

San Mateo County Sexually Transmitted Disease and HIV-AIDS Surveillance Annual Report, 2018



**SAN MATEO
COUNTY HEALTH**

www.smchealth.org/std • Provider STD Reporting 650-573-2346 • STD Clinic: 650.573.2385

• Aracely Tamayo PhD, Epidemiologist • Vivian Levy MD, STD Controller

• Scott Morrow MD, MPH, MBA, Health Officer



Introduction and Acknowledgements

This is the 2018 report of data and program highlights from the STD/HIV Program in the San Mateo County Health System. For questions and feedback on this report or on the STD/HIV Program, please contact the Epidemiology unit.

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

Suggested Citation:

San Mateo County Department of Public Health, Policy & Planning. San Mateo County Sexually Transmitted Disease and HIV-AIDS Surveillance Annual Report, 2018. San Mateo County Department of Public Health, Policy & Planning, San Mateo, California. December 2018.

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, Darryl Lampkin, Teresa Lopez, Judith Ochoa, Marco Vergara, Wesley Yuen, and Karen Pfister.

Table of Contents

I. Overview of the Sexually Transmitted Diseases/ HIV Program.....	2
II. Bacterial Sexually Transmitted Diseases in San Mateo County.....	3-20
1. Overview of Bacterial STDs in San Mateo County	3
Figure 1. STDs Rates By Year in San Mateo County, 2004-2018.....	3
Table 1. STD Cases and Rates By Year Reported in San Mateo County, 2004-2018	4
Figure 2. STDs Rates for Females By Year in San Mateo County, 2004-2018	5
Figure 3. STDs Rates for Males By Year in San Mateo County, 2004-2018	5
A. Chlamydia	6
1. Overview of Chlamydia in San Mateo County	6
Figure 4. Chlamydia Cases and Rates by Year in San Mateo County, 2004-2018.....	6
Figure 5. Chlamydia Rates by Sex and Year in San Mateo County and State of California, 2004-2018	7
Figure 6. Chlamydia Cases by Sex and Age in San Mateo County, 2018	7
Figure 7. Chlamydia Cases by Sex and Selected Race/Ethnic Groups in San Mateo County, 2018	8
Table 2. Chlamydia Cases and Rates by Demographic and Clinical Characteristics by Sex in San Mateo County, 2017 and 2018.....	9
Figure 8. Chlamydia Rates by Census Tract in San Mateo County, 2018	10
B. Gonorrhea	11
1. Overview of Gonorrhea in San Mateo County	11
Figure 9. Gonorrhea Cases and Rates by Year in San Mateo County, 2004-2018.....	11
Figure 10. Gonorrhea Rates by Sex and Year in San Mateo County and State of California, 2004-2018	12
Figure 11. Gonorrhea Cases by Sex and Age in San Mateo County, 2018.....	12
Figure 12. Gonorrhea Cases by Sex and Selected Race/Ethnic Groups in San Mateo County, 2018	13
Table 3. Gonorrhea Cases and Rates by Demographic and Clinical Characteristics by Sex in San Mateo County, 2017 and 2018.....	14
Figure 13. Gonorrhea Rates by Census Tract in San Mateo County, 2014-2018	15
C. Syphilis	16
1. Overview of Syphilis in San Mateo County	16
Figure 14. Early Syphilis Cases and Rates by Year in San Mateo County, 2004-2018	16
Figure 15. Early Syphilis Rates by Sex and Year in San Mateo County and State of California, 2004-2018.....	17
Figure 16. Early Syphilis Rates by Syphilis Stage and Year in San Mateo County, 2004-2018	17
Table 4. Early Syphilis Cases and Rates by Syphilis Stage, Demographic Characteristics, and Risk Factors, San Mateo County, 2017 and 2018	18
Table 5. Syphilis Cases and Rates by Demographic Characteristics for All Syphilis Stages, San Mateo County, 2017 and 2018	19
Figure 17. Early Syphilis Rates by Census Tract in San Mateo County, 2014-2018	20
III. HIV/AIDS in San Mateo County.....	21-26
A. HIV/AIDS	21
1. Overview of HIV/AIDS in San Mateo County	21
Table 6. Newly Reported HIV Cases Among County Residents and Percentage of Late Testers by Year of Diagnosis, San Mateo County, 2009-2018	21
Table 7. Characteristics of Newly Reported HIV Cases Among County Residents by Year of Diagnosis, San Mateo County, 2012-2018.....	21
Table 8. Characteristics of Late HIV Testers in Residents of San Mateo County, 2013-2018	22
Figure 18. Adult HIV Cases Diagnosed in County Residents From 2014-2018 by Transmission Category, Sex, and Race/Ethnicity, San Mateo County	23
Figure 19. Persons Living with HIV, Living with AIDS, and the County Population by Race/Ethnicity, San Mateo County, 2018	24
Table 9. Demographic and Exposure Risk Characteristics of Living Persons Diagnosed with HIV/AIDS, San Mateo County (2018) and California (2017)	25
Figure 20. Population Rates of Reported Living HIV Cases by Current Residential Zip Code in San Mateo County, 2018	26
IV. Summary of Sources and Technical Notes	27

San Mateo County Health STD/HIV Program Overview

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

Services of the STD/HIV Program

- Provide comprehensive primary and specialty medical care, psychosocial support and case management for persons living with HIV
- Provide STD and HIV screening and treatment through San Mateo County STD 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 STD 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 STD prevalence monitoring in high-risk settings such as STD clinic and correctional facilities
- Conduct disease intervention services, including field-delivered therapy and partner delivered therapy where appropriate
- Support training opportunities and distribute STD/HIV clinical educational materials to health care providers
- Partner with public and private laboratories offering STD/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, Harm Reduction Therapy Center.

Funding and Grants

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

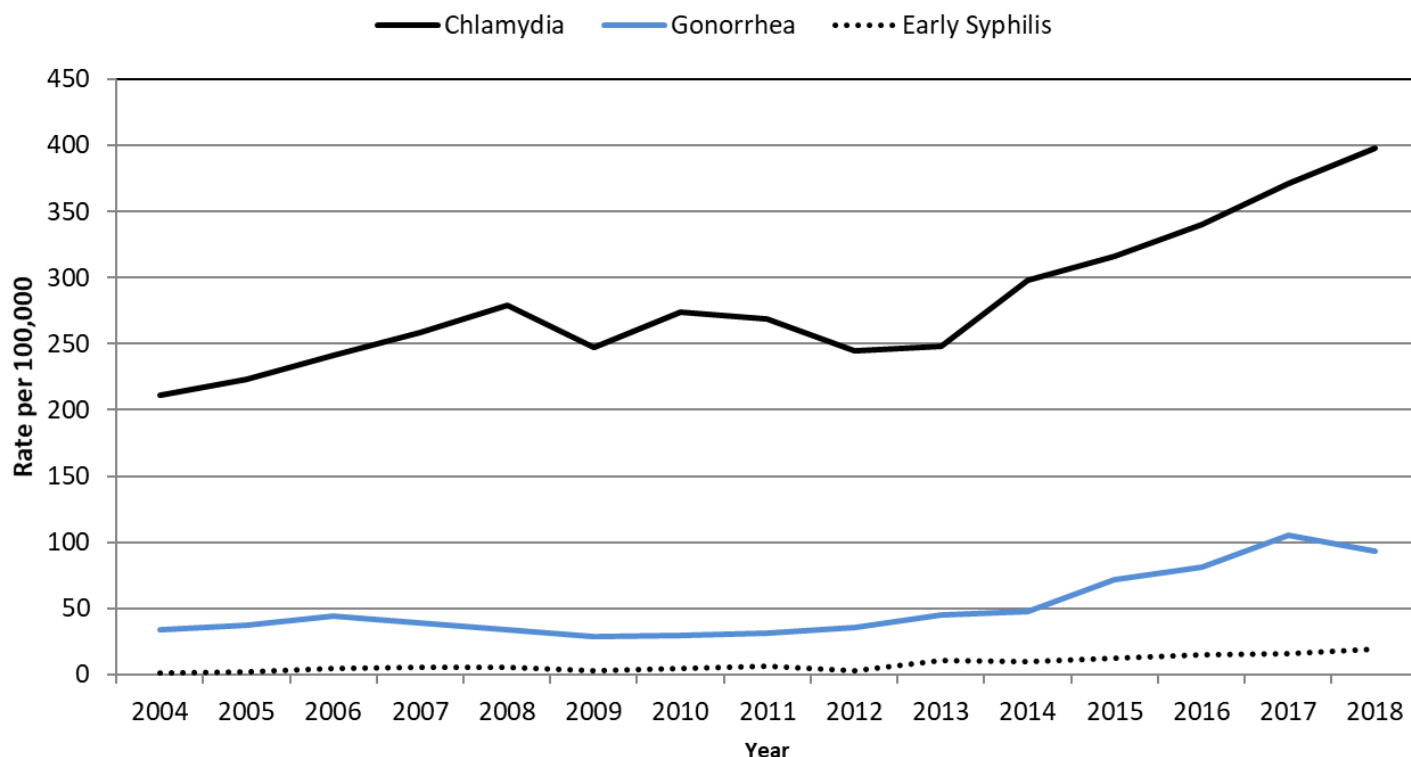
- San Mateo County General Fund
- Federal Health Resources and Services Administration (HRSA) - Ryan White Part A as part of the San Francisco Eligible Metropolitan Area (EMA)
- Federal Centers for Disease Control & Prevention (CDC) - HIV Prevention Funds through the California Department of Public Health – 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 STDs

Overview

- SMC early syphilis cases (acquired in the last year) increased 22% in 2018 compared to 2017. Females comprised only 3% of SMC early syphilis cases in 2018.
- SMC gonorrhea (GC) case numbers and rates dropped for 2018 despite steady increases since 2009, with a 10% decrease in cases compared to 2017. GC decreased 25% in women and 7% in men compared to 2017. The GC male to female ratio is approximately 4:1.
- Chlamydia trachomatis (CT) cases increased 8% in 2018 compared to 2017.
- Statewide and nationally, all three notifiable STDs increased compared to 2017 and the prior five years.
- SMC rates are below California rates for all three notifiable STDs.
- The drivers of these increases are likely multifactorial with possible reasons including increased disease incidence, increased oral and rectal screening in men who have sex with men (MSM,) less condom use in the setting of HIV pre-exposure prophylaxis (PrEP) and the role of apps in meeting sexual partners.
- Programmatic priorities are MSM screening for rectal and throat GC and CT, provider adherence to recommended dual treatment regimens for GC to prevent emergence of resistance, assuring timely syphilis treatment and partner services especially for women of reproductive age and improving HIV PrEP access and rapid linkage to care and antiretroviral start for newly HIV infected persons.

