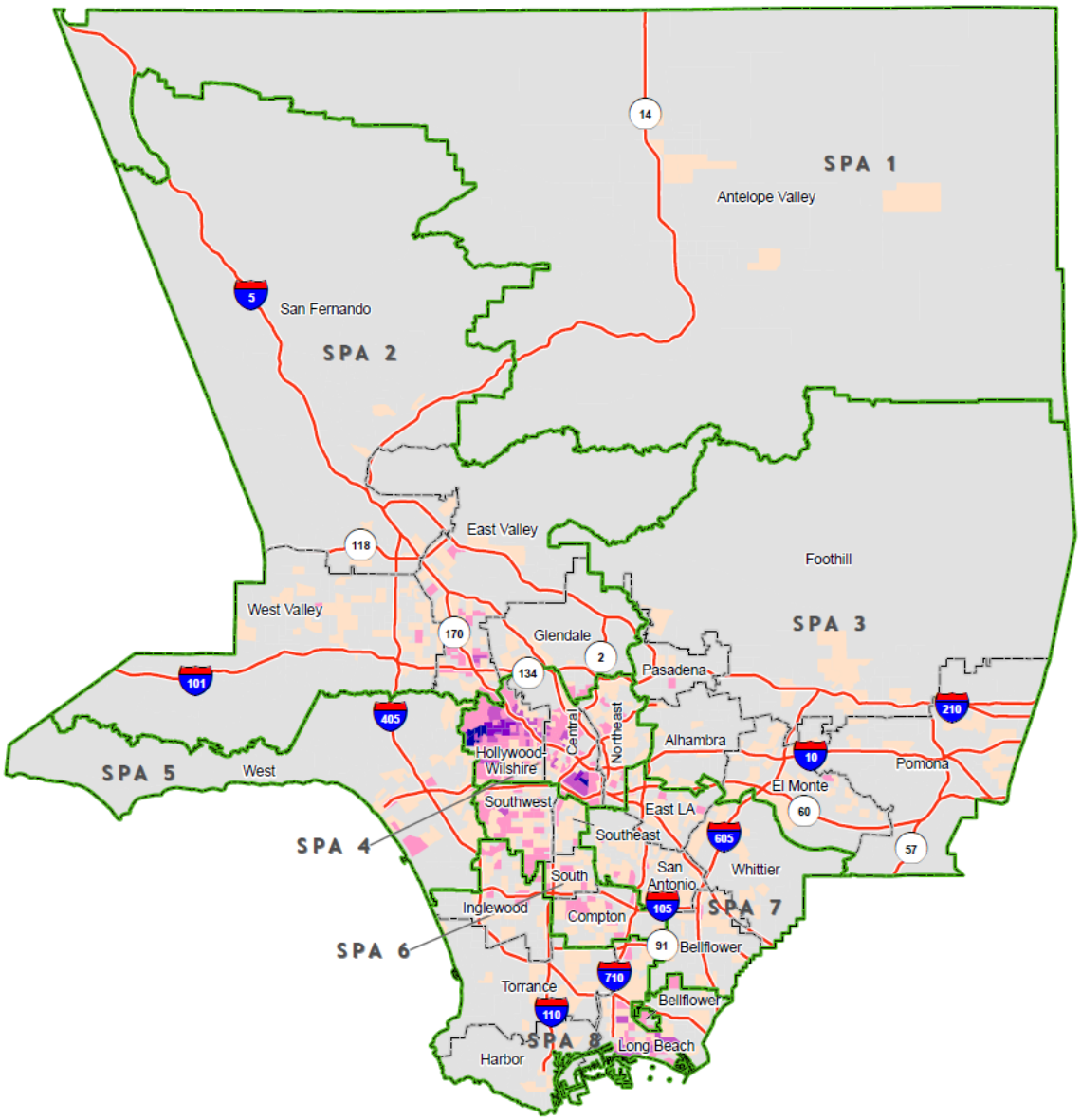
Los Angeles County Department of Public Health

2017 Annual Sexually Transmitted Disease Surveillance Report



COUNTY OF LOS ANGELES
Public Health

The Sexually Transmitted Disease (STD) Surveillance report is published annually by the STD Surveillance Unit, Division of HIV and STD Programs, Los Angeles County Department of Public Health, Los Angeles, California. Data presented in this report includes diagnoses of syphilis, gonorrhea and chlamydia reported for 2017 to the County Department of Public Health through September 9, 2018.

State and National STD Surveillance Data Sources:

Centers for Disease Control and Prevention (CDC) STD Data and Statistics:
https://www.cdc.gov/std/stats/default.htm

California Department of Public Health, STDs Control Branch:
https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/STD-Data.aspx

Acknowledgements

The following Los Angeles County staff contributed to the development of this report: Yeghishe Nazinyan, MD, MS, Janice Casil, MPP, Jianning Luo, MS, Anait Arsenyan, MPH, STD Data Operations Unit and STD Quality Assurance Unit.

NOTICE TO HEALTH CARE PROVIDERS, LABORATORIES, AND OTHERS RESPONSIBLE FOR DISEASE REPORTING:

For Reporting Providers

California law (17 CCR §2505) requires health care providers to report chlamydia (including LGV), gonorrhea, and chancroid within 7 calendar days of diagnosis and to report syphilis within 1 working day. The reporting of STDs does not require patient consent and does not contradict the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule. STDs diagnosed in patients who reside in L.A. County should be reported to the Los Angeles County Department of Public Health, Division of HIV and STD Programs using the STD CMR form located on the DHSP website:
http://publichealth.lacounty.gov/dhsp/ReportCase/STD-CMR(Revised 05.08.2017).pdf

For Reporting Laboratories

California law (17 CCR §2505) requires laboratories to report positive tests for syphilis, gonorrhea, chlamydia trachomatis infections, including lymphogranuloma venereum. STD tests from patients who reside in L.A. County should be sent to the Los Angeles County Department of Public Health, Division of HIV and STD Programs within one working day after the health care provider, or other person authorized to retrieve the report, has been notified. A gonorrhea/chlamydia or syphilis report form should be completed and submitted.

Report a case:

By mail: Division of HIV and STD Programs (DHSP), 600 South Commonwealth Avenue, 10th Floor, Suite 1280, Los Angeles, CA 90005,

Via fax: (213) 749-9602,

Call: (213) 368-7441.

Los Angeles County Department of Public Health

2017 Annual STD Surveillance Report

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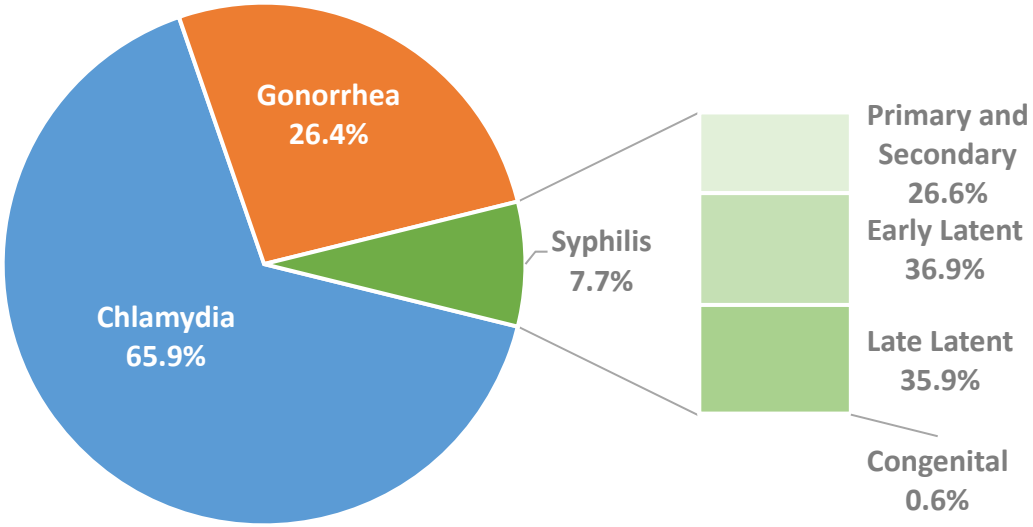
Overview of Sexually Transmitted Diseases (STDs) in Los Angeles County

This overview summarizes case counts, rates and recent trends in Los Angeles County (LAC) for syphilis, gonorrhea and chlamydia (see Table 1.1). As shown in Figure 1.1, there were a total of 97,295 cases of STDs reported in LAC in 2017, which includes data from Long Beach and Pasadena. The majority of reported cases (65.9%) were chlamydia followed by gonorrhea (26.4%) and syphilis (7.7%). Sixty-four percent of syphilis cases were staged as either primary, secondary or early latent (defined as early syphilis). Overall, the rates of all STDs have increased over the past ten years (Figure 1.2). Since 2008, rates for early syphilis, gonorrhea and chlamydia have increased by 189%, 183% and 34%, respectively. When compared to other large urban counties in the US, LAC had the highest number of reported primary and secondary (P&S) syphilis, gonorrhea and chlamydia cases in 2017, however, LAC did not have the highest STD rates (see Table 1.2).

Figure 1.1. Reported STD Cases, Los Angeles County, 2017[1]
(N=97,295)



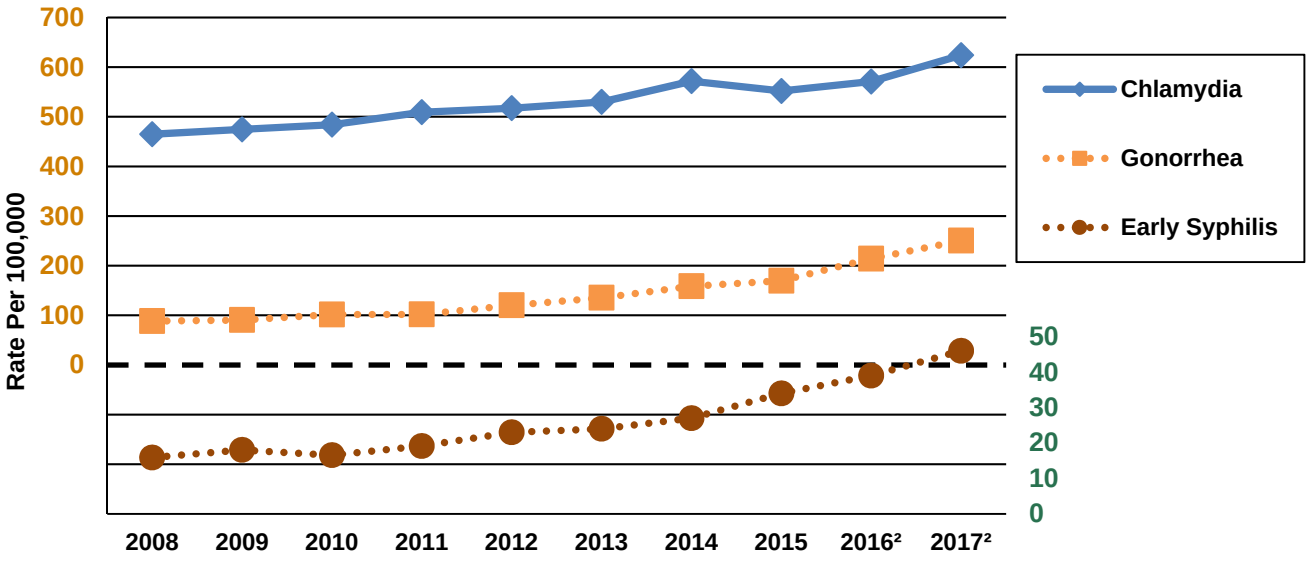
[1]2017 data are provisional due to reporting delay.

Table 1.1. STD Cases and Rates (per 100,000), Los Angeles County, 2013-2017

	2013[1]		2014[1]		2015[1]		2016[1,2]		2017[1,2]	
	N	Rt	N	Rt	N	Rt	N	Rt	N	Rt
Total										
Syphilis										
Early Syphilis[3]	2,436	24	2,682	27	3,432	34	3,992	39	4,750	46
Primary & Secondary	1,068	11	1,199	12	1,570	15	1,811	18	1,988	19
Early Latent	1,368	14	1,483	15	1,862	18	2,181	21	2,762	27
Late Latent/Late	1,430	14	1,450	14	1,621	16	2,186	21	2,683	26
Congenital[4]	9	7	32	25	23	19	38	31	48	41
Gonorrhea	12,726	127	14,996	149	17,289	170	21,902	214	25,723	250
Chlamydia	49,832	497	54,049	537	56,267	552	58,367	571	64,091	624
Male										
Syphilis										
Early Syphilis[3]	2,286	46	2,477	50	3,202	64	3,674	73	4,363	86
Primary & Secondary	1,020	21	1,142	23	1,473	29	1,672	33	1,823	36
Early Latent	1,266	26	1,335	27	1,729	34	2,002	40	2,540	50
Late Latent/Late	1,158	23	1,124	23	1,277	25	1,746	35	1,928	38
Gonorrhea	8,701	176	10,628	214	12,321	245	15,610	309	18,098	357
Chlamydia	17,656	357	20,317	409	21,632	430	23,452	465	26,342	520
Female										
Syphilis										
Early Syphilis[3]	126	2	165	3	205	4	262	5	331	6
Primary & Secondary	39	1	51	1	91	2	119	2	151	3
Early Latent	87	2	114	2	114	2	143	3	180	3
Late Latent/Late	263	5	301	6	326	6	404	8	715	14
Gonorrhea	3,967	78	4,310	84	4,902	95	6,016	116	7,493	144
Chlamydia	32,062	631	33,603	659	34,473	668	34,562	667	37,576	722
Transgender[5,6]										
Syphilis										
Early Syphilis[3]	24	-	39	-	25	-	55	-	55	-
Primary & Secondary	9	-	6	-	6	-	19	-	14	-
Early Latent	15	-	33	-	19	-	36	-	41	-
Late Latent/Late	8	-	24	-	18	-	36	-	40	-
Gonorrhea	43	-	42	-	51	-	66	-	101	-
Chlamydia	35	-	49	-	50	-	40	-	64	-

[1] Rates based on observations fewer than 12 may not be reliable (see Technical Notes).
[2] Data are provisional due to reporting delay.
[3] Early syphilis includes primary, secondary and early latent syphilis.
[4] Rate calculated per 100,000 live births. 2016 and 2017 denominators are prelimanary.
[5] Rates cannot be calculated due to a lack of denominator data.
[6] Includes both male-to-female and female-to-male transgender individuals.

Figure 1.2. Rates of Early Syphilis, Gonorrhea, and Chlamydia, Los Angeles County, 2008-2017[1]



[1] Early syphilis includes all cases staged as primary, secondary, or early latent; rates for 2010 are based on smoothed population estimates for the same years prepared by the Office of Health Assessment and Epidemiology, LAC/DPH.
[2] 2016 and 2017 data are provisional due to reporting delay.

Table 1.2. STD Cases and Rates (per 100,000) for Los Angeles County and Other US Counties and Independent Cities, 2017[1]

	P&S Syphilis[2]		Gonorrhea		Chlamydia	
County	**N**	**Rt**	**N**	**Rt**	**N**	**Rt**
Los Angeles County	**1,988**	**19**	**25,723**	**250**	**64,091**	**624**
Bronx County, NY	388	27	4,941	339	17,711	1,217
Cook County, IL	980	19	14,920	287	42,422	815
Harris County, TX	328	7	8,826	192	27,556	600
King County, WA	321	15	4,154	193	9,777	455
Kings County, NY	519	20	6,824	260	21,137	804
Miami-Dade County, FL	481	18	3,538	130	12,264	452
New York County, NY	596	36	7,845	477	16,670	1,014
Queens County, NY	267	11	3,513	151	14,421	618
San Francisco County, CA	584	67	5,775	663	9,137	1,049
Washington, D.C.	274	40	4,563	670	9,107	1,337

[1] Data are provisional due to reporting delay. Data sources: 2017 LAC/DPH STD Surveillance, CDC 2017 STD Surveillance report.

[2] P&S syphilis includes all cases staged as primary and secondary.

Syphilis in Los Angeles County

A total of 7,481 cases of syphilis were reported in LAC in 2017. Twenty-seven percent (n=1,988; 19 per 100,000) of cases were staged as either primary or secondary (P&S), 37% (n=2,762; 27 per 100,000) as early latent (EL) and 36% (n=2,683; 26 per 100,000) as late latent or late syphilis. Since 2013, the number of reported P&S, EL and late cases rose by 86%, 102% and 88%, respectively. There was also an increase of 433% in congenital syphilis cases from nine cases in 2013 to 48 cases in 2017 (see Table 1.1). As shown in Figures 2.1A and 2.1B, from 2013 to 2017 P&S and EL syphilis rates were higher in Los Angeles County (LAC) compared to California and the US. While the 2017 rate of P&S syphilis in LAC was 19 per 100,000, P&S syphilis rates in other large urban jurisdictions in the US ranged from 7 per 100,000 in Harris County, TX to 67 per 100,000 in San Francisco County, CA (see Table 1.2).[1]

Although a few tables and figures in this report present syphilis cases by P&S, EL and late stages, the majority provide data on early syphilis (ES), which includes all cases staged as primary, secondary and early latent. ES represents infectious cases that occurred within the past year and is used to describe the epidemiology of recent syphilis infections in LAC to help plan and direct syphilis control programs. The P&S, EL and late classifications are consistent with those used by the Centers for Disease Control and Prevention (CDC)[2] and most suitable for making comparisons between LAC and state or national data.

Gender: As shown in Table 2.1, most cases of ES in 2017 were among males (92%), followed by females (7%) and individuals who identified as transgender (1%). However, the proportion of cases attributed to transgender individuals may be underreported due to gender misclassification.

