Communicable Disease Report

2006-2010

For Healthcare Providers

December 2011

Tacoma - Pierce County
Health Department
Healthy People in Healthy Communities
www.tpchd.org

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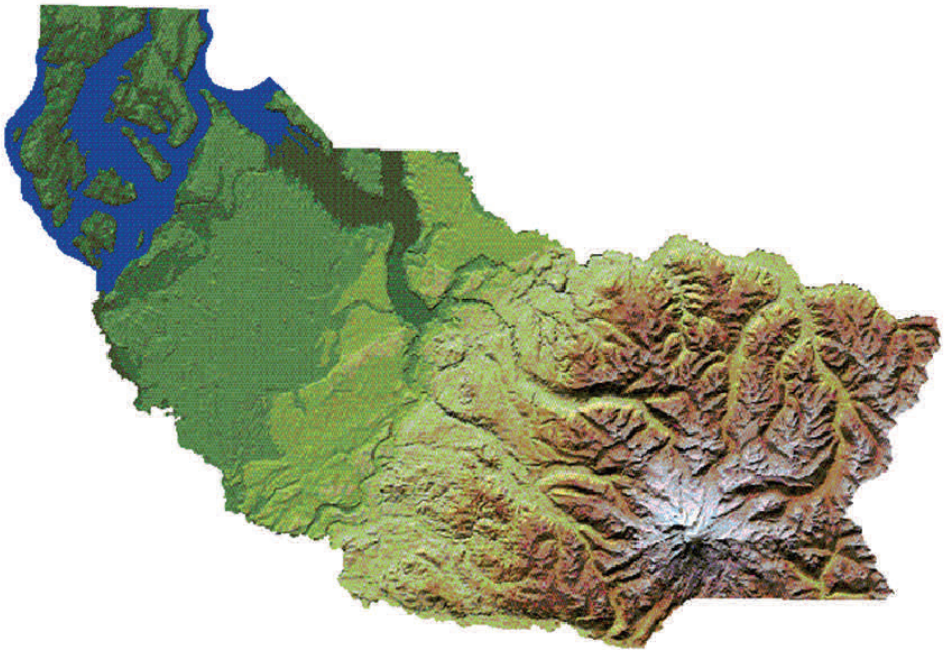
Introduction

WAC 246-101 requires healthcare providers and laboratories to report cases of certain communicable diseases to the local health jurisdiction where the patient resides.

Pierce County healthcare providers and laboratories help ensure effective communicable disease surveillance by reporting notifiable conditions to the Health Department in a timely manner. Tacoma-Pierce County Health Department is committed to ensuring that providers and laboratories have access to countywide disease data summaries to inform their practice.

The Health Department investigates reports of notifiable conditions to detect outbreaks and prevent the spread of communicable diseases. Data are analyzed to determine disease rates, trends and geographical clustering; data are used to develop policy, redirect program activities, and refine outbreak investigation.

The total number of cases and incidence per 100,000 population for these diseases are included in this summary. Annual incidence is not calculated if less than five cases of a particular disease are reported in a calendar year.



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Enteric Disease

Except for cryptosporidiosis, Pierce County's incidence for the enteric diseases listed below is lower than Washington State's. The County's cryptosporidiosis incidence has exceeded the State's for every year since 2007. Cryptosporidiosis is characterized by fecal-oral transmission, either from ingestion of contaminated food or water, or by person-to-person spread.

Some increases in cases occur during the summer months, and a disproportionate number of Pierce County's cryptosporidiosis cases reside on the Key Peninsula, including Gig Harbor.

Also, noteworthy, is the increase in Campylobacter cases, both in Pierce and other Washington counties.

Total number of reported cases due to other enteric microorganisms for 2006–2010 were:

Vibriosis 14
Yersiniosis..... 8
Listeriosis 9
Salmonella typhi (typhoid fever)..... 3

As with the three previous five-year periods, Pierce County's average annual incidence during 2006-2010 for vibriosis, yersinoisis and listeriosis did not exceed that of Washington State. The County incidence rate for *S. Typhi* was not calculated because the case count was below five.

