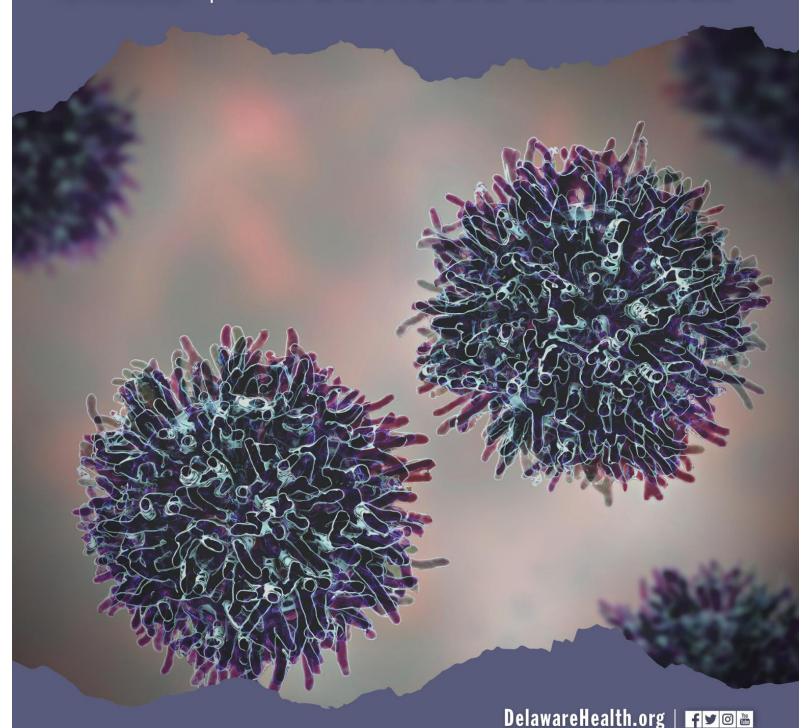


# 2022 ANNUAL REPORT OF INFECTIOUS DISEASES



## Delaware Public Health District

#### DISEASE CONTROL AND RESPONSE UNIT

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Published March 2023

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#### **INTRODUCTION**

The 2022 Annual Report of Infectious Diseases represents an overview of the prevalence of confirmed, probable, and suspected reportable disease within the jurisdiction of the Delaware Public Health District (DPHD). This report also includes annual highlights, the top 10 reported diseases, historical counts of infectious diseases, outbreaks, and disease trends.

Information pertaining to prevention, control, and reporting of diseases can be found in the Ohio Revised Code Chapter 3701.23, 3707.06 and the Infectious Disease Control Manual (IDCM) published by the Ohio Department of Health. These documents designate which diseases are to be reported to the local health district and the time frame in which reporting must occur. The list of diseases reportable during the 2022 year is provided on page six.

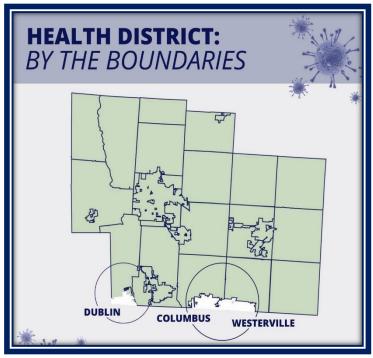
Data for this report was acquired through Nightingale Notes (electronic record system of DPHD), and the Ohio Disease Reporting System (ODRS) which is the electronic record system of Ohio Department of Health.

#### **DELAWARE COUNTY DEMOGRAPHICS**

Demographics	Delaware County	State of Ohio
Total Population*:	220,740	11,764,342
DPHD Jurisdiction Population**:	201,221	N/A
Housing units*:	84,176	5,269,638
Median household income (in 2021 dollars)*:	\$116,284	\$61,938
Percent of Population Below Poverty Level*:	4.1%	13.4%
Individuals without Health Insurance under age 65 years*:	5.0%	7.8%
Disabled Population under age 65 years*:	5.5%	10%
White*:	82.2%	77.7%
Asian*:	8.5%	2.7%
Black or African American*:	4.4%	13.2%
Hispanic or Latino*:	3.0%	4.3%
Other*:	1.9%	2.1%

<sup>\*</sup>Based on 2021 United States Census information: <u>U.S. Census Bureau QuickFacts: United States</u>

Portions of Delaware County are annexed to Columbus Public Health and Franklin County Public Health, including Dublin, Washington Township, Columbus, and Westerville. If a resident is diagnosed with a reportable disease in one of those jurisdictions, that case would not be included in Delaware Public Health District data.



<sup>\*\*</sup>Estimate by Delaware County Regional Planning Commission (DCRPC)

#### **LIST OF REPORTABLE DISEASES 2022**

#### Know Your ABCs: A Quick Guide to Reportable Infectious Diseases in Ohio

From the Ohio Administrative Code Chapter 3701-3; Effective August 1, 2019

#### Class A:

Diseases of major public health concern because of the severity of disease or potential for epidemic spread - report immediately via telephone upon recognition that a case, a suspected case, or a positive laboratory result exists.

- · Botulism, foodborne
- Cholera
- · Diphtheria
- · Influenza A novel virus
- Measles
- Meningococcal disease
- · Middle East Respiratory Syndrome (MERS)
- Plaque
- · Rabies, human
- · Rubella (not congenital)
- · Severe acute respiratory syndrome (SARS)
- Smallpox
- Tularemia
- · Viral hemorrhagic fever (VHF), including Ebola virus disease, Lassa fever, Marburg hemorrhagic fever, and Crimean-Congo hemorrhagic

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

Disease of public health concern needing timely response because of potential for epidemic spread - report by the end of the next business day after the existence of a case, a suspected case, or a positive laboratory result is known.

