

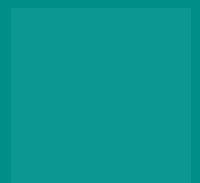
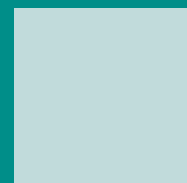
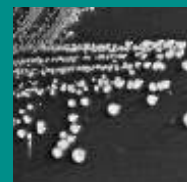
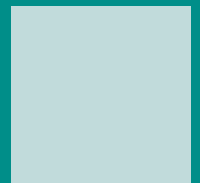
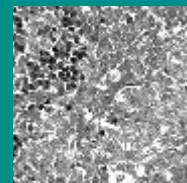
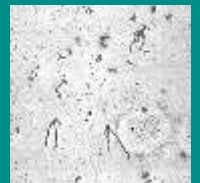
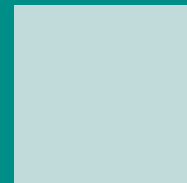
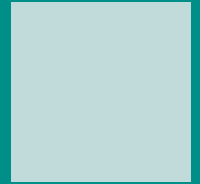
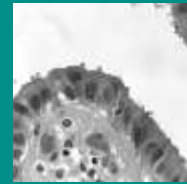
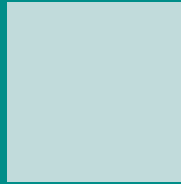
For Healthcare Providers

COMMUNICABLE DISEASE REPORT

2005-2009

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. Based on these reports, public health officials take steps to protect the public, such as ensuring treatment of persons already ill, ensuring preventive therapies for individuals who came into contact with infectious agents, investigating and halting outbreaks, and removing harmful health exposures. Public health workers also use the data collected during investigations 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, and policy development.

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2011



www.srhd.org

ENTERIC DISEASE

Enteric (gastrointestinal) disease is most frequently caused by food- or water-borne pathogens. These illnesses are largely preventable through good hygiene, proper food handling and thorough cooking. Enteric infections including shigellosis, salmonellosis, Enterohemorrhagic E. Coli (EHEC) and giardiasis are more frequently reported in children up to 5 years of age.

Campylobacteriosis remains the most frequent cause of reported bacterial gastroenteritis in Spokane County, as is true in Washington and the United States; most cases are sporadic and outbreaks involving multiple persons and person-to-person spread are uncommon. Each year, the rate of reported giardiasis is significantly greater in Spokane County than in Washington State, and the most

frequently reported exposures include recreational water and international travel. Listeriosis, salmonellosis, shigellosis, yersiniosis and EHEC infections are reported less often in Spokane County residents as compared to state residents as a whole. Rates of these illnesses have generally remained stable statewide and locally, except for the rate of reported salmonella infection, which is trending upward. Statewide, 54 cases of salmonellosis and 5 EHEC cases were associated with national outbreaks in 2009. Approximately 6% of EHEC cases statewide developed Hemolytic Uremic Syndrome subsequent to their illness. With the current availability of improved testing 18.4% of all confirmed and serotyped EHEC cases were non-O157:H7; this

proportion is expected to increase yearly. In 2009, three members of a Spokane family were sickened by botulism toxin in association with improper home canning.

Also of note, consumption of unpasteurized dairy products was reported by 19% of adult listeriosis cases statewide, including two pregnant women.

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 2009, 25 such outbreaks were reported; 13 of those were confirmed to be caused by Norovirus.

