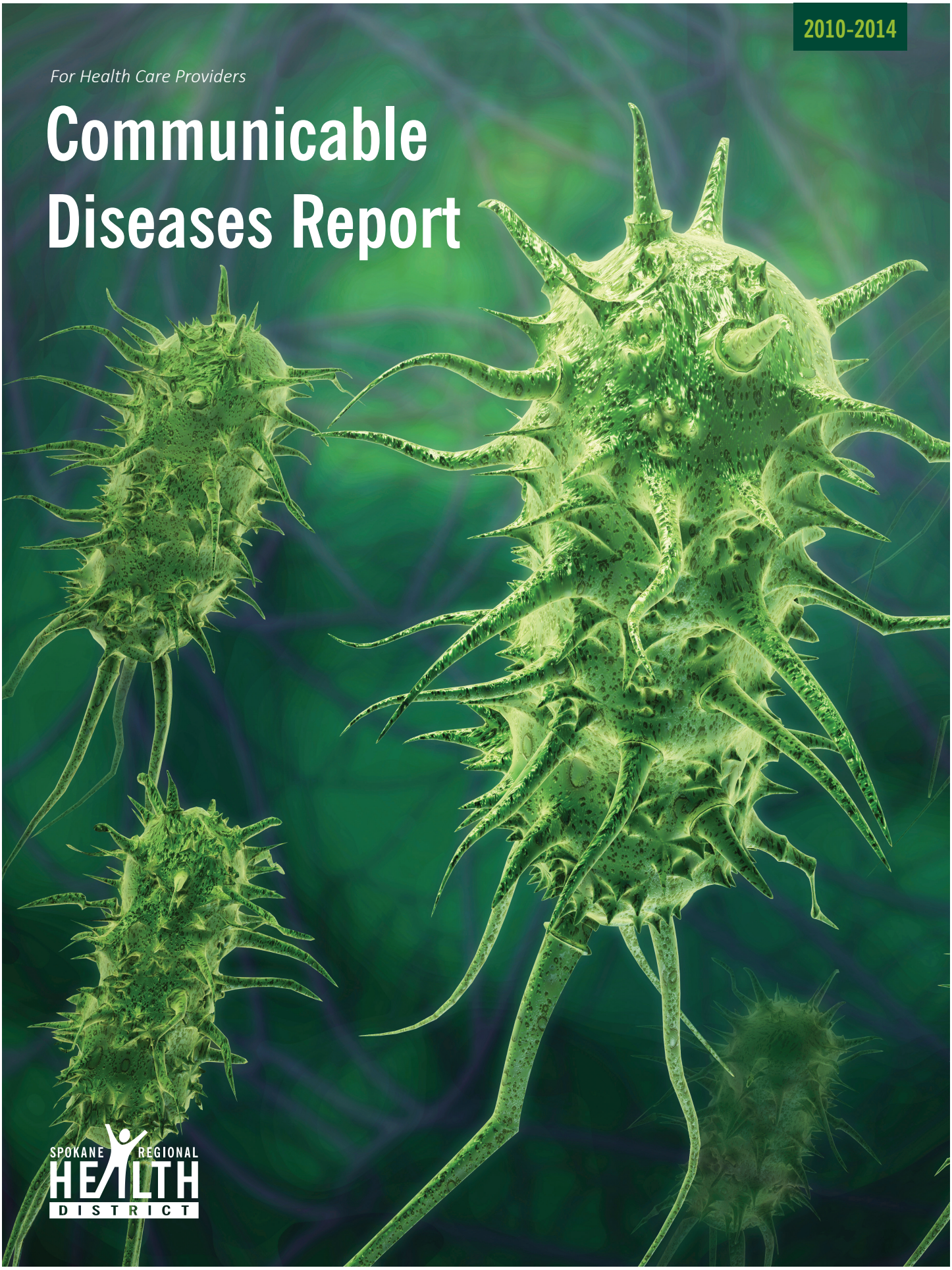
2010-2014

For Health Care Providers

Communicable Diseases Report



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References

Spokane Regional Health District data, Washington State Communicable Disease Report 2015

Washington State HIV/AIDS Epidemiology Report - 2nd Half 2015

Washington State Chronic Hepatitis B and Chronic Hepatitis C Surveillance Report - April 2013

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This report presents summary data about notifiable conditions reported to Spokane Regional Health District in 2014, with local, state, and national data for the last five-year period (2010-2014), as available and pertinent.

