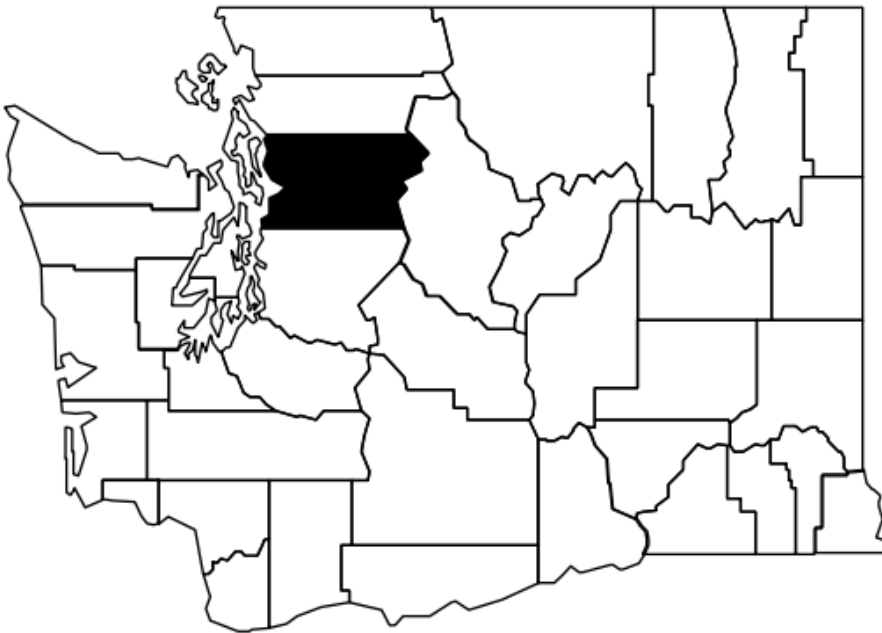


Sexually Transmitted Infection Profile

Snohomish County 2020



Disease Control and Health Statistics
Infectious Disease Assessment Unit



DOH 150-156

Sexually Transmitted Infection Profile

Snohomish County 2020



To request this document in another format, call 1-800-525-0127. Deaf or hard-of-hearing customers, please call 711 (Washington Relay) or email civil.rights@doh.wa.gov.

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

DOH Pub# 150-156, December 2021

Contents

Introduction.....	1
Data Sources, Definitions, and Limitations	1
<u>County STI Trends</u>	
Table 1. Washington State Reportable Sexually Transmitted Infections, 2020.	4
<u>Chlamydia</u>	
Figure 1. Chlamydia Cases and Incidence Rates per 100,000 population, 2001-2020	4
<u>Gonorrhea</u>	
Figure 2. Gonorrhea Cases and Incidence Rates per 100,000 population, 2001-2020	5
<u>Primary & Secondary Syphilis</u>	
Figure 3. Primary & Secondary Syphilis Cases and Incidence Rates, 2001-2020.	5
<u>Data Tables</u>	
Table 2. Chlamydia Cases and Incidence Rates by Gender and Age Group, 2011-2020.....	6
Table 3. Gonorrhea Cases and Incidence Rates by Gender and Age Group, 2011-2020	8
Table 4. Primary & Secondary Syphilis Cases and Incidence Rates by Gender and Age Group, 2011-2020.....	10

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 Snohomish 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.

