Wisconsin Epi Express

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Program Updates

New tick removal reporting form

DHS has published a tick removal reporting form intended to document when a tick is found on a child. The form allows users to collect information on where the tick was found and whether or not it was attached to the skin. It also includes tickborne disease and tick bite prevention information. This new resource is a great way for schools, camps, daycares, or other kid-friendly organizations to communicate with parents and guardians if they find a tick on a child. Find additional information and resources on the Tick Bite Prevention web page.

New varicella dashboard

The Immunization Program has launched a new varicella (chickenpox) dashboard. The dashboard shows varicella cases by week, age, county, and region.

Viral Hepatitis Elimination Plan and dashboard announced

DHS announced a plan to eliminate viral hepatitis in Wisconsin and launched a public dashboard to track progress of the plan's goals. Key goals of the elimination plan include data and surveillance; awareness, education, and resources; and clinical strategies. Visit Wisconsin's Viral Hepatitis Elimination Plan web page to view the elimination plan and dashboard.

Bloodborne pathogens frequently asked questions resource for health care facilities

The Healthcare-Associated Infections Program has created a bloodborne pathogens frequently asked questions document describing exposure control plans for blood and other potentially infectious material (OPIM).

New reportable condition—congenital cytomegalovirus infection and disease

Congenital cytomegalovirus (cCMV), a virus that can result in birth defects of developmental challenges, is now a category II reportable condition in Wisconsin. Learn more about cCMV on the DHS website and find information about case definitions and Wisconsin Electronic Disease Surveillance System (WEDSS) reporting requirements in the Congenital Cytomegalovirus Infection and Disease Case Reporting and Investigation Protocol (EpiNet).

Staff Updates

BCD welcomes the following staff to their new positions!

Ryan Burbach, Respiratory Disease Epidemiologist, Vectorborne, Respiratory, and Invasive Diseases Unit

Bridging the Gap: The Evolving Landscape of PrEP in Wisconsin (2024–2026)

By: Jamal Perry, HIV Biomedical Prevention Coordinator; José Salazar, HIV Prevention Unit Supervisor

Introduction

For public health professionals and epidemiologists in Wisconsin, the current trajectory of HIV prevention is defined by a singular, ambitious benchmark: the 2022–2026 Wisconsin Integrated HIV Prevention and Care Plan. This plan aims to increase Pre-Exposure Prophylaxis (PrEP) coverage to at least 50% of those who could benefit—a significant leap from the 19% baseline recorded in 2019. Entering 2026, HIV surveillance data reveals a landscape of high-performance pockets and persistent demographic hurdles.

Geographic and clinical information

In Wisconsin, PrEP utilization is heavily concentrated within the state's urban centers. Milwaukee and Dane counties remain the epicenters of both new HIV cases and PrEP prescriptions. Clinically, PrEP delivery within the state is strictly codified under ICD-10-CM code Z29.81, covering both oral regimens (J0752) and the long-acting injectable, cabotegravir (J0738).

Demographic disparities

Despite the clinical efficacy of PrEP, the epidemiological PrEP-to-Need Ratio (PnR) shows stark inequities:

- Gender divide: PrEP remains highly gendered, a trend seen both at the national level and reflected in state-level data. In 2024, 91% of PrEP users were male, with men accessing the medication at 10 times the rate of women.
- Racial disproportionality: Black and Hispanic/Latino residents are disproportionately affected by new HIV diagnoses in Wisconsin. However, these populations remain significantly underrepresented in PrEP uptake compared to white individuals, creating a critical gap in the state's preventative safety net. More information can be found on page 50 of the HIV Prevention and Care Plan.

Racial and ethnic inequities

In Wisconsin, the gap in PnR by race is an indicator of unmet need. According to AIDSVu 2022–2024 trends:

- White populations exhibit the highest PnR in Wisconsin (often exceeding 40.0), suggesting that for every new diagnosis among white residents there are over 40 individuals actively using PrEP.
- In the Midwest region, Black individuals represent approximately 42% of new HIV diagnoses but only 13% of PrEP users. This results in a PnR that is often seven to eight times lower than that of White populations.
- Hispanic/Latino populations represent a growing share of new diagnoses in Wisconsin but continues to see a PnR that lags behind the state average, particularly in urban Milwaukee.