The purpose of notifiable condition reporting is to provide the information necessary for officials to protect the public's health by tracking communicable diseases and other conditions. Based on these reports, public health officials take protective steps, such as verifying treatment of persons already ill, securing 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 investigation 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.

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, and appropriate animal handling. Enteric infections including shigellosis, salmonellosis, Shiga toxin- producing *Escherichia coli* (STEC) and giardiasis, are more frequently reported in children up to five years of age.

Campylobacter infection 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.

As a matter of routine, most enteric infections are reported less often in Spokane County residents as compared to other state residents, but giardiasis is more commonly reported in the county. The rate of infection in 2014 was almost double that of the previous year, although the reason for this is unclear. In addition, the rate of shigellosis rose significantly in 2014; one-half of the cases involved foreign travel. While it did not increase the rate of STEC infections, Spokane County was at the epicenter of an outbreak associated with an area sprout grower in 2014.

Although single cases are not reportable, SRHD monitors and provides guidance on control of outbreaks of gastroenteritis, particularly those associated with long term care facilities, due to the fragile health of many residents in those institutions. In 2014, 23 such outbreaks were reported, affecting at least 750 individuals; 10 of the outbreaks were confirmed to be caused by Norovirus.

ENTERIC DISEASE		2010		2011		2012		2013		2014	
		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	73	15.5	54	11.5	70	14.7	42	8.8	57	11.8
	Washington	1,315 (2 deaths)	19.5	1,538	22.7	1,551 (3 deaths)	22.7	1,631 (4 deaths)	23.7	1,591	22.8
Cryptosporidiosis	Spokane County	4	*	1	*	3	*	4	*	2	*
	Washington	102	1.5	88	1.3	101	1.5	84	1.2	75	1.1
Shiga-toxin producing E. coli	Spokane County	11	2.3	14	3.0	13	2.7	19	4.0	16	3.3
	Washington	226 (1 death)	3.4	203	3.0	239	3.5	330 (3 deaths)	4.8	299 (2 deaths)	4.3
Giardiasis	Spokane County	47	10.0	31	6.6	39	8.2	24	5.0	47	9.7
	Washington	521	7.7	529	7.8	512	7.5	548	8.0	515	7.4
Listeriosis	Spokane County	0	*	1	*	1	*	1	*	2	*
	Washington	24 (1 death)	0.4	19 (2 deaths)	0.3	26 (5 deaths)	0.4	21 (1 death)	0.3	24 (8 deaths)	0.3
Salmonellosis	Spokane County	46	9.8	39	8.3	63	13.2	33	6.9	30	6.2
	Washington	780 (3 deaths)	11.6	589 (2 deaths)	8.7	842	12.4	670 (1 death)	9.7	739 (1 death)	10.6
Shigellosis	Spokane County	3	*	4	*	1	*	3	*	11	2.3
	Washington	112	1.7	104	1.5	133	2.0	122	1.8	157	2.3

*Incidence rates not calculated for <5 cases.

Vaccine-Preventable Disease

During 2010-2014, 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, mumps, rubella, tetanus, or diphtheria in Spokane County.

Measles was declared eliminated from the United States in 2000 and elimination has been maintained through high population immunity, however, this status has been threatened in recent years with the introduction and spread of measles in unimmunized sub-populations. See page 11 for Spokane Measles Outbreak 2015.

During 2012, a statewide pertussis outbreak occurred. More than 4,900 cases were reported, resulting in an overall incidence of 72.1 cases per 100,000 Washington residents, with a rate in infants less than one year of age of 428.0/100,000. The pertussis outbreak strained resources of health departments, schools, medical offices, and health care facilities throughout the state. Since 2012, the rate of pertussis has returned to near pre-outbreak levels.

