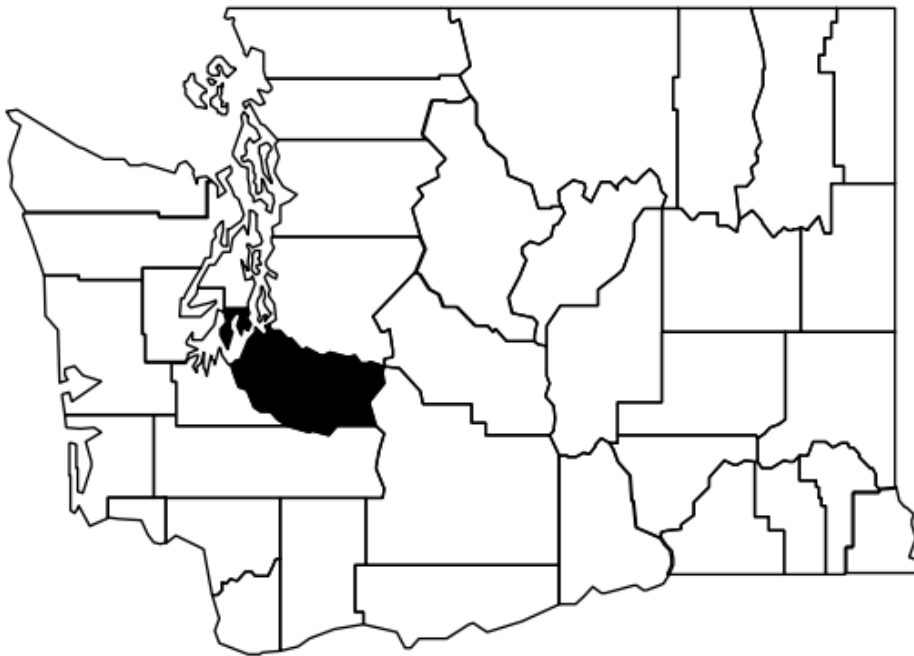


Sexually Transmitted Infection Profile

Pierce County 2020



Disease Control and Health Statistics
Infectious Disease Assessment Unit



DOH 150-156

Sexually Transmitted Infection Profile

Pierce County 2020



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Washington State Department of Health
Disease Control and Health Statistics
Infectious Disease Assessment Unit
Olympia, Washington
(360) 236-3445

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Introduction

Sexually transmitted infections (STIs) continue to be the most frequently diagnosed and reported notifiable conditions in Washington State. This report describes the STI burden in Pierce County. Data are presented for the more commonly reported diseases of chlamydial infection, gonorrhea, primary and secondary syphilis, and genital herpes. Figures are presented for chlamydial infection, gonorrhea, and primary and secondary syphilis, when at least ten (10) cases were diagnosed in 2020. The corresponding incidence rates are presented graphically when there are greater than sixteen (16) cases diagnosed within one year. The report concludes with tables containing a decade of historical data by age group and gender for chlamydial infection, gonorrhea, and primary and secondary syphilis, when at least twenty (20) cases were diagnosed in 2020. To protect patient confidentiality, data within these tables is suppressed if stratified counts are less than ten (10) or could be used to deduce other counts that are less than ten (10). Due to small number standards, gender data is only stratified by people who identify as male or female. People who identify as transgender, nonbinary, or other gender identity are included within the annual total case count. For this reason, total annual case counts may appear higher than the sum of individual cells.

Data Sources, Definitions and Limitations

Cases: Surveillance cases are the number of new episodes of disease (not unique persons) diagnosed in a given year. Cases are identified and submitted by health care providers to local health jurisdictions and entered into the Washington State Department of Health Public Health Information Management System – Sexually Transmitted Diseases (PHIMS-STD) data system. Additionally, cases of chlamydial infection reported through electronic lab reporting (ELR) alone are included in the final chlamydia case counts. To be included in surveillance reporting, each case must meet disease definitions (see below). Data presented in this report represent new cases of infection diagnosed during a given year and reported as of June 1, 2021.