ENTERIC DISEASE



		2005		2006		2007		2008		2009	
		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 County	74	17.0	67	15.1	73	16.2	79	17.2	62	13.3
	Washington State	1,045	16.7	993	15.6	1,020	15.7	1,069	16.2	1,030	15.4
Cryptosporidiosis	Spokane County	0	*	4	*	6	1.3	2	*	4	*
	Washington State	94	1.5	95	1.5	139	2.1	99	1.5	102	1.5
Enterohemorrhagic E. coli (EHEC)	Spokane County	3	*	9	2.0	3	*	6	1.3	10	2.2
	Washington State	149	2.4	162	2.5	141	2.2	189 (1 death)	2.9	206	3.1
Giardiasis	Spokane County	54	12.4	56	12.6	57	12.6	47	10.2	55	11.8
	Washington State	437	7.0	451	7.1	591	9.1	486	7.4	467	7.0
Listeriosis	Spokane County	1	*	0	*	0	*	1	*	1	*
	Washington State	14 (3 deaths)	0.2	18 (3 deaths)	0.2	25 (2 deaths)	0.4	29 (3 deaths)	0.4	24	0.4
Salmonellosis	Spokane County	40	9.2	29	6.5	37	8.2	39	8.5	41	8.8
	Washington State	626	10.0	626 (3 deaths)	9.8	758 (2 deaths)	11.7	846 (3 deaths)	12.8	820	12.3
Shigellosis	Spokane County	6	1.4	3	*	2	*	4	*	4	*
	Washington State	185	3.0	170	2.7	159	2.5	116	1.8	153	2.3

*Incidence rates not calculated for <5 cases.

VACCINE-PREVENTABLE DISEASE

During 2005-2009, there was no significant change in overall rates for diseases prevented by standard childhood immunizations, except for pertussis. There were no reported cases of measles, rubella, tetanus, or diphtheria in Spokane County; one case of mumps was reported in 2009. During 2006-2007 reported cases of pertussis spiked, but returned to low levels in 2008-2009. This variability in rates was similar to that seen statewide. It is likely that pertussis remains endemic in our community, and that testing/reporting waxes and wanes, but it is plausible that the

incidence of pertussis will continue to drop due to uptake of new adolescent/adult vaccines which protect against pertussis.

Statewide, the highest rate of and the most serious illness caused by pertussis continues to occur among children under the age of one (64.4/100,000), and in children 1 to 4 years (11.4/100,000). Forty one percent of cases were reported as “up to date” for pertussis vaccine. Forty one (14%) cases were related to an outbreak in Kittitas County.

Along with pertussis and hepatitis A and B (see next section), two other vaccine

preventable diseases occur with regularity in Spokane County; they are meningococcal disease and influenza. In the United States, almost all cases of meningococcal meningitis are caused by serogroups B, C and Y, but the vaccine currently licensed in the U. S. protects against Serogroups A, C, Y and W-135 only. In 2009, Serogroup B, which is not included in the vaccine, caused 3 deaths in Washington. 22 cases had known serogroup: 12 were serogroup B, 8 serogroup Y, and 2 serogroup C.

VACCINE-PREVENTABLE DISEASE



		2005		2006		2007		2008		2009	
		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
Haemophilus influenzae disease ▲	Spokane County	1	*	0	*	0	*	0	*	0	*
	Washington State	5	1.2	5	1.2	6	1.4	2	*	9	2.0
Measles	Spokane County	0	*	0	*	0	*	0	*	0	*
	Washington State	1	*	1	*	3	*	19	0.3	1	*
Meningococcal Disease	Spokane County	5	1.1	3	*	3	*	8	1.7	4	*
	Washington State	53 (4 deaths)	0.8	45 (1 death)	0.7	32 (8 deaths)	0.5	40 (4 deaths)	0.6	26 (3 deaths)	0.4
Mumps	Spokane County	0	*	2	*	0	*	0	*	1	*
	Washington State	3	*	42	0.7	53	0.8	14	0.2	6	0.1
Pertussis	Spokane County	19	4.4	39	8.8	34	7.5	6	1.3	4	*
	Washington State	1,026	16.4	377 (1 death)	5.9	482	7.4	460	7.0	291	4.4

*Incidence rates not calculated for <5 cases. ▲ Rates are for persons aged 0-4 years.