Figure 1. STD Rates by Year in San Mateo County, 2004-2018



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 STDs

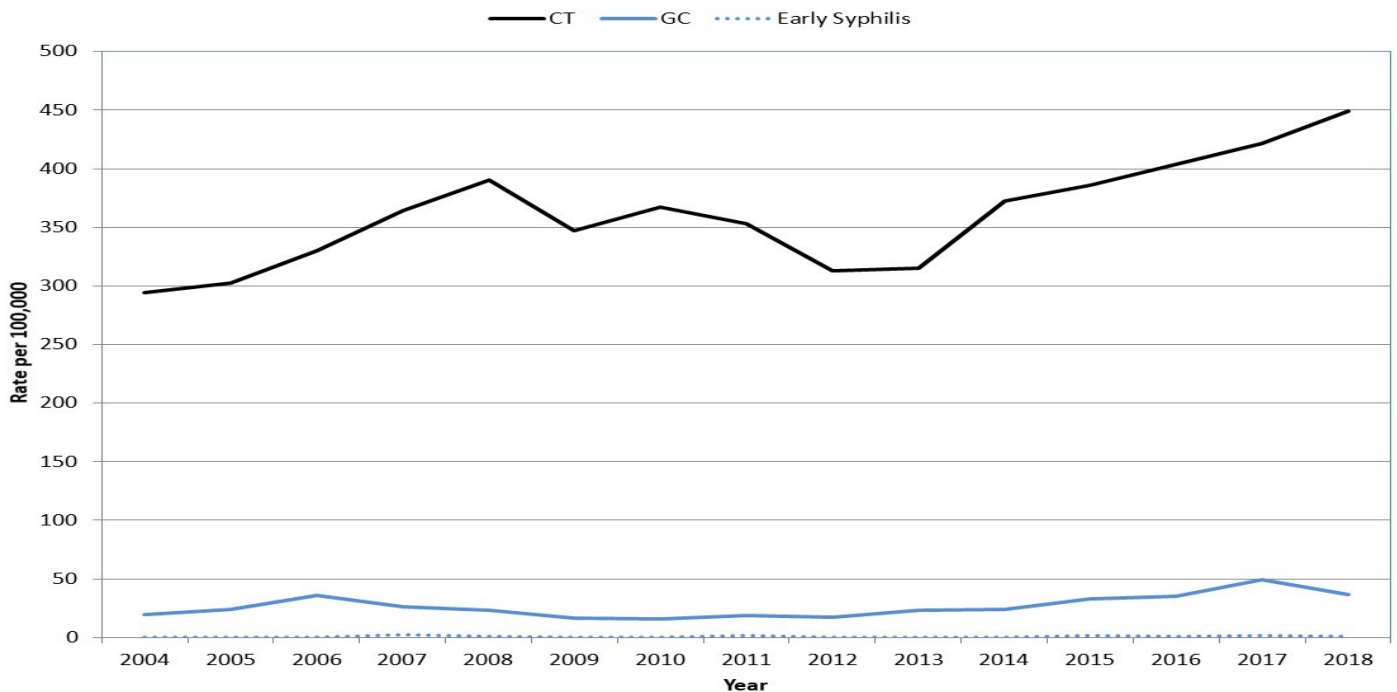
Table 1. STD Cases and Rates by Year Reported in San Mateo County, 2004-2018

Reported Cases															
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Chlamydia	1480	1560	1687	1823	1986	1773	1972	1957	1803	1839	2228	2378	2579	2867	3104
Gonorrhea	239	259	310	273	241	206	214	231	265	337	355	539	618	813	729
Syphilis (Total)	13	47	57	75	60	37	51	69	48	101	117	153	168	192	219
Primary	2	5	10	4	15	8	9	7	7	18	20	12	19	36	25
Secondary	2	10	17	22	11	11	13	28	7	39	30	43	41	26	52
Early Latent	2	2	7	13	11	5	13	13	9	22	24	41	55	61	73
(Total Early Syphilis ¹)	6	17	34	39	37	24	35	48	23	79	74	96	115	123	150
Late Latent	7	30	23	35	21	13	16	19	25	22	43	56	53	69	69
Neurosyphilis²	0	1	0	0	0	2	0	2	2	1	0	2	2	4	0
Congenital Syphilis³	0	0	0	1	2	0	0	2	0	0	0	1	0	0	0
Rate⁴															
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Chlamydia	211.0	223.1	241.2	258.8	279.2	247.5	274.1	268.9	245.1	247.9	298.1	315.9	340.4	370.9	398.2
Gonorrhea	34.1	37.0	44.3	38.8	33.9	28.8	29.7	31.7	36.0	45.4	47.5	71.6	81.6	105.2	93.5
Syphilis (Total)	1.9	6.7	8.1	10.5	8.2	5.2	7.1	9.5	6.5	13.6	15.7	20.3	22.2	24.8	28.1
Primary	0.3	0.7	1.4	0.6	2.1	1.1	1.3	1.0	1.0	2.4	2.7	1.6	2.5	4.7	3.2
Secondary	0.3	1.4	2.4	3.1	1.5	1.5	1.8	3.8	1.0	5.3	4.0	5.7	5.4	3.4	6.7
Early Latent	0.3	0.3	1.0	1.8	1.5	0.7	1.8	1.8	1.2	3.0	3.2	5.4	7.3	7.9	9.4
(Total Early Syphilis ¹)	0.9	2.4	4.9	5.5	5.2	3.4	4.9	6.6	3.1	10.6	9.9	12.8	15.2	15.9	19.2
Late Latent	1.0	4.3	3.3	5.0	3.0	1.8	2.2	2.6	3.4	3.0	5.8	7.4	7.0	8.9	8.9
Neurosyphilis²	0.0	0.1	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
Congenital Syphilis³	0.0	0.0	0.0	10.1	20.5	0.0	0.0	22.1	0.0	0.0	0.0	11.2	0.0	0.0	0.0

¹Early syphilis includes primary, secondary and early latent syphilis stages. ²Neurosyphilis cases are a sequelae of syphilis and not a stage, neurosyphilis cases are captured under other syphilis stages. ³Rates equal cases per 100,000 live births per year based on CA Department of Finance, Demographic Research Unit, Historical and Projected Births by County. ⁴Rates 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).

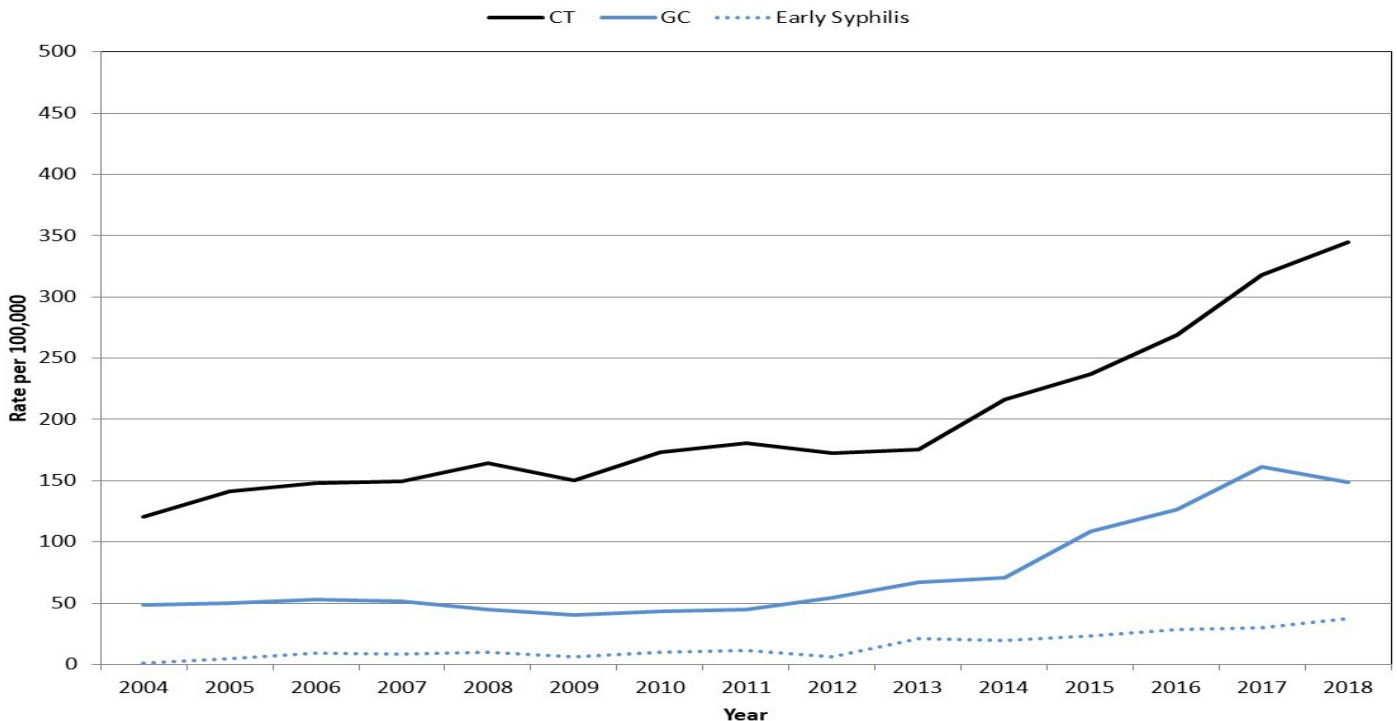
Bacterial STDs

Figure 2. STD Rates For Females by Year in San Mateo County, 2004-2018



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. STD Rates For Males by Year in San Mateo County, 2004-2018



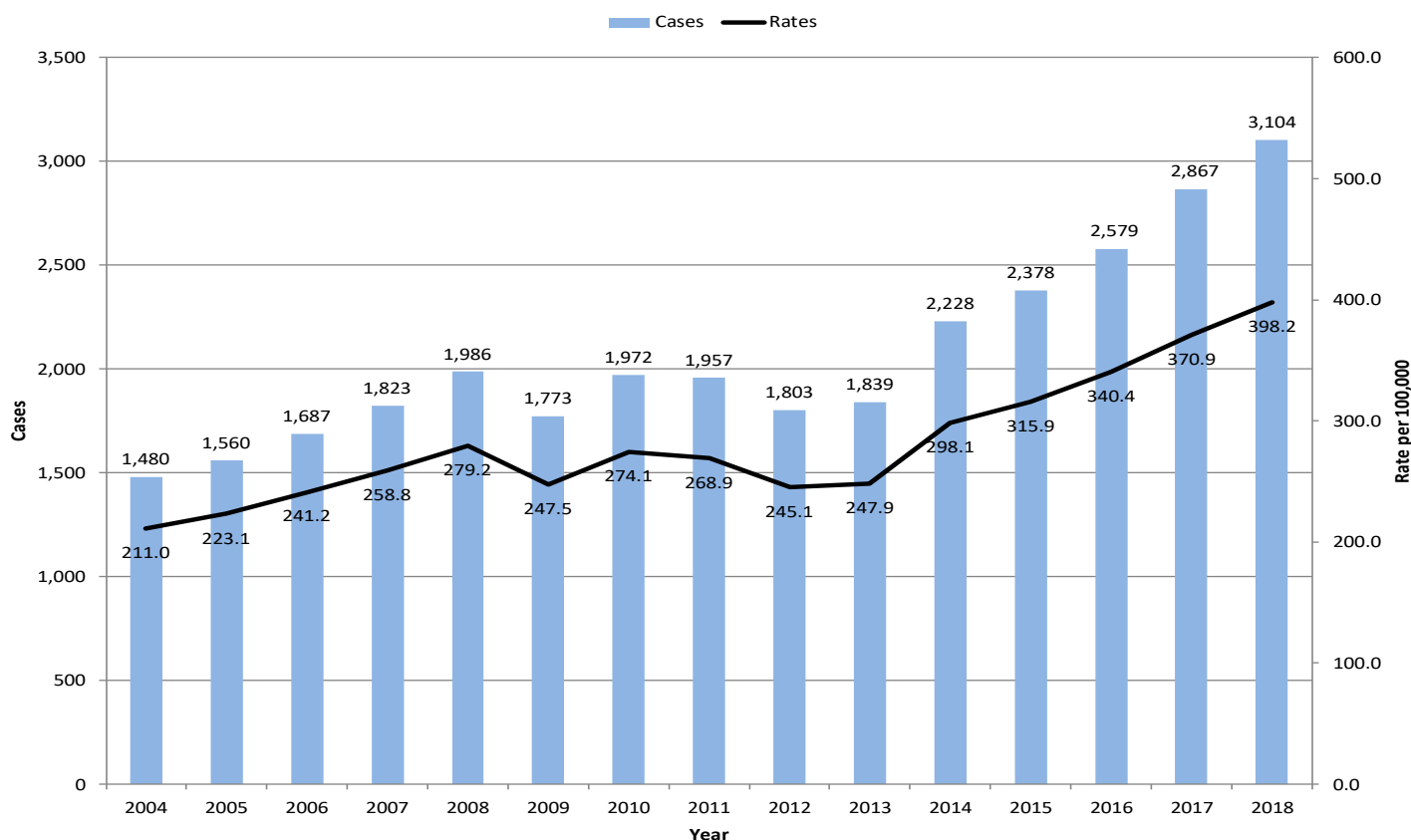
Early Syphilis is defined as primary, secondary, and early latent syphilis stages of disease. Rates equal cases per 100,000 male residents per year based on population data from the California Department of Finance. Data for San Mateo County is compiled from the California Reportable Disease Information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

Chlamydia

Overview

- SMC chlamydia trachomatis (CT) cases increased 9% in men and 7% in women in 2018 compared to 2017.
- SMC CT rates remain below California CT rates for both males and females.
- The largest number of female CT cases were in women age 20-24 years.
- One third of reported CT infections did not specify anatomic site of infection.
- Given approximately half of all CT cases are asymptomatic, screening in women age 25 and under, MSM, and high risk heterosexuals is recommended at least annually or more frequently based on risk.