Bridging the Gap: The Evolving Landscape of PrEP in Wisconsin (2024–2026)

By: Jamal Perry, HIV Biomedical Prevention Coordinator; José Salazar, HIV Prevention Unit Supervisor

2026 policy and funding changes

Since January 31, 2025, there has been a shift in financial support from medication assistance programs managed by pharmaceutical companies, specifically for Tenofovir DF-emtricitabine (TD-FTC), which is the first FDA-approved antiretroviral for the prevention of HIV and one of the most commonly used PrEP medications by low-income and uninsured people. For epidemiologists, these changes represent a critical variable in tracking future transmission rates, as modifications to these programs directly impact the ability of low-income or uninsured individuals to maintain the active prescriptions required for effective prevention.

Summary of current Wisconsin PrEP indicators

Category	Status/Trend
Primary goal	50% coverage by year-end 2026
High-volume hubs	Milwaukee and Dane counties
Gender gap	Male-to-female ratio of 10:1 in utilization
Clinical standard	ICD-10-CM Z29.81 (oral and injectable)
Funding status	State-supported safety nets undergoing 2026 revisions

For professionals in the field, the mission for the remainder of 2026 is to move beyond urban concentration to solve the demographic disparities that prevent those at the highest risk from accessing life-saving prevention.

Sources referenced

- Wisconsin Integrated HIV Prevention and Care Plan (2022–2026)
- HRSA Health Center Program Uniform Data System (UDS)
- AIDSVu Prevention and Testing Data (Wisconsin)

Tuberculosis Whole Genome Sequencing (WGS) and Local Public Health Practice

By: Claire Leback, Tuberculosis Program Supervisor; Nate Simon, Tuberculosis Lab Program Coordinator at WLSH

Introduction

Timely diagnosis and management of tuberculosis (TB) remain challenging due to the slow-growing nature of Mycobacterium tuberculosis complex (MTBC). Traditional culture and drug susceptibility testing (DST) can take weeks, delaying critical decisions around treatment, isolation, and contact investigations. These delays are especially impactful when drug resistance is present, as early identification is key to both patient outcomes and prevention of transmission.

WGS now performed at Wisconsin State Laboratory of Hygiene

Recent advances in molecular testing, including whole genome sequencing (WGS), are beginning to shift this timeline. The Wisconsin State Laboratory of Hygiene (WSLH) has validated a WGS assay capable of identifying MTBC to the species level and predicting resistance to first-line TB medications. Importantly for public health practice, this testing is now being performed in-state rather than relying solely on external laboratories.

Implications for local public health

For local and Tribal health departments, the most meaningful change is reduced turnaround time. Previously, MTBC speciation and resistance testing often required shipping isolates to multiple laboratories and waiting for cultures to grow, sometimes adding several weeks. In some cases, results were not available until well into treatment. With WGS now at WSLH, organism identification and resistance prediction may be available significantly sooner, allowing earlier confirmation of drug-resistant TB.

This has several practical implications for local TB programs:

- Faster initiation of appropriate therapy, reducing the risk of ineffective treatment and ongoing transmission.
- More quickly adjusting the scope and urgency of contact tracing in cases of drug-resistant cases.
- Support of assessment of epidemiologic links between cases, helping identify potential transmission within communities.
- Fewer handoffs between laboratories streamline workflows and reduce uncertainty during case management.

While current implementation focuses on first-line drug resistance, there is potential for expansion to second-line drugs and emerging therapies. As this evolves, public health programs may gain even more actionable information earlier in the course of disease.

Conclusion and resources

Ultimately, the integration of WGS into routine TB testing represents a meaningful improvement in the timeliness and quality of data available to public health. For local TB program staff and epidemiologists, this translates into faster decision-making, more targeted interventions, and greater ability to interrupt transmission, all of which will be key steps toward improving TB outcomes and advancing elimination efforts in Wisconsin.