ENTERIC DISEASES		2006		2007		2008		2009		2010	
		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
Campylobacter	Pierce County	50	6.5	69	8.7	75	9.3	79	9.7	103	12.6
	Washington	993	15.6	1,020	15.7	1,069	16.2	1,030	15.4	1,315	19.5
Cryptosporidia	Pierce County	7	0.9	21	2.7	13	1.6	17	2.1	32	3.9
	Washington	95	1.5	139	2.1	99	1.5	102	1.5	102	1.5
EHEC	Pierce County	22	2.8	14	1.8	15	1.9	11	1.4	11	1.4
	Washington	162	2.5	141	2.2	189	2.9	206	3.1	226	3.4
Giardia	Pierce County	17	2.2	53	6.7	25	3.1	31	3.8	37	4.5
	Washington	451	7.1	590	9.1	486	7.4	467	7.0	521	7.7
Salmonella, non-Typhoid	Pierce County	71	9.2	85	10.8	78	9.7	78	9.6	71	8.7
	Washington	627	9.8	758	11.7	846	12.8	820	12.3	780	11.6
Shigella	Pierce County	6	0.8	14	1.8	5	0.6	8	1.0	7	0.9
	Washington	170	2.7	159	2.5	116	1.8	153	2.3	112	1.7

Source: Washington State Communicable Disease Report 2010

nc=not calculated

Vaccine Preventable Disease

Pertussis—Eleven of the 84 cases in 2010 occurred in individuals under 1 year of age. Two of these eleven were hospitalized, and likely household transmission from older relatives was identified for six of these eleven infants..

Meningococcal—Invasive meningococcal disease most frequently manifests as meningitis or bacteremia. As with 2005–2009, Pierce County's average annual incidence during 2006–2010 remained lower than Washington State's.

The three cases of meningococcal disease had no epidemiologic links. All were hospitalized and one died.

Measles, Mumps and Rubella—Endemic measles and rubella have been eliminated from the United States; cases that occur here are imported from other countries, but may spread to susceptible individuals here. No cases of rubella were reported in Pierce County between 2006–2010. The cases of mumps in 2010 occurred in three unimmunized siblings and were related to foreign travel

Hib—*Haemophilus influenzae* invasive disease is reportable only in persons under 5 years old. Otitis media due to *H. influenzae* is not reportable.

VACCINE PREVENTABLE DISEASES		2006		2007		2008		2009		2010	
		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*	Pierce County	0	0.0	0	0.0	0	0.0	*0	0.0	*0	0.0
	Washington	5	1.2	6	1.4	2	nc	9	2.0	10	2.2
Measles	Pierce County	1	nc	0	0.0	0	0.0	0	0.0	0	0.0
	Washington	1	nc	3	nc	19	0.3	1	0.0	1	0.0
Meningococcal	Pierce County	4	nc	0	0.0	3	nc	3	nc	3	nc
	Washington	45	0.7	32	0.5	40	0.6	26	0.4	33	0.5
Mumps	Pierce County	1	nc	4	nc	0	0.0	*2	nc	*3	nc
	Washington	42	0.7	53	0.8	14	0.2	6	0.1	7	0.1
Pertussis	Pierce County	36	4.7	23	2.9	33	4.1	29	3.6	84	10.3
	Washington	337	5.9	482	7.4	460	7.0	291	4.4	607	9.0

Source: Washington State Communicable Disease Report 2010

*Source: PHIMS (Public Health Issue Management System)

nc=not calculated

Hepatitis

Hepatitis A—Nationwide rates of acute hepatitis A have declined to historic low levels in the United States following implementation of routine hepatitis A vaccination for children. The most common exposure source for cases of acute hepatitis A is travel to areas of the world where the disease is common. Hepatitis A vaccination should be given to international travelers (except for travel to Western Europe, Australia, New Zealand or Japan). Vaccine is also recommended for families who are adopting babies or young children from areas of the world where hepatitis A is common.