Disease Definitions:

- Chancroid – A sexually transmitted infection caused by the bacterium *Haemophilus ducreyi* that may include the symptoms of painful genital sores and swollen pelvic lymph nodes. Cases are defined by laboratory detection of *H. ducreyi* from a clinical specimen.
- Chlamydia (CT) – A sexually transmitted infection caused by the bacterium *Chlamydia trachomatis* that may include the symptoms of swelling and pain in internal sexual organs, though the infection often has no symptoms in women. Cases are defined by laboratory detection of *C. trachomatis* from a clinical specimen.
- Genital Herpes (HSV) – A sexually transmitted infection caused by the herpes simplex viruses type 1 and type 2 that may include the symptoms of blisters or sores in the genital area. Cases are defined by laboratory detection of herpes simplex virus (HSV1 or HSV2) or positive antibody response from a clinical specimen. Reportable cases include only adult genital initial infection and neonatal infection.

- Gonorrhea (GC) – A sexually transmitted infection caused by the bacterium *Neisseria gonorrhoeae* that may include the symptoms of swelling and pain in internal sexual organs, though the infection sometimes has no symptoms. Cases are defined by laboratory detection of the bacterium *N. gonorrhoeae* from a clinical specimen.
- Granuloma Inguinale (GI) – A sexually transmitted infection caused by the bacterium *Klebsiella granulomatis* that may include the symptoms of slowly increasing genital sores and swollen pelvic lymph nodes. Cases are defined by microscopic examination of a clinical specimen.
- Lymphogranuloma Venereum (LGV) – A sexually transmitted infection caused by three strains of *Chlamydia trachomatis* that may include the symptoms of genital sores and swollen pelvic lymph nodes. Cases are defined by laboratory detection of the L1, L2 and L3 serovars of *C. trachomatis* from a clinical specimen.
- Syphilis – A sexually transmitted infection caused by the bacterium *Treponema pallidum* that may include many kinds of symptoms or none at all, depending upon the stage of disease. Cases are defined and assigned a stage by a combination of positive blood tests, symptoms, and history of previous treatment. The U.S. Centers for Disease Control and Prevention (CDC) provides guidelines with additional details of surveillance definitions and staging criteria. The stages of primary and secondary (P&S) syphilis are grouped together for analysis in this report; these stages are the most infectious and the best indicators of recent infection.
- Primary* – identified by the presence of one or many painless sores.
- Secondary* – identified by the presence of a rash on one or more areas of the body, often with fever, fatigue or other symptoms at the same time.
- Other Stages* – additional stages of syphilis include early non-primary non-secondary, unknown duration or late, congenital, and syphilitic stillbirths. See CDC guidelines for specific criteria: www.cdc.gov/std/

Incidence Rates: Incidence rates in this report are calculated as the number of new episodes of a disease (not unique persons) diagnosed in a given year divided by the total population (age- and sex-adjusted) for that year, expressed as a rate per 100,000. Incidence rates allow comparisons between two or more populations by standardizing the denominator and are the most appropriate statistic to use when investigating differences between groups. Rates are not presented when there were fewer than 17 cases of disease reported due to statistical instability concerns.

Limitations: The data presented in this report may be subject to a number of limiting factors. Clinically diagnosed cases (without laboratory confirmation) may be missed through public health surveillance systems. Depending upon diagnosing practices, completeness of reporting may vary by the source of health care. In addition, the diagnosing practitioner is responsible for providing the case information including the patient demographic data items of age and gender upon which many of the analyses in this report depend. Biases could exist in the data due to under-reporting, inability of certain populations to access medical services, errors in laboratory reporting, or differential reporting or screening by disease and source of care. Also, small increases or decreases in numbers from year to year can look large if the actual number of cases is small. Care should be taken in interpreting these data in light of known limitations.