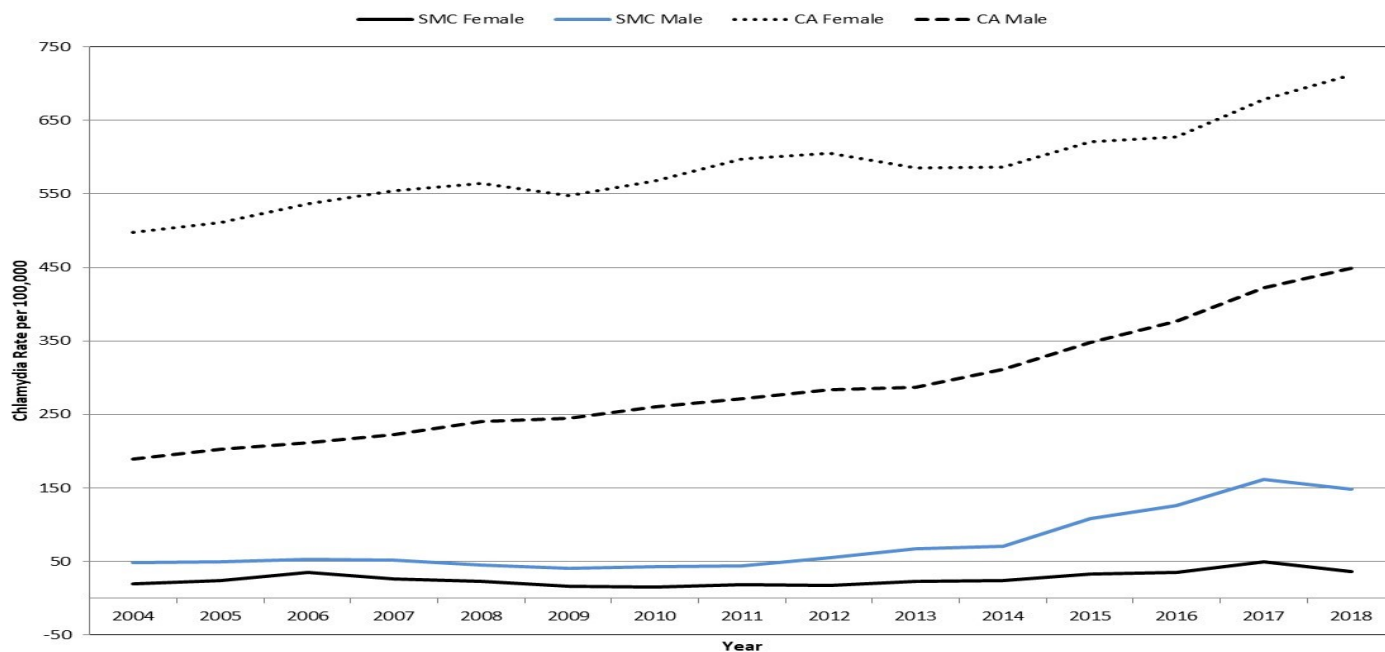
Figure 4. Chlamydia Cases and Rates by Year San Mateo County, 2004-2018



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.

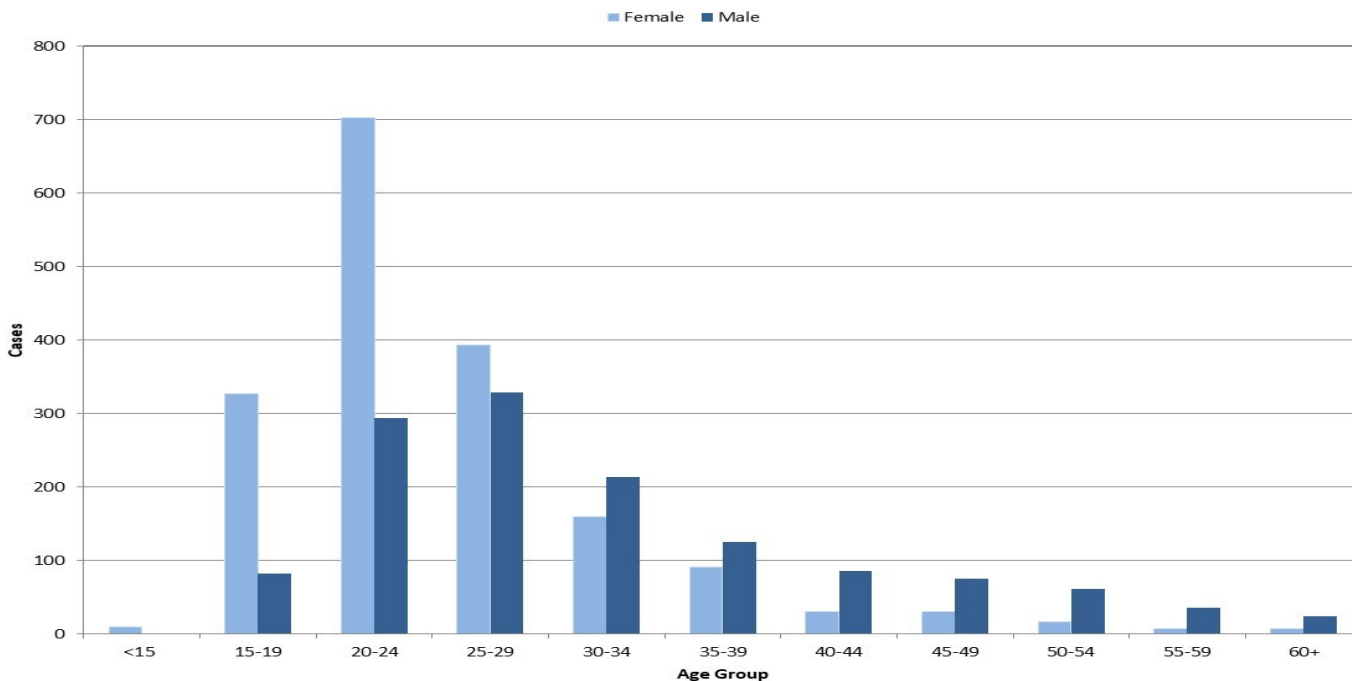
Chlamydia

Figure 5. Chlamydia Rates By Sex and Year in San Mateo County and State of California, 2004-2018



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. Rates equal cases per 100,000 sex specific residents per year based on population data from the California Department of Finance.

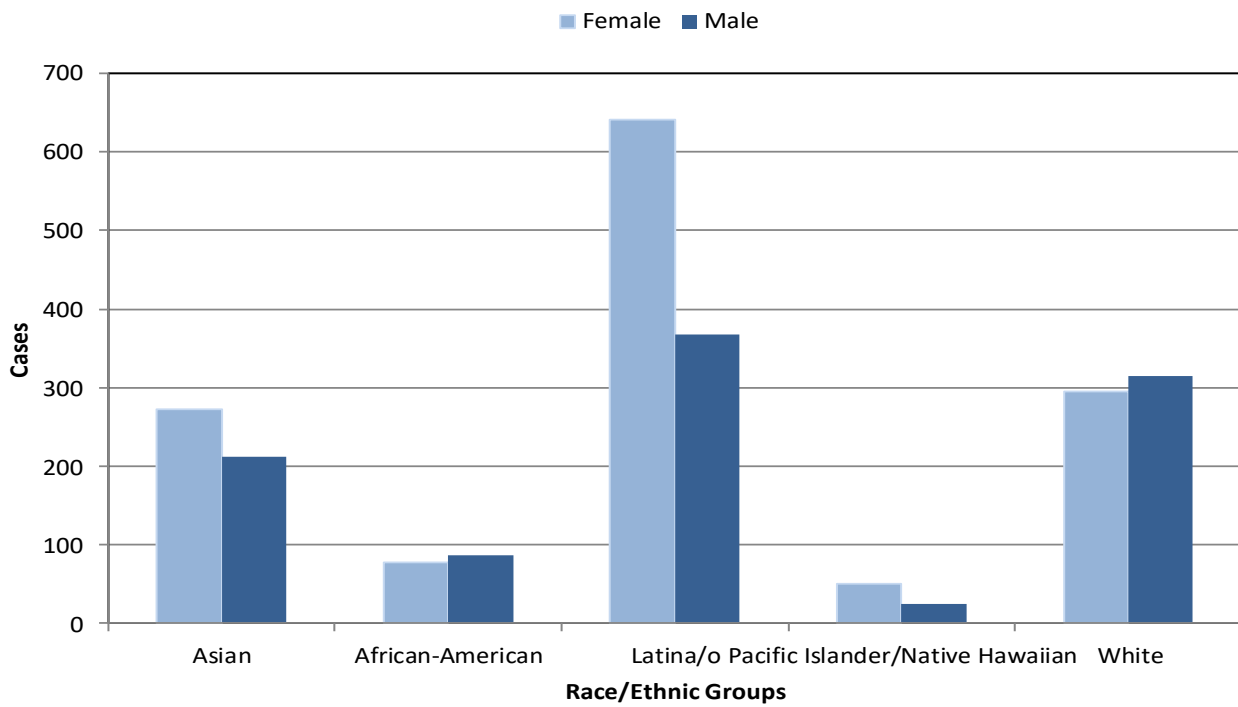
Figure 6. Chlamydia Cases by Sex and Age in San Mateo County, 2018



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
San Mateo County, 2018 (n=2,342)**



