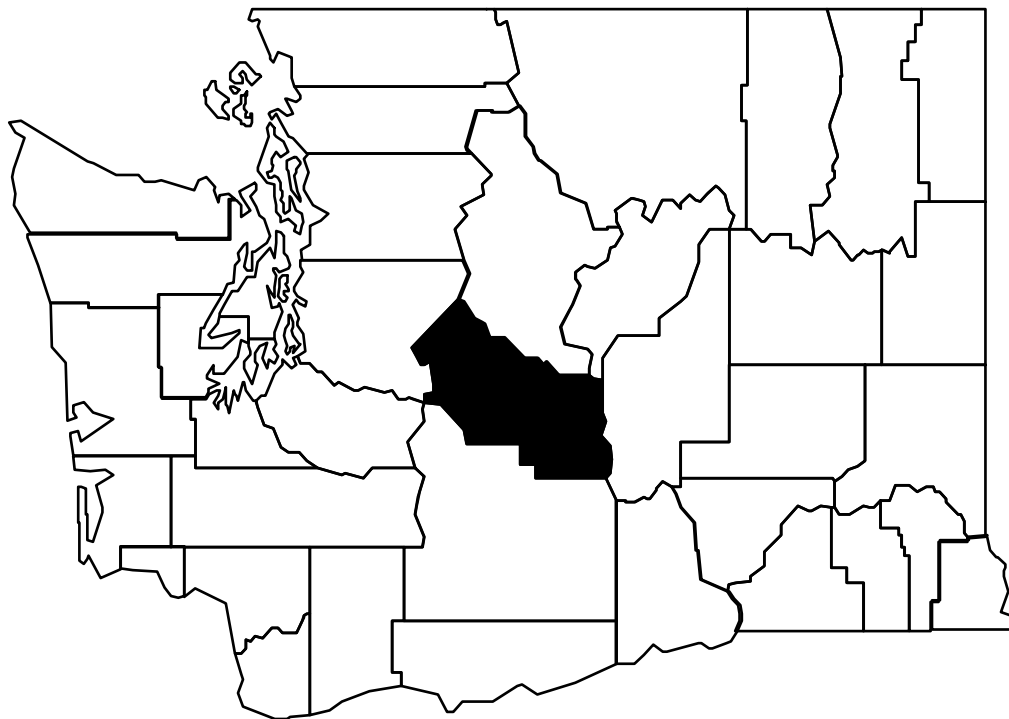# Sexually Transmitted Disease Profile

Kittitas County 2013

Disease Control and Health Statistics
Infectious Disease Assessment Unit

Washington State Department of
Health

Sexually Transmitted Disease Profile

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Contents

Introduction

Sexually transmitted infections continue to be the most frequently diagnosed and reported notifiable conditions in Washington State. This report describes the sexually transmitted infection burden in Kittitas County. Data are presented for the more commonly reported diseases of chlamydial infection, gonorrhea, primary and secondary syphilis, and genital herpes when at least twenty (20) cases of disease were diagnosed in 2013 and the corresponding rates are statistically stable. The incidence rates, including those by age and sex, are presented graphically. The report concludes with tables containing a decade of historical data by age group and gender.

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. 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 March 3, 2014.

Confidence Intervals: A confidence interval is a range around a measurement that suggests how precise the measurement is. The confidence interval displays both the possible range around the estimate and also how stable the estimate is. Wider confidence intervals in relation to the estimate itself indicate instability. A confidence interval is always qualified by a particular confidence level, usually expressed as a percentage. In this report, 95% confidence intervals are used.

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 of internal sexual organs, however 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 of internal sexual organs, however 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.

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 latent, latent, late latent, and congenital. 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 appropriate) 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 20 cases of disease reported and the calculated relative standard error was greater than thirty percent (>30%) as this indicates statistical instability.

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, error 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 incidence rates are from Washington State Adjusted Population Estimates, Office of Financial Management (OFM) April 1, 2013. This data was accessed February 4, 2014 from http://www.ofm.wa.gov/pop/

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. Users of these data should keep in mind that small numbers often produce rates that can be unstable from year to year and may not be reliable when comparing across strata within a particular year. 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 at 360-236-3455.

Kittitas County STD Disease Trends

Table 1. Washington State Reportable Sexually Transmitted Diseases,
Kittitas County, 2013

Disease	County Cases	County Rate§	WA State Rate
Chlamydia	163	389.0	363.4
Gonorrhea	5	*	63.8
P&S Syphilis	3	*	4.1
Genital Herpes	8	*	32.1
Chancroid/GI/LGV	0		
Total	179		

§ Crude incidence rate per 100,000 population.
* Rates are suppressed for counts under 20 with a corresponding RSE >30% due to statistical instability.

