Wisconsin Epi Express

Q1 2026

In This Issue

Program Updates

New Influenza Data Visualization

DHS has published a new influenza subtyping data visualization on the Laboratory Testing Data webpage. The Wisconsin Public Health Laboratories data visualization displays the relative proportion of seasonal influenza A subtypes identified by public health laboratories in Wisconsin throughout the respiratory illness season.

Healthcare-Associated Infections (HAI) Prevention Program Released New Annual Data Report

The HAI Annual Data Report reflects data submitted by Wisconsin acute care and critical access hospitals into the National Healthcare Safety Network (NHSN), and provides a first look at state-level HAI data under the recently updated 2022 national standardized infection ratio (SIR) baseline.

Measles Social Media Templates

The DHS Immunization Program has created measles social media posts for partners to download and share with their networks. You can download the posts on the Partner Communicating and Alerting (PCA) portal.

New Infection Prevention and Control Playbook

The Healthcare-Associated Infections (HAI) Prevention Program has created a new educational resource for Infection Preventionists and environmental services departments. Find this new resource on the DHS website.

Wisconsin TB Summit Sessions April 7–May 5

The Wisconsin Tuberculosis (TB) Summit features weekly sessions about TB care from local, state, and national TB experts. Registration is free.

Staff Updates

BCD welcomes the following staff to their new positions!

Mitchell Morey, Human Services Supervisor, Fiscal Management Unit

STI Summit Recap and Next Steps in Partner Services Prioritization

By: Brandon Kufalk, STI Unit Supervisor; Delanie Johnson, Public Health Educator

STI summit highlights

The Wisconsin Department of Health Services (DHS) Sexually Transmitted Infections (STI) held the 13th annual statewide STI Summit in collaboration with Health Care Education and Training (HCET). This summit welcomed nearly 150 people, both in-person and virtual. The summit hosted attendees and presenters from over 50 Wisconsin local and Tribal health departments (LTHDs), three Wisconsin state agencies, and public health partners from three neighboring states. The theme of the summit was youth and adolescents' sexual health promotion, with an emphasis on communicating with youth.

Youth and adolescents bear an unproportional burden of STIs, with people aged 15–24 years old making up 56% of all reported STIs. Creating public health interventions that meet youth where they are is important to reducing the burden of infection. Attendees learned about current STI rates, youth-informed messaging, STI collection methods, healthy youth relationships, how to have challenging conversations, and more. To close, the Wisconsin Providers And Teens Communicating for Health Program (PATCH), brought teen educators (TE) to answer attendees' questions.

Partner services prioritization guidance

One strategy announced at the STI summit was the partner service prioritization created by the STI Unit. The Unit previously received funding to support the capacity of disease intervention specialist (DIS), key public health staff who work to reduce the number of syphilis cases in Wisconsin and provide additional support for partner services in other STIs. After losing federal funding for this project, the STI Unit is addressing gaps by creating STI partner services prioritization guidance.

This guidance will help LTHDs, who act as important partners in the partner services of STIs, maximize their resources for STI partners services. The guidance is intended to assist in determining what the current level of STI morbidity is in a specific jurisdiction, looking not only at yearlong periods but monthly and weekly data as well. The guidance analyzes jurisdiction's current capacity for STI partner services and provides directions for a prioritization chart. Finally, the guidance provides information about steps to take during an outbreak situation, specifically given the recent reductions in resources like DIS.

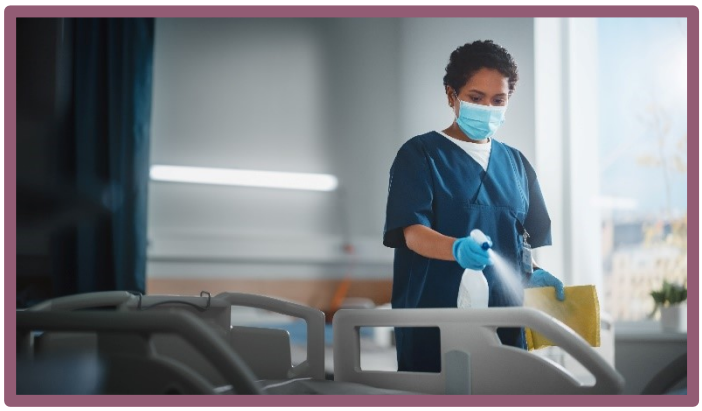
The guidance is intended to be used by staff who perform partners services, director supervisors of partners services, and local health officers or Tribal health directors. The Unit recognizes that Wisconsin statutes and administrative codes have specific references on partners services for STIs which need to be followed; as such, this guidance provides clear plans on how to meet these requirements. The guidance will be available on the PCA portal soon!

