

San Mateo County Sexually Transmitted Disease and HIV-AIDS Surveillance Annual Report, 2016



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Introduction and Acknowledgements

This is the 2016 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.

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

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San Mateo County Health System 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 the San Mateo County Health System. 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 infected with HIV
- Provide STD and HIV screening and treatment through clinical services for people at risk for STDs and HIV
- Provide linkage to care services for newly infected HIV-positive patients as well as HIV-positive patients who have fallen out of care
- Provide partner services for newly infected HIV-positive 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 Health System 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, clinic, 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 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, California Conference of Local AIDS Directors, California STD 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 2016:

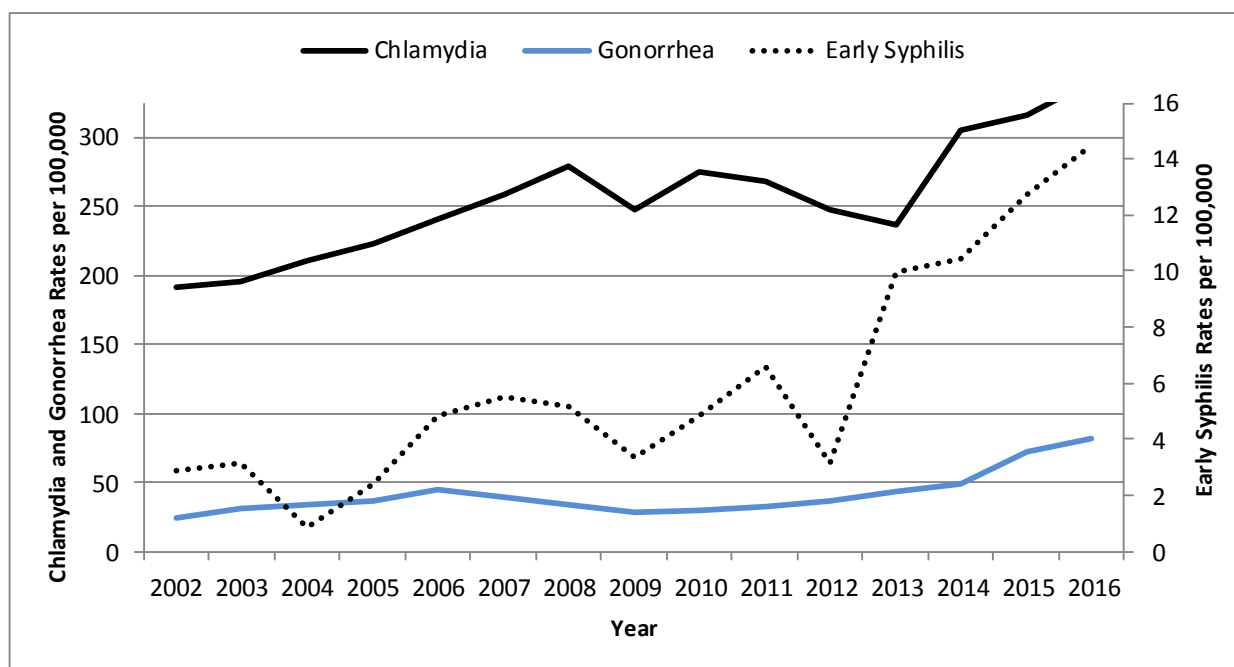
- San Mateo County General Fund
- Federal Health Resources and Services Administration (HRSA) - Ryan White Part A as part of the San Francisco Eligible Metropolitan Area (EMA)
- Federal Centers for Disease Control & Prevention (CDC) - HIV Prevention Funds as part of the San Francisco Eligible Metropolitan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

All Bacterial STDs In San Mateo County (SMC)

Overview

- SMC early syphilis cases (acquired in the last year) increased 15% in 2016 compared to 2015. Females comprised only 4% of SMC early syphilis cases in 2016.
- SMC gonorrhea (GC) case numbers and rates are the highest reported since 2000, with a 14% increase in cases compared to 2015. The 2016 GC increase is much steeper in males compared to females.
- Chlamydia trachomatis (CT) cases increased 9% in 2016 compared to 2015.
- Statewide and nationally, all three notifiable STDs increased compared to 2015 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 MSM, and less condom use in the setting of HIV pre-exposure prophylaxis (PrEP).
- We urge routine STD screening and timely treatment for patients at risk for STDs to prevent the most devastating consequences of STDs, such as neurosyphilis, congenital syphilis or pelvic inflammatory disease.

Figure 1. STD Rates by Year in San Mateo County, 2002-2016



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

All Bacterial STDs

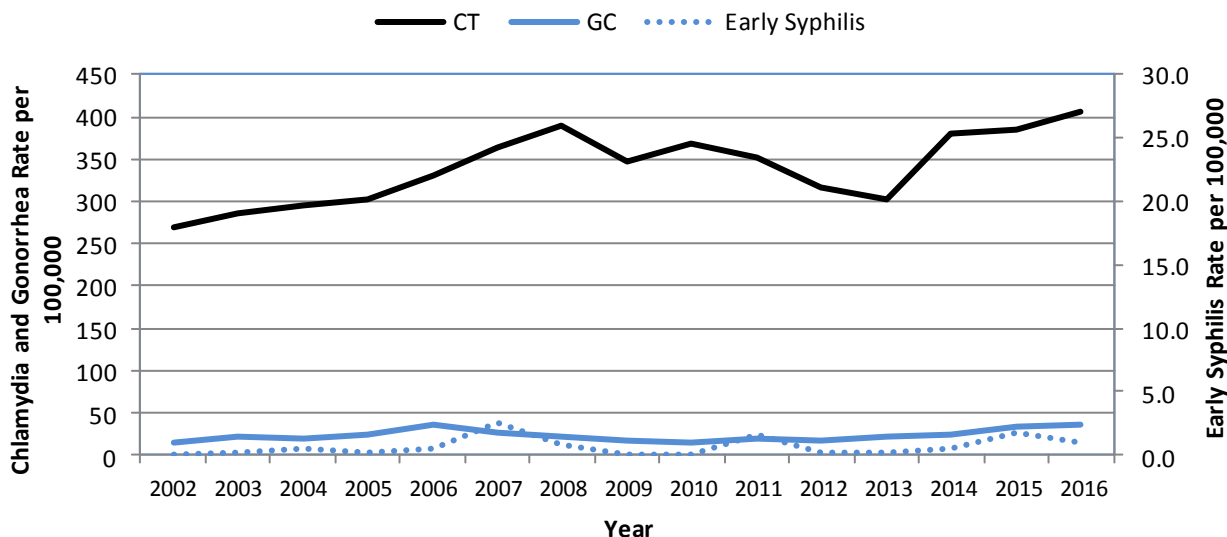
Table 1. STD Cases and Rates by Year Reported in San Mateo County, 2002-2016

Reported Cases															
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Chlamydia	1342	1376	1480	1560	1687	1823	1986	1773	1980	1949	1820	1760	2277	2376	2581
Gonorrhea	169	215	239	259	310	273	241	206	216	231	269	321	362	543	618
Syphilis (Total)	51	44	13	47	57	75	60	37	51	69	48	92	117	154	163
Primary	5	9	2	5	10	4	15	8	9	7	7	16	22	12	18
Secondary	9	5	2	10	17	22	11	11	13	28	7	38	31	43	40
Early Latent	6	8	2	2	7	13	11	5	13	13	9	20	25	41	52
(Total Early Syphilis ¹)	20	22	6	17	34	39	37	24	35	48	23	74	78	96	110
Late Latent	31	22	7	30	23	35	21	13	16	19	25	18	39	57	53
Neurosyphilis²	2	1	0	1	0	0	0	2	0	2	2	1	0	2	2
Congenital Syphilis³	0	0	0	0	0	1	2	0	0	2	0	0	0	1	0
Rate⁴															
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Chlamydia	190.9	196.2	211.0	223.1	241.2	258.8	279.2	247.5	275.2	267.8	247.4	237.2	305.3	315.9	340.7
Gonorrhea	24.0	30.7	34.1	37.0	44.3	38.8	33.9	28.8	30.0	31.7	36.6	43.3	48.4	72.1	81.6
Syphilis (Total)	7.2	6.3	1.9	6.7	8.1	10.6	8.4	5.2	7.1	9.5	6.5	12.4	15.7	20.5	21.5
Primary	0.7	1.3	0.3	0.7	1.4	0.6	2.1	1.1	1.3	1.0	1.0	2.2	2.9	1.6	2.4
Secondary	1.3	0.7	0.3	1.4	2.4	3.1	1.5	1.5	1.8	3.8	1.0	5.1	4.1	5.7	5.3
Early Latent	0.9	1.1	0.3	0.3	1.0	1.8	1.5	0.7	1.8	1.8	1.2	2.7	3.3	5.4	6.9
(Total Early Syphilis ¹)	2.8	3.1	0.9	2.4	4.9	5.5	5.2	3.4	4.9	6.6	3.1	10.0	10.4	12.8	14.5
Late Latent	4.4	3.1	1.0	4.3	3.3	5.0	3.0	1.8	2.2	2.6	3.4	2.4	5.2	7.6	7.0
Neurosyphilis²	0.3	0.1	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
Congenital Syphilis³	0.0	0.0	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

¹Early syphilis includes primary, secondary and early latent syphilis stages. ² Neurosyphilis 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).

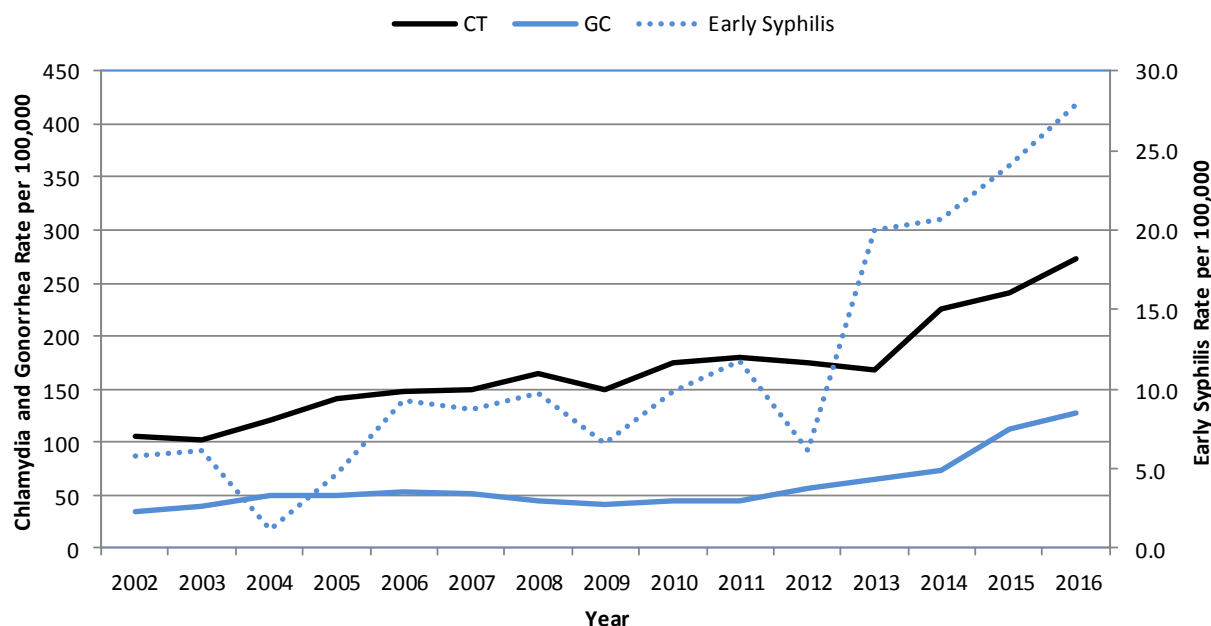
All Bacterial STDs

Figure 2. STD Rates For Females by Year in San Mateo County, 2002-2016



Early Syphilis is defined as primary, secondary, and early latent syphilis stages of disease. Note difference in scale for Early Syphilis. 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, 2002-2016