Age: ES morbidity occurred over a broad age range; ninety-three percent of cases in 2017 were among individuals aged 15-54 years (see Table 2.1). In 2017, ES rates were highest among 25-29 year old males, and 20-24 year old females (204 per 100,000 and 21 per 100,000, respectively) (see Figures 2.2A and 2.2B).

Race/Ethnicity: While almost half of all ES cases in 2017 occurred among Latinos (48%), the rate of ES among African Americans (88 per 100,000) was nearly two times higher than Latinos (45 per 100,00), and Whites (42 per 100,000), and almost 6 times higher than Asians (15 per 100,000). Among males, African Americans had a 2017 ES rate (160 per 100,000) that was two times higher than White (79 per 100,000) and Latino males (84 per 100,000) (see Table 2.1 and Figure 2.3A). Among females, African Americans 2017 ES rate (21 per 100,000) was over five times higher than White females (4 per 100,000) and 3.5 times higher than Latinas (6 per 100,000) (see Figure 2.3B).

Sexual Behavior: Among males with ES in 2017, 75% of cases occurred among men who have sex with men (MSM) or men who have sex with men and women (MSMW) (see Table 2.1).

Geographic Distribution: ES cases were concentrated within specific regions of LAC in 2017 (see Figure 2.5). Among males, the Metro SPA had the highest number (1,576), proportion (36%) and rate of ES (258 per 100,000) among all SPAs in the county. Among females, the South SPA had the highest number (91), proportion (27%) and rate of ES (17 per 100,000) among all SPAs in the county (see Table 2.1). The highest number, proportion and rate of ES cases were reported in Central (Metro SPA), Hollywood-Wilshire (Metro SPA) and Long Beach (South Bay SPA) health districts (see Table 2.2).

HIV Co-infection: Based on self-report during field services interviews and laboratory data, approximately 54% of MSM/MSMW diagnosed with ES in 2017 were co-infected with HIV. From 2016 to 2017, the number of ES cases among MSM/MSMW who were co-infected with HIV increased by 18% from 1,492 to 1,758. (see Figure 2.6).

Field Services: In LAC, attempts are made to follow-up with syphilis cases to ensure proper treatment and to elicit sexual partners and other contacts who may also need treatment. In 2017, excluding cases reported from the cities of Long Beach and Pasadena, treatment was verified for 96% of all syphilis cases, 64% were interviewed and 17% provided information on at least one contact (see Figure 2.7). Treatment was verified for 50% of those contacts (see Figure 2.8).

Figure 2.1A. Primary & Secondary Syphilis Rates in the United States, California and Los Angeles County, 2013-2017[1]

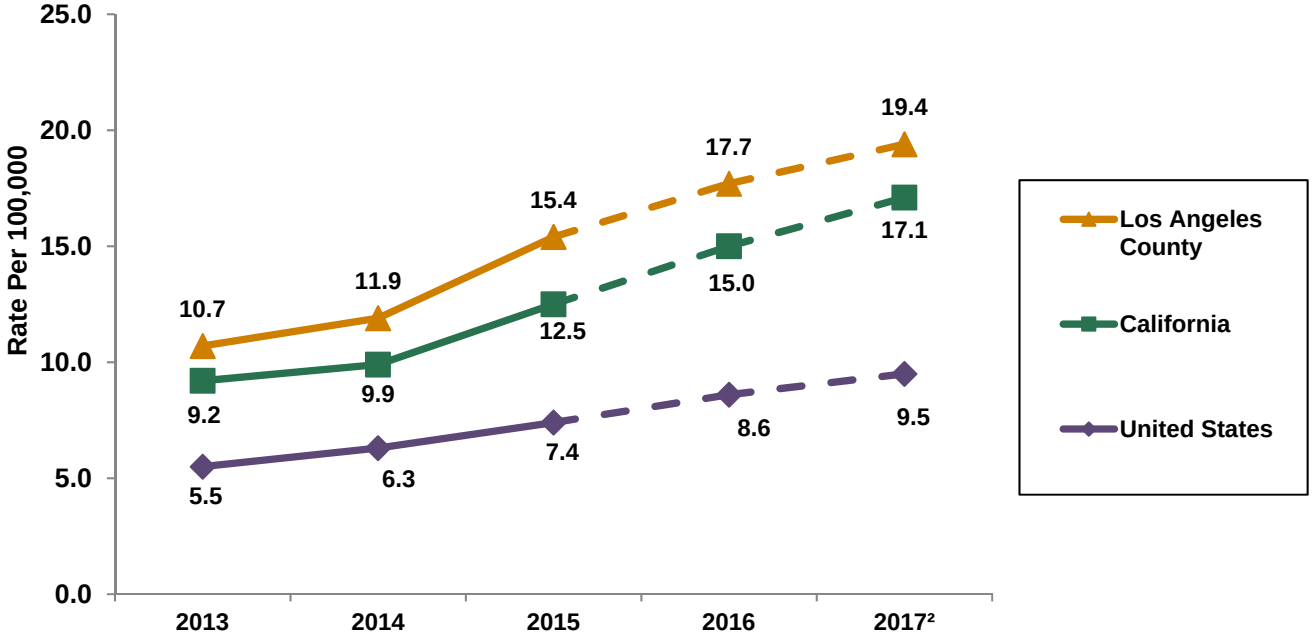
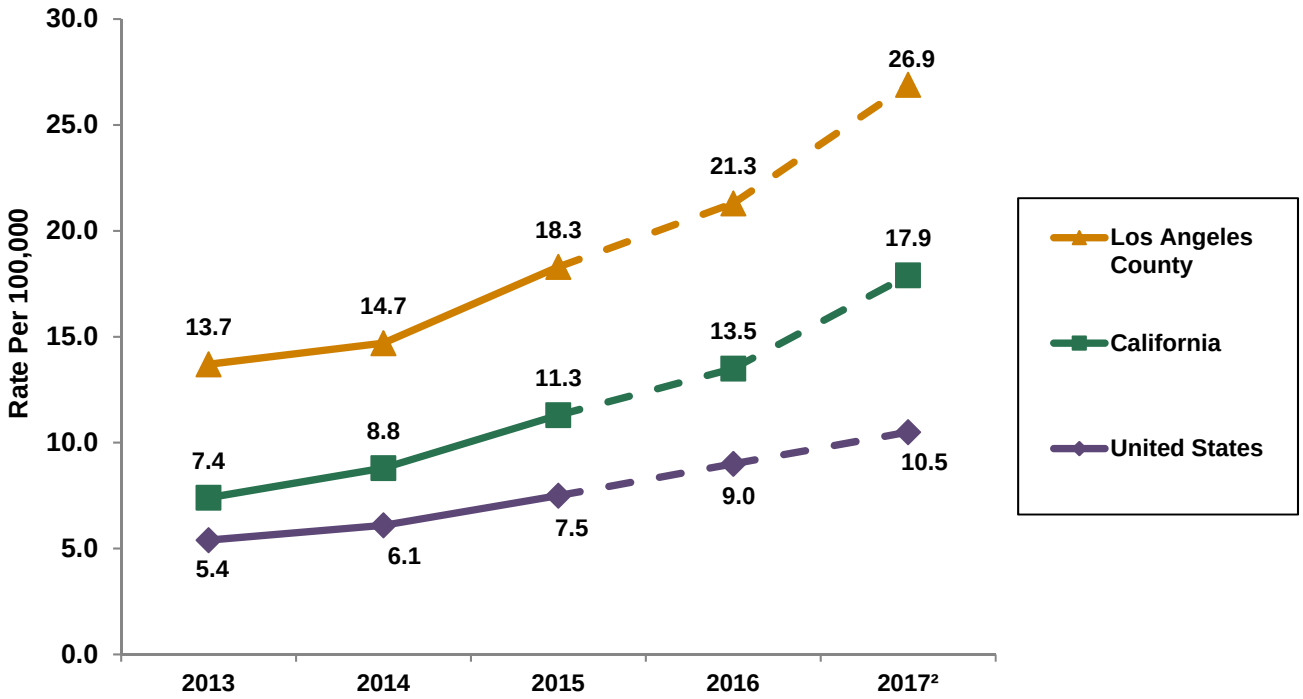


Figure 2.1B. Early Latent Syphilis Rates in the United States, California and Los Angeles County, 2013-2017[1]



[1] Data sources: LAC/DPH STD Surveillance, CDC 2017 STD Surveillance report.
[2] 2016 and 2017 data are provisional due to reporting delay. Data as of September 9, 2018.

Table 2.1. Early Syphilis Cases and Rates (per 100,000) by Gender, Sexual Behavior, Age Group, Race/Ethnicity, and Service Planning Area (SPA), Los Angeles County, 2017[1]

	Male			Female			Total[2,3]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Gender									
Male	4,363	(100)	86	-	-	-	4,363	(92)	86
Female	-	-	-	331	(100)	6	331	(7)	6
Transgender[3]	-	-	-	-	-	-	55	(1)	-
Missing[3]	-	-	-	-	-	-		(0)	-
Sexual Behavior (males only)[3]									
MSM	3,121	(72)	-	-	-	-	-	-	-
MSMW	143	(3)	-	-	-	-	-	-	-
MSW	358	(8)	-	-	-	-	-	-	-
Missing	741	(17)	-	-	-	-	-	-	-
Age Group (Yr)									
0-14		-	-		-	-		-	-
15-19	75	(2)	21	27	(8)	8	103	(2)	15
20-24	520	(12)	134	77	(23)	21	602	(13)	79
25-29	795	(18)	204	54	(16)	14	856	(18)	112
30-34	762	(17)	194	41	(12)	11	812	(17)	106
35-39	612	(14)	168	34	(10)	9	659	(14)	91
40-44	467	(11)	136	33	(10)	9	511	(11)	74
45-54	806	(18)	115	40	(12)	6	854	(18)	60
55-64	285	(7)	47	19	(6)	3	306	(6)	25
65+	41	(1)	7	5	-	-	46	(1)	3
Missing[3]	0	-	-	<5	-	-	<5	-	-
Race/Ethnicity									
White	1,147	(26)	79	52	(16)	4	1,204	(25)	42
African American	653	(15)	160	97	(29)	21	763	(16)	88
Latino	2,095	(48)	84	149	(45)	6	2,274	(48)	45
Asian	208	(5)	30	11	(3)	1	225	(5)	15
Pacific Islander	30	(1)	245	<5	-	-	32	(1)	129
American Indian/Alaskan Native	17	(0)	191	<5	-	-	18	(0)	98
Other/Multi-race[3]	151	(3)	-	14	-	-	165	(3)	-
Missing[3]	62	(1)	-	6	-	-	69	(1)	-
Service Planning Area									
Antelope Valley [1]	57	(1)	29	10	(3)	5	68	(1)	17
San Fernando [2]	627	(14)	56	46	(14)	4	682	(14)	30
San Gabriel [3]	376	(9)	43	36	(11)	4	418	(9)	23
Metro [4]	1,576	(36)	258	42	(13)	7	1,637	(34)	138
West [5]	193	(4)	59	15	(5)	4	210	(4)	31
South [6]	494	(11)	95	91	(27)	17	594	(13)	56
East [7]	379	(9)	59	37	(11)	6	420	(9)	32
South Bay [8]	559	(13)	72	50	(15)	6	613	(13)	39
Missing[3]	102	(2)	-	<5	-	-	108	(2)	-
Total	4,363	(100)	86	331	(100)	6	4,750	(100)	46

[1] Data are provisional due to reporting delay. Rates based on observations fewer than 12 may not be reliable (see technical notes). Early Syphilis includes all cases staged as either primary, secondary, or early latent. Data as of September 9, 2018.

[2] Includes missing gender, male-to-female transgender and female-to-male transgender.

[3] Rates cannot be calculated due to a lack of reliable denominator data.

Figure 2.2A. Early Syphilis Rates among Males by Age Group, Los Angeles County, 2013-2017[1]

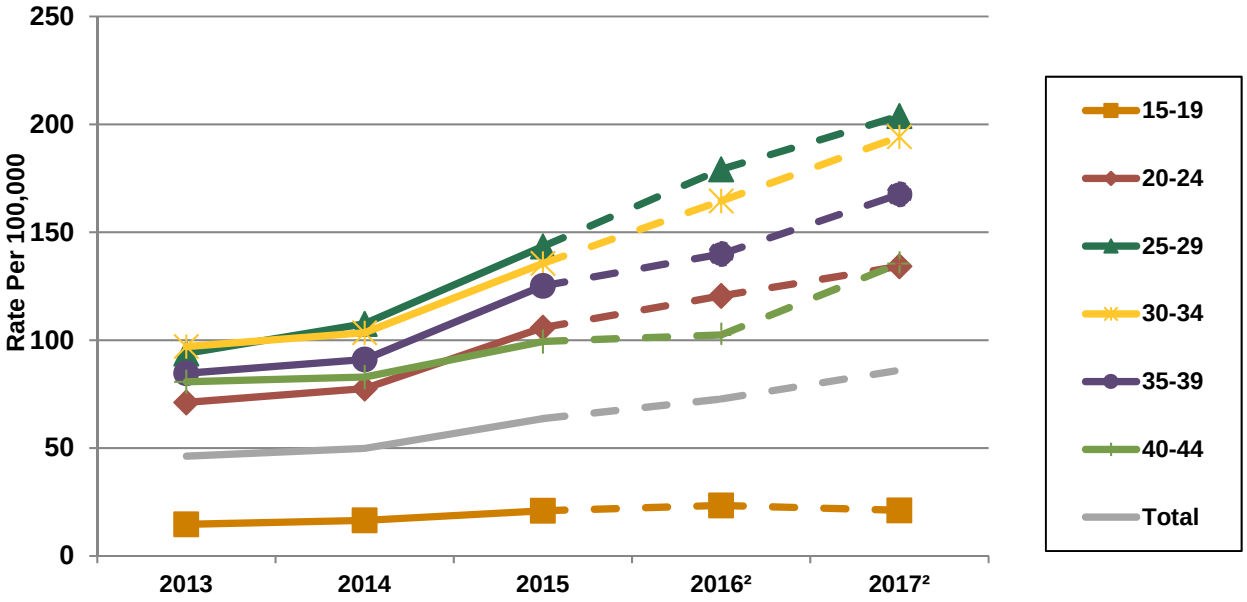
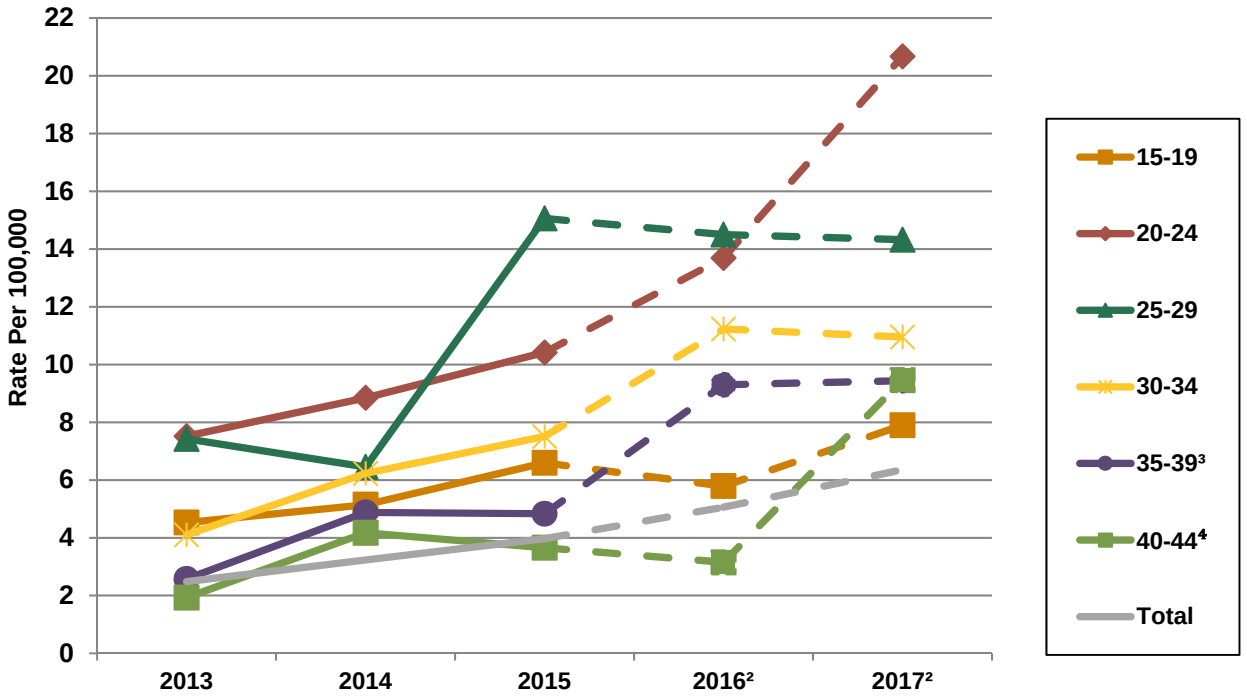


Figure 2.2B. Early Syphilis Rates among Females by Age Group, Los Angeles County, 2013-2017[1]



[1] Early Syphilis includes all cases staged as primary, secondary, or early latent. Data as of September 9, 2018.
[2] 2016-2017 data are provisional due to reporting delay.
[3] 2013 rate is based on <12 observations and considered to be unstable.
[4] 2013 and 2016 rates are based on <12 observations and considered to be unstable.

