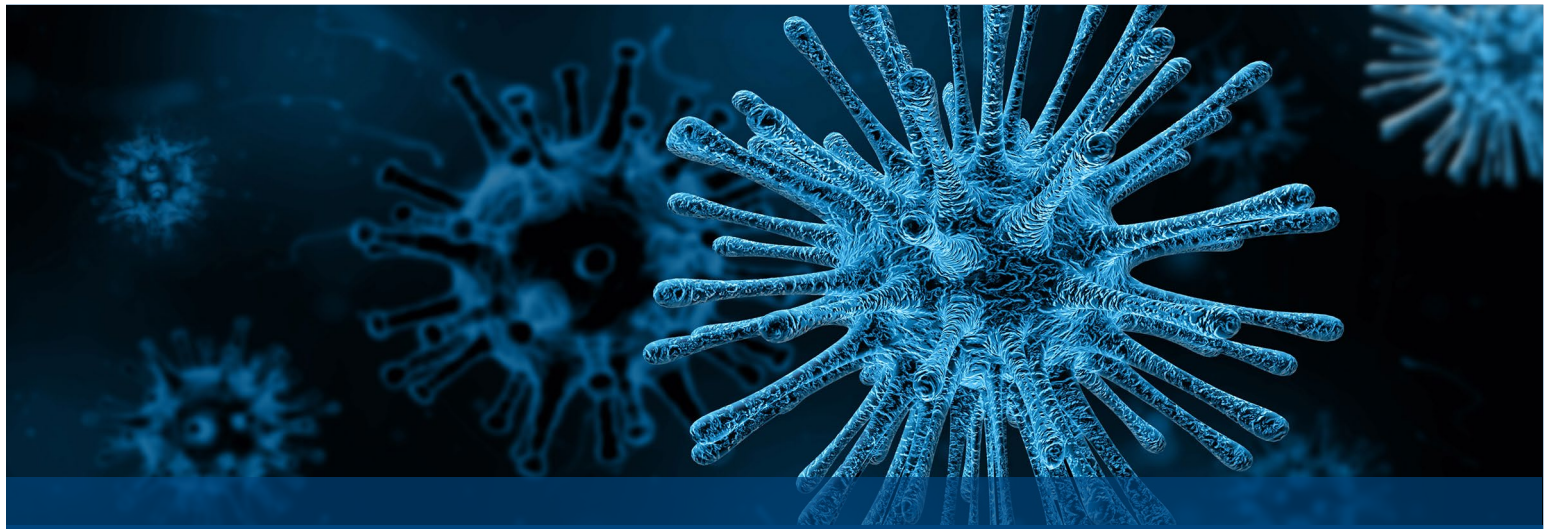




Communicable Disease Data Report

Pierce County, Washington
2016–2021

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Introduction

Pierce County healthcare providers and labs report notifiable conditions and clusters of disease to Tacoma-Pierce County Health Department. We ensure:

- Early follow up.
- Disease control interventions.
- Rapid outbreak detection.

Additionally, we analyze collected data to:

- Determine disease rates, trends and geographic clustering.
- Develop prevention programs and policies and refine outbreak investigation.
- Report to the community and engage stakeholders in prevention.

We publish this report to ensure healthcare providers and labs have access to Pierce County disease data summaries to inform their practice. These summaries include total number of cases and incidence per 100,000 population.

Contributors

The following staff members conduct our disease surveillance work and contributed to the publication of this report.

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Resources

This report and the following resources are available at tpchd.org/providers, our website for healthcare providers:

- Reporting forms.
- Notifiable conditions list.
- Advisories and alerts.
- Guidelines.

To report an immediately notifiable condition, call (253) 649-1412—24 hours a day, 7 days a week.

To report other notifiable conditions, call (253) 649-1413. Or fill out a report form at tpchd.org/notifiableconditions and fax it to (253) 649-1389.

If you have questions, call (253) 649-1412.

Enteric diseases

Enteric infections are caused by bacteria, viruses or parasites. They spread through contaminated food or water or contact with animals or infected people. We monitor these infections to detect outbreaks and prevent spread in households and communities.

Providers use stool testing to diagnose reportable enteric infections. Molecular (PCR) and antigen tests have largely replaced stool culture. Washington State Public Health Lab accepts specimens for cases of salmonellosis, *E. coli* O157:H7, shigellosis and vibriosis for sequencing. This “genetic fingerprinting” can match cases together to find even small outbreaks occurring locally or in the state. The lab uploads these data to Centers for Disease Control and Prevention (CDC) to see if related cases are occurring in other locations.

Providers should test stool for bacterial pathogens only when they suspect acute infectious gastroenteritis.

Nationally, reports of foodborne illness outbreaks dropped from 4,206 in 2019 to 1,518 in 2020.

Reports of enteric infections decreased 26% in the same time period. These decreases are likely due to restrictions and changes in health-seeking behavior during the COVID-19 pandemic.

