Issue 4
2024

WISCONSIN EPI EXPRESS

In This Issue

Program Updates

Staff Updates:

BCD welcomes the following staff to their new positions!

Delanie Johnson, Health Education Unit, Public Health Communicator

Christina Olivier, HAI Surveillance and Education Unit Supervisor

Cate Reilly, Health Education Unit, LTE Public Health Educator

Jennifer Comeau, Enteric and Waterborne Disease Unit Supervisor

Brittney Mitchell, Financial Management Unit, Grants Project Manager

Health Care Associated Infections Unit Updates:

There are two new toolkits available from the HAI Unit on infection prevention in oral health care settings: the Dental Unit Waterline Maintenance Toolkit and the Instrument Cleaning, Disinfection, and Sterilization Toolkit.

Additionally, the HAI program will be hosting a new monthly call series focused on infection Multi-Drug Resistant Organisms (MDRO). The series is hosted by our MDRO Infection Preventionist and Antibiotic Resistant Laboratory Network (ARLN) Epidemiologist. Register for MDRO Office Hours to connect with health care and public health partners, ask questions, and learn about MDROs and related topics.

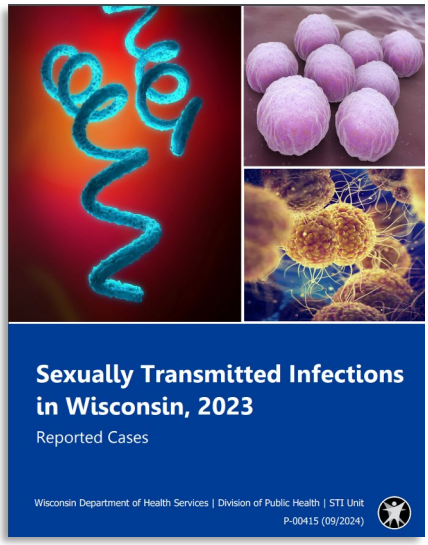
Home COVID-19 Tests Available for Order:

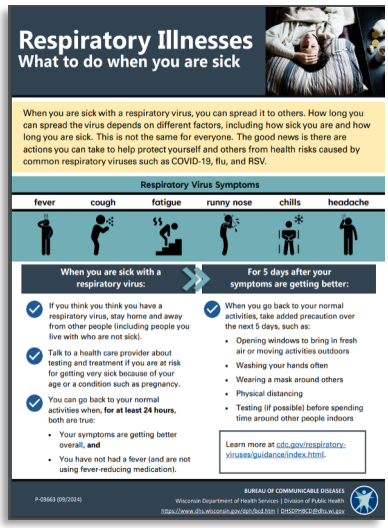
Households in the U.S. can order free COVID tests for the current respiratory season. Every household is eligible to order up to four rapid antigen at-home tests.

Program Updates

2023 Sexually Transmitted Infection (STI) Reports Published:

The STI Unit has released the 2023 STI Surveillance Reports. These reports provide key takeaways about populations most affected by STI transmission, locations in Wisconsin with the highest rates of STIs, and other disease trends for chlamydia, gonorrhea, and syphilis.





New Respiratory Illness Fact Sheet:

A new respiratory illness fact sheet was recently published, providing guidance for the public on preventing and protecting others from respiratory illnesses like COVID-19, influenza, and RSV.

Vaccine Preventable Disease Campaign Launch:

The Immunization Program has been working with marketing firm, Hiebing, on a communications campaign about vaccine preventable diseases, which launched in mid-November. Check out the new webpage and keep an eye out for ads on television, radio, and social media posts in the coming weeks.

Wisconsin AIDS Drug Assistance Program (ADAP) Update

By: Amy Wick, HIV Care Unit Supervisor

BACKGROUND

Early in 2025, the Wisconsin AIDS Drug Assistance Program (ADAP) will be rolling out multiple program enhancements, including an important, long overdue program name change and a new online benefits portal.

IMPACT

The federal and state funded program, which operates within the HIV Care Unit, helps ensure that people living with HIV (PLWH) have access to health insurance and antiretroviral therapy, known as ART. Starting ART early improves health and wellbeing of PLWH by building a strong immune system and suppressing the virus. PLWH who reach an undetectable viral load for at least six months cannot transmit HIV through sex.