The emergence and spread of the 2009 pandemic influenza A H1N1 virus (pH1N1) after it was first identified in late April resulted in extraordinary influenza activity in the U.S. throughout the summer and fall of 2009. Influenza activity reached its highest level in the week ending October 24, 2009 with 49 of 50 states reporting geographically widespread disease, and then declined quickly to below baseline levels in January 2010. This is in contrast to past seasons – influenza activity usually peaks in winter. In addition, pH1N1 activity was more severe among people younger than 65 than seasonal flu usually is, and less severe among people 65 and older. The total of influenza-associated pediatric deaths was more than four times the average number (74) of influenza-associated pediatric

deaths reported in the 3 previous flu seasons.

Across the nation, surveillance efforts changed over time, first focusing on identifying all pH1N1 infections, and subsequently monitoring hospitalized and fatal (severe) cases. Beginning in September 2009, data were collected on severe cases of influenza of any type.

During the spring and summer, pH1N1 illness activity in Washington revolved largely around school and summer camps, and the epicenter was the Puget Sound area. The majority of cases were less than 18 years old with the highest rate of hospitalization in persons birth to 4 years of age. Autumn and the opening of schools re-established transmission routes among those most likely to be affected by pH1N1 influenza.

By early October, eastern Washington was experiencing much higher case numbers of severe illness and hospitalization than seen in western Washington, where two-thirds of the state population resides; later in the month that pattern was reversed, and case numbers in western Washington remained high until mid-November. In 37 of 38 counties, rates of hospitalizations and deaths were significantly higher in fall than in spring. Pregnant women were almost 8 times more likely to be hospitalized for pH1N1 compared to non-pregnant women and 11 times more likely to be hospitalized than men of the same age. Through May 2010, there were 1,667 patients hospitalized in Washington due to Influenza A; approximately 27% required critical care and 98 (6%) cases were fatal.

HEPATITIS

Hepatitis A

The number of hepatitis A cases has been consistently five or fewer cases per year since 2001. This could be attributed to a Spokane County hepatitis A outbreak (over 500 cases) in 1997-1998 - in addition to those who are immune subsequent to illness, during the outbreak more than 35,000 community members were vaccinated. Added to that, hepatitis A vaccine has been a recommended component of the vaccination series for children since 1999, ensuring the protection of thousands of individuals born in the last decade.

Hepatitis B

Typically, 15-31% of all hepatitis B cases reported are acute. The rate of acute hepatitis B in Spokane County is generally at least twice the state rate. The reason(s) for this disparity are unclear, but it is thought that Spokane County may have better case finding and reporting of acute hepatitis, because rates of chronic hepatitis B are generally higher statewide than in Spokane County. [Prior to 2008, rates of chronic hepatitis C were also higher in Spokane County.] Acute infection with hepatitis B leads to chronic disease in 5-10% of adults and in 90% of children

born to infected mothers, if the infant is not prophylactically treated. In 2009, 371 infants were born to women with chronic hepatitis B. No perinatal infections were reported in 2008, the most recent year for which data is available.

From December 2000 (when chronic hepatitis B became a reportable disease) through June 30, 2010, 551 cases have been reported from Spokane County. Statewide, 53% of the 17,458 cases in the same period were among males. Approximately 47% of cases were diagnosed in persons aged 25-44.

Hepatitis C

Due to the often unrecognized symptoms of hepatitis C infection, acute disease is infrequently diagnosed (typically less than 1% of reported cases are acute) and reported cases are significantly fewer in number than those of acute hepatitis B. Infection with hepatitis C leads to chronic illness in 80-85% of adults. Consistent with its capacity to progress to chronic disease, hepatitis C constitutes the largest portion of hepatitis cases with 400-500 cases usually reported to SRHD each year. Statewide, 5,000-7,000 cases were reported annually from 2005 to 2008. Males have higher rates of infection in all age

categories, except for those under age 25. In that age group males and females have equivalent rates of disease.

From December 2000 through June 2010, 210 persons in Spokane and 2,140 persons statewide were reported to be co-infected with hepatitis B and hepatitis C; 67% of the cases were male. Co-infection is most often diagnosed among individuals 35-44 years of age.