Along with pertussis and hepatitis A and B (see next section), two other vaccine preventable diseases occur regularly in Spokane County – meningococcal disease and influenza. In the U.S., almost all cases of meningococcal disease 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. The highest incidence of meningococcal disease occurs among infants, with a second peak occurring in late adolescence. Meningococcal disease has a high case fatality rate; thankfully, the overall trend statewide is a decreasing incidence of disease – the rate has plummeted from 1.2/100,000 in 2000 to 0.2/100,000 in 2014.

Only persons hospitalized due to influenza are reportable in Spokane County. Four hundred and seven (407) Spokane County residents hospitalized due to influenza (351 influenza A and 56 influenza B) were reported from November 2014 through June 2015. The number of hospitalizations was more than double the number of hospitalizations in the 2013-14 season, and almost 3.5 times the hospitalizations than in the 2012-13 year, a significant upward trend. More than 60% of those hospitalized were age 65 or older and nine of the 13 deaths were in this age group. Although influenza is an annual threat to population health, flu vaccination of the general population is low, estimated to be in the 40% range most years. Moreover, in the 2014-2015 season, the vaccine was not well matched to the most commonly circulating influenza A strain (H3N2), which historically has caused more serious disease in those 65 and older.

VACCINE-PREVENTABLE DISEASE		2010		2011		2012		2013		2014	
		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
***H. influenzae* invasive disease ▲**	Spokane County	0		0		0		0		0	
	Washington	10 (1 death)	2.3	8 (1 death)	1.8	4	0.9	11	2.4	9	2.0
Measles	Spokane County	0		0		0		0		0	
	Washington	1	*	4	0.1	0		4	0.1	33	0.5
Meningococcal Disease	Spokane County	2	*	0	*	2	*	0		2	*
	Washington	33 (3 deaths)	0.5	22	0.3	24 (1 death)	0.4	20 (3 deaths)	0.3	17 (2 deaths)	0.2
Mumps	Spokane County	0		0		0		0		0	
	Washington	7	0.1	2	*	2	*	2	*	9	0.1
Pertussis	Spokane County	7	1.5	18	3.8	198	41.6	48	10.0	26	5.4
	Washington	607 (2 deaths)	9.0	962 (2 deaths)	14.2	4,916	72.1	748	10.9	601	8.6

▲ In persons aged <5 years old.

* Incidence rates not calculated for <5 cases.

Hepatitis

Hepatitis A

Statewide, cases of hepatitis A were at epidemic levels in the late 1980s, peaking in 1989 with 3,273 cases (69.2/100,000). Subsequent and ongoing vaccination efforts have caused hepatitis A cases to drop to fewer than 70 cases a year since 2003. The number of hepatitis A cases has consistently been five or fewer per year in the last decade in Spokane County.

Hepatitis B

Statewide, cases of hepatitis B were also at epidemic levels in the late 1980s, peaking in 1987 with a rate of 24.9/100,000. Subsequent and ongoing vaccination efforts have reduced the incidence of hepatitis B to fewer than 100 cases a year since 2002. Typically, 12-31% of all hepatitis B cases reported are acute. 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. The rate of acute hepatitis B infection in Spokane County fluctuates greatly from year to year for unknown reasons and is usually significantly greater than the state rate.

Between 2005 and 2013, local health jurisdictions received reports of 3,060 babies born to women chronically infected with hepatitis B. Ninety-eight percent received treatment within one day of birth and only 20 infants receiving all recommended treatment and follow-up testing developed chronic hepatitis B infections. In 2014, among 326 infants born to women chronically infected with hepatitis B, three perinatal infections were reported.

Hepatitis C

Reported cases of acute hepatitis C were elevated statewide during 1983-1995, with a peak case rate of 5.5/100,000 in 1994. The rate of acute hepatitis C in Spokane County is usually at least three times the state rate. The reason(s) for this are unclear but may include better testing and reporting as well as more complete follow-up and less likely to a much higher incidence of disease.

Due to the often unrecognized symptoms of hepatitis C infection, acute disease is infrequently diagnosed – typically less than 2% of reported cases are acute – and reported cases are commonly 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 a range of 400 to more than 600 cases usually reported to SRHD each year.