Population: Denominator population estimates for 2001-2020 incidence rates are from Washington State Adjusted Population Estimates, Office of Financial Management (OFM), <http://www.ofm.wa.gov/pop/>. Denominator population estimates for 2020 are based on 6-year (2014-2019) extrapolations.

Tabular Data: The data tables are provided in hopes that community and local partners will use these historical data as a resource for future health planning. Data tables for additional years previous are available upon request.

Anyone with specific questions about how these data should be interpreted is encouraged to contact the Infectious Disease Assessment Unit's STI Surveillance team at 360-236-3445.

Pierce County STI Disease Trends

Table 1. Washington State Reportable Sexually Transmitted Infections, Pierce County, 2020

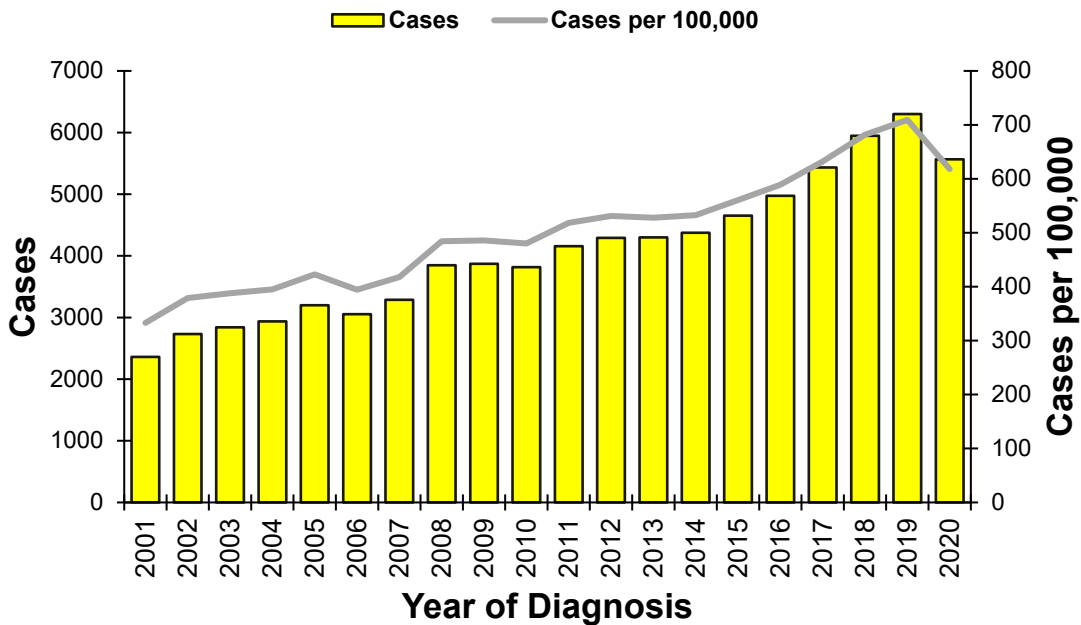
Disease	County Cases	County Rate§	WA State Rate
Chlamydia	5,567	618.1	410.4
Gonorrhea	2,208	245.1	151.2
P&S Syphilis	111	12.3	10.9
Genital Herpes	445	49.4	18.0
Chancroid/GI/LGV	0		
Total	8,331		

§ Crude incidence rate per 100,000 population.

+ Rates are suppressed for counts under 17 with a corresponding RSE >25% due to statistical instability.