For over two decades, ADAP has been successful in supporting PLWH by providing financial assistance to pay for medications and insurance premiums. Without this assistance, many PLWH may not be able to achieve viral suppression.

Wisconsin's ADAP provides services to roughly one-fourth of PLWH in Wisconsin each year. ADAP serves between 1,300 – 1,800 clients per year and provides medication assistance for between 10,000–15,000 prescriptions annually. In 2023, there were 1,775 people enrolled in the Wisconsin ADAP, and 88% of clients were virally suppressed. Seventy-one percent of clients were insured and 29% were uninsured while they were on ADAP during the 2023 calendar year.

NAME CHANGE

Language has an impact on the way people view themselves and others and can promote or prevent stigma and misinformation. The program will be changing its name to replace 'AIDS' with 'HIV'. The new name, the Wisconsin HIV Drug Assistance Program (HDAP), will be used to launch the upcoming online benefits portal, the HDAP Online Portal, and will be visible on the program's webpage and materials in early 2025.

HDAP ONLINE PORTAL

The HDAP Online Portal (HOP) will provide PLWH and case managers the ability to apply for benefits, submit materials, and communicate electronically with program staff. By providing real-time status updates and information sharing, the HOP will work to promote transparency and remove barriers. Both clients and case managers were engaged in feedback opportunities and provided valuable input on the workflows, design, and functions of the system.

The program is excited to share these updates and looking forward to launching the changes in the new year.

Pertussis in Wisconsin

By: Maddie Kemp, Vaccine Analytics Epidemiologist

INTRODUCTION

Pertussis, also called whooping cough, is a serious illness. Pertussis is caused by bacteria that attach to the lining of the lungs. It can infect people at any age, but it is most serious in infants and young children. Pertussis is known for uncontrollable, violent coughing that often makes it hard to breathe. After coughing, someone with pertussis may need to take deep breaths that result in a "whooping" sound. Antibiotic therapy can be effective if started early in the course of illness, however, even with appropriate treatment, recovery can take up to 12 weeks. Postexposure prophylaxis for close contacts can reduce the chance of getting ill and help prevent serious illness in those at increased risk of severe illness.

TRENDS

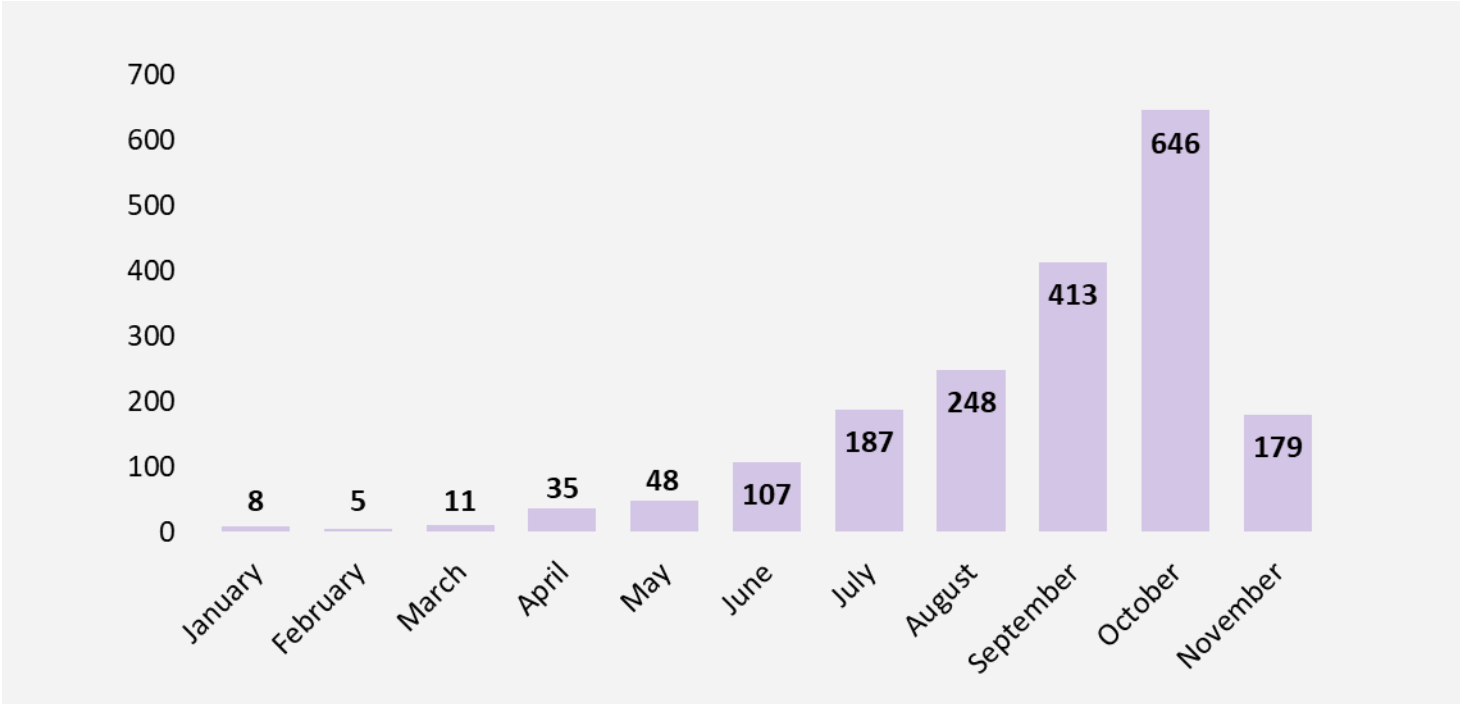
Pertussis is cyclical and peaks every three-to-five years as the number of susceptible people in the population increases due to waning of immunity following both vaccination and disease.