Infection Prevention Round Up: Environmental Observations and Audits

By: Anna Marciniack, Infection Preventionist

Background

The environment can serve as a reservoir for a variety of pathogens. From bacteria to viruses, these pathogens can live and spread in the environment causing adverse health outcomes. Adhering to environmental infection control best practices, such as environmental rounding, can help protect the populations you serve. Through observations and audits, environmental rounding helps to identify gaps in infection prevention practices and inform the implementation of infection control measures as needed. Additionally, routine rounding can reinforce best practices with staff and partners, support public health readiness, and demonstrate a commitment to quality and safety.



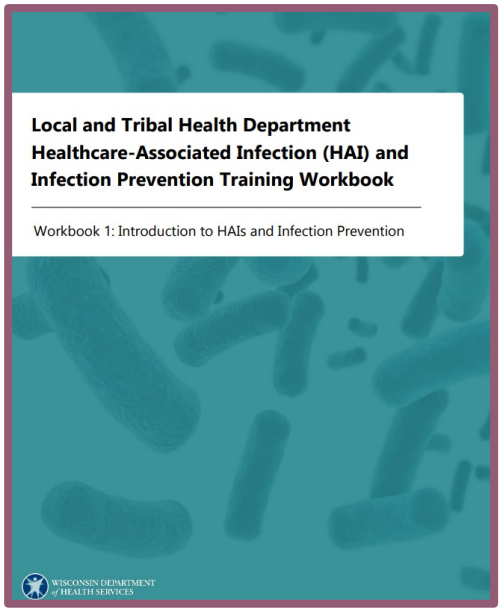
Environment of Care Rounding Tool

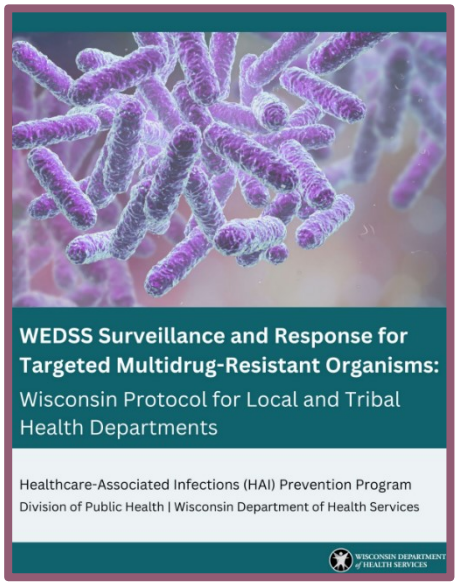
The Environment of Care Rounding Tool for Local and Tribal Health Departments (LTHDs) is one of many resources available from the Wisconsin Healthcare-Associated Infections (HAI) Prevention Program. The tool is a structured checklist that guides LTHD staff through observing the workplace environment and clinical areas within the health department to spot opportunities for improvement in infection prevention and safety. LTHDs in Wisconsin utilizing the tool have expressed that it's easy to use and applicable to a health department setting, recognizing that their locations are different than other health care settings.

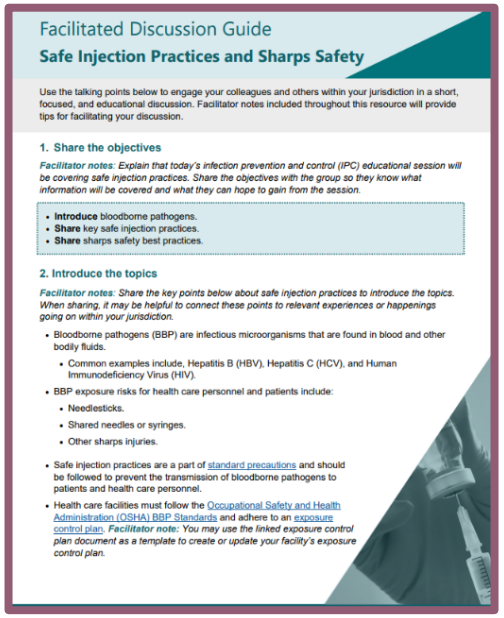
Routine environmental rounding is more than a formality; it's an essential part of preparedness and proactive infection prevention!