Campylobacteriosis

Campylobacteriosis is the most frequently reported enteric illness in Pierce County. The bacterium *Campylobacter* causes the illness. Symptoms include diarrhea (sometimes bloody), fever, abdominal pain and vomiting. Infection usually resolves without treatment.

Risk factors for campylobacteriosis include consuming or handling undercooked poultry, raw milk or untreated water and contact with animals. People with backyard chicken coops or farm animals are at higher risk. Many of Pierce County’s cases were in people who traveled outside the United States.

Since 2016, annual case counts ranged from 200 to 250. Interestingly, case counts did not fall in 2020 as one would expect with the decrease in travel, restaurant meals and medical visits during the COVID-19 pandemic.

In 2021, unpasteurized (raw) milk caused an outbreak of campylobacteriosis in Washington.

Raw milk and cheese made from raw milk can contain other harmful bacteria, too, like *E. coli* O157:H7 and *Salmonella*.

Salmonellosis

Infections with *Salmonella sp.* are usually caused by eating contaminated food or contact with animals. Symptoms include fever, diarrhea, headache, abdominal pain and nausea with or without vomiting. Most people recover without treatment, although severe cases may need antibiotics.

Risk factors include raw or undercooked meat (most commonly, poultry), contaminated eggs, produce and unpasteurized milk. People with farm animals, reptiles or exotic pets (like hedgehogs or sugar gliders) are at higher risk.

Since 2016, Pierce County annual case counts ranged from 68 to 116. In 2020, a large nationwide outbreak of salmonellosis occurred from red onions. 1,132 cases occurred in the United States, 150 cases in Washington and 15 cases in Pierce County. The source of the onions’ *Salmonella* contamination was likely contaminated irrigation water.

Shiga toxin-producing *E. coli*

E. coli bacteria normally live people's and animals' intestines. Shiga toxin-producing *E. coli* (STEC) are harmful bacteria that can cause severe diarrhea (often bloody), abdominal pain and sometimes kidney damage. Providers should suspect STEC in patients with bloody diarrhea. Most STEC infections resolve without treatment, but severe infections should be treated with supportive care, IV fluids and monitoring for kidney involvement. Patients with STEC should not take antibiotics, as they increase the risk of kidney damage caused by hemolytic uremic syndrome.

Risk factors include eating undercooked beef and unpasteurized milk. Raw produce that has been contaminated, usually in the growing fields, has also caused outbreaks. Many people we interview who have this condition traveled outside the United States. From 2016–2016, Pierce County's average number of cases was 40. In 2020, providers detected 18 cases. This decrease is possibly because of changes in health-seeking behavior during the COVID-19 pandemic.

Do not give antibiotics to patients with bloody diarrhea until you rule out infection with STEC.

Antibiotics can increase the risk of hemolytic uremic syndrome and kidney injury for people with STEC infection.

Shigellosis

Shigellosis is a bacterial infection of the intestines. Symptoms include diarrhea (frequently bloody), fever and abdominal pain. It is usually spread person-to-person, on unwashed hands or through sexual contact. Children in childcare (especially wearing diapers), international travelers and men who have sex with men are at higher risk for shigellosis. In recent years, shigellosis cases and outbreaks among people living homeless have become more common because of lack of hygiene and sanitation for people living in camps. Infected food workers can spread shigellosis. Outbreaks have occurred when food workers did not practice good hand washing.

The number of shigellosis cases since 2016 has been stable in Pierce County. In 2021, cases increased to 32 cases, some of whom were people living homeless.

Vibriosis

Vibrio bacteria cause vibriosis. The bacteria are often found in raw or undercooked shellfish—especially during warm months (May through September). Vibriosis is less common in Pierce County but remains a concern because shellfish harvesting is popular in Puget Sound.

Symptoms include abdominal pain, watery diarrhea, vomiting, headache and fever. On average, less than 10 cases are reported in Pierce County each year. This illness is generally easy to avoid—don't eat raw shellfish.

Enteric disease cases and rates, 2016–2021

Campylobacteriosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	230	272	248	206	256	205
	Rate	27.2	31.6	28.4	23.2	28.4	22.4
Washington	Cases	1,911	2,214	2,077	1,979	1,609	--
	Rate	26.6	30.3	28.0	26.2	21.0	--

Cryptosporidiosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	14	19	23	27	13	9
	Rate	1.7	2.2	2.3	3.0	1.4	1.0
Washington	Cases	131	150	198	232	172	--
	Rate	1.8	2.1	2.7	3.1	2.2	--

Giardiasis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	41	46	31	43	28	23
	Rate	4.9	5.4	3.6	4.8	3.1	2.5
Washington	Cases	672	668	438	288	184	--
	Rate	9.4	9.1	5.9	3.8	2.4	--

Salmonellosis, non-typhoid		2016	2017	2018	2019	2020	2021
Pierce County	Cases	101	116	76	73	68	78
	Rate	12.0	13.5	8.7	8.2	7.5	8.2
Washington	Cases	754	810	828	725	703	--
	Rate	10.5	11.1	11.1	9.6	9.2	--

Shigellosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	9	23	20	27	16	32
	Rate	1.1	2.6	2.3	3.0	1.8	3.5
Washington	Cases	191	285	419	314	225	--
	Rate	2.7	3.9	5.6	4.2	2.9	--

STEC		2016	2017	2018	2019	2020	2021
Pierce County	Cases	33	41	45	37	18	32
	Rate	3.9	4.8	5.2	4.2	2.0	3.5
Washington	Cases	340	404	540	465	308	--
	Rate	4.7	5.5	7.3	6.2	4.0	--

Vibriosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	1	6	15	9	9	8
	Rate	nc	0.7	1.7	1.0	1.0	0.9
Washington	Cases	63	95	217	159	90	--
	Rate	0.9	1.3	2.9	2.1	1.2	--

Notes

2021 data are preliminary.

Rates are per 100,000 population.

-- indicates data unavailable.

nc indicates not calculated.

Source

[Communicable Disease Report 2020](#), Washington State Department of Health.

Vaccine-preventable diseases

In the United States and other countries where children are highly vaccinated, vaccines brought many life-threatening diseases under control or eliminated them as public health threats. Vaccine hesitancy and misinformation threatens this progress. In 2019, the United States experienced its largest number of measles cases since 1992 (1,282 cases in 31 states). Most cases were among groups that chose not to vaccinate their children.

During the COVID-19 pandemic, barriers to routine and preventive healthcare hindered immunization efforts. In Washington, from January 2020 through September 2021, orders for vaccines from Washington’s Vaccines for Children Program decreased by 720,000 doses—a 28% decrease from 2017–2019.

Hepatitis A

Hepatitis A is one of several viral illnesses that cause liver inflammation. Illness onset is usually abrupt with fever, nausea, vomiting, abdominal pain and jaundice (yellow skin and eyes). Infants and very young children usually have no symptoms. Although hepatitis A often causes a person to feel seriously ill, most people recover completely.

After many years of low levels of hepatitis A in the United States, cases began to rise in 2016 and increased at a steep rate beginning in 2017. Outbreaks occurred across the country among people living homeless and people using drugs. In July 2019, Washington declared an outbreak among these risk groups in the state. Cases in Pierce County increased in 2020 and many were among people living homeless and/or using drugs. The Washington outbreak ended in 2021, after a total of 465 cases.

Hepatitis A vaccine is routinely given to children and should be given to all people at increased risk for the infection, including people living homeless, people who use drugs, international travelers and families adopting children from areas of the world where the disease is still common.

Acute hepatitis B

Hepatitis B is another viral liver disease. Acute hepatitis B cases in Pierce County and Washington are very low. Symptoms can include fever, loss of appetite, abdominal pain, joint or muscle pain. Many acute cases are undetected, as 70% have no symptoms. Hepatitis B can spread through sexual activity, injection drug use and contact with blood. 95% of adults with acute hepatitis B will clear the infection within 6 months. All people with acute hepatitis B should be tested for hepatitis B surface antigen (HBsAg) at 6 months to ensure the virus has cleared. In April 2022, CDC recommended all adults 18–59 years old receive hepatitis B vaccine. This removes the need to screen for risk factors that patients may not disclose.

What hepatitis B lab tests indicate:

- Positive HBsAg: Hepatitis B infection.
- HBe-IgM: Marker for acute hepatitis B.
- Positive anti-HBs: Immune to hepatitis B.

Chronic hepatitis B

Most people with chronic hepatitis B were exposed at birth by an infected mother. Hepatitis B vaccine alone without hepatitis B immune globulin (HBIG) within 24 hours of birth is 75% protective for the infant of a mother with hepatitis B. If vaccine is given along with HBIG, protection increases to 95%.

Hepatitis B is very common in Asia, Africa, the Middle East, the Pacific Islands and Eastern Europe. People born in these regions should be screened for hepatitis B surface antigen (HBsAg) and hepatitis B surface antibody (anti-HBs) and vaccinated if negative for both.

Global prevalence of hepatitis B is declining because of many high-prevalence countries' successes in giving the birth dose of hepatitis B vaccine. However, COVID-19 affected hepatitis B vaccine programs worldwide and ground will need to be reclaimed.

Positive HBsAg in pregnancy is reportable so public health can ensure post-exposure prophylaxis, completion of vaccine series and serology at 9–12 months old to determine the child's immune status.

Antiviral treatment is available for people with chronic hepatitis B with high levels of viral replication. All people with chronic hepatitis B should receive periodic screening for liver cancer, some sooner and more frequently, depending on risk factors and family history.

Pertussis (whooping cough)

Pertussis epidemics historically occurred at 3 to 5-year intervals. Symptoms include prolonged and/or severe coughing fits, vomiting after coughing, and “whoop” noise when the person is gasping for air in between coughs. Untreated, a person with pertussis is contagious for several weeks. Infants under 3 months old are most at risk for severe pertussis, so protecting them is a public health priority. CDC now recommends Tdap vaccine for pregnant women during every pregnancy between 27- and 36-weeks gestation. Passive antibody from mother to fetus may protect young infants in the first weeks of life.

