

# **2024 ANNUAL SUMMARY OF COMMUNICABLE DISEASES**

**Tuscarawas County, Ohio**



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**Tuscarawas County  
Health Department**

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Tuscarawas County, Ohio

**Published:**

March 10, 2025

**Compiled and Prepared By:**

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## DESCRIPTION OF DEPARTMENTS

Tuscarawas County is served by both a city health department and a general health district. The New Philadelphia City Health Department (NPCHD) is tasked with investigating and controlling communicable diseases for residents within the city limits of New Philadelphia. Meanwhile, the Tuscarawas County General Health District, also known as the Tuscarawas County Health Department (TCHD), oversees disease investigation and control for all cases outside the city of New Philadelphia but within the boundaries of Tuscarawas County, which includes the municipalities of Dover and Uhrichsville

## PERSONNEL

Staff at both agencies work on routine surveillance and outbreak investigations. The key personnel at both agencies responsible for routine communicable disease surveillance, prevention, and control include:

- Valerie Wallace, BSN, RN, Public Health Nurse, Tuscarawas County Health Department
- Amy Kaser, RN, Director of Nursing, Tuscarawas County Health Department
- Katie Seward, MPH, Health Commissioner, Tuscarawas County Health Department
- Natasha Yonley, MPH, CPH, CHES, Epidemiologist/Director of Prevention Services, Tuscarawas County Health Department
- Erica Schreckengost, MPH, Epidemiologist, Tuscarawas County Health Department
- Nichole Bache, BSN, RN, Director of Nursing, New Philadelphia City Health Department
- Vickie Ionno, RN, Health Commissioner, New Philadelphia City Health Department
- Maegan Cummings, RN, New Philadelphia City Health Department

## INTRODUCTION

This report summarizes communicable diseases reported to the Tuscarawas County Health Department (TCHD) and the New Philadelphia City Health Department (NPCHD), collectively referred to as “Tuscarawas County” in 2024. Communicable diseases, also known as infectious diseases, are illnesses caused by bacteria, viruses, and parasites (microorganisms) that can be transmitted from one infected person or animal to another. The transmission routes vary by disease and may include contact with contaminated objects, direct exposure to infected body fluids (e.g., blood) or respiratory secretions, bites from infected animals or vectors (e.g., insects), inhalation of contaminated airborne particles, or ingestion of contaminated food or water.

The Annual Summary of Communicable Diseases 2024 includes cases that were reported among Tuscarawas County residents, documented by public health authorities, and classified as confirmed, probable, or suspected cases according to public health surveillance criteria. It is important to note that this data does not encompass all instances of reportable infectious diseases within the community, as some individuals may not seek medical care for mild or asymptomatic infections, and laboratory confirmation tests are not always performed. The data presented in this summary is considered preliminary.

According to the Ohio Administrative Code 3701-3-02, “cases and suspected cases of selected infectious diseases are required to be reported to Ohio and local public health agencies.” The Tuscarawas County Health Department (TCHD) and the New Philadelphia City Health Department (NPCHD) report, track, and investigate infectious disease cases through the Ohio Disease Reporting System (ODRS). Additionally, the Ohio Department of Health (ODH) is responsible for reporting many diseases to the Centers for Disease Control and Prevention (CDC) as part of national public health surveillance efforts. It is important to note that the data presented in Tables 2a-2f are categorized by disease type, and only confirmed cases will be reported for communicable diseases, with the exception of Lyme disease.

Lyme disease often has a significant number of suspected cases based on laboratory testing results (e.g., Western blot, IgM antibody, and IgG antibody). If the case is evaluated more than 30 days after the onset of symptoms, reliance is placed primarily on the IgG results. Conversely, if testing occurs within 1 to 3 weeks post-exposure, the IgM antibody would typically be positive, while testing conducted between 4 and 6 weeks would usually yield positive IgG results. Confirmation of Lyme disease requires the presence of erythema migrans (EM), commonly known as the "bullseye rash." Additionally, a Western blot test must be performed, revealing at least five (5) reactive bands. The classification of cases is heavily dependent on the onset date; for instance, if the onset date is two months prior to testing, that case will be classified as suspected.

In Tables 2a-2f on pages 9-10, only diseases reported in Tuscarawas County have been included. A comprehensive list of reportable diseases for Ohio can be found on page 6 of this report. All data provided is accurate as of January 14, 2025; however, case finalizations may lead to fluctuations in the results.

This document serves as a resource for individuals and public health partners interested in infectious diseases within Tuscarawas County. For further information on communicable diseases, please contact the Tuscarawas County Health Department or the New Philadelphia City Health Department directly.

## **METHODOLOGY**

All communicable disease data is obtained from the Ohio Disease Reporting System (ODRS) and is collected from both Tuscarawas County and New Philadelphia City Health Departments. The data is subsequently entered into an Excel spreadsheet to calculate the case rate per 100,000 population. The number of confirmed cases is determined based on the current population estimate and then multiplied by 100,000. This calculation indicates the expected incidence of confirmed cases within the population. To maintain confidentiality and prevent the identification of individual cases, the case counts from both jurisdictions are aggregated and reported as a total for the entire county.

## OHIO REPORTABLE DISEASES<sup>4</sup>

### **Class A: Diseases of major public health concern because of the severity of the disease. These diseases must be reported immediately to the health department.**

- Anthrax
- Botulism (foodborne)
- Cholera
- Crimean-Congo Hemorrhagic Fever
- Diphtheria
- Ebola Virus Disease
- Influenza A, Novel Infection
- Lassa Fever
- Marburg Hemorrhagic Fever
- Measles
- Meningococcal Disease
- Middle East Respiratory Syndrome (MERS)
- Plague
- Rabies
- Rubella (not congenital)
- Severe Acute Respiratory Syndrome (SARS)
- Smallpox
- Tularemia
- Viral Hemorrhagic Fever

### **Class B: Diseases of public health concern needing timely responses because of potential epidemic spread. These diseases must be reported to the health department by the end of the day by the next business day.**