Hepatitis, especially hepatitis C, contributes significantly to premature mortality. The number of hepatitis B deaths is stable at about 51 per year. The number of hepatitis C deaths has climbed continually since 1992, and reached about 500 in 2008. Overall, 20% of all females in Washington who died in 2004-2008 were less than 65 years of age. Among those who had hepatitis B, 63% died before the age of 65 and among those with hepatitis C, 76% died before age 65. Among all males who died during 2004-2008, 33% were less than 65 years of age, while among those with hepatitis B and hepatitis C, 77% and 86%, respectively, died before age 65. This may reflect both effects of the disease and risk factors contributing to the disease, such as injection drug use, that also affect mortality.

HEPATITIS

		2005		2006		2007		2008		2009	
		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 County	1	*	5	1.1	3	*	2	*	1	*
	Washington State	63 (1 death)	1.0	52	0.8	60	0.9	51	0.8	42 (1 death)	0.6
Hepatitis B, Acute	Spokane County	14	3.2	19	4.3	21	2.7	8	1.7	10	2.2
	Washington State	80	1.3	80 (2 deaths)	1.3	72	1.1	56	0.9	48	0.7
Hepatitis B, Chronic	Spokane County	6	1.4	59	13.3	8.6	17.7	67	14.6	86	(thru 6/30/10)
	Washington State	1,240	19.8	1,412	22.1	1,550	23.9	1,606	24.1	1,274	(thru 6/30/10)
Hepatitis C, Acute	Spokane County	2	*	5	1.1	2	*	5	1.1	7	1.5
	Washington State	21	0.3	23	0.4	18	0.3	25	0.4	22	0.3
Hepatitis C, Chronic	Spokane County	435	99.7	573	129.1	539	119.5	416	90.6	433	(thru 6/30/10)
	Washington State	5,530	88.4	5,995	94.0	6,039	93.1	6,916	105.0	5,514	(thru 6/30/10)

*Incidence rates not calculated for <5 cases.

NOTE: Cases and rates for chronic hepatitis B and C cases do not include individuals diagnosed while in correctional facilities.

NOTE 2: Cases and rates for chronic hepatitis B and C are counted in the year they are first diagnosed, not in the year reported, so counts may fluctuate over time.

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 has not been detected in our environs, Lyme Disease diagnosed in Spokane County is presumed to be acquired out of the area (primarily on the Eastern Seaboard, the upper Midwest, and occasionally in Western Washington). Tick-borne relapsing fever, however, occurs more frequently in Eastern and Central Washington than in Western Washington. Hantavirus Pulmonary Syndrome has never been diagnosed in a Spokane County resident, although cases have been reported from

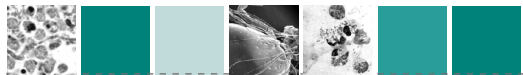
surrounding counties, and Washington has the fifth-largest number of cases in the U.S. In 2006, for the first time ever, West Nile Virus (WNV) disease was diagnosed in three Washington residents who had not traveled out of state, but no cases were acquired in state in 2007. In 2008, WNV was detected in 4 persons, and all infections were acquired in state. 2009 saw WNV infection in 38 state residents, 36 of which were acquired in-state.

In 2009, the use of Rabies Post-Exposure Prophylaxis (PEP) was reported for 6 individuals. (SRHD investigates over 800 animal bite incidents each year. While many of these exposures do not warrant PEP, use of rabies PEP is thought to be greatly underreported.) Since 1998, testing

conducted on over 5,700 animals other than bats has found only 3 (a cat, a llama and a horse) to be rabid. Although terrestrial animals in Washington State rarely are found to carry rabies, in any given year 5-10% of bats tested (after contact with humans or animals) are rabid. Only 2 cases of human rabies (both due to bat variant rabies), one in 1995 and the other in 1997 have occurred in Washington in the last 50 years.

