

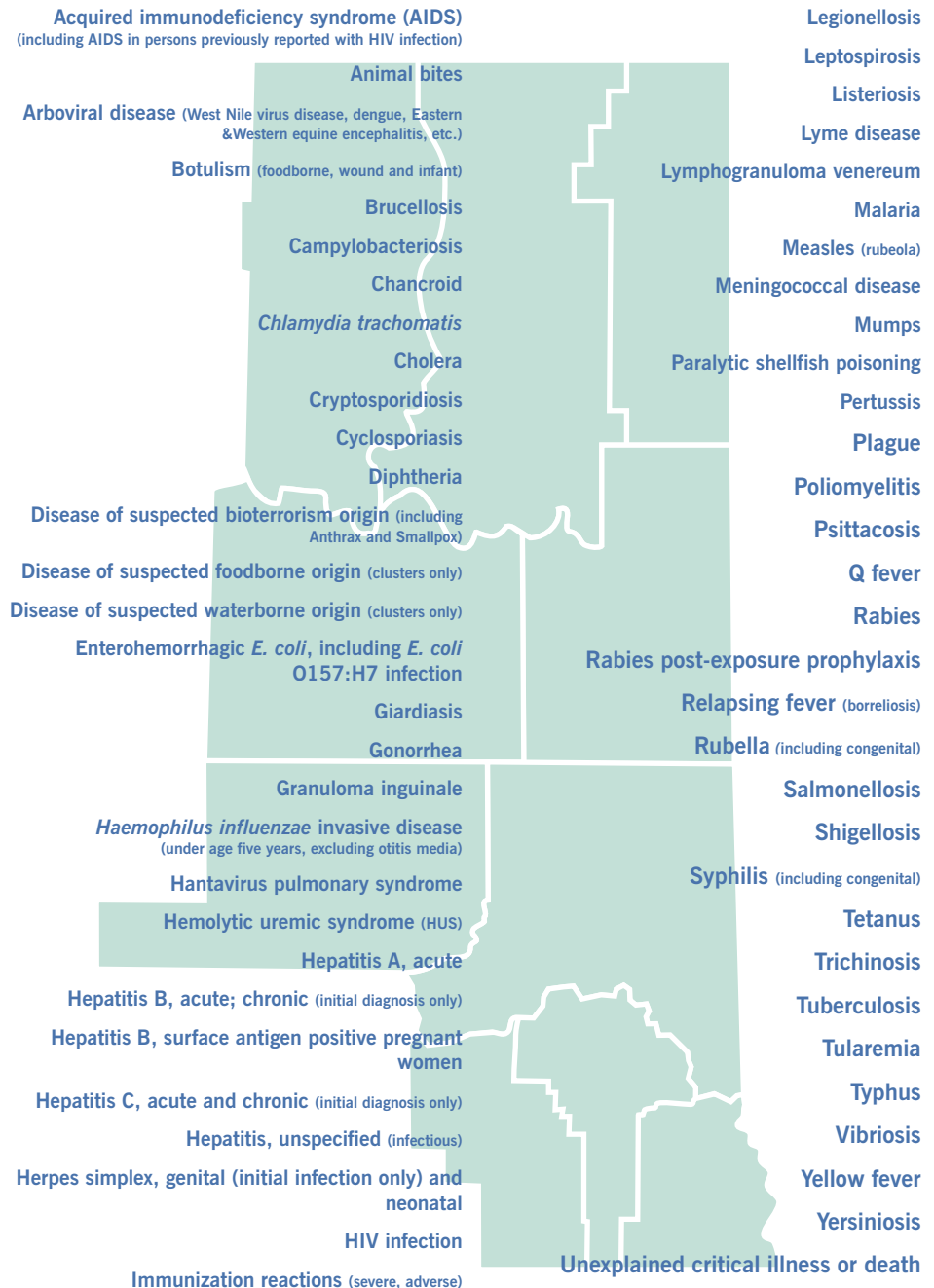


FOR HEALTHCARE PROVIDERS

Communicable Disease REPORT FOR 2001-2005

December **2006**

The purpose of notifiable conditions reporting is to provide the information necessary for public health officials to protect the public's health by tracking communicable diseases and other conditions. These data are critical to local health departments and the departments of health and labor and industries in their efforts to prevent and control the spread of diseases and other conditions. Public health officials take these steps to protect the public, based on these notifications: treating persons already ill, providing preventive therapies for individuals who came into contact with infectious agents, investigating and halting outbreaks, and removing harmful health exposures are key ways public health officials protect the public. Public health workers also use these data to assess broader patterns, including historical trends and geographic clustering. By analyzing the broader picture, public health is able to take appropriate actions, including outbreak investigation, redirection of program activities, or policy development.



ENTERIC DISEASE

ENTERIC DISEASE:

Campylobacteriosis remains the most frequent cause of reported bacterial gastroenteritis in Spokane County, as is true in Washington and the United States. Although county rates of campylobacteriosis were significantly lower than statewide rates in 2001, the rates have been similar since. Each year, giardiasis was reported significantly more often in Spokane County than in Washington State. Conversely, cryptosporidiosis, *E. coli*, listeriosis, salmonellosis, and