Additional Tools

Additional tools, facilitated discussion guides, virtual workshops, and training resources are available on the HAI: Resources for Local and Tribal Health Departments webpage. We're also here to help—reach out to the HAI Prevention Program at DHSWIHAIPreventionProgram@dhs.wisconsin.gov for assistance.







Building a Representative Wastewater Monitoring Program for Wisconsin

By: Matilde Jacobson, Applied Epidemiology Fellow

Background

The Wisconsin Wastewater Monitoring Program (WWMP) was established in 2020 in response to the COVID-19 Pandemic. The program initially recruited 72 municipal wastewater treatment facilities across the state to begin sending samples of untreated wastewater that were tested for levels of SARS-CoV-2, the virus that causes COVID-19. This proved to be an accurate way to warn communities about rising COVID-19 levels and became a critical tool in the public health arsenal to fight the pandemic. The success of wastewater monitoring for COVID-19 led to increased federal funding to establish wastewater monitoring as a core public health strategy. The program expanded testing to additional disease targets to address more public health threats. Today, the WWMP routinely monitors wastewater for 10 infectious diseases from seasonal flu and norovirus to emerging threats like bird flu, mpox, and measles, with more in development.

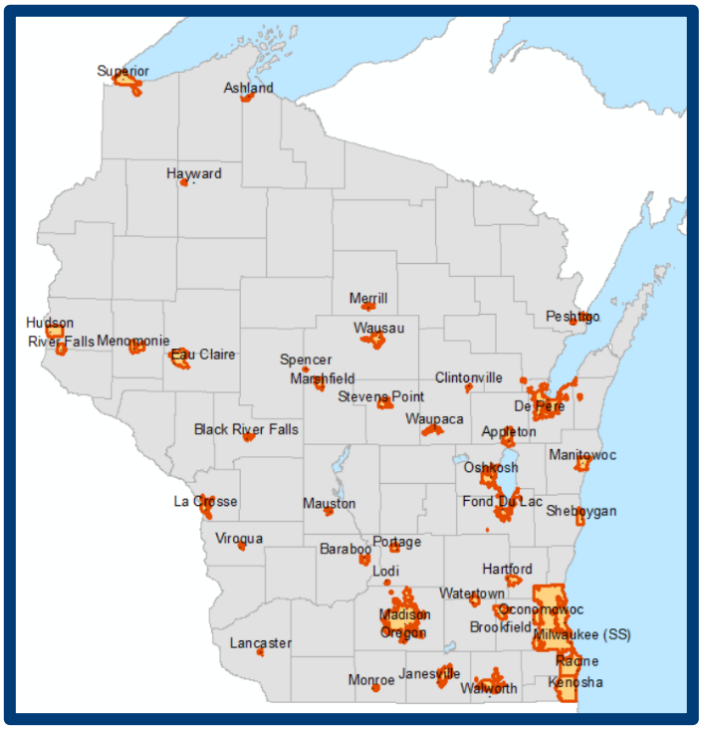


Figure 1. Current Wisconsin Wastewater Monitoring Program sampling sites (n = 44).

In the five years since the WWMP began, the number of wastewater treatment facilities involved in program operations reduced to 44 in order to direct resources to sites able to provide routine samples. These 44 active sites (Figure 1) now cover an area that spans 46 counties and includes about 49% of the Wisconsin population (2.9 million). In 2024, the Centers for Disease Control and Prevention (CDC) National Wastewater Surveillance System (NWSS) recommended that wastewater monitoring programs across the country evaluate their sampling networks and take steps to ensure these networks can remain sustainable and flexible in the face of future funding uncertainty.