Between 2011 and 2019, the median number of confirmed and probable pertussis cases reported per year in Wisconsin was 777 cases. A marked decrease in reported Pertussis cases was observed in 2020; subsequently, fewer than 100 cases per year were reported during 2021–2023. Currently, Wisconsin is seeing a resurgence in pertussis cases.

CURRENT SITUATION IN WISCONSIN

As of November 22, 2024, Wisconsin has 1,1887 confirmed cases of pertussis statewide. Fifty-eight counties have had at least one case since January 1, 2024. People with pertussis ranged in age from less than 1 year to 90 years (median: 15 years). Seventy-six infants have been identified with pertussis and twelve have been hospitalized. Among confirmed cases with a known vaccination history (n=1,857), 15% have never received a pertussis vaccine.

Figure 1: Confirmed pertussis cases in Wisconsin by month, January 1, 2024–November 22, 2024



STAY UP TO DATE WITH VACCINATIONS

Routine vaccination with pertussis vaccine is the most effective method for preventing pertussis. It is recommended that all infants and children younger than 7 years old receive a five-dose Diphtheria-Tetanus-Pertussis (DTaP) vaccine series and that adolescents ages 11 to 12 years old receive a single dose of Tetanus, Diphtheria, and Pertussis (Tdap). Newborn infants are best protected from pertussis when their birthing parent is vaccinated with Tdap vaccine during the third trimester of pregnancy. These infants are born with passive protection from pertussis. In 2023, three out of four birthing people in Wisconsin received a Tdap vaccine during pregnancy.

Resources

For more information about pertussis, please visit:

- Immunizations: Whooping Cough (Pertussis) | Wisconsin Department of Health Services
- Pertussis Vaccination Recommendations | Whooping Cough | CDC

Questions

For questions regarding pertussis surveillance or vaccination, contact the Immunization Program by sending an email to DHSImmProgram@dhs.wisconsin.gov.