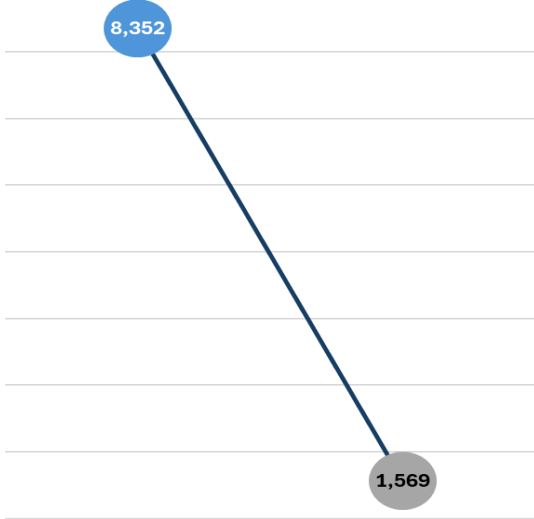
- Amebiasis
- Anaplasmosis
- Babesiosis
- Botulism (infant & wound)
- Brucellosis
- Campylobacteriosis
- Candida auris
- Carbapenemase-Producing Organisms (CPO)
- Chancroid
- Chikungunya
- Chlamydia trachomatis Infections
- Coccidioidomycosis
- Coronavirus Disease 2019 (COVID-19)
- Creutzfeldt-Jakob Disease (CJD)
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- Eastern Equine Encephalitis Virus Disease
- Ehrlichiosis
- Escherichia coli, Shiga Toxin-Producing and Hemolytic Uremic Syndrome
- Influenza-Associated Conditions
- Giardiasis
- Gonorrhea
- Haemophilus influenzae, Invasive Disease
- Hantavirus Infection
- Hepatitis A
- Hepatitis B
- Hepatitis B, Perinatal Infection
- Hepatitis C
- Hepatitis C, Perinatal Infection
- Hepatitis E
- La Crosse Virus Disease
- Legionellosis
- Leprosy
- Leptospirosis
- Listeriosis
- Lyme Disease
- Malaria
- Meningitis, Aseptic
- Meningitis, Other Bacterial
- Mpox
- Mumps
- Pertussis
- Poliomyelitis
- Powassan Virus Disease
- Psittacosis
- Q Fever
- Rubella
- Salmonella Paratyphi Infection
- Salmonella Typhi Infection
- Salmonellosis
- Shigellosis
- Spotted Fever Rickettsiosis
- St. Louis Encephalitis Virus Disease
- Staphylococcus aureus, Vancomycin Intermediate/Resistant (VISA/VRSA)
- Streptococcal Disease, Group A, Invasive
- Streptococcal Disease, Group B, in Newborn
- Streptococcal Toxic Shock Syndrome (STSS)
- Streptococcus pneumoniae, Invasive Disease
- Syphilis
- Tetanus
- Trichinellosis
- Toxic Shock Syndrome (TSS)
- Tuberculosis
- Varicella
- Vibriosis
- Western Equine Encephalitis Virus Disease
- West Nile Virus Infection
- Yellow Fever
- Yersiniosis
- Zika Virus Disease

### **Class C: Outbreaks that can happen in different ways within the community. Outbreaks need to be reported to the health department by the end of the day on the next business day.**

- Outbreak, Community
- Outbreak, Foodborne
- Outbreak, Healthcare-Associated
- Outbreak, Institutional
- Outbreak, Waterborne
- Outbreak, Zoonotic

**Graph 1: Percent Decrease in Disease Investigations in Tuscarawas County, 2022-2024 Comparison.**

Tuscarawas County, Ohio had an 81.2% decrease in disease investigations from 2022 compared to 2024.

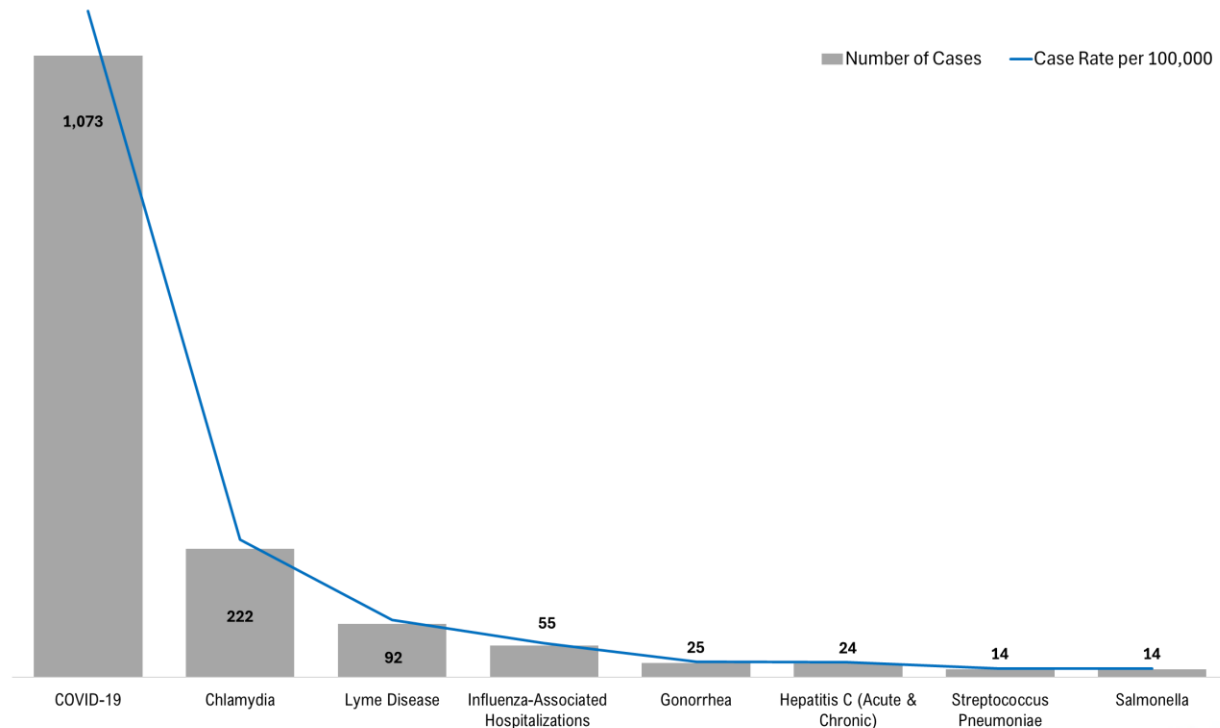


**KEY FINDINGS**

In 2024, the New Philadelphia City Health Department (NPCHD) and the Tuscarawas County Health Department (TCHD) completed a total of 1,569 disease investigations. This represents a 22.5% decrease from 2023 to 2024. Since 2022, the number of communicable diseases has declined, likely due to the self-reporting of COVID-19 cases. The chart on the left displays all confirmed, probable, and suspected cases reported among residents of Tuscarawas County. *Please note that these numbers are subject to change due to delayed laboratory reporting or jurisdictional adjustments following diagnosis*

**Graph 2: Most Reported Confirmed Diseases [Ten (10) or more cases], All Ages, Tuscarawas County, 2024.**

Most Reported Confirmed Diseases [Ten (10) or more cases], All Ages, Tuscarawas County, 2024.



## DEMOGRAPHIC PROFILE OF TUSCARAWAS COUNTY

### Tuscarawas County Population, 2020 Census

- The demographic profile of Tuscarawas County is described in the following tables.
  - Tuscarawas County is served by two local health departments:
    - New Philadelphia City Health Department serves a population of 17,288\*.
    - Tuscarawas County Health Department serves a population of 75,448\*.
- \*According to data taken from Ohio Department of Health's Profile and Performance database*

**Table 1a: Tuscarawas County Population by Gender, 2020<sup>2</sup>**

<i>Gender</i>	2020	
	Population	Percent (%)
<i>Male</i>	45,753	49.8
<i>Female</i>	46,184	50.2
<i>Total</i>	91,937	100

**Table 1b: Tuscarawas County Population by Race and Ethnicity, 2020<sup>3</sup>**

<i>Race</i>	2020	
	Population	Percent (%)
<i>White</i>	85,679	91.9
<i>Black or African American</i>	724	0.8
<i>American Indian and Alaska Native</i>	967	1.0
<i>Asian Alone</i>	306	0.3
<i>Native Hawaiian and Other Pacific Islander</i>	29	<0.1
<i>Other race</i>	1,727	1.9
<i>Two or More Races</i>	3,831	4.1
<i>Total</i>	93,263	100

**Graph 3: Tuscarawas County Population by Age Group, 2020<sup>2</sup>**

Half of Tuscarawas County **male** and **female** residents are over the age of 40.