The WWMP recently completed an in-depth evaluation of the current wastewater monitoring network and will be implementing these findings into an optimized wastewater monitoring network in 2026.

The optimized network will include a simplified approach where the same infectious disease targets are tested at all sites (previously a subset of sites tested for SARS-CoV-2 only, while other sites included all available targets). The new network may also have fewer sampling sites than before, although, as of April 2026, final decisions about site selection have not been made. In alignment with the redesign, new tools to view levels of pathogens in wastewater will be provided to local and Tribal health departments as well as the public. The program will also launch a new "Wastewater Response Network" which allows wastewater utilities not providing routine wastewater samples to sign up and be ready to submit samples rapidly if a disease outbreak or public health response involves their local jurisdiction.

Building a Representative Wastewater Monitoring Program for Wisconsin

By: Matilde Jacobson, Applied Epidemiology Fellow

Methods

The in-depth evaluation of the wastewater monitoring sites that was completed is described below. This evaluation included three parts – 1) evaluation of current sites; 2) building a selection model to compare and prioritize sites; 3) evaluating performance of the preliminary network.

Site evaluation. To characterize the populations represented by the current network of wastewater monitoring sites, we joined spatial data of the sewersheds served by participating sites to a variety of reference datasets. These included the US Census, the American Community Survey, the University of Wisconsin Cetner for Health Disparities Research Area Deprivation Index, the EPA Environmental Justice Screening Tool, the Wisconsin Immunization Registry, the Wisconsin Hospital Discharge Database, and the Wisconsin Electronic Disease Surveillance System. For each sewershed, over a dozen variables were characterized, and compared to state and regional populations in Wisconsin.

Additionally, a drive-time analysis was conducted to identify geographically linked sites. Sites that were within a short drive of one another and had high correlation in their historical SARS-CoV-2 wastewater levels were considered to be "paired sites," and potentially redundant form a surveillance perspective. Data on the historical timeliness and quality of samples from each site were also collected.

Selection Model

Results from the site evaluation were incorporated into a selection model that compared sites based on the data elements gathered in the site evaluation. The selection model pre-selected sites representing state and regional population centers, and then prioritized remaining sites based on commuting dynamics, timeliness of sample submission, Area Deprivation Index Score, and population characteristics related to vulnerability including percentage of population under 5, over 64, and with no health insurance. From these rankings, a preliminary network of sites was identified.

Network Performance

To ensure that a reduced network would not negatively impact the wastewater data, we evaluated the performance of this new network against the current network. This evaluation included a comparison of historical SARS-CoV-2 wastewater data against COVID-19 cases and hospitalizations, evaluating both correlation and lead time of wastewater data for the new versus current network of sites. These analyses were performed at both the state and health care regional level to assess the impact of reducing sites on both statewide and more local-level surveillance.

Building a Representative Wastewater Monitoring Program for Wisconsin

By: Matilde Jacobson, Applied Epidemiology Fellow

Results and Future Directions

Wisconsin's current wastewater surveillance network (44 sites) achieves good representation of state and regional populations, with slight over-representation of historically under-represented groups such as people of color, people with limited English speaking, and unemployed and uninsured populations. The average area deprivation index score, an indicator of social vulnerability, was also slightly higher in the surveillance network population compared to the state. A preliminary reduced network of 38 sites maintained this representation (Table 1).

Evaluation of a reduced network of sites found no substantial changes to state and regional wastewater indicators after reducing sites. Wastewater levels estimated by a reduced network were still able to accurately predict the trends in the number of people sick and hospitalized with COVID-19, even with fewer sites contributing wastewater data. This shows that a reduced network of sites can adequately represent state and regional COVID-19 activity.

Based on this site evaluation, DHS will update Wisconsin's wastewater monitoring network throughout 2026 by increasing the number of diseases monitored at each site while considering a reduction in sites, without compromising data quality and representativeness. These changes will improve the long-term sustainability of the program and its ability to respond to emerging public health threats, without sacrificing the core goals of wastewater monitoring and preserving population, geographical, and regional representation of Wisconsin.