Pertussis rates in Pierce County have been lower than in Washington state since 2016, but higher than in King County. In 2020 and 2021, case counts in Pierce County were very low, probably due to school closures and pandemic prevention measures, like masking.

Invasive meningococcal disease

In Pierce County, 0–8 cases of invasive meningococcal disease occurred each year 2016–2021. This bacterial illness can cause serious, life-threatening blood infections and meningitis. Routine immunization is given at 11–12 years old with a second dose at or after 16 years old, and protects against types A, C, Y and W-135. Vaccine against serogroup B is available and can be given to anyone 16 to 23 years old to provide short term protection against most strains of serogroup B meningococcal disease. Providers reported no cases in 2020 and 2021; this was likely due to COVID-19 prevention measures, as meningococcal bacteria spread through respiratory droplets.

Invasive *Haemophilus influenzae*

Invasive forms of *Haemophilus influenzae* are reportable in children younger than 5 years. 0–3 reportable cases occur each year in Pierce County. These bacteria can cause many types of infections—minor (most ear infections) to serious (bloodstream and meningitis). Only *Haemophilus influenzae* type B (HiB) is vaccine-preventable. *Haemophilus influenzae* and seasonal influenza are not related.

Before HiB vaccine, *Haemophilus influenzae* type b caused meningitis and blood infection in about 1 in 200 children under 5 years old.

In 2018, United States providers reported 38 cases in this age group.

Labs send positive cultures to Washington State Public Health Lab for serotyping. Report cases immediately prior to identification of serotype.

Measles

Several large outbreaks of measles occurred in 2019 in the United States and across the globe. Unimmunized travelers brought the disease to the United States. In 2019, Washington had 90 cases. 71 were in Clark County and were the result of an unimmunized person with measles visiting from outside the United States. Pierce County had 2 measles cases in

2019, both in adults and both the result of exposure at SeaTac Airport. No subsequent community spread occurred from these 2 cases.

Measles is a very contagious virus that spreads easily through the air. Illness usually begins with high fever and cold-like symptoms. After 2 to 4 days, a rash starts near the hairline and moves down, covering the entire body. Serious complications can develop, like pneumonia, encephalitis or ear infection. Children younger than 5 years are at higher risk for severe illness. Strongly suspect measles in unimmunized people with fever and rash who travelled outside the United States.

Measles is the most contagious infectious disease in the world.

2 doses of measles vaccine are over 95% effective at preventing the disease.

Measles vaccine is over 95% protective after 2 doses. Babies between 6 and 12 months old should get a measles vaccine before travelling outside the United States.

Rubella

Washington state has seen 5 cases of rubella since 2004, none in Pierce County.

Mumps

The mumps virus is best known for causing painful swelling and inflammation of the salivary glands (parotitis). As many as half of all mumps cases are either asymptomatic or experience only mild, non-specific symptoms like low-grade fever, headache, decreased appetite and muscle and joint pain. 3% to 10% of adolescent and adult males can experience inflammation and pain of the testicles (orchitis). Mumps spreads through respiratory droplets and contact with infected saliva, so close contact is required.

Large outbreaks among groups of fully vaccinated people have occurred in recent years. These outbreaks tend to occur in people who have close, prolonged contact with each other, like in schools, college dorms, jails and other group-living situations. This is because of intense exposure and waning immunity from vaccine. In some outbreaks, CDC may recommend a third dose of MMR vaccine.

Because many different viruses can cause acute parotitis, lab testing is required to confirm mumps. Washington State Public Health Labs can PCR test using buccal swab and urine sample.