Chlamydia

Figure 1. Chlamydia Cases and Incidence Rates* per 100,000 population,
Kittitas County, 1994-2013
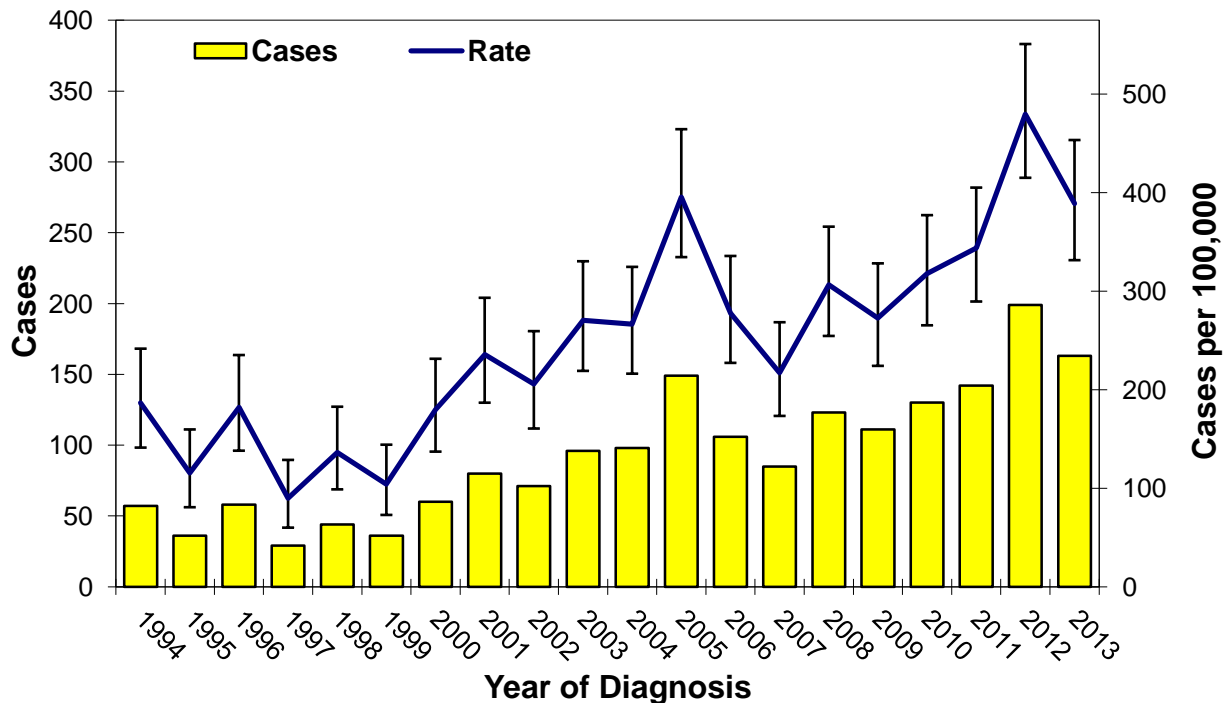
* Crude incidence rate with 95% confidence intervals.

Figure 2. Age-specific Chlamydia Incidence Rates* by Gender, Kittitas County, 2013
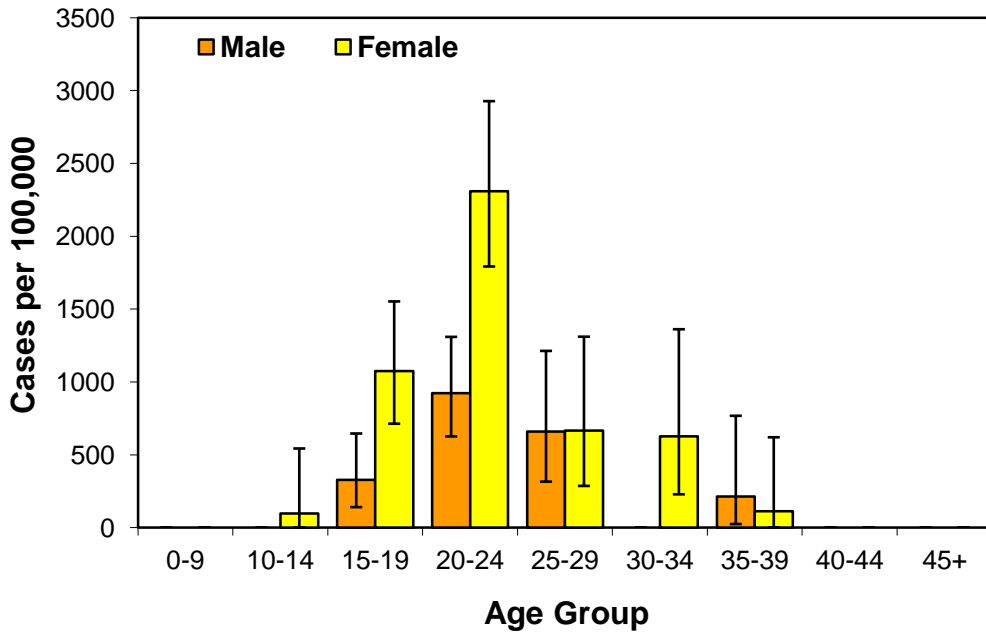
* Age-specific crude incidence rate with 95% confidence intervals.