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, 2017 and 2018

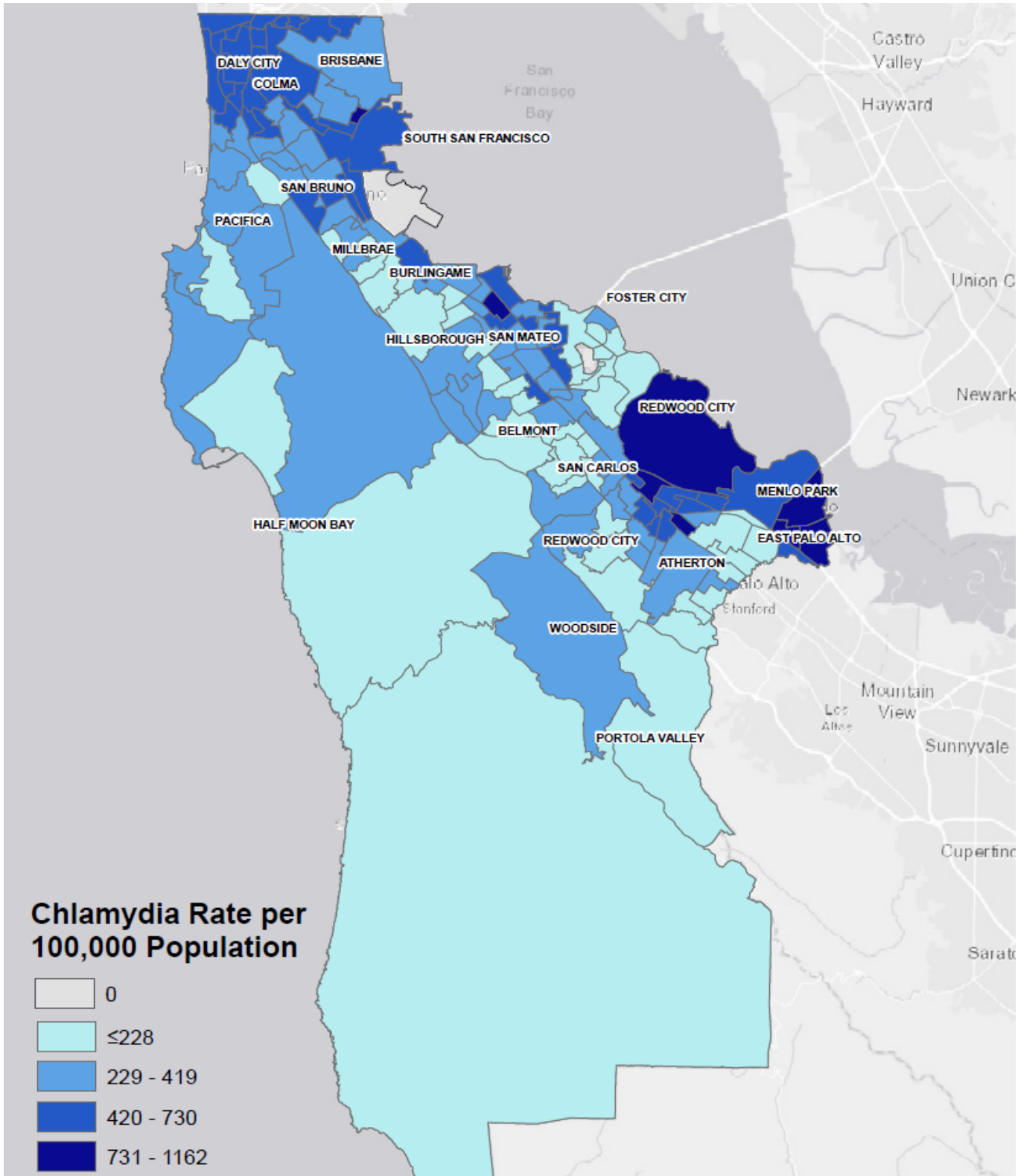
	<u>Women</u>						<u>Men</u>					
	2018			2017			2018			2017		
	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹
County Total	3,104	100	398.2	2,867	100	370.9	3,104	100	398.2	2,867	100	370.9
Sex Total	1,773	57.1	449.4	1,650	57.6	421.4	1,326	42.7	344.4	1,212	42.3	317.8
Age												
<15	9	0.5	13.5	3	0.2	4.3	0	0.0	0.0	1	0.1	1.5
15-19	327	18.4	1620.5	330	20.0	1574.8	82	6.2	385.6	88	7.3	443.6
20-24	702	39.6	3620.4	608	36.8	2963.8	294	22.2	1464.8	312	25.7	1580.1
25-29	393	22.2	1826.6	341	20.7	1434.6	329	24.8	1388.1	307	25.3	1441.2
30-34	159	9.0	626.3	160	9.7	591.4	214	16.1	791.4	162	13.4	627.7
35-39	91	5.1	337.5	81	4.9	297.8	125	9.4	455.7	119	9.8	446.0
40-44	30	1.7	108.8	58	3.5	207.9	86	6.5	307.6	78	6.4	281.8
45-49	30	1.7	99.4	25	1.5	84.3	75	5.7	251.9	53	4.4	176.0
50-54	16	0.9	56.3	16	1.0	57.3	61	4.6	217.8	54	4.5	189.0
55-59	7	0.4	25.1	13	0.8	49.6	35	2.6	132.6	27	2.2	97.8
60+	7	0.4	7.0	13	0.8	16.3	24	1.8	29.0	11	0.9	11.3
Missing	2	0.1	-	2	0.1	-	1	0.1	-	0	0.0	-
Race/Ethnicity												
American Indian/Alaskan	3	0.2	491.0	3	0.2	499.2	4	0.3	653.6	3	0.2	500.0
Asian	272	15.3	256.0	279	16.9	266.0	212	16.0	224.3	215	17.7	230.8
African-American	78	4.4	818.2	72	4.4	754.8	87	6.6	900.9	65	5.4	676.3
Latina/o	641	36.2	636.0	568	34.4	571.0	368	27.8	355.0	335	27.6	327.8
Multirace	15	0.8	108.8	9	0.5	66.5	2	0.2	14.3	2	0.2	14.6
Pacific Islander	51	2.9	845.5	59	3.6	990.4	24	1.8	444.0	13	1.1	243.0
White	295	16.6	187.3	283	17.2	179.6	314	23.7	199.8	283	23.3	180.5
Other/Unknown ³	418	23.6	-	377	22.8	-	315	23.8	-	296	24.4	-
Anatomic Site of Infection												
Urine	654	36.9	-	662	40.1	-	576	43.4	-	662	54.6	-
Genitourinary	606	34.2	-	688	41.7	-	32	2.4	-	19	1.6	-
Rectal/Pharyngeal	8	0.5	-	6	0.4	-	298	22.5	-	252	20.8	-
Other/Unknown	505	28.5	-	294	17.8	-	420	31.7	-	279	23.0	-

Case data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE). ¹ 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. ² 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 chlamydia cases. Note: There were 5 transgender CT cases in 2017 and 5 transgender CT cases in 2018.

The Geography of Chlamydia in San Mateo County

The highest rates of chlamydia infections in 2018 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, 2018



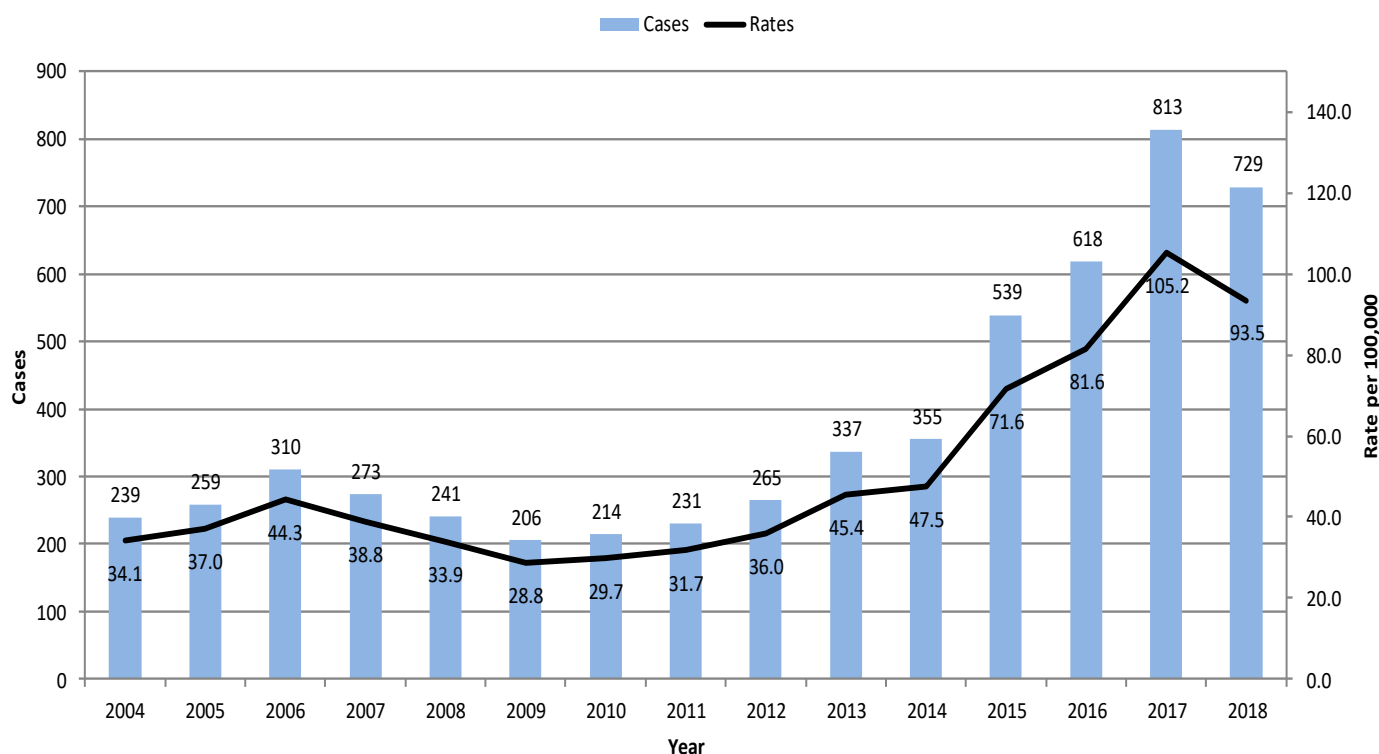
Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates equal count of 2018 chlamydia cases per census tract population.

Gonorrhea

Overview

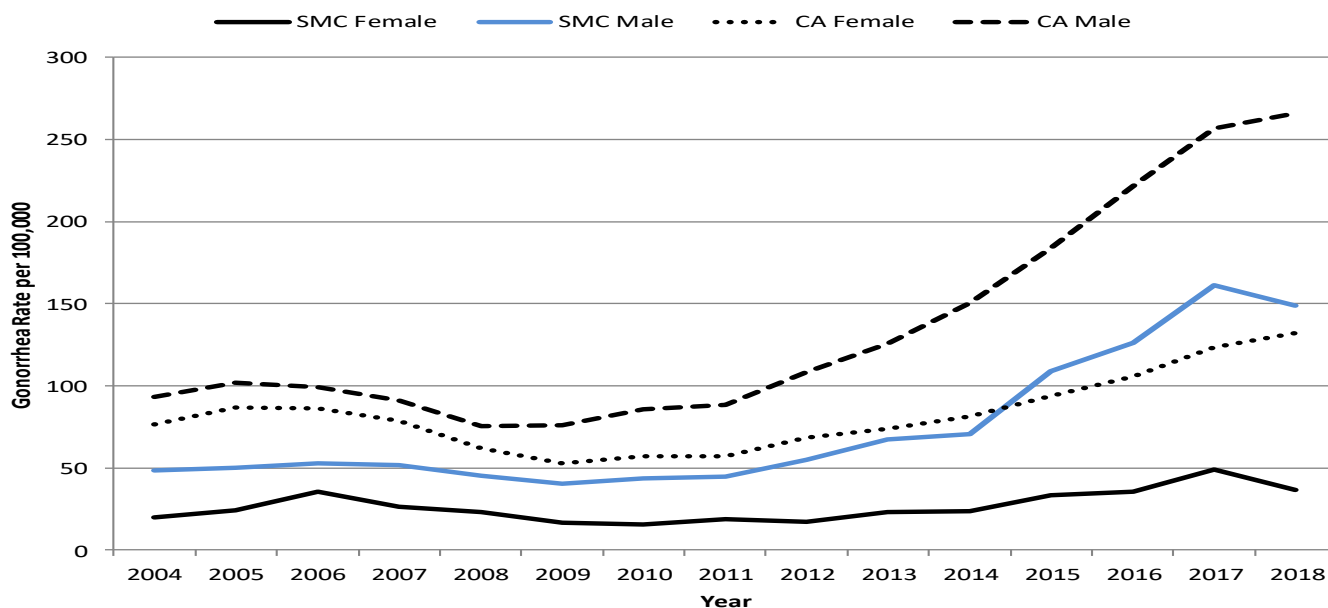
- SMC gonorrhea (GC) case numbers and rates decreased in 2018 with a 25% decrease in female GC cases and a 7% decrease in male GC cases in 2018 compared to 2017.
- In California, 2018 gonorrhea cases increased 5% compared to 2017, with the highest statewide gonorrhea case numbers and rates since the early 1990s.
- In males, rectal and throat GC made up the majority of reported infections.
- The largest GC case rate decreases were in men under 19 years and in women 20-24 years.
- California rates of decreased susceptibility to antibiotics used in current gonorrhea treatments remains low. The San Mateo County (SMC) Public Health Lab participates in a surveillance gonorrhea culture pilot project to maintain lab culture capacity.

Figure 9. Gonorrhea Cases and Rates by Year San Mateo County, 2004-2018



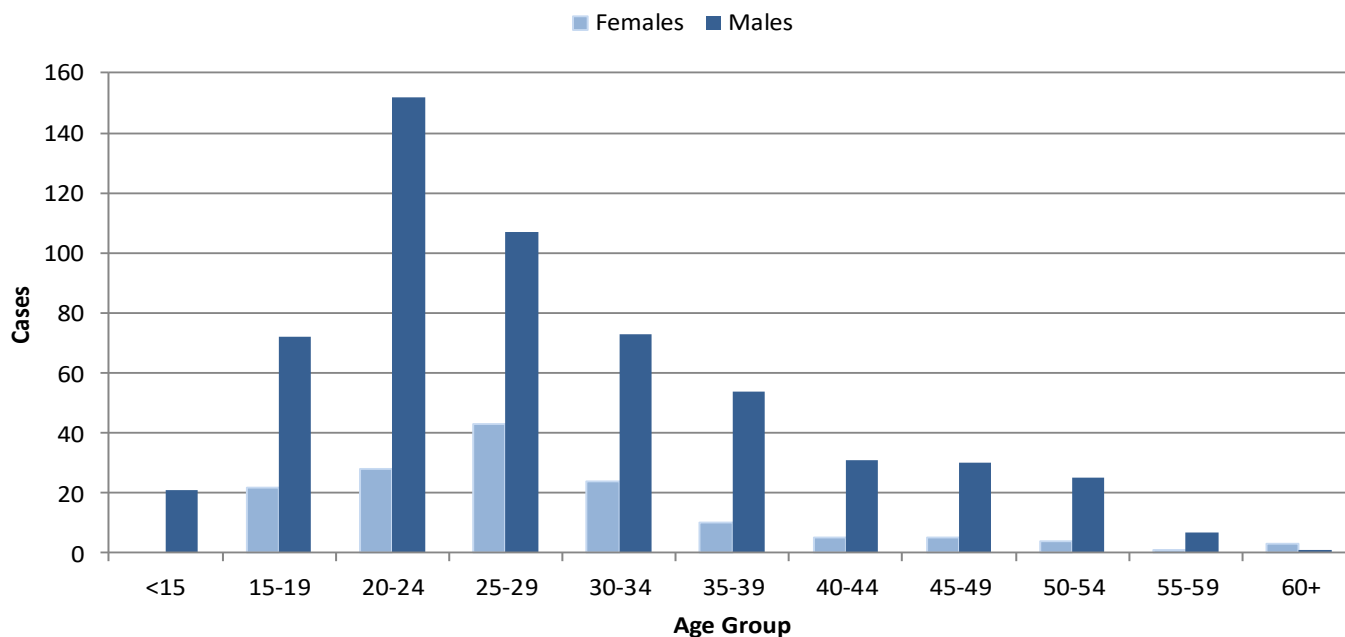
Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CaIREDIE) system and the Automated Vital Statistics System (AVSS). Rates equal cases per 100,000 residents per year based on census data from the California Department of Finance.