Acute Hepatitis B—Due to a very effective vaccine, incidence has declined dramatically. Acute hepatitis B often goes undiagnosed because it is frequently (50–70% of the time) asymptomatic. In 2009, CDC estimated an incidence of 38,000 Hepatitis B cases in the United States. Hepatitis B can be transmitted by sexual contact, sharing injection equipment, needlesticks, and from mother to infant during birth. It is estimated that every year, 1,000 babies in the United States contract hepatitis B from their mothers, despite the availability of effective post-exposure prophylaxis. Although hepatitis B infection in pregnancy is reportable, CDC estimates that half of all pregnant women with positive HBsAg are not reported to the Health Department. When the report is received, Health Department nurses case manage infants of hepatitis B positive mothers to ensure post-exposure prophylaxis and testing at age one year.

Chronic Hepatitis B—Most people in Pierce County newly reported with chronic hepatitis B infection are immigrants from endemic countries who most likely acquired the disease from perinatal or early childhood exposure. CDC recommends routine screening for HBsAg for people from countries where the prevalence of positive HBsAg is 2% or greater, which includes most counties in Asia, Africa, the Middle East, the Pacific Islands, and Eastern Europe. Chronic hepatitis B carries up to a 25% chance of developing hepatocellular carcinoma or liver cirrhosis.

Chronic Hepatitis C—Is the most common bloodborne infection in the United States and the leading cause of liver transplantation. It is transmitted through infected blood, most importantly through injection drug use. Transfusion of infected blood products was also a common exposure source prior to 1990 when screening of the blood supply for the virus became possible. Approximately 85% of people infected will develop chronic infection and up to 20% of people with chronic hepatitis C will develop cirrhosis of the liver. Two new protease inhibitors to be used in combination with pegylated interferon are now available. The newer treatment regimens can produce a sustained viral response in patients with the most common and difficult to treat type of hepatitis C (genotype I), boosting the success rate to 75% or greater.

HEPATITIS		2006		2007		2008		2009		2010	
		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 (enteric transmission)	Pierce County	3	nc	5	0.6	3	nc	5	0.6	2	nc
	Washington	52	0.8	60	0.9	51	0.8	42	0.6	21	0.3
Hepatitis B, Acute (vaccine preventable)	Pierce County	5	0.6	11	1.4	6	0.7	9	1.1	2	nc
	Washington	80	1.3	71	1.1	56	0.9	48	0.7	50	0.7
Hepatitis B, Chronic*	Pierce County	132	17.1	182	23.0	140	17.4	124	15.2	106	13.3
	Washington**										
Hepatitis C, Acute	Pierce County	3	nc	3	nc	1	nc	1	nc	2	nc
	Washington	23	0.4	18	0.3	25	0.4	22	0.3	25	0.4
Hepatitis C, Chronic*	Pierce County	1,114	114.0	1,160	146.7	1,226	152.2	884	108.7	731	91.9
	Washington**										

Source: Washington State Communicable Disease Report 2010 nc=not calculated

*Source: Tacoma-Pierce County Health Department, Communicable Disease Control

**Some counties in Washington State do not report chronic hepatitis B and C. Therefore, at this time, accurate statewide data for those two conditions are not available.

Sexually Transmitted Diseases

Chlamydia—Chlamydia remains the most commonly reported condition in both Pierce County and Washington State. In 2010, providers in Pierce County reported 3,815 cases of Chlamydia. Pierce County has the highest rate of this infection in Washington State (468.3 per 100,000). Most of these infections are among 15–24 year olds and most are asymptomatic. Screening sexually active young people aged 15–24 years is a critical cornerstone of Chlamydia prevention. Therefore, the Health Department recommends annual screening for all sexually active patients under 25.