Legionella Polymerase Chain Reaction (PCR) Testing at WSLH

By: Frances Goglio, Legionellosis Surveillance Coordinator

Background

Legionnaires' disease (LD) is a severe, atypical pneumonia caused by exposure to *Legionella* bacteria through inhalation of aerosolized water or aspiration of water colonized with *Legionella*. While *Legionella* does occur naturally in fresh water, it's typically at low levels and is generally not thought to be a significant source of exposure. Conditions that promote growth and spread of *Legionella* are most commonly associated with building water systems and plumbed devices that generate aerosols. While most healthy people who are exposed to Legionella bacteria are unlikely to become ill, those who are diagnosed with LD typically require inpatient hospital care to recover (98% of confirmed cases). Approximately 6% of Wisconsin residents that are diagnosed with LD die from their illness.

Surveillance trends

In Wisconsin, there are approximately 220 confirmed cases of LD per year (3.7 cases per 100,000 residents). In contrast, nationally, LD incidence is approximately 2.56 cases per 100,000 residents (Barskey, et al., 2025). This indicates that Wisconsin's LD burden is approximately 40% higher than the national average. Within Wisconsin, the southeastern region experiences a higher burden of LD than other regions (Figure 1).

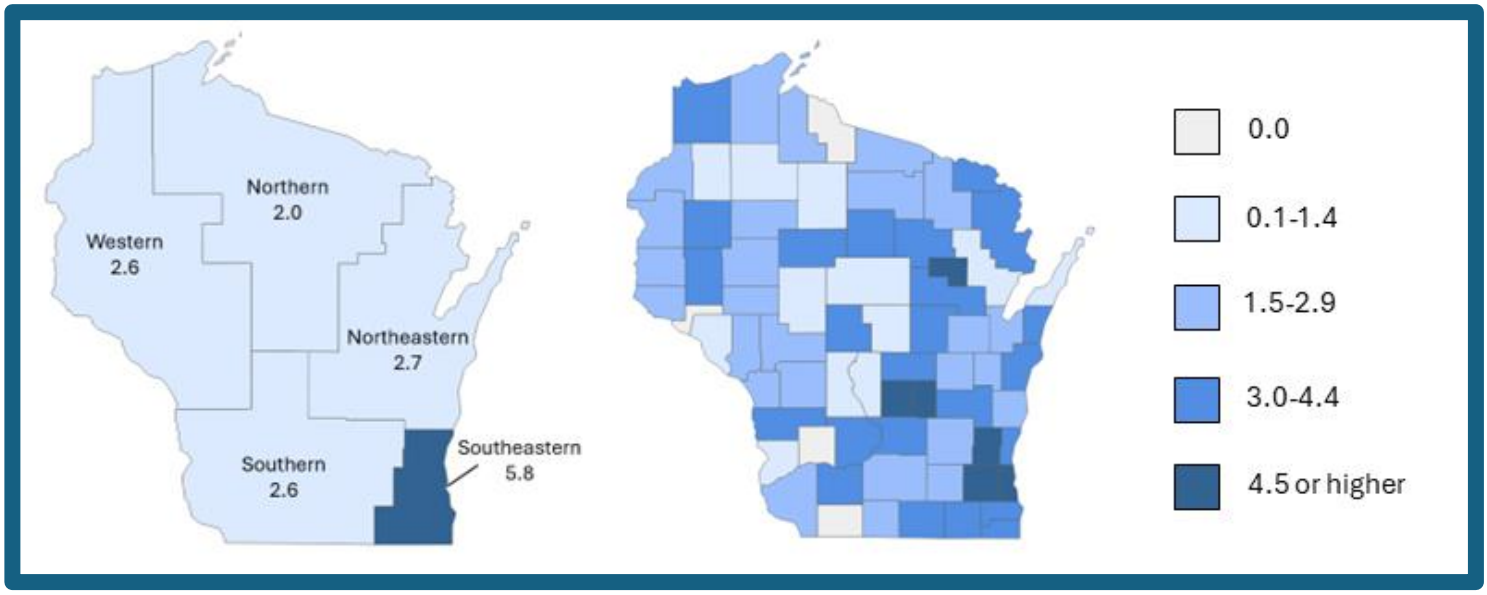


Figure 1. Approximate crude annual incidence of confirmed LD cases per 100,000 residents by Division of Public Health (DPH) region (left) and by county of residence (right), 2021–2025.