Figure 2.3A. Early Syphilis Rates among Males by Race/Ethnicity, Los Angeles County, 2013-2017[1]

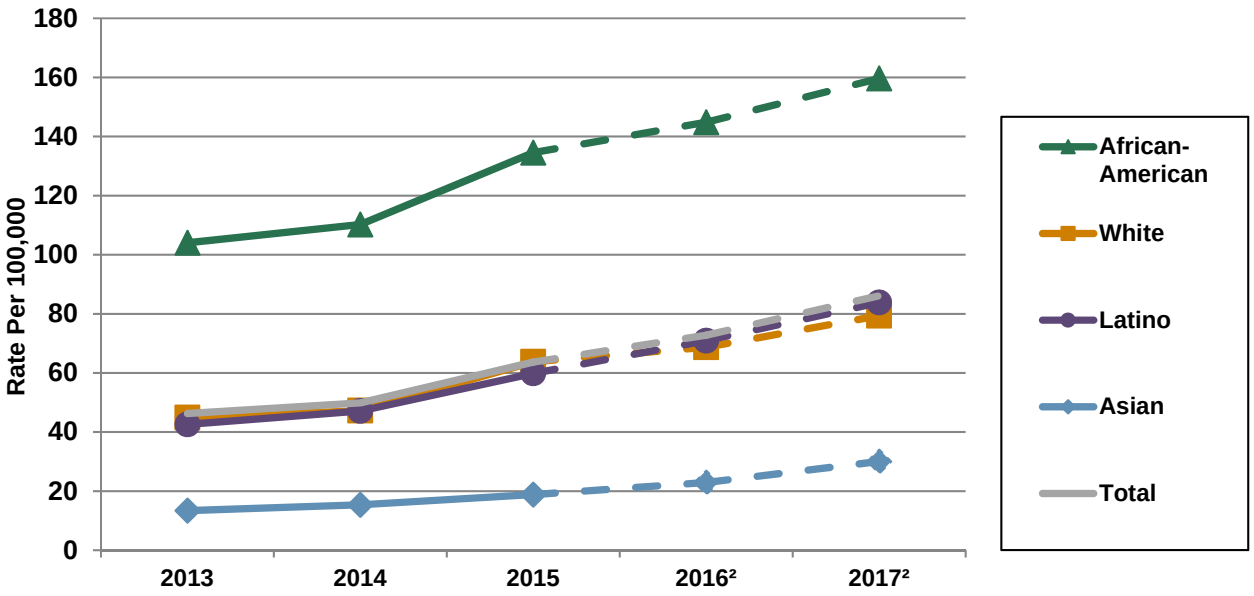
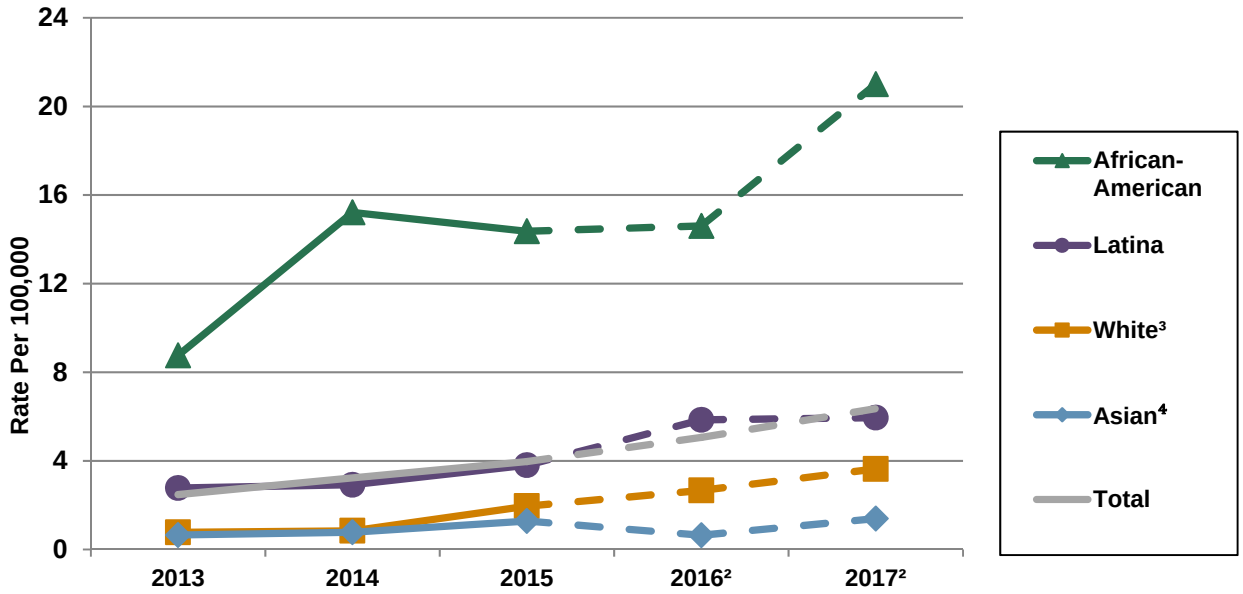


Figure 2.3B. Early Syphilis Rates among Females by Race/Ethnicity, Los Angeles County, 2013-2017[1]



[1] Data excludes cases with unknown race/ethnicity; Early Syphilis includes all cases staged as primary, secondary, or early latent; rates for Pacific Islanders and American Indians/Alaskan Natives are not presented due to small numbers. Data as of September 9, 2018.
[2] 2016-2017 data are provisional due to reporting delay.
[3] 2013 rate is based on <12 observations and considered to be unstable.
[4] Rates for Asians are based on <12 observations and considered to be unstable.

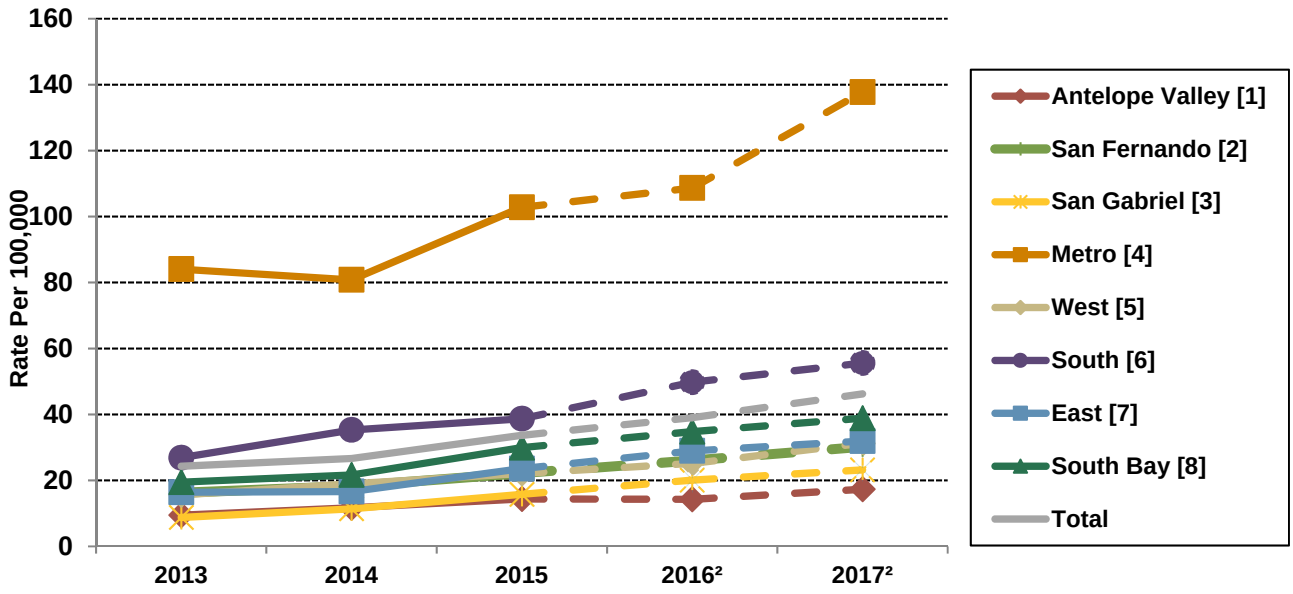
Table 2.2. Early Syphilis Cases and Rates (per 100,000) by Service Planning Area (SPA) and Health District (HD), Los Angeles County, 2013-2017[1]

	2013			2014			2015			2016[2]			2017[2]		
SPA/HD	**N**	**(%)**	**Rt**	**N**	**(%)**	**Rt**	**N**	**(%)**	**Rt**	**N**	**(%)**	**Rt**	**N**	**(%)**	**Rt**
Antelope Valley [1]	**37**	**(2)**	**9**	**46**	**(2)**	**12**	**57**	**(2)**	**14**	**56**	**(1)**	**14**	**68**	**(1)**	**17**
Antelope Valley	37	(2)	**9**	46	(2)	**12**	57	(2)	**14**	56	(1)	**14**	68	(1)	**17**
San Fernando [2]	**354**	**(15)**	**16**	**400**	**(15)**	**18**	**495**	**(14)**	**22**	**583**	**(15)**	**26**	**682**	**(14)**	**30**
East Valley	122	(5)	**27**	142	(5)	**31**	175	(5)	**38**	205	(5)	**44**	227	(5)	**48**
Glendale	43	(2)	**13**	63	(2)	**18**	78	(2)	**22**	94	(2)	**27**	81	(2)	**23**
San Fernando	53	(2)	**10**	52	(2)	**10**	64	(2)	**12**	76	(2)	**14**	94	(2)	**18**
West Valley	136	(6)	**16**	143	(5)	**16**	178	(5)	**20**	208	(5)	**23**	280	(6)	**31**
San Gabriel [3]	**156**	**(6)**	**9**	**203**	**(8)**	**11**	**284**	**(8)**	**16**	**359**	**(9)**	**20**	**418**	**(9)**	**23**
Alhambra	25	(1)	**7**	37	(1)	**11**	44	(1)	**13**	41	(1)	**12**	61	(1)	**17**
El Monte	44	(2)	**10**	59	(2)	**13**	88	(3)	**20**	114	(3)	**26**	116	(2)	**26**
Foothill	21	(1)	**7**	28	(1)	**9**	41	(1)	**13**	64	(2)	**21**	75	(2)	**24**
Pomona	54	(2)	**10**	65	(2)	**12**	84	(2)	**15**	106	(3)	**19**	131	(3)	**24**
Pasadena	15	(1)	**11**	17	(1)	**12**	34	(1)	**24**	39	(1)	**27**	41	(1)	**28**
Metro [4]	**959**	**(39)**	**84**	**929**	**(35)**	**81**	**1,200**	**(35)**	**103**	**1,285**	**(32)**	**109**	**1637**	**(34)**	**138**
Central	257	(11)	**75**	275	(10)	**80**	335	(10)	**96**	375	(9)	**105**	496	(10)	**139**
Hollywood-Wilshire	619	(25)	**126**	568	(21)	**115**	741	(22)	**148**	801	(20)	**158**	964	(20)	**189**
Northeast	83	(3)	**27**	86	(3)	**28**	124	(4)	**39**	109	(3)	**34**	177	(4)	**55**
West [5]	**101**	**(4)**	**16**	**124**	**(5)**	**19**	**146**	**(4)**	**22**	**167**	**(4)**	**25**	**210**	**(4)**	**31**
West	101	(4)	**16**	124	(5)	**19**	146	(4)	**22**	167	(4)	**25**	210	(4)	**31**
South [6]	**277**	**(11)**	**27**	**365**	**(14)**	**35**	**406**	**(12)**	**39**	**532**	**(13)**	**50**	**594**	**(13)**	**56**
Compton	49	(2)	**17**	64	(2)	**23**	65	(2)	**23**	105	(3)	**36**	140	(3)	**49**
South	56	(2)	**29**	67	(2)	**35**	73	(2)	**37**	98	(2)	**48**	118	(2)	**59**
Southeast	41	(2)	**24**	67	(2)	**38**	52	(2)	**29**	95	(2)	**51**	100	(2)	**54**
Southwest	131	(5)	**34**	167	(6)	**44**	216	(6)	**56**	234	(6)	**60**	236	(5)	**60**
East [7]	**215**	**(9)**	**16**	**218**	**(8)**	**17**	**312**	**(9)**	**24**	**380**	**(10)**	**29**	**420**	**(9)**	**32**
Bellflower	58	(2)	**16**	48	(2)	**13**	73	(2)	**20**	92	(2)	**26**	93	(2)	**26**
East Los Angeles	45	(2)	**22**	37	(1)	**18**	61	(2)	**29**	67	(2)	**33**	80	(2)	**39**
San Antonio	64	(3)	**15**	82	(3)	**19**	113	(3)	**26**	148	(4)	**34**	183	(4)	**43**
Whittier	48	(2)	**15**	51	(2)	**16**	65	(2)	**20**	73	(2)	**22**	64	(1)	**20**
South Bay [8]	**302**	**(12)**	**19**	**337**	**(13)**	**22**	**470**	**(14)**	**30**	**550**	**(14)**	**35**	**613**	**(13)**	**39**
Harbor	30	(1)	**15**	24	(1)	**12**	36	(1)	**17**	43	(1)	**20**	52	(1)	**25**
Inglewood	99	(4)	**24**	95	(4)	**23**	121	(4)	**29**	148	(4)	**35**	161	(3)	**38**
Torrance	33	(1)	**7**	41	(2)	**9**	56	(2)	**12**	60	(2)	**13**	75	(2)	**16**
Long Beach	140	(6)	**30**	177	(7)	**37**	257	(7)	**54**	299	(7)	**62**	325	(7)	**67**
Missing	**35**	**(1)**	**-**	**60**	**(2)**	**-**	**62**	**(2)**	**-**	**80**	**(2)**	**-**	**108**	**(2)**	**-**
Total	2,436	(100)	24	2,682	(100)	27	3,432	(100)	34	3,992	(100)	39	4,750	(100)	46

[1] Rates based on observations fewer than 12 may not be reliable (see technical notes). Early Syphilis includes all cases staged as primary, secondary, or early latent. Data as of September 9, 2018.

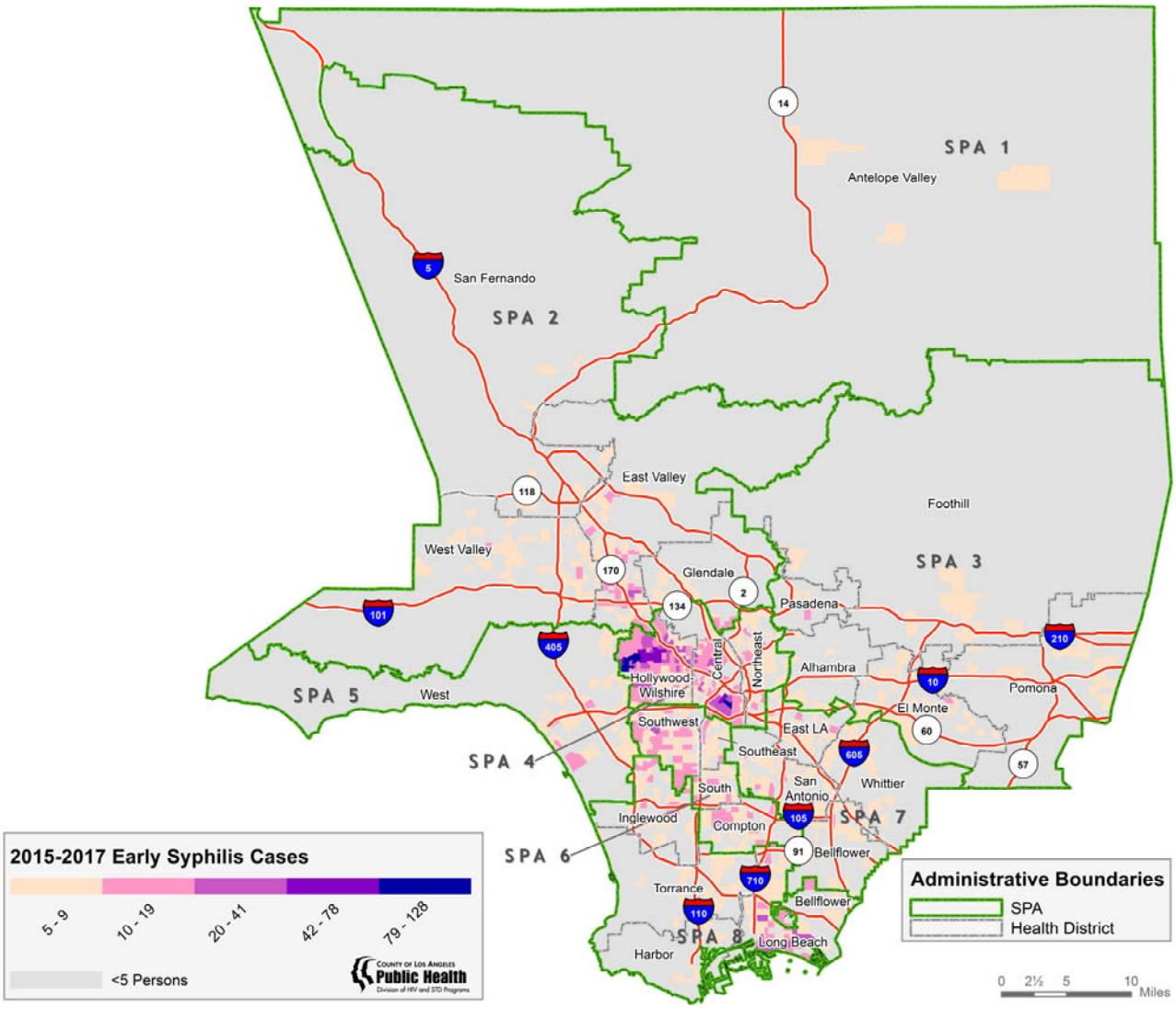
[2] Data are provisional due to reporting delay.