Gonorrhea—During 2010, Washington State saw a sharp rise in the number of new gonorrhea (GC) cases. Pierce County had the second highest rate (50.8) after Seattle (81.1). Most of these infections are in men who have sex with men (MSM). According to Washington State Department of Health's estimates, 10% of those with GC are infected with HIV. Because of this, the Health Department recommends that providers screen all male patients who have sex with men for GC, and any patient with GC for HIV. In addition to the increased number of cases, fluoroquinolone-resistant gonorrhea has been identified in Pierce County, and many strains of gonorrhea are less susceptible to cefixime and cefpodoxime. In response to these developments, Tacoma-Pierce County Health Department has joined with Washington State Department of Health to adopt the following recommendation—the antibiotic treatment of choice for uncomplicated gonococcal infections of the cervix, urethra, rectum and pharynx is the combination therapy of both **Ceftriaxone** (250 mg IM in a single dose) ***plus*** **Azithromycin** (1.0 g orally in a single dose). Someone presumptively diagnosed with gonorrhea should be treated at the time of their initial evaluation, before test results are available. If you have questions about treatment for gonorrhea, please call (253) 798-2939.

Syphilis (primary and secondary)**—**During 2010, Washington State and Pierce County experienced an increase of primary and secondary syphilis. Most of the syphilis cases have been in MSM who also have HIV infection. Because of this, the Health Department recommends that providers conduct syphilis testing for all male patients who have sex with men, and especially those who are already infected with HIV. With HIV infection, syphilis can invade the central nervous system at any stage. When a patient with HIV tests positive for syphilis (regardless of stage) the Health Department also recommends that a lumbar puncture be considered to ensure appropriate treatment.

HIV/AIDS—In Pierce County, most of those infected with HIV are white MSM. However; there are heterosexual men and women also infected with HIV and rates of HIV infection are higher among African American and Latinos than Whites. Because an estimated 25% of those infected with HIV are unaware of their infection, CDC recommends that healthcare providers conduct routine HIV screening for all their patients at least one time and annual screening for HIV for all patients who are known to be at risk (especially MSM).

SEXUALLY TRANSMITTED DISEASES		2006		2007		2008		2009		2010	
		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	Pierce County	3,031	391.9	3,357	424.7	3,807	472.7	3,861	474.6	3,815	468.3
	Washington	17,819	279.5	19,123	294.7	21,327	323.7	21,178	317.6	21,401	317.8
Gonorrhea	Pierce County	825	106.7	830	105.0	676	83.9	457	56.2	414	50.8
	Washington	4,231	66.4	3,646	56.2	3,116	47.3	2,268	34.0	2,865	42.6
Herpes, genital, initial infection	Pierce County	307	39.7	184	23.3	246	30.5	261	32.1	248	30.4
	Washington	2,446	38.4	1,952	30.1	2,009	30.5	1,875	28.1	2,028	30.1
Syphilis, primary & secondary	Pierce County	7	0.9	19	2.4	19	2.4	9	1.1	9	1.1
	Washington	182	2.9	168	2.6	181	2.7	135	2.0	261	3.9
HIV Infection, new diagnosis*	Pierce County	59	7.6	61	7.7	58	7.2	61	7.5	63	7.7
	Washington	547	8.6	591	9.1	541	8.2	550	8.2	551	8.2

Source: Washington State Communicable Disease Report 2010

Tuberculosis

Tuberculosis (TB), caused by *Mycobacterium tuberculosis*, is most often seen in the United States in persons born in countries with high rates of TB. Among Pierce County's 112 cases for 2006–2010, 91 (81%) were foreign-born. Cases of TB with pulmonary involvement can be transmitted to other persons by airborne droplet nuclei. Of the 112 cases, 84 (75%) had pulmonary involvement.

During 2006–2010, sensitivity results were obtained on 79 *M. tuberculosis* isolates. Of these, 17 (21.5%) were resistant to INH. This proportion is similar to that obtained for Pierce County isolates during 2004–2008 and 2005–2009, but about twice as high as isolates statewide.

TUBERCULOSIS		2006		2007		2008		2009		2010	
		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	Pierce County	21	2.7	24	3.0	18	2.2	34	4.2	15	1.8
	Washington	262	4.1	291	4.5	228	3.5	256	3.8	236	3.5

Source: Washington State Communicable Disease Report 2010

Rabies Post Exposure Prophylaxis (PEP)

In 2010, 25 individuals were reported to have undergone rabies prophylaxis following animal exposures. Of these 25 exposures, 10 were to bats, 6 to raccoons, 4 to dogs, 2 to cats and 1 each to a monkey, rabbit and otter. One of the dog bites occurred in a foreign country where canine rabies is more common than in the United States.