Legionella Polymerase Chain Reaction (PCR) Testing at WSLH

By: Frances Goglio, Legionellosis Surveillance Coordinator

Diagnostic challenges

Most confirmed cases of LD in Wisconsin are diagnosed with a urine antigen test (UAT) (Figure 2). UAT allows for rapid diagnosis and treatment of LD caused by *Legionella pneumophila* serogroup 1. However, a UAT doesn't typically detect infections of LD caused by any other species or serogroups of *Legionella*. Testing with a *Legionella* UAT alone may result in a missed opportunity to diagnose LD caused by other serogroups of *Legionella pneumophila* or by other species of Legionella, which are expected to account for approximately 20% of LD cases.

Legionella PCR and culture can detect LD caused by other serogroups and species of *Legionella*. Both tests require collection of a sputum or other lower respiratory (for example, bronchoalveolar lavage) specimen. *Legionella* is not expected to grow on media used for routine respiratory cultures. *Legionella* culture must be specifically ordered so that appropriate growth media is used. *Legionella* culture often takes 10–14 days to result.

Legionella PCR has a faster turnaround time, generally 1–3 days and has higher sensitivity than *Legionella* culture. The Wisconsin State Laboratory of Hygiene (WSLH) offers a fee-for-service diagnostic *Legionella* PCR test that can detect and differentiate between infections caused by *Legionella pneumophila* serogroup 1, a *Legionella pneumophila* infection of a different serogroup, and a *Legionella* infection that is not caused by *Legionella pneumophila.*

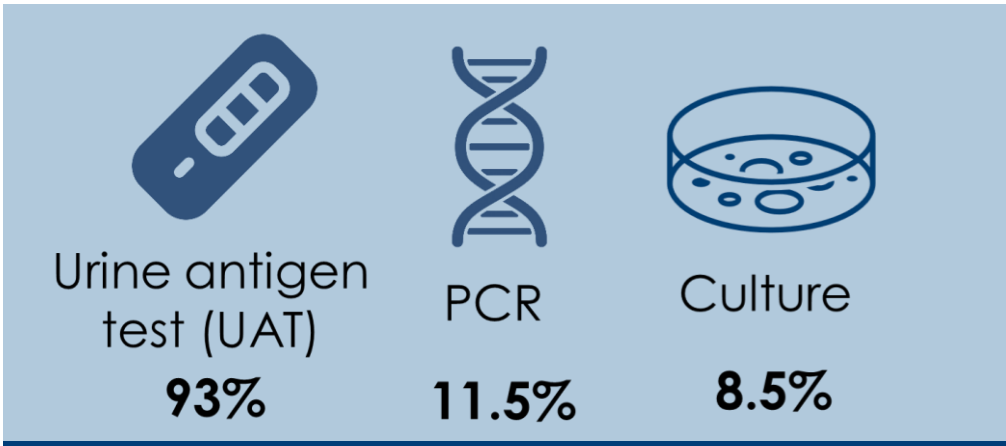


Figure 2. Percentage of total confirmed cases of LD cases in Wisconsin from 2023-2025 with a positive UAT, *Legionella* PCR test, and *Legionella* culture result, respectively. Note that cases may be confirmed with multiple tests, so total percentage is greater than 100%.

Public health impact

Among cases that were hospitalized for their illness, 5% of confirmed LD cases with a positive UAT died from their illness, compared to 23% of confirmed cases without a positive UAT.

In 2022, 2024, 2025, and 2026, the Bureau of Communicable Diseases (BCD) and local and Tribal health department staff have identified several facilities with extensive non-serogroup 1 *Legionella pneumophila* colonization within the potable water systems during outbreak investigations.

Resources for diagnosing Legionnaires' Disease

The Wisconsin Department of Health Services (DHS), CDC (Centers for Disease Control and Prevention), and WSLH have additional information on diagnostic testing for LD.