Legionnaires' Disease Investigations: The Importance of Clinical Isolates

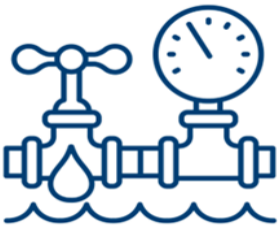
By: Frances Goglio, Legionellosis Surveillance Coordinator

BACKGROUND

Legionnaires' disease is a severe, atypical pneumonia caused by exposure to *Legionella* bacteria. *Legionella* is an opportunistic waterborne pathogen that occurs naturally at low levels in fresh water but grows and spreads in human-made water systems, such as plumbing systems and devices that aerosolize water, or convert it into particles small enough to be carried by air (Figure 1). Laboratory testing that can confirm a diagnosis of Legionnaires' disease, when a patient has clinical signs consistent with pneumonia, include a urine antigen test, *Legionella* PCR, and *Legionella* culture. *Legionella* PCR and culture require the collection of sputum or a lower respiratory specimen. Routine respiratory culture media does not meet the growth requirements for *Legionalla*, so *Legionella* culture must be specifically ordered to obtain an isolate. Legionnaires' disease is reportable in Wisconsin, and public health follow up for all laboratory-confirmed cases of Legionnaires' disease includes attempting a case interview to determine potential sources of exposure.

Figure 1: Legionella spread. *Legionella* occurs naturally in fresh water, but conditions for Legionella growth and spread occur when water is delivered to building water systems. Water systems provide warmth and stagnation which promote growth.

***Legionella* naturally occur in fresh water**



Public water systems or private wells deliver incoming water to buildings

Water is delivered to fixtures and devices for use

SITUATION

While multiple diagnostic tests are available, over 90% of reported Legionnaires' disease cases in Wisconsin are diagnosed with the *Legionella* urine antigen test. In 2023, a *Legionella* isolate was obtained for 8.5% of cases (Figure 2). If cases are identified in certain facilities with complex water systems, such as long-term care facilities or lodging facilities, or if there is an increased number of case reports in a geographic area, public health may investigate potential environmental sources of *Legionella* to abate the risk of transmission.

During these public health investigations, clinical *Legionella* isolates from patients are critical to the investigation, since sequencing can be used to directly compare patients to environmental sources, or patients to other patients. However, clinical *Legionella* isolates are rarely available to assist with public health investigations. As a result, linking patient illnesses to a common source can be difficult, particularly when an increased number of community case reports are received without a known exposure to the same building or device.

Figure 2: Proportion of confirmed cases of Legionnaires' disease with a positive test by urine antigen, PCR, and culture.

SUCCESS STORY

Since 2023, local public health department staff investigating cases of urine antigen positive Legionnaires' disease often reach out to hospital infection prevention, the patient's provider, or the clinical laboratory to inquire about the availability of sputum for *Legionella* culture as indicated in the Wisconsin Division of Public Health's (DPH) Legionellosis Case Investigation Checklist (also found as a component of the Legionellosis Case Investigation Protocol). At this time, an increased proportion of cases with clinical isolates has been observed. Compared to an average of 5.78% of cases from 2018–2022, and 8.5% of cases in 2023, there are 11% of cases to date in 2024 that have had a clinical isolate. Outreach by local and Tribal pubic health departments to request fee-exempt testing of clinical specimens is most likely to be successful if initiated as soon as practical after receiving a case report.

Updated Respiratory Illness Data Dashboard with Statewide and Regional Trends Coming Soon

By: Anna Kocharian, Rachel Klos, and Hannah Segaloff, CDES Epidemiologists

BACKGROUND

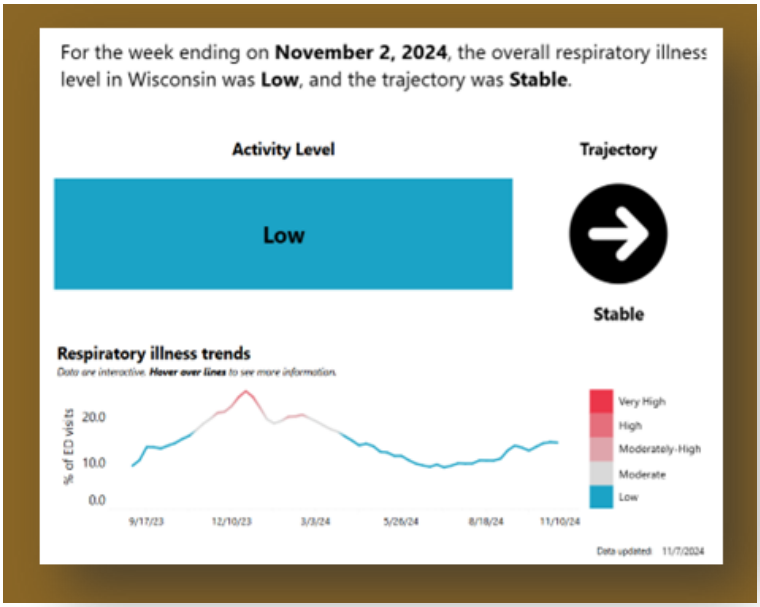
The DHS Respiratory Illness Data landing page will be updated with additional features and metrics very soon. The new dashboard will provide more refined measures describing respiratory illness activity and will allow users to view data by public health region.