Figure 3. Chlamydia Incidence Rates by Gender*, Kittitas County, 1994-2013

* Gender-specific crude incidence with 95% confidence intervals.

Data Tables
  Table 2. Chlamydia Cases and Incidence Rates by Gender and Age Group

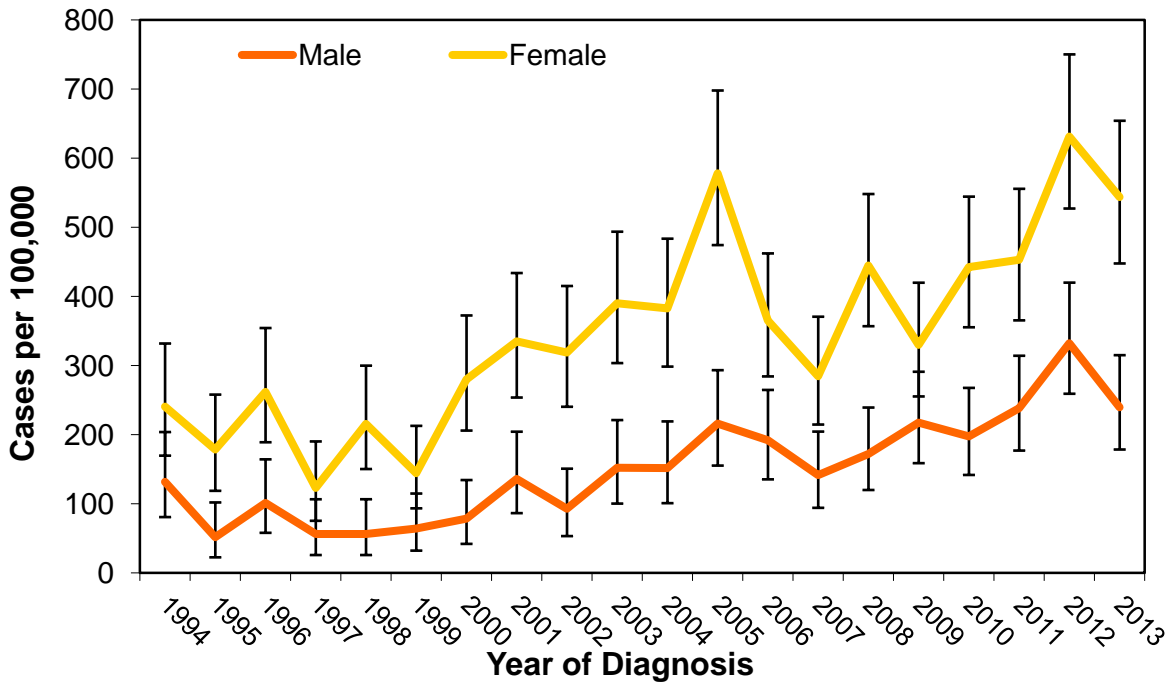|	Age Group	Total Cases	Total Rate	Males Cases	Males Rate	Females Cases	Females Rate
2004	0-9	0	0.0	0	0.0	0	0.0
	10-14	0	0.0	0	0.0	0	0.0
	15-19	29	813.7	4	226.5	25	1,390.4
	20-24	51	807.9	16	490.6	35	1,146.8
	25-29	15	670.8	6	491.4	9	886.7
	30-34	2	107.2	2	211.9	0	0.0
	35-39	1	50.7	0	0.0	1	101.3
	40-44	0	0.0	0	0.0	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	98	266.5	28	151.5	70	382.6
2005	0-9	0	0.0	0	0.0	0	0.0
	10-14	1	46.9	0	0.0	1	96.4
	15-19	36	990.4	4	221.9	32	1,746.7
	20-24	89	1,377.7	29	863.4	60	1,934.9
	25-29	12	513.0	5	390.3	7	661.6
	30-34	4	216.6	1	106.6	3	330.0
	35-39	2	100.0	1	99.4	1	100.6
	40-44	0	0.0	0	0.0	0	0.0
	45+	1	7.6	0	0.0	1	14.8
	Missing	4	0.0	1	0.0	3	0.0
	All Ages	149	395.6	41	216.1	108	578.0
2006	0-9	0	0.0	0	0.0	0	0.0
	10-14	0	0.0	0	0.0	0	0.0
	15-19	24	653.1	3	164.5	21	1,134.5
	20-24	65	976.7	26	748.6	39	1,225.6
	25-29	9	367.5	6	444.8	3	272.7
	30-34	1	55.4	0	0.0	1	112.4
	35-39	0	0.0	0	0.0	0	0.0
	40-44	2	90.0	1	89.0	1	90.9
	45+	0	0.0	0	0.0	0	0.0
	Missing	5	0.0	1	0.0	4	0.0
	All Ages	106	277.7	37	191.9	69	365.2
2007	0-9	0	0.0	0	0.0	0	0.0
	10-14	0	0.0	0	0.0	0	0.0
	15-19	16	424.4	5	266.7	11	580.5
	20-24	49	719.8	17	477.3	32	986.1
	25-29	10	387.3	1	70.1	9	778.5
	30-34	2	109.6	1	108.0	1	111.2
	35-39	4	194.6	2	191.2	2	198.0
	40-44	0	0.0	0	0.0	0	0.0
	45+	1	7.2	1	14.7	0	0.0
	Missing	1	0.0	1	0.0	0	0.0
	All Ages	85	217.2	28	141.3	55	284.6
2008	0-9	0	0.0	0	0.0	0	0.0
	10-14	0	0.0	0	0.0	0	0.0
	15-19	29	750.5	4	208.0	25	1,288.0
	20-24	73	1,052.2	25	684.4	48	1,461.2
	25-29	14	516.6	4	266.1	10	828.5
	30-34	4	213.0	1	105.3	3	323.3
	35-39	0	0.0	0	0.0	0	0.0
	40-44	0	0.0	0	0.0	0	0.0
	45+	1	6.9	1	14.1	0	0.0
	Missing	2	0.0	0	0.0	2	0.0
	All Ages	123	306.4	35	171.9	88	444.8