Figure 2.4. Early Syphilis Rates by Service Planning Area (SPA), Los Angeles County, 2013-2017[1]



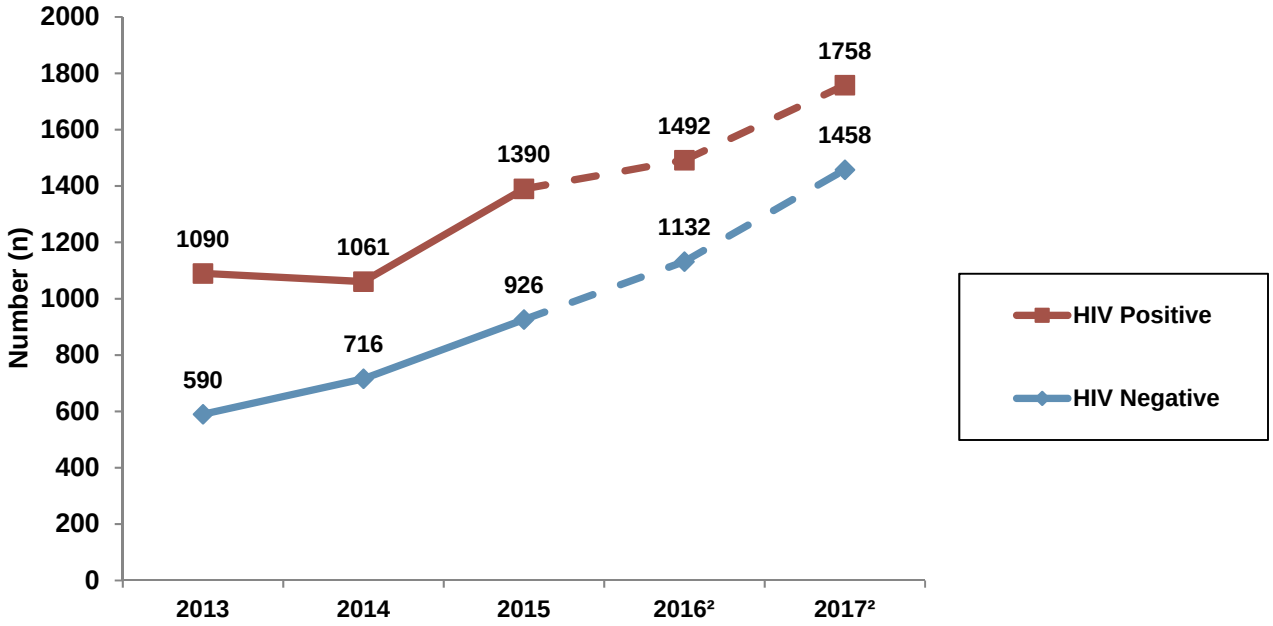
[1] Early syphilis includes all cases staged as primary, secondary, or early latent. Data excludes cases with unknown/missing SPA. Data as of September 9, 2018.
[2] 2016-2017 data are provisional due to reporting delay.

Figure 2.5. Early Syphilis Cases By Census Tract and Service Planning Area (SPA) Los Angeles County, 2015-2017[1]



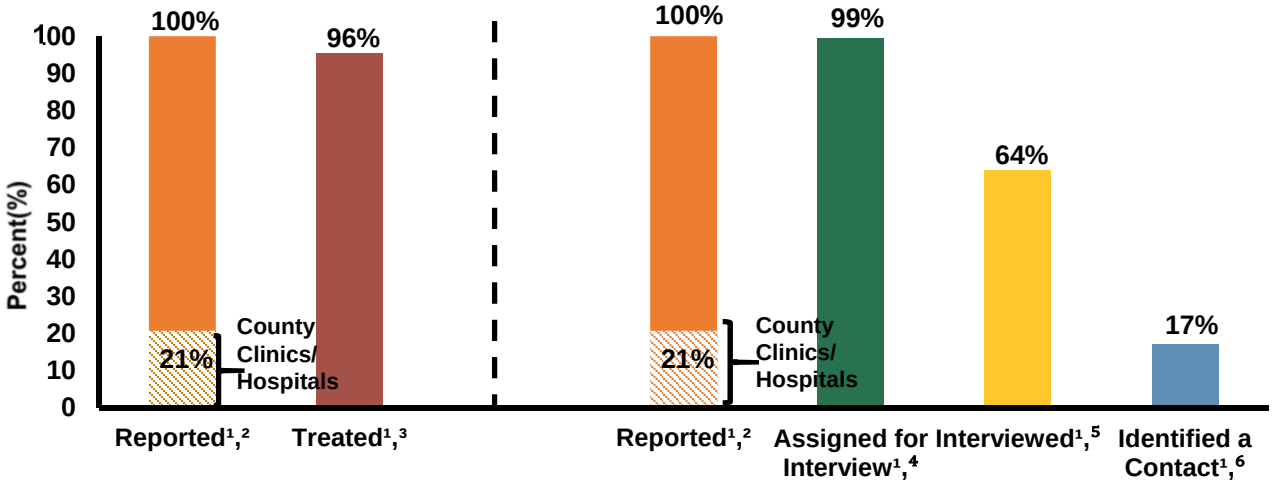
[1] 2016-2017 data are provisional due to reporting delay and suppressed for census tracts with <5 cases or population <100. Data as of September 9, 2018.
Total geocoded records within LA County borders: 11,709.
Data sources: LAC/DPH STD Surveillance, Long Beach Health and Human Services STD Surveillance, Pasadena Health Department STD Surveillance.

Figure 2.6. Number of Cases of Early Syphilis among MSM/MSMW by HIV Status, Los Angeles County, 2013-2017[1]



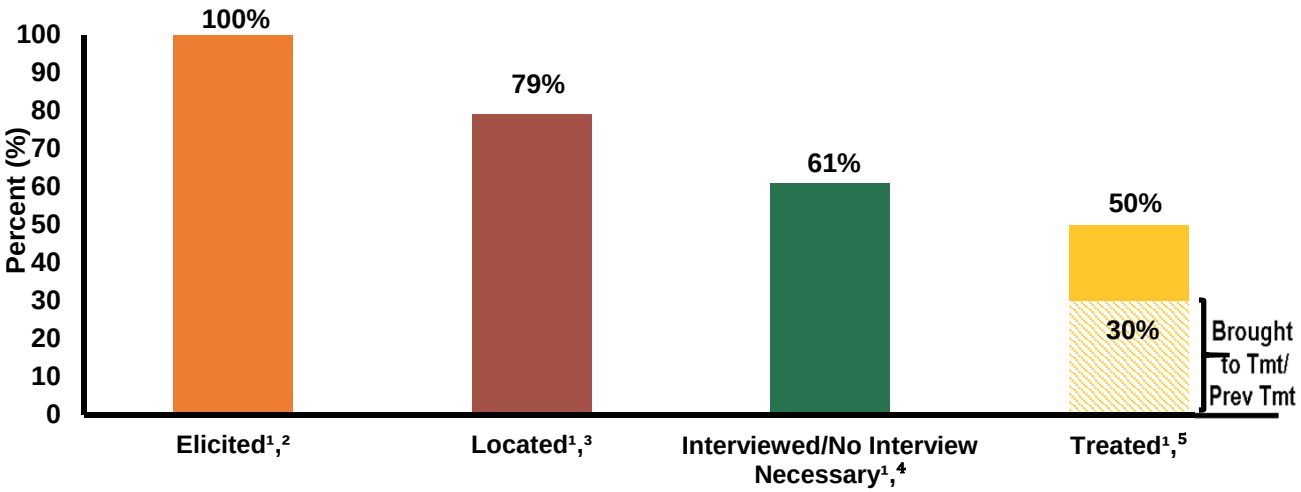
[1] MSM/MSMW=men who have sex with men/men who have sex with men and women; based on self-reported gender and gender of sex partners; HIV positive status includes cases that were either self-reported and/or laboratory confirmed. Data as of September 9, 2018.
[2] 2016-2017 data are provisional due to reporting delay.

Figure 2.7. Syphilis Index Case Continuum, Los Angeles County, 2017 (N=6,868)



1. Denominator 6,868 syphilis (SY) cases reported in Los Angeles County (LAC) in 2017, after excluding cases that were out of jurisdiction (OOJ). These cases were staged as: primary or secondary (n=1,814), early latent (n=2,554), and late latent/late (n=2,500).
2. Numerator is # SY cases reported in LAC in 2017 after excluding cases that were OOJ; 15% were reported by county-run STD clinics and 6% were reported by county-run hospitals.
3. Numerator is # SY cases with documented treatment information.
4. Numerator is # SY cases assigned to a field services staff member for investigation.
5. Numerator is # SY cases interviewed by field services.
6. Numerator is # SY cases who identified at least one sexual and/or cluster contact; does not include cases that notified contacts themselves or that received provider-delivered partner services.

Figure 2.8. Syphilis Elicited Contact Continuum, Los Angeles County, 2017 (N=1,709)



1. Denominator is 1,709 contacts elicited from 1,167 syphilis (SY) index cases in 2017. Of these contacts: 1,554 were sexual partners, 114 were clusters, and 41 were missing information on contact type.
2. Numerator is # of contacts identified by index cases in 2017.
3. Numerator is # of contacts located by field services; excludes contacts with a disposition of "unable to locate," "insufficient information to begin investigation," "administrative/system closure," or that were missing a disposition.
4. Numerator is # of contacts who were either interviewed or had a disposition which indicated that their infection and/or treatment status was confirmed. A total of 240 new cases of syphilis were identified from these interviews. These new cases were staged as: primary (n=18), secondary (n=41) early latent (n=142), and late latent/late (n=39).
5. Numerator is total # of partners with documented treatment information; 30% of contacts had a disposition of "infected – brought to treatment" (n=241) or "preventative treatment – new" (n=269).

Gonorrhea in Los Angeles County

A total of 25,723 cases of gonorrhea were reported in Los Angeles County (LAC) in 2017. The number of reported cases increased 102% from 12,276 cases in 2013. The overall gonorrhea rate in LAC in 2017 was 250 per 100,000 (see Table 1.1). As shown in Figure 3.1, based on the most recent year for which national data are available, the gonorrhea rate in LAC in 2017 (250 per 100,000) was 30% higher than the rate in California (192 per 100,000) and 46% higher than the rate in the US (172 per 100,000). While the rate of gonorrhea in LAC was 250 per 100,000, gonorrhea rates in other large urban jurisdictions in the US ranged from 130 per 100,000 in Miami-Dade County, FL to 670 per 100,000 in Washington, D.C. (see Table 1.2).

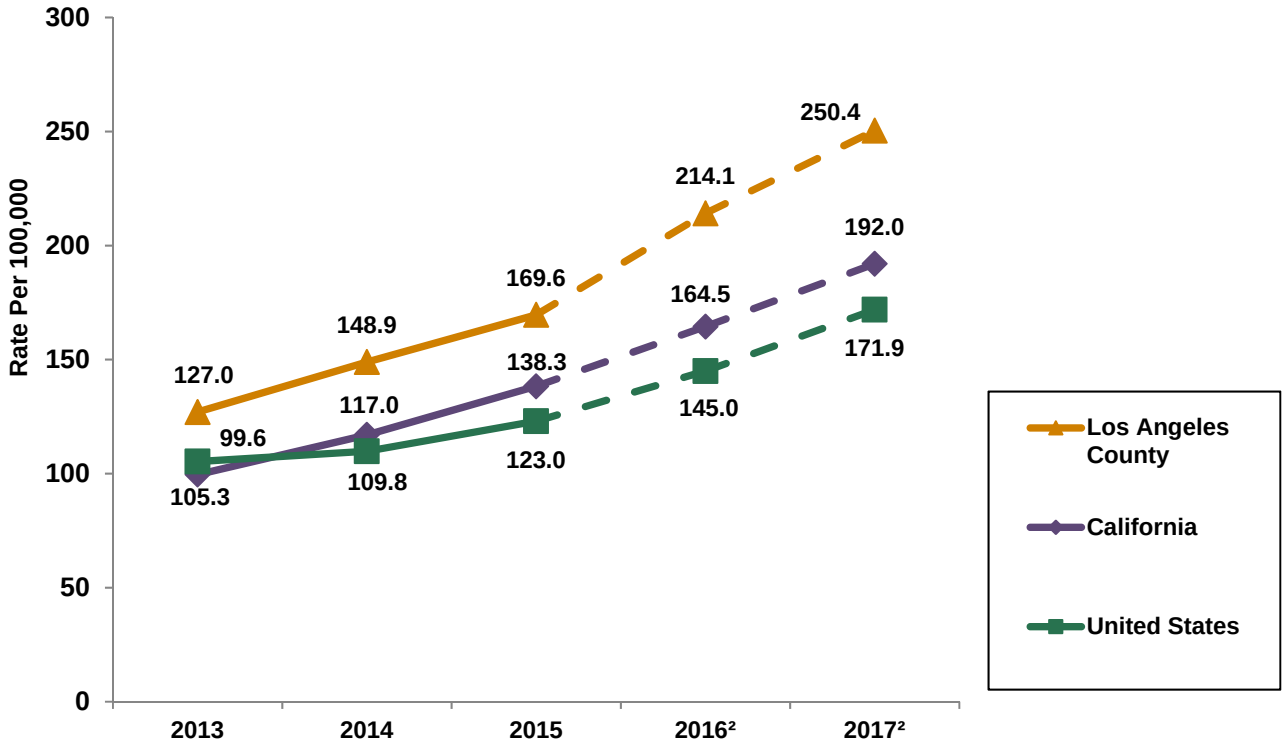
Gender: Seventy percent of gonorrhea cases in 2017 were among males and 29% were among females (see Table 3.1). Although transgender individuals accounted for less than 1% of the overall gonorrhea cases in 2017, there were 101 cases reported. While 101 cases were a substantial increase from the 43 cases reported in 2013, it is unclear to what extent gonorrhea morbidity was underreported in this population due to gender misclassification; caution should therefore be taken when interpreting overall case counts and trends over time among transgender individuals (see Table 1.1).

Age: Most cases of gonorrhea in 2017 occurred among individuals aged 15-39 years (83% - see Table 3.1). Females had a younger age distribution than males; fifty percent of cases among females were reported among individuals aged 15-24 years compared to 25% among males. Since 2013, the largest increases in gonorrhea rates have occurred among males aged 35-39 years (140%), 25-29 years (126%), and 30-34 years (121%) (see Figure 3.2A). Among females, the largest increases in gonorrhea rates occurred in those aged 35-39 (192%), 40-44 (146%), and 30-34 years (125%) (see Figure 3.2B).

Race/Ethnicity: While the largest proportion of gonorrhea cases in 2017 occurred among Latinos (32%), African Americans had the highest rate of disease (672 per 100,000 - see Table 3.1). This was especially true for African American females whose 2017 gonorrhea rate (432 per 100,000) was almost seven times higher than that of white females (63 per 100,000) and over 4 times higher than that of Latinas (107 per 100,000). Since 2013, gonorrhea rates increased by 99% among White females, 79% among Latinas, 22% among African American females, and 21% among Asian females (see Figure 3.3B). Among males, African Americans had a 2017 gonorrhea rate (936 per 100,000) that was over 4 times higher than Latinos (221 per 100,000) and 3.5 times higher than Whites (271 per 100,000). Since 2013, gonorrhea rates increased by 97% for Asian males, 79% for White males, 74% for Latino males, and 61% for African American males (see Figure 3.3A). Similarly, the highest rates of gonorrhea were among young African American males (aged 20-29) and females (aged 15-24) compared to other race/ethnicities (see Figures 3.4A and 3.4B).

Geographic Distribution: Gonorrhea cases were heavily concentrated within specific regions of LAC in 2017 (see Figure 3.6). Among males, the Metro SPA had the highest number (5,306), proportion (29%) and rate of gonorrhea (869 per 100,000) of all SPAs in the county. Among females, the South SPA had the highest number (1,614), proportion (22%) and rate of gonorrhea (295 per 100,000) of all SPAs in the county (see Table 3.1). The highest number, proportion and rates of gonorrhea cases were reported in Central and Hollywood-Wilshire health districts which are part of Metro SPA (see Table 3.2). Countywide, the largest increases in gonorrhea rates from 2016 to 2017 occurred in the Antelope Valley (38% increase), San Gabriel (15% increase) and South Bay (14% increase) SPAs (see Figure 3.5).

Figure 3.1. Gonorrhea Rates in the United States, California and Los Angeles County, 2013-2017[1]



[1] Data sources: LAC/DPH STD Surveillance, CDC 2017 STD Surveillance report.
[2] 2016 and 2017 data are provisional due to reporting delay. Data as of September 9, 2018.