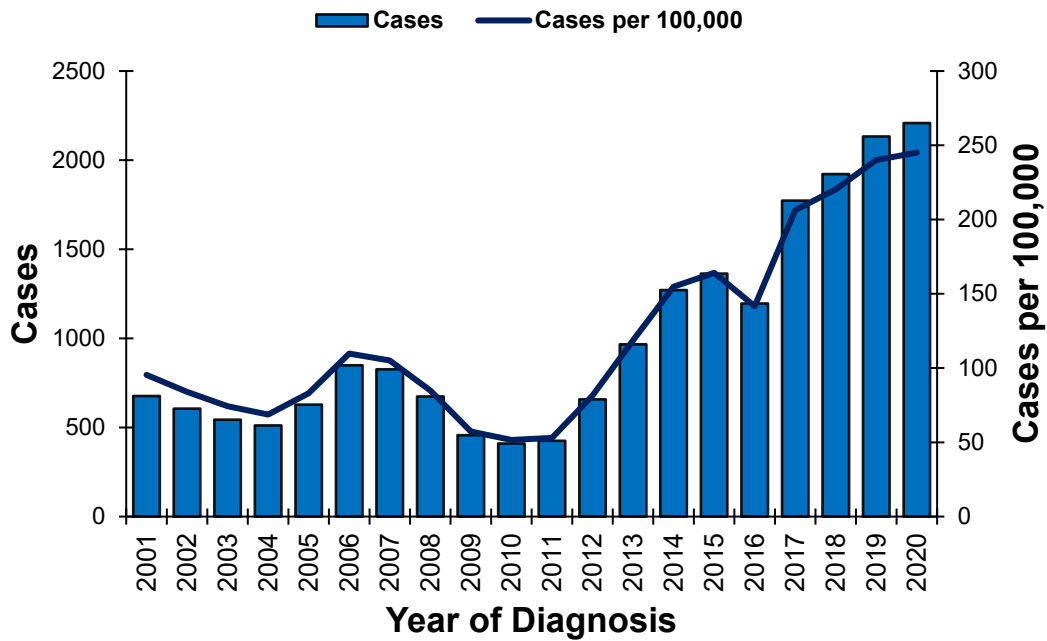
Chlamydia

Figure 1. Chlamydia Cases, Pierce County, 2001-2020



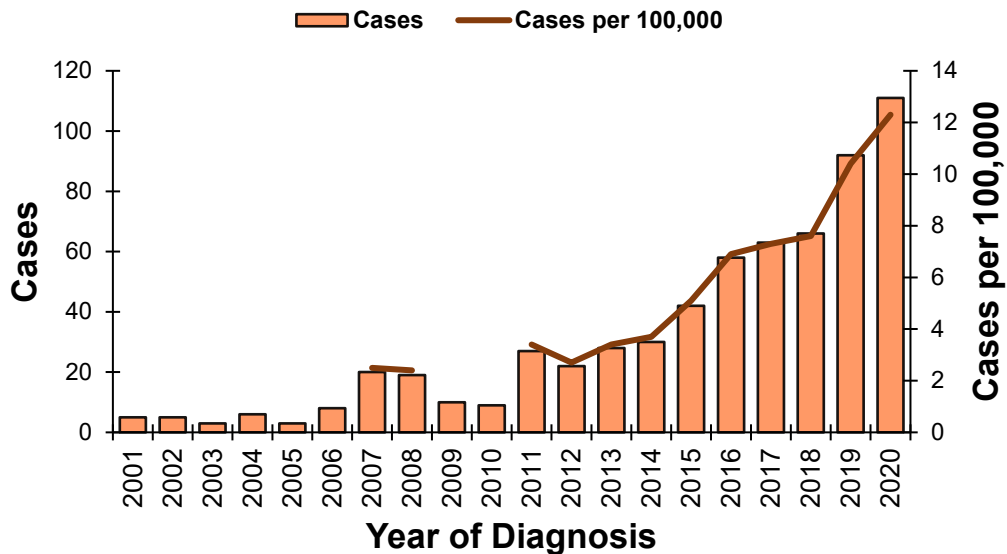
Gonorrhea

Figure 2. Gonorrhea Cases, Pierce County, 2001-2020



Primary and Secondary Syphilis

Figure 3. Primary and Secondary Syphilis Cases, Pierce County, 2001-2020



Note: Incidence rates calculated based off counts less than seventeen (17) are suppressed in this figure due to statistical instability.

