5
30-34	24	11.8	44.7	22	11.8	40.6
35-39	28	13.8	51.5	16	8.6	29.3
40-44	16	7.9	27.8	8	4.3	13.6
45-49	11	5.4	19.2	18	9.7	31.9
50-54	10	4.9	18.4	9	4.8	16.4
55-59	3	1.5	1.6	7	3.8	3.7
60+	0	0	0	0	0	0
<b>Race/Ethnicity</b>						
American Indian/Alaska Native	1	0.5	76.3	0	0	0
Asian	27	13.3	13.8	35	18.8	17.9
Black/African-American	13	6.4	66.0	9	4.8	45.6
Latinx	76	37.4	37.4	63	33.9	31.1
Multirace	1	0.5	3.6	1	0.5	3.6
Pacific Islander/Native Hawaiian	3	1.5	27.0	1	0.5	9.0
White	65	32.0	20.6	55	29.6	17.3
Other/Unknown/Not Specified	17	8.4	-	22	11.8	-
<b>Self Reported Risk Factors<sup>3</sup></b>						
MSM <sup>4</sup>	42	82.4	-	133	87.5	-
Anonymous Partners	25	49.0	-	79	52.0	-
HIV Coinfection <sup>5</sup>	25	49.0	-	57	37.5	-

<sup>1</sup>Rates equal cases per 100,000 residents per year based on population data from the California Department of Finance. <sup>2</sup>Early Syphilis includes primary, secondary, and early latent stages of syphilis. <sup>3</sup>Data missing for cases that could not be located or refused to be interviewed. <sup>4</sup>Data on sex of partner for men was available for 90% (n=152) of 168 total male cases in 2019 and for 29% (n=51) of 176 total male cases in 2020. <sup>5</sup>Data for HIV coinfections was not available (missing or refused) for 131 cases in 2020 and for 3 cases in 2019. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system.

**Table 5. Syphilis Cases and Rates by Demographic Characteristics for All Syphilis Stages, San Mateo County, 2019 and 2020**