yersiniosis are reported less often in Spokane County residents as compared to state residents as a whole. Rates of these illnesses have generally remained stable. (One exception to this is the 2002 rate for *E. coli* infection, which was due to a large lettuce-associated outbreak in Spokane that year.) A small outbreak (6 cases) of shigellosis occurred in association with a local restaurant in 2005. One case of foodborne botulism was reported in 2003. Listeriosis, although rarely diagnosed, is more often a cause of

death than other enteric illnesses in Washington.

Norovirus Gastroenteritis

Although not a reportable illness, SRHD monitors outbreaks of norovirus illness, particularly those associated with long term care facilities, due to the fragile health of many residents in those institutions. In 2005, 12 norovirus outbreaks were reported from long term care facilities involving at least 202 individuals.

ENTERIC DISEASE		2001		2002		2003		2004		2005	
		Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000
Campylobacteriosis	Spokane Co.	38	9.0	56	13.2	67	15.6	49	11.3	74	17.0
	Washington	991	16.6	1032 (1 death)	17.1	943	15.5	861	14.0	1045	16.7
Cryptosporidiosis	Spokane Co.	2	0.5	1	0.2	1	0.2	0	0	0	0
	Washington	73	1.2	62	1.0	65	1.1	63	1.0	94	1.5
Enterohemorrhagic <i>E. coli</i>	Spokane Co.	11	2.6	43	10.1	10	2.3	2	0.5	3	*
	Washington	150	2.5	166	2.7	128	2.1	153 (3 deaths)	2.5	149	2.4
Giardiasis	Spokane Co.	49	11.6	47	11.0	46	10.7	44	10.2	54	12.4
	Washington	512	8.6	510	8.4	435	7.1	444	7.2	437	7.0
Listeriosis	Spokane Co.	0	*	0	*	0	*	0	*	1	*
	Washington	15 (1 death)	0.3	11	0.2	13 (3 deaths)	0.2	13 (3 deaths)	0.2	14 (3 deaths)	0.2
Salmonellosis	Spokane Co.	42	9.9	26	6.1	30	7.0	31	7.2	40	9.2
	Washington	681 (2 deaths)	11.4	655	10.8	699 (1 death)	11.5	660 (2 deaths)	10.7	626	10.0
Shigellosis	Spokane Co.	6	1.4	7	1.6	10	2.3	1	0.2	6	1.4
	Washington	236	3.9	230	3.8	188	3.1	133	2.2	185	3.0

*Incidence rates not always calculated for <5 cases.