- Amebiasis
- · Arboviral neuroinvasive and non-neuroinvasive disease:
  - Chikungunya virus infection
  - · Eastern equine encenhalitis virus disease
  - LaCrosse virus disease (other California serogroup virus disease)
  - · Powassan virus disease
  - St. Louis encephalitis virus disease
  - · West Nile virus infection
  - Western equine encephalitis virus disease
  - · Yellow fever
  - · Zika virus infection
  - · Other arthropod-borne diseases
- Babesiosis
- Botulism
  - infant
  - wound
- Brucellosis Campylobacteriosis
- Candida auris

- · Carbapenemase-producing carbapenem-resistant Enterobacteriaceae (CP-CRE)
  - · CP-CRE Enterobacter spp.
  - CP-CRE Escherichia coli CP-CRE Klebsiella spp.
  - CP-CRE other
- Chancroid
- · Chlamydia trachomatis infections
- Coccidioidomycosis
- · Creutzfeldt-Jakob disease (CID)
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- . E. coli O157:H7 and Shiga toxin-producing E. coli (STEC)
- Ehrlichiosis/anaplasmosis
- Giardiasis Gonorrhea (Neisseria
- gonorrhoeae) · Haemophilus influenzae (invasive disease)
- Hantavirus
- · Hemolytic uremic syndrome (HUS)
- Hepatitis A
- · Hepatitis B (non-perinatal)

- · Hepatitis B (perinatal)
- · Hepatitis C (non-perinatal)
- Hepatitis C (perinatal) · Hepatitis D (delta hepatitis)
- Hepatitis E
- Influenza-associated hospitalization
- · Influenza-associated pediatric mortality
- · Legionnaires' disease
- · Leprosy (Hansen disease)
- Leptospirosis
- Listeriosis
- · Lyme disease
- Malaria
- · Meningitis:
  - Aseptic (viral)
  - Bacterial
- Mumns
- Pertussis
- Poliomyelitis (including vaccine-associated cases)
- Psittacosis
- Q fever
- Rubella (congenital)
- · Salmonella Paratyphi infection
- Salmonella Typhi infection (typhoid fever)

- Salmonellosis
- Shigellosis
- · Spotted Fever Rickettsiosis, including Rocky Mountain spotted fever (RMSF)
- · Staphylococcus aureus, with resistance or intermediate resistance to vancomycin (VRSA, VISA)
- · Streptococcal disease, group A, invasive (IGAS)
- · Streptococcal disease, group B. in newborn
- · Streptococcal toxic shock syndrome (STSS)
- · Streptococcus pneumoniae, invasive disease (ISP)
- Syphilis
- Tetanus
- Toxic shock syndrome (TSS)
- Trichinellosis
- · Tuberculosis (TB), including multi-drug resistant tuberculosis (MDR-TB)
- Varicella
- Vibriosis
- Yersiniosis

#### Class C:

Report an outbreak, unusual incident or epidemic of other diseases (e.g. histoplasmosis, pediculosis, scabies, staphylococcal infections) by the end of the next business day.

#### Outbreaks:

 Community Foodborne

- · Healthcare-associated
- · Institutional

- Waterborne · Zoonotic

NOTE: Cases of AIDS (acquired immune deficiency syndrome), AIDS-related conditions,

HIV (human immunodeficiency virus) infection, perinatal exposure to HIV, all CD4 T-lymphocyte counts and all tests used to diagnose HIV must be reported on forms and in a manner prescribed by the Director.



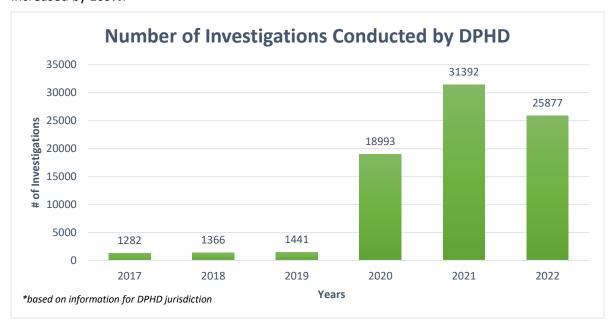
\*In 2022 COVID-19 was a Class A reportable disease, Influenza A- novel virus infection. COVID-19 was declared to be a reportable condition in a Director's Journal Entry on 01/23/20: https://odh.ohio.gov/wps/wcm/connect/gov/d82ea367-a55a-4792-8c2df2743f08f8cc/DJE+2019+nCov+1-23-

2020.pdf?MOD=AJPERES&CONVERT\_TO=url&CACHEID=ROOTWORKSPACE.Z18 M1HGGIK0N0JO00QO9DDDDM3000-d82ea367-a55a-4792-8c2d-f2743f08f8cc-m.CYwlc

#### **DELAWARE COUNTY 2022 REPORTABLE DISEASES**

#### **OVERVIEW**

In 2022 the DPHD's Disease Control and Response Unit conducted 25,877 disease investigations (not including outbreak data), a decrease of 18% from the number of investigations conducted in 2021. While the total number of investigations decreased, the number of non-COVID-19 investigations increased by 109%.



The numbers of disease reports in this summary include all investigations that were classified as confirmed, probable or suspect. Numbers are subject to change due to jurisdiction changes and when reportable conditions are diagnosed and reported.

## Top 10 Most Reported Diseases All Ages

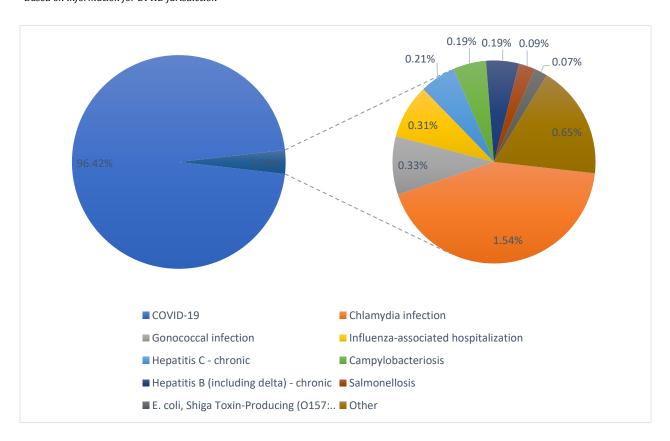
#### **Delaware County in 2022**

(Only lists diseases designated as reportable in the State of Ohio)

