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2019 Communicable Disease Summary Report

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Executive Summary

In 2019 the Unified Government Public Health Department (UGPHD) had a total of 391 cases of communicable diseases reported in the county excluding sexually transmitted infections. The majority of diseases reported were hepatitis diseases. Overall, case counts remained comparable to prior years in Wyandotte County.

Case count 2019: 391

Case count 2018: 377

Case count 2017: 402

Wyandotte's Top 5 Most Reported Communicable Diseases in 2019:

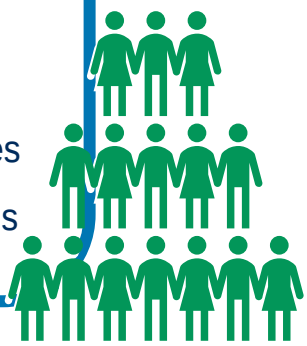
Hepatitis C, chronic: 138 cases

Pertussis: 51 cases

Salmonellosis: 26 cases

Latent Tuberculosis: 26 cases

Campylobacteriosis: 25 cases



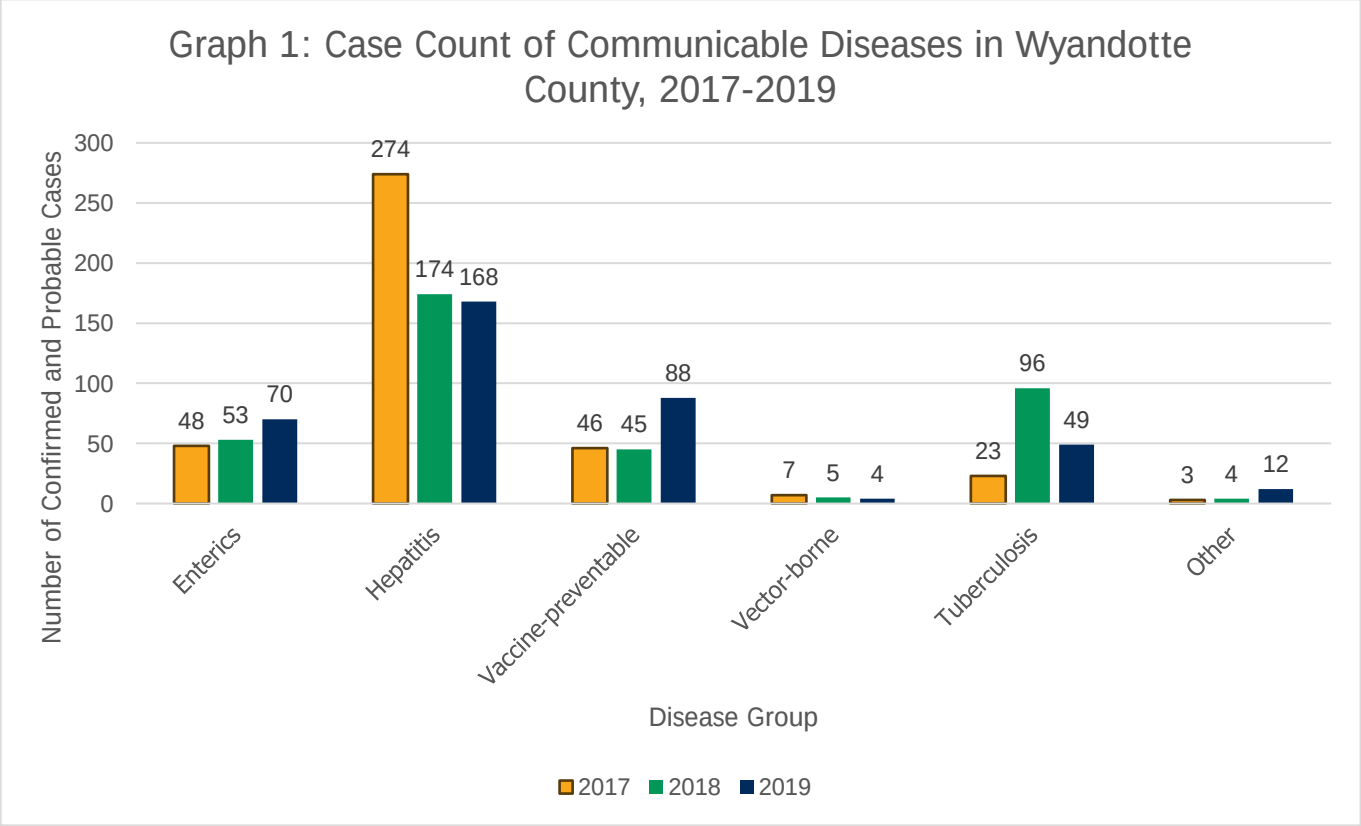
Introduction

The Unified Government Public Health Department (UGPHD) is responsible for investigating communicable diseases, also known as infectious diseases, within Wyandotte County. Communicable diseases are illnesses that can spread from person-to-person through a variety of means including respiratory droplets, contaminated food, insects, blood and other bodily fluids, and more. Communicable diseases can pose a serious risk for the public if not promptly followed-up on and controlled.

By law, certain communicable diseases are reportable to local public health agencies. These diseases, commonly referred to as reportable diseases, are then investigated by the local health department. A complete list of reportable diseases in Kansas can be found at this link. In 2019, the UGPHD received 391 cases of reportable diseases, excluding sexually transmitted infections (a full report regarding STIs can be found at this link). These diseases were then investigated by either UGPHD employees or Kansas Department of Health and Environment employees. During each investigation, control measures are put into place when appropriate. Control measures are actions such as excluding individuals from school or work, providing treatment, educating individuals, and more to help prevent the spread of the disease within the community.

In this report you will find data regarding each reportable communicable disease reported in Wyandotte County during the last three years. Data for this report was extracted from the Kansas Department of Health and Environment's electronic disease surveillance system, EpiTrax. Case counts are based on the date the disease was first reported to public health. Counts include cases that meet both the confirmed and the probable case definitions according to the Centers for Disease Control and Prevention's National Notifiable Diseases Surveillance System guidelines (case definitions can be found at this link).