VACCINE PREVENTABLE DISEASE

VACCINE PREVENTABLE DISEASE:

In 2005, there was no significant change in overall rates for diseases prevented by standard childhood immunizations, except for pertussis. In 2004, pertussis was diagnosed and reported in much greater numbers than in either 2003 or 2005. There were no reported cases of measles, mumps, rubella, tetanus, or diphtheria.

Along with hepatitis A and B (see below), three other vaccine preventable diseases occur with regularity in Spokane County;

these are pertussis, influenza, and meningococcal disease. The duration of immunity to pertussis, (whether vaccine-induced or following illness) is probably less than ten years and until 2006, no vaccine was available for those over age 7. Future incidence of pertussis may decline rapidly if uptake of the new adolescent/adult vaccines becomes widespread, as cases of disease are often spread from mildly ill adolescents and adults to children who are not fully immunized. Non-immunized or under-immunized young children suffer the most serious effects of pertussis. Similarly, if

uptake of influenza vaccine increases due to expanded recommendations for vaccination, seasonal influenza may become a less serious health threat in our community. Meningococcal disease in Washington is often caused by strains not covered by available vaccines.

Influenza

Although not a reportable disease, reports are made to SRHD about facility based outbreaks. In 2005, five outbreaks of influenza and influenza-like illness in long-term care facilities were investigated, involving at least 45 individuals.

VACCINE PREVENTABLE DISEASE		2001		2002		2003		2004		2005	
		Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000
<i>Haemophilus influenzae</i> disease*	Spokane Co.	0	0.0	0	0.0	0	0.0	0	0.0	1	*
	Washington	7	1.8	5	1.3	13 (1 death)	3.3	4	1.0	5	1.2
Measles	Spokane Co.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Washington	15	0.3	1	0.0	0	0.0	7	0.1	1	0.0
Meningococcal Disease	Spokane Co.	8	1.9	2	0.5	4	0.9	3	0.7	5	1.1
	Washington	71 (6 deaths)	1.2	76 (8 deaths)	1.3	61 (7 deaths)	1.0	42 (4 deaths)	0.7	53 (4 deaths)	0.8
Mumps	Spokane Co.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Washington	2	0.0	0	0.0	11	0.2	2	0.0	3	0.0
Pertussis	Spokane Co.	2	0.5	0	0.0	4	0.9	43	10.0	19	4.4
	Washington	184	3.1	575	9.5	844	13.8	842	13.7	1026	16.4

*Rates are for persons aged 0-4 years.

HEPATITIS

HEPATITIS:

The number of hepatitis A cases has been consistently less than five cases per year in 2001-2005, with only one case reported in 2005. This could be attributed to one or more of the following factors: historically, hepatitis A outbreaks occur in 10 year cycles and Spokane County experienced a hepatitis A outbreak (over 500 cases) in 1997-8; during the outbreak more than 35,000 community members were vaccinated; and hepatitis A vaccine, first licensed in 1995, has been a recommended component of the vaccination series for children since 1999, ensuring the protection of thousands of individuals born since then.

The number of acute hepatitis B case reports has been fairly consistent since 2002, with an

overall downward trend since 2001. Acute infection with hepatitis B leads to chronic disease in 5-10% of adults and 90% of children born to infected mothers if the infant is not treated appropriately. SRHD began accepting reports of chronic hepatitis B in 2000. There was an initial surge in case reporting, likely reflecting prior diagnoses, followed by a leveling off and fairly consistent numbers of cases reported since.

Due to the often unrecognized symptoms of hepatitis C infection, acute disease is infrequently diagnosed, and reported cases are significantly fewer than those of acute hepatitis B. Like chronic hepatitis B reporting, the initial surge in reported cases of chronic hepatitis C in 2001 was followed by fairly steady case reporting. Acute infection leads to chronic

illness in 80-85% of adults. Consistent with its capacity to produce chronic infection, hepatitis C constitutes the largest portion of hepatitis cases, with almost 500 cases reported to SRHD in 2005. Hepatitis C is not vaccine preventable.