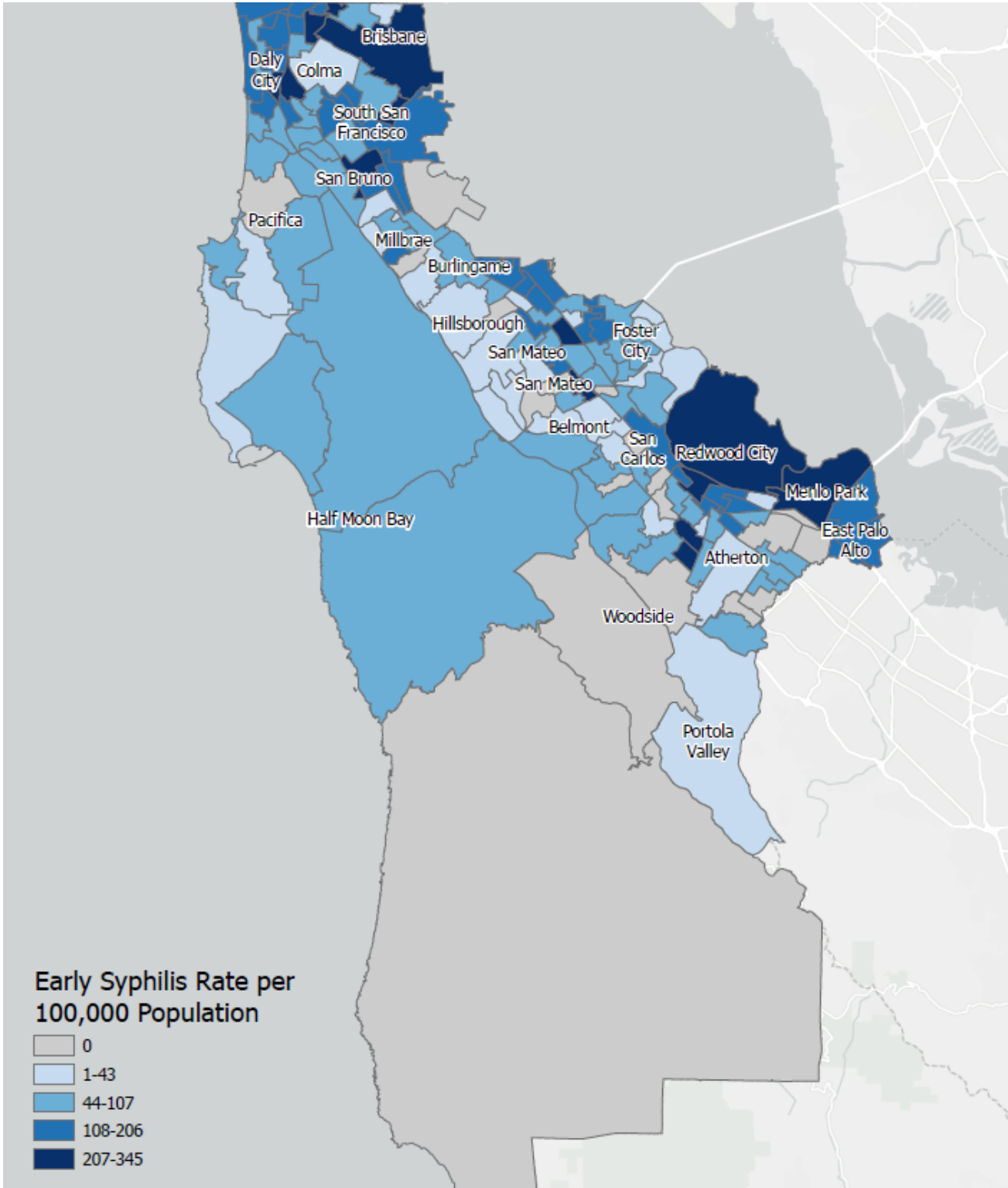
	2020			2019		
	Cases	Percent	Rate <sup>1</sup>	Cases	Percent	Rate <sup>1</sup>
<b>All Syphilis Stages</b>	262	100	33.8	275	100	35.4
<b>Sex</b>						
Male	212	80.9	55.4	230	83.6	60.0
Female	46	17.6	11.7	42	15.3	10.7
Transgender/Other/Unknown	4	1.5	-	3	1.1	-
<b>Ages</b>						
<15 years old	1	0.4	0.8	1	0.4	0.7
15-19	9	3.4	21.5	8	2.9	19.4
20-24	31	11.8	83.4	43	15.6	114.8
25-29	51	19.5	116.3	63	22.9	142.9
30-34	54	20.6	110.4	48	17.5	95.3
35-39	33	12.6	61.5	27	9.8	49.8
40-44	33	12.6	60.7	23	8.4	42.1
45-49	19	7.3	33.0	15	5.5	25.4
50-54	14	5.3	24.4	25	9.1	44.3
55-59	14	5.3	25.7	11	4.0	20.1
60+	3	1.2	1.6	11	4.0	5.9
<b>Race/Ethnicity</b>						
American Indian/Alaska Native	1	0.4	76.3	1	0.4	76.8
Asian	38	14.5	19.4	47	17.1	24.0
Black/African-American	17	6.5	86.3	14	5.1	70.9
Latinx	100	38.2	49.2	100	36.4	49.3
Multirace	1	0.4	3.6	1	0.4	3.6
Pacific Islander/Native Hawaiian	5	1.9	45.0	3	1.1	27.0
White	77	29.4	24.4	72	26.2	22.7
Other/Unknown/Not Specified	23	8.8	-	37	13.5	-

<sup>1</sup>Rates equal cases per 100,000 sex, age, and race/ethnic residents per year based on population data from the California Department of Finance. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system.

## The Geography of Early Syphilis in San Mateo County

- The highest rates of early syphilis infections for 2016-2020 were seen in census tracts in parts of Brisbane, Daly City, Menlo Park, Redwood City, and San Mateo.

Figure 17. Early Syphilis Rates by Census Tract in San Mateo County, 2016-2020



Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates are average annual rate for 2016-2020 per census tract population.

## HIV – Overview and Newly Reported Cases

### Overview

- Late testers, persons who receive an AIDS diagnosis within one year of an HIV diagnosis, were one quarter of new HIV cases diagnosed in 2020, which is similar to 2019.
- One third of cases diagnosed in 2020 had no identified risk factor. This is the highest no identified risk factor since 2014 and likely partly influenced by diverting the STI/HIV workforce to COVID-19, limiting the ability to conduct case interviews.