- Diagnosing Legionnaires' Disease: Best Practices
- Laboratory Testing for Legionella | Legionella | CDC
- Legionella PCR Test: Wisconsin State Laboratory of Hygiene Reference Manual
- Legionella Culture: Wisconsin State Laboratory of Hygiene Reference Manual

Annual Immunization Rates

By: Maeve Pell, Immunization Information System Epidemiologist

Introduction

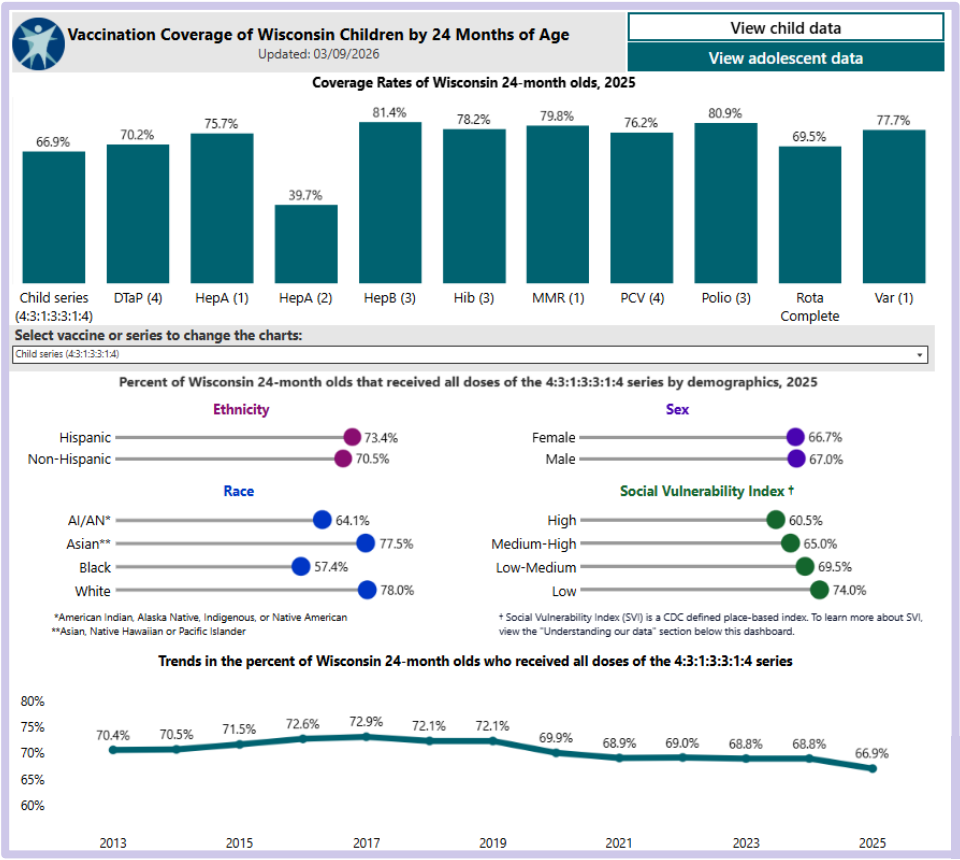
Vaccination coverage rates are an essential tool for assessing how well populations are protected from vaccine-preventable-diseases, like measles. Every year, the Wisconsin Immunization Program analyzes the coverage rates for Wisconsin residents using data from the Wisconsin Immunization Registry (WIR).

> "In public health, we use data like this as an alert system. Today that alert system is sending a clear signal that the health and well-being of Wisconsin kids and communities are at risk. Vaccination rates aren't just numbers on a chart, they represent real people—children, families, and neighbors. Even small declines in vaccination rates increase the risk of preventable diseases spreading and outbreaks occurring."
>
> - Paula Tran, state health officer and Division of Public Health administrator

Childhood vaccination rates

In 2025, all vaccination rates measured for 24-month-olds decreased compared to 2024. Most vaccination rates saw a decline of approximately 2%. This equates to approximately 1,200 fewer children receiving the vaccines statewide, who are vulnerable to infection.

The 4:3:1:3:3:1:4 vaccine series measures if 24-month-olds have received the appropriate number of doses for seven different vaccines that are recommended by that age. In 2025, only 66.9% of children had completed that vaccine series, meaning nearly 3 in every 10 children did not receive all the recommended vaccines. The vaccination rate decreased by 1.9% compared to 2024. The rate decreased in all regions of Wisconsin and in 54 out of 72 counties.



