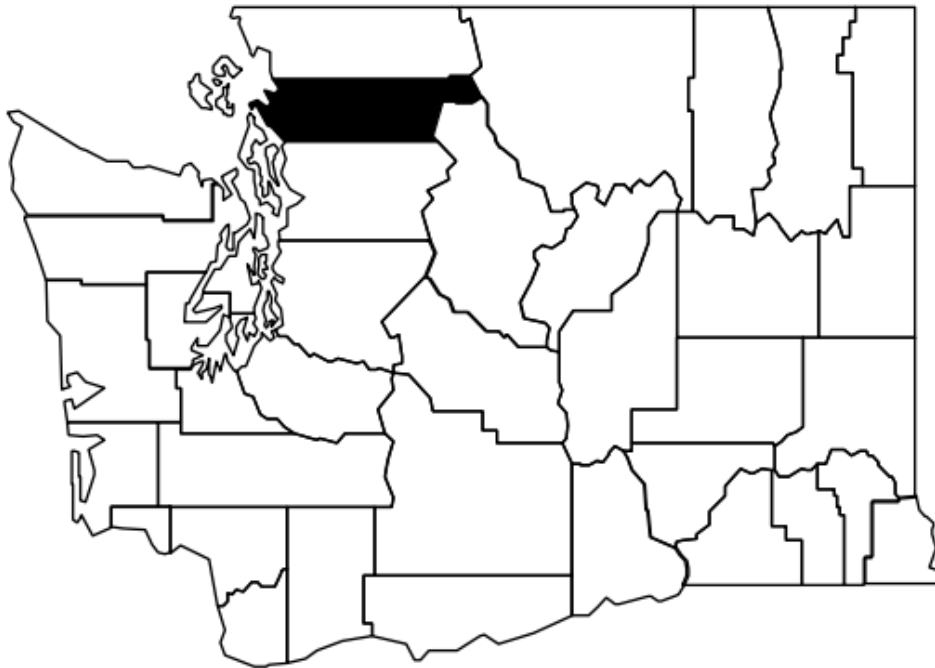


Sexually Transmitted Infection Profile

Skagit County 2020



Disease Control and Health Statistics
Infectious Disease Assessment Unit



DOH 150-156

Sexually Transmitted Infection Profile

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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 Skagit 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.

Skagit County STI Disease Trends

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

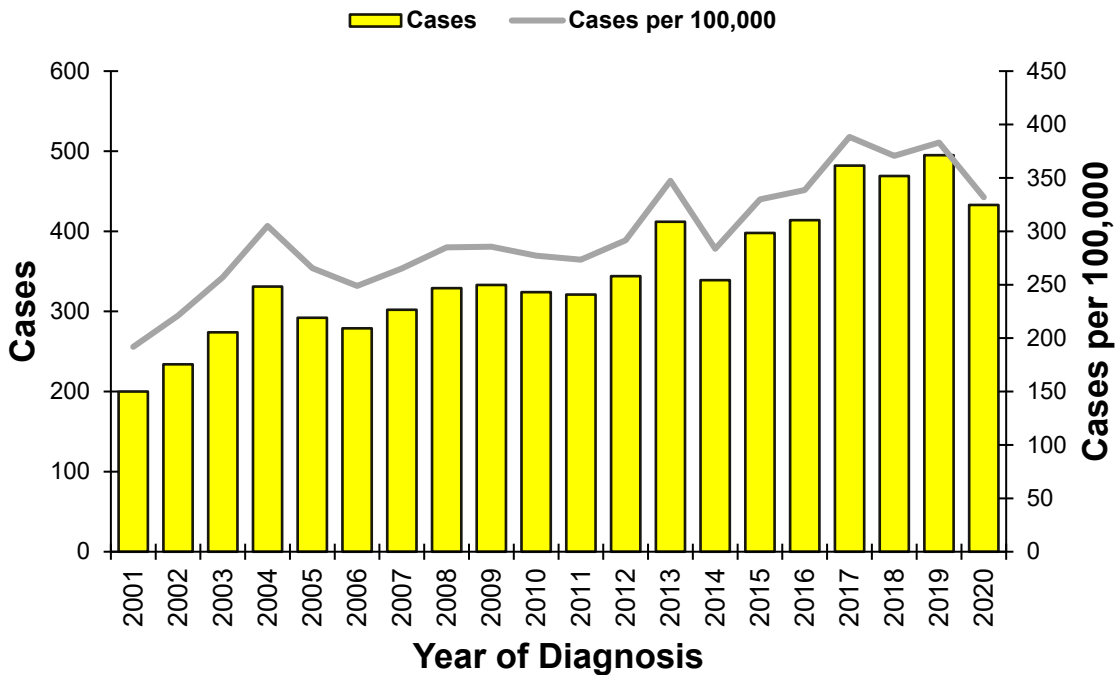
Disease	County Cases	County Rate§	WA State Rate
Chlamydia	433	331.9	410.4
Gonorrhea	136	104.3	151.2
P&S Syphilis	10	+	10.9
Genital Herpes	34	26.1	18.0
Chancroid/GI/LGV	0		
Total	613		

§ Crude incidence rate per 100,000 population.