UPCOMING CHANGES

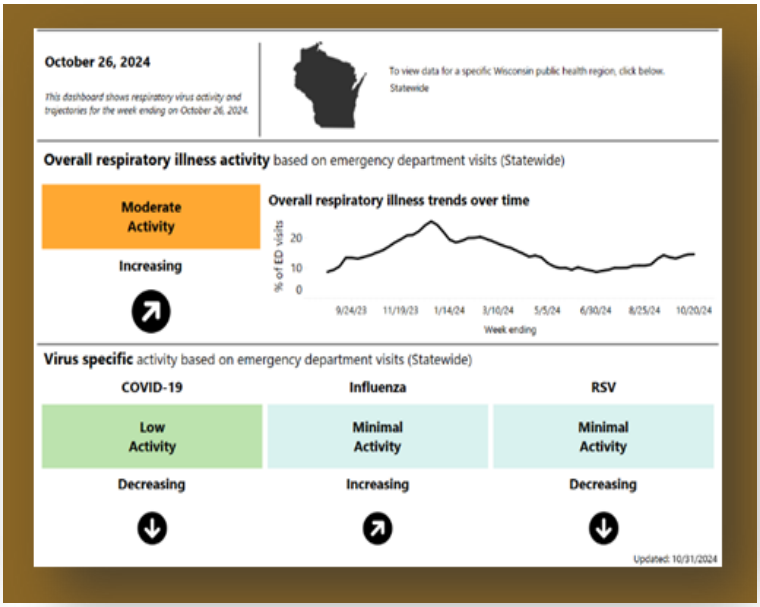
The updated summary dashboard will display the respiratory illness levels and trajectories for emergency department (ED) visits associated with overall respiratory illness, COVID-19, influenza, and respiratory syncytial virus (RSV) for the most recent week of data. The interactive dashboard will also include a dropdown filter to show data for one of the five Wisconsin public health regions.

In addition to the new look and regional filter, the way that activity level metrics are calculated will also be changing. This change is consistent with the metrics used on the CDC's new respiratory data page. The overall respiratory illness activity level will tell you how frequently respiratory illnesses are detected in the ED, no matter what disease is causing these illnesses. The influenza-, COVID-19-, and RSV-specific activity levels will let users know how much influenza, COVID-19, or RSV is circulating.