## COUNTS AND RATE OF CONFIRMED COMMUNICABLE DISEASE

**Table 2a: Counts and Rate of Enteric Reportable Diseases among Tuscarawas County Residents, by Jurisdiction, 2023-2024**

† = Rate per 100,000 population \*= reporting time to local health department (A= immediately, B=by end of next business day)

Enteric Diseases						
Tuscarawas County (Entire County)						Healthy People
Disease Name	Class*	2023		2024		2030
		# of Cases	Case Rate†	# of Cases	Case Rate†	Target
Campylobacteriosis	B	4	4.3	3	3.2	10.9
Cryptosporidiosis	B	2	2.1	3	3.2	N/A
<i>E. coli</i>	B	2	2.1	1	1.1	3.7
Giardiasis	B	1	1.1	4	4.3	N/A
Listeriosis	B	1	1.1	0	0.0	0.22
Salmonellosis	B	16	17.2	14	15.0	11.5
Shigellosis	B	1	1.1	2	2.1	N/A
Yersiniosis	B	1	1.1	2	2.1	N/A

**Table 2b: Counts and Rate of Reportable Hepatitis among Tuscarawas County Residents, by Jurisdiction, 2023-2024**

† = Rate per 100,000 population \*= reporting time to local health department (A= immediately, B=by end of next business day)

Hepatitis						
Tuscarawas County (Entire County)						Healthy People
Disease Name	Class*	2023		2024		2030
		# of Cases	Case Rate†	# of Cases	Case Rate†	Target
Hepatitis B, non-perinatal (acute and chronic)	B	1	1.1	6	6.4	0.1
Hepatitis C (acute and chronic)	B	23	24.7	24	25.7	0.1

**Table 2c: Counts and Rate of Reportable Sexually Transmitted Infections among Tuscarawas County Residents, by Jurisdiction, 2023-2024**

† = Rate per 100,000 population \*= reporting time to local health department (A= immediately, B=by end of next business day)

^= Class is not determined in the IDCM-3.

Sexually Transmitted Infections						
Tuscarawas County (Entire County)						Healthy People
Disease Name	Class*	2023		2024		2030
		# of Cases	Case Rate†	# of Cases	Case Rate†	Target
<i>Chlamydia trachomatis</i> infections	B	226	242.3	222	238.0	N/A
Gonorrhea ( <i>Neisseria gonorrhoeae</i> )	B	33	35.4	25	26.8	N/A
Human Immunodeficiency Virus Infection/Acquired Immunodeficiency Syndrome (HIV/AIDS)	^	4	4.3	1	1.1	3,000 Persons

**Table 2d: Counts and Rate of Reportable Vaccine-Preventable Diseases among Tuscarawas County Residents, by Jurisdiction, 2023-2024**

† = Rate per 100,000 population \*= reporting time to local health department (A= immediately, B=by end of next business day)

Vaccine-Preventable Diseases						
Tuscarawas County (Entire County)						Healthy People
Disease Name	Class*	2023		2024		2030
		# of Cases	Case Rate†	# of Cases	Case Rate†	Target
COVID-19	B	1,270	1,361.7	1,073	1,150.5	N/A
<i>Haemophilus influenzae</i> , invasive	B	4	4.3	5	5.4	N/A
Influenza-associated hospitalization	B	18	19.3	55	59.0	N/A
Pertussis	B	23	24.7	1	1.1	2,387 Cases
Varicella	B	1	1.1	0	0.0	N/A

**Table 2e: Counts and Rate of Reportable Vector-borne and Zoonotic Diseases among Tuscarawas County Residents, by Jurisdiction, 2023-2024**

† = Rate per 100,000 population, \*= reporting time to local health department (A= immediately, B=by end of next business day)

Vector-borne and Zoonotic Diseases						
Tuscarawas County (Entire County)						Healthy People
Disease Name	Class*	2023		2024		2030
		# of Cases	Case Rate†	# of Cases	Case Rate†	Target
La Crosse virus	B	1	1.1	0	0.0	N/A
Lyme disease, confirmed	B	43	46.1	92	98.6	N/A
Lyme disease, <u>suspect</u>	B	222	238.0	127	136.2	N/A

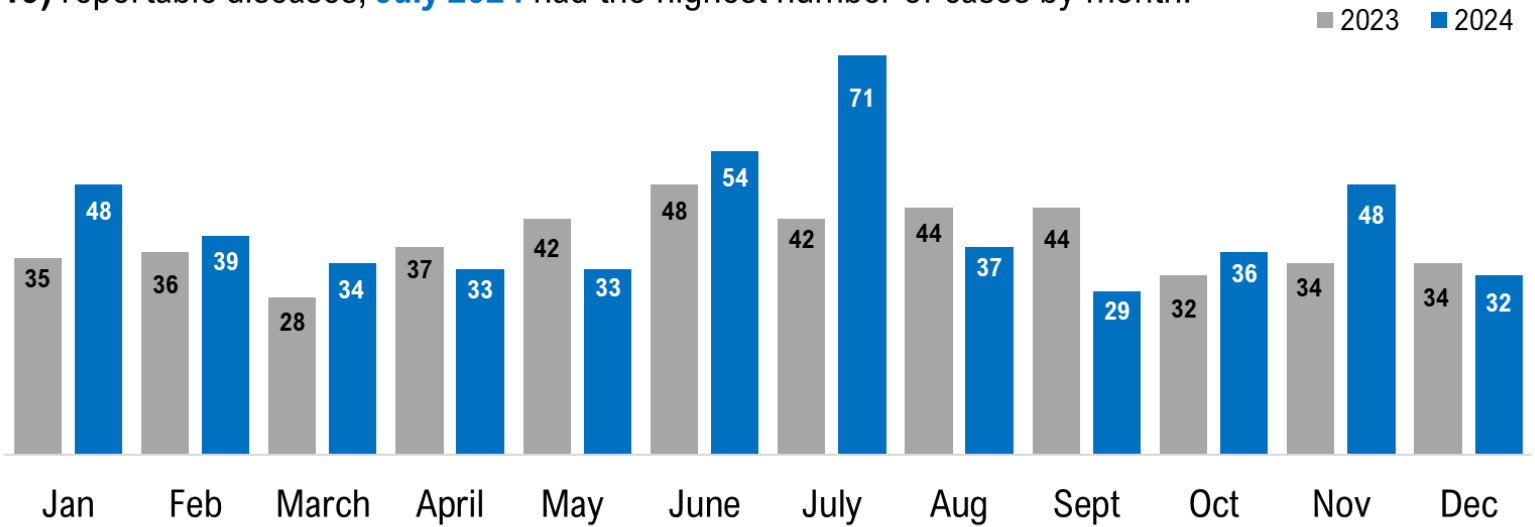
**Table 2f: Counts and Rate of Other Reportable Diseases (excluding COVID-19) among Tuscarawas County Residents, by Jurisdiction, 2023-2024**

† = Rate per 100,000 population, \*= reporting time to local health department (A= immediately, B=by end of next business day)

Other Reportable Diseases						
Tuscarawas County (Entire County)						Healthy People
Disease Name	Class*	2023		2024		2030
		# of Cases	Case Rate†	# of Cases	Case Rate†	Target
Creutzfeldt-Jakob Disease	B	0	0.0	1	1.1	N/A
CP-CRE/CPO	B	0	0.0	5	5.4	N/A
Legionnaires' disease	B	4	4.3	5	5.4	N/A
Meningitis, aseptic (viral)	B	0	0	1	1.1	N/A
Streptococcal disease, group A, invasive (IGAS)	B	19	20.4	8	8.6	N/A
Streptococcal disease, group B, in Newborn	B	0	0.0	1	1.1	N/A
<i>Streptococcus pneumoniae</i> , invasive disease (ISP)	B	11	11.8	15	16.1	N/A
Tuberculosis (TB), including multi-drug resistant TB (MDR-TB)	B	2	2.1	1	1.1	1.4