Snohomish County STI Disease Trends

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

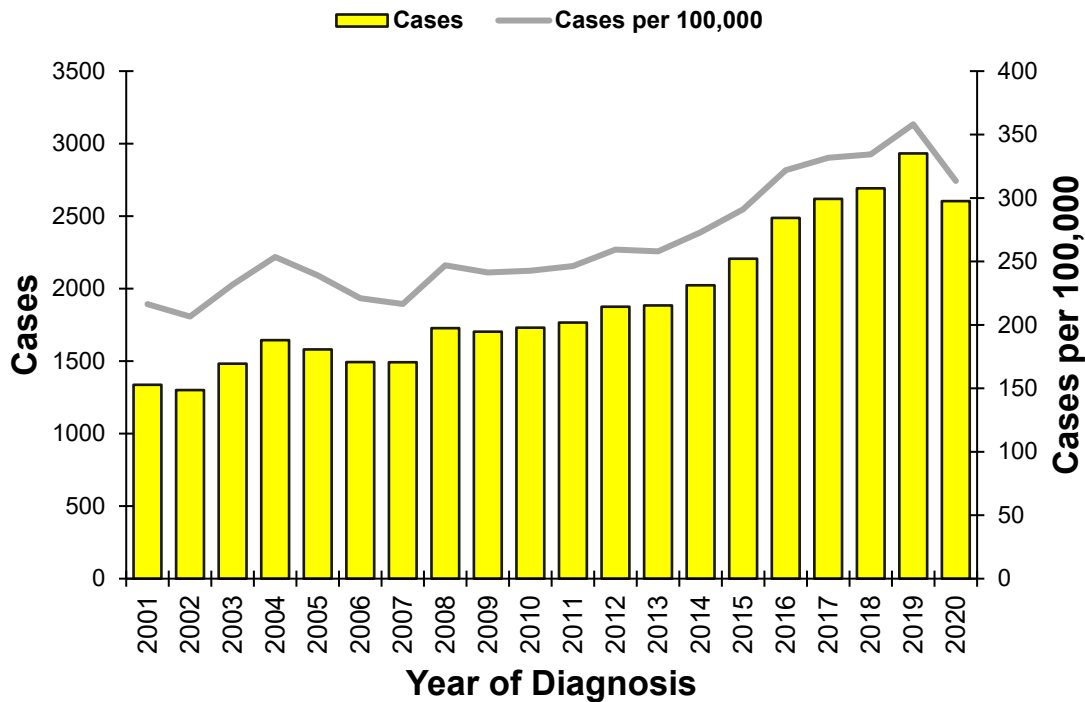
Disease	County Cases	County Rate§	WA State Rate
Chlamydia	2,604	313.5	410.4
Gonorrhea	796	95.8	151.2
P&S Syphilis	62	7.5	10.9
Genital Herpes	174	21.0	18.0
Chancroid/GI/LGV	0		
Total	3,636		

§ Crude incidence rate per 100,000 population.