**Table 6. Newly Reported HIV Cases Among County Residents and Percentage of Late Testers by Year of Diagnosis, San Mateo County, 2011-2020<sup>1</sup>**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>HIV Cases</b>	76	73	51	70	66	59	59	61	55	45
<b>Late Testers<sup>1</sup></b>	32%	25%	31%	23%	26%	22%	17%	16%	25%	24%
HIV and AIDS Diagnosed within 12 months	7%	7%	4%	7%	6%	2%	3%	0%	2%	0%
HIV and AIDS Diagnosed Simultaneously	25%	18%	27%	16%	20%	20%	14%	16%	24%	24%
<b>Non Late Tester</b>	68%	75%	69%	77%	74%	78%	83%	84%	75%	76%

<sup>1</sup> San Mateo County data are reported through June 30, 2021 from the electronic HIV/AIDS Reporting System (eHARS). <sup>2</sup> Late testers are defined as individuals who receive an AIDS diagnosis within 1 year of their HIV diagnosis or who are diagnosed with HIV and AIDS simultaneously. New cases are among individuals who were San Mateo County residents at the time of diagnosis. Totals may add up to >100% due to rounding.

**Table 7. Characteristics of Newly Reported HIV Cases Among County Residents by Year of Diagnosis, San Mateo County, 2014-2020<sup>1</sup>**

	2014	2015	2016	2017	2018	2019	2020
<b>Total Number</b>	70	66	59	59	61	55	45
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<b>Sex</b>							
Male	90%	86%	86%	83%	93%	89%	93%
Female	7%	14%	14%	15%	7%	11%	7%
Transgender/Other/Unknown	3%	0%	0%	2%	0%	0%	0%
<b>Age at Diagnosis</b>							
0 - 19 Years	1%	3%	0%	0%	0%	2%	0%
20 - 29 Years	6%	14%	14%	10%	26%	29%	27%
30 - 39 Years	36%	23%	34%	42%	36%	33%	24%
40 - 49 Years	24%	24%	25%	20%	15%	20%	29%
50 - 59 Years	16%	23%	17%	20%	13%	11%	11%
60+	17%	14%	10%	7%	10%	5%	9%
Missing	0%	0%	0%	0%	0%	0%	0%
<b>Race/Ethnicity</b>							
White	27%	36%	20%	31%	21%	16%	31%
Black/African American	11%	3%	5%	10%	10%	7%	7%
Latinx	41%	41%	53%	27%	44%	55%	42%
Asian	19%	17%	14%	24%	20%	16%	18%
Multi-Race/Other/Unknown	1%	3%	8%	8%	5%	5%	2%
<b>Exposure Category</b>							
MSM	66%	53%	71%	69%	70%	67%	56%
IDU	1%	5%	3%	2%	2%	2%	0%
Heterosexual Contact <sup>2</sup>	10%	11%	15%	8%	5%	7%	9%
MSM/IDU	4%	6%	0%	2%	5%	9%	4%
Other Risk <sup>3</sup>	1%	0%	0%	0%	0%	0%	0%
Not specified	17%	26%	10%	19%	18%	15%	31%

<sup>1</sup> San Mateo County data are reported through June 30, 2021 from the electronic HIV/AIDS Reporting System (eHARS). <sup>2</sup> Sex with MSM, IDU or known HIV infected person. <sup>3</sup> Other risk includes either perinatal transmission, exposure to blood transfusion or blood products, or receiving a transplant. New cases are among individuals who were San Mateo County residents at the time of diagnosis.

## HIV– Late Testers, 2015-2020

- Females comprise 12% of late testers, defined as HIV diagnosed within a year of AIDS, and newly reported cases between 2015-2020.
- During this period, 39% of late testers were 50 years or older.
- 40% of late testers were Latinx.
- 35% of late testers had no specified risk factor.