Table 3.1. Gonorrhea Cases and Rates (per 100,000) by Gender, Age Group, Race/Ethnicity, and Service Planning Area (SPA), Los Angeles County, 2017[1]

	Male			Female			Total[2]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Gender									
Male	18,098	(100)	357	-	-	-	18,098	(70)	357
Female	-	-	-	7,493	(100)	144	7,493	(29)	144
Transgender[3]	-	-	-	-	-	-	101	(0)	-
Missing[3]	-	-	-	-	-	-	31	(0)	-
Sexual Behavior (males only)[3]									
MSM	5,611	(31)	-	-	-	-	-	-	-
MSMW	299	(2)	-	-	-	-	-	-	-
MSW	2,586	(14)	-	-	-	-	-	-	-
Missing	9,602	(53)	-	-	-	-	-	-	-
Age Group (Yr)									
0-14	8	(0)	1	33	(0)	4	41	(0)	2
15-19	990	(5)	279	1,372	(18)	401	2,370	(9)	340
20-24	3,555	(20)	918	2,356	(31)	633	5,939	(23)	782
25-29	4,435	(25)	1137	1,637	(22)	434	6,097	(24)	795
30-34	3,230	(18)	824	878	(12)	235	4,136	(16)	540
35-39	2,175	(12)	596	578	(8)	160	2,772	(11)	382
40-44	1,247	(7)	362	272	(4)	78	1,532	(6)	221
45-54	1,796	(10)	255	275	(4)	38	2,081	(8)	146
55-64	572	(3)	95	72	(1)	11	645	(3)	52
65+	86	(0)	15	12	(0)	2	98	(0)	7
Missing[3]	<5	-	-	8	-	-	12	(0)	-
Race/Ethnicity									
White	3,917	(22)	271	905	(12)	63	4,836	(19)	168
African American	3,828	(21)	936	1,995	(27)	432	5,849	(23)	672
Latino	5,534	(31)	221	2,682	(36)	107	8,271	(32)	165
Asian	566	(3)	82	133	(2)	17	703	(3)	47
Pacific Islander	45	(0)	367	19	(0)	151	64	(0)	258
American Indian/Alaskan Native	54	(0)	607	15	(0)	159	69	(0)	376
Other/Multi-race[3]	2,595	(14)	-	888	(12)	-	3,505	(14)	-
Missing[3]	1,559	(9)	-	856	(11)	-	2,426	(9)	-
Service Planning Area									
Antelope Valley [1]	427	(2)	219	407	(5)	206	835	(3)	213
San Fernando [2]	2,373	(13)	212	965	(13)	85	3,357	(13)	149
San Gabriel [3]	1,342	(7)	153	855	(11)	93	2,201	(9)	122
Metro [4]	5,306	(29)	869	824	(11)	143	6,175	(24)	520
West [5]	981	(5)	301	259	(3)	75	1,241	(5)	185
South [6]	2,513	(14)	482	1,614	(22)	295	4,150	(16)	388
East [7]	1,227	(7)	190	805	(11)	120	2,043	(8)	155
South Bay [8]	2,154	(12)	279	1,222	(16)	152	3,390	(13)	215
Missing[3]	1,775	(10)	-	542	(7)	-	2,331	(9)	-
Total	18,098	(100)	357	7,493	(100)	144	25,723	(100)	250

[1] Data are provisional due to reporting delay. Rates based on observations fewer than 12 may not be reliable (see technical notes). Data as of September 9, 2018.

[2] Includes missing gender, male-to female-transgender and female-to-male transgender.

[3] Rates cannot be calculated due to a lack of reliable denominator data.

Figure 3.2A. Gonorrhea Rates among Males by Age Group, Los Angeles County, 2013-2017[1]

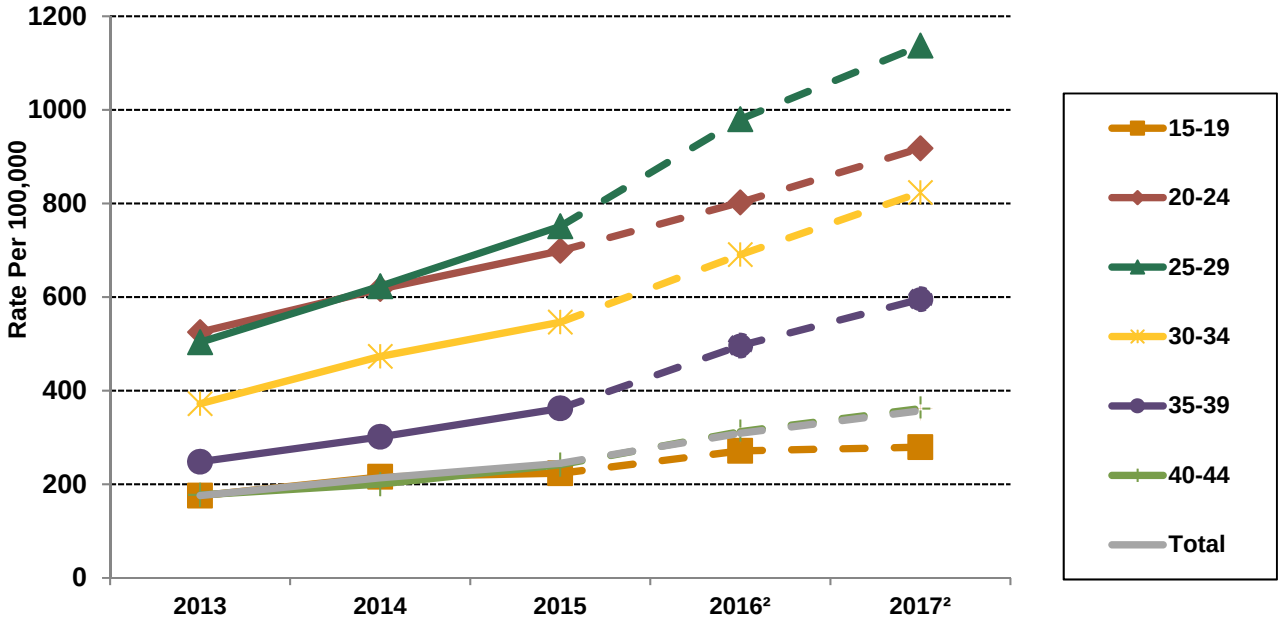
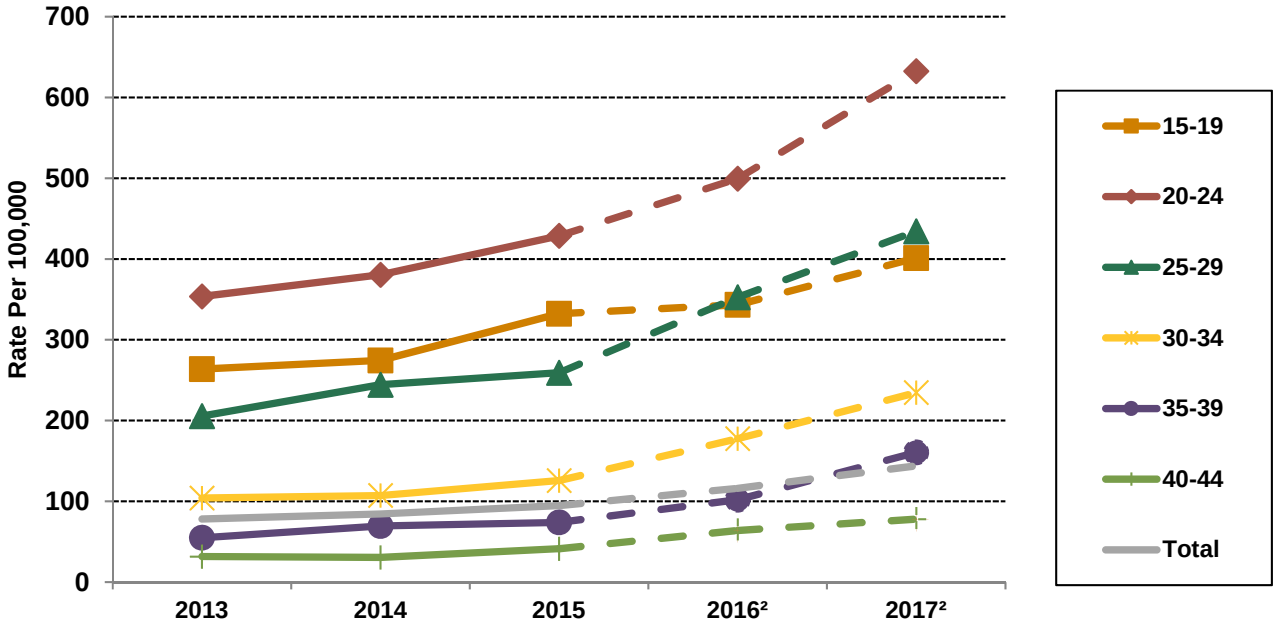


Figure 3.2B. Gonorrhea Rates among Females by Age Group, Los Angeles County, 2013-2017[1]



[1] Data as of September 9, 2018.
[2] 2016-2017 data are provisional due to reporting delay.

Figure 3.3A. Gonorrhea Rates among Males by Race/Ethnicity, Los Angeles County, 2013-2017[1]

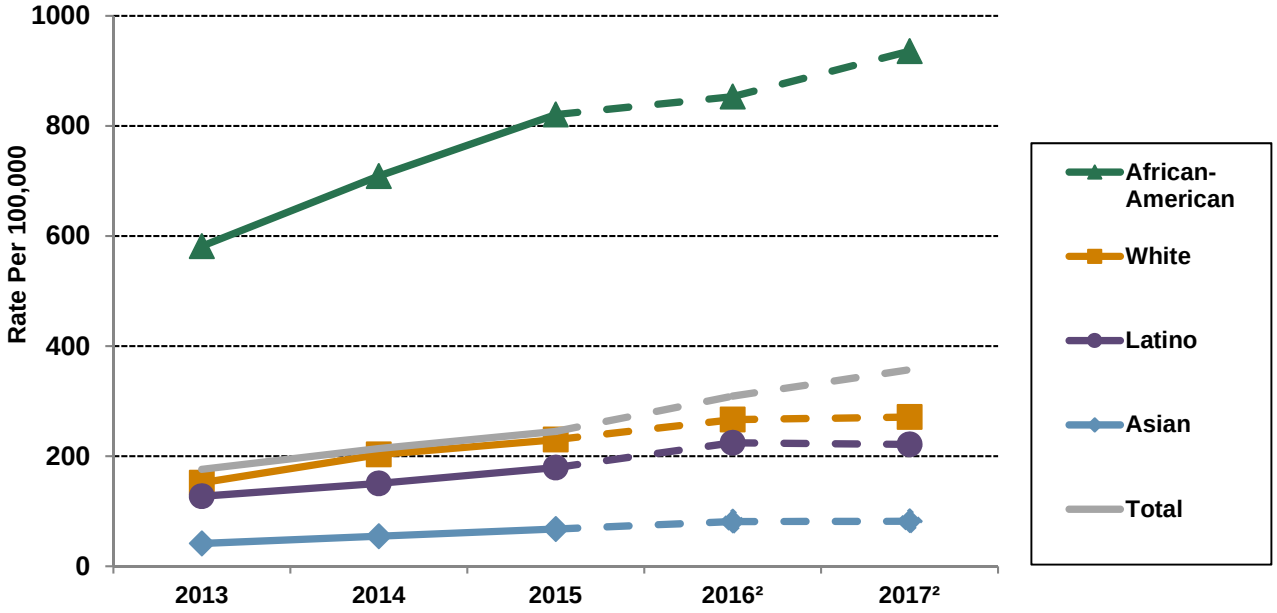
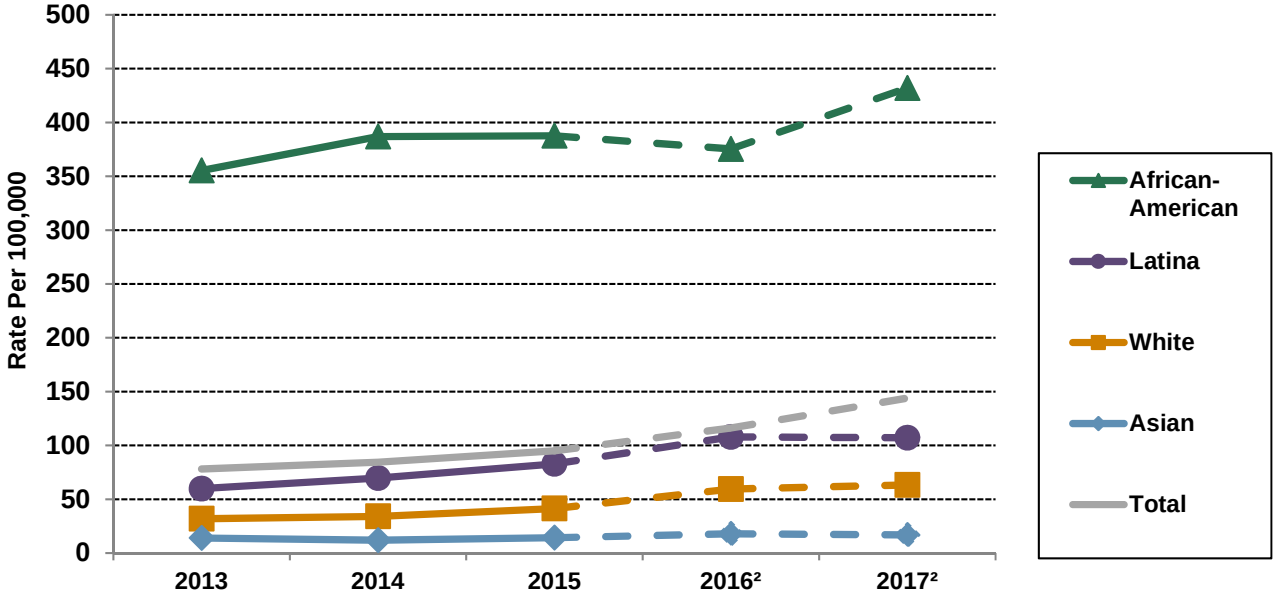


Figure 3.3B. Gonorrhea Rates among Females by Race/Ethnicity, Los Angeles County, 2013-2017[1]



[1] Data excludes cases with unknown race/ethnicity; rates for Pacific Islanders and American Indians/Alaskan Natives are not presented due to small numbers. Data as of September 9, 2018.
[2] 2016-2017 data are provisional due to reporting delay.

Figure 3.4A. Gonorrhea Rates among Males by Age Group and Race/Ethnicity, Los Angeles County, 2017[1]

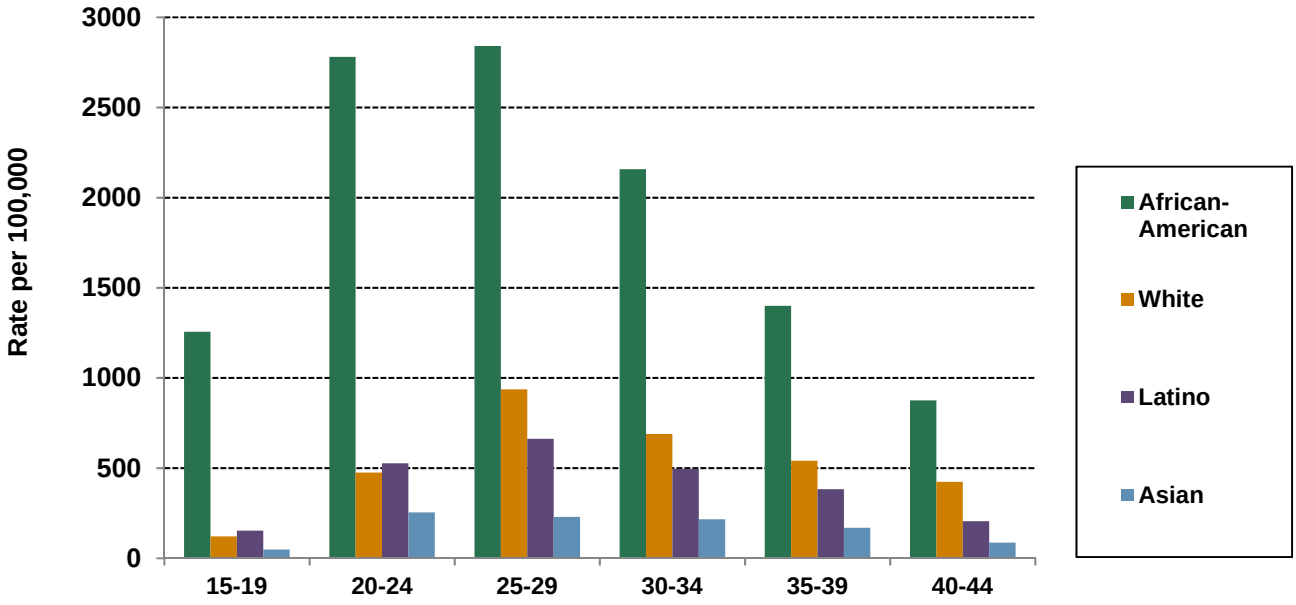
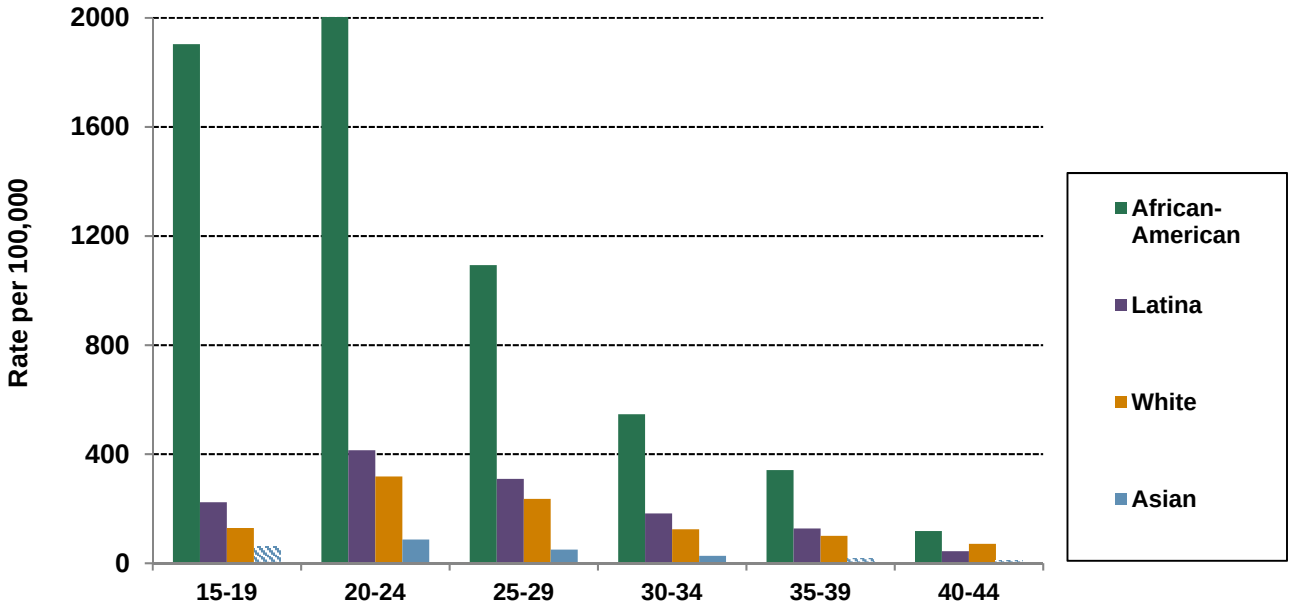