Vaccine-preventable disease cases and rates, 2016–2021

<i>Haemophilus influenza</i>		2016	2017	2018	2019	2020	2021
Pierce County	Cases	2	3	3	2	1	0
	Rate	nc	nc	nc	nc	nc	nc
Washington	Cases	9	7	13	16	6	--
	Rate	2.0	1.5	2.9	3.5	1.3	--
Hepatitis A		2016	2017	2018	2019	2020	2021
Pierce County	Cases	2	1	2	3	20	0
	Rate	nc	nc	nc	nc	2.2	nc
Washington	Cases	31	28	35	181	284	--
	Rate	0.4	0.4	0.5	2.4	3.7	--
Hepatitis B, acute		2016	2017	2018	2019	2020	2021
Pierce County	Cases	3	2	5	4	6	1
	Rate	nc	nc	0.6	nc	0.7	nc
Washington	Cases	45	45	51	52	37	--
	Rate	0.6	0.6	0.7	0.7	0.5	--
Hepatitis B, chronic		2016	2017	2018	2019	2020	2021
Pierce County	Cases	173	147	189	191	137	168
	Rate	20.5	17.1	21.7	21.5	15.2	18.4
Washington	Cases	1,521	1,787	2,172	1,915	1,375	--
	Rate	21.2	24.4	29.2	25.4	18.0	--
		173	147	189	191	137	168
Measles		2016	2017	2018	2019	2020	2021
Pierce County	Cases	0	0	0	2	0	0
	Rate	nc	nc	nc	nc	nc	nc
Washington	Cases	0	3	8	90	1	--
	Rate	nc	nc	0.1	1.2	nc	--
		0	0	0	2	0	0
Meningococcal disease		2016	2017	2018	2019	2020	2021
Pierce County	Cases	8	2	7	4	0	0
	Rate	0.9	nc	0.8	nc	nc	nc
Washington	Cases	13	11	20	14	7	--
	Rate	0.2	0.2	0.3	0.2	0.1	--
Mumps		2016	2017	2018	2019	2020	2021
Pierce County	Cases	16	47	1	4	0	0
	Rate	1.9	5.4	nc	nc	nc	nc
Washington	Cases	152	779	58	55	4	--
	Rate	2.1	10.7	0.8	0.7	0.1	--
Pertussis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	87	119	59	66	18	1
	Rate	10.3	13.8	6.8	7.4	2.0	nc
Washington	Cases	618	740	631	598	243	--
	Rate	8.6	10.1	8.5	7.9	3.2	--

Notes

2021 data are preliminary.

Rates are per 100,000 population except * indicates rate per 100,000 population 0–4 years old.

-- indicates data unavailable.

nc indicates not calculated.

Source

[Communicable Disease Report 2020](#), Washington State Department of Health.

Hepatitis C

Acute hepatitis C

Acute hepatitis C is usually asymptomatic and therefore difficult to detect. We investigated 14 cases in 2021. Most of the cases were people under 35 years old who used injection drugs. The incidence of acute hepatitis C in young people has increased significantly across the United States since the mid-2000s because of prescription opioid abuse leading to injection drug use.

Chronic hepatitis C

Hepatitis C is transmitted through infected blood, most often through injection drug use. Transfusion of infected blood products was also a common exposure source prior to 1990. Identifying active hepatitis C infections is important because antiviral treatments effectively cure hepatitis C over 90% of the time, and treatment can be as short as 8 weeks. Curing hepatitis C can lead to improved health and increased life-expectancy.

In 2020, CDC and United States Preventive Services Task Force recommended a 1-time hepatitis C test for all adult patients. Routine screening will identify many infections and will cover patients who are unaware or do not disclose risk factors. Patients who use injection drugs should have ongoing, routine testing, at least annually.

Positive antibody screening tests should be confirmed by hepatitis C RNA. In about 25% of cases, infections will spontaneously clear, and RNA will be negative. Positive antibody after viral clearance is usually lifelong.

An important population to identify for hepatitis C testing are pregnant women. As of April 2020, CDC and American College of Obstetricians and Gynecologists and United States Preventive Services Task Force recommend testing pregnant patients for hepatitis at each pregnancy. Levels of injection drug use have increased among women in childbearing age. Test infants of mothers with hepatitis C for hepatitis C antibody at 18 months old (earlier antibody testing can detect maternal antibody). RNA testing during the first few months of life can be done for reassurance but antibody testing at 18 months must still be done.

Hepatitis C cases and rates, 2016–2021

Hepatitis C, acute		2016	2017	2018	2019	2020	2021
Pierce County	Cases	30	26	42	20	20	14
	Rate	3.6	3.0	4.8	2.3	2.2	1.5
Washington	Cases	95	73	118	97	119	--
	Rate	1.3	1.0	1.6	1.3	1.6	--

Hepatitis C, chronic		2016	2017	2018	2019	2020	2021
Pierce County	Cases	1,073	1,151	790	697	430	486
	Rate	127.1	133.9	90.6	78.5	47.7	53.1
Washington	Cases	8,118	8,839	8,085	6,728	4,471	--
	Rate	118.7	138.1	96.1	76.7	46.7	--

Notes

2021 data are preliminary.

Rates are per 100,000 population.

-- indicates data unavailable.

Source

[Communicable Disease Report 2020](#), Washington State Department of Health.

Tuberculosis

Mycobacterium tuberculosis bacteria spread from person to person through the air. Tuberculosis (TB) can cause disease in any organ or body system. The most common sites are the lungs, lymph nodes and bone. Symptoms of TB disease include cough lasting 3 or more weeks, chest pain, bloody sputum, weight loss, fever, chills and night sweats. TB disease is treatable and curable.

Was your patient with an unresolving respiratory condition born in a country with a high incidence of TB?

Think TB.

Not everyone infected with TB becomes sick. Latent TB infection (LTBI) occurs when a person's immune system fights the bacteria and keeps them from multiplying inside the body. People with LTBI do not feel sick and are not infectious. Without treatment, 5% to 10% of people with LTBI will develop TB disease. If a person's immune system is unable to control the infection, the person will develop TB disease.