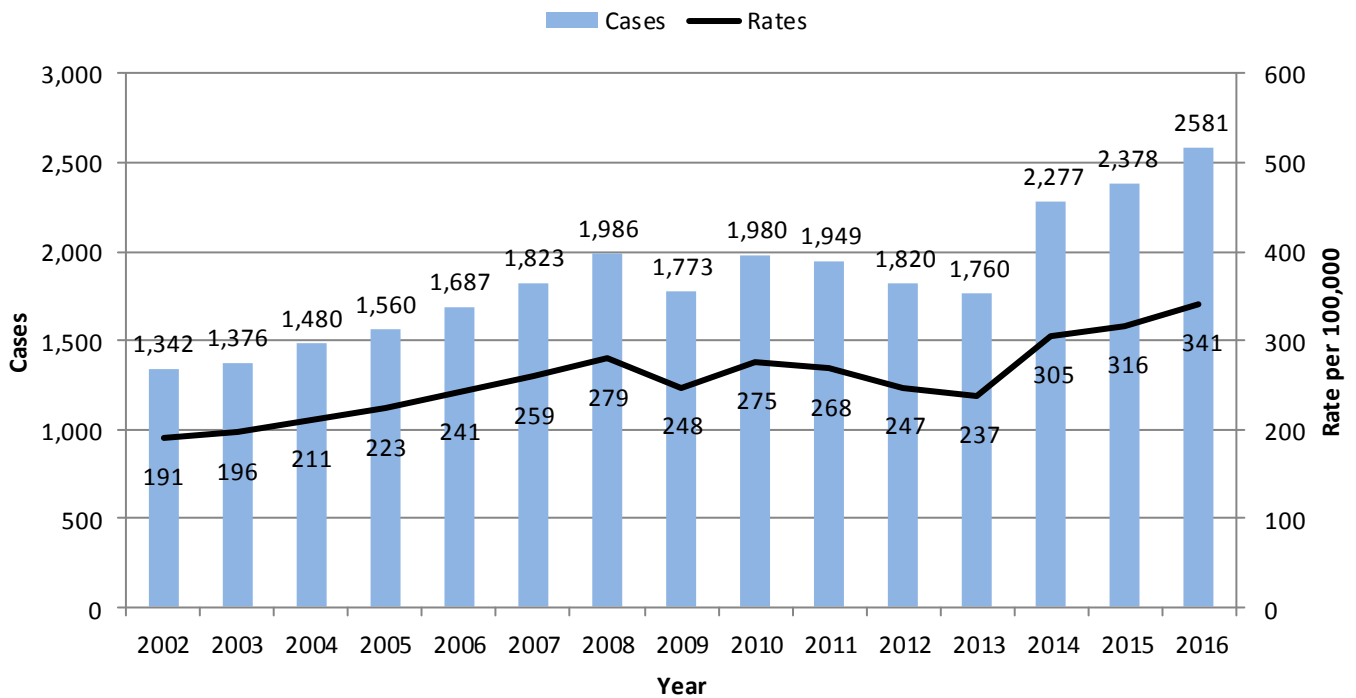
Early Syphilis is defined as primary, secondary, and early latent syphilis stages of disease. Note difference in scale for Early Syphilis. Rates equal cases per 100,000 male residents per year based on population data from the California Department of Finance. Data for San Mateo County is compiled from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

Chlamydia

Overview

- SMC chlamydia trachomatis (CT) cases increased 9% between 2015 and 2016.
- SMC females saw a modest increase in CT rates from 2015 to 2016 and male CT rates had a larger increase during this time.
- 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. Annual screening is recommended for sexually active women age 25 and under to prevent serious reproductive health outcomes such as pelvic inflammatory disease (PID) or infertility
- Given approximately half of all CT cases are asymptomatic, screening in women age 25 and under, men who have sex with men, and high risk heterosexuals is recommended at least annually or more frequently based on risk.

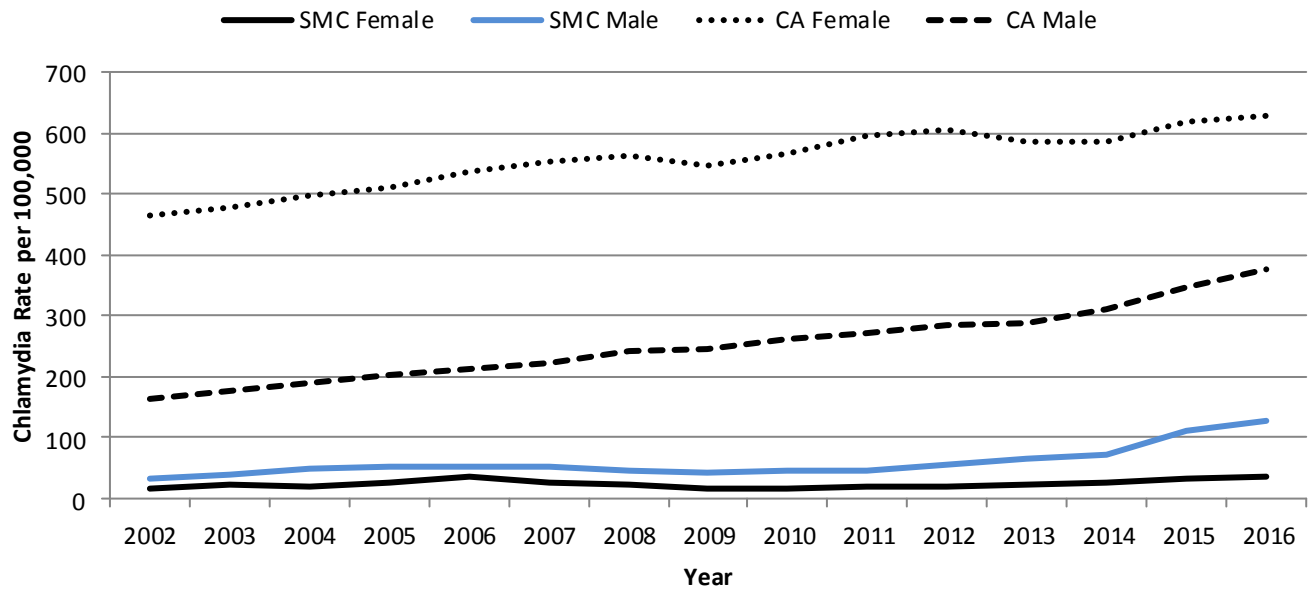
Figure 4. Chlamydia Cases and Rates by Year San Mateo County, 2002-2016



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.

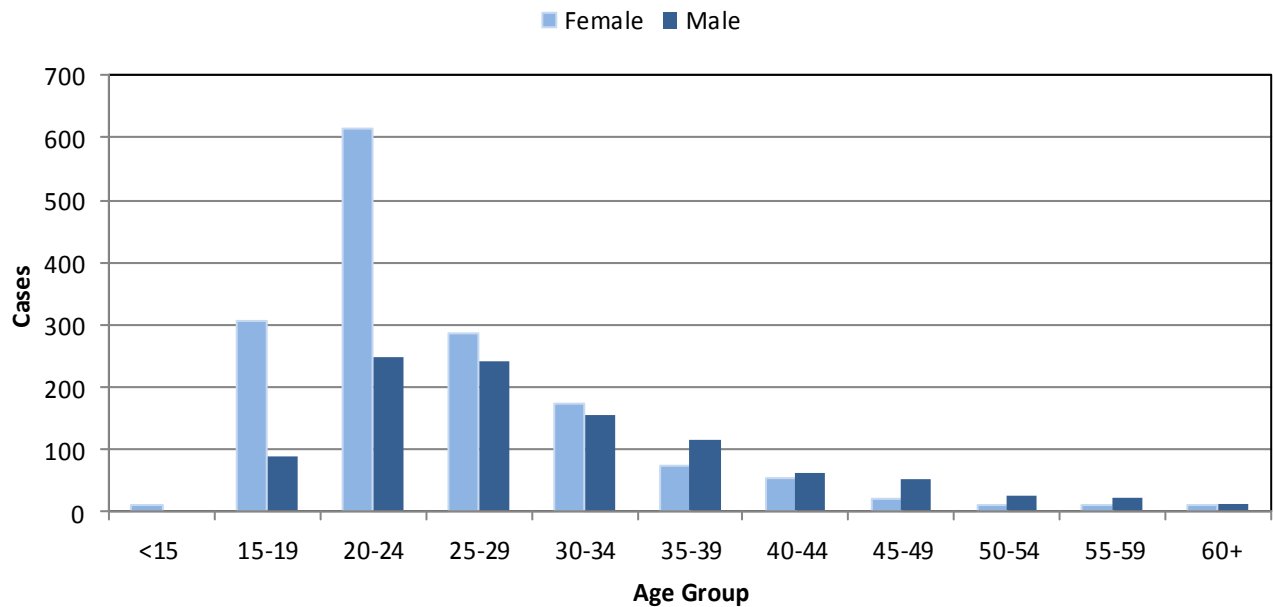
Chlamydia

Figure 5. Chlamydia Rates By Gender and Year in San Mateo County and State of California, 2002-2016



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 gender specific residents per year based on population data from the California Department of Finance.