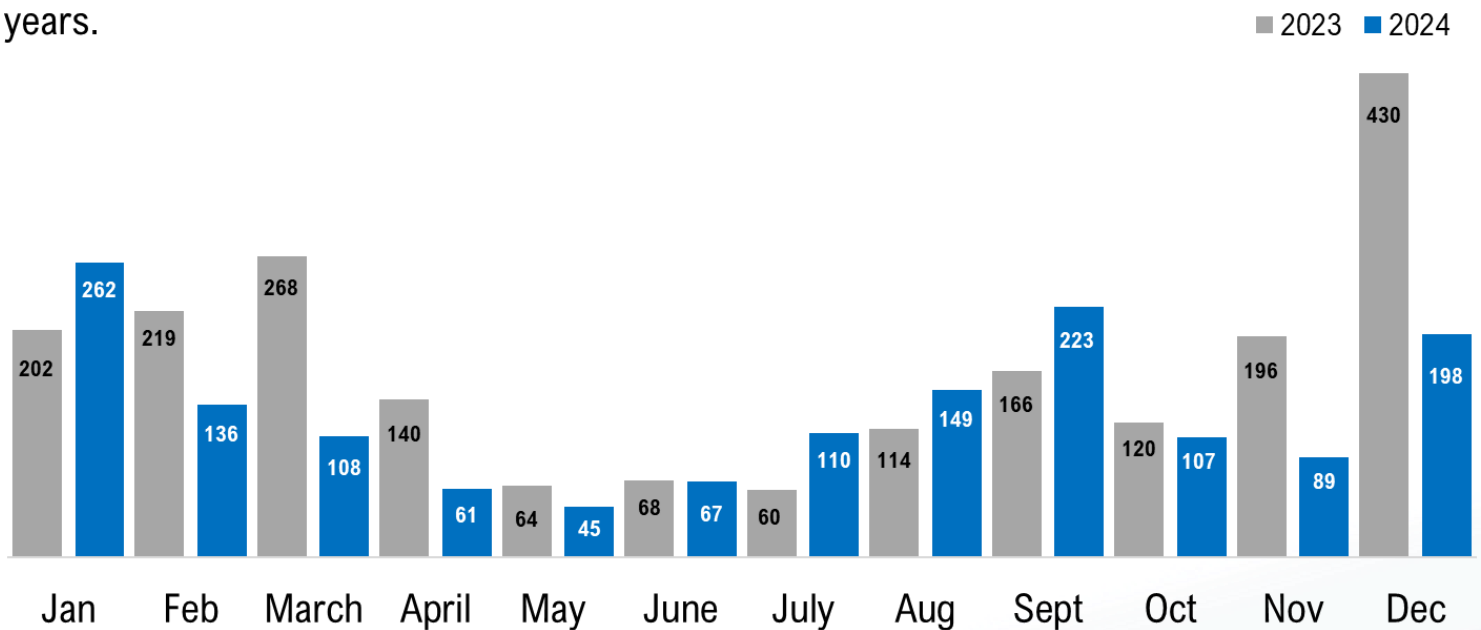
**Graph 4: Reportable Communicable Diseases by Month excluding COVID-19, Tuscarawas County, Ohio 2023-2024 Comparison.**

In a 2023-2024 comparison of Tuscarawas County confirmed (**excluding COVID-19**) reportable diseases, **July 2024** had the highest number of cases by month.



**Graph 5: Reportable Communicable Diseases by Month including COVID-19, Tuscarawas County, Ohio 2023-2024 Comparison.**

In a 2023-2024 comparison of Tuscarawas County confirmed (**including COVID-19**) reportable disease cases, you can see that during respiratory season (October through March) confirmed cases increased across both years.



# INFECTIOUS DISEASE OUTBREAKS IN TUSCARAWAS COUNTY

**Table 3: Number of Confirmed Outbreaks (including COVID-19) Reported by Year, Tuscarawas County, 2022-2024**

Year:	2022	2023	2024
Cluster	0	0	0
Community	0	1	1
Foodborne	0	0	0
Healthcare-Associated	3	0	4
Institutional	3	0	4
Unspecified (Class A)	0	0	0
Unusual Incidence	0	0	0
Waterborne	0	0	0
Zoonotic	0	0	0
Other	0	0	0
<b>Year Total</b>	<b>6</b>	<b>1</b>	<b>9</b>

## OUTBREAK DEFINITIONS<sup>4</sup>

**Community:** Two (2) or more cases of similar illness with a common exposure in the community and not considered foodborne, waterborne, zoonotic, healthcare-associated, or institutional disease outbreak.

**Foodborne:** The occurrence of two (2) or more cases of a similar illness resulting from the ingestion of a common food.

**Healthcare-Associated:** The occurrence of cases of an illness above the expected or baseline level, usually over a given time period, as a result of being in a healthcare facility or receiving healthcare-associated products or procedures. The number of cases indicating the presence of an outbreak will vary per disease agent, size and type of population exposed, previous exposure to the agent, and the time and place of occurrence.

**Institutional:** Two (2) or more cases of similar illness with a common exposure at an institution (e.g., correctional facility, day care center, group home, school, assisted-living facility) and not considered a foodborne or waterborne disease outbreak.

**Unspecified (Class A reporting):** Any unexpected pattern of cases, suspected cases, deaths, or increased incidence of any other disease of major public health concern which, because of the severity of disease or potential for epidemic spread, may indicate a newly recognized infectious agent, outbreak, epidemic, related public health hazard, or act of bioterrorism.

**Unusual Incidence:** Two (2) or more cases of infectious disease that can be connected by person, place, and time, and do not meet the criteria for another type of outbreak.

**Waterborne:** Waterborne disease outbreaks are divided into two categories, depending on the type of water implicated in the outbreak. Outbreaks associated with water (excluding recreational water) must meet two criteria: first, two or more persons must be epidemiologically linked by location of exposure to water, by time, and characteristics of illness; second, the epidemiologic evidence must implicate water as the probable source of illness. Outbreaks associated with recreational water must also meet two criteria. First, two or more persons must be epidemiologically linked by the location of the exposure to recreational water, time, and illness. Recreational water settings include swimming pools, wading pools, spas, waterslides, interactive fountains, wet decks, and fresh and marine bodies of water. Second, the epidemiologic evidence must implicate water or volatilization of water-associated compounds into the air surrounding an aquatic facility as the probable source of the illness.

**Zoonotic:** Occurs when two (2) or more cases of similar illness occur after exposure to the same animal or the same or similar species of animals and epidemiologic evidence implicating animals as the probable source of illness.

## TIMELINESS OF DISEASE REPORTING

A key part of good public health practice is timeliness of disease reporting.<sup>5</sup> Time requirements for reporting each reportable disease vary based on the communicability and severity of the disease.

Using Ohio Disease Reporting Systems (ODRS), it is possible to query the date when a healthcare provider diagnosed an illness, onset date, and the date when the local health department received notification. Table 4 lists selected diseases and the corresponding median and mean numbers of days between healthcare provider diagnosis and reporting to the local health department. The reporting lag time is the difference between the date a case was reported to the local health department (LHD) and the case's diagnosis date. If the diagnosis date is blank, ODRS is defaulted to the date fields in the following order: lab specimen collection date, lab result date, onset date, date reported to ODH or created date. For class A diseases (immediately reported), mean and median lag time values should be less than one (1). For class B diseases, the lag time values should be less than two (2).