	State of Wisconsin	Current Network (n=44 sites)
Total population	5,893,718	2,900,452
Percent of population living in rural-designated census blocks	32.9%	3.0%
Number of wastewater monitoring sites designated as local commuting cores	-	32 (73%)
Percent of population under the age of 5	5.5%	5.7%
Percent of population aged 65 and older	18.0%	16.1%
Percent of population with no health insurance	5.4%	5.8%
Estimated Area Deprivation Index (ADI) Score*	5	5.6

*ADI score is on a scale of 1 to 10, with 1 representing the least disadvantage and 10 the most disadvantaged.

Pertussis Among Infants in Wisconsin 2024–2025

By: Maddie Kemp, Vaccine Analytics Epidemiologist

Introduction

Pertussis, also called whooping cough, is a highly infectious, vaccine-preventable illness. Pertussis is caused by bacteria that attach to the lining of the lungs which can cause 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. The bacteria spreads easily from person to person through the air and people can be contagious from the start of symptoms until at least two weeks after. Getting vaccinated is the best way to protect against pertussis. It is recommended that children receive the five-dose diphtheria, tetanus, and pertussis (DTaP) vaccine series, followed by Td or Tdap boosters at 11 years and again every 10 years for protection against pertussis. Additionally, it is recommended that pregnant people receive a dose of Tdap during every pregnancy to help protect the newborn from pertussis. Infants less than 1 year of age are at greatest risk for getting pertussis and having severe complications. These infants are too young to be vaccinated themselves and depend on antibodies passed from their birthing parent through vaccination during pregnancy.

National Trends

Pertussis is an endemic disease in the United States, with peaks in cases every few years. In 2024, there were six times as many cases in the United States compared to 2023. Overall, in 2025, cases trended downward but remain elevated compared to before the pandemic.

Current Trends in Wisconsin

In 2024, Wisconsin experienced the highest incidence of pertussis since 2012 and had the third-highest incidence of pertussis cases nationwide.

A total of 188 infant pertussis cases occurred during 2024 and 2025, with "infant' defined as under 1 year old. This included 119 infant cases from 2024 (out of a total of 2,985 cases) and 69 infant cases in 2025 (out of a total of 764 cases). Infant cases ranged in age from 17 days to 11 months, with a median age of 5.5 months. About half (47%) of infant cases were not vaccinated with pertussis-containing vaccine, one quarter (28%) of infants were up-to-date, 10% were behind schedule, and 14% were too young to be vaccinated. Overall, 34 infants (19%) were hospitalized, and half (50%) of infants hospitalized were too young to be vaccinated.

Receipt of Tdap during pregnancy was low among infants' birthing parents. Forty percent of birthing parents with an infant with pertussis had received Tdap during pregnancy. For infants who were hospitalized, only 25% of birthing parents received Tdap during pregnancy. In contrast, 73% of pregnant people in Wisconsin overall received the Tdap vaccine during pregnancy in 2024.

Stay up to Date with Vaccinations

Pertussis cases continue to occur throughout Wisconsin. This is particularly concerning for infants, as one in five infants with pertussis requires hospitalization. Increased efforts to promote Tdap vaccination during pregnancy and timely administration and completion of the pertussis-containing vaccination series for infants and children are needed.

References

CDC pertussis information

CDC 2024 Provisional Pertussis Surveillance Report

CDC pertussis surveillance trends

Wisconsin vaccines during pregnancy, 2024

Resources

Wisconsin Pertussis Dashboard

Children and adolescent vaccination rate dashboard

American Academy of Pediatrics 2026 vaccine schedule

Contact us

For questions regarding pertussis, reach out to DHSImmProgram@dhs.wisconsin.gov

Communicable Disease Case Counts

This table includes **preliminary** case counts for reportable conditions for the current year-to-date (YTD) and the previous year and YTD. Preliminary and YTD case counts are not included for hepatitis B, hepatitis C, and HIV. Annual communicable disease surveillance data for these reportable conditions (as well as hepatitis B, hepatitis C, and HIV) from 2010–2024 are available on the interactive Wisconsin Communicable Disease Surveillance Data dashboard.
Visit the Wisconsin Department of Health Services (DHS) Disease Reporting page for more information about disease reporting.
*Case counts are considered preliminary and subject to change. YTD case counts are through **March 31.**