Figure 10. Gonorrhea Rates By Sex and Year in San Mateo County and State of California, 2004-2018



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. Rates equal cases per 100,000 sex specific residents per year based on population data from the California Department of Finance.

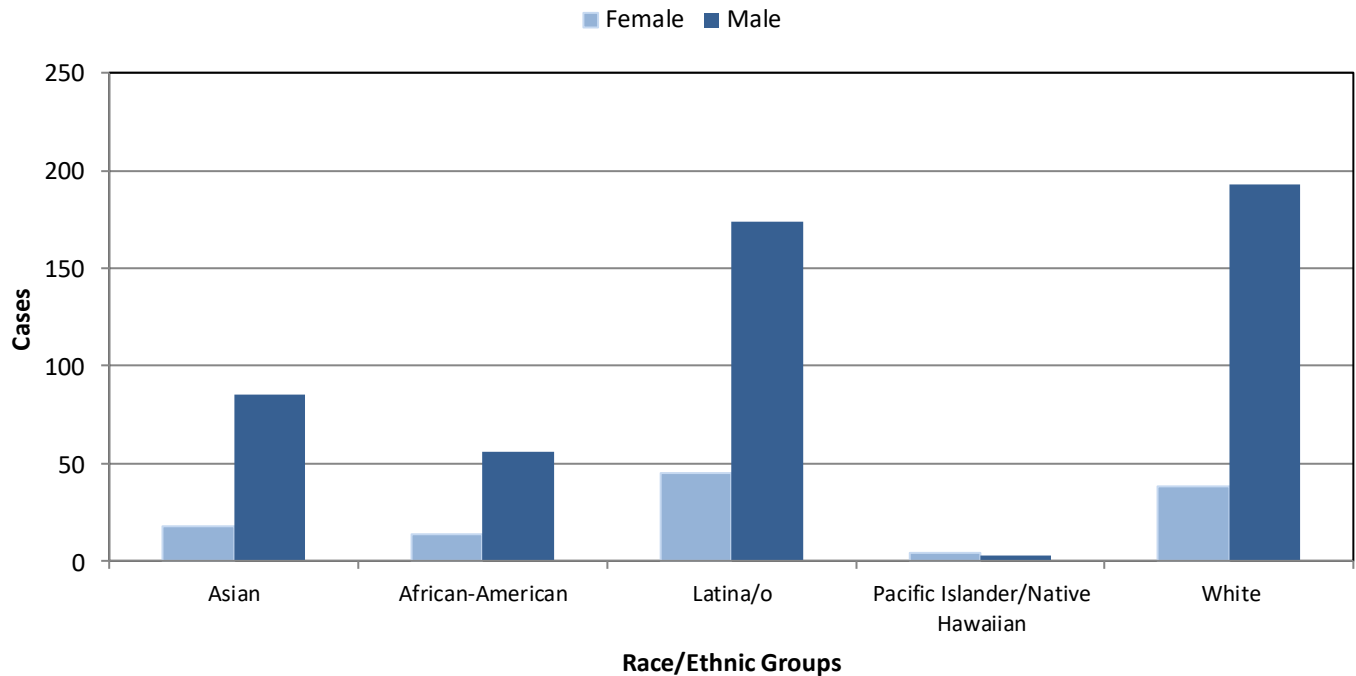
Figure 11. Gonorrhea Cases by Sex and Age in San Mateo County, 2018



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

Gonorrhea

Figure 12. Gonorrhea Cases By Sex and Selected Race/Ethnic Groups in San Mateo County, 2018 (n=533)



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

Table 3. Gonorrhea Cases and Rates by Demographic and Clinical Characteristics by Sex in San Mateo County, 2017 and 2018

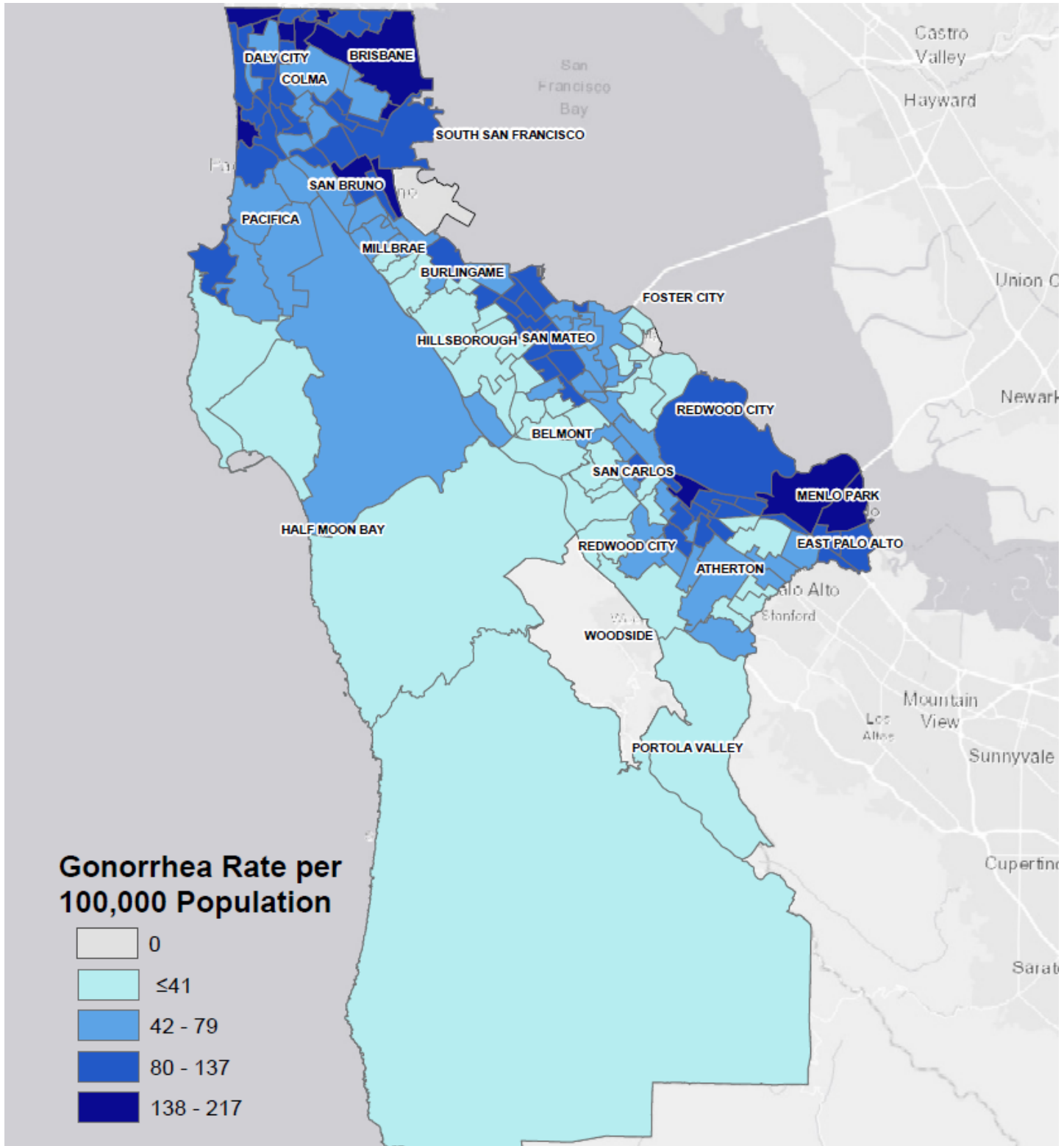
	Women						Men					
	2018			2017			2018			2017		
	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹
County Total	729	100	93.5	813	100	105.2	729	100	93.5	813	100	105.2
Sex Total	145	19.9	36.8	193	23.7	49.3	573	78.6	148.8	616	75.8	161.5
Age												
<15	0	0.0	0.0	1	0.5	1.4	21	3.7	29.7	34	5.5	50.9
15-19	22	15.2	109.0	20	10.4	95.4	72	12.6	338.6	102	16.6	514.2
20-24	28	19.3	144.4	63	32.6	307.1	152	26.5	757.3	155	25.2	785.0
25-29	43	29.7	199.9	38	19.7	159.9	107	18.7	451.5	104	16.9	488.2
30-34	24	16.6	94.5	30	15.5	110.9	73	12.7	270.0	72	11.7	279.0
35-39	10	6.9	37.1	18	9.3	66.2	54	9.4	196.9	60	9.7	224.9
40-44	5	3.4	18.1	8	4.1	28.7	31	5.4	110.9	31	5.0	112.0
45-49	5	3.4	16.6	10	5.2	33.7	30	5.2	100.8	28	4.5	93.0
50-54	4	2.8	14.1	1	0.5	3.6	25	4.4	89.2	21	3.4	73.5
55-59	1	0.7	3.6	3	1.6	11.5	7	1.2	26.5	9	1.5	32.6
60+	3	2.1	3.0	1	0.5	1.3	1	0.2	1.2	0	0.0	0.0
Race/Ethnicity												
American Indian/Alaskan	0	0.0	0.0	1	0.5	166.4	2	0.3	326.8	3	0.5	500.0
Asian	18	12.4	16.9	22	11.4	21.0	85	14.8	89.9	112	18.2	120.2
African-American	14	9.7	146.9	17	8.8	178.2	56	9.8	579.9	47	7.6	489.0
Latina/o	45	31.0	44.7	67	34.7	67.4	174	30.4	167.9	172	27.9	168.3
Multirace	1	0.7	7.3	3	1.6	22.2	2	0.3	14.3	2	0.3	14.6
Pacific Islander	4	2.8	66.3	3	1.6	50.4	3	0.5	55.5	7	1.1	130.8
White	38	26.2	24.1	57	29.5	36.2	193	33.7	122.8	196	31.8	125.0
Other/Unknown ²	25	17.2	-	23	11.9	-	58	10.1	-	77	12.5	-
Anatomic Site of Infection												
Urine	65	44.8	-	88	45.6	-	187	32.6	-	263	42.7	-
Genitourinary	65	44.8	-	92	47.7	-	28	4.9	-	28	4.5	-
Rectal/Pharyngeal	9	6.2	-	4	2.1	-	338	59.0	-	292	47.4	-
Other/Unknown	6	4.1	-	9	4.7	-	20	3.5	-	33	5.4	-

Case data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE). ¹Rates 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. ²Race/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 4 transgender GC cases in 2017 and 11 transgender GC cases in 2018.

The Geography of Gonorrhea in San Mateo County

- The highest rates of gonorrhea infections in 2014-2018 were seen in census tracts in parts of Brisbane, Daly City, East Palo Alto, Pacifica, Redwood City, San Bruno, and South San Francisco.