CURRENT DASHBOARD



NEW AND IMPROVED DASHBOARD



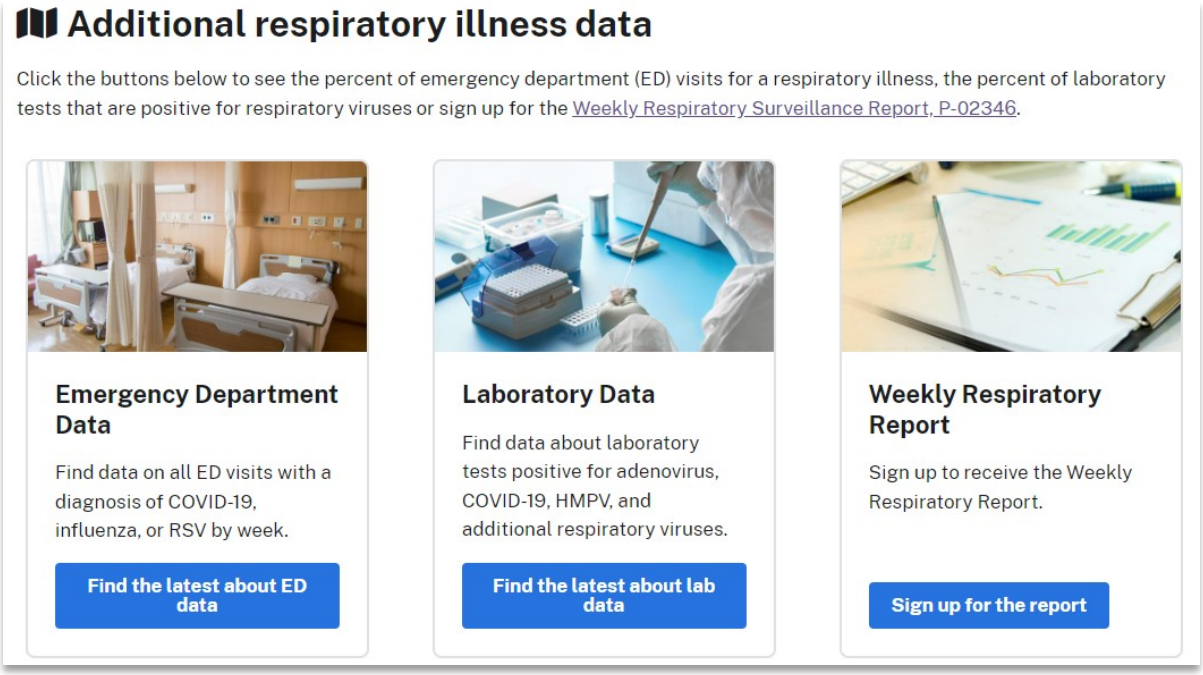
**The final version of the new dashboard may look different.*

Updated Respiratory Illness Data Dashboard with Statewide and Regional Trends Coming Soon

By: Anna Kocharian, Rachel Klos, and Hannah Segaloff, CDES Epidemiologists

BOOKMARK FOR WEEKLY UPDATES

Bookmark the Respiratory Illness Data landing page to stay up to date on respiratory activity in your region. In addition to the summary dashboard, there also are detailed visualizations for ED visits and laboratory testing data for specific respiratory viruses. These data are updated weekly, usually on Fridays. Check back for more data visualizations, which will be rolled out during the 2024–2025 respiratory season, including data on hospitalizations and deaths associated with these respiratory viruses.



Resources

For more information about respiratory virus surveillance, please visit:

- COVID-19 Wastewater Surveillance
- Avian Influenza A Virus Surveillance
- DHS Outbreaks and Investigations
- Weekly Respiratory Surveillance Report

Communicable Disease Case Counts

This report contains a selection of reportable conditions with inclusion based on public health significance and frequency of occurrence. The case counts reflect confirmed and probable cases, for all process statuses. These numbers are not final and are subject to change as confirmatory testing and case follow-up are completed. The case counts for 2024 fourth quarter (Q4) and year-to-date (YTD) are through November 15, 2024.