**Table 8. Characteristics of Late HIV Testers in Residents of San Mateo County, 2015-2020<sup>1</sup>**

(6 years)	Number	%
<b>Total Number</b>	75	100
<b>Sex</b>		
Male	66	88
Female	9	12
Transgender/Other/Unknown	0	0
<b>Age at Diagnosis</b>		
0 - 19 Years	0	0
20 - 29 Years	9	12
30 - 39 Years	16	21
40 - 49 Years	21	28
50 - 59 Years	15	20
60+	14	19
<b>Race/Ethnicity</b>		
White	21	28
Black/African American	5	7
Latinx	30	40
Asian	15	20
Multi-Race/Other/Unknown	4	5
<b>Exposure Category</b>		
MSM	37	49
IDU	3	4
Heterosexual Contact <sup>2</sup>	6	8
MSM/IDU	3	4
Other Risk <sup>3</sup>	0	0
Not Specified	26	35

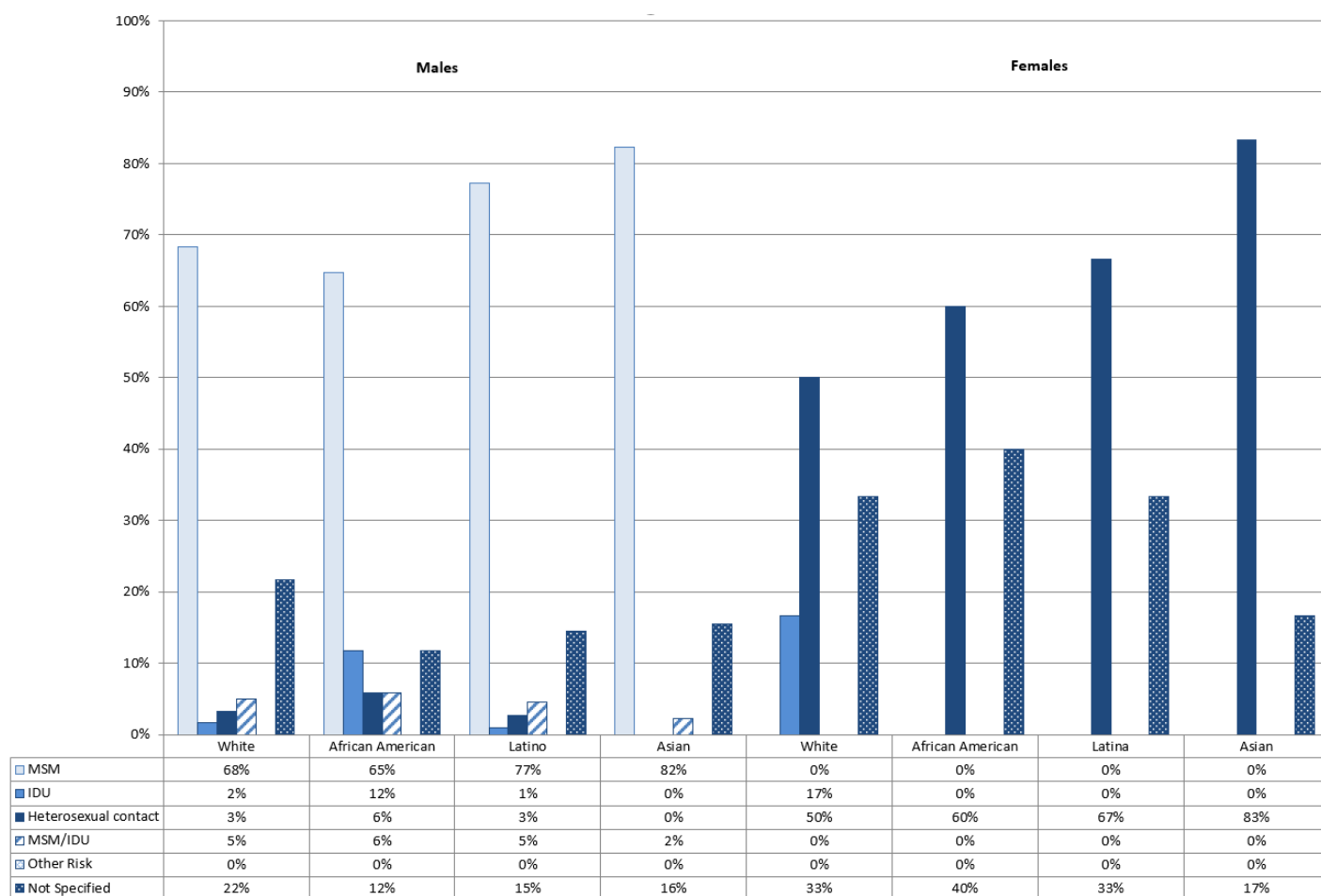
<sup>1</sup>San Mateo County data are reported through June 30, 2021 from the electronic HIV/AIDS Reporting System (eHARS). Late testers are defined as individuals who receive an AIDS diagnosis within 1 year of their HIV diagnosis or who are diagnosed with HIV and AIDS simultaneously. <sup>2</sup>Sex with MSM, IDU or known HIV infected person. <sup>3</sup>Other risk includes either perinatal transmission, exposure to blood transfusion or blood products, or receiving a transplant. Cases are among individuals who were San Mateo County residents at the time of diagnosis.