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

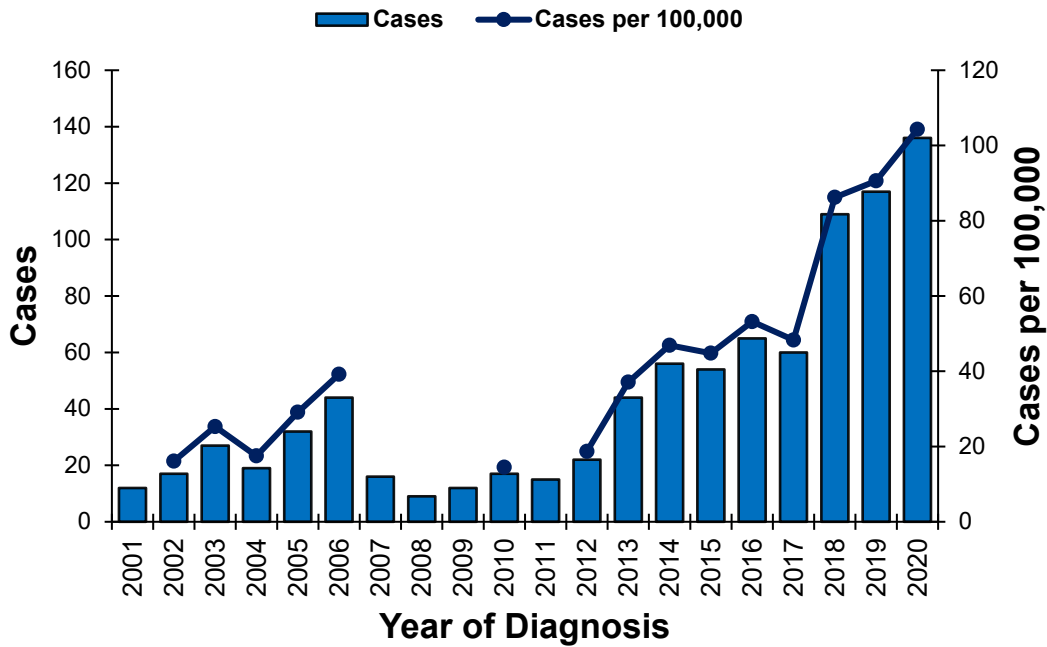
Chlamydia

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



Gonorrhea

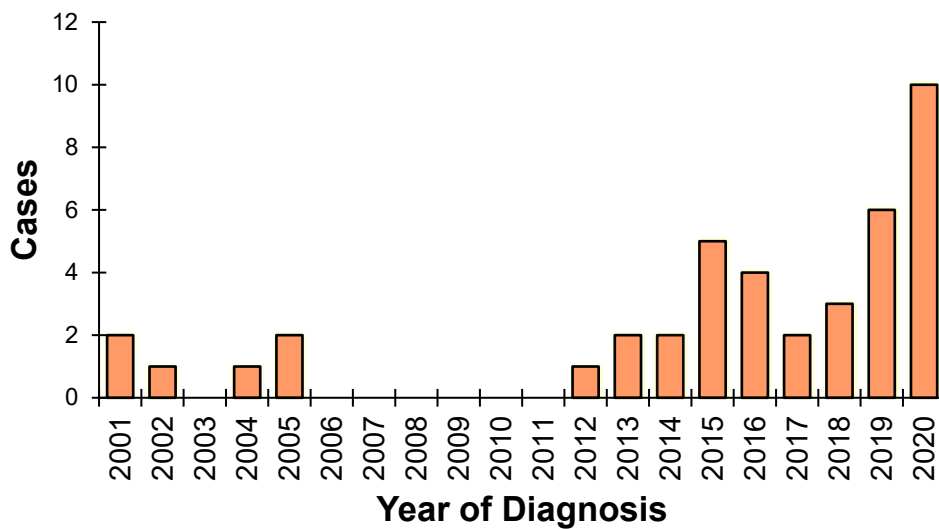
Figure 2. Gonorrhea Cases, Skagit County, 2001-2020