***Case counts should not be considered final and are subject to change.**

Disease	2023 Case Counts	2024 Case Counts				
	Total	Q1	Q2	Q3	Q4	2024 YTD
Enteric and Gastrointestinal						
Campylobacteriosis[4]	1,600	296	393	520	194	1,403
Cholera[1, 4]	0	1	0	0	0	1
Cryptosporidiosis[4]	543	69	94	327	77	567
Cyclosporiasis[4]	68	0	26	36	2	64
E. coli, Shiga toxin-producing (STEC)[4]	511	88	133	177	39	437
Giardiasis[4]	517	94	81	337	55	567
Hemolytic uremic syndrome	5	1	1	5	1	8
Listeriosis	23	4	9	12	2	27
Salmonellosis[4]	1,031	220	275	396	104	995
Shigellosis[4]	84	25	23	21	6	75
Typhoid fever[4]	8	0	1	0	0	1
Vibriosis (non-cholera)	44	17	8	12	3	40
Yersiniosis	185	59	68	65	26	218
Invasive Bacteria						
Group A streptococcal disease	539	121	123	77	36	357
Group B streptococcal disease	643	138	168	158	65	529
Fungal						
Blastomycosis[4]	137	36	22	18	1	77
Coccidioidomycosis[1]	11	3	4	1	0	8
Histoplasmosis[4]	31	7	4	5	1	17
Respiratory						
Coronavirus disease (COVID-19)[3, 4]	138,483	N/A	N/A	N/A	N/A	N/A
Please refer to the weekly respiratory virus surveillance report and respiratory illness data webpage.						
Influenza, novel	0	0	0	0	0	0
Influenza-associated hospitalizations	1,694	2,379	328	45	26	2,778
Legionellosis[4]	215	19	55	83	22	179
Tuberculosis[4]	54	13	20	17	11	61
Latent TB infection[4]	1,444	355	347	325	70	1,097
Sexually Transmitted						
Chlamydia trachomatis	25,003	5,995	5,698	6,034	2,672	20,399
Gonorrhea	7,009	1,787	1,571	1,912	840	6,110
HIV	260	N/A	N/A	N/A	N/A	N/A
Syphilis (all stages)	1,800	364	345	345	107	1,161
Vaccine Preventable						
Diphtheria	0	0	0	0	0	0
Haemophilus influenzae invasive disease	132	38	37	26	17	118
Hepatitis B, acute (confirmed cases only)	7	2	3	2	0	7
Hepatitis B, perinatal	2	0	0	0	0	0

Communicable Disease Case Counts

Disease	2023 Case Counts	2024 Case Counts				
	Total	Q1	Q2	Q3	Q4	2024 YTD
Vaccine Preventable (continued)						
Measles (rubeola)	1	0	1	0	0	1
Meningococcal disease	2	1	2	3	0	6
Mumps	4	2	2	1	0	5
Pertussis (whooping cough)	51	32	218	965	716	1,931
Poliomyelitis	0	0	0	0	0	0
Rubella	0	0	0	0	0	0
Streptococcus pneumoniae invasive disease	518	199	140	52	64	455
Tetanus	0	1	1	0	0	2
Varicella (chickenpox)	188	59	54	55	28	196
Vectorborne						
Babesiosis[4]	124	6	38	80	9	133
Dengue virus infection[1]	12	9	5	17	2	33
Eastern equine encephalitis virus (EEEV)	0	0	0	1	0	1
Ehrlichiosis/Anaplasmosis[4]	742	15	462	212	41	730
Jamestown Canyon virus infection	13	0	3	3	0	6
La Crosse virus infection	1	0	0	0	0	0
Lyme disease[4]	6,379	638	2,222	2,534	573	5,967
Malaria[1]	20	3	7	4	0	14
Powassan virus infection	2	0	9	2	0	11
Spotted fever group rickettsioses (spotted fevers)[4]	13	6	5	4	0	15
West Nile virus infection	25	0	0	33	2	35
Yellow fever[1]	0	0	0	0	0	0
Zika virus infection[1, 2]	0	0	0	0	0	0
Zoonotic						
Brucellosis	0	1	0	2	0	3
Hantavirus infection	0	0	0	0	0	0
Leptospirosis	0	0	0	1	0	1
Mpox[4]	8	1	1	2	1	5
Psittacosis	0	0	0	0	0	0
Q Fever, acute	3	0	0	0	0	0
Q Fever, chronic	0	0	0	1	0	1
Rabies (human)	0	0	0	0	0	0
Toxoplasmosis	1	1	0	0	0	1
Tularemia	2	0	0	0	0	0
Other						
CP-CRE	45	N/A	N/A	N/A	N/A	N/A
Hepatitis A	23	7	12	7	1	27
Hepatitis C, acute	82	12	16	6	2	36
Hepatitis E, acute	3	1	1	0	1	3
Kawasaki disease	20	6	7	3	1	17
Lymphocytic choriomeningitis virus infection	0	0	0	0	0	0
Transmissible spongiform encephalopathy (human)	4	1	0	0	0	1

[1] Denotes diseases where all cases in Wisconsin residents are travel-associated. No local transmission occurs.
[2] Due to enhanced surveillance, asymptomatic confirmed cases are included.
[3] COVID-19 reporting requirements have changed, and individual cases are no longer reportable as of 11/1/2023.
[4] DHS collects standardized industry and occupation information in WEDSS for these conditions.