Graph 1 below summarizes the case counts for each group of communicable diseases—enteric diseases, hepatitis diseases, vaccine-preventable diseases, vector-borne diseases, tuberculosis, and other diseases. In 2019 the majority of groups of diseases remained comparable to case counts in 2017 and 2018.



Enteric Diseases

Enteric diseases are illnesses that infect the gastrointestinal track and typically enter the body via the mouth. These diseases are caused by a variety of bacteria, viruses, or parasites and are usually acquired from contaminated food or water. Symptoms of enteric diseases can include nausea, vomiting, diarrhea, fever, and abdominal pain or cramping. Cases of enteric illness can be part of a larger food-borne outbreak or can occur sporadically. The majority of enteric diseases within Wyandotte County in 2019 were campylobacteriosis and salmonellosis, which are also the most commonly seen enteric diseases nationwide. Both of these diseases are caused by a bacterium and can occur when food is not cooked to the appropriate temperature, stored correctly, or contaminated by other foods. These illnesses can also occur via contact with infected animals.

Table 1: Enteric Diseases in Wyandotte County, Total Cases (Confirmed and Probable), 2017-2019

Disease Name	2017 Total Cases	2018 Total Cases	2019 Total Cases
Campylobacteriosis	17	18	25

Cryptosporidiosis	4	3	5
Giardiasis	1	6	7
Listeriosis	0	1	0
Salmonellosis	20	19	26
Shigellosis	4	4	6
Shiga-toxin producing Escherichia coli (STEC)	2	2	1
Total for Enteric Diseases	**48**	**53**	**70**

Hepatitis Diseases

Hepatitis is a group of viral diseases that cause inflammation of the liver. The liver is a vital organ that processes nutrients, filters the blood, and fights infections. Symptoms of infection can include fever, loss of appetite, nausea, vomiting, abdominal pain and jaundice, a condition where the skin turns yellow. The most common types of viral hepatitis are Hepatitis A, Hepatitis B, and Hepatitis C. Hepatitis A can spread when a person ingests contaminated food while Hepatitis B and C spread via blood and/or bodily fluids. Vaccines are available for Hepatitis A and B while no vaccine is currently available for Hepatitis C. All three types of viral Hepatitis can cause acute (short-term) infection—however, Hepatitis B and C can also cause chronic (long-term) infection. In Wyandotte County in 2019, chronic Hepatitis C accounted for the majority of viral Hepatitis cases.