**Table 4: Reporting Lag Time for Selected Reportable Diseases, Tuscarawas County, 2024**

<b>Reportable Condition</b>	<b>Reporting Requirement</b>	<b># of Cases</b>	<b>Mean (Days)</b>	<b>Median (Days)</b>	<b>% of Cases Missing Diagnosis Date</b>
<b>E. coli</b>	<b>By end of next business day</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>100</b>
Hepatitis A	By end of next business day	0	N/A	N/A	N/A
Listeriosis	By end of next business day	0	N/A	N/A	N/A
Measles	Immediately	0	N/A	N/A	N/A
Meningococcal disease - Neisseria meningitidis	Immediately	0	N/A	N/A	N/A
Mumps	By end of next business day	0	N/A	N/A	N/A
<b>Pertussis</b>	<b>By end of next business day</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>100</b>
Rubella	By end of next business day	0	N/A	N/A	N/A
<b>Salmonellosis</b>	<b>By end of next business day</b>	<b>14</b>	<b>2.86</b>	<b>2</b>	<b>100</b>
Vibrio	By end of next business day	0	N/A	N/A	N/A

In 2024, there were zero (0) reported cases of Class A diseases from the aforementioned list, which must be reported immediately to the local health department. Among the Class B diseases listed, only one (1) case of Salmonellosis did not meet the goal for reporting lag time. Delays in reporting can be attributed to cases being mailed or faxed and arriving over weekends or holidays. Additionally, some cases are initially sent to other counties, which then forward them to the appropriate jurisdiction in Tuscarawas County.

## DISEASE SPOTLIGHT: Chlamydia trachomatis

**Table 5: Confirmed Cases of Chlamydia in Tuscarawas County**

	2023	2024	Percent Change
<b>Number of Cases</b>	226	222	<b>Decreased by 1.8%</b>
<b>Rate (per 100,000 pop.)</b>	242.3	238.0	

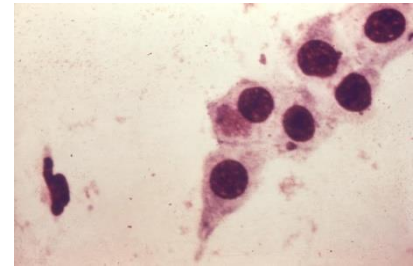


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### EPIDEMIOLOGY:<sup>6,7,8</sup>

**Infectious agents:** *Chlamydia trachomatis*

**Case Definition:** Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum and trachoma.

**Mode of Transmission:** Genital and oral infections are almost always sexually transmitted. Infection of neonates usually occurs at birth. Trachoma is usually transmitted through autoinoculation by the hands from genitalia to the eyes.

**Incubation Period:** Adult genital infection is 7-21 days. Pelvic Inflammatory Disease (PID) in most women remains asymptomatic for some time, usually until the next menstrual period. Conjunctivitis in infants is 5-17 days after delivery. Infant pneumonitis is 3-16 weeks of age. Lymphogranuloma venereum is 7-12 days but may be as long as 1-12 weeks after exposure.

**Symptoms:** Chlamydia is known as a “silent” infection since most infected people have no symptoms. If symptoms do occur, they may not appear until several weeks after exposure. Even when it causes no symptoms, chlamydia can damage a woman’s reproductive organs. In women, the bacteria first infect the cervix and/or the urethra. Some infected women have an abnormal vaginal discharge or a burning sensation when urinating. Untreated infections can spread upward to the uterus and fallopian tubes, causing pelvic inflammatory disease (PID). PID can be silent and, or initially, it can lead to infertility and other complications later. Some infected men have discharge from their penis or a burning sensation when urinating. Pain and swelling in one or both testicles may also occur but is less common. Chlamydia can also infect the rectum in men and women, either through receptive anal sex, or possibly via spread from cervix and vagina. While these infections often cause no symptoms, they can cause rectal pain, discharge, and/or bleeding.

**Treatment:** Chlamydia can be easily treated and cured with antibiotics. HIV-positive people with chlamydia should receive the same treatment as those who are HIV-negative. A person with chlamydia should abstain from having sex for seven days after a single dose antibiotic, or until completion of a seven-day course of antibiotics, to prevent spreading the infection to partners.

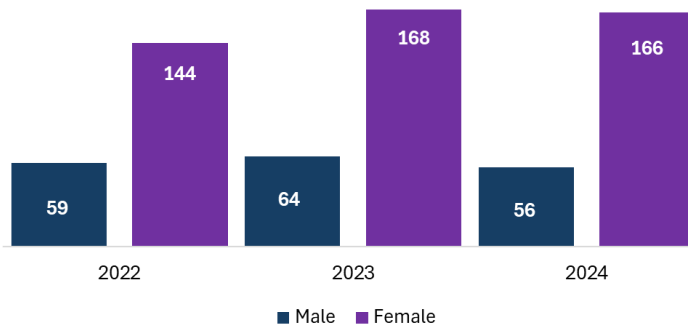
**Prevention:** Latex male condoms, when used consistently and correctly, can reduce the risk of getting or giving chlamydia. The surest way to avoid chlamydia is to abstain from vaginal, anal, and oral sex or to be in a long-term mutually monogamous relationship with a partner who has been tested and is known to be uninfected.

## DISEASE SPOTLIGHT: Chlamydia trachomatis

In 2024, Tuscarawas County, Ohio, reported 222 confirmed cases of Chlamydia, reflecting a decrease from the 226 cases recorded in 2023. To help reduce chlamydia infections in the community, strategies include sex education, condom use, abstinence, and screenings for at-risk populations, particularly those over 25 years old. Healthy People 2030 seeks to increase the proportion of sexually active female adolescents and young women who are screened for chlamydia infections. Currently, 53.4% of female adolescents and young women receive chlamydia screenings, while Healthy People 2030 has set a target to raise this percentage to 76.5%. The baseline percentage is 54.9% for sexually active females aged 16 to 24 who are enrolled in either Medicaid or a commercial health plan and have undergone screening during their required annual exams.

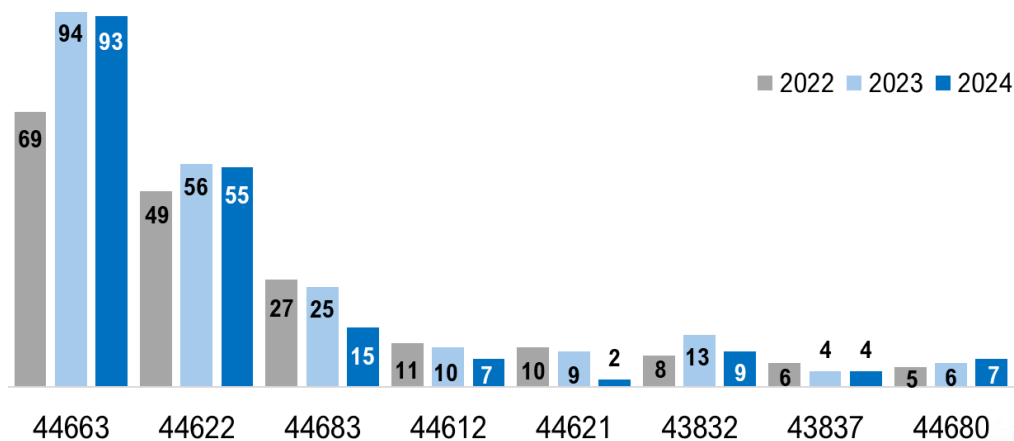
**Graph 6: Tuscarawas County, Ohio Confirmed Chlamydia Cases Broken Down by Gender, 2022-2024 Comparison.**

In a 2022-2024 comparison, chlamydia cases are the highest among **female** Tuscarawas County residents.