Figure 13. Gonorrhea Rates by Census Tract in San Mateo County, 2014-2018



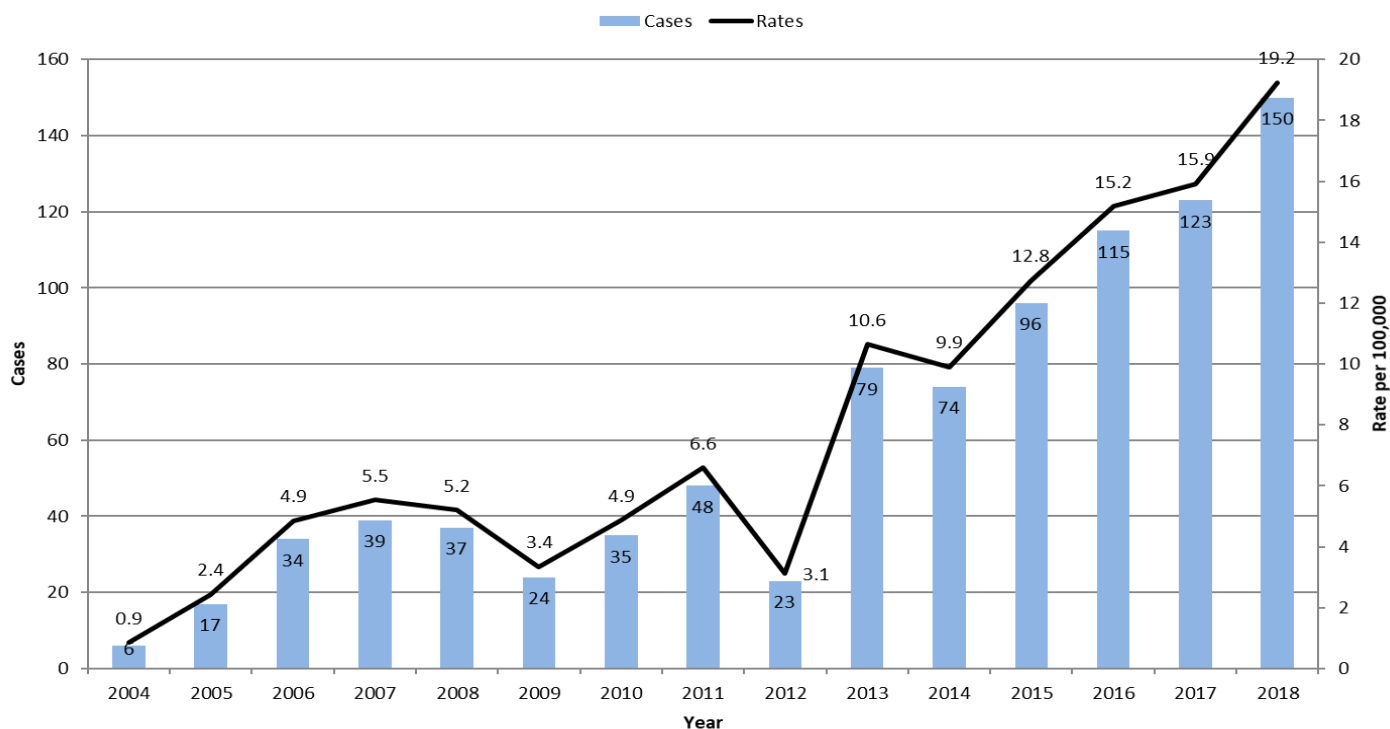
Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates are average annual rate for 2014-2018 per census tract population.

Syphilis

Overview

- SMC total syphilis and early syphilis (defined as acquired in the last year) cases and rates increased in 2018 compared to 2017. SMC early syphilis cases increased 22% compared to last year.
- In 2018, 95% of SMC early syphilis cases were diagnosed in men, which is similar to 2017 (94% early syphilis cases in men).
- SMC had no congenital syphilis cases in 2018.
- California early syphilis cases increased 12% in 2018 compared to 2017. SMC male and female syphilis rates remain below California rates.
- SMC clinical providers should offer syphilis serology testing every 4-6 months to sexually active MSM.
- Pregnant women should be tested at first prenatal visit and during the third trimester, ideally at 28-32 weeks gestation. Maternal syphilis treatment should be completed at least 4 weeks before delivery.

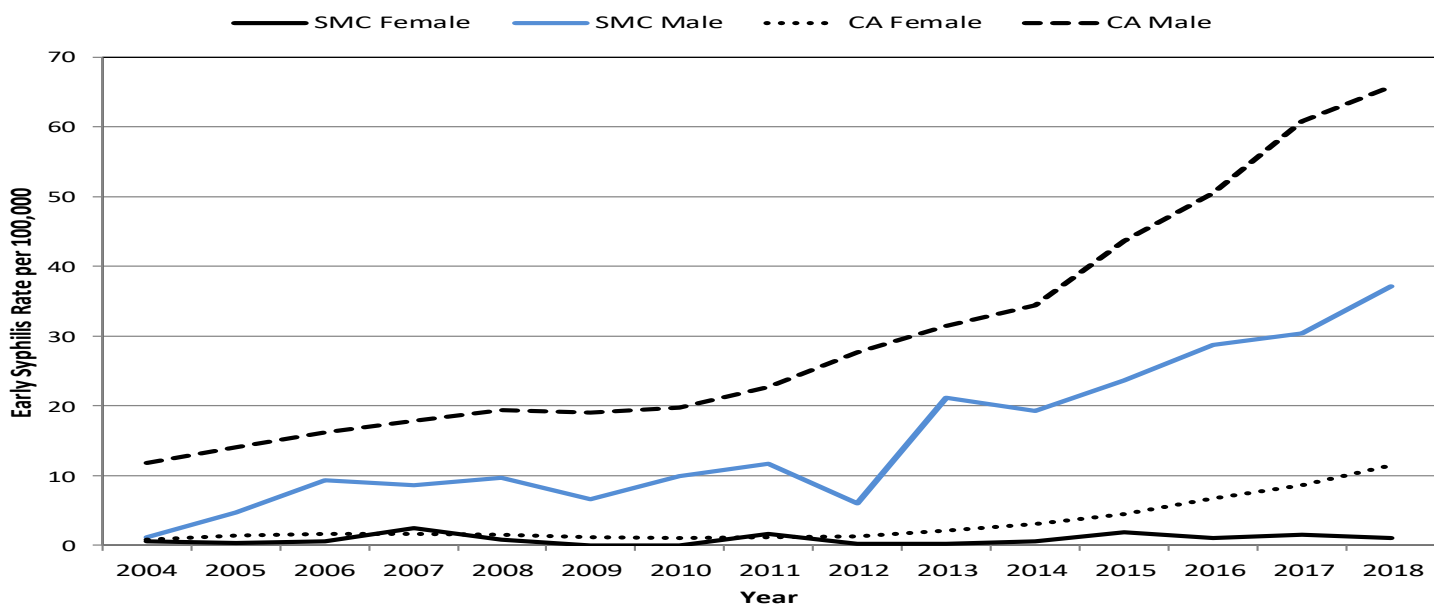
Figure 14. Early Syphilis Cases and Rates by Year San Mateo County, 2004-2018



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.

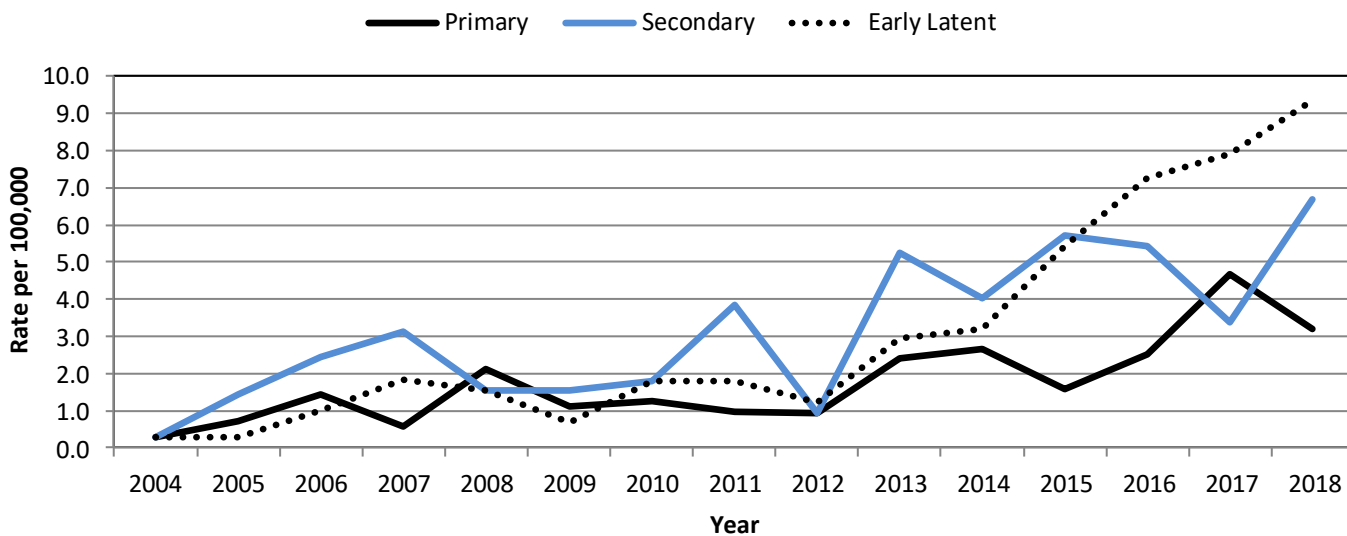
Syphilis

Figure 15. Early Syphilis Rates by Sex and Year in San Mateo County and State of California, 2004-2018



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. 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, 2004-2018



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, 2017 and 2018

	2018			2017		
	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹
Syphilis County Total	219	100	28.1	192	100	24.8
Primary	25	11.4	3.2	36	18.8	4.7
Secondary	52	23.7	6.7	26	13.5	3.4
Early Latent	73	33.3	9.4	61	31.8	7.9
Late Latent	69	31.5	8.9	69	35.9	8.9
Congenital Syphilis	0	0.0	0.0	0	0.0	0.0
Neurosyphilis	0	0.0	0.0	4	2.1	0.5
Early Syphilis²	150	100.0	19.2	123	100.0	15.9
Sex						
Female	4	2.7	1.0	6	4.9	1.5
Male	143	95.3	37.1	116	94.3	30.4
Transgender	3	2.0	--	1	0.8	-
Ages						
<15 years old	0	0.0	0.0	0	0.0	0.0
15-19	4	2.7	9.7	5	4.1	12.3
20-24	20	13.3	50.7	13	10.6	32.3
25-29	37	24.7	81.8	26	21.1	57.7
30-34	21	14.0	40.1	21	17.1	39.7
35-39	21	14.0	38.6	14	11.4	26.0
40-44	10	6.7	18.0	10	8.1	18.0
45-49	7	4.7	11.7	13	10.6	21.8
50-54	17	11.3	30.1	8	6.5	14.2
55-59	9	6.0	16.6	8	6.5	14.9
60+	4	2.7	2.2	5	4.1	2.8
Race/Ethnicity						
American Indian/Alaska Native	0	0.0	0.0	0	0.0	0.0
Asian	36	24.0	17.9	18	14.6	9.1
African-American	12	8.0	62.5	2	1.6	10.4
Latina/o	49	32.7	24.0	44	35.8	21.8
Multirace	0	0.0	0.0	0	0.0	0.0
Pacific Islander/Hawaiian	2	1.3	17.5	2	1.6	17.7
White	37	24.7	11.8	45	36.6	14.3
Other/Unknown/Not Specified	14	9.3	-	12	9.8	-
Self Reported Risk Factors³						
MSM ⁴	110	76.9	-	101	87.1	-
Anonymous Partners	62	41.3	-	67	54.5	-
HIV Coinfection ⁵	50	33.3	-	49	39.8	-

¹Rates equal cases per 100,000 residents per year based on population data from the California Department of Finance. ²Early Syphilis includes primary, secondary, and early latent stages of syphilis. ³Data missing for cases that could not be located or refused to be interviewed. ⁴Data on sex of partner for men was available for 96% (n=111) of 116 total male cases in 2017 and for 90% (n=128) of 143 total male cases in 2018. ⁵Data for HIV coinfections was not available (missing or refused) for 4 cases in 2017 and for 10 cases in 2018. 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, 2017 and 2018