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

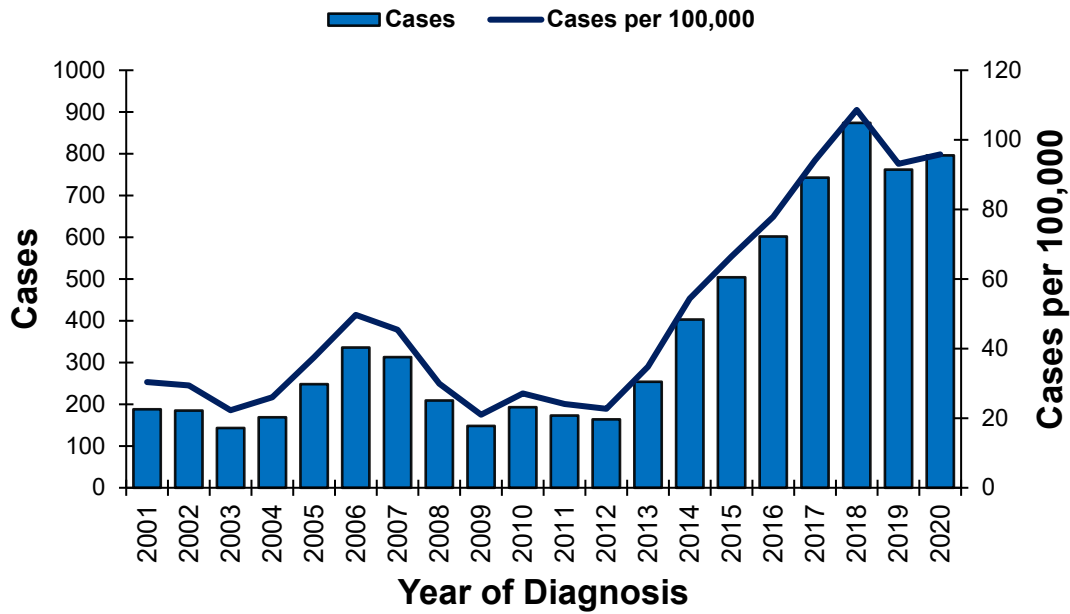
Chlamydia

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



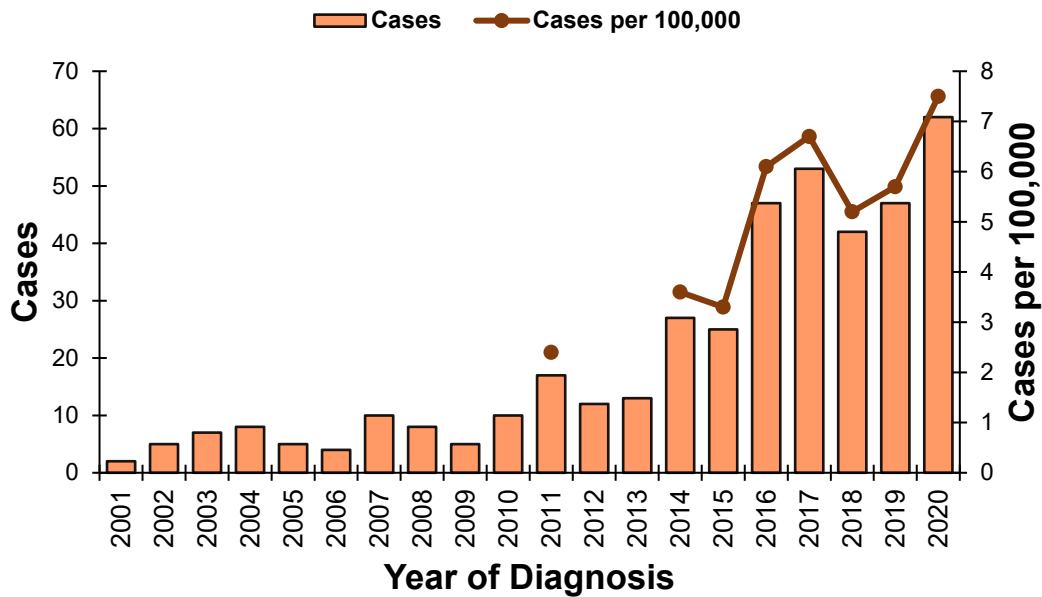
Gonorrhea

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



Primary and Secondary Syphilis

Figure 3. Primary and Secondary Syphilis Cases, Snohomish 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	13.4	+	+	+	+
	15-24	1171	1258.7	254	522.5	917	2064.7
	25-34	449	449.5	188	366.5	261	537.2
	35-44	103	99.7	50	95.0	53	104.5
	45+	24	8.6	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	1766	246.3	507	141.2	1259	351.8
2012	0-14	13	+	+	+	+	+
	15-24	1230	1323.1	268	553.7	962	2158.8
	25-34	498	495.2	172	332.0	326	668.7
	35-44	101	98.0	39	74.2	62	122.8
	45+	32	11.2	+	+	+	+
	Missing	1	+	0	0.0	1	+
	All Ages	1875	259.4	505	139.4	1370	379.9
2013	0-14	15	10.6	+	+	+	+
	15-24	1203	1294.5	257	533.4	946	2114.0
	25-34	479	474.1	177	339.0	302	618.4
	35-44	128	124.1	68	129.2	60	118.9
	45+	58	19.9	+	+	+	+
	Missing	1	+	1	+	0	0.0
	All Ages	1884	257.9	547	149.3	1337	367.1
2014	0-14	15	10.5	+	+	+	+
	15-24	1209	1305.7	291	606.9	918	2056.1
	25-34	616	605.0	231	439.1	385	782.5
	35-44	130	125.4	61	115.1	69	136.2
	45+	50	16.6	+	+	+	+
	Missing	3	+	2	+	1	+
	All Ages	2023	273.0	621	167.1	1402	379.5
2015	0-14	+	+	+	+	+	+
	15-24	1302	1410.7	299	626.2	1003	2251.6
	25-34	630	603.4	243	450.6	387	766.7
	35-44	188	177.7	83	153.1	105	203.7
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	2206	291.2	669	176.1	1537	406.9