The mode of transmission for hepatitis B and C viruses is similar, as both can be transmitted through blood. However, hepatitis B is transmitted very easily through sexual exposure while it is more difficult to sexually transmit hepatitis C. People with chronic hepatitis B are more likely to report immigration from a country where hepatitis B is endemic, while those with chronic hepatitis C are more likely to report recreational drug use, having tattoos, or having received a blood transfusion prior to 1992.

HEPATITIS		2001		2002		2003		2004		2005	
		Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000
Hepatitis A	Spokane Co.	3	0.7	4	0.9	4	0.9	2	0.5	1	*
	Washington	184	3.1	162	2.7	76	1.2	69	1.1	63 (1 death)	1.0
Hepatitis B, Acute	Spokane Co.	33	7.8	15	3.5	12	2.8	9	2.1	14	3.2
	Washington	171	2.9	83	1.4	90 (1 death)	1.5	64 (1 death)	1.0	80	1.3
Hepatitis B, Chronic	Spokane Co.	61	14.6	70	16.8	66	15.4	43	9.9	37	8.4
	Washington	N/A		N/A		N/A		N/A		N/A	
Hepatitis C, Acute	Spokane Co.	9	2.1	3	0.7	1	0.2	6	1.4	2	*
	Washington	31	0.5	27	0.4	21	0.3	23 (1 death)	0.4	21	0.3
Hepatitis C, Chronic	Spokane Co.	794	189.9	685	162.2	467	108.9	413	98.3	593	136.0
	Washington	N/A		N/A		N/A		N/A		N/A	0.3

*Rates are for persons aged 0-4 years.

TUBERCULOSIS

TUBERCULOSIS:

Spokane County

The tuberculosis (TB) crude incidence rate, 2.9 per 100,000, is consistently lower in Spokane County than it is in Washington State. While the small number of cases (13) makes drawing conclusions difficult, more than twice as many Spokane County males (9) than females (4) were diagnosed with TB disease in 2005. Additionally, although the population of Spokane is 85-90% Caucasian and only about 10% of residents are foreign-born, approximately 40% of TB cases were non-Caucasian and approximately 25% were foreign born, reflecting the greater incidence of TB in non-white and foreign born individuals, as is true statewide and nationwide.

State Highlights

The Washington State tuberculosis crude incidence rate, 4.0 per 100,000, increased slightly (2%) from 2004 to 2005, marking the end to decreasing case rates since 1998. Persons age 65 years and older continue to have the highest incidence rate, 7.7 per 100,000. Higher rates among the elderly are due to increased likelihood of infection earlier in life (as TB disease was more common in the early 1900s) and age-dependent changes in health that increase the risk for TB disease, e.g., immunosuppression and diabetes. Among all age groups, the gender-specific incidence rate continues to be slightly higher for males; however, none of these differences reached statistical significance.

Certain racial and ethnic groups have higher rates of TB and continued to be overrepresented in 2005. Asians had a case rate that

was more than thirteen times higher than whites and almost four times higher than that of Hispanics. Blacks had a case rate eleven times higher than that of whites and three times higher than that of Hispanics.

Sixty-seven percent (171 cases) of all tuberculosis cases in 2005 were among persons born outside the United States. Foreign-born cases of TB were younger than U.S.-born cases because foreign-born populations tend to be younger than the overall state population and primarily originate from countries with endemic TB.

The proportion of tuberculosis cases was low among persons living in residential or correctional facilities (4%) and among persons with HIV (6%). The proportion of cases that were unemployed has increased over the past few years, with almost half (48%) of all cases reported as unemployed in 2005.