Reportable Disease	Number of Cases	Percent
COVID-19	20,579	96.42
Chlamydia	328	1.54
Gonococcal infection	71	0.33
Influenza-Associated hospitalization	66	0.31
Hepatitis C-chronic	44	0.21
Campylobacteriosis	40	0.19
Hepatitis B-chronic (non-perinatal)		
(including delta)	40	0.19
Salmonellosis	20	0.09
E. coli, Shiga Toxin-Producing	16	0.07
Other	138	0.65

<sup>\*</sup>Percent is based on the total number of diseases reported for all ages

<sup>\*</sup>Based on information for DPHD jurisdiction



## Top 10 Most Reported Diseases 0-14 years of age

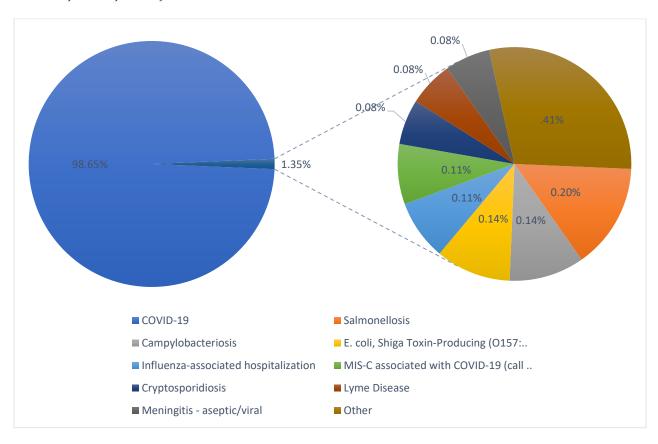
#### **Delaware County in 2022**

(Only lists diseases designated as reportable in the State of Ohio)

Reportable Disease	Number of Cases	Percent*
COVID-19	3,519	98.65
Salmonellosis	7	0.2
Campylobacteriosis	5	0.14
E. coli, Shiga Toxin-Producing	5	0.14
Influenza-Associated hospitalization	4	0.11
Mis-C associated with COVID-19	4	0.11
Cryptosporidiosis	3	0.08
Lyme Disease	3	0.08
Meningitis- Aseptic/ viral	3	0.08
Other	14	0.41

<sup>\*</sup>Percent is based on the total number of diseases reported in 0–14-year-olds

<sup>\*</sup>Based on information for DPHD jurisdiction



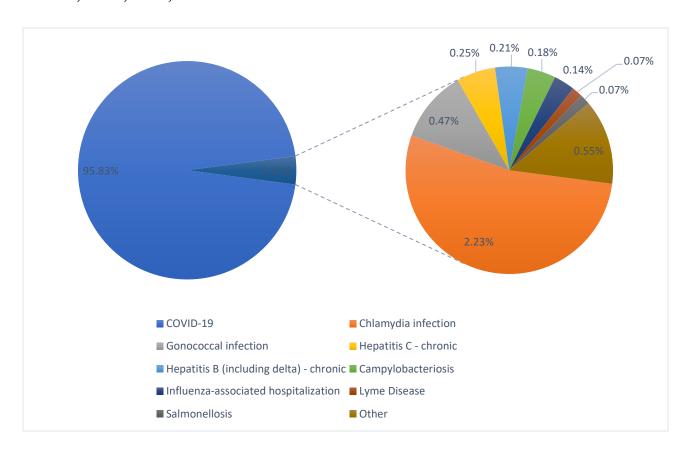
## **Top 10 Most Reported Diseases** 15-64 years of age

## **Delaware County in 2022** (Only lists diseases designated as reportable in the State of Ohio)

Reportable Disease	Number of Cases	Percent*
COVID-19	14,039	95.83
Chlamydia infection	326	2.23
Gonococcal infection	69	0.47
Hepatitis C-chronic	37	0.25
Hepatitis B (including delta)-chronic	31	0.21
Campylobacteriosis	27	0.18
Influenza-Associated hospitalization	20	0.14
Lyme Disease	10	0.07
Salmonellosis	10	0.07
Other	81	0.55

<sup>\*</sup>Percent is based on the total number of diseases reported in 15-64-year-olds

<sup>\*</sup>Based on information for DPHD jurisdiction



## Top 10 Most Reported Diseases 65+ years of age

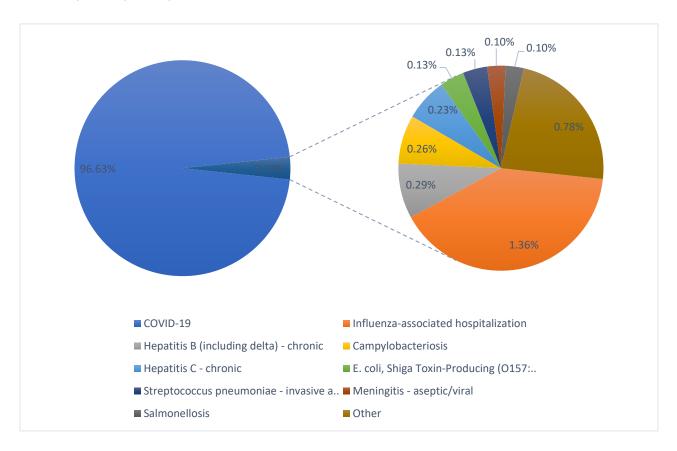
### **Delaware County in 2022**

(Only lists diseases designated as reportable in the State of Ohio)

Reportable Disease	Number of Cases	Percent*
COVID-19	2,980	96.63
Influenza- Associated hospitalization	42	1.36
Hepatitis B (including delta)-chronic	9	0.28
Campylobacteriosis	8	0.26
Hepatitis C-chronic	7	0.23
E. coli, Shiga Toxin-Producing	4	0.13
Streptococcus pneumoniae – invasive a	4	0.13
Meningitis- Aseptic/viral	3	0.1
Salmonellosis	3	0.1
Other	24	.78

<sup>\*</sup>Percent is based on the total number of diseases reported in 65+ year-olds