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

Primary and Secondary Syphilis

Figure 3. Primary and Secondary Syphilis Cases, Skagit 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	+	+	0	0.0	+	+
	15-24	226	1540.1	48	632.8	178	2511.1
	25-34	70	491.6	+	+	+	+
	35-44	19	137.9	+	+	+	+
	45+	+	+	0	0.0	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	321	273.4	73	125.3	248	419.3
2012	0-14	+	+	0	0.0	+	+
	15-24	244	1664.9	48	636.0	196	2757.2
	25-34	77	533.9	24	323.5	53	756.7
	35-44	16	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	344	291.6	80	136.8	264	443.9
2013	0-14	0	0.0	0	0.0	0	0.0
	15-24	274	1873.0	57	760.5	217	3041.8
	25-34	97	668.4	31	414.6	66	938.3
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	412	347.4	104	176.8	308	515.1
2014	0-14	+	+	+	+	+	+
	15-24	213	1464.3	51	685.4	162	2279.7
	25-34	96	661.5	23	308.0	73	1036.4
	35-44	21	152.0	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	2	+	1	+	1	+
	All Ages	339	283.7	87	146.8	252	418.4
2015	0-14	+	+	0	0.0	+	+
	15-24	242	1671.3	58	784.9	184	2595.2
	25-34	124	857.3	51	685.9	73	1038.7
	35-44	25	180.3	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	398	330.0	119	198.8	279	459.2

+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	275	1926.8	51	700.9	224	3201.7
	25-34	104	748.2	33	464.4	71	1044.9
	35-44	28	199.9	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	414	338.6	96	158.2	318	516.4
2017	0-14	+	+	+	+	+	+
	15-24	300	2117.7	59	817.1	241	3469.8
	25-34	131	948.0	51	723.9	80	1181.1
	35-44	39	274.6	15	+	24	347.2
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	482	388.4	131	212.6	351	561.8
2018	0-14	+	+	0	0.0	+	+
	15-24	284	2017.7	65	907.1	219	3169.7
	25-34	140	1003.2	36	506.7	104	1518.3
	35-44	30	206.5	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	469	370.7	118	187.9	351	551.0
2019	0-14	+	+	0	0.0	+	+
	15-24	296	2103.2	68	948.2	228	3303.0
	25-34	140	993.4	55	768.4	85	1225.5
	35-44	41	275.0	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	495	383.1	152	236.9	343	527.3
2020	0-14	+	+	+	+	+	+
	15-24	259	1820.7	68	939.0	191	2735.0
	25-34	125	889.6	49	687.4	76	1097.9
	35-44	33	219.4	14	+	19	260.5
	45+	+	+	+	+	+	+
	Missing	1	+	0	0.0	1	+
	All Ages	433	331.9	137	211.4	296	450.9

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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	0	0.0	0	0.0	0	0.0
	15-24	+	+	+	+	+	+
	25-34	+	+	+	+	+	+
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	15	+	+	+	+	+
2012	0-14	0	0.0	0	0.0	0	0.0
	15-24	10	+	+	+	+	+
	25-34	+	+	+	+	+	+
	35-44	+	+	+	+	0	0.0
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	22	18.7	+	+	+	+
2013	0-14	0	0.0	0	0.0	0	0.0
	15-24	15	+	+	+	+	+
	25-34	17	117.1	+	+	+	+
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	44	37.1	21	35.7	23	38.5
2014	0-14	0	0.0	0	0.0	0	0.0
	15-24	17	116.9	+	+	+	+
	25-34	29	199.8	+	+	+	+
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	56	46.9	23	38.8	33	54.8
2015	0-14	0	0.0	0	0.0	0	0.0
	15-24	22	151.9	10	+	12	+
	25-34	21	145.2	+	+	+	+
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	54	44.8	27	45.1	27	44.4

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Continued Table 3. Gonorrhea

	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	20	140.1	+	+	+	+
	25-34	26	187.0	16	+	10	+
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	65	53.2	33	54.4	32	52.0
2017	0-14	+	+	0	0.0	+	+
	15-24	22	155.3	+	+	+	+
	25-34	23	166.4	12	+	11	+
	35-44	10	+	+	+	+	+
	45+	+	+	+	+	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	60	48.3	33	53.5	27	43.2
2018	0-14	+	+	+	+	+	+
	15-24	40	284.2	23	321.0	17	246.0
	25-34	39	279.5	20	281.5	19	277.4
	35-44	20	137.7	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	109	86.2	60	95.5	49	76.9
2019	0-14	0	0.0	0	0.0	0	0.0
	15-24	44	312.6	16	+	28	405.6
	25-34	43	305.1	27	377.2	16	+
	35-44	+	+	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	117	90.6	62	96.6	55	84.6
2020	0-14	+	+	0	0.0	+	+
	15-24	52	365.5	23	317.6	29	415.3
	25-34	47	334.5	27	378.8	20	288.9
	35-44	24	159.5	+	+	+	+
	45+	+	+	+	+	+	+
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	136	104.3	72	111.1	64	97.5

+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.