TUBERCULOSIS		2001		2002		2003		2004		2005	
		Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000
Tuberculosis	Spokane Co.	10	2.3	7	1.6	4	*	7	1.6	13	2.9
	Washington	258	4.3	252	4.1	250	4.0	245	3.9	256	4.0

SEXUALLY TRANSMITTED DISEASE

SEXUALLY TRANSMITTED DISEASE:

In 2005, Spokane County experienced a decrease from 2004 in its combined reportable sexually transmitted disease (STD) cases. With 1,355 cases of STDs (excluding HIV/AIDS cases) in 2005, the incidence rate for all STDs was 310.6 per 100,000 persons, as compared to a combined STD rate of 400.3 in Washington State. Specifically, in 2005 as compared to 2004, there was a:

3% decrease in reported cases of chlamydia (1,071 vs. 1,101)

20% decrease in reported cases of gonorrhea (121 vs. 152)

60% increase in reported cases of late/late latent syphilis (8 vs. 5)

10% decrease in reported cases of (initial infection with) herpes (155 vs. 172)

Reported cases of *Chlamydia trachomatis* have risen over the last 5 years, with a slight decrease in 2005. Rates of gonorrhea have not demonstrated a consistent trend over the last five years; however, the case rate in 2005 was down from 2004. Reported *Herpes simplex* initial infection counts and rates rose consistently during 2001-2004, with a rate usually higher than the state rate, until 2005 when the case numbers and rate dropped. Based on CDC estimates of prevalence nationwide, herpes reports in Washington State are considered an underestimate of true incidence. In 2001-2004, five or fewer cases of late/latent syphilis were reported each year, but eight cases were reported in 2005. This finding bears watching. Spokane County had no reported cases of congenital syphilis, chancroid, or *Lymphogranuloma venereum* during 2001-2005.

Chlamydia:

The incidence rate of chlamydia was highest among adults ages 20-24 at 1,918.0 cases per 100,000 in females, and 591.5 cases per 100,000 in males. Chlamydia incidence in both females and males progressively declined with increasing age. Three percent of males and 10% of females diagnosed with chlamydia had repeat infections in 2005.

NOTE: Women are more often screened for chlamydia than men. Because active screening is preferentially limited to women, the incidence of chlamydia in men may be under-diagnosed. Screening all sexually active males and females aged 15-24, particularly those who have new or multiple sex partners, is suggested.

Gonorrhea (GC):

In 2005, the incidence rate for gonorrhea in females was highest among the 20-24 year old age group in Spokane County, at 147.1 cases per 100,000. Among males in Spokane County, the 2005 gonorrhea incidence rate peaked among 25-29 year olds at 72.2 cases per 100,000. Gonorrhea (GC) incidence among both females and males progressively declined with increasing age. Four percent of males and 1% of females diagnosed with GC had repeat infections in 2005.

Statewide, the greatest incidence of disease among both males and females is among 20-24 year olds (248.2 per 100,000). However, the burden of disease is disproportionately shared across older age groups among males. Males also had a higher overall gonorrhea rate (67.9 per 100,000) than females (51.7 per 100,000).

A major factor contributing to the differences in the distribution of gonorrhea incidence by age and gender is a documented outbreak of GC among men who have sex with men. The median reported age of cases associated with the outbreak was 30.

HIV/AIDS:

After an initial surge in case reports of HIV/AIDS in 2000 and

2001, Spokane County reports have remained fairly steady in 2002-2005. The affected groups have shifted to include more people with heterosexual exposure and more women. Recent HIV infection also occurs disproportionately in African Americans, reflective of increasing rates of heterosexual transmission. While African Americans comprise 3% of

Spokane County's population, 28 (8%) of those who are infected with HIV are African American, resulting in a prevalence rate of 652 per 100,000, as compared to the prevalence rate in Caucasians of 134 per 100,000. By comparison, in Washington State the prevalence of HIV among African Americans is 400 per 100,000.