Continued Table 2. Chlamydia

	Age Group	Total		Males		Females	
		Cases	Rate	Cases	Rate	Cases	Rate
2009	0-9	0	0.0	0	0.0	0	0.0
	10-14	0	0.0	0	0.0	0	0.0
	15-19	25	640.0	5	256.7	20	1,021.5
	20-24	65	934.6	29	786.8	36	1,101.3
	25-29	15	538.2	8	515.8	7	566.3
	30-34	5	259.3	3	307.4	2	210.1
	35-39	0	0.0	0	0.0	0	0.0
	40-44	1	47.1	0	0.0	1	96.3
	45+	0	0.0	0	0.0	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	111	272.7	45	217.4	66	329.9
2010	0-9	6	147.3	0	0.0	6	298.2
	10-14	3	139.7	1	90.5	2	191.9
	15-19	32	825.0	7	362.9	25	1,282.1
	20-24	71	1,040.8	28	766.5	43	1,356.9
	25-29	11	398.0	4	260.6	7	569.6
	30-34	5	248.4	1	99.1	4	398.4
	35-39	1	49.8	0	0.0	1	100.6
	40-44	1	47.6	0	0.0	1	96.9
	45+	0	0.0	0	0.0	0	0.0
	Missing	0	0.0	0	0.0	0	0.0
	All Ages	130	317.7	41	197.2	89	442.3
2011	0-9	3	73.5	0	0.0	3	148.8
	10-14	1	46.4	0	0.0	1	95.7
	15-19	35	912.2	12	628.9	23	1,192.5
	20-24	86	1,255.9	31	845.9	55	1,728.1
	25-29	10	362.4	3	195.4	7	571.7
	30-34	5	242.6	3	290.4	2	194.5
	35-39	2	101.8	1	100.8	1	102.8
	40-44	0	0.0	0	0.0	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	142	343.8	50	238.2	92	453.0
2012	0-9	0	0.0	0	0.0	0	0.0
	10-14	1	47.1	1	90.8	0	0.0
	15-19	44	952.5	13	586.0	31	1,291.2
	20-24	130	2,017.0	46	1,336.2	84	2,797.5
	25-29	13	465.4	8	514.4	5	403.8
	30-34	4	196.6	0	0.0	4	408.1
	35-39	3	162.0	1	105.7	2	220.7
	40-44	0	0.0	0	0.0	0	0.0
	45+	2	13.0	1	13.2	1	12.8
	Missing	2	0.0	0	0.0	2	0.0
	All Ages	199	479.5	70	332.3	129	631.3
2013	0-9	0	0.0	0	0.0	0	0.0
	10-14	1	47.2	0	0.0	1	97.7
	15-19	36	714.1	8	328.4	28	1,074.8
	20-24	99	1,570.6	31	923.0	68	2,309.5
	25-29	18	662.5	10	660.0	8	665.6
	30-34	6	295.6	0	0.0	6	626.1
	35-39	3	163.3	2	212.8	1	111.5
	40-44	0	0.0	0	0.0	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	163	389.0	51	239.5	112	543.6