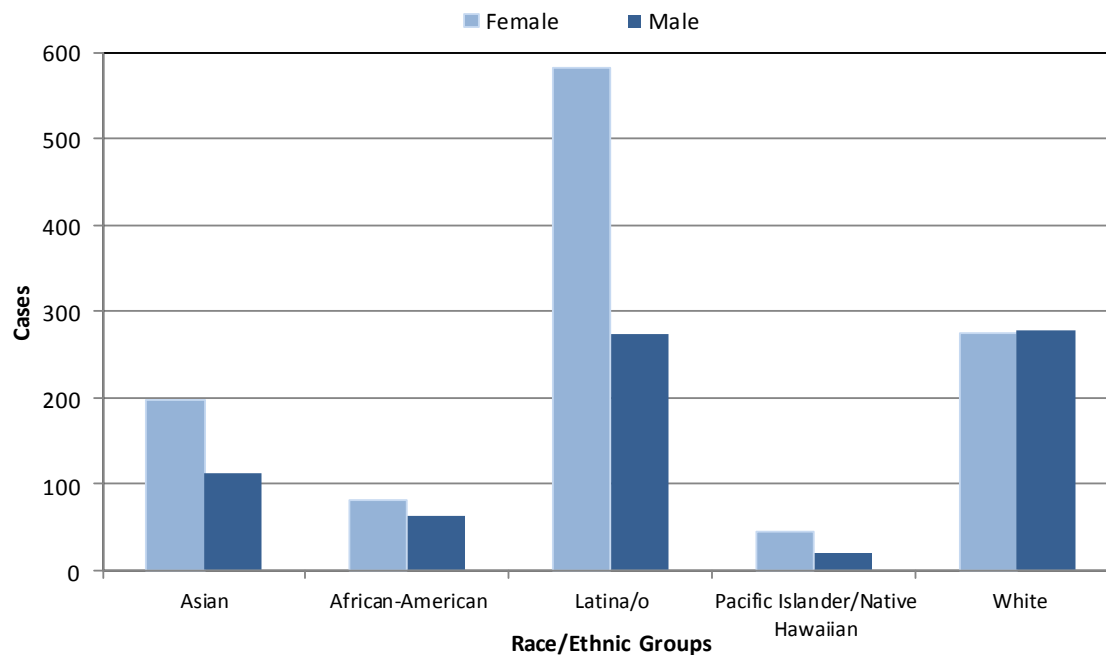
Figure 6. Chlamydia Cases by Gender and Age in San Mateo County, 2016



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

Chlamydia

**Figure 7. Chlamydia Cases by Gender and Selected Race/Ethnic Groups
San Mateo County, 2016 (n=1,927)**



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

Chlamydia

Table 2. Chlamydia Cases and Rates by Demographic and Clinical Characteristics by Gender in San Mateo County, 2015 and 2016

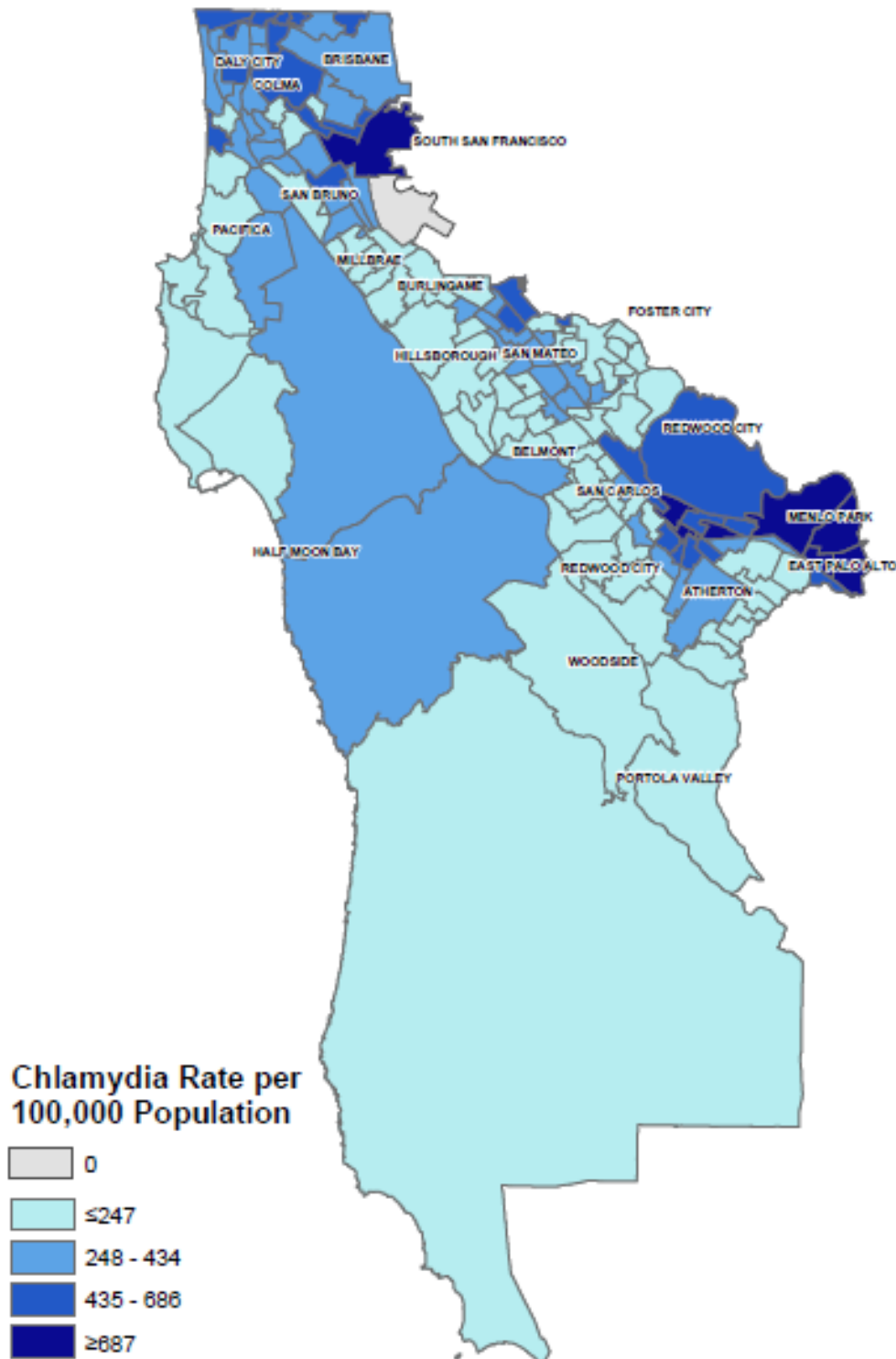
	<u>Women</u>						<u>Men</u>					
	2015			2016			2015			2016		
	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹
County Total	2,378	100	315.9	2,581	100	340.7	2,378	100	315.6	2,581	100	340.7
Gender Total	1,476	62.1	385.8	1,560	60.4	405.2	892	37.5	241.0	1,015	39.3	272.4
Age												
<15	4	0.3	6.0	9	0.6	13.6	0	0.0	0.0	0	0.0	0.0
15-19	299	20.3	1405.	304	19.5	1414.	69	7.7	308.5	87	8.6	385.2
20-24	588	39.8	2830.	616	39.5	2852.	228	25.6	1028.	248	24.4	1091.9
25-29	300	20.3	1526.	286	18.3	1504.	221	24.8	993.3	241	23.7	1113.7
30-34	110	7.5	445.4	173	11.1	714.0	123	13.8	479.4	154	15.2	604.8
35-39	70	4.7	266.3	74	4.7	280.5	81	9.1	308.0	114	11.2	431.8
40-44	51	3.5	188.9	52	3.3	195.1	40	4.5	149.4	62	6.1	236.3
45-49	20	1.4	71.1	19	1.2	67.2	50	5.6	185.6	51	5.0	186.7
50-54	17	1.2	59.1	11	0.7	38.6	28	3.1	102.1	25	2.5	92.0
55-59	9	0.6	32.5	8	0.5	28.5	26	2.9	99.2	22	2.2	83.0
60+	5	0.3	5.5	8	0.5	8.5	24	2.7	32.2	10	1.0	13.0
Missing	3	0.2	-	0	0.0	-	2	0.2	-	1	0.1	-
Race/Ethnicity												
American Indian/Alaskan	4	0.3	645.2	3	0.2	479.2	5	0.6	859.1	2	0.2	340.1
Asian	145	9.8	141.3	198	12.7	190.4	87	9.8	97.0	113	11.1	124.4
African-American	95	6.4	1011.	82	5.3	874.0	65	7.3	674.1	62	6.1	644.2
Latina/o	438	29.7	453.7	582	37.3	595.2	207	23.2	209.2	274	27.0	273.5
Multirace	11	0.7	85.5	12	0.8	91.6	0	0.0	0.0	1	0.1	7.6
Pacific Islander	49	3.3	862.2	44	2.8	766.2	9	1.0	157.6	20	2.0	341.9
White	282	19.1	182.2	274	17.6	177.5	255	28.6	167.0	278	27.4	182.4
Other/Unknown ³	452	30.6	-	365	23.4	-	264	29.6	-	265	26.1	-
Clinical Site of Infection												
Urine	531	36.0	-	623	39.9	-	430	48.2	-	598	58.9	-
Genitourinary	464	31.4	-	620	39.7	-	18	2.0	-	22	2.2	-
Rectal/Pharyngeal	4	0.3	-	3	0.2	-	110	12.3	-	176	17.3	-
Other/Unknown	477	32.3	-	314	20.1	-	334	37.4	-	219	21.5	-

Case data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE). ¹ Rates equal cases per 100,000 gender 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 10 transgender CT cases in 2015 and 6 transgender CT cases in 2016.

The Geography of Chlamydia in San Mateo County

The highest rates of chlamydia infections in 2016 were seen in census tracts in parts of East Palo Alto, North Fair Oaks, Redwood City, and South San Francisco.

Figure 8. Chlamydia Rates by Census Tract in San Mateo County, 2016



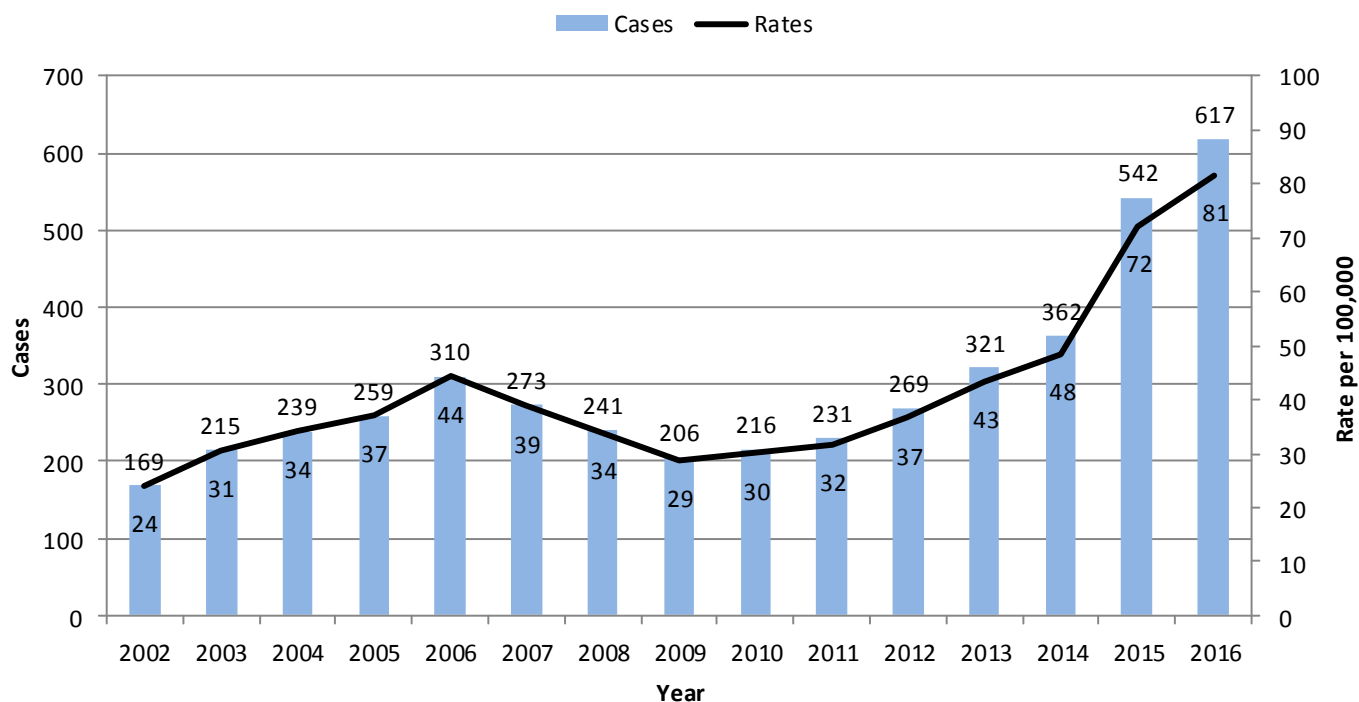
Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates equal count of 2016 chlamydia cases per census tract population.