Statewide, the age of Legionellosis cases ranged from 25-82 years (median 62 years.) Of the 18 patients with risk factor data, 14 (78%) reported as least one of the following risk factors: chronic liver disease, immunosuppressive therapy, chronic diabetes, chronic lung disease, or smoking.

VECTOR-BORNE DISEASE & LEGIONELLOSIS



		2005		2006		2007		2008		2009	
		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 County	0	*	1	*	0	*	0	*	2	*
	Washington State	6	0.1	8	0.1	16	0.2	17	0.3	54	NA
Hantavirus pulmonary syndrome	Spokane County	0	*	0	*	0	*	0	*	0	*
	Washington State	1	*	3 (2 deaths)	*	2	*	2	*	3 (1 death)	*
Lyme Disease (travel-related)	Spokane County	1	*	1	*	1	*	0	*	1	*
	Washington State	13	0.2	8	0.1	12	0.2	23	0.3	16	0.2
Malaria (travel-related)	Spokane County	1	*	0	*	1	*	4	*	0	*
	Washington State	24	0.4	43 (1 death)	0.7	30	0.5	32	0.5	26	0.4
Tick-borne relapsing fever	Spokane County	4	*	0	*	5	1.1	1	*	1	*
	Washington State	6	0.1	2	*	9	0.1	4	*	5	0.1
Legionellosis	Spokane County	0	*	1	*	1	*	1	*	2	*
	Washington State	18 (1 death)	0.3	20 (1 death)	0.3	24 (2 deaths)	0.4	19 (1 death)	0.3	29 (2 deaths)	0.4

* Incidence rates not calculated for <5 cases

▲ Includes yellow fever, WNV disease, dengue, Chikungunya, Eastern and Western Equine Encephalitis, St Louis Encephalitis, Japanese Encephalitis and Colorado Tick Fever

On March 19, 2009 the Advisory Committee on Immunization Practices (ACIP) issued new recommendations for post-exposure prophylaxis (PEP) to prevent human rabies. The new recommendations reduce the number of vaccine doses for persons previously unvaccinated with rabies vaccine from five to four. The recommendation is based in part on evidence from rabies virus pathogenesis data, experimental animal work, clinical studies, and epidemiologic surveillance. These studies

indicated that 4 vaccine doses in combination with rabies immune globulin (RIG) elicited adequate immune responses and that a fifth dose of vaccine did not contribute to more favorable outcomes. Recommendations for the use of RIG remain unchanged. For persons who previously received a complete vaccination series with a cell-culture vaccine or who previously had a documented adequate rabies virus-neutralizing antibody titer, the recommendation for a 2-dose PEP vaccination series has not changed.

Similarly, the number of doses recommended for persons with altered immunocompetence has not changed; for such persons, PEP should continue to be a 5-dose vaccination regimen with 1 dose of RIG. Recommendations for pre-exposure prophylaxis also remain unchanged. Prompt PEP combining wound care, infiltration of RIG into and around the wound, and multiple doses of rabies cell-culture vaccine continue to be highly effective in preventing human rabies.

HIV/AIDS

AIDS has been a reportable disease in Washington since 1982, and for many years the number of reports was used to estimate the incidence of HIV disease. Over time, as treatment and longevity after diagnosis of HIV infection improved, HIV disease came to be regarded more as a chronic infection. Consequently, in 1999 HIV infection also became reportable, allowing the burden of disease to be better monitored. There was an initial rise in HIV and AIDS case reports in 2000 and 2001 as a result of making HIV reportable. Rates of incident disease stabilized during 2002-2008, with the exception of 2007. [This increase was likely due to increased testing in that year, as positivity rates among those tested remained stable.] In 2009, the rate of incident disease in Spokane County dropped significantly. Note: HIV incidence data does not include persons who anonymously test positive who have not

yet entered into medical care. Once medical care is accessed, the case is reported and counted.

Like prevalent cases, newly diagnosed HIV in Spokane County occurred primarily among white men who had engaged in unprotected sex with other men.