The percent of children who received at least 1 dose of the measles, mumps, and rubella (MMR) vaccine by 24 months also decreased. It was 79.8% in 2025, which is 1.6% lower than 2024. This is the first time the 24-month MMR vaccination has dropped below 80% since the Immunization Program began publishing the annual coverage rates in 2013. The MMR rate decreased in 51 out of 72 counties in Wisconsin.

To learn more about the 2025 childhood vaccination rates, visit our childhood and adolescent vaccination coverage dashboard (Figure 1).

Figure 1: Dashboard of vaccination coverage of Wisconsin children by 24 months of age.

Annual Immunization Rates

By: Maeve Pell, Immunization Information System Epidemiologist

Adolescent vaccination rates

In 2025, there were minor decreases of less than 1% in the HPV and Tdap vaccination rates. However, all the rates measured for the various meningococcal (mening) vaccines increased. Completion of the Mening ACWY vaccine series in 17–18-year-olds increased by 2.7%. In 2024, this measure increased by 5.4%, meaning in two years the rate increased by 8.1%. This large increase in the Mening ACWY completion rate was likely influenced by the school vaccine requirement that was implemented in the 2024–2025 school year[1].

To learn more about the 2025 adolescent vaccination rates visit our childhood and adolescent vaccination coverage dashboard.

Adult vaccination rates

All of the rates measured for routine adult vaccination increased from 2024 to 2025. The largest increase was for completion of the shingles vaccine series, which increased by 2.9%. While the rate did meaningfully increase, it is still low. In 2025, only 38.4% of adults over the age of 50 in Wisconsin had completed the shingles vaccination series.

To learn more about the 2025 adult vaccination rates visit our annual adult vaccination coverage dashboard.

Resources

- Childhood and adolescent vaccination coverage dashboard
- Adult vaccination coverage dashboard
- DHS MMR vaccination rate county maps
- DHS MMR vaccination rate data (excel)
- American Academy of Pediatrics (AAP) Recommended Child and Adolescent Immunization Schedule
- American Academy of Family Physicians (AAFP) Recommended Adult Immunization Schedule

References

1. Wisconsin Department of Health Services. Summary of Changes to Wisconsin 2024–2025 School Immunization Requirements for Local Health Departments, Schools, and Health Care Providers. https://www.dhs.wisconsin.gov/publications/p03370.pdf

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 **June 30.**

Disease	2026 YTD	2025 YTD	2025 Total
Enteric/Gastrointestinal			
Campylobacteriosis[2]	632	756	1,775
Cholera[1,2]	0	0	0
Cryptosporidiosis[2]	170	182	504
Cyclosporiasis[2]	37	29	65
E. coli, Enteropathogenic[2]	590	732	2,228
E. coli, Enterotoxigenic[2]	198	254	507
E. coli, Shiga toxin-producing (STEC)[2]	207	230	530
Giardiasis[2]	165	172	515
Hemolytic Uremic Syndrome (HUS)[2]	0	0	4
Listeriosis[2]	11	8	23
Salmonellosis[2]	498	499	1,116
Shigellosis / *E. coli*, Enteroinvasive[2]	83	91	172
Typhoid and Paratyphoid Fever[2]	4	3	3
Vibriosis (Non-Cholera)[2]	28	20	49
Yersiniosis[2]	89	111	211
Healthcare Associated			
Candida auris, Clinical	5	15	30
Candida auris, Colonization	4	5	15
Carbapenemase-producing Organism, Clinical	20	60	124
Carbapenemase-producing Organism, Colonization	14	15	33
Vancomycin Intermediate/Resistant *Staphylococcus aureus*	0	1	2
Invasive Bacteria			
Group A Streptococcal Invasive Disease[2]	251	230	390
Group B Streptococcal Invasive Disease[2]	341	336	670
Rheumatic Fever	0	0	0
Toxic Shock Syndrome, Staphylococcal	2	0	1
Toxic Shock Syndrome, Streptococcal	0	2	2