Gonorrhea

Overview

- SMC gonorrhea (GC) case numbers and rates are the highest reported since 2000, with a 14% increase in cases compared to last year. SMC gonorrhea rates for males and females remain below California rates.
- In California, 2016 gonorrhea cases increased 19% compared to 2015, with the highest statewide gonorrhea case numbers and rates since the early 1990s.
- While the SMC gonorrhea rate increased in both males and females from 2015 to 2016 the increase was much steeper in males.
- Ten percent of male gonorrhea cases were missing anatomic site data but for the remaining male cases, MSM made up 41% of gonorrhea cases in 2016.
- California rates of decreased susceptibility to antibiotics used in current gonorrhea treatments remains low.

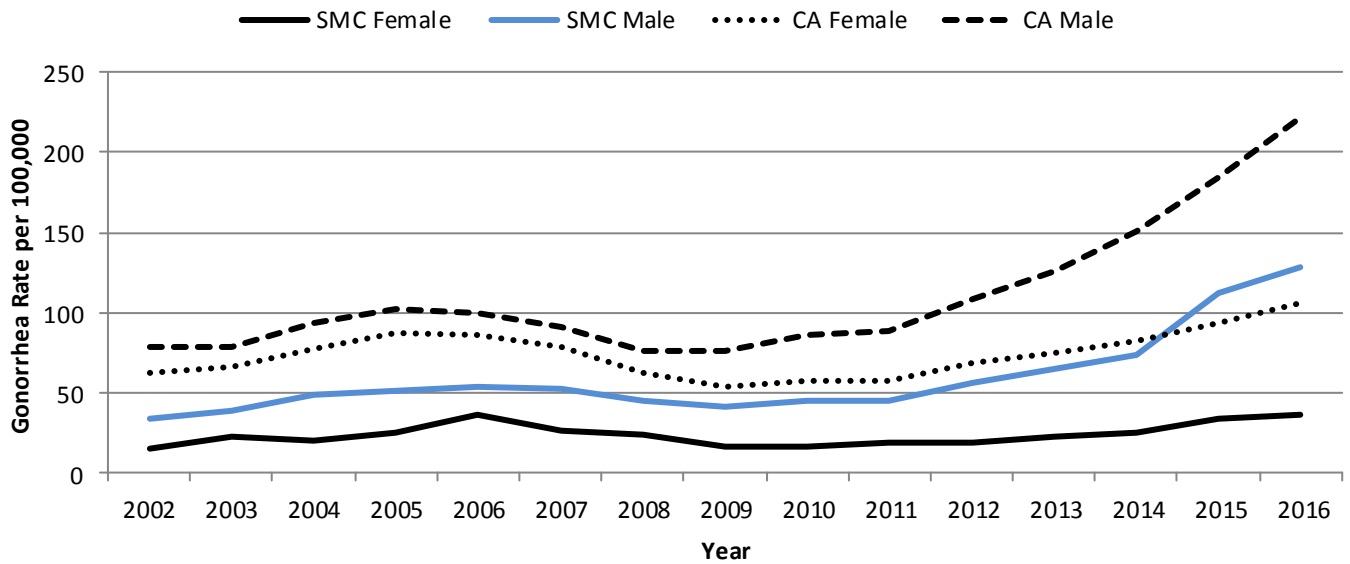
Figure 9. Gonorrhea Cases and Rates by Year San Mateo County, 2002-2016



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 census data from the California Department of Finance.

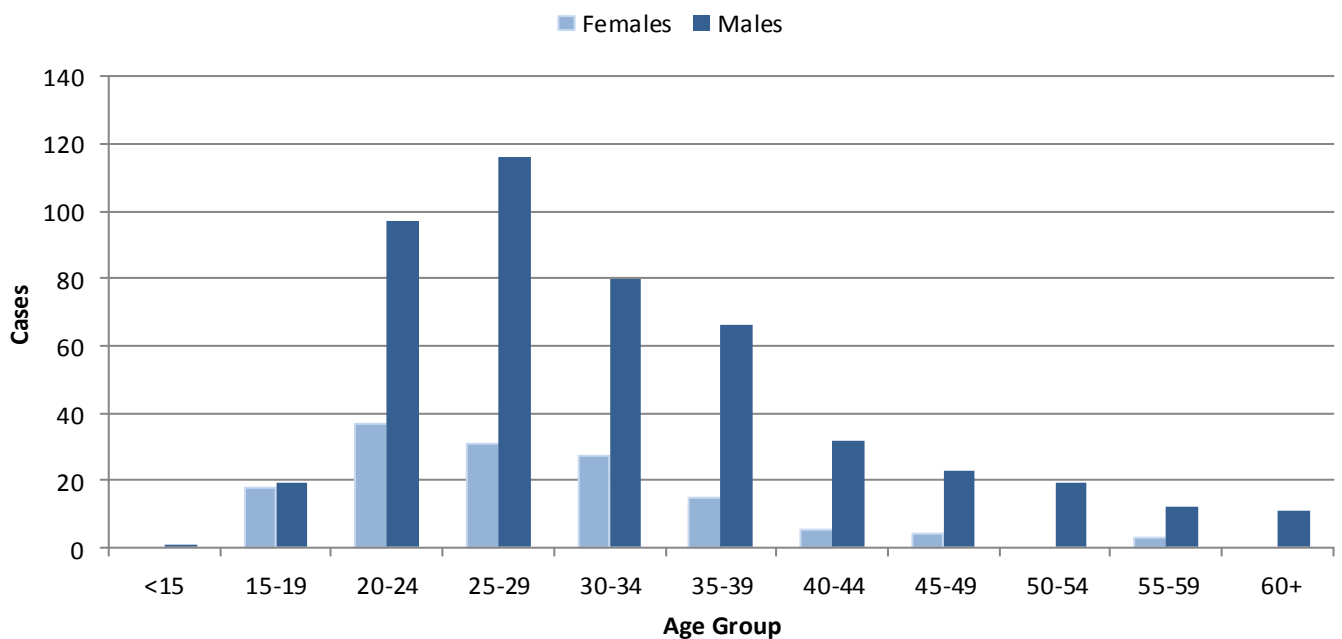
Gonorrhea

Figure 10. Gonorrhea Rates By Gender and Year in San Mateo County and State of California, 2002-2016



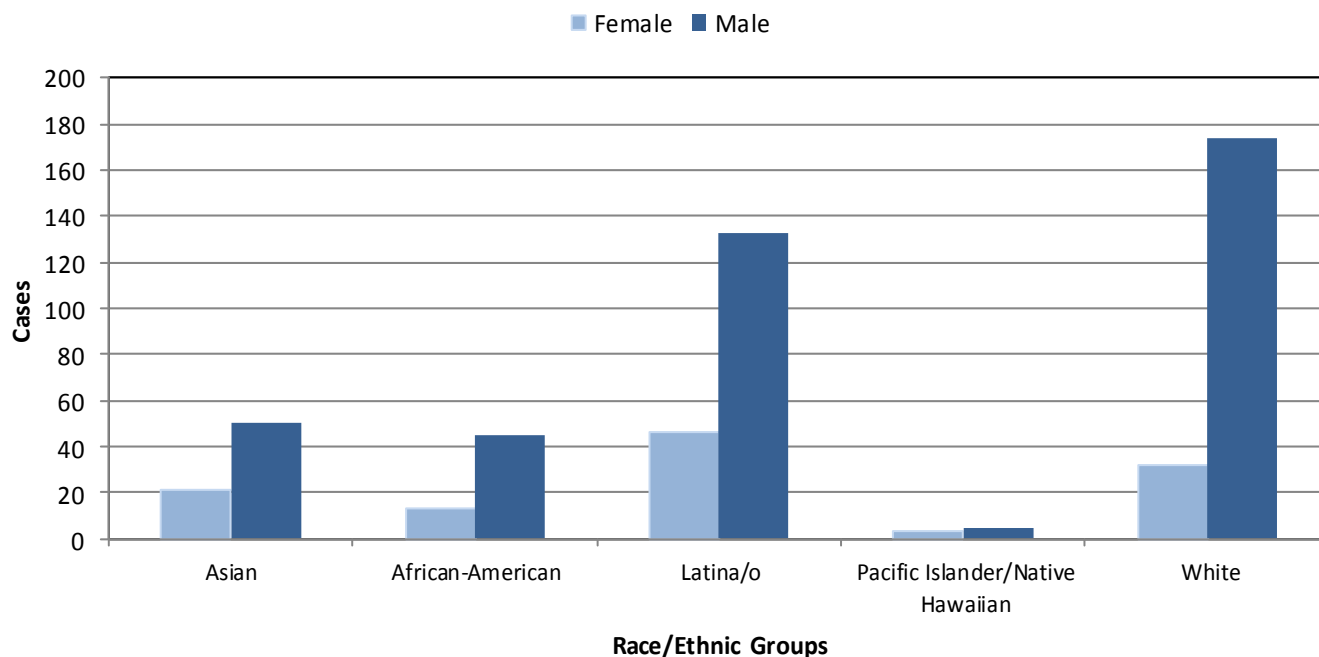
Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CalREDIE) system and the Automated Vital Statistics System (AVSS). Data for California rates was provided by the California Department of Public Health STD Control Branch. Rates equal cases per 100,000 gender specific residents per year based on population data from the California Department of Finance.