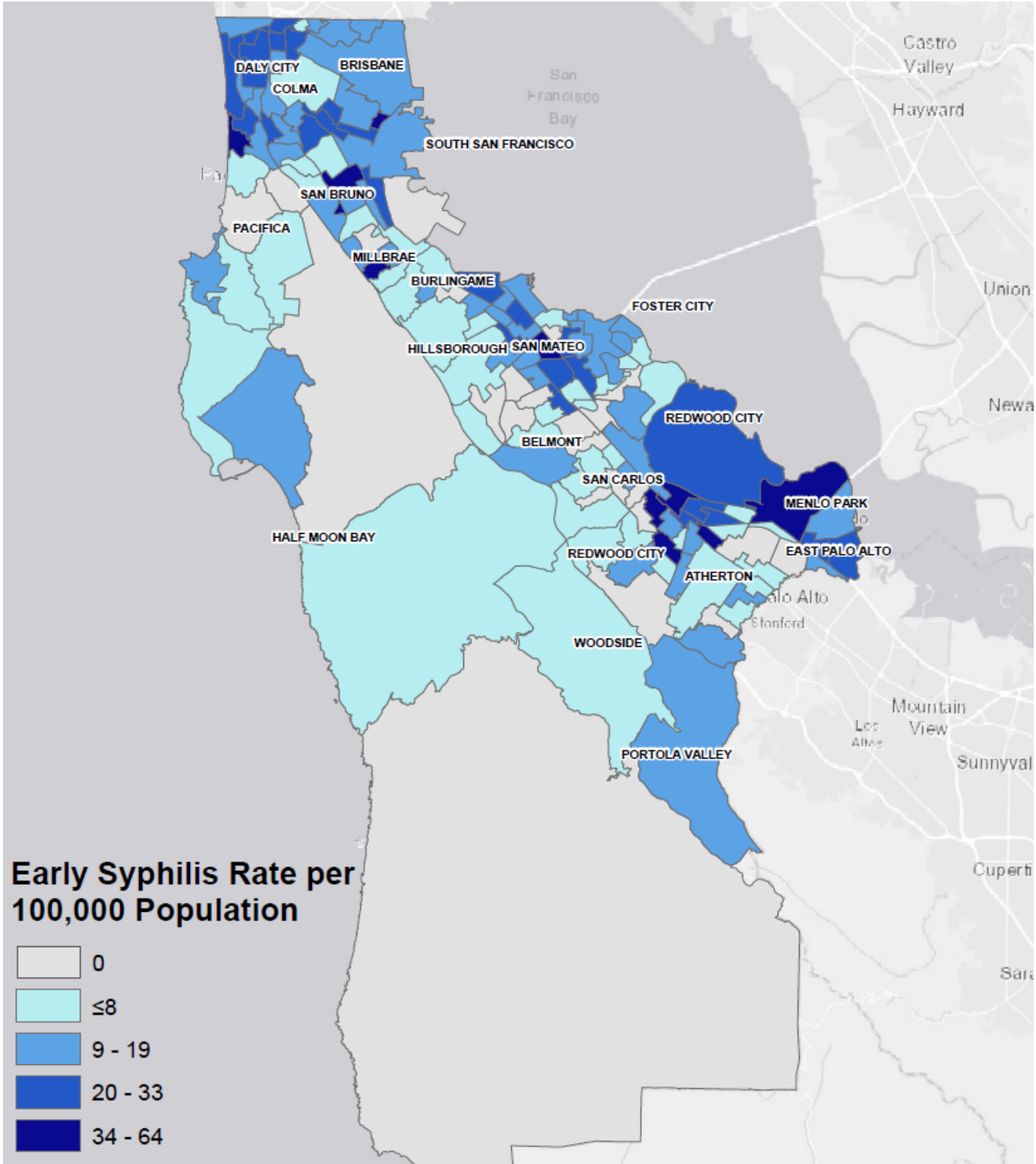
	2018			2017		
	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹
All Syphilis Stages	219	100	28.1	192	100	24.8
Sex						
Female	22	10.0	5.6	28	14.6	7.2
Male	192	87.7	49.9	163	84.9	42.7
Transgender	5	2.3	-	1	0.5	-
Ages						
<15 years old	0	0.0	0.0	0	0.0	0.0
15-19	6	2.7	14.5	7	3.6	17.2
20-24	29	13.2	73.5	21	10.9	52.2
25-29	52	23.7	115.0	39	20.3	86.5
30-34	33	15.1	62.9	29	15.1	54.9
35-39	28	12.8	51.5	26	13.5	48.3
40-44	17	7.8	30.6	20	10.4	36.0
45-49	12	5.5	20.0	16	8.3	26.8
50-54	23	10.5	40.8	13	6.8	23.0
55-59	11	5.0	20.3	11	5.7	20.4
60+	8	3.7	4.4	10	5.2	5.6
Race/Ethnicity						
American Indian/Alaska Native	1	0.5	81.8	0	0.0	0.0
Asian	49	22.4	24.4	26	13.5	13.1
African-American	14	6.4	73.0	8	4.2	41.8
Latina/o	75	34.2	36.7	72	37.5	35.7
Multirace	1	0.5	3.6	0	0.0	0.0
Pacific Islander/Hawaiian	3	1.4	26.2	2	1.0	17.7
White	46	21.0	14.6	55	28.6	17.5
Other/Unknown/Not Specified	30	13.7	-	29	15.1	-

¹Rates 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 2014-2018 were seen in census tracts in parts of East Palo Alto, Millbrae, Pacifica, Redwood City, San Bruno, San Mateo, and South San Francisco.

Figure 17. Early Syphilis Rates by Census Tract in San Mateo County, 2014-2018



Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates are average annual rate for 2014-2018 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 remained similar from 18% in 2017 to 16% of newly reported HIV cases in 2018.
- Over two thirds, 70% of newly reported HIV cases in 2018 identified as men who have sex with men (MSM).
- Of newly identified HIV cases 18% did not specify a risk exposure category in 2018.
- Newly identified HIV cases increased among Latinos to 43% while cases among Whites decreased to 23% in 2018 compared to 2017.

Table 6. Newly Reported HIV Cases Among County Residents and Percentage of Late Testers by Year of Diagnosis, San Mateo County, 2009-2018¹

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
HIV Cases	48	58	76	72	51	70	66	58	57	61
Late Testers¹	35%	28%	32%	25%	31%	23%	26%	24%	18%	16%
HIV and AIDS Diagnosed within 12 months	13%	9%	7%	7%	4%	7%	6%	2%	4%	0%
HIV and AIDS Diagnosed Simultaneously	23%	19%	25%	18%	27%	16%	20%	22%	14%	16%
Non Late Tester	65%	72%	68%	75%	69%	77%	74%	76%	82%	84%

¹ San Mateo County data are reported through June 30, 2019 from the electronic HIV/AIDS Reporting System (eHARS). ²Late 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, 2012-2018¹

	2012	2013	2014	2015	2016	2017	2018
Total Number	72	51	70	66	58	57	61
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Sex							
Male	85%	92%	91%	86%	84%	84%	92%
Female	15%	6%	7%	14%	14%	16%	7%
Transgender	0%	2%	1%	0%	2%	0%	2%
Age at Diagnosis							
0 - 19 Years	0%	2%	1%	3%	2%	0%	0%
20 - 29 Years	11%	12%	17%	18%	16%	19%	36%
30 - 39 Years	28%	22%	27%	24%	34%	35%	33%
40 - 49 Years	21%	25%	24%	21%	24%	21%	15%
50 - 59 Years	26%	22%	16%	20%	17%	19%	8%
60+	13%	16%	14%	14%	7%	5%	8%
Missing	1%	2%	0%	0%	0%	0%	0%
Race/Ethnicity							
White	33%	29%	27%	38%	21%	32%	23%
African American	11%	4%	11%	3%	5%	9%	10%
Latina/o	35%	39%	41%	39%	52%	26%	43%
Asian	19%	20%	19%	17%	14%	25%	20%
Multi-Race/Other/Unknown	1%	8%	1%	3%	9%	9%	5%
Exposure Category							
MSM	63%	73%	66%	53%	71%	68%	70%
IDU	6%	2%	1%	5%	3%	2%	2%
Heterosexual Contact ²	15%	2%	10%	11%	16%	9%	5%
MSM/IDU	1%	0%	4%	6%	0%	2%	5%
Other Risk ³	0%	0%	1%	0%	0%	0%	0%
Not specified	15%	24%	17%	26%	10%	19%	18%

¹ San Mateo County data are reported through June 30, 2019 from the electronic HIV/AIDS Reporting System (eHARS). ²Sex with MSM, IDU or known HIV infected person. ³Other 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, 2013-2018

- Females comprise 11% of both late testers, defined as HIV diagnosed within a year of AIDS, and newly reported cases between 2013-2018.
- During this period, 43% of late testers were 50 years or older. Late HIV testers between 2013-2018 were more likely to be 50+ years of age compared to all newly reported HIV cases.
- Late HIV testers were more likely to be White compared to newly diagnosed cases.
- Late HIV testers were more likely to have risk not specified and less likely to identify MSM risk than newly reported HIV cases. One third of HIV late testers between 2013–2018 did not specify an exposure risk.

Table 8. Characteristics of Late HIV Tests in Residents of San Mateo County, 2013-2018¹

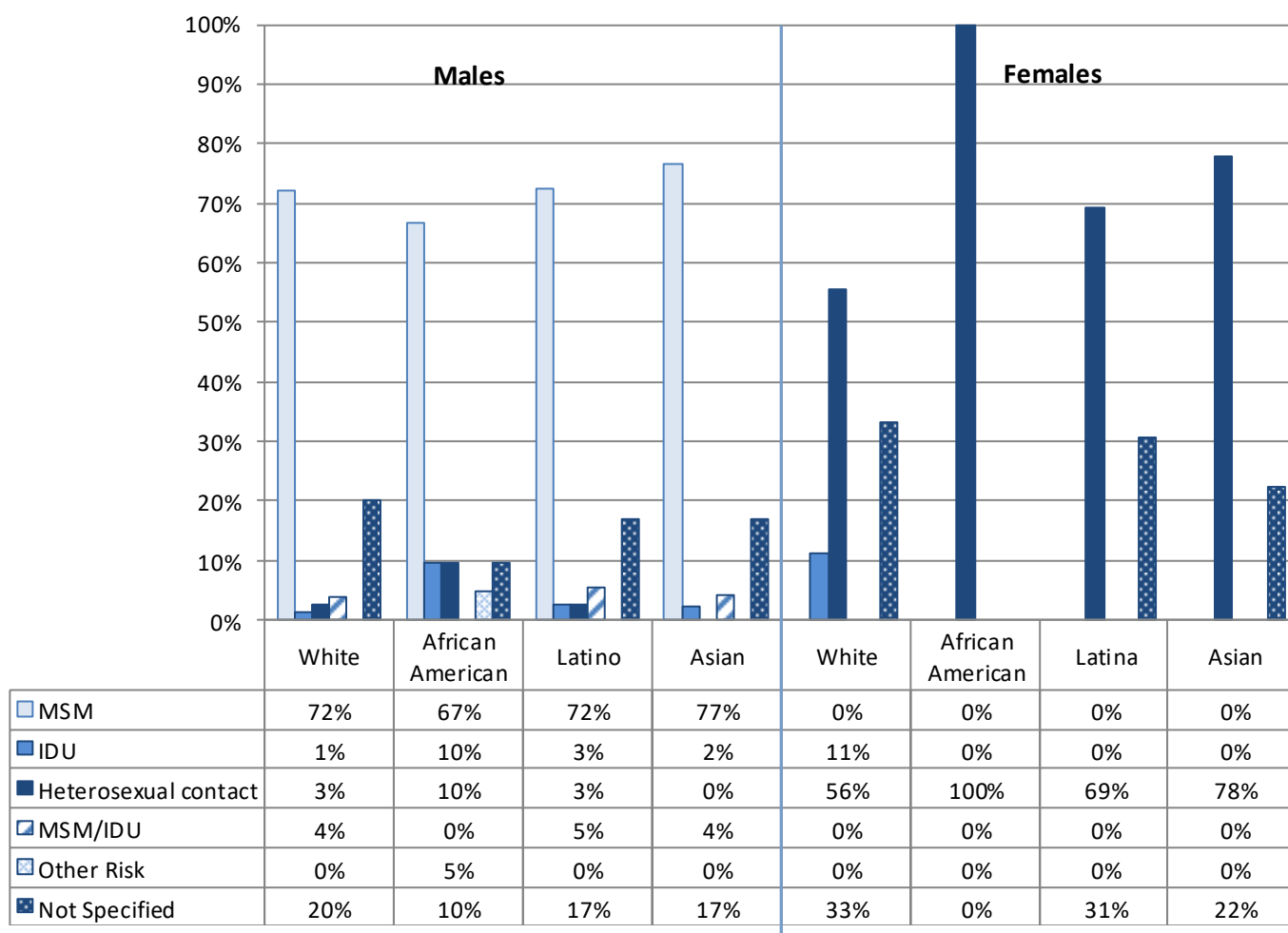
(6 years)	Number	%
Total Number	83	100
Sex		
Male	73	88
Female	9	11
Transgender	1	1
Age at Diagnosis		
0 - 19 Years	1	1
20 - 29 Years	9	11
30 - 39 Years	19	23
40 - 49 Years	18	22
50 - 59 Years	20	24
60+	16	19
Race/Ethnicity		
White	28	34
African American	5	6
Latina/o	33	40
Asian	13	16
Multi-Race/Other/Unknown	4	5
Exposure Category		
MSM	43	52
IDU	3	4
Heterosexual Contact ²	9	11
MSM/IDU	1	1
Other Risk ³	0	0
Not Specified	27	33

¹San Mateo County data are reported through June 30, 2019 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. ²Sex with MSM, IDU or known HIV infected person. ³Other 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- Diagnosed HIV Cases, 2014-2018

- Among male HIV cases diagnosed 2014-2018, the transmission category with the highest percentage of cases ($\geq 67\%$) across all race/ethnicities is men who have sex with men (MSM).
- Among male HIV cases diagnosed 2014-2018, 20% of White males and 17% of Latino and Asian males specified no risk transmission category around time of HIV diagnosis.
- For female HIV cases diagnosed 2014-2018, approximately one third of White and Latina female cases did not specify a risk transmission category.