 $<sup>^{*}</sup>$  Based on information for DPHD jurisdiction

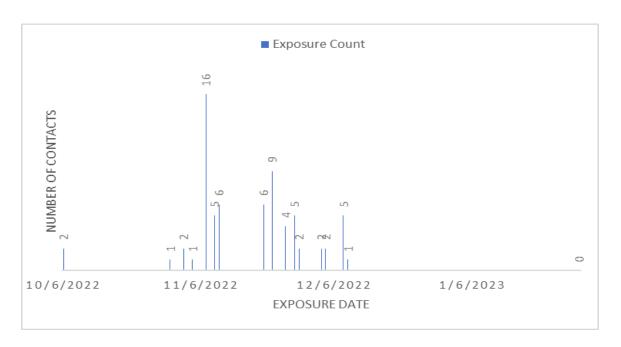


#### **MEASLES**

Measles is a very contagious viral respiratory infection with no specific medical treatment. In the first few days of infection, it causes a hacking cough, runny nose, low-grade fever, and red eyes. Nearly three to five days after infection begins, a high fever will develop alongside a reddish-brown rash that usually begins on the forehead and works its way down the neck and torso to the arms, legs, and feet. Subsequently, the fever will fade, and the rash may begin to peel as it goes away. Although measles is rare in the United States due to high vaccination rates, there are millions of cases worldwide each year. Unfortunately, nearly nine out of 10 unvaccinated individuals who come in contact with measles will contract the virus.

While having no cases of measles within Delaware Public Health District's jurisdiction in 2022, DPHD monitored a total of 81 individuals who were exposed to measles as a part of the central Ohio measles outbreak. In central Ohio, there were 85 cases of measles, and 36 hospitalizations, as a result of this outbreak. To protect residents, DPHD responded immediately by performing risk assessments on exposed people and assisted them while making sure they did not become ill. During this time DPHD worked very closely with early childcare programs and Delaware county schools to establish a plan in the event of a measles case in one of those facilities. All parties wanted to ensure that the children were best protected from this unneeded illness. DPHD was also working with the local medical community sharing resources and creating plans for testing and treatment. To ensure the public was well informed, the Health District created a special website page to share information and updates as they became available. The measles outbreak was declared over on 2/23/2023.

While measles is highly contagious, it is preventable. The Health District recommends all residents receive appropriate doses of the MMR vaccine. For more information on measles, visit Measles (Rubeola) | CDC . To schedule vaccinations, visit delawarehealth.org/immunizations/



#### CHLAMYDIA AND GONORRHEA INFECTIONS

Sexually transmitted infections (STIs) are illnesses transmitted from person to person through vaginal, oral, or anal sexual intercourse. According to the Centers for Disease Control and Prevention (CDC), one in five people in the United States has an STI. The most common STIs in the United States are chlamydia, gonorrhea, herpes, hepatitis-B and HIV.

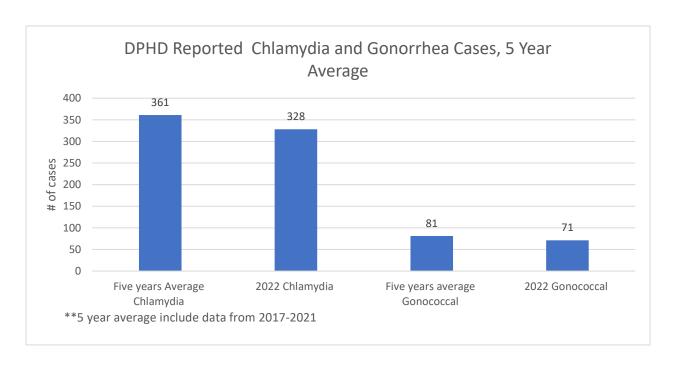
In the Delaware Public Health District jurisdiction, chlamydia was the second most prevalent reportable disease in people of all ages in 2022. DPHD reported 328 cases of chlamydia. In addition, 71 cases of gonorrhea were reported to DPHD making it the third most reportable condition for all ages in 2022.

STIs, such as chlamydia and gonorrhea, are very preventable and treatable. The only way to completely avoid STIs is to practice abstinence. Fewer partners and routine testing can also reduce STI risk. For sexually active individuals, DPHD advises the correct use of latex condoms and dental dams every time you have sex as measures to reduce the risk of contracting STIs.

Open communication about sexual health status between partners and routine testing are also effective ways to mitigate the spread of STIs. It is recommended to seek treatment from a medical provider if symptoms of a STI occur, to ensure proper treatment and medications can be prescribed. Women who are pregnant or plan to become pregnant should consult with their doctor if they feel they have or are at risk of contracting a STI.

According to the CDC, 53% of new cases of STIs were among people aged 15-24 years old. In Delaware County, three of the top five diseases affecting people ages 15-64 are STIs.

For more information on STIs, visit <a href="https://www.cdc.gov/std/general/default.htm">https://www.cdc.gov/std/general/default.htm</a>



#### **MPOX**

Mpox, formerly known as monkeypox, is a disease caused by mpox virus. It is a viral zoonotic disease, meaning that it can spread from animals to people. It can also spread when a person has contact with a person or materials (e.g., bedding, towels) that are contaminated with the virus. Mpox can spread through:

- Direct contact with mpox lesions on a person's skin.
- Direct contact with contaminated objects, fabrics (clothing, bedding or towels), and surfaces that have been in contact with someone with mpox.
- Contact with respiratory secretions during prolonged, face-to-face contact, fluid from lesions, and sometimes tears from a person with mpox.

Mpox can also be spread during intimate contact including:

- Oral, anal, and vaginal sex, or touching the genitals or anus of a person with mpox.
- Hugging, massaging, kissing or talking closely.
- Touching fabrics, shared surfaces, and objects (such as bedding, towels, and sex toys).

People with mpox may first develop symptoms including a flu-like illness with fever, headache, muscle aches, exhaustion, and enlarged lymph nodes. A few days later, a characteristic rash occurs. In recent cases, patients have developed localized rashes in the genital and perianal regions without prior flu-like symptoms. Mpox symptoms can sometimes be confused with other illnesses that present with a similar rash, such as syphilis, herpes simplex virus, and chicken pox (varicella zoster virus).