Figure 11. Gonorrhea Cases by Gender and Age in San Mateo County, 2016



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

Figure 12. Gonorrhea Cases By Gender and Selected Race/Ethnic Groups in San Mateo County, 2016 (n=522)



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 Gender in San Mateo County, 2015 and 2016

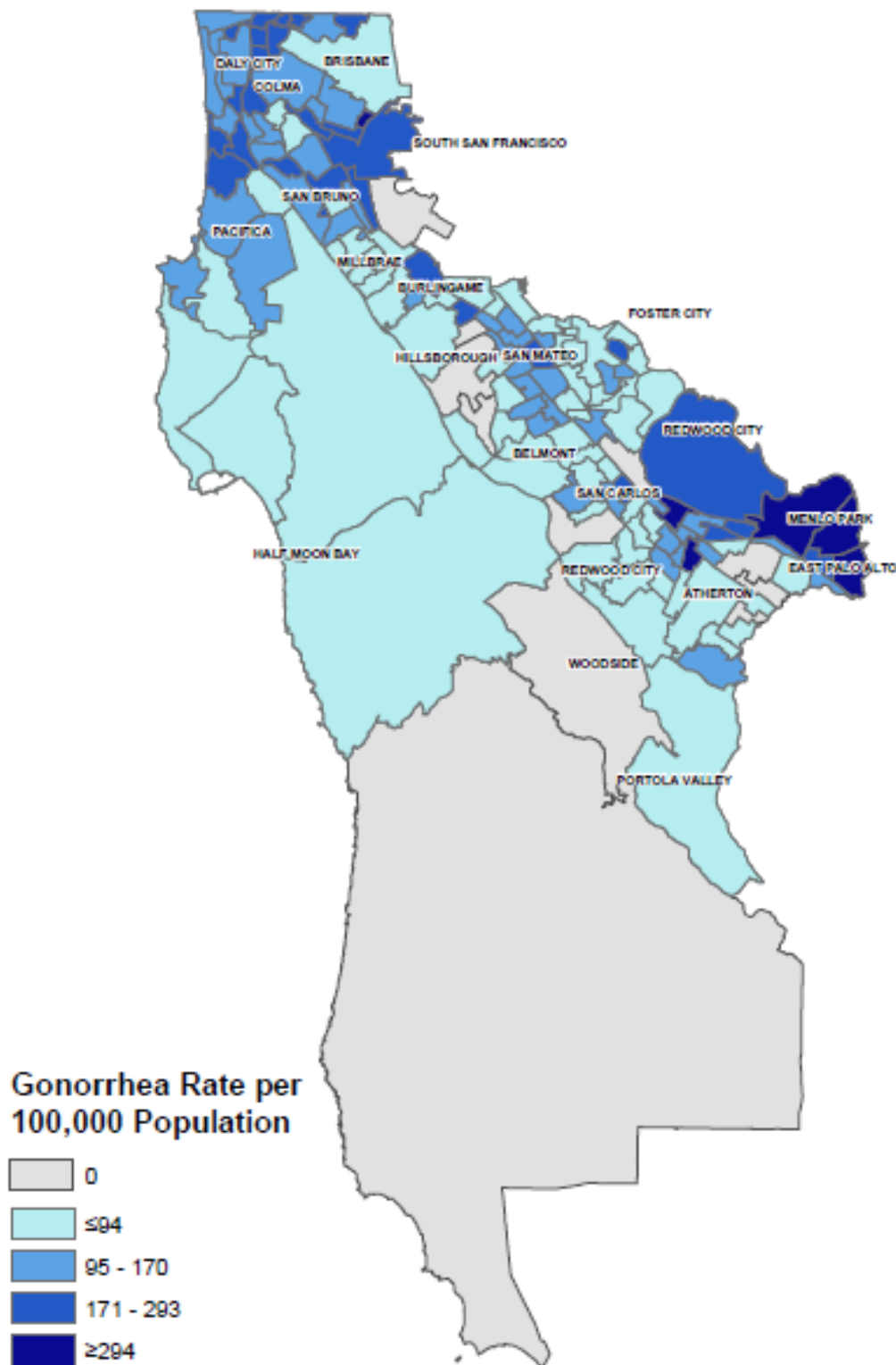
	<u>Women</u>						<u>Men</u>					
	2015			2016			2015			2016		
	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹
County Total	542	100	72.0	617	100	81.4	542	100	72.0	617	100	81.4
Gender Total	128	23.6	33.5	140	22.7	36.4	413	76.2	111.6	476	77.1	127.8
Age												
<15	0	0.0	0.0	0	0.0	0.0	1	0.2	1.4	1	0.2	1.4
15-19	20	15.6	94.0	18	12.9	83.8	13	3.1	58.1	19	4.0	84.1
20-24	42	32.8	202.2	37	26.4	171.3	74	17.9	333.9	97	20.4	427.1
25-29	26	20.3	132.3	31	22.1	163.0	89	21.5	400.0	116	24.4	536.0
30-34	13	10.2	52.6	27	19.3	111.4	78	18.9	304.0	80	16.8	314.2
35-39	7	5.5	26.6	15	10.7	56.9	52	12.6	197.7	66	13.9	250.0
40-44	5	3.9	18.5	5	3.6	18.8	32	7.7	119.5	32	6.7	122.0
45-49	8	6.3	28.4	4	2.9	14.1	27	6.5	100.2	23	4.8	84.2
50-54	2	1.6	6.9	0	0.0	0.0	24	5.8	87.5	19	4.0	69.9
55-59	3	2.3	10.8	3	2.1	10.7	13	3.1	49.6	12	2.5	45.3
60+	2	1.6	2.2	0	0.0	0.0	10	2.4	13.4	11	2.3	14.2
Race/Ethnicity												
American Indian/Alaskan	1	0.8	161.3	1	0.7	159.7	0	0.0	0.0	1	0.2	170.1
Asian	6	4.7	5.8	21	15.0	20.2	55	13.3	61.3	50	10.5	55.1
African-American	21	16.4	223.5	13	9.3	138.6	40	9.7	414.9	45	9.5	467.5
Latina/o	33	25.8	34.2	46	32.9	47.0	106	25.7	107.1	133	27.9	132.8
Multirace	2	1.6	15.6	0	0.0	0.0	1	0.2	7.8	1	0.2	7.6
Pacific Islander	4	3.1	70.4	3	2.1	52.2	3	0.7	52.5	5	1.1	85.5
White	44	34.4	28.4	32	22.9	20.7	130	31.5	85.1	174	36.6	114.2
Other/Unknown ²	17	13.3	-	24	17.1	-	78	18.9	-	67	14.1	-
Clinical Site of Infection												
Urine	50	39.1	-	62	44.3	-	163	39.5	-	207	43.5	-
Genitourinary	51	39.8	-	57	40.7	-	21	5.1	-	27	5.7	-
Rectal/Pharyngeal	1	0.8	-	1	0.7	-	146	35.4	-	194	40.8	-
Other/Unknown	26	20.3	-	20	14.3	-	83	20.1	-	48	10.1	-

Case data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CaIREDIE). ¹Rates equal cases per 100,000 gender 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 2 transgender GC cases in 2015 and 2 transgender GC cases in 2016.

The Geography of Gonorrhea in San Mateo County

- The highest rates of gonorrhea infections in 2012-2016 were seen in census tracts in parts of East Palo Alto, Redwood City, and South San Francisco.

Figure 13. Gonorrhea Rates by Census Tract in San Mateo County, 2012-2016



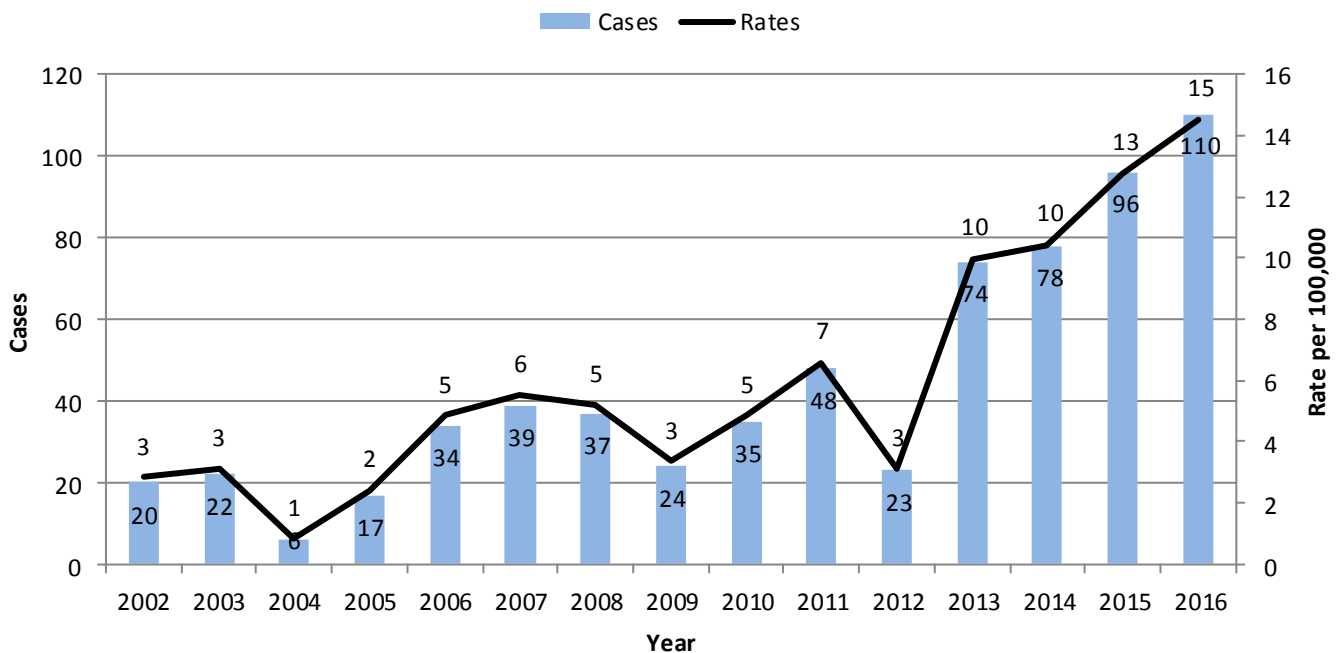
Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates equal count of 2012-2016 gonorrhea cases per census tract population.

Syphilis

Overview

- SMC total syphilis and early syphilis (defined as acquired in the last year) cases and rates increased in 2016 compared to 2015. SMC early syphilis cases increased 15% compared to last year; SMC total syphilis cases increased 6% compared to last year.
- In 2016, 95% of SMC early syphilis cases were diagnosed in men and 77% of male cases were in men who have sex with men (MSM).
- Females comprised 4% of early syphilis cases in 2016, compared to 7% in 2015. SMC had no congenital syphilis cases in 2016.
- HIV co-infected early syphilis cases were stable in 2016; 41% co-infected compared to 45% in 2015.
- California early syphilis cases increased 19% compared to last year. SMC male and female syphilis rates remain below California rates.
- SMC encourages syphilis serology testing every 4-6 months in MSM with multiple sex partners or for those at risk for syphilis infection.