In Washington State about 7% of bats tested are positive for rabies. Rabies is very rarely identified in other Washington State animals. Bat bites are often unapparent and prophylaxis is administered because bats were in or had access to a room where an individual had been sleeping.

	2006	2007	2008	2009	2010
Rabies Postexposure Prophylaxis	17	40	38	48	25

Source: Tacoma-Pierce County Health Department, Communicable Disease Control

Miscellaneous Reportable Diseases

Legionellosis—The 12 cases were hospitalized, but there were no deaths. They were sporadic, having no apparent links to one another. Seven were travel-related, i.e., they had stayed overnight at a residence other than their own home during the exposure period.

Lyme Disease—Of the six cases, five were exposed during travel outside Washington State. One case had a known tick exposure in Pierce County.

Malaria—All 23 cases involved travel to Asia or Africa, with over half being military-related. Seven of the cases were due to *Plasmodium falciparum*, all of which were acquired in Africa.

Wound Botulism—The 2006–2010 incidence in Pierce County was five times higher than Washington State. All six Pierce County cases were associated with heroin injection drug use (IDU).

Immediately contact Tacoma-Pierce County Health Department if you suspect botulism; especially in an individual with a history of injection drug use. Call (253) 798-6410.

		2006	2007	2008	2009	2010	2006-2010 Cases	2006-2010* Incidence
Legionellosis	Pierce County	5	2	1	2	2	12	0.30
	Washington	20	24	19	29	35	127	0.39
Lyme Disease	Pierce County	1	0	2	1	2	6	0.15
	Washington	8	12	23	16	16	75	0.23
Malaria	Pierce County	9	3	6	2	3	23	0.58
	Washington	43	30	32	26	39	170	0.52
Wound Botulism	Pierce County	1	0	2	2	1	6	0.15
	Washington	1	2	2	4	1	10	0.03

*Between 2006-2010, average annual incidence per 100,000.

Source: Tacoma-Pierce County Health Department, Communicable Disease Control

Rare Reportable Disease, Pierce County (fewer than 5 cases)

	2006	2007	2008	2009	2010
Arboviral Disease	0	1	1	1	3
Botulism, infant	1	0	0	0	0
Botulism, foodborne	0	0	0	0	0
Brucellosis	0	0	0	0	0
Hantavirus	0	0	0	0	0
Leptospirosis	0	1	0	0	0
Plague	0	0	0	0	0

	2006	2007	2008	2009	2010
Psittacosis	0	0	0	0	0
Q Fever	0	0	0	0	0
Relapsing Fever	1	0	0	0	1
Tularemia	0	0	0	0	0
Typhoid Fever	0	0	2	0	1
West Nile Virus	2	0	0	0	0

Source: Tacoma-Pierce County Health Department, Communicable Disease Control

Voluntarily Reportable Diseases

Since 2000, Pierce County has supported voluntary reporting of methicillin-resistant *Staphylococcus aureus* (MRSA) and Vancomycin-resistant enterococci (VRE) from all seven Pierce County hospitals and several long-term care facilities and outpatient clinics. The numbers in the tables represent first isolate per patient per year. A substantial majority of reported MRSA cases (77% in 2010) were skin and soft-tissue infections. The percentage of *S. aureus* isolates reported that are resistant to methicillin has leveled off over the past five years.

	2006		2007		2008		2009*		2010	
	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
MRSA	4,012	518.7	4,718	596.8	5,382	668.0	4,122	507.0	3,901	479.0
VRE	50	6.5	75	9.5	55	6.6	107	13.2	92	11.3

*In 2008, two independent laboratories started reporting MRSA isolates. Without data from these two independent labs, the 2008 numbers would have decreased to 4,543 and the rate of 564 per 100,000.

Percent of *Staphylococcus aureus* Isolates Resistant to Methicillin				
2006	**2007**	**2008**	**2009**	**2010**
53.9%	54.0%	51.1%	48.7%	47.6%

Source (both tables): Tacoma-Pierce County Health Department, Communicable Disease Control