Hepatitis C is the leading cause of cirrhosis and liver cancer in the U.S. A recent Washington study of death certificates registered in 2000-2013 revealed that persons with hepatitis C listed as a cause of death died approximately 22.5 years earlier than those not infected with hepatitis C. Since 2010, there has been an average of 600 hepatitis C-related deaths annually in Washington.

Persons born during 1945-1965 comprise ~27% of the population, but account for ~75% of all hepatitis C infections. In August 2012, the Centers for Disease Control and Prevention (CDC) recommended routine testing of this birth cohort for hepatitis C.

HEPATITIS		2010		2011		2012		2013		2014	
		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	0		0		0		1		3	
	Washington	21	0.3	31 (1 death)	0.5	29 (1 death)	0.4	45 (1 death)	0.7	26	0.4
Hepatitis B, Acute	Spokane County	12	2.6	1	*	4	*	13	2.7	13	2.7
	Washington	50 (1 death)	0.7	35	0.5	34 (1 death)	0.5	34 (1 death)	0.5	44	0.6
Hepatitis B, Chronic	Spokane County	78	16.6	59	12.5	57	12.0	56	11.7	56	11.6
	Washington	1,194 (50 deaths)	17.8	973 (55 deaths)	14.4	1,066 (49 deaths)	15.6	874 (60 deaths)	12.7	1,149 (58 deaths)	16.5
Hepatitis C, Acute	Spokane County	4	*	10	2.1	13	2.7	14	2.9	16	3.3
	Washington	25	0.4	41	0.6	54	0.8	63	0.9	83	1.2
Hepatitis C, Chronic	Spokane County	425	90.2	545	115.3	637	134.0	663	138.1	674	132.1
	Washington	5,374 (579 deaths)	79.9	4,776 (595 deaths)	70.6	4,668 (622 deaths)	68.5	4,552 (611 deaths)	66.1	6,593 (663 deaths)	94.6

*Incidence rates not calculated for <5 cases.

Vector-Borne Disease

Vector-borne diseases occur infrequently in Spokane County and in Washington State. Surveillance for these diseases allows examination of changes in prevalence and geographic distribution. For example, since *Ixodes* ticks, the primary vectors for Lyme disease, have not been detected in our environs, Lyme disease diagnosed in Spokane County is presumably acquired out of the area (primarily in the eastern or midwestern U.S., or occasionally, in western Washington.) Statewide, 15 Lyme disease cases were reported in 2014. Nationally, approximately 95% of confirmed Lyme disease cases were reported from states in the Northeast, mid-Atlantic, and upper Midwest.

Tick-borne relapsing fever, carried by *Ornithodoros hermsii* ticks, occurs more frequently in eastern and central Washington, as well as northern Idaho, than in western Washington. Two of the seven Washington cases reported in 2014 occurred in Spokane County residents.

West Nile Virus (WNV) disease was first detected in the United States in 1999, and the first human WNV infections acquired in Washington were reported in 2006. In 2009, Washington had its highest number of cases reported to date, with 38 cases and two viremic blood donors. Of these cases, 36 were known to be endemically acquired in Washington. In 2014, 12 cases were reported in Washington, 10 with in-state exposure and two that were travel-associated.

In recent years, 10-20 cases of travel-associated dengue fever and a few travel-associated Chikungunya cases have been reported annually in Washington. In 2014, nine cases of dengue fever and 13 cases of Chikungunya were reported, reflecting an explosion of Chikungunya in many tropical areas visited by Washington residents, particularly the Caribbean and Central and South America.

Hantavirus Pulmonary Syndrome, due to exposure to infected mice and their excreta, has never been diagnosed in a Spokane County resident. Cases have been reported from surrounding counties, and Washington has the 5th largest number of cases (45) in the U.S.