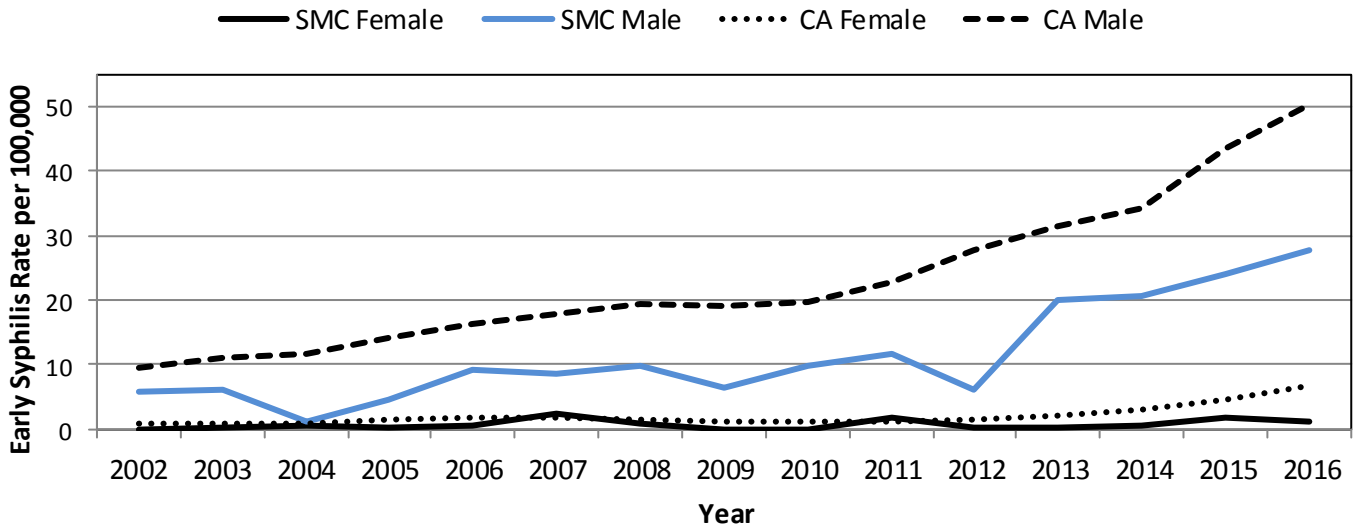
Figure 14. Early Syphilis Cases and Rates by Year San Mateo County, 2002-2016



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.

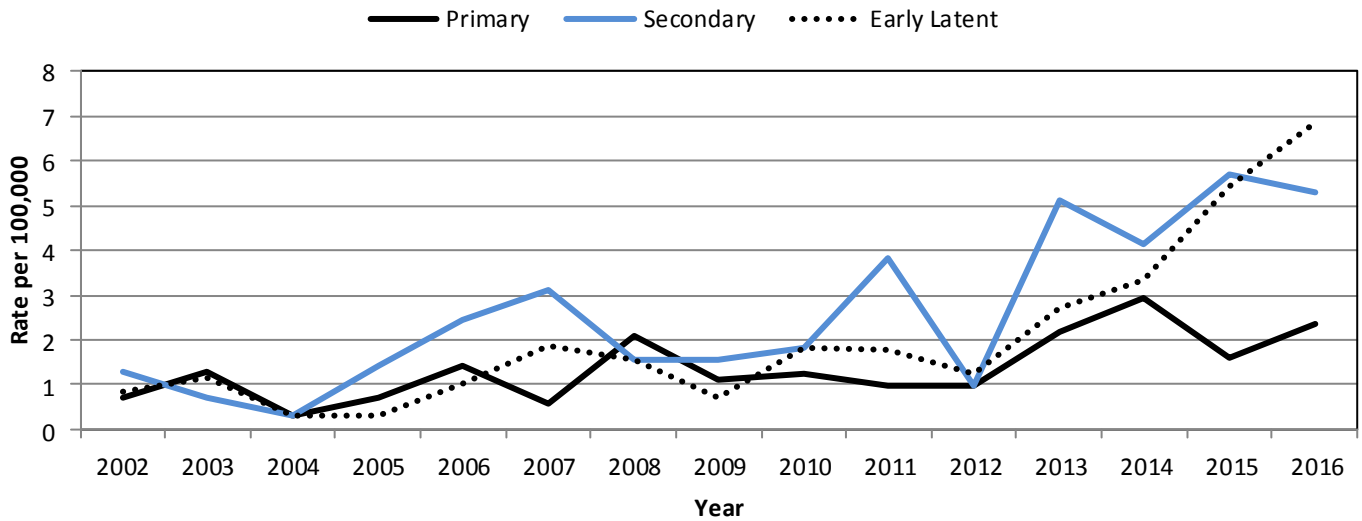
Syphilis

Figure 15. Early Syphilis Rates by Gender and Year in San Mateo County and State of California, 2002-2016



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, 2002-2016



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. Early Syphilis Cases and Rates by Syphilis Stage, Demographic Characteristics, and Risk Factors, San Mateo County, 2015 and 2016

	2015			2016		
	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹
Syphilis County Total	154	100	20.5	163	100	21.5
Primary	12	7.8	1.6	18	11.0	2.4
Secondary	43	27.9	5.7	40	24.5	5.3
Early Latent	41	26.6	5.4	52	31.9	6.9
Late Latent	57	37.0	7.6	53	32.5	7.0
Congenital Syphilis	1	0.6	0.1	0	0.0	0.0
Neurosyphilis	2	1.3	0.3	2	1.2	0.3
Early Syphilis²	96	100.0	12.8	110	100.0	14.5
Sex						
Female	7	7.3	1.8	4	3.6	1.0
Male	89	92.7	24.0	104	94.5	27.9
Transgender	0	0.0	-	2	1.8	-
Ages						
<15 years old	0	0.0	0.0	0	0.0	0.0
15-19	0	0.0	0.0	4	3.6	9.1
20-24	16	16.7	40.1	18	16.4	40.6
25-29	15	15.6	33.2	14	12.7	34.4
30-34	14	14.6	27.2	13	11.8	26.2
35-39	13	13.5	25.0	10	9.1	18.9
40-44	8	8.3	14.4	17	15.5	32.1
45-49	18	18.8	32.7	13	11.8	23.4
50-54	6	6.3	10.7	8	7.3	14.4
55-59	6	6.3	11.1	6	5.5	11.0
60+	0	0.0	0.0	7	6.4	4.1
Race/Ethnicity						
American Indian/Alaska Native	0	0.0	0.0	0	0.0	0.0
Asian	10	10.4	5.2	22	20.0	11.3
African-American	8	8.3	42.0	8	7.3	42.1
Latina/o	39	40.6	19.9	32	29.1	16.2
Multirace	2	2.1	7.8	2	1.8	7.6
Pacific Islander/Hawaiian	0	0.0	0.0	0	0.0	0.0
White	31	32.3	10.1	38	34.5	12.4
Other/Unknown/Not Specified	6	6.3	-	8	7.3	-
Self Reported Risk Factors³						
MSM ⁴	59	66.3	-	80	76.9	-
Anonymous Partners	29	30.2	-	44	40.0	-
HIV Coinfection ⁵	43	44.8	-	45	40.9	-

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 72% (n=64) of 89 total male cases in 2015 and for 93% (n=97) of 104 total male cases in 2016. ⁵Data for HIV coinfections was not available (missing or refused) for 35 cases in 2015 and for 46 cases in 2016. Data for San Mateo County is compiled from the California Reportable Disease Information Exchange (CaREDIE) system.

Table 5. Syphilis Cases and Rates by Demographic Characteristics for All Syphilis Stages, San Mateo County, 2015 and 2016

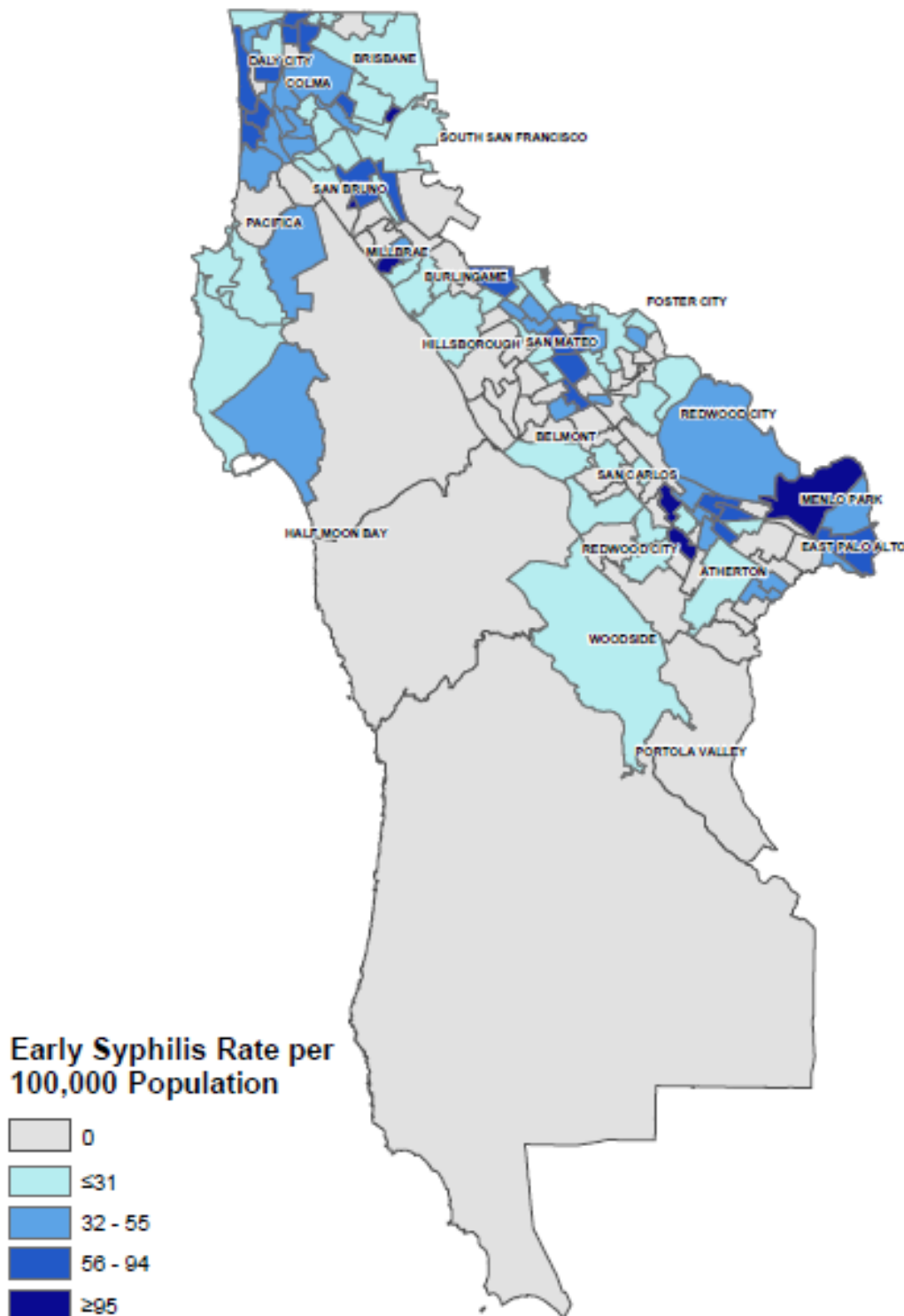
	2015			2016		
	Cases	Percent	Rate ¹	Cases	Percent	Rate ¹
All Syphilis Stages	154	100	20.5	163	100	21.5
Sex						
Female	18	11.7	4.7	14	8.6	3.6
Male	136	88.3	36.7	147	90.2	39.5
Transgender/Unknown	0	0.0	-	2	1.2	-
Ages						
<15 years old	1	0.6	0.7	0	0.0	0.0
15-19	4	2.6	9.3	4	2.5	9.1
20-24	21	13.6	52.7	22	13.5	49.7
25-29	24	15.6	53.2	25	15.3	61.5
30-34	25	16.2	48.6	22	13.5	44.3
35-39	21	13.6	40.4	17	10.4	32.2
40-44	15	9.7	27.0	24	14.7	45.4
45-49	22	14.3	40.0	18	11.0	32.4
50-54	10	6.5	17.8	12	7.4	21.6
55-59	8	5.2	14.8	7	4.3	12.8
60+	3	1.9	1.8	12	7.4	7.0
Race/Ethnicity						
American Indian/Alaska Native	0	0.0	0.0	0	0.0	0.0
Asian	18	11.7	9.4	31	19.0	15.9
African-American	10	6.5	52.5	11	6.7	57.9
Latina/o	59	38.3	30.2	58	35.6	29.3
Multirace	2	1.3	7.8	3	1.8	11.4
Pacific Islander/Hawaiian	1	0.6	8.8	1	0.6	8.6
White	42	27.3	13.7	44	27.0	14.3
Other/Unknown/Not Specified	22	14.3	-	15	9.2	-