During 2002-2008, women represented approximately 18% of incident HIV cases in Spokane County.

Blacks are disproportionately impacted by HIV disease in Spokane County, comprising less than 2% of the county's population, but representing 10% of those diagnosed with HIV infection in the same time period.

From 1982 through 2009, 733 individuals in Spokane County have been diagnosed with HIV disease. In Washington State, there are 550-600 reports of newly diagnosed HIV disease each year,

with a cumulative number of 17,670 cases diagnosed since 1982.

As of December 2009, 86% of Washington residents with HIV and AIDS are male, and 71% are individuals over 29 years of age. Sixty-eight percent of infected persons are white non-Hispanic males. Sixty-two percent of diagnoses were attributed to men who have sex with men (MSM) and 8% to injection drug use.

The combined cases of new HIV infections and existing cases of HIV disease that may or may not have progressed to AIDS are used to estimate prevalence. As of December 31, 2009, there were 414 Spokane County residents living with HIV infection, 60% of whom had AIDS; in Washington 10,477 persons are living with HIV infection and 58% have AIDS.

HIV/AIDS

		2005		2006		2007		2008		2009	
		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
Incident HIV Disease*	Spokane County	23	5.3	25	5.6	36	8.1	24	5.2	18	3.9
	Washington State	577 (159 deaths)	9.2	570 (102 deaths)	8.9	610 (79 deaths)	9.4	541 (73 deaths)	8.2	548 (87 deaths)	8.2

*Incident HIV Disease refers to all newly identified cases of HIV disease, with or without AIDS.

HIV and Sexually Transmitted Infections (STIs)

People living with HIV are disproportionately impacted by STIs. There is evidence that co-infection with STIs facilitates the spread of HIV and vice versa. The rates of chlamydial infection, gonorrhea, and syphilis among HIV infected persons are orders of magnitude higher than among persons not known to be HIV infected. For example, the state rate of gonorrhea among HIV+ was 917/100,000 vs. 34/100,000 in the general population, a 25-fold difference.

Although the incidence of STIs among persons with HIV disease appears to be decreasing or stabilizing in recent years, the number of persons living with HIV continues to increase by about 5% per year, making co-infection an ongoing concern.

Testing for HIV Infection

The Centers for Disease Control and Prevention (CDC) used 2001-2009 data from the U.S. National Health Interview Survey to estimate the percentage of persons aged 18-64 years who reported ever being tested for HIV. The percentage of persons aged 18-64 years ever tested for HIV was stable at approximately 40% from 2001 to 2006, increasing to 45% in 2009.

The percentage of persons with late diagnoses of HIV infection was stable at approximately 37% from 2001 to 2004, decreasing to 32% by 2007 (most recent data available). In the 37 states with mature HIV reporting systems in 2007, the percentage of persons diagnosed late ranged from 25% to 47%.

In 2008, most HIV diagnoses were among blacks (51%) and among non-drug-injecting men reporting MSM contact (55%). AIDS diagnosis rates were highest in the South and Northeast census regions and in the most populated states.

SEXUALLY TRANSMITTED INFECTION (STI)

STIs continue to be the most commonly reported of all communicable diseases in Washington, and accounted for more than 74% of all notifiable conditions reported to the Washington State Department of Health in 2009.

Chlamydial Infection

Reports of chlamydial infection comprise the vast majority of all notifiable condition reports received in Spokane County. The rate increased slightly in 2009 after a significant increase in case reports in 2008; small and large increases were probably due primarily to intensified follow-up locally. Spokane County had the 5th highest rate of chlamydial infection reported in the state, and the rate is higher than that reported for the state as a whole. Of note, the rate of chlamydial infection in females 15-19 years old (468/100,000) is catching up with the rate in females 20-24 years old (491/100,000); adolescents have been a focus of dedicated funds for STI follow-up and prevention activities and it is likely this has increased case finding. In Washington State, chlamydial infection continues to be the most commonly reported STI. The chlamydial infection incidence rate in 2009 was similar to rate observed in 2008. The 2009 incidence rate for females was 467.1 /100,000, compared

to an incidence rate of 167.3 /100,000 in males. Rates have generally been increasing since the middle of the last decade, but the rate of increase has slowed since 2003. With dedicated funding provided to local health jurisdictions by the state legislature, almost 98% of cases have had treatment assured, and over 43% were provided partner management services, a significantly higher proportion than in previous years.