Legionellosis is caused by a ubiquitous organism and was named for those (Legionnaires) affected by an outbreak in 1976. Illness is more common with age over 50 years, smoking, diabetes, chronic lung disease, or immunosuppression (particularly due to corticosteroids or organ transplant). Hot water systems (showers), air conditioning cooling towers, evaporative condensers, humidifiers, whirlpool spas, respiratory therapy devices, decorative fountains, and potting soil have been implicated epidemiologically in outbreaks. Since 2003, there has been an overall increase in incidence nationwide. In 2011, Spokane County had a small outbreak of Legionellosis cases related to a healthcare facility.

VECTOR-BORNE DISEASES & LEGIONELLOSIS		2010		2011		2012		2013		2014	
		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		0		1	*	0		1	*
	Washington	24		9		20		16		34	
Hantavirus pulmonary syndrome	Spokane County	0		0		0		0		0	
	Washington	2	*	2 (1 death)	*	2 (2 deaths)	*	0		1	*
Lyme Disease	Spokane County	1	*	0		1	*	0		0	
	Washington	16	0.2	19	0.3	15	0.2	19	0.3	15	0.2
Malaria (travel-related)	Spokane County	2		1	*	3	*	3	*	2	*
	Washington	39 (1 death)	0.6	24	0.4	26	0.4	30	0.4	41	0.6
Tick-borne relapsing fever	Spokane County	1	*	1	*	1	*	2	*	2	*
	Washington	7	0.1	11	0.2	6	0.1	4	0.1	7	0.1
Legionellosis	Spokane County	3	*	5	1.1	6	30	3	*	7	1.4
	Washington	35 (4 deaths)	0.5	43 (4 deaths)	0.6	30 (5 deaths)	0.4	52 (5 deaths)	0.8	63 (8 deaths)	0.9

▲ Including yellow fever, WNV disease, dengue, chikungunya and Japanese encephalitis

*Incidence rates not calculated for <5 cases.

Sexually-Transmitted Infection

STIs continue to be the most commonly reported of all communicable diseases in Washington and accounted for more than three-quarters of all notifiable conditions reported to the Washington State Department of Health in 2014. Cases of chlamydia, gonorrhea, and primary and secondary (P&S) syphilis increased in 2014 as compared to 2013. The rate of initial adult genital herpes infection decreased slightly. Nationally, for the first time since 2006, the rates of chlamydia, gonorrhea, and primary and secondary (P & S) syphilis all increased in 2014. The worsening epidemic is a clear indication of the need for better diagnosis, treatment, and prevention of STIs.

Chlamydial Infection

Reports of *Chlamydia trachomatis* infection comprise the majority of all notifiable condition reports received in Spokane County. The 2014 rate is more than double the rate of cases reported in 1996, when the fewest cases in the last two decades were reported. The rate of chlamydial infection reported in Spokane County is higher than that reported for the state as a whole. Cases are most frequently reported in 20-24 year old females.

In Washington State, chlamydial infection also continues to be the most commonly reported STI. The chlamydial infection incidence rate showed a steady rise between 1996 and 2004 and then was relatively stable for four years until 2008. Since then, an increase in incidence has been seen in each succeeding year. The overall incidence rate for Washington State in 2014 was 376.7/100,000. Women between 15 and 24 years of age have disproportionately higher rates than other age groups or males; this may be partially related to less frequent testing in men.

Nationwide in 2014, approximately 1.44 million cases of chlamydial infections were reported, corresponding to a rate of 456.1/100,000, surpassing the previously highest recorded rate of 453.4/100,000 from 2011. The 2014 rate is a 2.8% increase over the 2013 rate, and reported cases constitute the largest number of cases for one condition ever reported to the CDC.

Gonorrhea

In late 2013, the Washington State Department of Health declared that Spokane County was experiencing an outbreak of gonorrhea (as compared to 2012 disease incidence); alarmingly, the rate has continued to rise. Locally, the rate of reported gonorrhea cases in 2014 was more than triple the rate reported for 2012 (109.4 vs. 34.3/100,000) and approaches the national incidence rate. Although some of the increase is probably due to increased screening and testing, more disease is likely circulating. Cases are most frequently detected in 25-29 year old persons.

Statewide, the rate of cases increased in 2010 through 2012 and the 2014 rate was 83% higher than the rate of cases reported in 2012. Still, Washington's gonorrhea rate (88.1/100,000) remains lower than the national incidence rate.