People born in countries where TB is common are at highest risk for TB infection and subsequent disease. Other risk factors include contact with a person who has TB disease, travel to areas of the world where TB is common, living homeless, using injection drugs and immune system deficiency.

Interferon Gamma Release Assay for *M. tuberculosis* (Quantiferon TB Gold or T-Spot) is the preferred TB testing method for people who have received BCG vaccine.

Because TB is very serious and the public health threat is high, Health Department staff case-manage care for people with active TB disease and observe patients take their medicine throughout the course of treatment. This protects patients' and communities' health.

TB rates in Pierce County are low and have been stable in recent years. Providers report about 20 cases each year. In 2020, because of the COVID-19 pandemic, providers reported fewer TB cases locally and in Washington. Unfortunately, diagnosis was delayed for several cases statewide, as COVID-19 was suspected, and providers did not "think TB" when SARS-CoV-2 tests were negative. Of the 21 TB cases providers reported in 2021, 70% had pulmonary (lung) TB. The other cases were lymphatic, pleural, ocular and meningeal.

Tuberculosis cases and rates, 2016–2021

Tuberculosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	21	17	19	23	15	22
	Rate	2.5	2.0	2.2	2.6	1.7	2.4
Washington	Cases	204	207	190	221	163	--
	Rate	2.8	2.8	2.6	2.9	2.1	--

Notes

2021 data are preliminary.

Rates are per 100,000 population.

-- indicates data unavailable.

Source

[Communicable Disease Report 2020](#), Washington State Department of Health.

Sexually Transmitted Diseases

Syphilis

Infection with *Treponema pallidum* bacteria cause syphilis. Some of the most common stages of syphilis are:

- Primary—Painless ulcer (chancre) at infection site. Patient is highly infectious.
- Secondary—Diffuse rash and/or sore in the mouth, vagina or anus. Infectiousness depends on symptoms present.
- Latent—No symptoms present.

If you suspect a patient has herpes, monkeypox or any other ulcerative disease, request a treponemal test to rule out syphilis.

Neurosyphilis—Ophthalmic, auditory, cognitive dysfunction, symptoms of meningitis. Central nervous system (CNS) involvement can occur at any stage of syphilis.

Syphilis in all stages has been increasing rapidly since reaching a historic low in 2000–2001. Cases of primary and secondary syphilis in Pierce County almost doubled between 2016 and 2020. Preliminary data show a stunning jump from 111 primary and secondary cases in 2020 to 241 cases in 2021. Syphilis demographics have also changed. In 2019 in Pierce County, 56% of cases were found in men who have sex with men, with 44% in people presumed to be heterosexual. By June 2021, only 27% of cases were in MSM, while 73% were in presumed heterosexual.

Pierce County is one of the leading counties for congenital syphilis in the state.

We encourage syphilis testing pregnant people at first and third trimester or at delivery if third trimester results are unverifiable.

This shift has led to a rise in syphilis cases in people who identify as women and those who are capable of pregnancy. Syphilis is passed from mother to baby in utero. As a result, congenital syphilis has increased. Providers reported 14 cases in 2021 after just a handful of cases reported over the last decade. Systemic contributors to this increase include entering prenatal care late or not at all, using drugs and living homeless or in unstable housing.

With the current contributors to the syphilis increase, consider:

- If suspicion is high enough to test a patient for syphilis in the emergency department, administer treatment for syphilis. These patients are often the hardest to reach for follow-up.
- At current patient visits, check for outstanding or untreated lab results.
- Determine current locating information. We're finding patients frequently move.
- Screen people recently diagnosed with any sexually transmitted disease (STD) for all STDs. Screening should be specific to the sites they use for sex.
- Health Department STD staff are available to answer questions or help stage syphilis cases.

HIV

Human immunodeficiency virus (HIV) attacks and destroys cells that are an important part of the body's immune system. This reduces a person's ability to fight off other infections or cancers. Without treatment, HIV infection will lead to acquired immunodeficiency syndrome (AIDS).

Consider HIV testing regardless of marital status, sexual orientation, gender, or age.

HIV requires the exchange of certain body fluids to spread—mainly blood, semen or breast milk. In the United States, HIV is mainly spread through unprotected anal or vaginal sex or sharing needles or other drug injection equipment. HIV can also spread from mother to child during pregnancy, birth or breastfeeding.

Populations at high risk for HIV include men and transgender women who have sex with men, people who inject drugs, people who exchange sex for money or drugs and people who have been diagnosed with another STD. People at risk for HIV should get tested at least once a year.

While there is no cure for HIV, it can be effectively controlled using antiretroviral therapy. Providers should encourage people at increased risk to consider antiviral pre-exposure prophylaxis (PrEP). The Pierce County HIV rate has been stable for many years. In 2021, about 1,615 people are living with HIV and providers reported 59 new cases.