Data Tables

Table 2. Chlamydia Cases and Incidence Rates by Gender and Age Group, 2011-2020

	Age Group	Total		Males		Females	
		Cases	Rate	Cases	Rate	Cases	Rate
2011	0-14	19	11.6	+	+	+	+
	15-24	2924	2616.5	756	1326.57	2168	3958.9
	25-34	971	850.3	366	646.04	605	1051.5
	35-44	201	186.8	88	164.41	113	209.0
	45+	41	13.5	+	+	+	+
	Missing	1	+	0	0.00	1	+
	All Ages	4157	518.2	1234	311.39	2923	720.2
2012	0-14	33	20.0	+	+	+	+
	15-24	2847	2567.0	761	1345.37	2086	3838.6
	25-34	1107	956.9	428	744.81	679	1166.3
	35-44	240	223.7	107	200.53	133	246.6
	45+	64	20.7	+	+	+	+
	Missing	2	+	0	0.00	2	+
	All Ages	4293	531.2	1334	334.04	2959	723.7
2013	0-14	37	22.4	+	+	+	+
	15-24	2762	2503.9	768	1366.33	1994	3685.8
	25-34	1174	1009.5	435	752.28	739	1264.0
	35-44	247	230.4	106	198.94	141	261.6
	45+	76	24.1	+	+	+	+
	Missing	3	+	3	+	0	0.0
	All Ages	4299	527.8	1361	338.18	2938	713.0
2014	0-14	30	18.0	+	+	+	+
	15-24	2757	2517.3	773	1384.36	1984	3695.6
	25-34	1228	1058.9	438	760.05	790	1354.1
	35-44	287	268.5	123	231.60	164	305.0
	45+	70	21.7	+	+	+	+
	Missing	3	+	2	+	1	+
	All Ages	4375	532.7	1380	339.92	2995	721.1
2015	0-14	21	12.5	+	+	+	+
	15-24	2852	2611.3	824	1480.69	2028	3785.8
	25-34	1351	1167.6	558	971.80	793	1360.6
	35-44	335	313.6	150	282.81	185	344.0
	45+	91	27.6	+	+	+	+
	Missing	3	+	2	+	1	+
	All Ages	4653	560.5	1599	389.68	3054	727.5

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Continued Table 2. Chlamydia

	Age Group	Total		Males		Females	
		Cases	Rate	Cases	Rate	Cases	Rate
2016	0-14	27	15.6	+	+	+	+
	15-24	3025	2786.8	903	1629.85	2122	3992.9
	25-34	1459	1277.5	578	1033.21	881	1512.0
	35-44	349	323.6	144	270.88	205	374.9
	45+	114	33.4	+	+	+	+
	Missing	1	+	0	0.00	1	+
	All Ages	4975	589.1	1696	407.23	3279	766.1
2017	0-14	33	18.7	+	+	+	+
	15-24	3278	3019.5	1011	1822.87	2267	4269.5
	25-34	1575	1364.3	636	1130.82	939	1586.2
	35-44	401	365.5	184	341.81	217	388.4
	45+	148	42.4	+	+	+	+
	Missing	0	0.0	0	0.00	0	0.0
	All Ages	5435	632.4	1936	457.30	3499	802.4
2018	0-14	34	19.0	+	+	+	+
	15-24	3633	3344.3	1149	2072.53	2484	4669.9
	25-34	1699	1445.8	715	1251.77	984	1629.2
	35-44	417	373.2	224	410.22	193	337.9
	45+	164	46.2	+	+	+	+
	Missing	0	0.0	0	0.00	0	0.0
	All Ages	5947	681.8	2194	511.10	3753	847.3
2019	0-14	31	17.0	+	+	+	+
	15-24	3774	3447.4	1238	2214.3	2536	4734.6
	25-34	1798	1488.9	747	1279.3	1051	1685.1
	35-44	489	427.0	242	434.4	247	419.9
	45+	208	57.6	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	6300	709.2	2358	540.4	3942	872.3
2020	0-14	16	+	+	+	+	+
	15-24	3343	3029.6	1027	1820.2	2316	4295.0
	25-34	1619	1325.0	707	1198.8	912	1442.8
	35-44	448	384.4	219	388.0	229	380.9
	45+	138	37.6	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	5567	618.1	2036	460.6	3528	769.2