¹Rates equal cases per 100,000 gender, 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 2012-2016 were seen in census tracts in parts of East Palo Alto, Millbrae, Redwood City, San Bruno, and South San Francisco.

Figure 17. Early Syphilis Rates by Census Tract in San Mateo County, 2012-2016



Case data based on California Reportable Disease Information Exchange (CalREDIE) San Mateo County. Rates equal count of 2012-2016 early syphilis cases 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, comprised slightly over one quarter of newly diagnosed HIV cases in 2016. This late tester percentage has been fairly stable since 2007.
- Men who have sex with men (MSM) comprised 76% of newly reported HIV cases in 2016.
- Risk not specified among newly reported HIV cases markedly decreased for newly reported HIV cases in 2016 compared to 2013-2015.

Table 6. Newly Reported HIV Cases Among County Residents and Percentage of Late Testers by Year of Diagnosis, San Mateo County, 2007-2016¹

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
HIV Case	19	31	29	42	44	43	41	49	46	49
Late Testers²	32%	10%	38%	31%	27%	33%	34%	20%	26%	27%
AIDS Diagnosed within 12 months	11%	0%	17%	12%	7%	9%	7%	8%	4%	2%
AIDS Diagnosed Simultaneously	21%	10%	21%	19%	20%	23%	27%	12%	22%	24%
Non Late Tester	68%	90%	62%	69%	73%	67%	66%	80%	74%	73%

¹San Mateo County data are reported through June 30, 2017 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. 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 - 2016¹

	2012	2013	2014	2015	2016
Total Number	43	41	49	46	49
	Percent	Percent	Percent	Percent	Percent
Gender					
Male	84	90	90	87	86
Female	16	7	8	13	12
Transgender	0	3	2	0	2
Age at Diagnosis					
0 - 19 Years	0	2	2	0	2
20 - 29 Years	14	20	20	22	16
30 - 39 Years	30	20	24	33	37
40 - 49 Years	30	29	18	24	20
50 - 59 Years	16	17	24	9	18
60+	9	12	10	13	6
Race/Ethnicity					
White	26	24	22	30	18
African American	9	2	12	4	6
Latina/o	42	46	39	46	51
Asian	23	20	25	17	16
Multi-Race/Other/Unknown	0	7	2	2	8
Exposure Category					
MSM	58	66	65	52	76
IDU	9	2	4	7	2
Heterosexual Contact ²	19	3	10	13	14
MSM/IDU	2	0	0	2	0
Other Risk ³	0	0	2	0	0
Not specified	12	29	18	26	8

¹California Department of Public Health, Office of AIDS, HIV/AIDS Surveillance Section. Electronic HIV/AIDS Reporting System of California (eHARS) June 30, 2017 data set. ²Sex with MSM, IDU or known HIV infected person included. ³Other risk includes perinatal transmission, exposure to blood transfusion or blood products, or receiving a transplant.

HIV– Late Testers

- Females comprise 13% of late testers between 2012 and 2016.
- Late HIV testers between 2012 and 2016 were more likely to be older compared to all newly reported HIV cases.
- Late HIV testers were more likely to have risk not specified and less likely to identify MSM risk than all newly reported HIV cases.

Table 8. Characteristics of Late HIV Testers in Residents of San Mateo County, 2012-2016¹

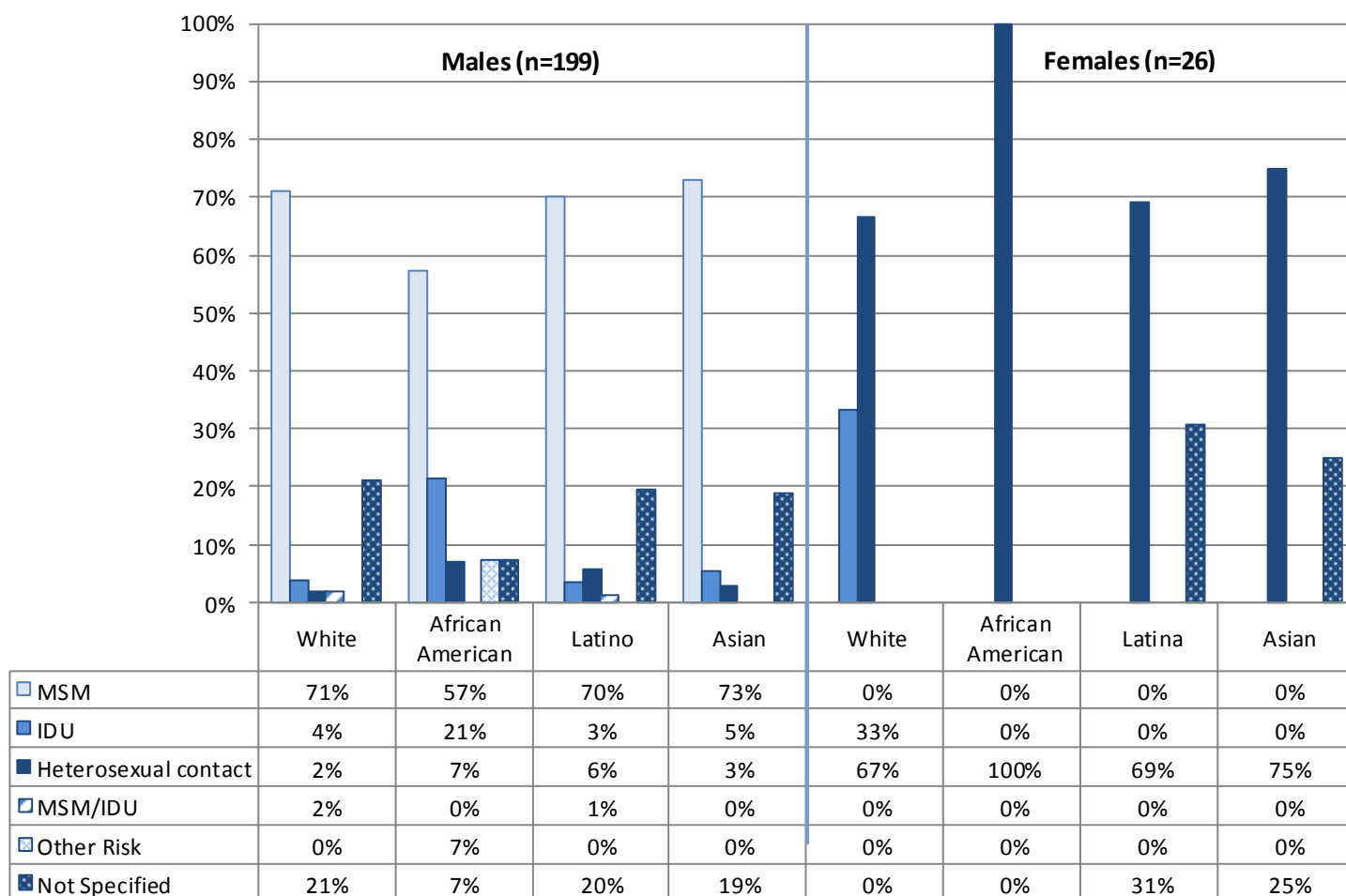
	Number	%
Total Number	63	100
Gender		
Male	54	86
Female	8	13
Transgender	1	2
Age at Diagnosis		
0 - 19 Years	1	2
20 - 29 Years	8	13
30 - 39 Years	16	25
40 - 49 Years	14	22
50 - 59 Years	14	22
60+	10	16
Race/Ethnicity		
White	15	24
African American	1	2
Latina/o	35	56
Asian	9	14
Multi-Race/Other/Unknown	3	5
Exposure Category		
MSM	31	49
IDU	2	3
Heterosexual Contact ²	9	14
MSM/IDU	0	0
Other Risk ³	0	0
Not Specified	21	33

¹ San Mateo County data are reported through June 30, 2017 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

HIV- Diagnosed HIV Cases

- Among male HIV cases diagnosed 2012-2016, the transmission category with the highest percentage of cases ($\geq 57\%$) across all race/ethnicities is men who have sex with men (MSM).
- African American male HIV cases diagnosed during this period reported higher injection drug use (IDU) (21%) compared to 3-5% for other race ethnicity categories.
- For all female HIV cases, two thirds or more reported heterosexual contact as a risk factor for HIV acquisition. One third of Latina HIV cases did not specify HIV risk; one quarter of Asian HIV female cases did not specify HIV risk.