Chlamydia

Chlamydia is the most common sexually transmitted infection. Chlamydia is more dangerous for women because it can cause permanent damage to the reproductive system and complications like pelvic inflammatory disease, ectopic pregnancy and infertility. Most people with chlamydia do not have symptoms. If symptoms do exist, they usually do not appear until 1 or 2 weeks after exposure, sometimes longer.

Chlamydia is easily treated with antibiotics. CDC recommends annual chlamydia screening for all sexually active women younger than 25 years old. In Pierce County, chlamydia rates have steadily increased over the last decade. In 2019, providers reported 6,300 cases in Pierce County—the highest ever reported. This was followed by declines in 2020 and 2021 to 5,567 and 3,693. Interpret these declines with caution as the COVID-19 pandemic likely changed people's screening and health-seeking behavior.

Gonorrhea

Gonorrhea is a bacterial STD. Men can experience testicular pain, burning when urinating and milky or watery discharge from the penis. Women frequently have no symptoms but can have burning with urination, abdominal pain, unusual vaginal discharge and vaginal bleeding with intercourse. Symptoms usually occur within 1 week of infection, but sometimes take longer to emerge. The treatment for uncomplicated gonorrhea is ceftriaxone 500mg IM in a single dose. If chlamydial infection is not excluded, treat for chlamydia with doxycycline 100 mg orally two times a day for 7 days (if pregnant, treat with azithromycin 1 gm orally in a single dose).

CDC recommends annual screening for all sexually active women younger than 25 years old. Pierce County gonorrhea cases increased dramatically since 2015 and reached 2,200 in 2020. Cases in 2021 decreased to 1,751 but interpret this decline with caution as people's screening and health-seeking behavior likely changed during the COVID-19 pandemic.

Sexually transmitted disease cases and rates, 2016–2021

Chlamydia		2016	2017	2018	2019	2020	2021
Pierce County	Cases	4,976	5,434	5,947	6,300	5,567	3,693
	Rate	589.0	632.3	681.8	709.2	618.1	403.4
Washington	Cases	31,193	32,454	34,754	37,641	31,423	--
	Rate	434.2	443.9	467.9	498.8	410.1	--

Gonorrhea		2016	2017	2018	2019	2020	2021
Pierce County	Cases	1,196	1,772	1,923	2,132	2,208	1,751
	Rate	142.0	206.2	220.5	240.0	245.1	191.3
Washington	Cases	8,165	10,022	11,215	11,848	11,580	--
	Rate	114.0	137.1	151.0	157.0	151.2	--

Herpes, genital, initial infection		2016	2017	2018	2019	2020	2021
Pierce County	Cases	474	409	482	561	445	371
	Rate	56.1	47.6	55.3	63.2	49.4	40.5
Washington	Cases	2,548	2,058	1,612	1,740	1,375	--
	Rate	35.5	28.2	21.7	23.1	18.0	--

HIV, new diagnosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	42	41	49	53	51	41
	Rate	5.0	4.8	5.6	6.0	5.7	4.5
Washington	Cases	370	375	401	408	359	--
	Rate	5.2	5.1	5.4	5.4	4.7	--

Syphilis, primary and secondary		2016	2017	2018	2019	2020	2021
Pierce County	Cases	58	63	66	92	111	241
	Rate	6.9	7.3	7.6	10.4	12.3	26.3
Washington	Cases	566	674	809	830	837	--
	Rate	7.9	9.2	10.9	11.0	10.9	--

Notes

2021 data are preliminary.

Rates are per 100,000 population.

-- indicates data unavailable.

Source

[Communicable Disease Report 2020](#), Washington State Department of Health.

Other Reportable Conditions

Legionellosis

Legionnaires' disease is characterized by cough, shortness of breath, muscle aches, headache, fever and pneumonia. Pontiac fever is a milder flu like illness without pneumonia. Both are caused by inhalation of *Legionella* bacteria which are found naturally in freshwater. The bacteria can grow in water systems like cooling towers, hot tubs, fountains and large plumbing systems. Legionellosis cases have historically been rare but seem to be increasing with more awareness and testing of people with severe respiratory illness. At increased risk are people who smoke, have chronic respiratory disease, have diabetes, have immune compromise or are over 50 years old. Nationally, *Legionella* is the most frequent cause of outbreaks associated with drinking water.

Diagnosis is usually made by urine antigen. Try to culture using selective media, as clinical isolates are helpful to characterize outbreaks and disease patterns. During public health investigation, we ask about travel or any potential health care stays during the exposure period to identify potential outbreak.

Legionellosis cases were predicted to increase after pandemic measures were lifted, as hotels and other facilities that shut down resumed operation and water systems resumed flowing.