In 2009, the national rate of reported gonorrhea cases reached a historic low of 98.1/100,000. However, during 2009–2012, the rate increased slightly each year to 106.7/100,000 in 2012. After declining slightly in 2013 (primarily in women), over 350,000 gonorrhea cases were reported and the national gonorrhea rate again increased to 110.7/100,000.

Neisseria gonorrhoeae, the causative agent of gonorrhea has progressively developed resistance to each of the antimicrobials used for treatment. Most recently, declining susceptibility to cefixime resulted in a change to treatment guidelines, so that dual therapy with ceftriaxone and either azithromycin or doxycycline is now the only CDC-recommended treatment regimen for gonorrhea. The emerging threat of cephalosporin resistance highlights the need for continued surveillance of *N. gonorrhoeae* antimicrobial susceptibility.

Syphilis

Primary and secondary (P&S) syphilis are the infectious states of the disease and indicate likely acquisition of the illness in the preceding year. Rates of P&S syphilis were stable in the period except for a spike in 2011. The county rate of P&S syphilis is lower than the state rate.

Nationally, the case count and rate for P&S syphilis in 2014 was the highest recorded since 1995. The number of P&S syphilis cases reported to CDC increased from 17,375 in 2013 to 19,999 in 2014, a 15.1% increase. Four hundred fifty-eight (458) cases of congenital syphilis were reported, an increase of 27.5%.

SEXUALLY-TRANSMITTED INFECTION		2010		2011		2012		2013		2014	
		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 (CT)	Spokane County	1,617	343.8	1,780	376.6	1,923	404.3	2,037	424.4	2,142	442.1
	Washington	21,401	317.8	23,237	343.3	24,600	360.8	25,013	363.4	26,246	376.7
Gonorrhea (GC)	Spokane County	137	29.1	158	33.4	181	34.3	329	68.5	530	109.4
	Washington	2,865	42.6	2,730	40.3	3,282	48.1	4,390	63.8	6,136	88.1
Herpes (initial infection)	Spokane County	174	37.0	185	39.1	134	28.2	132	27.5	201	41.5
	Washington	2,028	30.1	2,149	31.8	2,197	32.2	2,207	32.1	2,082	29.9
Syphilis (primary & secondary)	Spokane County	4	*	14	*	5	*	2	*	11	*
	Washington	261	3.9	329	4.9	300	4.4	285	4.1	337	4.8

*Incidence rates are not calculated for < 20 cases.

HIV/AIDS

Acquired Immunodeficiency Syndrome (AIDS) has been a reportable disease in Washington since 1982, and for many years the number of cases reported was used to estimate the incidence of Human Immunodeficiency Virus (HIV) disease. Over time, as treatment and longevity after diagnosis of HIV infection improved, HIV disease came to be regarded more often as a chronic infection. Consequently, in 1999 HIV infection also became reportable, allowing better assessment of the burden of disease. Note: HIV incidence data does not include persons who have anonymously tested positive but who have not yet entered into medical care. Once medical care is accessed, the case is reported and counted.

The rate of incident disease has been mostly stable locally and statewide since 2002, decreasing in the period 2010-2013 with an average of 24 and 509 cases, respectively. In Spokane County, new incidence of disease fell sharply in 2014, for reasons that are not clear; testing numbers were stable.

As of December 31, 2014, 511 individuals in Spokane County were living with HIV disease, 58% of whom had a diagnosis of AIDS. Statewide, more than 12,000 people were known to be living with HIV disease and 55% had a diagnosis of AIDS. About one in three new cases is detected late in the course of illness and develops AIDS within 12 months of HIV diagnosis.

Males continue to make up the vast majority of those diagnosed with HIV–90% overall since 1982, 85% in the 2010-2014 period. While overall 73% of cases are white, during 2010-2014, only 55% of new cases were white. Blacks had significantly higher case rate, 38.1/100,000 in 2010-2014 than any other race or ethnic group. Also in 2010-2014, 56% of those diagnosed with HIV were 25-44 years of age; more than 85% of cases reported were in men, and more than 68% of those were men who have sex with men.