+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 2. Chlamydia

	Age Group	Total		Males		Females	
		Cases	Rate	Cases	Rate	Cases	Rate
2016	0-14	+	+	0	0.0	+	+
	15-24	1411	1554.6	350	745.0	1061	2423.4
	25-34	747	725.9	316	595.8	431	864.3
	35-44	243	224.1	114	204.6	129	244.7
	45+	+	+	53	33.8	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	2488	321.9	833	214.9	1655	429.6
2017	0-14	19	12.7	+	+	+	+
	15-24	1505	1665.1	403	860.7	1102	2529.6
	25-34	745	714.9	296	551.6	449	888.2
	35-44	263	235.8	130	226.6	133	245.5
	45+	87	26.1	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	2619	331.8	879	222.1	1740	442.0
2018	0-14	+	+	+	+	+	+
	15-24	1483	1643.5	384	822.7	1099	2523.1
	25-34	817	768.3	350	638.8	467	905.9
	35-44	258	224.3	122	206.0	136	243.8
	45+	+	+	+	+	+	+
	Missing	3	+	2	+	1	+
	All Ages	2692	334.4	940	233.0	1752	436.2
2019	0-14	+	+	+	+	+	+
	15-24	1654	1825.3	456	973.0	1198	2738.5
	25-34	888	826.0	365	659.2	523	1003.3
	35-44	263	223.1	131	215.6	132	231.0
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	2932	358.1	1029	250.9	1901	465.4
2020	0-14	+	+	0	0.0	+	+
	15-24	1501	1644.3	425	899.8	1076	2442.6
	25-34	748	694.7	297	535.3	451	864.2
	35-44	240	199.8	133	214.8	107	183.9
	45+	+	+	51	29.6	+	+
	Missing	9	+	4	+	5	+
	All Ages	2604	313.5	914	219.6	1687	407.1

+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.

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	0	0.0	0	0.0	0	0.0
	15-24	74	79.5	29	59.6	45	101.3
	25-34	65	65.1	45	87.7	20	41.2
	35-44	24	23.2	+	+	+	+
	45+	10	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	173	24.1	101	28.1	72	20.1
2012	0-14	0	0.0	0	0.0	0	0.0
	15-24	75	80.7	36	74.4	39	87.5
	25-34	59	58.7	33	63.7	26	53.3
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	164	22.7	90	24.8	74	20.5
2013	0-14	0	0.0	0	0.0	0	0.0
	15-24	84	90.4	41	85.1	43	96.1
	25-34	98	97.0	55	105.4	43	88.1
	35-44	46	44.6	+	+	+	+
	45+	26	8.9	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	254	34.8	144	39.3	110	30.2
2014	0-14	+	+	0	0.0	+	+
	15-24	142	153.4	51	106.4	91	203.8
	25-34	154	151.3	84	159.7	70	142.3
	35-44	79	76.2	53	100.0	26	51.3
	45+	+	+	23	15.8	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	403	54.4	211	56.8	192	52.0
2015	0-14	0	0.0	0	0.0	0	0.0
	15-24	172	186.4	75	157.1	97	217.8
	25-34	202	193.5	130	241.1	72	142.6
	35-44	79	74.7	+	+	+	+
	45+	51	16.4	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	504	66.5	293	77.1	211	55.9