Nationally the rate of chlamydial infection in 2009 was significantly higher, 401.3/100,000, than the Washington State rate of 317.6/100,000. Nationally, females aged 15-19 had the highest rate at 3,329.3/100,000 followed by females 20-24 years old at 3,273.9/100,000.

Gonorrhea

Gonorrhea is the second most frequently reported STI in Spokane County and statewide; both rates significantly decreased from 2008. This is a promising continuation of a decline in gonorrhea morbidity noted earlier in other Washington locales when rates reached a 15-year high in 2006. The burden of gonorrhea morbidity in 2009 continues to be concentrated geographically mostly in urban areas in Pierce and King counties. Gonorrhea incidence in Washington State

has two separate epidemic patterns. The first involves heterosexual transmission among men and women under the age of 30. The second epidemic pattern involves transmission among MSM over 30 years of age. Nationally, the rate of gonorrhea is at the lowest level ever recorded.

Syphilis

Statewide, there was a significant decrease in the number of cases reported in 2009. Syphilis appears to have become endemic at unacceptably high levels in MSM in the state's largest urban centers. Ninety-seven percent of primary and secondary (P&S) syphilis cases were diagnosed among males, the majority of whom report MSM risk behaviors. [P&S syphilis are the infectious stages of the disease.] Persistent incidence among this population presents unique challenges to ongoing disease prevention and control efforts, which are particularly important in light of the potential for concurrent HIV infection. One case of congenital syphilis was reported in 2009 in Washington State.

Nationally, for the first time in 5 years, reported syphilis cases did not increase among females. Likewise, for the first time in 4 years, the rate of congenital syphilis did not increase.

SEXUALLY TRANSMITTED INFECTION

		2005		2006		2007		2008		2009	
		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 County	1,071	245.5	1,121	252.6	1,258	278.8	1,593	347.1	1,637	352.0
	Washington State	18,617	297.6	17,819	279.5	19,123	295.0	20,882	317.0	21,178	317.6
Gonorrhea	Spokane County	121	27.7	120	27.0	206	45.7	250	54.5	131	28.2
	Washington State	3,738	59.7	4,231	66.4	3,646	56.2	3,069	46.6	2,268	34.0
Herpes (initial infection)	Spokane County	155	35.5	148	33.3	129	28.6	187	40.7	158	34.0
	Washington State	2,331	37.3	2,446	38.4	1,952	30.1	2,009	30.5	1,875	28.1
Syphilis, early infectious, <1 yr.	Spokane County	0	*	2	*	6	1.3	5	1.1	7	1.5
	Washington State	152	2.4	182	2.9	168	2.6	181	2.7	135	2.2

*Incidence rates not calculated for <5 cases.

TUBERCULOSIS (TB)

Spokane County

The crude incidence rate for tuberculosis (TB) is consistently lower in Spokane County than it is in Washington State. During 2005-2009, 45 active TB cases were identified and/or treated in Spokane County. In 2009, 9 active cases of TB were reported. Nine started treatment and 7 completed treatment in 2009. One hundred thirty-nine contacts of the 9 cases were identified, 87 were tested and 5 were positive for TB. Six cases started latent TB infection (LTBI) treatment and four completed treatment in 2009. An additional 175 individuals identified as having LTBI initially were seen through the SRHD clinic. One hundred fourteen (65%) started treatment at SRHD, 25 (14%) refused treatment and 21 (12%) were referred to treatment in other locations. Ultimately 76 persons completed TB treatment through SRHD.