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Note: Due to small number standards, gender data is only stratified by people who identify as male or female. People who identify as transgender, nonbinary, or other gender identity are included within the annual total case count. For this reason, total annual case counts may appear higher than the sum of individual cells.

Table 3. Gonorrhea Cases and Incidence Rates by Gender and Age Group, 2011-2020

	Age Group	Total		Males		Females	
		Cases	Rate	Cases	Rate	Cases	Rate
2011	0-14	+	+	+	+	+	+
	15-24	257	230.0	124	217.6	133	242.9
	25-34	116	101.6	69	121.8	47	81.7
	35-44	30	27.9	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	425	53.0	233	58.8	192	47.3
2012	0-14	+	+	+	+	+	+
	15-24	384	346.2	148	261.6	236	434.3
	25-34	198	171.2	119	207.1	79	135.7
	35-44	51	47.5	35	65.6	16	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	658	81.4	320	80.1	338	82.7
2013	0-14	+	+	+	+	+	+
	15-24	429	388.9	180	320.2	249	460.3
	25-34	361	310.4	186	321.7	175	299.3
	35-44	111	103.6	73	137.0	38	70.5
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	967	118.7	491	122.0	476	115.5
2014	0-14	+	+	+	+	+	+
	15-24	575	525.0	250	447.7	325	605.4
	25-34	484	417.3	247	428.6	237	406.2
	35-44	151	141.3	91	171.3	60	111.6
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	1271	154.8	633	155.9	638	153.6
2015	0-14	+	+	+	+	+	+
	15-24	587	537.5	246	442.1	341	636.6
	25-34	507	438.2	268	466.7	239	410.1
	35-44	173	162.0	104	196.1	69	128.3
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	1363	164.2	697	169.9	666	158.7

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Continued Table 3. Gonorrhea

	Age Group	Total		Males		Females	
		Cases	Rate	Cases	Rate	Cases	Rate
2016	0-14	+	+	+	+	+	+
	15-24	534	491.9	259.0	467.5	275	517.5
	25-34	397	347.6	231.0	412.9	166	284.9
	35-44	155	143.7	95.0	178.7	60	109.7
	45+	+	+	+	+	+	+
	Missing	0	0.0	0.0	0.0	0	0.0
	All Ages	1196	141.6	668.0	160.4	528	123.4
2017	0-14	12	+	+	+	+	+
	15-24	679	625.5	335.0	604.0	344	647.9
	25-34	668	578.6	390.0	693.4	278	469.6
	35-44	275	250.7	162.0	300.9	113	202.3
	45+	139	39.8	+	+	+	+
	Missing	0	0.0	0.0	0.0	0	0.0
	All Ages	1773	206.3	999.0	236.0	774	177.5
2018	0-14	19	10.6	+	+	+	+
	15-24	679	625.1	326.0	588.0	353	663.6
	25-34	729	620.3	415.0	726.6	314	519.9
	35-44	344	307.9	224.0	410.2	120	210.1
	45+	151	42.5	+	+	+	+
	Missing	0	0.0	0.0	0.0	0	0.0
	All Ages	1922	220.4	1082.0	252.1	840	189.6
2019	0-14	16	+	+	+	+	+
	15-24	793	724.4	367.0	656.4	426	795.3
	25-34	776	642.6	454.0	777.5	322	516.3
	35-44	392	342.3	266.0	477.5	125	212.5
	45+	156	43.2	+	+	+	+
	Missing	0	0.0	0.0	0.0	0	0.0
	All Ages	2133	240.1	1208.0	276.8	923	204.2
2020	0-14	+	+	+	+	+	+
	15-24	862	781.2	379.0	671.7	482	893.9
	25-34	773	632.6	449.0	761.3	324	512.6
	35-44	413	354.3	257.0	455.4	156	259.5
	45+	+	+	+	+	+	+
	Missing	0	0.0	0.0	0.0	0	0.0
	All Ages	2208	245.1	1196.0	270.5	1011	220.4