Figure 18. Adult HIV Cases Diagnosed in County Residents From 2014-2018 by Transmission Category, Sex, and Race/Ethnicity, San Mateo County

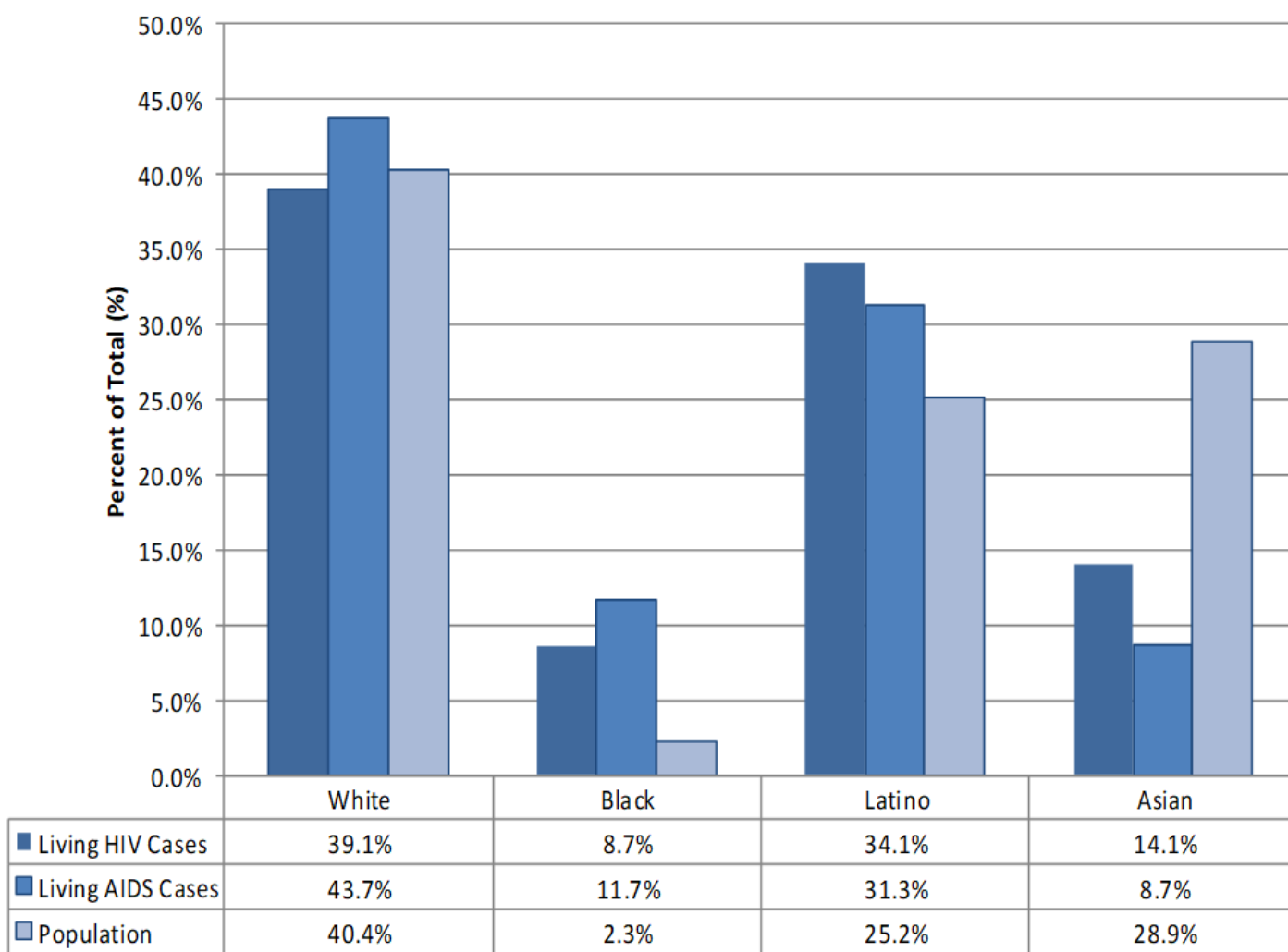


Data is compiled from the June 30, 2019 data set from the electronic HIV/AIDS Reporting System of California (eHARS). Other risk includes either perinatal transmission, exposure to blood transfusion or blood products, or receiving a transplant. Cases are among individuals who were San Mateo County residents at the time of diagnosis.

HIV- Persons Living with HIV/AIDS, 2018

- In 2018, African Americans and Latinos were over represented among living HIV and AIDS cases based on county population percentage.
- In 2018, Asian Americans 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, 2018



HIV/AIDS data is compiled from the June 30, 2019 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 (2018) and CA (2017)

- SMC has a higher percentage of persons living with HIV in the 60+ age category (27%) than California (20%) for the years compared .
- SMC has a higher percentage of Asians living with HIV and a lower percentage of African Americans than California for the years compared.
- SMC has a higher percentage of risk not specified for living HIV cases than California (11% vs. 4%).

Table 9. Demographic and Exposure Risk Characteristics of Living Persons Diagnosed with HIV/AIDS in San Mateo County (2018) and California (2017)

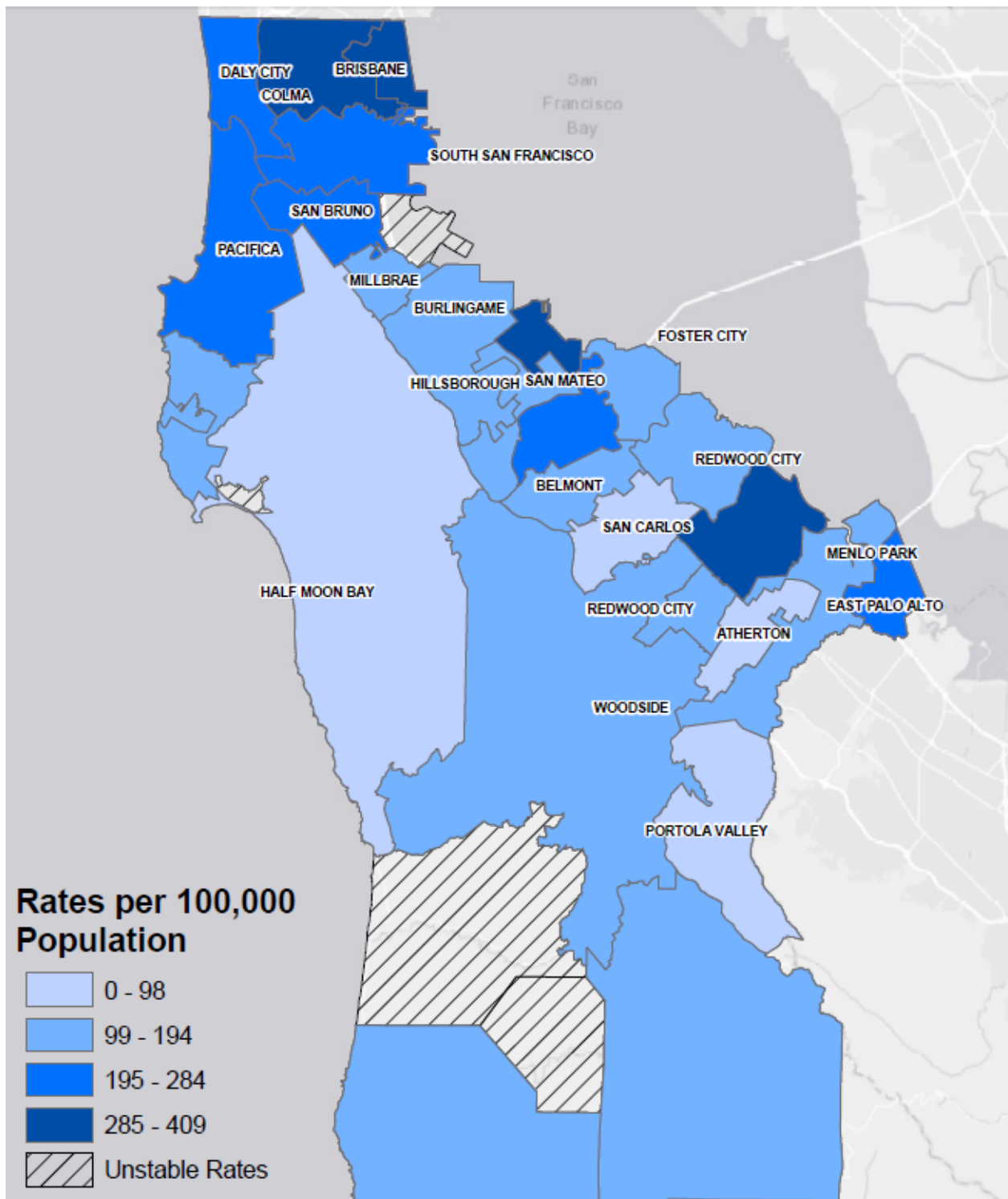
	San Mateo County ¹		California ²	
	Number	%	Number	%
Sex				
Male	1,451	85.6	117,421	86.9
Female	219	12.9	15,813	11.7
Transgender	26	1.5	1,848	1.4
Race/Ethnicity				
White	704	41.5	52,878	39.1
Black	174	10.3	23,237	17.2
Hispanic	554	32.7	48,769	36.1
Asian	191	11.3	5,396	4.0
American Indian/Alaskan Native	4	0.2	376	0.3
Pacific Islander	17	1.0	255	0.2
Multi-Race/Other/Unknown	52	3.1	4,171	3.1
Current Age				
0 - 19	10	0.6	525	0.4
20 - 29	96	5.7	10,771	8.0
30 - 39	256	15.1	22,904	17.0
40 - 49	360	21.2	30,848	22.8
50 - 59	519	30.6	43,521	32.2
60+	455	26.8	26,513	19.6
Exposure Category				
MSM	1,101	64.9	91,436	67.7
IDU	111	6.5	7,969	5.9
Heterosexual contact ³	188	11.1	19,629	14.5
MSM/IDU	89	5.3	9,294	6.9
Other Risk ⁴	22	1.3	1,121	0.8
Not Specified	185	10.9	5,633	4.2

¹ California Department of Public Health, Office of AIDS, HIV/AIDS Surveillance Section. Electronic HIV/AIDS Reporting System of California (eHARS) June 30, 2019 data set. ² California Department of Public Health, Office of AIDS, HIV/AIDS Surveillance Section. Year 2017 data included as 2018 data is not yet available. ³Sex with MSM, IDU or known HIV infected person. ⁴Other 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 who have the highest rates of residents living with HIV/AIDS are the zip codes of 94005 (Brisbane), 94014 (Colma), 94063 (Redwood City), and 94401 (San Mateo). 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, 2018



Data is compiled from the June 30, 2019 data set from the electronic HIV/AIDS Reporting System of California (eHARS). Cases are among individuals who are current San Mateo County residents.

Summary of Sources and Technical Notes

Summary of Sources for all Bacterial STDs

The STD 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 STD 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, January 2018.

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); Latino/Hispanic (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 — 2017.

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>