Figure 18. Adult HIV Cases Diagnosed in County Residents From 2012-2016 by Transmission Category, Gender, and Race/Ethnicity, San Mateo County

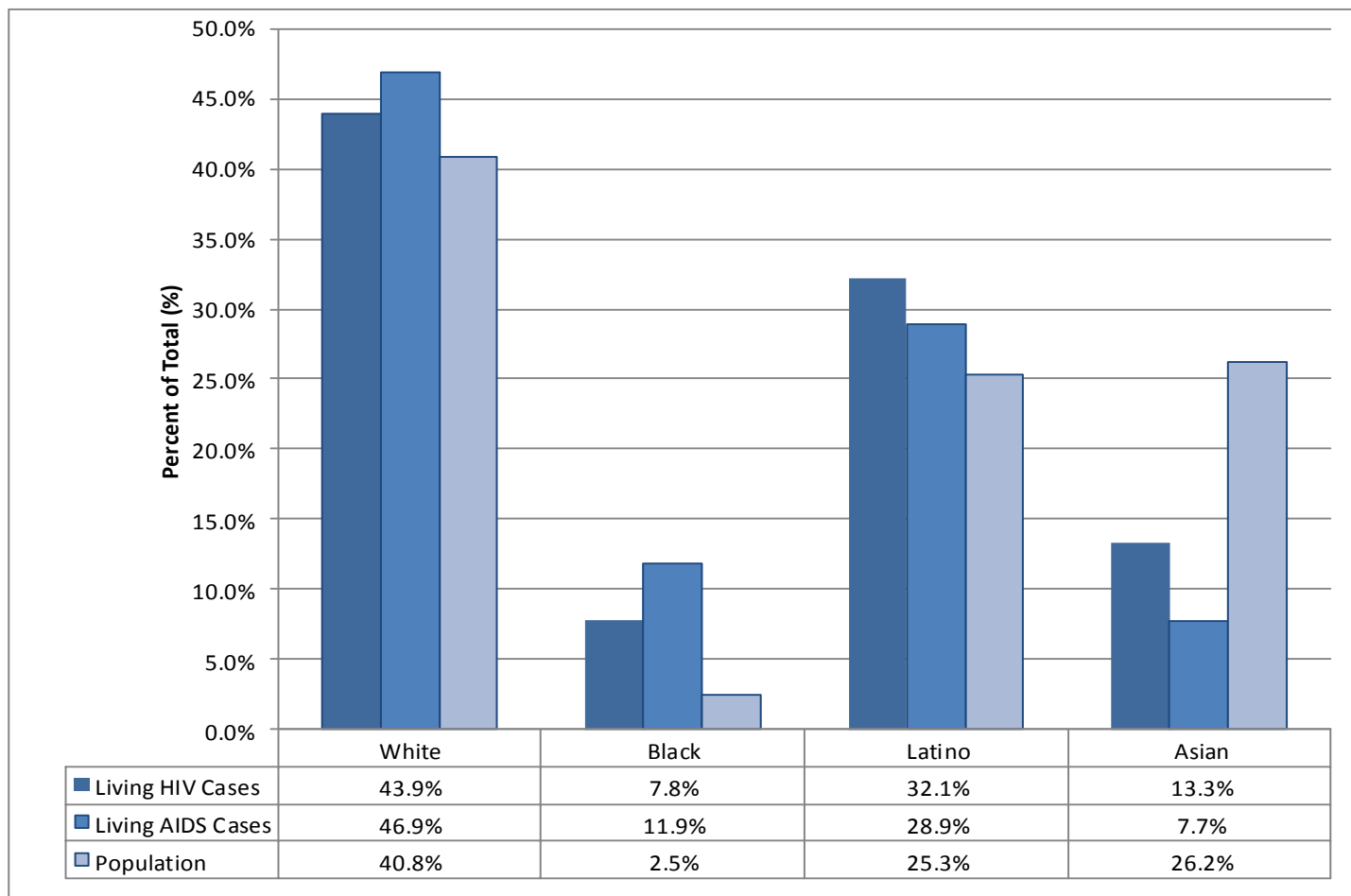


Data is compiled from the June 30, 2017 data set from the electronic HIV/AIDS Reporting System of California (eHARS). Other risk includes either perinatal transmission, exposure to blood transfusion or blood products, or receiving a transplant.

HIV- Persons Living with HIV/AIDS

- African Americans represent a small proportion of the county population (2.5%) but are the most disproportionately represented amongst both the living HIV (7.8%) and living AIDS cases (11.9%). White and Latino persons are modestly overrepresented in living HIV and/or AIDS cases.

Figure 19. Persons Living with HIV, Living with AIDS, and the County Population by Race/Ethnicity, San Mateo County, 2016



HIV/AIDS data is compiled from the June 30, 2017 data set from the electronic HIV/AIDS Reporting System of California (eHARS). Population data is from the U.S. Census Bureau, 2016 American Community Survey 1-year estimates.

HIV– People Living with HIV/AIDS, San Mateo County and CA

- In 2016, SMC has a higher percentage of individuals in the 60+ age category than California (24% vs. 17%).
- SMC has a higher percentage of Asian living HIV/AIDS cases than California (10% vs. 4%).
- SMC has a higher percentage of risk not specified in living HIV/AIDS cases than California (10% vs. 5%).

Table 9. Demographic and Exposure Risk Characteristics of Living Persons Diagnosed with HIV/AIDS in San Mateo County (2016) and California (2015)

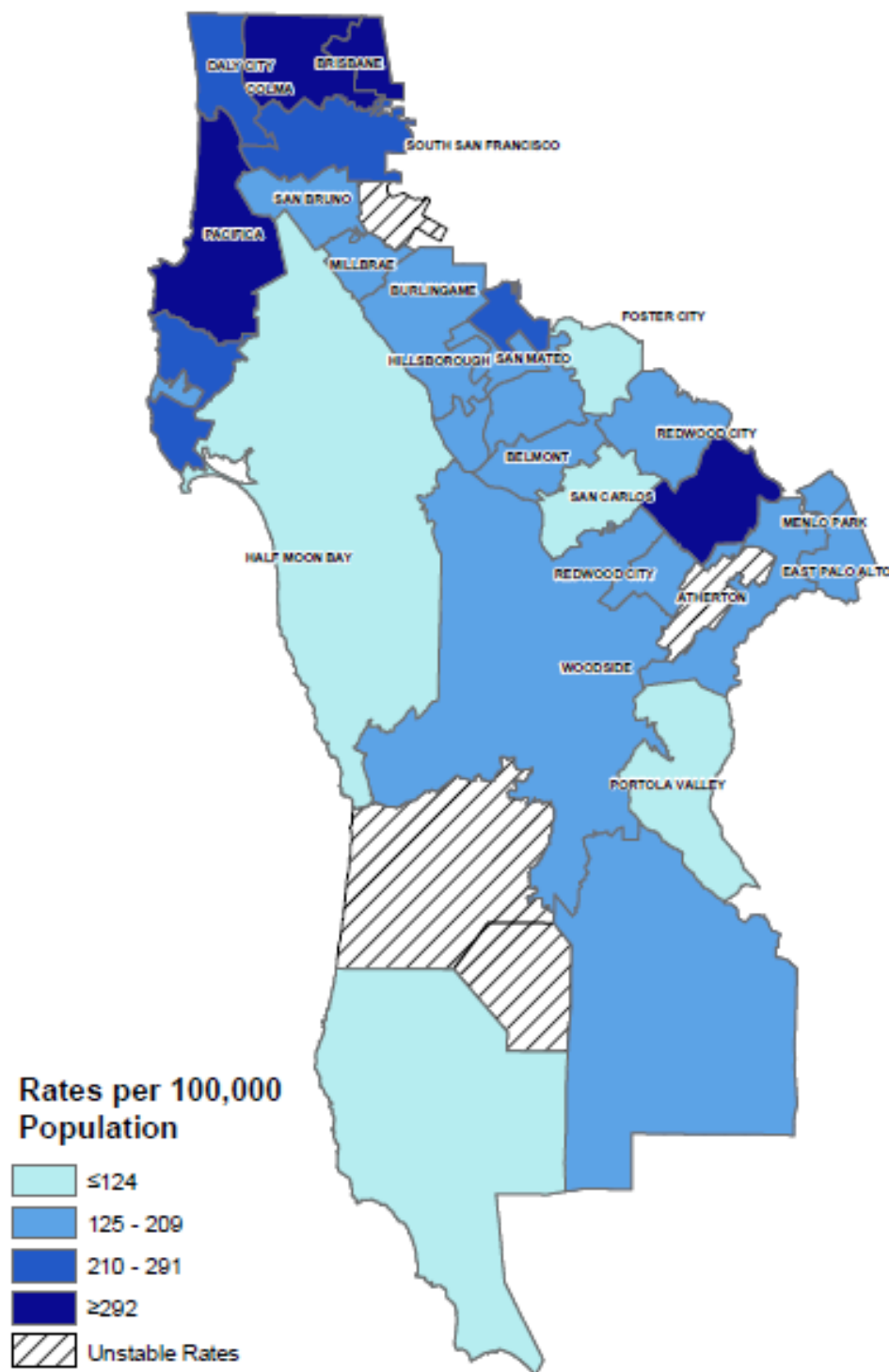
	San Mateo County ¹		California ²	
	(N = 1,613)		(N = 128,415)	
	Number	%	Number	%
Gender				
Male	1,376	85.3	111,763	87.0
Female	211	13.1	15,069	11.7
Transgender/Alternative Gender	26	1.6	1,583	1.2
Race/Ethnicity				
White	737	45.7	52,842	41.1
Black	164	10.2	22,595	17.6
Latina/o	488	30.3	44,480	34.6
Asian	162	10.0	4,961	3.9
American Indian/Alaskan Native	5	0.3	400	0.3
Pacific Islander	14	0.9	274	0.2
Multi-Race/Other/Unknown	43	2.7	2,863	2.2
Current Age				
0 - 19	7	0.4	566	0.5
20 - 29	81	5.0	10,139	7.9
30 - 39	242	15.0	21,146	16.5
40 - 49	360	22.3	33,424	26.0
50 - 59	534	33.1	41,667	32.5
60+	389	24.1	21,473	16.7
Exposure Category				
MSM	1,042	64.6	85,554	66.6
IDU	126	7.8	8,049	6.3
Heterosexual contact ³	173	10.7	18,770	14.6
MSM/IDU	88	5.5	9,128	7.1
Other Risk ⁴	21	1.3	1,129	0.9
Not Specified	163	10.1	5,785	4.5

¹ California Department of Public Health, Office of AIDS, HIV/AIDS Surveillance Section. Electronic HIV/AIDS Reporting System of California (eHARS) June 30, 2017 data set. ² California Department of Public Health, Office of AIDS, HIV/AIDS Surveillance Section. Year 2015 data included as 2016 data is not yet available. ³ Sex with MSM, IDU or known HIV infected person. ⁴ Other risk includes perinatal transmission, exposure to blood transfusion or blood products, or receiving a transplant. Totals may add up to >100% due to rounding.

Geography of Living HIV Cases, San Mateo County

- The highest rates where living HIV/AIDS cases currently reside are seen in the cities of Brisbane, Colma, Pacifica, and Redwood City.

Figure 20. Population Rates of Reported Living HIV Cases by Current Residential Zip Code in San Mateo County, 2016



Data is compiled from the June 30, 2017 data set from the electronic HIV/AIDS Reporting System of California (eHARS).

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, California County Population Estimates and Components of Change by Year, July 1, 2010–2016, Sacramento, California, December 2016.

California STD numbers and rates were gathered from the California Department of Public Health, STD Control Branch's report: Sexually Transmitted Diseases in California 2016.

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 — 2015.

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