Figure 3.4B. Gonorrhea Rates among Females by Age Group and Race/Ethnicity, Los Angeles County, 2017[1]



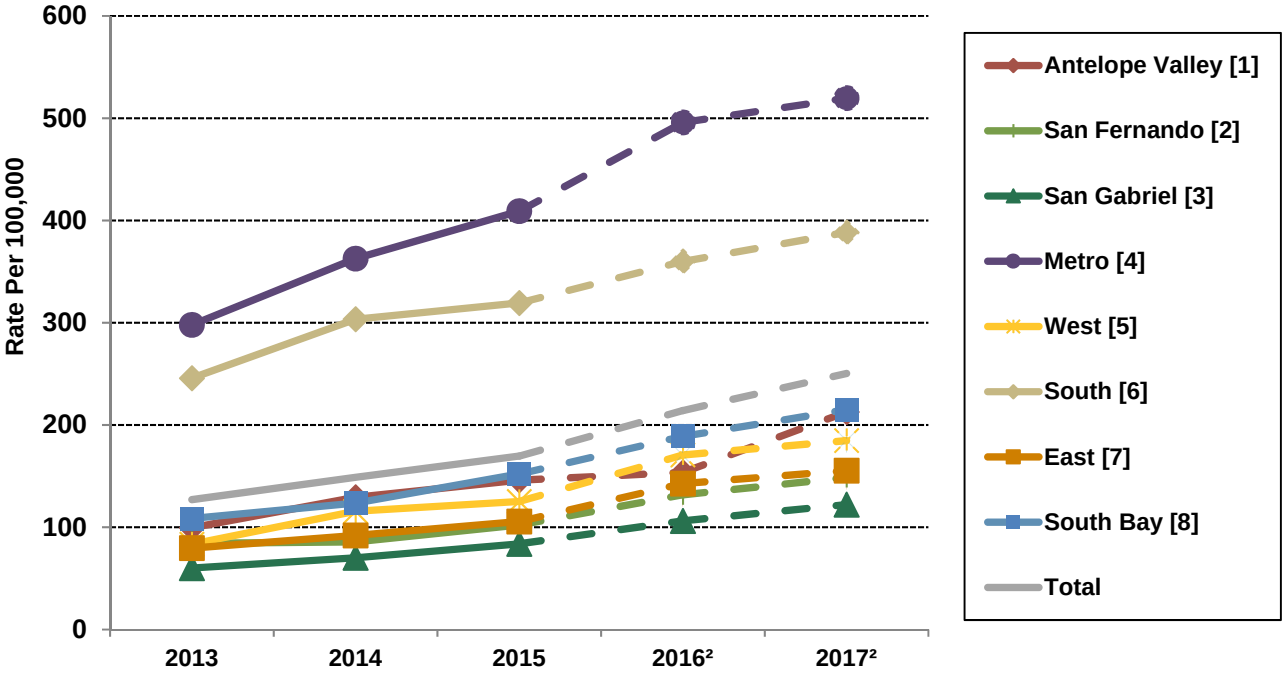
[1] Data excludes cases with unknown race/ethnicity; 2017 data are provisional due to reporting delay; rates with a pattern fill are unstable due to small numbers (<12); rates for groups with fewer than 5 cases are not shown; rates for Pacific Islanders and American Indians/Alaskan Natives are not presented due to small numbers. Data as of September 9, 2018.

Table 3.2. Gonorrhea Cases and Rates (per 100,000) by Service Planning Area (SPA) and Health District (HD), Los Angeles County, 2013-2017[1]

SPA/HD	2013			2014			2015			2016[2]			2017[2]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Antelope Valley [1]	**389**	**(3)**	**100**	**508**	**(3)**	**129**	**579**	**(3)**	**146**	**603**	**(3)**	**154**	**835**	**(3)**	**213**
Antelope Valley	389	(3)	**100**	508	(3)	**129**	579	(3)	**146**	603	(3)	**154**	835	(3)	**213**
San Fernando [2]	**1,834**	**(14)**	**84**	**1,875**	**(13)**	**86**	**2,279**	**(13)**	**102**	**2,950**	**(13)**	**132**	**3,357**	**(13)**	**149**
East Valley	541	(4)	**120**	572	(4)	**126**	758	(4)	**164**	914	(4)	**196**	1,039	(4)	**222**
Glendale	261	(2)	**77**	255	(2)	**74**	291	(2)	**84**	397	(2)	**115**	441	(2)	**127**
San Fernando	293	(2)	**58**	287	(2)	**56**	338	(2)	**65**	454	(2)	**86**	459	(2)	**87**
West Valley	739	(6)	**84**	761	(5)	**86**	892	(5)	**100**	1,185	(5)	**132**	1,418	(6)	**155**
San Gabriel [3]	**1,069**	**(8)**	**60**	**1,251**	**(8)**	**70**	**1,508**	**(9)**	**84**	**1,899**	**(9)**	**106**	**2,201**	**(9)**	**122**
Alhambra	145	(1)	**42**	147	(1)	**42**	186	(1)	**53**	240	(1)	**69**	294	(1)	**84**
El Monte	274	(2)	**62**	245	(2)	**56**	366	(2)	**82**	432	(2)	**99**	566	(2)	**129**
Foothill	183	(1)	**60**	213	(1)	**69**	248	(1)	**80**	292	(1)	**94**	318	(1)	**101**
Pomona	421	(3)	**78**	577	(4)	**106**	612	(4)	**111**	801	(4)	**146**	834	(3)	**152**
Pasadena	47	(0)	**33**	69	(0)	**48**	98	(1)	**68**	136	(1)	**95**	196	(1)	**134**
Metro [4]	**3,398**	**(27)**	**298**	**4,170**	**(28)**	**363**	**4,775**	**(28)**	**409**	**5,864**	**(27)**	**496**	**6,175**	**(24)**	**520**
Central	947	(7)	**276**	1,211	(8)	**351**	1,354	(8)	**386**	1,725	(8)	**485**	1,800	(7)	**503**
Hollywood-Wilshire	2,084	(16)	**426**	2,571	(17)	**520**	2,990	(17)	**597**	3,586	(16)	**707**	3,765	(15)	**737**
Northeast	367	(3)	**119**	388	(3)	**125**	431	(2)	**137**	553	(3)	**173**	610	(2)	**191**
West [5]	**540**	**(4)**	**84**	**754**	**(5)**	**116**	**827**	**(5)**	**125**	**1,133**	**(5)**	**171**	**1,241**	**(5)**	**185**
West	540	(4)	**84**	754	(5)	**116**	827	(5)	**125**	1,133	(5)	**171**	1,241	(5)	**185**
South [6]	**2,532**	**(20)**	**246**	**3,137**	**(21)**	**303**	**3,349**	**(19)**	**319**	**3,848**	**(18)**	**360**	**4,150**	**(16)**	**388**
Compton	534	(4)	**188**	636	(4)	**224**	664	(4)	**232**	814	(4)	**281**	942	(4)	**327**
South	582	(5)	**302**	792	(5)	**409**	808	(5)	**409**	953	(4)	**471**	933	(4)	**466**
Southeast	292	(2)	**168**	367	(2)	**211**	406	(2)	**227**	462	(2)	**249**	511	(2)	**278**
Southwest	1,124	(9)	**296**	1,342	(9)	**352**	1,471	(9)	**381**	1,619	(7)	**414**	1,764	(7)	**445**
East [7]	**1,042**	**(8)**	**80**	**1,207**	**(8)**	**92**	**1,397**	**(8)**	**106**	**1,874**	**(9)**	**143**	**2,043**	**(8)**	**155**
Bellflower	239	(2)	**67**	295	(2)	**82**	406	(2)	**112**	522	(2)	**148**	546	(2)	**154**
East Los Angeles	194	(2)	**95**	186	(1)	**91**	228	(1)	**110**	297	(1)	**146**	369	(1)	**182**
San Antonio	354	(3)	**83**	437	(3)	**103**	443	(3)	**103**	628	(3)	**145**	660	(3)	**153**
Whittier	255	(2)	**79**	289	(2)	**90**	320	(2)	**98**	427	(2)	**131**	468	(2)	**143**
South Bay [8]	**1,684**	**(13)**	**109**	**1,924**	**(13)**	**124**	**2,386**	**(14)**	**152**	**2,987**	**(14)**	**189**	**3,390**	**(13)**	**215**
Harbor	154	(1)	**75**	148	(1)	**72**	205	(1)	**98**	252	(1)	**120**	295	(1)	**140**
Inglewood	821	(6)	**198**	892	(6)	**214**	954	(6)	**227**	1,073	(5)	**253**	1,197	(5)	**284**
Torrance	304	(2)	**66**	332	(2)	**72**	405	(2)	**87**	463	(2)	**100**	483	(2)	**105**
Long Beach	405	(3)	**86**	552	(4)	**117**	822	(5)	**172**	1,199	(5)	**247**	1,415	(6)	**293**
Missing	**238**	**(2)**	**-**	**170**	**(1)**	**-**	**189**	**(1)**	**-**	**744**	**(3)**	**-**	**2,331**	**(9)**	**-**
Total	12,726	(100)	127	14,996	(100)	149	17,289	(100)	170	21,902	(100)	214	25,723	(100)	250

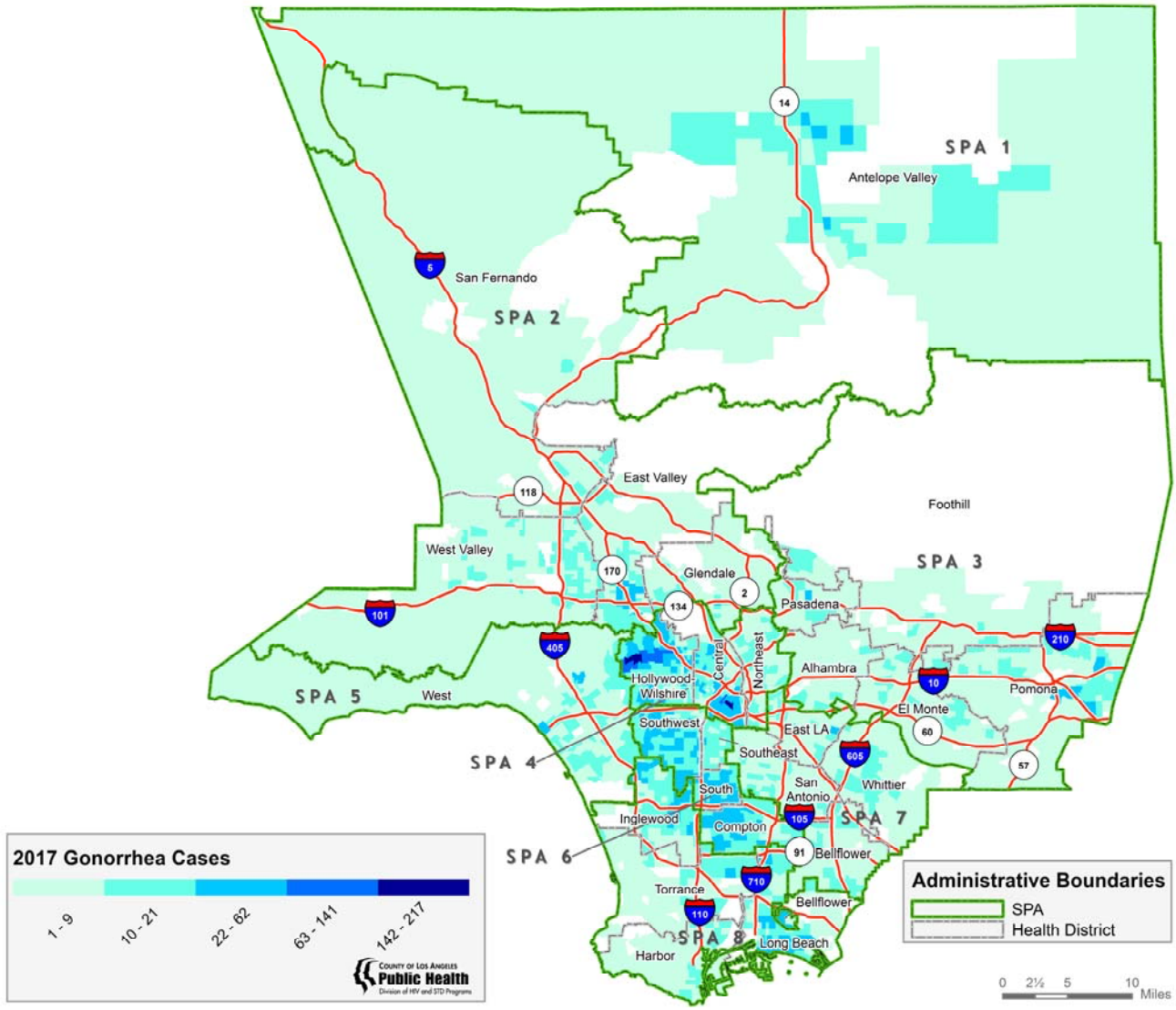
[1] Rates based on observations fewer than 12 may not be reliable (see technical notes). Data as of September 9, 2018.
[2] Data are provisional due to reporting delay.

Figure 3.5. Gonorrhea Rates by Service Planning Area (SPA), Los Angeles County, 2013-2017[1]



[1] Data excludes cases with unknown/missing SPA. Data as of September 9, 2018.
[2] 2016-2017 data are provisional due to reporting delay.

Figure 3.6. Gonorrhea Cases by Census Tract and Service Planning Area (SPA) Los Angeles County, 2017[1]



[1] 2017 data are provisional due to reporting delay and suppressed for census tracts with no cases or population <100. Data as of September 9, 2018.
Total geocoded records within LA County borders: 23,826.
Data sources: LAC/DPH STD Surveillance, Long Beach Health and Human Services STD Surveillance, Pasadena Health Department STD Surveillance.

Chlamydia in Los Angeles County

A total of 64,091 cases of chlamydia were reported in Los Angeles County (LAC) in 2017. The number of reported cases rose over the past five years, resulting in a 29% increase from 2013 to 2017. The overall chlamydia rate in LAC in 2017 was 624 per 100,000 (see Table 1.1). As shown in Figure 4.1, based on the most recent year for which national data are available, the chlamydia rate in LAC in 2017 (624 per 100,000) was 12% higher than the rate in California (557 per 100,000) and 18% higher than the rate in the US (529 per 100,000). While the rate of chlamydia in LAC was 624 per 100,000, chlamydia rates in other large urban jurisdictions in the US ranged from 452 per 100,000 in Miami-Dade County, FL to 1,337 per 100,000 in Washington, D.C. (see Table 1.2).

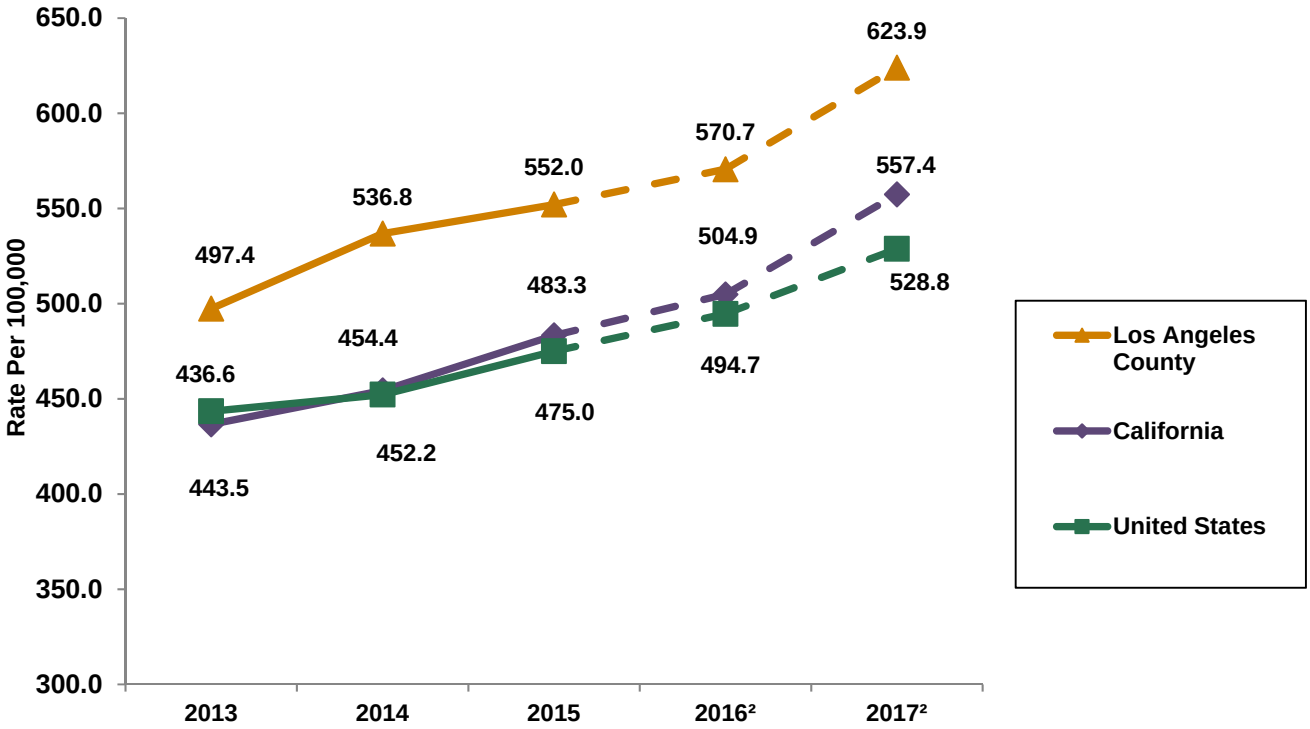
Gender: Fifty-nine percent of chlamydia cases in 2017 were among females and 41% were among males (see Table 4.1). While chlamydia rates rose in both males and females since 2013, there was a 46% increase in the rate among males compared to a 14% increase among females (see Table 1.1). In 2017, there were 64 cases of chlamydia reported among individuals who identified as transgender. While 64 cases was an increase from the 35 cases reported in 2013, it is unclear to what extent chlamydia morbidity is underreported in this population; caution should therefore be taken when interpreting overall case counts and trends over time among transgender individuals.