An outbreak of mpox was identified globally in the summer of 2022. In May, the United States began seeing cases, with a peak in cases in early August. In total, 30,193 cases were identified in the United States with 393 in Ohio and one in Delaware County. In response to the growing outbreak, the Health District developed education for the public and information for healthcare providers regarding diagnosis and testing. The Health District coordinated testing for healthcare providers who suspected their patients had mpox, and assisted and monitored confirmed cases to ensure others were not infected. During these efforts, DPHD vaccinated 133 people for mpox to prevent further spread in the area.

Case rates began to decline in Ohio through the fall of 2022, with the daily case rate dropping from 10 to one by the end of November. Of the 393 Ohio cases, 43 were hospitalized, and four people lost their lives because of the disease.

For more information on mpox, visit <a href="https://odh.ohio.gov/know-our-programs/mpx/monkeypox-dashboard">https://odh.ohio.gov/know-our-programs/mpx/monkeypox-dashboard</a>













#### **TUBERCULOSIS**

Tuberculosis (TB) is a disease caused by the bacteria mycobacterium tuberculosis. Typically, the disease affects the lungs; however, multiple organ systems can become infected, including the kidneys, liver, lymph nodes, brain, and spine. People who are infected with tuberculosis will have varying symptoms based on which parts of the body are infected. An infection with tuberculosis can be fatal if left untreated.

Tuberculosis can be divided into two conditions: latent tuberculosis infections, or LTBI, and TB disease. LBTI occurs when the bacteria live in the body without making the infected person symptomatic of illness. This can last for a prolonged period of time. A person is diagnosed with TB disease when the bacteria are actively growing and causing the person to be ill and able to spread the disease. The person may experience a persistent cough, chest pain, night sweats, weakness, fatigue, fever, chills, weight loss, or insomnia.

Each county is required to maintain a tuberculosis control unit. DPHD monitors TB activity in Delaware county, conducts immigrant investigations, provides screenings, coordinates care and treatment for individuals infected, and completes directly observed therapy (the practice of actively monitoring treatment) for individuals undergoing treatment. When a case is identified, DPHD makes contact to assist with their care. This can result in providing necessities, coordinating healthcare, and testing others who have been exposed to the disease. All efforts are aimed at curing the ill individual and also helping make sure others in the community do not become sick with tuberculosis.

There were 7,882 cases of TB reported in the United States in 2021 (latest available data per CDC). In Ohio, 150 cases were reported in 2021, and one case was reported to DPHD in 2021. 2022 data for Delaware county shows two active cases.

For more information on Tuberculosis, visit https://www.cdc.gov/tb/default.htm

And <a href="https://odh.ohio.gov/know-our-programs/tuberculosis/Data-and-Surveillance">https://odh.ohio.gov/know-our-programs/tuberculosis/Data-and-Surveillance</a>





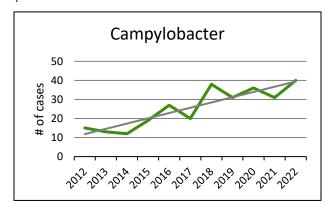
\*Pictures taken from CDC.

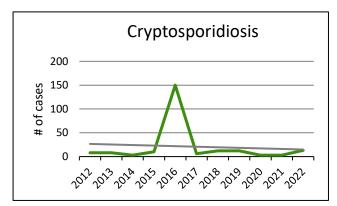
#### **2022 DISEASE TRENDS**

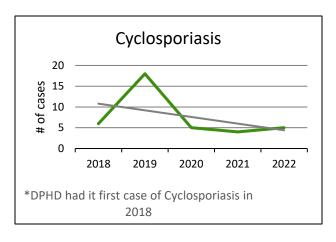
The following graphs show selected reportable diseases that have been positively or negatively trending over the past several years.

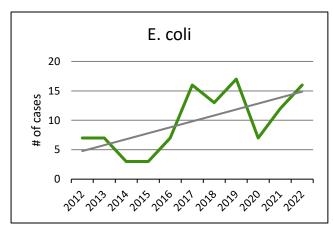
#### **ENTERIC DISEASES**

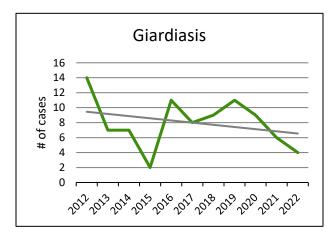
Please note: Some reportable diseases may not be included as they have been reportable for less than 3 years or if there was insufficient data to indicate a trend.