HIV/AIDS		2010		2011		2012		2013		2014	
		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
HIV Disease	Spokane County	24	5.1	26	5.3	25	5.3	22	4.6	6	*
	Washington	561 (108 deaths)	8.3	495 (118 deaths)	7.3	513 (101 deaths)	7.5	467 (89 deaths)	6.8	447 (N/A)	6.4

*Incidence rates for HIV are not calculated for 11 or fewer cases.

Tuberculosis (TB)

The crude incidence rate for tuberculosis (TB) is consistently lower in Spokane County than in Washington State. During 2010-2014, 31 active TB cases were identified and/or treated in Spokane County.

Over the last decade, the annual crude incidence rate of TB in Washington State has trended downward. As in past years, foreign-born persons as well as racial and ethnic minorities are at greatest risk for TB. The highest case rate by age, 3.7 /100,000, is among those 65 and older, followed by persons 25-44 years of age with a rate of 3.6/100,000. In 2014, more than 81% of all reported cases resided in King, Pierce, Snohomish, Clark, or Yakima County. Of the 150 case specimens tested for drug susceptibility, almost 15% were resistant to one or more of the first line treatment drugs. Two (1.3%) of the specimens were multi-drug resistant (MDR).

Since the 1992 TB resurgence peak in the U.S., the number of TB cases reported annually has decreased by 64%. In 2014, fewer than 10,000 (9,421) cases of tuberculosis were reported, resulting in the same overall case rate of 3.0/100,000 as in 2013. Fifty-one percent of cases occur in just four states: Texas, California, Florida and New York.

TB case rates vary by well-known factors such as age, race and ethnicity, and country of origin. Foreign-born persons have accounted for the majority of TB cases in the U.S. every year since 2001, and in 2014, 66% of TB cases occurred in foreign-born persons. Moreover, the case rate among foreign-born persons in 2014 was approximately 13 times higher than among U.S.-born persons. In 2014, TB passed HIV as the world's leading cause of death from an infectious disease.

Since 1993, TB case rates have declined annually for almost all age groups. The highest burden of disease continues to be in persons 65 and over. Children aged ≤ 14 years had the lowest rate at 0.8 /100,000.

Since 1997, the percentage of U.S.-born patients with primary MDR TB has remained below 1%. However, of the total number of reported primary MDR TB cases, the proportion occurring in foreign-born persons increased from 31% (149/484) in 1993 to 88% (80/91) in 2014. During 2010 through 2014, the percentage of primary MDR TB cases has remained stable at approximately 1%.

TUBERCULOSIS		2010		2011		2012		2013		2014	
		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 County	4	*	8	1.7	7	1.5	7	1.5	5	1.0
	Washington	236 (6 deaths)	3.5	200 (8 deaths)	3.0	185 (10 deaths)	2.7	209	3.0	196 (3 deaths)	2.8