Influenza

Seasonal influenza is not a nationally notifiable condition. Unsubtypable influenza virus (novel and variant influenza viruses) infections and pediatric influenza deaths are nationally notifiable. In Washington, all influenza deaths are notifiable. We receive aggregate reports of influenza diagnostic tests from MultiCare and Virginia Mason Franciscan Health laboratories. We monitor syndromic surveillance for healthcare encounters for influenza-like illnesses. During the 2020–2021 season, influenza activity was essentially absent and was very low during the 2021–2022 season. Other viral respiratory disease activity was also significantly disrupted during the pandemic. The cause or causes of this disruption is not definitively known at this time; but face masks, social distancing and viral interference may have contributed.

Each influenza season, we publish influenza advisories and guidelines for Pierce County healthcare providers. We also publish weekly updates of influenza activity. Sign up to receive these email notifications—visit tpchd.org/notify and select “Health Advisories/Disease Alerts for Providers.”

Carbapenem-resistant Enterobacterales

Carbapenem-resistant Enterobacterales (CRE) and other carbapenem-resistant organisms (CRO) are a significant health concern. They contribute to the growing problem of antibiotic resistance. Enterobacterales (formerly Enterobacteriaceae, which is now a family within the order Enterobacterales) are commonly identified in healthcare settings as genera *Citrobacter*, *Enterobacter*, *Escherichia*, *Klebsiella*, *Morganella*, *Proteus*, *Providencia* and *Serratia*.

Other gram-negative organisms that can become carbapenem-resistant include *Acinetobacter* and *Pseudomonas* species. All CRO cause a variety of infections, including pneumonia, bloodstream, wound and urinary tract infections. They can be difficult to treat and result in poor clinical outcomes.

Carbapenemase production allows enzymes to directly break apart the carbapenem antibiotic making it ineffective. Because these carbapenemase genes are often located on mobile genetic elements (e.g., plasmids), transfer of resistance among and across Enterobacterales or other gram-negative organisms is increased. This results in the potential for widespread transmission within healthcare settings. CDC considers these types of antibiotic-resistant infections an urgent threat in the United States.

In 2021, Pierce County providers reported 4 cases of carbapenemase-producing multidrug-resistant organisms.

COVID-19

A provider reported the first case of COVID 19 in Pierce County on March 6, 2020. The illness had likely spread in the state and county for several weeks prior to the first identification but testing to identify the virus was not available until March. To inform policy, mitigation measures and prevention efforts, we frequently publish a comprehensive and up-to-date report of cases, hospitalizations, deaths, outbreaks and immunization rates at tpchd.org/covid19cases.

Worldwide, COVID-19 was the #1 infectious disease killer in 2020.

Tuberculosis was #2.

It is especially important to call attention to health disparities as they relate to the COVID-19 pandemic. Black, Hispanic, Native American, Native Hawaiian and Pacific Islander communities were disproportionately affected by hospitalization and death. Native Hawaiian/Pacific Islander communities were most affected due to high rates of underlying diabetes and heart disease, in addition to healthcare access problems from lower levels of health insurance. We made extra efforts to reach disproportionately affected groups with vaccines and other mitigation measures, like help with isolation and quarantine.

Throughout this report, we pointed out changes in disease occurrence possibly affected by the COVID-19 pandemic. COVID-19 has affected health and healthcare practice in many ways. Many providers and patients are now comfortable with telehealth visits, rather than visiting the clinical setting. This has resulted in efficiency, convenience, and safety; however, healthcare providers are less inclined to order lab tests for self-limiting conditions, like enteric infections. This can result in a decrease in reports to public health, limiting our prevention efforts with cases and families. Additionally, immunization levels for children and adults have declined, leaving people vulnerable to vaccine-preventable diseases. As travel has largely resumed, this is especially concerning. International travel is a common factor in acquiring infectious disease. Routine recommended screenings, including for chronic hepatitis, STDs and TB have also been on hiatus for patients who avoided the healthcare system because of fear of COVID-19 or inability to get an appointment.

Other reportable condition cases and rates, 2016–2021

Coccidiomycosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	5	10	12	11	4	9
Washington	Cases	40	69	63	62	64	--
Legionellosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	5	8	8	8	13	11
Washington	Cases	72	56	54	76	68	--
Listeriosis		2016	2017	2018	2019	2020	2021
Pierce County	Cases	1	1	0	1	3	2
Washington	Cases	14	17	15	18	14	--
Lyme disease		2016	2017	2018	2019	2020	2021
Pierce County	Cases	8	4	2	2	2	2
Washington	Cases	31	39	20	43	20	--
Malaria		2016	2017	2018	2019	2020	2021
Pierce County	Cases	6	2	4	9	4	4
Washington	Cases	46	34	40	31	15	--
Prion disease		2016	2017	2018	2019	2020	2021
Pierce County	Cases	2	0	1	0	1	1
Washington	Cases	18	10	15	10	19	--
Carbapenem-resistant Enterobacterales		2016	2017	2018	2019	2020	2021
Pierce County	Cases	1	6	12	6	4	4
Washington	Cases	20	24	31	30	35	--

Notes

2021 data are preliminary.

Rates are per 100,000 population.

-- indicates data unavailable.

Source

[Communicable Disease Report 2020](#), Washington State Department of Health.



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