## HIV– Newly Diagnosed HIV Cases, 2016-2020

- Among male HIV cases newly diagnosed 2016-2020, the transmission category with the highest percentage of cases ( $\geq 65\%$ ) across all race/ethnicities is men who have sex with men (MSM).
- Among male HIV cases newly diagnosed 2016-2020, 12-22% specified no risk category.
- For female HIV cases newly diagnosed 2016-2020, 17-40% specified no risk category.
- 12% of Black/African-American male newly diagnosed cases from 2016-2020 and 17% of white female newly diagnosed cases reported injection drug use (IDU).

**Figure 18. Adult HIV Cases Diagnosed in County Residents From 2016-2020 by Transmission Category, Sex, and Race/Ethnicity, San Mateo County**

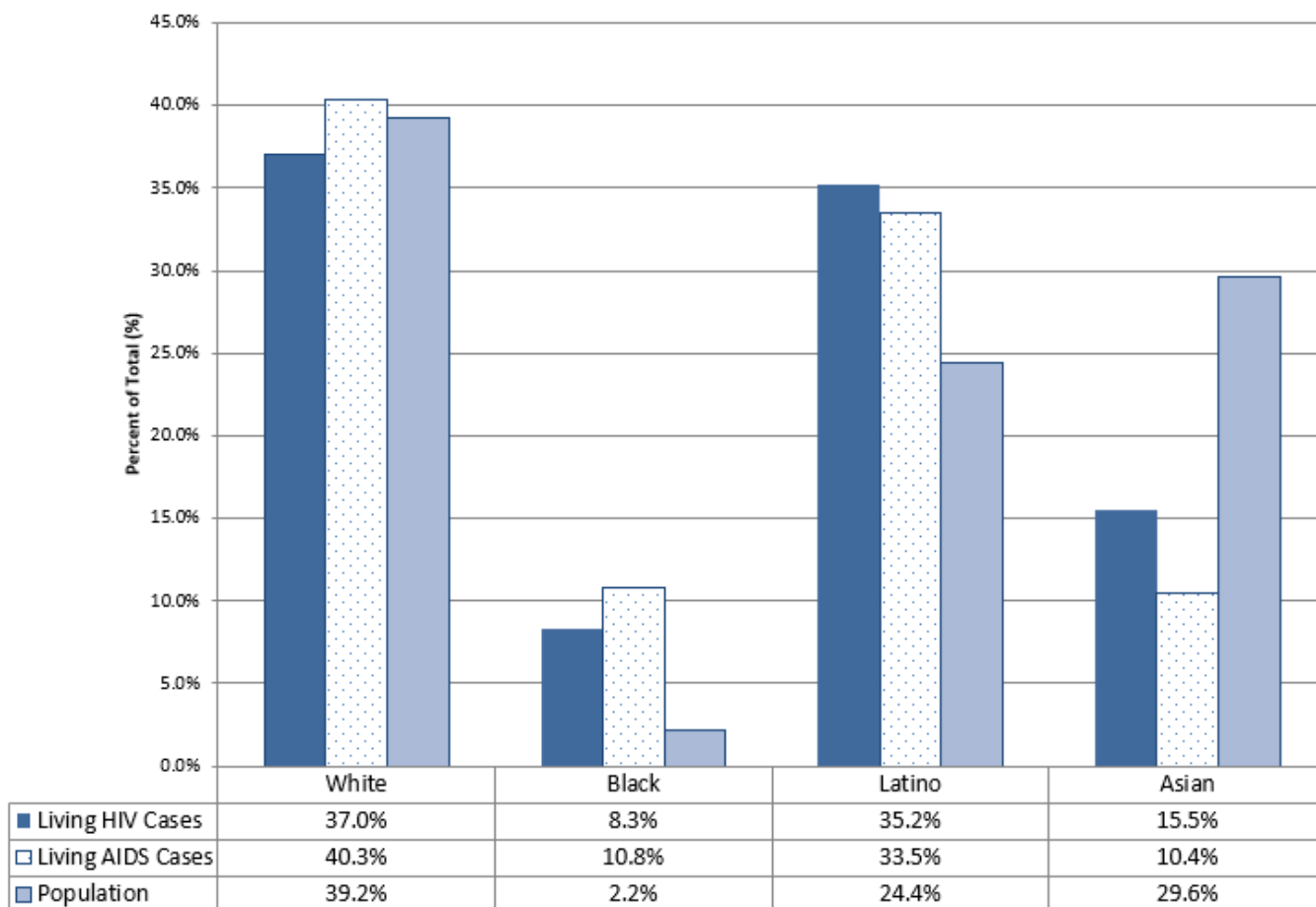


Data is compiled from the June 30, 2021 data set from the electronic HIV/AIDS Reporting System of California (eHARS). Other risk includes either perinatal transmission, exposure to blood transfusion or blood products, or receiving a transplant. Cases are among individuals who were San Mateo County residents at the time of diagnosis.

## HIV- Persons Living with HIV/AIDS, 2020

- In 2020, Black/African Americans and Latinos were over represented among living HIV and AIDS cases based on county population percentage.
- In 2020, Asians were under represented among living HIV and AIDS cases based on county population percentage.

**Figure 19. Persons Living with HIV, Living with AIDS, and the County Population by Race/Ethnicity, San Mateo County, 2020**



HIV/AIDS data is compiled from the June 30, 2021 data set from the electronic HIV/AIDS Reporting System of California (eHARS). Population data is from the U.S. Census Bureau, 2017 American Community Survey 1-year estimates. Persons living with HIV/AIDS are current San Mateo County residents.

## HIV– People Living with HIV/AIDS, San Mateo County (2020) and CA (2019)

- In 2020, SMC had a lower percentage of Black/African American persons living with HIV and a higher percentage of Asian persons living with HIV compared to California in 2019.
- SMC had a higher percentage of persons age 60+ living with HIV in 2020 compared to California in 2019.
- SMC had almost double unknown HIV risk in persons living with HIV in 2020 compared to California in 2019.

**Table 9. Demographic and Exposure Risk Characteristics of Living Persons Diagnosed with HIV/AIDS in San Mateo County (2020) and California (2019)**