Communicable Disease Case Counts

Disease	2026 YTD	2025 YTD	2025 Total
Mycotic (Fungal)			
Blastomycosis[2]	3	12	16
Coccidioidomycosis[1]	0	14	17
Histoplasmosis[2]	0	3	3
Respiratory			
Please refer to the respiratory virus data webpage for statewide and regional interactive data visualizations.			
COVID-19, Pediatric Mortality	1	1	2
COVID-19-associated Hospitalization[2]	1,930	2,331	4,158
Influenza, Novel[2]	0	0	0
Influenza, Pediatric Mortality	0	4	5
Influenza-associated Hospitalization[2]	2,982	6,127	8,086
Legionellosis[2]	73	87	210
Respiratory Syncytial Virus (RSV), Pediatric Mortality	0	1	1
Respiratory Syncytial Virus (RSV)-associated Hospitalization[2]	2,194	2,043	2,236
Tuberculosis (TB)	26	33	64
Sexually Transmitted			
Chlamydia (*Chlamydia trachomatis* Infection)	10,455	10,790	21,964
Gonorrhea (*Neisseria gonorrhoeae* Infection)	2,717	2,643	5,595
Sexually Transmitted Pelvic Inflammatory Disease	0	0	0
Syphilis	349	679	1,268
Syphilis, Congenital	4	12	22
Vaccine Preventable			
Diphtheria	0	0	0
Haemophilus influenzae Invasive Disease[2]	60	75	156
Measles (Rubeola)[2]	2	0	36
Meningococcal Disease[2]	1	5	8
Mumps	0	5	6
Pertussis (Whooping Cough)	77	419	694
Poliomyelitis	0	0	0
Rubella	0	0	0
Streptococcus pneumoniae Invasive Disease[2]	289	370	585
Tetanus	1	0	2
Varicella (Chickenpox)	116	102	177

Communicable Disease Case Counts

Disease	2026 YTD	2025 YTD	2025 Total
Vectorborne			
Anaplasmosis[2]	341	595	1,076
Babesiosis[2]	33	53	164
Borrelia miyamotoi Infection	7	5	14
Chikungunya Virus Infection	0	0	5
Dengue Virus Infection[1]	3	9	20
Eastern Equine Encephalitis Virus Infection	0	0	0
Ehrlichia Infection (species undetermined)[2]	15	32	64
Ehrlichia chaffeensis Infection[2]	2	7	9
Ehrlichia ewingii Infection[2]	0	1	2
Ehrlichia muris eauclairensis Infection[2]	2	7	12
Jamestown Canyon Virus Infection	0	3	7
La Crosse Virus Infection	0	0	0
Lyme Disease (*B. burgdorferi*)[2]	3,420	3,173	8,934
Lyme Disease (*B. mayonii*)[2]	0	1	1
Malaria[1]	4	8	14
Powassan Virus Infection	3	11	18
Spotted Fever Group Rickettsiosis[2]	1	3	10
St. Louis Virus Infection	0	0	0
Typhus Fever Group Rickettsiosis	0	2	2
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	1	1
Leptospirosis	0	0	0
Lymphocytic Choriomeningitis Virus Infection	0	0	0
Psittacosis	0	0	0
Q Fever, Acute	0	1	2
Q Fever, Chronic	0	1	3
Rabies (Human)	0	0	0
Toxoplasmosis	-	-	-

Communicable Disease Case Counts

Disease	2026 YTD	2025 YTD	2025 Total
Zoonotic (continued)			
Trichinellosis	0	0	0
Tularemia	2	4	5
Other			
Acute Flaccid Myelitis (AFM)	0	0	0
Amebic Keratitis	1	1	4
Botulism, Infant	1	1	4
Botulism, Non-infant	0	1	1
Free-Living Ameba Infection	0	1	1
Hepatitis A[2]	5	8	15
Hansen's Disease/Leprosy	2	0	0
Mpox[2]	5	0	6
Multisystem Inflammatory Syndrome in Children (MIS-C)	0	0	0
Non-tuberculous Mycobacteriosis	702	796	1,460
Primary Amebic Meningoencephalitis	0	0	0
Prion Disease	1	9	19

[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.