+Data has been suppressed where counts are less than ten (10) or could be used to deduce other counts that are less than ten (10). Additionally, incidence rates calculated based off counts less than seventeen (17) are suppressed due to statistical instability.

Table 4. P&S Syphilis Cases and Incidence Rates by Gender and Age Group, 2011-2020

Age Group	Total		Males		Females		
	Cases	Rate	Cases	Rate	Cases	Rate	
2011	0-14	0	0.0	0	0.0	0	0.0
	15-24	11	+	+	+	+	+
	25-34	+	+	+	+	0	0.0
	35-44	+	+	+	+	0	0.0
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	27	3.4	+	+	+	+
2012	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	+	+
	25-34	+	+	+	+	0	0.0
	35-44	+	+	+	+	0	0.0
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	22	2.7	+	+	+	+
2013	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	+	+
	25-34	+	+	+	+	0	0.0
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	28	3.4	+	+	+	+
2014	0-14	0	0.0	0	0.0	0	0.0
	15-24	10	+	+	+	+	+
	25-34	+	+	+	+	0	0.0
	35-44	+	+	+	+	0	0.0
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	30	3.7	+	+	+	+
2015	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	0	0.0
	25-34	17	14.7	17	29.6	0	0.0
	35-44	10	+	+	+	+	+
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	42	5.1	+	+	+	+

+Data has been suppressed where counts are less than ten (10) or could be used to deduce other counts that are less than ten (10). Additionally, incidence rates calculated based off counts less than seventeen (17) are suppressed due to statistical instability.

Continued Table 4. P&S Syphilis

	Age Group	Total		Males		Females	
		Cases	Rate	Cases	Rate	Cases	Rate
2016	0-14	0	0.0	0	0.0	0	0.0
	15-24	15	+	+	+	+	+
	25-34	18	15.8	+	+	+	+
	35-44	14	+	+	+	+	+
	45+	11	+	11	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	58	6.9	+	+	+	+
2017	0-14	0	0.0	0	0.0	0	0.0
	15-24	18	16.6	18	32.5	0	0.0
	25-34	21	18.2	21	37.3	0	0.0
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	63	7.3	+	+	+	+
2018	0-14	0	0.0	0	0.0	0	0.0
	15-24	12	+	+	+	+	+
	25-34	27	23.0	+	+	+	+
	35-44	13	+	+	+	+	+
	45+	14	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	66	7.6	+	+	+	+
2019	0-14	0	0.0	0	0.0	0	0.0
	15-24	14	+	+	+	+	+
	25-34	31	25.7	+	+	+	+
	35-44	19	16.6	+	+	+	+
	45+	28	7.8	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	92	10.4	76	17.4	15	+
2020	0-14	0	0.0	0	0.0	0	0.0
	15-24	22	19.9	11	+	11	+
	25-34	43	35.2	31	52.6	12	+
	35-44	23	19.7	+	+	+	+
	45+	23	6.3	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	111	12.3	82	18.5	29	6.3

+Data has been suppressed where counts are less than ten (10) or could be used to deduce other counts that are less than ten (10). Additionally, incidence rates calculated based off counts less than seventeen (17) are suppressed due to statistical instability.