**Graph 7: Tuscarawas County, Ohio, Confirmed Chlamydia Cases Broken Down by Zip Code, 2022-2024 Comparison.**

A 2022-2024 comparison showed that the **44663** zip code had the highest number of confirmed chlamydia cases.



## **DISEASE SPOTLIGHT: Giardiasis (gi-ar-di-a-sis)**

**Table 6: Confirmed Cases of Giardiasis in Tuscarawas County**

	2023	2024	Percent Change
<b>Number of Cases</b>	1	4	<b>Increased by 300%</b>
<b>Rate (per 100,000 pop.)</b>	1.1	4.3	

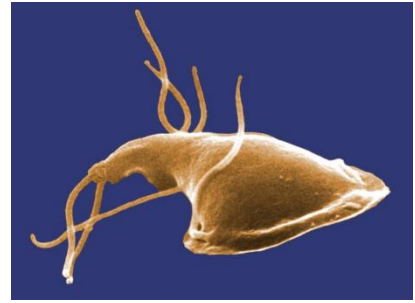


Image from:  
[Details - Public Health Image Library \(PHIL\) \(cdc.gov\)](#)

### **EPIDEMIOLOGY:**<sup>9,10</sup>

**Infectious agents:** *Giardia lamblia*, also known as *G. intestinalis* or *G. duodenalis*

**Case Definition:** An illness caused by protozoan *Giardia lamblia* (also known as *G. intestinalis* or *G. duodenalis*) and characterized by gastrointestinal symptoms such as diarrhea, abdominal cramps, bloating, weight loss, or malabsorption.

**Mode of Transmission:** Most cases are probably due to person-to-person transmission by the fecal-oral route. Contaminated water or food may also account for some cases. Zoonotic transmission is not uncommon, as *Giardia* occurs in both wild and domestic animals including dogs, cats, cattle, and beavers. It is also transmitted through sexual practices that involve oral-anal contact and anal intercourse.

**Incubation Period:** 3-25 days or longer, with a median of 7-10 days.

**Symptoms:** *Giardia* infection can cause a variety of intestinal symptoms, which may include diarrhea, gas or flatulence, greasy stool that can float, bloating, stomach or abdominal cramps, upset stomach or nausea, lactose intolerance, and dehydration. A “failure to thrive” is also a common symptom of *Giardia* in children. These symptoms may also lead to weight loss or inability to gain weight. Some people with *Giardia* infection have no symptoms at all. While a clinical illness is necessary to confirm *Giardia* infections, the illness can include any of these symptoms and does not have to include diarrhea.

**Treatment:** Several prescription drugs are available to treat *Giardia*. Although *Giardia* can infect all people, young children and pregnant women may be more susceptible to dehydration resulting from diarrhea and should, therefore, drink plenty of fluids while ill.

**Prevention:** Wash hands with soap and water after using the toilet and before handling food. Avoid water or food that may be contaminated. Wash and peel all raw vegetables and fruits before eating. Avoid drinking water from lakes, rivers, springs, ponds, or streams unless it has been filtered or chemically treated. During community-wide outbreaks caused by contaminated drinking water, boil drinking water for one minute to kill the *Giardia* parasite and make the water safe to drink. When traveling in countries where the water supply may be unsafe, avoid drinking unboiled tap water and avoid uncooked foods washed with unboiled tap water. Bottled or canned carbonated beverages, seltzers, pasteurized fruit drinks, and steaming hot coffee and tea are safe to drink. You should check the label on bottled water to make sure it has been properly filtered before drinking. If you work in a childcare center where you change diapers, be sure to wash your hands thoroughly with plenty of soap and warm water after every diaper change, even if you wear gloves. Avoid swimming in pools if you or your child has *Giardia*. *Giardia* cysts are fairly chlorine resistant and are passed in the stools of infected people for several weeks after they no longer have symptoms.

**Healthy People 2030:** At this time there is no objective for *Giardia*.

## **PREVENTION<sup>11</sup>**

There are several ways to protect yourself and others from infectious diseases. Learn, practice, and teach healthy habits.

1. **Handle & Prepare Food Safely:** Food can carry germs. Wash hands, utensils, and surfaces often when preparing any food, especially raw meat. Always wash fruits and vegetables. Cook and keep food at proper temperatures. Don't leave food out – refrigerate promptly.
2. **Wash Hands Often:** One of the most important healthy habits to prevent the spread of germs is to clean your hands. Our hands can carry germs, so it is important to wash them often, even if they don't look dirty.
3. **Clean & Disinfect Commonly Used Surfaces:** Germs can live on the surface. Cleaning with soap and water is usually enough. However, you should disinfect your bathroom and kitchen regularly. Disinfect other areas if someone in the house is ill. You can use an EPA-certified disinfectant (look for the EPA registration number on the label) or a bleach solution.
4. **Cough and Sneeze into a Tissue or Your Sleeve:** If you are sick, the air that comes out of your mouth when you cough, or sneeze may contain germs. Someone close by can breathe in your air, or touch a surface contaminated with your germs, and become ill. Cough or sneeze into a tissue or your shirt sleeve—not into your hands. Remember to throw away the tissue and wash your hands. You can wear a face mask and consider distancing yourself from others when you are sick with a cough or sneezing illness.
5. **Don't Share Personal Items:** Avoid sharing personal items that can't be disinfected, like toothbrushes and razors, or sharing towels between washes. Needles should never be shared, should only be used once, and then thrown away properly.
6. **Practice Safer Sex:** The only guaranteed method to prevent Sexually Transmitted Infections (STIs) is to abstain from all sexual contact. However, there are effective steps you can take to reduce your risk of STIs. Effective STI prevention begins before any sexual activity. Here are some steps you can take to reduce your STI risk:
  - a. Talk honestly with potential partners about both of your sexual histories.
  - b. Get tested, along with your partner, before having sex.
  - c. Avoid sexual contact when under the influence of alcohol or drugs.
  - d. Consider pre-exposure prophylaxis (PrEP), a medication that someone who is HIV negative can take to reduce their risk of contracting HIV.
  - e. Use barrier methods every time you engage in sexual activity.
7. **Get Vaccinated:** Vaccines can prevent many infectious diseases. You should get some vaccinations in childhood, some as an adult, and some for special situations like pregnancy and travel. Make sure you and your family are up to date on your vaccinations.
8. **Avoid Touching Wild Animals:** You and your pets should avoid touching wild animals which can carry germs that cause infectious diseases. If you are bitten, talk to your doctor. Make sure that your pet's vaccinations are up to date.
9. **Stay Home When Sick:** When you are sick, stay home and rest. You will get well sooner and will not spread germs.

## VACCINES

Vaccinations are an important tool to prevent infection and the spread of some diseases. It is important that you and your family are up to date on your immunizations. To view the CDC recommendations for vaccines for those Birth – Age 18, visit: <https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html>. A schedule for those over the age of 18 can be viewed at <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>

**Table 7: Vaccines administered by TCHD by type and year for 2022-2024:**

All vaccine information was obtained from the Ohio Department of Health (ODH) vaccine reporting system, ImpactSIIS.