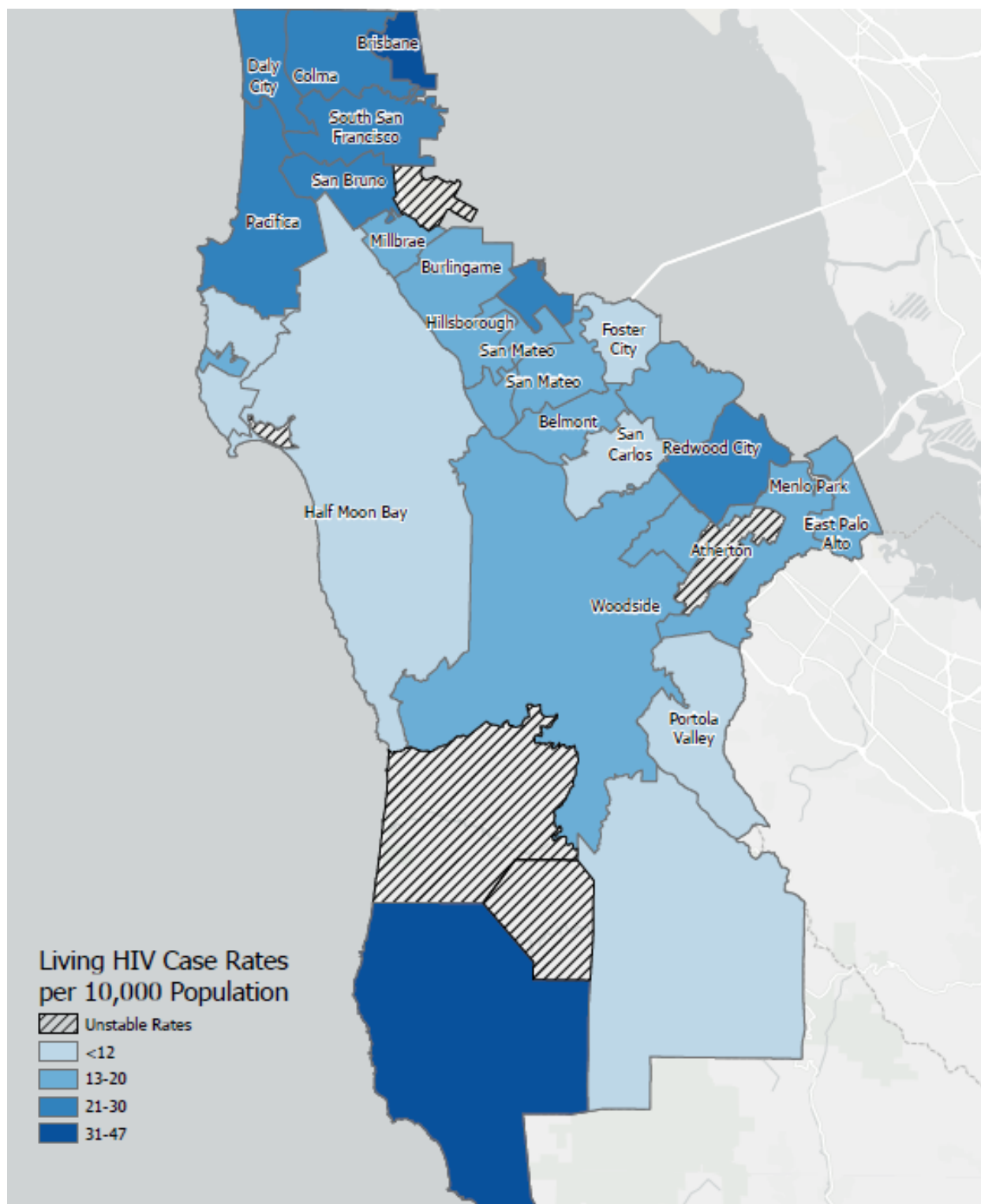
	San Mateo County <sup>1</sup>		California <sup>2</sup>	
	(N = 1,666)		(N = 137,785)	
	Number	%	Number	%
<b>Sex</b>				
Male	1,434	86.1	119,528	86.7
Female	213	12.8	16,137	11.7
Transgender/Other/Unknown	19	1.1	2,120	1.5
<b>Race/Ethnicity</b>				
White	644	38.7	51,280	37.2
Black/African-American	159	9.5	23,456	17.0
Latinx	573	34.4	51,981	37.7
Asian	217	13.0	5,796	4.2
American Indian/Alaskan Native	4	0.2	353	0.3
Pacific Islander	19	1.1	261	0.2
Multi-Race/Other/Unknown	50	3.0	4,658	3.4
<b>Current Age</b>				
0 - 19	8	0.5	464	0.3
20 - 29	93	5.6	10,475	7.6
30 - 39	269	16.1	24,048	17.5
40 - 49	336	20.2	28,380	20.6
50 - 59	475	28.5	42,916	31.1
60+	485	29.1	31,502	22.9
<b>Exposure Category</b>				
MSM	1,082	64.9	91,729	66.6
IDU	95	5.7	7,712	5.6
Heterosexual contact <sup>3</sup>	179	10.7	20,298	14.7
MSM/IDU	85	5.1	8,838	6.4
Perinatal/Unknown Risk/Other <sup>4</sup>	225	13.5	9,208	6.7
Perinatal	11	0.7	-	-
Unknown Risk	205	12.3	-	-
Other <sup>5</sup>	9	0.5	-	-

<sup>1</sup> California Department of Public Health, Office of AIDS, HIV/AIDS Surveillance Section. Electronic HIV/AIDS Reporting System of California (eHARS) June 30, 2021 data set. <sup>2</sup> California Department of Public Health, Office of AIDS, HIV/AIDS Surveillance Section. Year 2019 data included as 2020 data is not yet available. <sup>3</sup> Sex with MSM, IDU or known HIV infected person. <sup>4</sup> CDPH does not separate out perinatal, unknown risk, and other exposure categories. <sup>5</sup> Other risk includes perinatal transmission or by receiving clotting factor, transfusion, or a transplant. Cases are among individuals who are current San Mateo County residents.