+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 3. Gonorrhea

	Age Group	Total		Males		Females	
		Cases	Rate	Cases	Rate	Cases	Rate
2016	0-14	+	+	0	0.0	+	+
	15-24	180	198.3	91	193.7	89	203.3
	25-34	259	251.7	171	322.4	88	176.5
	35-44	100	92.2	63	113.1	37	70.2
	45+	+	+	48	30.6	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	602	77.9	373	96.2	229	59.4
2017	0-14	+	+	0	0.0	+	+
	15-24	230	254.5	111	237.1	119	273.2
	25-34	288	276.3	170	316.8	118	233.4
	35-44	148	132.7	98	170.8	50	92.3
	45+	+	+	67	41.5	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	743	94.1	446	112.7	297	75.5
2018	0-14	0	0.0	0	0.0	0	0.0
	15-24	225	249.4	105	225.0	120	275.5
	25-34	367	345.1	222	405.2	145	281.3
	35-44	173	150.4	116	195.9	57	102.2
	45+	109	32.0	86	52.1	23	13.1
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	874	108.6	529	131.1	345	85.9
2019	0-14	+	+	0	0.0	+	+
	15-24	236	260.4	117	249.6	119	272.0
	25-34	310	288.4	180	325.1	130	249.4
	35-44	142	120.4	102	167.8	40	70.0
	45+	+	+	60	35.6	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	762	93.1	459	111.9	303	74.2
2020	0-14	+	+	0	0.0	+	+
	15-24	254	278.3	127	268.9	127	288.3
	25-34	299	277.7	171	308.2	128	245.3
	35-44	163	135.7	113	182.5	50	85.9
	45+	+	+	53	30.8	+	+
	Missing	3	+	3	+	0	0.0
	All Ages	796	95.8	467	112.2	329	79.4

+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	+	+	+	+	0	0.0
	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	17	2.4	17	4.7	0	0.0
2012	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	0	0.0
	25-34	0	0.0	0	0.0	0	0.0
	35-44	+	+	+	+	0	0.0
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	12	+	12	+	0	0.0
2013	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	0	0.0
	25-34	+	+	+	+	+	+
	35-44	+	+	+	+	0	0.0
	45+	0	0.0	0	0.0	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	13	+	+	+	+	+
2014	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	+	+
	25-34	10	+	10	+	0	0.0
	35-44	+	+	+	+	0	0.0
	45+	+	+	+	+	1	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	27	3.6	+	+	+	+
2015	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	0	0.0
	25-34	+	+	+	+	0	0.0
	35-44	+	+	+	+	0	0.0
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	25	3.3	+	+	+	+

+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.

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	+	+	+	+	0	0.0
	25-34	18	17.5	18	33.9	0	0.0
	35-44	+	+	+	+	+	+
	45+	12	+	12	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	47	6.1	+	+	+	+
2017	0-14	0	0.0	0	0.0	0	0.0
	15-24	10	+	10	+	0	0.0
	25-34	23	22.1	23	42.9	0	0.0
	35-44	+	+	+	+	0	0.0
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	53	6.7	+	+	+	+
2018	0-14	0	0.0	0	0.0	0	0.0
	15-24	11	+	11	+	0	0.0
	25-34	19	17.9	+	+	+	+
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	42	5.2	+	+	+	+
2019	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	+	+
	25-34	16	+	16	+	0	0.0
	35-44	+	+	+	+	+	+
	45+	16	+	16	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	47	5.7	+	+	+	+
2020	0-14	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	+	+
	25-34	20	18.6	+	+	+	+
	35-44	+	+	+	+	0	0.0
	45+	18	5.1	18	10.5	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	62	7.5	+	+	+	+

+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.