SEXUALLY TRANSMITTED DISEASE		2001		2002		2003		2004		2005	
		Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000
Chlamydia	Spokane Co.	736	174.2	905	212.6	988	230.5	1101	254.9	1071	245.5
	Washington	13631	228.1	14936	247.2	16796	275.4	17635	285.9	18617	297.6
Gonorrhea	Spokane Co.	102	24.1	124	29.1	97	22.6	152	35.2	121	27.7
	Washington	2991	50.1	2925	48.4	2754	45.2	2810	45.6	3738	59.7
Herpes (initial infection)	Spokane Co.	123	29.1	147	34.5	163	38.0	172	39.8	155	35.5
	Washington	1836	30.7	1914	31.7	2073	34.0	2153	34.9	2331	37.3
LGV	Spokane Co.	0	*	0	*	0	*	0	*	0	*
	Washington	0	0.0	0	0.0	1	0.0	0	0.0	3	0.0
Syphilis, early infectious, <1 yr.	Spokane Co.	0	*	1	*	1	*	0	*	0	*
	Washington	57	1.0	70	1.2	82	1.3	150	2.4	152	2.4
HIV	Spokane Co.	21	4.9	24	5.6	12	2.8	15	3.5	10	2.3
	Washington	N/A		N/A		320	5.2	324	5.3	376	6.0
	WA St. Deaths	N/A		N/A		29	0.5	10	0.2	9	0.1
AIDS	Spokane Co.	15	3.6	18	4.2	22	5.1	22	5.1	26	6.0
	Washington	387	6.5	414	6.9	421	6.9	400	6.5	406	6.5
	WA St. Deaths	153	2.6	157	2.6	184	3.0	152	2.5	93	1.5

VECTOR BORNE DISEASE

VECTOR BORNE DISEASE:

Vector borne diseases occur infrequently in Spokane County and in Washington State; however, surveillance for these diseases allows

us to determine prevalence and geographic distribution. For example, since the tick vector for Lyme does not live in our area, all Lyme Disease diagnosed in Spokane County is

presumed to be acquired out of the area (primarily on the Eastern Seaboard or in western Washington).

Continued on back.

VECTOR BORNE DISEASE, CONTINUED

Tick-borne relapsing fever, however, occurs more frequently in Eastern Washington than in the rest of Washington. West Nile Virus disease was not acquired locally by any Washington resident in 2005 or prior years. Hantavirus Pulmonary Syndrome has never been diagnosed in a Spokane County resident,

although cases have been reported from surrounding counties, and Washington has the fifth-largest number of cases in the United States.

During 2005, the use of Rabies Post-Exposure Prophylaxis (PEP) was reported for 15 individuals. (SRHD investigates over 800 animal bite

incidents each year. Many of these exposures do not warrant use of PEP, but use of rabies PEP is thought to be greatly under-reported.) Although terrestrial animals in our state rarely are found to carry rabies, in any given year 5-10% of bats tested are rabid.

VECTOR BORNE DISEASE & LEGIONELLOSIS		2001		2002		2003		2004		2005	
		Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000	Cases	Rate per 100,000
Arboviral Disease* (previously viral encephalitis)	Spokane Co.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Washington	0	0.0	1	0.0	8	0.1	3	0.0	6	0.1
Hantavirus pulmonary syndrome	Spokane Co.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Washington	1	0.0	1	0.0	2 (1 death)	0.0	2	0.0	1	0.0
Lyme Disease (travel-related)	Spokane Co.	0	*	1	*	1	*	1	*	1	*
	Washington	9	0.2	12	0.2	7	0.1	14	0.2	13	0.2
Malaria (travel-related)	Spokane Co.	0	*	1	*	3	*	1	*	1	*
	Washington	19	0.3	26	0.4	34	0.6	24	0.4	24	0.4
Tick-borne relapsing fever	Spokane Co.	0	*	1	*	0	*	3	*	4	*
	Washington	1	0.1	7	0.1	6	0.1	6	0.1	6	0.1
Legionellosis	Spokane Co.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Washington	10	0.2	8	0.1	14	0.2	15	0.2	18	0.3

*Including yellow fever, West Nile virus illness, Dengue, and Japanese encephalitis.

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