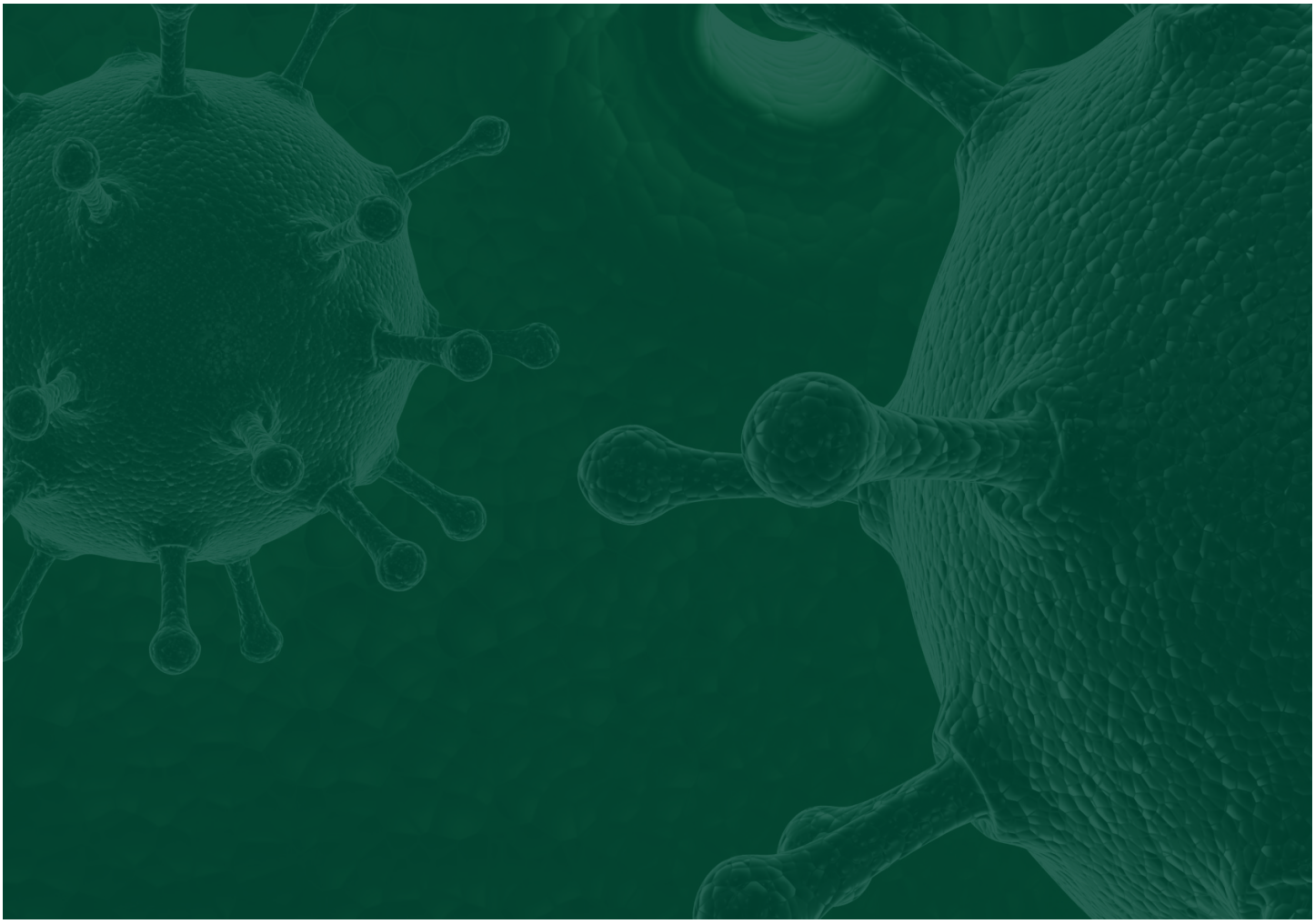
*Incidence rates for not calculated for <5 cases.

Spokane Measles Outbreak 2015

Two cases of measles in unvaccinated adults were reported in late April. The first case was detected by an astute clinician, and the second, a quarantined close contact of the first, was identified through symptom monitoring. Both were tested through the Washington State Public Health Laboratory (PHL). Several other individuals were also tested through the PHL, but no other cases were identified.

Related to the first case of measles, the affected healthcare facilities collected immune status information on at least 75 healthcare providers who were present at the time the case was seen in their facility and excluded, as needed, those who were not immune. Over 350 members of the public (non-healthcare workers) were *known* to be exposed to the cases in various locales, including restaurants, an athletic club and healthcare settings. Of those, 36% had documented vaccination, 17% were considered immune due to birth before 1957, and 20% were proved immune by titer; the remaining 27% of individuals (96 persons) were not immune, had unknown immune status or could not be contacted. This group had variable exposures to the cases, and individuals were potentially at risk of developing measles. Based on the level of risk, some of these persons were excluded from work, school, and other activities for 21 days after their last exposure to the case. Other individuals who may have been exposed, such as in a restaurant setting, were notified primarily by media.

The initial exposure source for the first case is unknown but was likely casual contact with an international traveler, as the strain of measles carried by the case was circulating in other parts of the world in early spring.



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