Age: Chlamydia infections were primarily concentrated among younger populations. In 2017, 90% of reported female cases and 75% of male cases occurred among individuals below the age of 35 (see Table 4.1). In addition, the highest rates of chlamydia were among males (1,755 per 100,000) and females (3,842 per 100,000) aged 20-24 years, however, since 2013, the largest increases in chlamydia rates have occurred among males aged 35-39 years (81%), and among females aged 40-44 years (49%) (see Figures 4.2A and 4.2B).

Race/Ethnicity: The largest proportion of Chlamydia cases in 2017 occurred among Latinos (28%), while African Americans and Whites accounted for 13% and 9% (see Table 4.1). However, the rate of Chlamydia was highest in African Americans (946 per 100,000) followed by Pacific Islanders (468 per 100,000) and Latinos (361 per 100,000). Since 2013, Chlamydia rates decreased by 24% in African American and Latina females, 20% in White and 19% in Asian females (see Figure 4.3B). Among males, Chlamydia rates increased in Asians (41%) and Whites (30%), decreased in Latinos (8%), and stayed relatively stable in African Americans (1% increase) (see Figure 4.3A). Overall, the Chlamydia rates were the highest in 15-24 year old African American females and 20-29 year old African American males (see Figures 4.4A and 4.4B). Note that due to incomplete reporting, 19% of data on race/ethnicity are missing. Therefore, data should be interpreted with caution.

Geographic Distribution: Compared to syphilis and gonorrhea, chlamydia cases were more evenly distributed throughout LAC (see Figure 4.6). In 2017, the proportion of chlamydia cases reported in each of the eight SPAs were as follows: 15% South, 13% South Bay, 12% San Fernando, 12% Metro, 10% East, 10% San Gabriel, 3% West and 3% Antelope Valley. Note that due to incomplete reporting, 22% of data on SPA were missing. Therefore, data should be interpreted with caution. Among males, the Metro SPA had the highest number (4,444), proportion (17%) and rate of chlamydia (728 per 100,000) of all SPAs in the county. Among females, the South SPA had the highest number (6,076), proportion (16%) and rate of chlamydia (1,110 per 100,000) of all SPAs in the county (see Table 4.1). The highest rate of chlamydia cases was observed in South health district (South SPA), meanwhile the highest chlamydia numbers and proportions were reported in Hollywood-Wilshire (Metro SPA), Southwest (South SPA) and Long Beach (South Bay SPA) health districts (see Table 4.2). Although the overall Chlamydia rate increased by 9% from 2016 to 2017, rates for individual SPAs decreased (see Figure 4.5). This could be due to a large proportion of missing SPA data in 2017 (see Table 4.2).

Figure 4.1. Chlamydia Rates in the United States, California and Los Angeles County, 2013-2017[1]



[1] Data sources: LAC/DPH STD Surveillance, CDC 2017 STD Surveillance report.
[2] 2016 and 2017 data are provisional due to reporting delay. Data as of September 9, 2018.

Table 4.1. Chlamydia Cases and Rates (per 100,000) by Gender, Age Group, Race/Ethnicity, and Service Planning Area (SPA), Los Angeles County, 2017[1]

	Male			Female			Total[2]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Gender									
Male	26,349	(100)	520	-	-	-	26,349	(41)	520
Female	-	-	-	37,576	(100)	722	37,576	(59)	722
Transgender[3]	-	-	-	-	-	-	64	(0)	-
Missing[3]	-	-	-	-	-	-	102	(0)	-
Age Group (Yr)									
0-14	25	(0)	3	136	(0)	15	161	(0)	9
15-19	2,434	(9)	687	8,013	(21)	2,343	10,461	(16)	1,503
20-24	6,795	(26)	1,755	14,309	(38)	3,842	21,147	(33)	2,784
25-29	6,487	(25)	1,663	7,824	(21)	2,076	14,353	(22)	1,872
30-34	4,096	(16)	1,044	3,516	(9)	939	7,637	(12)	996
35-39	2,541	(10)	696	1,770	(5)	491	4,327	(7)	597
40-44	1,453	(6)	422	921	(2)	264	2,385	(4)	344
45-54	1,837	(7)	261	807	(2)	113	2,655	(4)	187
55-64	574	(2)	96	217	(1)	34	793	(1)	64
65+	94	(0)	17	43	(0)	6	139	(0)	11
Missing[3]	13	(0)	-		(0)	-	33	(0)	-
Race/Ethnicity									
White	3,691	(14)	255	2,301	(6)	161	6,003	(9)	209
African American	3,598	(14)	880	4,621	(12)	1,001	8,234	(13)	946
Latino	6,492	(25)	260	11,540	(31)	461	18,073	(28)	361
Asian	810	(3)	117	982	(3)	125	1,799	(3)	122
Pacific Islander	62	(0)	506	52	(0)	414	116	(0)	468
American Indian/Alaskan Native	34	(0)	382	29	(0)	307	63	(0)	343
Other/Multi-race[3]	7,139	(27)	-	10,234	(27)	-	17,447	(27)	-
Missing[3]	4,523	(17)	-	7,817	(21)	-	12,356	(19)	-
Service Planning Area									
Antelope Valley [1]	604	(2)	310	1,267	(3)	641	1,874	(3)	477
San Fernando [2]	3,029	(11)	271	4,613	(12)	404	7,651	(12)	339
San Gabriel [3]	2,094	(8)	238	4,105	(11)	445	6,207	(10)	345
Metro [4]	4,444	(17)	728	3,463	(9)	599	7,936	(12)	668
West [5]	979	(4)	301	998	(3)	288	1,980	(3)	295
South [6]	3,231	(12)	620	6,076	(16)	1,110	9,327	(15)	873
East [7]	2,155	(8)	333	4,250	(11)	636	6,414	(10)	488
South Bay [8]	3,100	(12)	402	5,286	(14)	656	8,403	(13)	533
Missing[3]	6,713	(25)	-	7,518	(20)	-	14,299	(22)	-
Total	26,342	(100)	520	37,576	(100)	722	64,091	(100)	624

[1] Data are provisional due to reporting delay. Rates based on observations fewer than 12 may not be reliable (see technical notes). Data as of September 9, 2018.

[2] Includes missing gender, male-to-female transgender and female-to-male transgender.

[3] Rates cannot be calculated due to a lack of reliable denominator data.

Figure 4.2A. Chlamydia Rates among Males by Age Group, Los Angeles County, 2013-2017 [1]

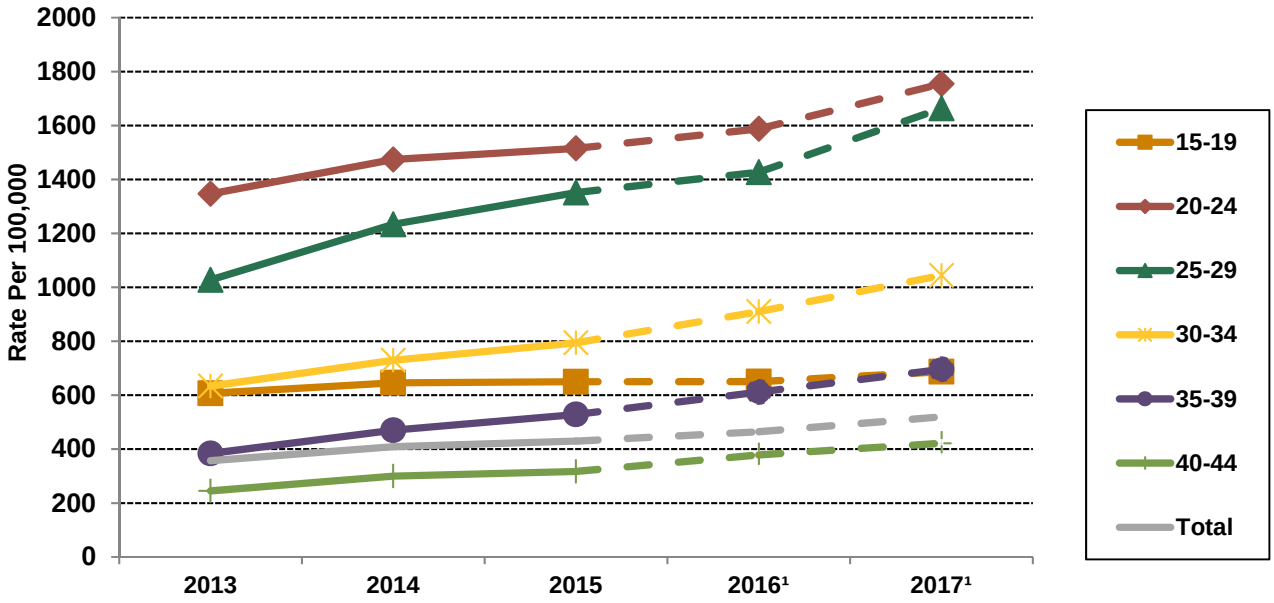
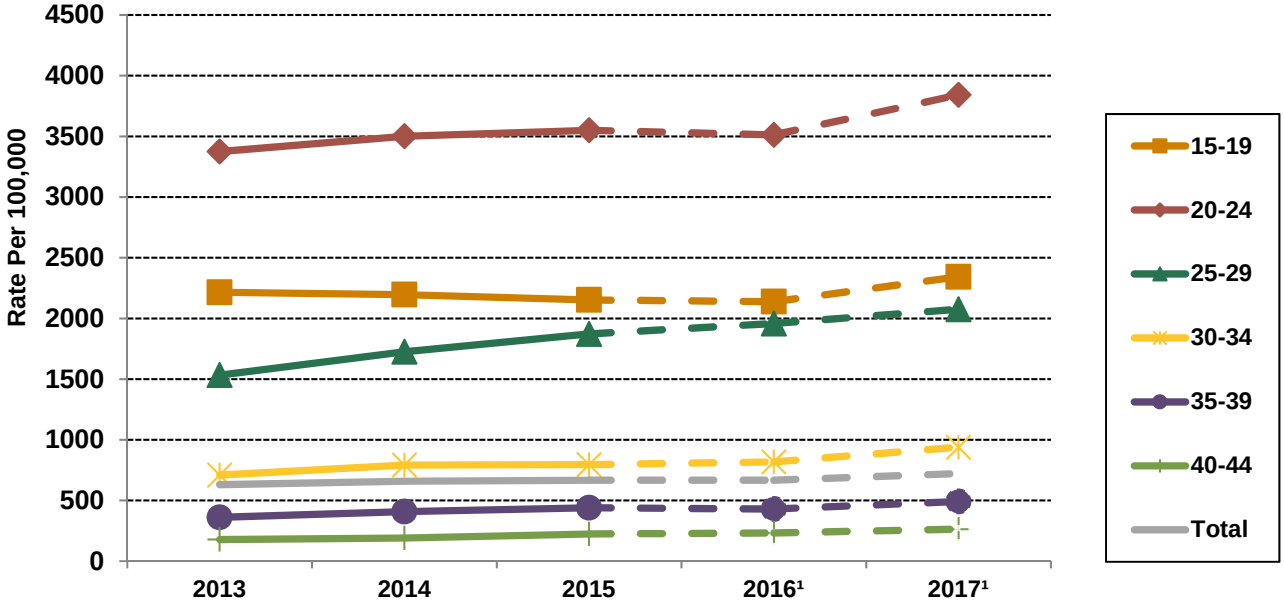


Figure 4.2B. Chlamydia Rates among Females by Age Group, Los Angeles County, 2013-2017 [1]



[1] 2016-2017 data are provisional due to reporting delay. Data as of September 9, 2018.

Figure 4.3A. Chlamydia Rates among Males by Age Group and Race/Ethnicity, Los Angeles County, 2017[1]

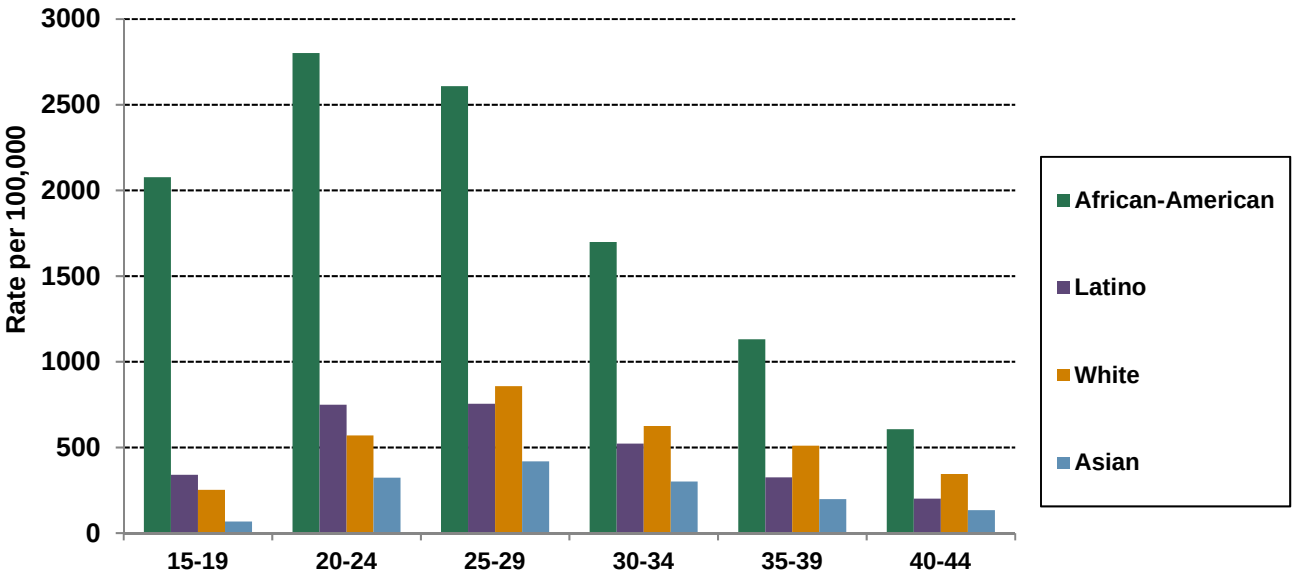
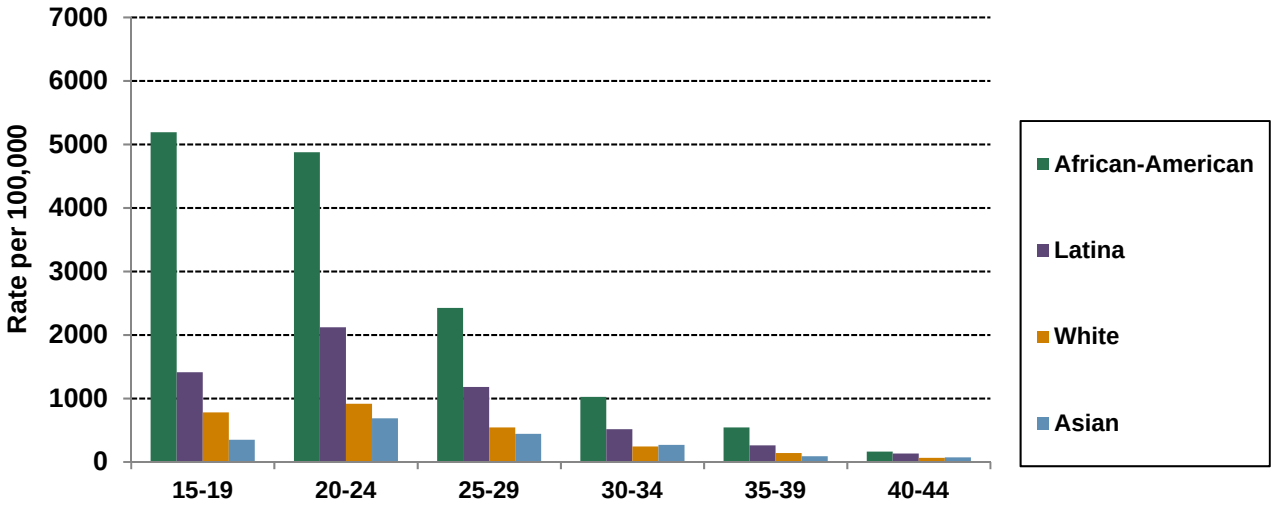


Figure 4.3B. Chlamydia Rates among Females by Age Group and Race/Ethnicity, Los Angeles County, 2017[1]



[1] Data excludes cases with unknown race/ethnicity. 2017 data are provisional due to reporting delay; rates for Pacific Islanders and American Indians/Alaskan Natives are not presented due to small numbers. Data as of September 9, 2018.