Table 2: Hepatitis Diseases in Wyandotte County, Total Cases (Confirmed and Probable), 2017-2019

Disease Name	2017 Total Cases	2018 Total Cases	2019 Total Cases
Hepatitis A	0	0	0
Hepatitis B, acute	4	1	1

Hepatitis B, chronic	37	27	26
Hepatitis C, acute	3	2	3
Hepatitis C, chronic	230	144	138
Total for Hepatitis Diseases	**274**	**174**	**168**

Vaccine-preventable Diseases

This group of communicable diseases includes diseases that are preventable through vaccination. Vaccination is an important public health measure used to control the spread of communicable diseases in our community. These diseases spread primarily through respiratory droplets and can be very infectious or easily spread person-to-person. Due to the success of vaccination, Wyandotte County generally sees very few cases of vaccine-preventable diseases each year. In 2019 however, there was a large increase in the number of cases. This was due primarily to an outbreak of pertussis in Wyandotte County schools at the end of 2019. In total for 2019 there were 51 cases of pertussis.

Table 3: Vaccine-preventable Diseases in Wyandotte County, Total Cases (Confirmed and Probable), 2017-2019

Disease Name	2017 Total Cases	2018 Total Cases	2019 Total Cases
Diphtheria	0	0	0
Haemophilus influenzae, invasive disease	3	1	4
Measles	0	0	0
Meningitis and meningococcemia	0	0	1
Mumps	6	0	0

Rubella	0	0	0
Pertussis	17	10	51
Streptococcus pneumoniae, invasive	13	22	19
Tetanus	0	0	0
Varicella	7	12	13
Total for Vaccine-preventable Diseases	**46**	**45**	**88**

Vector-borne Diseases

Vector-borne diseases are a group of diseases that are spread via vectors, living organisms that spread diseases. These vectors primarily include mosquitoes and ticks in Kansas. Some of these vector-borne diseases were acquired locally while other cases were associated with travel to other parts of the world. In 2019, Wyandotte County had only a few cases of vector-borne disease.

Table 4: Vector-borne Diseases in Wyandotte County, Total Cases (Confirmed and Probable), 2017-2019

Disease Name	2017 Total Cases	2018 Total Cases	2019 Total Cases
Dengue	0	0	0
Lyme Disease	2	0	2
Malaria	0	2	1

Spotted Fever Rickettsiosis/Rocky Mountain Spotted Fever	2	2	1
Ehrlichiosis/Anaplasmosis	0	0	0
West Nile Virus	2	0	0
Q Fever	0	0	0
Tularemia	0	0	0
Zika Virus	1	1	0
Total for Vector-borne Disease	**7**	**5**	**4**

Tuberculosis

Tuberculosis (TB) is a bacterial infection caused by the bacterium *Mycobacterium tuberculosis*. This bacterium usually infects the lungs but can spread to any part of the body such as the kidney, spine, liver or brain. Not everyone with TB will have symptoms or become ill. Sometimes the bacterium will lay dormant in the body and not cause infection. This is called latent TB. Only when the bacterium causes illness in the body does someone have active TB disease. Active TB disease can be spread from person-to-person while latent TB infection cannot. Latent TB infection can cause active TB disease at any point in one's life, therefore identification and treatment of latent TB infection are important public health activities. There are other types of *Mycobacterium* infection—these infections are collectively known as Mycobacterium other than Tuberculosis.

Table 5: Tuberculosis in Wyandotte County, Total Cases (Confirmed and Probable), 2017-2019

Disease Name	2017 Total Cases	2018 Total Cases	2019 Total Cases
Active Tuberculosis	2	9	5
Latent Tuberculosis	19	75	26
Mycobacterium other than Tuberculosis	3	12	18
Total for Tuberculosis Diseases	**24**	**96**	**49**

Other Diseases

There are other communicable diseases the UGPHD investigated that do not fit into major categories. The most common of these diseases is legionellosis. Legionellosis is a bacterial illness that can cause pneumonia. The bacterium is found naturally in water but can become a health concern when it grows in places such as cooling towers, showerheads, hot tubs, fountains, large plumbing systems and other places where water may become aerosolized. When the contaminated water becomes aerosolized, people can breathe it in and become infected.

Table 6: Tuberculosis in Wyandotte County, Total Cases (Confirmed and Probable), 2017-2019

Disease Name	2017 Total Cases	2018 Total Cases	2019 Total Cases
Anthrax	0	0	0
Botulism	0	0	0
Brucellosis	0	0	0
Cholera	0	0	0

Coccidioidomycosis	0	0	2
Legionellosis	3	4	10
Rabies	0	0	0
Toxic Shock Syndrome	0	0	0
Total for Other Diseases	**3**	**4**	**12**