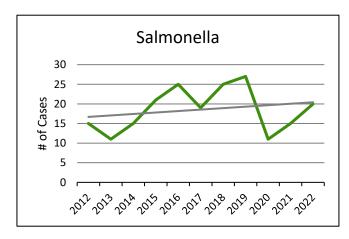


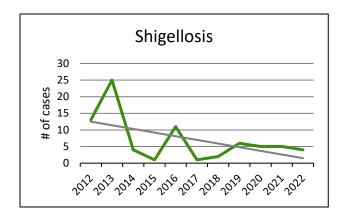


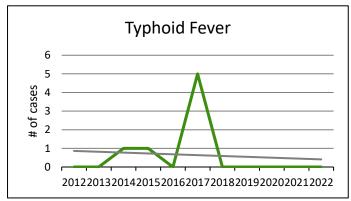


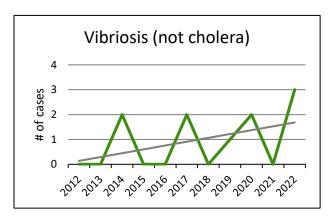


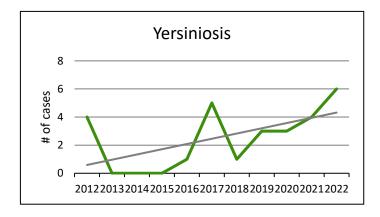




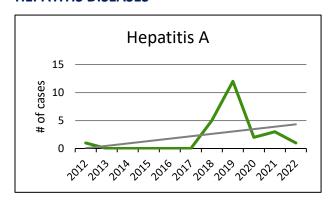


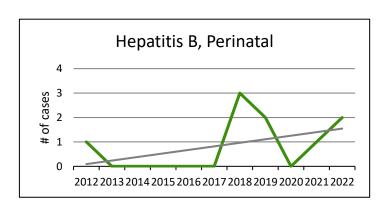


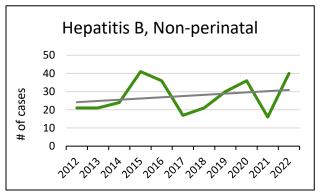


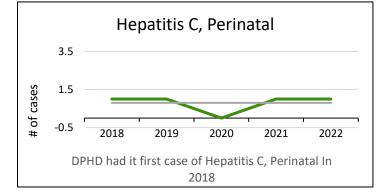


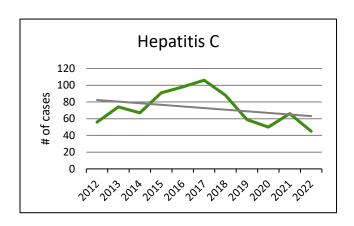
#### **HEPATITIS DISEASES**



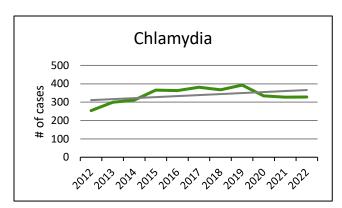


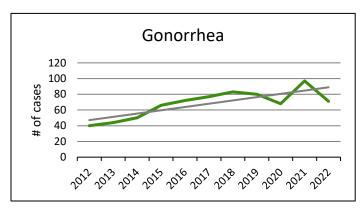


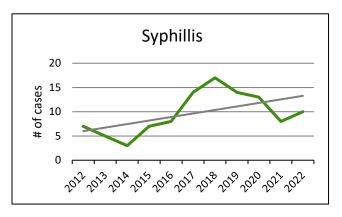




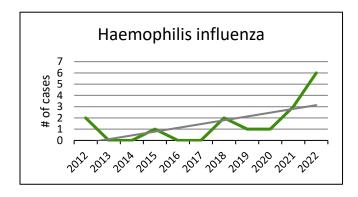
#### **SEXUALLY TRANSMITTED DISEASES**

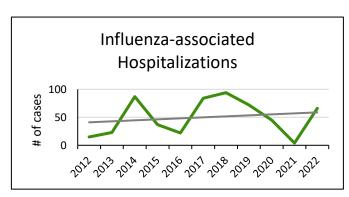


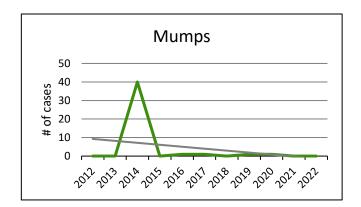


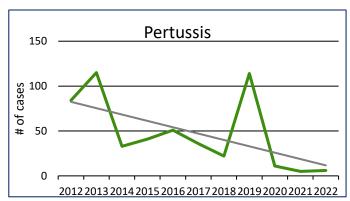


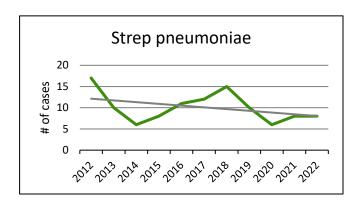
#### **VACCINE PREVENTABLE DISEASES**

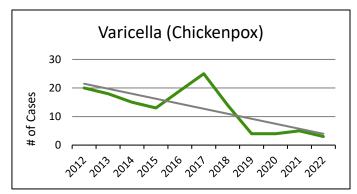




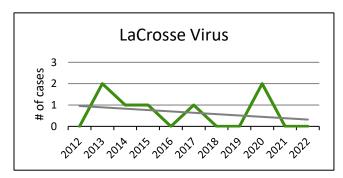


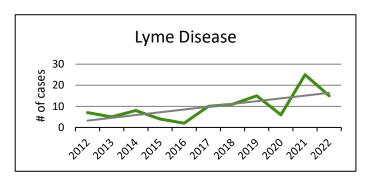


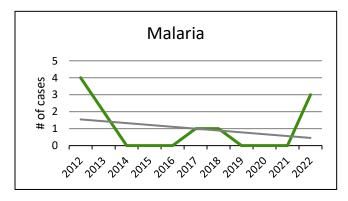


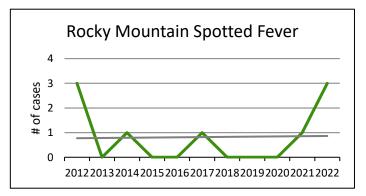


#### **ZOONOTIC DISEASES**

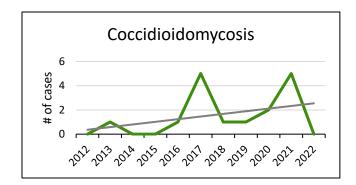


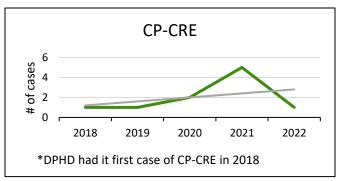


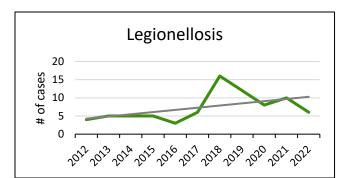


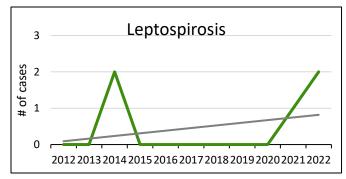


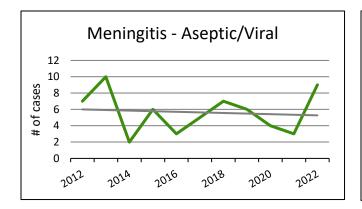
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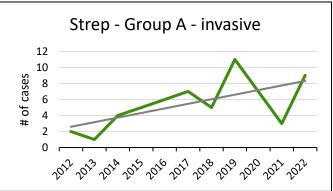


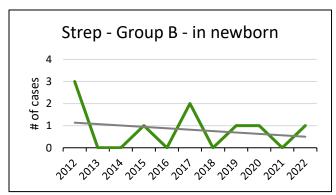












#### **2022 OUTBREAKS**

Outbreaks can be caused by many different microorganisms (viruses, bacteria & fungi), microbes, and chemicals. An outbreak is the occurrence of two or more cases of a similar illness with a common link. However, one case of certain diseases can be considered an outbreak when the disease has a very high mortality or morbidity rate. An outbreak is determined based on circumstances and the agent involved or suspected to be involved. When an outbreak is discovered, the DPHD initiates an investigation to confirm the agent (if possible), gather information to better define the outbreak and recommend prevention/control measures to protect more people from becoming ill. The DPHD investigated 26 outbreaks in 2022, this is a 45% decrease from 2021. Suspect, probable, and confirmed outbreaks are included in the data below. If the outbreak occurred in Delaware County, all individuals linked to the outbreak are reflected in the 'Number of people ill' column below- even if an individual does not reside in Delaware County.