Vaccine	Protects Against	Number of Recommended Doses	2022	2023	2024
<b>DTap</b>	Diphtheria, tetanus, and whooping cough (pertussis)	5 doses	29	32	32
<b>DTaP-Hep B-IPV</b>	Diphtheria, tetanus, and whooping cough (pertussis), hepatitis B, polio	3 doses	61	106	75
<b>DTap-IPV</b>	Diphtheria, tetanus, and whooping cough (pertussis), polio	Booster only	44	46	36
<b>HPV9</b>	Cervical, vaginal, anal cancers or genital warts caused by certain types of HPV	2 or 3 doses	129	189	155
<b>Hep A; adult</b>	Hepatitis A	2 or 3 doses	3	4	6
<b>Hep A; ped/adol, 2 dose</b>	Hepatitis A	2 doses	78	61	59
<b>Hep A-Hep B</b>	Hepatitis A and B	3 doses	16	15	9
<b>Hep B; ped/adol</b>	Hepatitis B	4 doses	57	21	13
<b>Hep B; adult</b>	Hepatitis B	2 or 3 doses	42	60	55
<b>Hib</b>	Haemophilus influenzae Type B	3 doses	81	126	97
<b>IPV</b>	Polio	4 doses	30	23	18
<b>Influenza</b>	Influenza of seasonal flu	Annually	540	501	489
<b>MMR</b>	Measles, mumps, rubella	2 doses	58	67	37
<b>MMRV</b>	Measles, mumps, rubella, varicella	2 doses	44	57	52
<b>Meningococcal B</b>	Meningitis	2 doses	18	90	65
<b>Meningococcal MCV4O</b>	Meningitis	2 doses	167	344	258
<b>Pneumococcal PCV 13</b>	Pneumonia	4 doses	81	125	19
<b>Td, adult</b>	Tetanus, diphtheria	2 doses	31	5	8
<b>Tdap</b>	Tetanus, diphtheria pertussis	5 doses	274	241	198
<b>Meningococcal MCV4P</b>	Meningitis	2 doses	208	0	0
<b>Pneumococcal Polysaccharide PPV23</b>	Pneumonia	2 doses	13	6	0
<b>Pneumococcal PCV 20</b>	Pneumonia	4 doses		26	91
<b>Rotavirus</b>	Rotavirus	2 or 3 doses	28	39	40
<b>Varicella</b>	Varicella (chicken pox)	2 doses	77	54	47
<b>Rabies</b>	Rabies	2 doses	6	8	6
<b>RSV, mRNA</b>	Respiratory Syncytial Virus	1 dose	-	-	2
<b>COVID-19 mRNA ped/adult</b>	COVID-19	2 doses + booster	4,069	1,048	578
<b>COVID-19 Janssen</b>	COVID-19	1 dose + booster	64	4	0
<b>Novavax</b>	COVID-19	2 doses	12	4	0
<b>Total</b>			<b>6,260</b>	<b>3,302</b>	<b>2,445</b>

## BASIC INFORMATION ON REPORTABLE COMMUNICABLE DISEASES

The following gives information on commonly reported communicable diseases in Tuscarawas County. Each of the diseases follows the following format:

### Disease Name:

**Infectious Agent:** what causes the illness

**Reservoir:** where the disease lives, grows, and multiplies

**Mode of Transmission:** how the disease is spread

**Incubation Period:** how long it can be in your body after exposure, prior to seeing signs and symptoms

**Prevention Measures:** how to eliminate the spread of disease

### Campylobacteriosis:

- **Infectious Agent:** *Campylobacter jejuni*, *Campylobacter Coli*.
- **Reservoir:** Poultry, cattle, farm animals. Most raw poultry meat is contaminated.
- **Mode of Transmission:** Ingestion of undercooked poultry, contaminated water or milk from an infected cow, improper hand sanitization after handling farm animals.
- **Incubation Period:** 2–5-day, range 1-10 days.
- **Prevention Measures:** Pasteurize all milk, boil/chlorinate all water. Thoroughly cook meat and sanitize utensils/cutting boards. Implement stringent hand washing practices.

### Chlamydia Infection:

- **Infectious Agent:** *Chlamydia trachomatis* (subtypes D-K).
- **Reservoir:** Humans.
- **Mode of Transmission:** Sexual Intercourse.
- **Incubation Period:** 7-14 days or longer.
- **Prevention Measures:** Sex education, condom use, screening of at-risk populations (>25 years old).

### Cryptosporidiosis:

- **Infectious Agent:** *Cryptosporidium parvum* – a coccidian protozoan parasite.
- **Reservoir:** Humans, cattle, domesticated animals.
- **Mode of Transmission:** Fecal-oral – including person-to-person, animal-to-person, waterborne and foodborne.
- **Incubation Period:** 7 days, range 1-12 days.
- **Prevention Measures:** Personal hygiene education, sanitary handling of feces, stringent hand washing practices and boiling and filtering water.

### Giardiasis:

- **Infectious Agent:** *Giardia lamblia*, *Giardia intestinalis*, *Giardia duodenalis*, a flagellate protozoan parasite.
- **Reservoir:** Humans, possibly Beaver and other domesticated animals.
- **Mode of Transmission:** Fecal-oral, hand-to-mouth transfer. Most common at day care centers. Also, anal intercourse, contamination of foodstuffs and unfiltered stream and lake waters (given human or animal fecal contamination).
- **Incubation Period:** 3 to >25 days, median 7-10 days.
- **Prevention Measures:** Protect public water supplies against contamination, implement emergency boiling procedures, and promote stringent hand washing procedures.

### Gonococcal Infection:

- **Infectious Agent:** *Neisseria gonorrhoeae*
- **Reservoir:** Humans.
- **Mode of Transmission:** Sexual Contact
- **Incubation Period:** 2-7 days.
- **Prevention Measures:** Safe sex practices, monogamy or abstinence.

### Hepatitis C:

- **Infectious Agent:** Hepatitis C Virus (HCV).  
**Reservoir:** Humans.
- **Mode of Transmission:** Usually by skin puncture (needlestick, cut, abrasion, etc). No evidence for oral route.
- **Incubation Period:** 6-9 weeks. Chronic infections may persist up to 20 years before onset of cirrhosis or hepatoma.
- **Prevention Measures:** Immunization of all children, screening of donated blood products. Safe sex practices and eliminate recreational drug use.

### Influenza:

- **Infectious Agent:** Multiple (ex: H1N1, H3N2)
- **Reservoir:** Humans, Birds, Swine.
- **Mode of Transmission:** Airborne spread of droplets or direct contact with mucous membranes of infected individual.
- **Incubation Period:** 1-3 days.
- **Prevention Measures:** Education on sanitization, annual vaccination, universal precautions.

### Lyme Disease:

- **Infectious Agent:** *Borrelia burgdorferi*, *Borrelia garinii*, *Barrelia afzelii*
- **Reservoir:** Deer Ticks
- **Mode of Transmission:** Tick bite
- **Incubation Period:** 7-10 days.
- **Prevention Measures:** Education on tick habitat, prevention, and removal. Avoidance of tick infested areas, application of tick repellent and use of long shirts and pants.

### Pertussis:

- **Infectious Agent:** *Bordetella Pertussis*.
- **Reservoir:** Humans.
- **Mode of Transmission:** Airborne, droplets.
- **Incubation Period:** 9-10 days.
- **Prevention Measures:** Pertussis vaccination as part of standard DPT.