Disease	2026 YTD	2025 YTD	2025 Total
Enteric/Gastrointestinal			
Campylobacteriosis[2]	239	321	1,764
Cholera[1,2]	0	0	0
Cryptosporidiosis[2]	57	64	504
Cyclosporiasis[2]	1	1	65
E. coli, Enteropathogenic[2]	237	326	2,229
E. coli, Enterotoxigenic[2]	70	104	507
E. coli, Shiga toxin-producing (STEC)[2]	78	81	526
Giardiasis[2]	73	82	513
Hemolytic Uremic Syndrome (HUS)[2]	0	1	3
Listeriosis[2]	4	6	23
Salmonellosis[2]	167	216	1,113
Shigellosis / *E. coli*, Enteroinvasive[2]	40	44	173
Typhoid and Paratyphoid Fever[2]	3	2	3
Vibriosis (Non-Cholera)[2]	9	6	49
Yersiniosis[2]	32	59	209
Healthcare Associated			
Candida auris, Clinical	2	8	26
Candida auris, Colonization	1	4	15
Carbapenemase-producing Organism, Clinical	2	23	82
Carbapenemase-producing Organism, Colonization	3	6	21
Vancomycin Intermediate/Resistant *Staphylococcus aureus*	0	0	2
Invasive Bacteria			
Group A Streptococcal Invasive Disease[2]	141	139	390
Group B Streptococcal Invasive Disease[2]	168	152	669
Rheumatic Fever	0	0	0
Toxic Shock Syndrome, Staphylococcal	0	0	1
Toxic Shock Syndrome, Streptococcal	0	1	2

Communicable Disease Case Counts

Disease	2026 YTD	2025 YTD	2025 Total
Mycotic (Fungal)			
Blastomycosis[2]	1	8	12
Coccidioidomycosis[1]	0	0	0
Histoplasmosis[2]	0	2	3
Respiratory			
Please refer to the respiratory virus data webpage for statewide and regional interactive data visualizations.			
COVID-19, Pediatric Mortality	0	0	2
COVID-19-associated Hospitalization[2]	1,741	1,797	4,155
Influenza, Novel[2]	0	0	0
Influenza, Pediatric Mortality	0	4	5
Influenza-associated Hospitalization[2]	2,818	5,954	8,077
Legionellosis[2]	22	42	210
Respiratory Syncytial Virus (RSV), Pediatric Mortality	0	1	1
Respiratory Syncytial Virus (RSV)-associated Hospitalization[2]	1,579	1,800	2,238
Tuberculosis (TB)	10	20	64
Sexually Transmitted			
Chlamydia (*Chlamydia trachomatis* Infection)	4,789	5,314	21,956
Gonorrhea (*Neisseria gonorrhoeae* Infection)	1,255	1,346	5,599
Sexually Transmitted Pelvic Inflammatory Disease	0	0	0
Syphilis	122	365	1,268
Syphilis, Congenital	3	9	22
Vaccine Preventable			
Diphtheria	0	0	0
Haemophilus influenzae Invasive Disease[2]	40	40	154
Measles (Rubeola)[2]	2	0	36
Meningococcal Disease[2]	1	3	8
Mumps	0	5	6
Pertussis (Whooping Cough)	38	294	692
Poliomyelitis	0	0	0
Rubella	0	0	0
Streptococcus pneumoniae Invasive Disease[2]	164	219	585
Tetanus	0	0	2
Varicella (Chickenpox)	35	54	178