YEAR	2017	2018	2019	2020	2021	2022
NUMBER OF OUTBREAKS INVESTIGATED	16	22	19	51	41	26

2022 Outbreak type	Agent	Number of people ill*
Dermatologic	Hand Foot & Mouth Disease	9
	COVID-19	10
	COVID-19	26
	COVID-19	7
	COVID-19	17
	COVID-19	25
	COVID-19	8
	COVID-19	23
	COVID-19	8
Respiratory	COVID-19	4
	COVID-19	18
	COVID-19	16
	COVID-19	5
	COVID-19	20
	COVID-19	17
	COVID-19	4
	COVID-19	5
	COVID-19	24

COVID-19	19
COVID-19	10
COVID-19	21
COVID-19	12
COVID-19	19
Influenza	14
Respiratory Syncytial virus (RSV)	7
Respiratory Syncytial virus (RSV)	16

<sup>\*</sup>Number of people ill are subject to change as some outbreaks have carried over into 2023 or have pending information.

<sup>\*</sup>Data pulled from ODRS

#### **2022 DISEASE PREVENTION OUTREACH**

In addition to daily communicable disease investigations and assisting residents with question and concerns, the Disease Control and Response Unit (DCRU) staff continued to provide targeted educational outreach in 2022 to reduce and prevent communicable disease and promote healthy behavior. The unit conducted 81 outreach events impacting thousands of residents in 2022.

29 Infection Prevention and Control trainings were provided at 19 different Early Childhood and Education (ECE) programs/ daycares.

Three presentations on "correct handwashing" were delivered to elementary students at School Age Child Care programs and 31 presentations were provided at Delaware County Safety Town events.

The unit expanded the DPHD Project DAWN naloxone program which provides naloxone kits and education on how to administer naloxone in the event of an opioid overdose. The unit implemented the Project DAWN program from January through July until this program was reassigned to another Health District division. DCRU staff distributed 51 kits to individuals at the Health District and at five unique events and distributed an additional 103 kits to local first responders during that time.

Staff provided communicable disease and blood borne pathogens training for staff at an indigent housing facility and manned an exhibit on sexually transmitted infection (STI) awareness and prevention at a local university.

New for 2022, the DCRU integrated additional programming to meet the needs of the community.

The unit was trained by Delaware County Emergency Medical Services and became certified as a CPR/First Aid trainer with the American Heart Association. This led to a Health District-sponsored CPR training in November 2022; CPR and First Aid classes are now available to the public.

In fall 2022, three staff become certified instructors for STOP THE BLEED®. The goal of this course is to train lay persons to be able to react in an emergent situation in which someone is hemorrhaging. The course was presented at a local Chamber of Commerce safety meeting to 40 people representing 25 different employers. This free course is now offered to the community.

Additionally, DCRU staff increased communication and education with healthcare providers. Nine health alerts were dispensed to local physicians covering the following topics: Severe Respiratory Illnesses Associated with Rhinoviruses and/or Enteroviruses Including EV-D68; Acute Hepatitis of Unknown Cause in Children; Measles Cases in Ohio: Recommendations for Identification and Prevention; Nationwide Briefing on Measles; Mpox Virus Infection in the United States and Other Non-endemic Countries; Guidance for Testing and Specimen Collection for Suspected Cases of Mpox; Increased Respiratory Virus Activity, Especially Among Children, Early in the 2022-2023 Fall and Winter; and Annual Update on Diagnosis and Surveillance for Tickborne Diseases. To view Health Alerts go to delawarehealth.org/health-alerts/

#### **CONCLUSIONS**

This report serves to describe communicable disease data and trends from 2022. The data from this report is used to drive future communicable disease investigations, planning of resources, policy development, training, and education. The number of disease investigations has increased over the past five years.

In 2022, the data shows cases of salmonellosis, and E. Coli were the highest recorded since 2019. Despite a slight decrease in 2017, 2019, and 2021, the number of campylobacter cases has been increasing overall. The Health District did investigate 40 campylobacter cases, and 111 enteric disease cases in 2022. The major routes of transmission of these bacteria to people is through consumption of contaminated foods.

There were 66 cases of Influenza-associated hospitalizations reported to DPHD in 2022, and four cases in 2021. The cases of pertussis increased by one from 2021. The total number of vaccine preventable disease cases were 89 in 2022 and four in 2021. The health district promoted vaccinations, and hosted vaccine clinics to help improve the community immunity.

Although total number of Hepatitis A, B, and C cases have remained steady over the past three years, Delaware Public Health District saw varying numbers of both non-perinatal Hepatitis B and non-perinatal Hepatitis C cases in 2022. In 2021, non-perinatal Hepatitis B cases totaled 16. This year, there has been a drastic increase in cases to 40. However, non-perinatal Hepatitis C cases decreased from 66 cases in 2021, to 44 cases in 2022.

STI's in Delaware Public Health District's jurisdiction have been the lowest recorded since 2015. The number of total STI's decreased slightly since 2021 and has shifted to a downward trend following the yearly increases from 2015-2019. The decrease in STI's can be mainly attributed to the decrease in gonococcal infections from 97 cases in 2021, to 71 cases in 2022. There has been a steady trend downward of all other reported sexually transmitted infections.