### Shigellosis:

- **Infectious Agent:** *Shigella dysenteriae*, *S. flexneri*, *S. boydii*, *S. Sonnei*.
- **Reservoir:** Humans, primates.
- **Mode of Transmission:** Direct or indirect fecal-oral contact by infected individual. Most commonly, poor hand washing followed by food preparation. Also, flies may land on an infected latrine and subsequently on an exposed food.
- **Incubation Period:** 1-3 days.
- **Prevention Measures:** Educate on proper hand-washing techniques, implement fly-proof latrines, pasteurize, refrigerate, and thoroughly cook all foods. Enforce quality control measures in food preparation (restaurants and industry).

### Varicella (Chickenpox):

- **Infectious Agent:** Human  $\alpha$ -Herpesvirus 3 (Varicella-Zoster Virus, VZV).
- **Reservoir:** Humans.
- **Mode of Transmission:** Direct contact, airborne, droplets from spread of vesicle fluid or secretions of the respiratory tract. Indirect contact, surfaces or fabrics contaminated with discharges from vesicles or membranes of the infected.
- **Incubation Period:** 2-3 weeks.
- **Prevention Measures:** Vaccination of children, isolate infected children.

### Yersinosis:

- **Infectious Agent:** *Yersinia pseudotuberculosis*, *Y. enterocolitica*.
- **Reservoir:** Swine, rodents.
- **Mode of Transmission:** Fecal-oral transmission through contaminated food or water. Consumption of raw pork.
- **Incubation Period:** 3-7 days.
- **Prevention Measures:** Prepare foods in a sanitary manner, protect and sanitize the water supply, control the rodent population, wash hands thoroughly after caring for or slaughtering animals.

## NOTES

Ohio Administrative Code 3701-3-02, 3701-3-05, and 3701-3-12 require that communicable diseases be reported to local health departments.

### **Case and Outbreak Classifications**

Case and outbreak definitions can be found in the Infectious Disease Control Manual for reporting purposes in the state of Ohio.

### **Reportable Disease Class Definitions<sup>4</sup>**

Reportable diseases in Ohio are grouped into three classes: Class A, Class B, and Class C.

**Class A:** Diseases are to be reported immediately upon recognition that a case, suspected case, or a positive laboratory result exists. These are of major public health concern because of their ease of transmission and ability for epidemic spread.

**Class B:** Diseases are to be reported by the end of the next business day after the existence of a case, suspected case, or a positive laboratory result is known. These diseases also have public health concerns needing timely response because of their potential for epidemic spread.

**Class C:** Diseases are to be reported by the end of the next business day.

### **Reportable Disease Changes in Ohio in 2024**

Changes in 2024:

- Carboapenemase-Producing Organisms (CPO)
- Carboapenemase-Producing Organisms, Clinical
- Carboapenemase-Producing Organisms, Screening
  - Carbapenemase Producing Carbapenem-Resistant Enterobacteriaceae (CP-CRE)
  - CP-CRE, *Enterobacter spp.*
  - CP-CRE, *Escherichia Coli (E. Coli)*
  - CP-CRE, *Klebsiella spp.*

### **Case Definition Changes in 2024 for Nationally Notifiable Diseases<sup>12</sup>**

Changes in 2024:

- Carboapenemase-Producing Organisms (CPO)
- Carboapenemase-Producing Organisms, Clinical
- Carboapenemase-Producing Organisms, Screening
  - Carbapenemase Producing Carbapenem-Resistant Enterobacteriaceae (CP-CRE)
  - CP-CRE, *Enterobacter spp.*
  - CP-CRE, *Escherichia Coli (E. Coli)*
  - CP-CRE, *Klebsiella spp.*

### **Notes about Reporting Systems<sup>13,14</sup>**

The Ohio Disease Reporting System (ODRS) was developed to make disease reporting timelier and more efficient for disease reporters (i.e. laboratories, physicians, hospitals), and to improve communication about infectious diseases between disease reporters, local departments of health (LHD), and the Ohio Department of Health (ODH). Currently, ODH, LHD, and infection preventionists can enter and update case and laboratory reports in ODRS. The system uses patient address to determine correct jurisdiction in which to send the report for follow-up and investigation. The Ohio ImpactSIIS (Statewide Immunization Information System) is an online tool that keeps track of immunizations and lead test results for Ohio Residents. This is a secure system that keeps track of adult and childhood immunizations; only those who are authorized users may access the data.

## REFERENCES

1. U.S. Census Bureau. "Age and Sex." American Community Survey, ACS 1-Year Estimates Subject Tables, Table S0101, 2023 [S0101: Age and Sex - Census Bureau Table](#). Accessed on December 26, 2024.
2. United States Census. "Decennial Census: P1 Race." Last revised: 2020. Last Accessed: December 26, 2024. [P1: RACE - Census Bureau Table](#)
3. Ohio Department of Health (ODH). "Infectious Disease Control Manual." Last Updated: 15 Oct 2018. Last Accessed: March 6, 2023. [Infectious Disease Control Manual \(IDCM\) | Ohio Department of Health](#)
4. Jajosky, RA, and Groseclose, SL. "Evaluation of reporting timeliness of public health surveillance systems for infectious diseases." BMC Public Health. 26 Jul 2004. [1471-2458-4-29.pdf \(biomedcentral.com\)](#)
5. Public Health Image Library (PHIL). *Chlamydia trachomatis* (1973). Retrieved January 27, 2025, from [Details - Public Health Image Library\(PHIL\)](#)
6. Centers for Disease Control and Prevention. "Chlamydia." Last Accessed: January 27, 2025. [About Chlamydia | Chlamydia | CDC](#)
7. Healthy People 2030. "Increase the proportion of sexually active female adolescents and young women who get screen for chlamydia-STI-01" Last Accessed: January 27, 2025. [Increase the proportion of sexually active female adolescents and young women who get screened for chlamydia — STI-01 - Healthy People 2030 | odphp.health.gov](#)
8. Centers for Disease Control and Prevention. *Giardia* Infection. Last Accessed: January 27, 2025 [About Giardia Infection | Giardia | CDC](#)
9. Public Health Image Library (PHIL). *Giardiasis*. (1982). Retrieved January 27, 2025, from [Details - Public Health Image Library\(PHIL\)](#)
10. San Francisco Department of Public Health. "Healthy Habits". Last Accessed: March 6, 2023. [Healthy Habits - Disease Prevention and Control, San Francisco Department of Public Health \(sfcdcp.org\)](#)
11. Centers for Disease Control and Prevention. "National Notifiable Diseases Surveillance System (NNDSS) – Search Results for All Conditions." Last Updated: 2022. Last Accessed: March 6, 2023. [Condition Search Results \(cdc.gov\)](#)
12. Ohio Department of Health. "Ohio Disease Reporting System." Last Updated: November 9,2018. Last Accessed: February 10, 2022. [Ohio Disease Reporting System | Ohio Department of Health](#)
13. Ohio Department of Health. "ImpactSIIS." Last Updated: March 2017. Last Accessed: March 6, 2023. [Layout 1 \(ohiopublichealthreporting.info\)](#)
14. Ohio Department of Health. "State of Ohio HIV Infections Annual Surveillance Statistics." Last Updated: October 21, 2019. Last Accessed: February 10, 2022. [Data and Statistics | Ohio Department of Health](#)