## Geography of Living HIV Cases in San Mateo County

- The areas with the highest rates of residents living with HIV are the zip codes of 94005 (Brisbane), 94060 (Pescadero), 94014 (Colma), 94063 (Redwood City), and (94080) South San Francisco. Rates for zip codes with fewer than 20 cases or with low populations may be unstable.

**Figure 20. Population Rates of Reported Living HIV Cases by Current Residential Zip Code in San Mateo County, 2020**



Data is compiled from the June 30, 2021 data set from the electronic HIV/AIDS Reporting System of California (eHARS). Cases are among individuals who are current San Mateo County residents. Rates for zip codes with fewer than 20 cases or with low populations may be unstable.

## Summary of Sources and Technical Notes

### Summary of Sources for all Bacterial STIs

The STI surveillance systems operated by San Mateo County Public Health and California Department of Public Health (CDPH) are the sources of San Mateo County data in this publication. Case reports and STI laboratory results are submitted to San Mateo County and/or CDPH through the California Reportable Disease Information Exchange (CalREDIE) system. CalREDIE data was used to compile the most recent years of data for this report. Historical data used to create trend graphs for San Mateo County and the State of California included information from the Automated Vital Statistics System (AVSS) and from information supplied by the California Department of Public Health STD Control Branch.

Disease rates for San Mateo were calculated using State of California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060, Sacramento, California, July 2021.

California STD numbers and rates were gathered from the California Department of Public Health, STD Control Branch's report: California Department of Public Health, STD Control Branch (data as reported through 7/23/2019).

#### Race/Ethnicity Grouping

The race and ethnicity information listed and the corresponding census categories are Black (Black or African-American, non-Hispanic); Latinx (Hispanic ethnicity, regardless of race); White (White, non-Hispanic); Asian (Asian, non-Hispanic), Pacific Islander (Pacific Islander/Native Hawaiian, non-Hispanic); American Indian/Alaska Native (American Indian/Alaska Native, non-Hispanic), Multirace (2 or more races, non-Hispanic), and Other/Unknown (Other, non-Hispanic, or where no race or ethnicity information was available).

### Summary of Sources for HIV and AIDS

HIV and AIDS cases are reported to local health departments using the California Department of Public Health Office of AIDS HIV/AIDS confidential case report form. The case report form collects demographic information, patient risk history, laboratory data to confirm and stage diagnosis, opportunistic and HIV-associated malignancy diagnoses, and treatment and service referrals.

Data for this report were obtained from the electronic HIV/AIDS Reporting System (eHARS) for San Mateo County, which includes persons who reside in San Mateo County at the time of diagnosis. Cases reported from laboratories, providers, death certificates, and other health departments are reviewed for accuracy and completeness. AIDS case data may not represent the characteristics of persons with more recent infections or persons who never progress to AIDS due to combination antiretroviral therapy. Because of reporting delays, data are not complete at the time of analysis. Hence, a change in the overall numbers in future reports is to be expected.

California HIV numbers were gathered from the California Department of Public Health, Office of AIDS, California HIV Surveillance Report — 2019.

#### Race/Ethnicity Grouping

Data about certain racial / ethnic groups or risk factors were grouped together when the number of persons with HIV/AIDS in that group was small and did not present significant trends. For example, Multi-race/Other/Unknown in the Race/Ethnicity breakdown represents persons of unknown and multiple race/ethnicity or Native Americans.

### Technical Notes

Many rates have been calculated using few cases of disease. Caution should be observed when interpreting rates based on few events and/or small populations. For more information, refer to Guidelines for statistical analysis of public health data with attention to small numbers, Revised, July, 2003. This publication can be found at: <https://fhop.ucsf.edu/sites/fhop.ucsf.edu/files/wysiwyg/smallnumbers2003.pdf>