In 2022, the nation saw a record annual number of COVID-19 cases, the vast majority were in January during the Omicron variant wave. Following that surge, cases fell dramatically and remained relatively low for the remainder of the year.

As case numbers declined, DPHD worked to gradually demobilize its COVID-19 operations while maintaining a core team to process cases and provide outreach to the community. At the beginning of the school year, DPHD worked closely with K-12 schools and Early Care and Education programs to revise COVID-19 protocols and reporting requirements. These measures helped schools maintain safe, inperson learning throughout the year. DPHD also collaborated with long-term care facilities to provide current COVID-19 guidance and help mitigate the spread of illness.

While the DPHD population grew over the last decade, the data does not indicate a correlation between the population growth and an increase in the numbers of cases. The increase in the number of cases is not at an alarming level.

## **DPHD REPORTABLE DISEASE COUNTS 2017-2022**

ENTERIC DISEASES							
Reportable disease	2017	2018	2019	2020	2021	2022	
Campylobacteriosis	20	38	31	36	31	40	
Cryptosporidiosis	6	12	13	3	3	13	
Cyclosporiasis	0	6	18	7	4	5	
E. coli, Shiga toxin-producing	16	13	17	7	12	16	
Giardiasis	8	9	12	9	6	4	
Salmonellosis	19	25	28	11	15	20	
Salmonella Typhi	-	-	1	0	1	0	
Shigellosis	1	2	5	5	5	4	
Typhoid fever	5	0	0	0	0	0	
Vibriosis (not cholera)	2	0	1	2	0	3	
Yersiniosis	5	1	4	3	4	6	
TOTAL	82	106	130	83	81	111	
	HEPAT	TITIS					
Reportable disease	2017	2018	2019	2020	2021	2022	
Hepatitis A	0	5	12	2	3	1	
Hepatitis B, Perinatal	0	3	2	0	1	2	
Hepatitis B Non-Perinatal	17	21	30	36	16	40	
Hepatitis C Perinatal	-	1	1	0	0	1	
Hepatitis C Non-Perinatal	106	87	58	49	49	45	
TOTAL	123	117	103	87	69	89	

SEXUALLY TRANSMITTED INFECTIONS							
Reportable disease	2017	2018	2019	2020	2021	2022	
Chlamydia infection	381	367	396	334	327	328	
Gonococcal infection	77	83	80	68	97	71	
Syphilis	14	17	14	13	8	10	
TOTAL	472	467	490	415	432	409	

HIV/AIDS information can be found at ODH HIV/AIDS Surveillance Data

TUBERCULOSIS						
Reportable disease 2017 2018 2019 2020 2021						
Tuberculosis	2	2	2	0	1	2

#### **VACCINE PREVENTABLE**

Reportable disease	2017	2018	2019	2020	2021	2022
COVID-19	-	-	-	10,522	18,381	20,579
Haemophilis influenza	0	2	1	1	1	6
Influenza-associated hospitalization	84	94	73	45	3	66
Influenza-associated pediatric deaths	0	0	0	0	0	0
Measles	0	0	1	0	0	0
Meningococcal disease	0	0	0	0	0	0
Mumps	1	0	1	1	0	0
Pertussis	36	22	115	11	5	6
Strep pneumoniae, invasive	12	15	10	6	8	8
Varicella	25	14	4	4	5	3
TOTAL	158	144	205	68*	22*	89*

<sup>\*</sup>Totals do not include COVID-19 cases

ZOONOTIC						
Reportable disease	2017	2018	2019	2020	2021	2022
Anaplasmosis	0	0	1	0	0	1
Babesiosis	0	0	2	0	0	0
Chikungunya	0	0	1	0	0	0
LaCrosse virus	1	0	0	2	0	0
Lyme disease	10	11	15	6	25	15
Malaria	1	1	0	0	0	3
Rocky Mountain Spotted Fever	1	0	0	0	1	3
St Louis encephalitis	0	1	0	0	0	0
West Nile	0	0	0	0	0	1
Zika	0	0	0	0	0	0
Other Arthropod-borne Disease	-	-	1	1	0	0
TOTAL	13	13	19	9	26	23

OTHER REPORTABLE CONDITIONS						
Reportable Disease	2017	2018	2019	2020	2021	2022
Botulism – infant	0	0	0	0	0	0
Brucellosis	0	0	1	0	0	1
Coccidioidomycosis	5	1	1	2	5	0
CP-CRE*	-	1	1	2	5	1
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0
Legionellosis - Legionnaires' Disease	6	16	12	8	10	6
Leptospirosis	0	0	0	0	1	2
Listeriosis	0	1	0	0	0	0
Meningitis (aseptic/viral)	5	7	6	4	3	9
Meningitis (bacterial)	1	1	0	0	2	0
Streptococcal - Group A -invasive	7	5	11	7	3	9
Streptococcal - Group B - in newborn	2	0	1	1	0	1
Streptococcal Toxic Shock Syndrome (STSS)	0	0	0	0	0	0
Tularemia	0	1	0	0	0	0
TOTAL	26	33	33	24	29	29

#### **REPORTABLE DISEASES: 0 CASES IN DELAWARE COUNTY 2022**

Leprosy (Hansen's disease) Amebiasis Tetanus Anthrax Toxic shock syndrome Listeriosis Babesiosis Meningococcal disease Trichinellosis Botulism-foodborne Middle East respiratory Tularemia Botulism- wound or infant syndrome(MERS) Typhoid Fever Candida Auris Plague Viral hemorrhagic fevers Chancroid Poliomyelitis Western equine Chikungunya Powassan virus disease encephalitis virus Cholera Q fever Yellow fever Creutzfeldt-Jakob disease Rabies (human) Zika virus. Dengue Rubella (congenital) Diphtheria Rubella (not congenital) Eastern equine encephalitis Salmonella Paratyphi Ehrlichiosis/anaplasmosis Severe acute respiratory Hantavirus syndrome (SARS) Hemolytic uremic syndrome Smallpox Hepatitis D (delta hepatitis) St Louis Encephalitis Staphylococcus aureus Hepatitis E Influenza - associated pediatric mortality Streptococcal toxic shock syndrome

LaCrosse virus