Table 4.2. Chlamydia Cases and Rates (per 100,000) by Service Planning Area (SPA) and Health District (HD), Los Angeles County, 2013-2017[1]

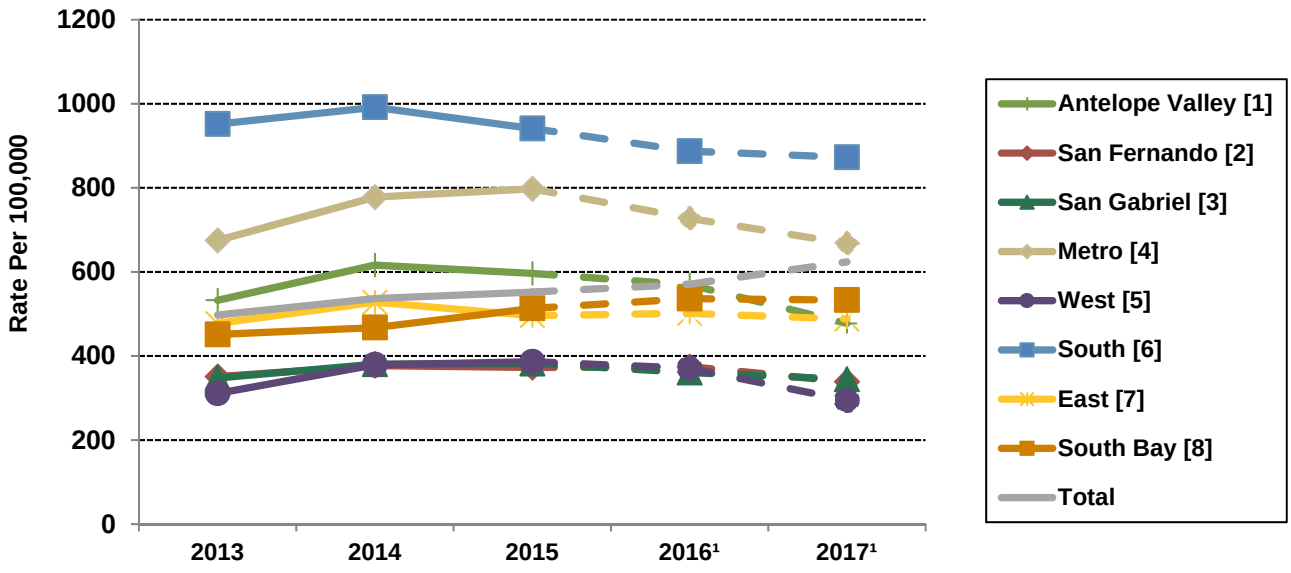
SPA/HD	2013			2014			2015			2016[2]			2017[2,3]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Antelope Valley [1]	**2,082**	**(4)**	**533**	**2,420**	**(4)**	**616**	**2,364**	**(4)**	**596**	**2,234**	**(4)**	**569**	**1,874**	**(3)**	**477**
Antelope Valley	2,082	(4)	**533**	2,420	(4)	**616**	2,364	(4)	**596**	2,234	(4)	**569**	1,874	(3)	**477**
San Fernando [2]	**7,626**	**(15)**	**351**	**8,255**	**(15)**	**377**	**8,305**	**(15)**	**373**	**8,384**	**(14)**	**374**	**7,651**	**(12)**	**339**
East Valley	1,963	(4)	**436**	2,165	(4)	**478**	2,245	(4)	**486**	2,085	(4)	**448**	2,030	(3)	**434**
Glendale	953	(2)	**280**	1,048	(2)	**306**	1,088	(2)	**312**	983	(2)	**284**	798	(1)	**230**
San Fernando	1,417	(3)	**280**	1,579	(3)	**308**	1,591	(3)	**305**	1,788	(3)	**339**	1,581	(2)	**299**
West Valley	3,293	(7)	**376**	3,463	(6)	**393**	3,381	(6)	**377**	3,528	(6)	**392**	3,242	(5)	**355**
San Gabriel [3]	**6,180**	**(12)**	**348**	**6,787**	**(13)**	**381**	**6,874**	**(12)**	**382**	**6,444**	**(11)**	**361**	**6,207**	**(10)**	**345**
Alhambra	820	(2)	**236**	961	(2)	**276**	932	(2)	**266**	927	(2)	**265**	789	(1)	**224**
El Monte	1,876	(4)	**428**	2,070	(4)	**470**	2,041	(4)	**460**	1,909	(3)	**438**	1,858	(3)	**423**
Foothill	917	(2)	**299**	1,001	(2)	**324**	986	(2)	**317**	930	(2)	**300**	763	(1)	**243**
Pomona	2,235	(4)	**412**	2,429	(4)	**447**	2,400	(4)	**437**	2,176	(4)	**397**	2,231	(3)	**405**
Pasadena	333	(1)	**234**	326	(1)	**228**	515	(1)	**358**	508	(1)	**356**	571	(1)	**390**
Metro [4]	**7,699**	**(15)**	**675**	**8,944**	**(17)**	**778**	**9,312**	**(17)**	**798**	**8,602**	**(15)**	**727**	**7,936**	**(12)**	**668**
Central	2,461	(5)	**717**	2,901	(5)	**841**	2,912	(5)	**831**	2,929	(5)	**824**	2,616	(4)	**731**
Hollywood-Wilshire	3,645	(7)	**744**	4,261	(8)	**862**	4,677	(8)	**933**	4,134	(7)	**815**	3,915	(6)	**766**
Northeast	1,593	(3)	**517**	1,782	(3)	**574**	1,723	(3)	**546**	1,539	(3)	**481**	1,405	(2)	**440**
West [5]	**2,011**	**(4)**	**311**	**2,473**	**(5)**	**379**	**2,550**	**(5)**	**386**	**2,462**	**(4)**	**371**	**1,980**	**(3)**	**295**
West	2,011	(4)	**311**	2,473	(5)	**379**	2,550	(5)	**386**	2,462	(4)	**371**	1,980	(3)	**295**
South [6]	**9,804**	**(20)**	**952**	**10,251**	**(19)**	**992**	**9,871**	**(18)**	**941**	**9,484**	**(16)**	**887**	**9,327**	**(15)**	**873**
Compton	2,374	(5)	**837**	2,574	(5)	**905**	2,350	(4)	**820**	2,241	(4)	**773**	2,070	(3)	**718**
South	2,350	(5)	**1221**	2,356	(4)	**1218**	2,267	(4)	**1148**	2,165	(4)	**1071**	2,228	(3)	**1113**
Southeast	1,434	(3)	**824**	1,500	(3)	**861**	1,476	(3)	**825**	1,446	(2)	**780**	1,474	(2)	**802**
Southwest	3,646	(7)	**960**	3,821	(7)	**1001**	3,778	(7)	**979**	3,632	(6)	**928**	3,555	(6)	**897**
East [7]	**6,253**	**(13)**	**478**	**6,927**	**(13)**	**528**	**6,563**	**(12)**	**496**	**6,582**	**(11)**	**501**	**6,414**	**(10)**	**488**
Bellflower	1,464	(3)	**409**	1,707	(3)	**476**	1,580	(3)	**437**	1,715	(3)	**487**	1,589	(2)	**447**
East Los Angeles	1,129	(2)	**551**	1,246	(2)	**609**	1,251	(2)	**604**	1,154	(2)	**567**	1,103	(2)	**544**
San Antonio	2,337	(5)	**550**	2,586	(5)	**607**	2,367	(4)	**551**	2,296	(4)	**532**	2,276	(4)	**529**
Whittier	1,323	(3)	**411**	1,388	(3)	**430**	1,365	(2)	**420**	1,417	(2)	**435**	1,446	(2)	**443**
South Bay [8]	**6,997**	**(14)**	**451**	**7,272**	**(13)**	**468**	**8,052**	**(14)**	**513**	**8,481**	**(15)**	**536**	**8,403**	**(13)**	**533**
Harbor	707	(1)	**345**	748	(1)	**363**	783	(1)	**375**	904	(2)	**430**	713	(1)	**339**
Inglewood	2,906	(6)	**702**	3,079	(6)	**739**	2,946	(5)	**701**	2,849	(5)	**673**	2,632	(4)	**624**
Torrance	1,401	(3)	**305**	1,542	(3)	**336**	1,535	(3)	**331**	1,472	(3)	**319**	1,383	(2)	**299**
Long Beach	1,983	(4)	**420**	1,903	(4)	**402**	2,788	(5)	**585**	3,256	(6)	**670**	3,675	(6)	**761**
Missing	**1,180**	**(2)**	**-**	**720**	**(1)**	**-**	**2,376**	**(4)**	**-**	**5,694**	**(10)**	**-**	**14,299**	**(22)**	**-**
Total	49,832	(100)	497	54,049	(100)	537	56,267	(100)	552	58,367	(100)	571	64,091	(100)	624

[1] Rates based on observations fewer than 12 may not be reliable (see technical notes). Data as of September 9, 2018

[2] Data are provisional due to reporting delay.

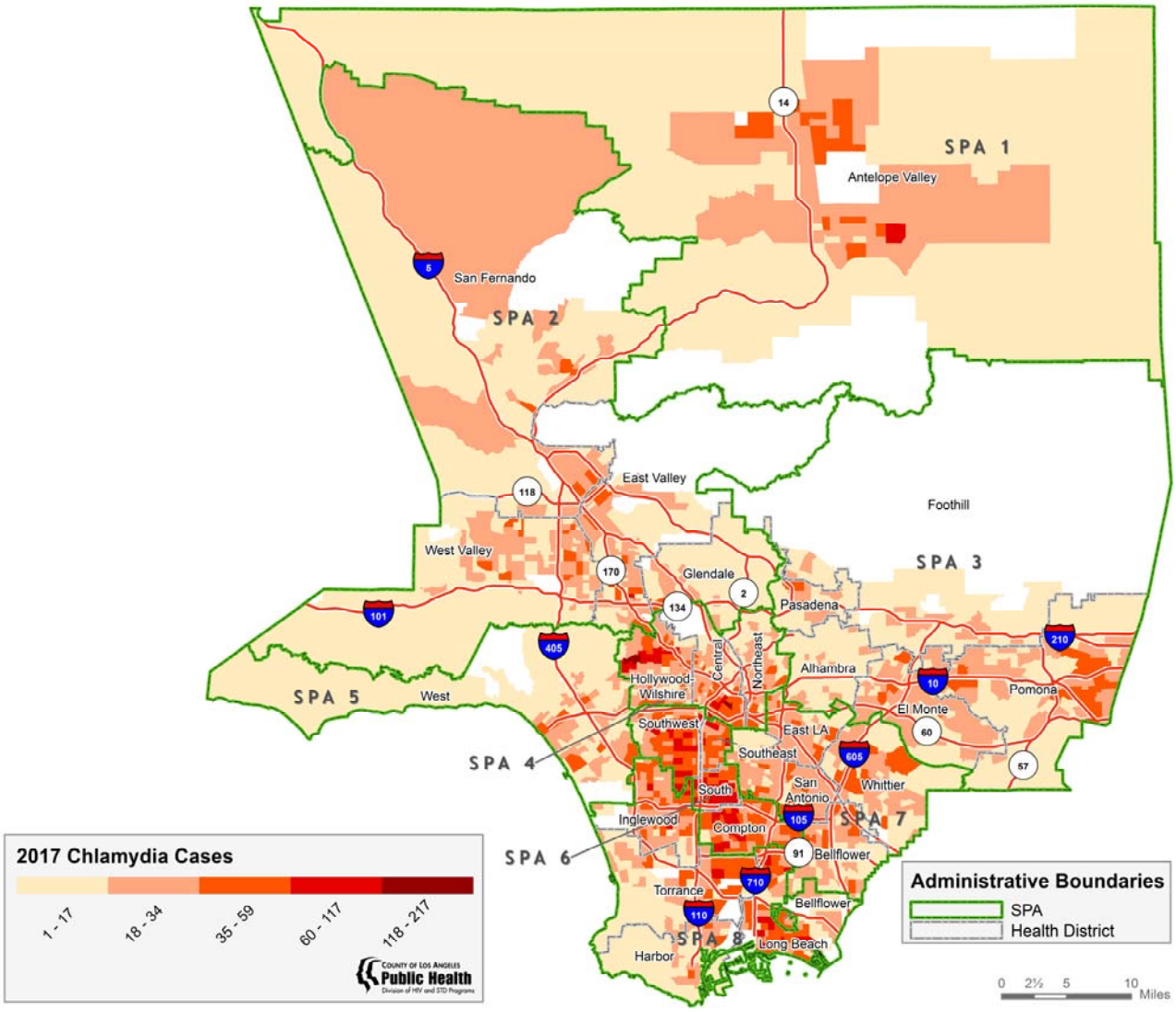
[3] Data should be interpreted with caution due to large proportion of missing SPA data.

Figure 4.4. Chlamydia Rates by Service Planning Area (SPA), Los Angeles County, 2013-2017[1]



[1]2016-2017 data are provisional due to reporting delay. Data as of September 9, 2018.

Figure 4.5. Chlamydia Cases by Census Tract & Service Planning Area (SPA) Los Angeles County 2017[1]



[1] 2017 data are provisional due to reporting delay and suppressed for census tracts with no cases or population <100. Data as of September 9, 2018.
Total geocoded records within LA County borders: 55,353.
Data sources: LAC/DPH STD Surveillance, Long Beach Health and Human Services STD Surveillance, Pasadena Health Department STD Surveillance.

References:

1. Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2016*. Atlanta: U.S. Department of Health and Human Services; 2017.
2. CDC. STD Surveillance Case Definitions. https://www.cdc.gov/std/stats17/appendix-c.htm. Accessed 07/29/19.

Appendix 1: Technical Notes

Surveillance of STDs in Los Angeles County

Data on STDs are obtained through passive and active surveillance. Passive STD surveillance relies on physicians, laboratories, and other healthcare providers to report STD diagnoses to DHSP by submitting a Confidential Morbidity Report (CMR) by mail, telephone or fax. Active STD surveillance entails staff contacting hospitals, laboratories, physicians, jails, student health centers and other sentinel sites to collect additional case reports. The STD CaseWatch system is used for the collection and management of STD surveillance data. STD surveillance case definitions are based on the CDC publication "STD Surveillance Case Definitions".[2]

Reporting Delay

Reporting delays can impact reliability of trends and rates over time. STD reporting delay is defined as the time interval between the date an STD diagnosis was made and the date the case was reported to DHSP. This delay varies by STD, ranging from 1 day to 1 year or more. Therefore, the impact of reporting delay must be considered when evaluating trends in case numbers and rates over time. Reporting delay is especially important when evaluating early syphilis data as staff often need to interview a case before a syphilis stage can be assigned.

Some STD cases occurring in 2016 and 2017 will not be reported until after the publication of this report. Therefore, differences in numbers of cases and rates may be observed in future presentations of data and reports.

Underreporting

Data on STD diagnoses should be interpreted with caution. The proportion of STD cases that are not reported varies for each disease. Syphilis surveillance includes both passive and active surveillance, with detailed follow-up of cases and their sexual partners. Thus, underreporting of early syphilis cases is minimized. Due to the acuteness of symptoms for gonorrhea infection, individuals are more likely to seek treatment, and therefore cases are more likely to be reported. On the other hand, chlamydia infections are often asymptomatic and therefore are more likely to be undiagnosed and underreported. Screening practices can also affect the number of reported STD cases. Additionally, some healthcare providers may not be aware of the legal requirements to report STDs to DHSP and therefore do not submit a CMR.

Rates

All rates are per 100,000 population. The population denominators used to compute the rates are based on 2010-2017 estimates provided by LAC Internal Services Department and contracted through Hedderson Demographic Services.

All vital statistics are subject to random variation. This variation is inversely related to the number of cases and a small number of cases can result in unstable rates or proportions. Conforming to standard criterion used by the National Center for Health Statistics, STD rates are considered unreliable when the relative standard error of the rate is greater than or equal to 30%, which corresponds to rates based on less than or equal to 12 observations.

Place of Acquisition of STD

The location where an STD infection is acquired determines the geographic location of an STD case. Some cases of STDs may have been acquired outside of LAC boundaries. In circumstances where the patient's address is missing, disease rates may partially reflect the place of diagnosis rather than the location where

an infection was acquired. However, during case investigations for syphilis and gonorrhea, every effort is made to determine the location where the infection actually occurred.

For STD data, caution should be exercised when interpreting census tract level case counts and rates because these values are inclusive of any correctional populations and may be artificially inflated when an institution is housed within a given census tract.

Gender

STD cases attributed to transgender individuals may be underreported due to gender misclassification. Therefore, caution should be taken when interpreting overall STD case counts and trends over time among transgender individuals.

Race and ethnicity

Race and ethnicity in this report are grouped using the following criteria exclusively: A person is considered to be 'Latino' if so indicated in the race or ethnicity field, regardless of any other race information found for the person. When not indicated as 'Latino', a person is considered to be 'American Indian/Alaskan Native (AI/AN)' if the race field contains AI/AN information, regardless of any other race information found for this person. Aside from the above criteria, a person is categorized as 'Multi-race' when two or more races are indicated in the above race fields. All other persons with a single race indicated are placed in the corresponding race category.

County of Los Angeles Public Health

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