Communicable Disease Case Counts

Disease	2026 YTD	2025 YTD	2025 Total
Vectorborne			
Anaplasmosis[2]	3	6	1,075
Babesiosis[2]	5	2	163
Borrelia miyamotoi Infection	0	0	14
Chikungunya Virus Infection	0	0	5
Dengue Virus Infection[1]	1	7	20
Eastern Equine Encephalitis Virus Infection	0	0	0
Ehrlichia Infection (species undetermined)[2]	0	4	63
Ehrlichia chaffeensis Infection[2]	0	0	8
Ehrlichia ewingii Infection[2]	0	1	2
Ehrlichia muris eauclairensis Infection[2]	0	0	11
Jamestown Canyon Virus Infection	0	0	7
La Crosse Virus Infection	0	0	0
Lyme Disease (*B. burgdorferi*)[2]	622	579	8,876
Lyme Disease (*B. mayonii*)[2]	0	0	1
Malaria[1]	2	5	14
Powassan Virus Infection	0	0	18
Spotted Fever Group Rickettsiosis[2]	0	0	10
St. Louis Virus Infection	0	0	0
Typhus Fever Group Rickettsiosis	0	1	1
West Nile Virus Infection	0	0	27
Yellow Fever[1]	0	0	0
Zika Virus Infection[1]	0	0	1
Zoonotic			
Brucellosis	0	0	0
Hantavirus Infection	0	0	1
Leptospirosis	0	0	0
Lymphocytic Choriomeningitis Virus Infection	0	0	0
Psittacosis	0	1	0
Q Fever, Acute	0	1	1
Q Fever, Chronic	0	0	3
Rabies (Human)	0	0	0
Toxoplasmosis	0	0	0

Communicable Disease Case Counts

Disease	2026 YTD	2025 YTD	2025 Total
Zoonotic (continued)			
Trichinellosis	0	0	0
Tularemia	0	1	5
Other			
Acute Flaccid Myelitis (AFM)	0	0	0
Amebic Keratitis	0	0	4
Botulism, Infant	0	0	4
Botulism, Non-infant	0	1	1
Free-Living Ameba Infection	0	1	1
Hepatitis A[2]	2	3	15
Hansen's Disease/Leprosy	0	0	0
Mpox[2]	0	0	6
Multisystem Inflammatory Syndrome in Children (MIS-C)	0	0	0
Non-tuberculous Mycobacteriosis	0	397	1,459
Primary Amebic Meningoencephalitis	0	0	0
Prion Disease	1	3	18

[1] Denotes diseases where all cases in Wisconsin residents are travel-associated. No local transmission occurs.
[2] DHS collects standardized industry and occupation (I/O) information in the Wisconsin Electronic Disease Surveillance System (WEDSS) for these conditions, which is summarized in the I/O Reports.

Data source: The data summarized on this report are obtained from the Wisconsin Electronic Disease Surveillance System (WEDSS). WEDSS is a secure, web-based system designed to facilitate reporting, investigation, and surveillance of communicable diseases in Wisconsin. Most data are collected through routine, passive surveillance. The WEDSS reporting network is made up of institutions that treat patients or test specimens, including physicians, infection preventionists, laboratorians, and other health care providers.

Case definitions and reportable conditions: This table summarizes the burden of reportable communicable diseases meeting case definitions established by the Wisconsin Department of Health Services (DHS) and, when also nationally notifiable, the CDC (Centers for Disease Control and Prevention) and the Council of State and Territorial Epidemiologists (CSTE). Wisconsin-specific case definitions can be found in guidance available on the DHS website for each disease and on the DHS Disease Reporting webpage.

Enumerated year: For most diseases, cases are enumerated and displayed based on the date of illness onset. For cases without an illness onset date reported in WEDSS, the date of specimen collection, test result, or report date, whichever is earliest, is used to enumerate the case. For the following diseases, cases are enumerated using a different method than previously described. For TB cases, the case year is determined by date of a confirmatory diagnostic test. For prion disease cases, the case year is determined based on the date of death. For invasive bacterial diseases, meningococcal disease, invasive *Haemophilus influenzae*, invasive *Streptococcus pneumoniae*, and group A and B streptococcal invasive diseases, the date of first positive specimen collection is used. This table uses calendar year for annual case counts and does not use the MMWR year, which is the standard for data displayed by the CDC.

Data shown are provisional and subject to change: Some examples of corrections or updates that affect presented data would include the delayed submission of a disease report, updating an onset date, correction to laboratory results, or correction of a patient's address to a different state. There may also be small differences between data summarized on this table compared to reports released by disease programs. There are multiple factors that can influence data discrepancies or differences in case counts. For example, factors include if programs use different case classification filters (such as confirmed cases only); if different dates are used for enumeration; if data are extracted at different timepoints; if the data source is different than WEDSS (for example, hospital discharge or vital records data); or if provisional data are displayed.