State Highlights

From 2005-2008, Washington experienced a steady decrease in the number of TB cases reported, but 2009 saw a 12.3% increase in the number of TB cases reported, resulting in a case rate of 3.8/100,000. In 2009, there were 256 reported cases statewide and 9 deaths. Nineteen of the 39 counties in Washington reported no new cases of TB in 2009, and 14 reported 5 or fewer cases; King, Snohomish and Pierce counties accounted for 75% of all cases reported. Sixty-one percent of cases occurred in males.

Seventy-seven percent of the 2009 TB cases in Washington were among foreign-born individuals. The proportion of Isoniazid (INH) resistance in foreign born persons is 8% as compared to the 2% rate of INH resistance in U.S.-born persons. Ninety-five percent of TB cases were offered HIV testing and 98% of those

persons consented to testing. Of those, 6 (2.5%) were HIV positive.

The national TB rate declined dramatically from 4.2/100,000 in 2008 to 3.8/100,000 in 2009. This was the greatest single year decrease ever recorded and the lowest recorded rate since TB surveillance began in 1953. TB cases and rates declined substantially in both foreign-born and U.S.-born persons. However, foreign-born and racial/ethnic minorities continue to have TB disproportionate to their respective populations, on the order of rates from 8 to 26 times higher than U.S.-born non-Hispanic whites. The large decrease in reported cases in 2009 might represent an actual decline in TB disease, resulting from changes in population demographics and/or improved TB control. Increased underreporting or underdiagnosis is also possible.

TUBERCULOSIS



Tuberculosis

Spokane County
Washington State

2005		2006		2007		2008		2009	
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
13	2.9	10	2.2	5	1.1	7	1.7	9	1.9
256	4.0	262	4.1	291 (12 deaths)	4.5	228 (2 deaths)	3.5	256 (9 deaths)	3.8

Vibrio mimicus Infection After Consumption of Crayfish in Spokane, Washington, 2010

Excerpted from the MMWR October 29, 2010 / 59(42):1374

Background: *Vibrio mimicus* is a potentially severe, rarely-reported cause of bacterial gastroenteritis. No *V. mimicus* outbreaks have been reported to CDC since 1998. In June 2010, SRHD was notified of *V. mimicus* infections in three persons who had consumed leftover crayfish at a potluck; two patients were hospitalized in intensive care. Together epidemiologists from the CDC and SRHD investigated to identify the source of illness and any additional ill persons.

Methods: We conducted a retrospective cohort study of persons who attended a party where fresh crayfish were served or a potluck where leftovers were served the next day. The host was interviewed and provided an attendee list and a menu. A case was defined as a diarrheal illness within 5 days of the potluck. Stool and leftover crayfish were tested by culture.

Results: Of 22 attendees, 21 (95%) completed questionnaires. Eight (38%) persons ate freshly cooked crayfish only, four (19%) consumed leftover crayfish only, and four consumed both types. Four cases were identified; three were laboratory-confirmed. Leftover crayfish was the only food item statistically associated with illness and was consumed

by all who became ill. The host revealed that he served fresh crayfish from an unwashed cooler that had contained raw crayfish. Leftover crayfish had remained in the cooler for up to 8 hours, were refrigerated overnight, and served cold the next day. Leftover frozen crayfish tested negative for *V. mimicus*.

Conclusions: The *V. mimicus* infections likely resulted from cross-contamination. Consumers should be aware that improperly handled seafood, including crayfish, can be a source of gastrointestinal illness, and clinicians should consider *V. mimicus* infection in patients with acute diarrheal illness who recently consumed crayfish.

References: Spokane Regional Health District data, Washington State Communicable Disease Report 2009, 2009 Sexually Transmitted Infection Annual Report, Washington State HIV Surveillance Report - 2nd Quarter 2010, Washington State Chronic Hepatitis B and Chronic Hepatitis C Surveillance Report - June 2010, MMWR 59(10): 289-294, and MMWR 2010 (No. RR-2)

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