Issue 3
2024

# WISCONSIN EPI EXPRESS

## In This Issue



## Program Updates

**Staff updates:** BCD welcomes the following staff to their new positions!

**Lisa Borchardt,** Wastewater Surveillance and Genomics Unit Supervisor

**Austin Zempel,** Harm Reduction Response Team Clinical Care Coordinator

**Lauren Ostrenga,** Hepatitis C Epidemiologist

### Hepatitis C Perinatal Contact Investigations and Protocol Update:

In April 2024, the Hepatitis C Team proposed an enhanced surveillance protocol to find perinatal hepatitis C virus (HCV) cases in Wisconsin on a WEDSS help call with local and Tribal health departments (LTHDs). This protocol uses both Wisconsin Electronic Disease Surveillance System (WEDSS) and Vital Records data, and it focuses on hepatitis C screening for infants and young children who were perinatally exposed to HCV. After receiving feedback on multiple drafts from LTHDs and several internal partners, the Perinatal Hepatitis C Case Management Protocol and the associated contact investigations were launched in June 2024. The WEDSS help calls have been an invaluable space to work through problems and add feedback to the protocol. These recorded calls can be found online. The Hepatitis C Team would like to thank everyone who has asked questions, identified areas for improvement, and supported this protocol.

### Legionellosis Case Investigation Protocol Guide Update:

A new Legionellosis Case Investigation Protocol Guide for public health professionals has been published. This protocol, created for LTHD communicable disease investigators, includes background information on legionellosis and high-level statewide surveillance trend data, applying the Council of State and Territorial Epidemiologist (CSTE) case definition, and steps for successfully completing public health follow-up with diagnosed Legionnaires' disease cases. The protocol is currently available on the DHS legionellosis webpage.

# PROGRAM UPDATES

## REMINDER TO USE WEDSS TO PROTECT WORKERS

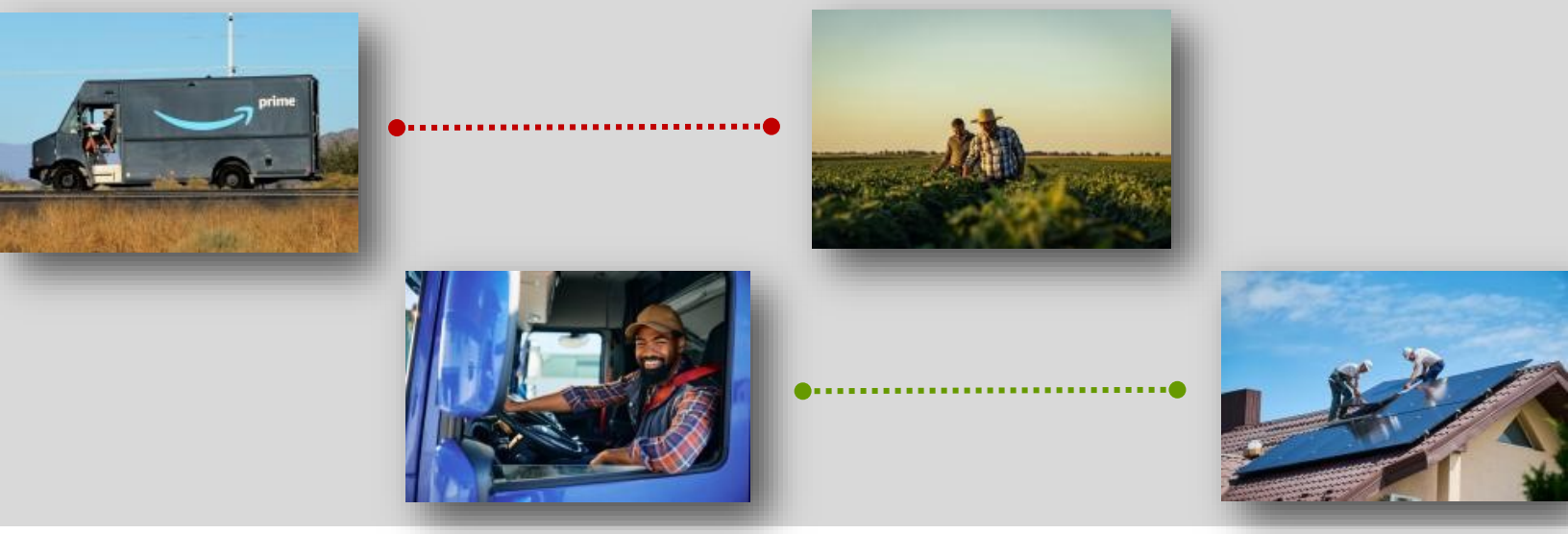
Certain industries and occupations can put people at higher risk of contracting and transmitting disease. Whether it's health care workers in 2020 at the epicenter of the COVID-19 pandemic or dairy and poultry workers in 2024 potentially exposed to highly pathogenic avian influenza A (H5N1), collecting data on job-related disease risks can be key to understanding and addressing emerging diseases.

For more established diseases with work-related risks, tracking and understanding those risks can help develop more effective interventions and educational materials. For instance:

- Why are truck drivers at higher risk of Legionellosis?
- What caused a blastomycosis outbreak at a paper mill and another on a construction site?
- In Wisconsin, do we see the expected higher rates of some infectious respiratory diseases among adults whose lungs have been scarred by work in construction, extraction, or agriculture?
- Are all outdoor workers at higher risk of vector-borne diseases? What about delivery drivers and others who spend part of every shift outdoors or in an open vehicle?

The first step in answering any of these questions is identifying a case patient's industry and occupation, as well as asking any work-related exposure questions in the WEDSS form. By collecting this information and noting any possibly relevant work information in your notes, you can help protect workers. The statewide Occupational Health and Safety program asks that you continue to fill out this information in the WEDSS form. The program will use that WEDSS data to answer many lingering questions about Wisconsin workers' exposures. Entering industry and occupation provides the missing puzzle pieces needed to advance public health and keep all Wisconsinites safe and healthy.

You can see WEDSS case counts and check your progress collecting industry and occupation data on the PCA Portal. Contact DHSOccHealth@dhs.wi.gov for more information.



# Carbapenemase-Producing Organisms (CPOs) WEDSS Update

By: Megan Lasure, Antimicrobial Resistance Epidemiologist

## BACKGROUND

The Healthcare-Associated Infections (HAI) Prevention Program is working with the Wisconsin Electronic Surveillance System (WEDSS) to update the WEDSS disease incidents for Carbapenemase-Producing Organisms (CPOs). CPOs are bacteria that have specific enzymes, called carbapenemases, that present increased antibiotic resistance. Currently, all CPOs are reportable in Wisconsin.

## SITUATION

Previously, these cases have been reported in WEDSS under two classifications, as either Carbapenemase-Producing Carbapenem-Resistant Enterobacterales (CP-CRE) or as CPOs. This aligned with a previous Council of State and Territorial Epidemiologist (CSTE) case definition for these organisms. In 2023, CSTE updated its case definition and combined CP-CRE cases under the broader CPO umbrella. Now, all cases identified as carbapenemase-producing will be categorized as CPOs in WEDSS.

## CASE CLASSIFICATION

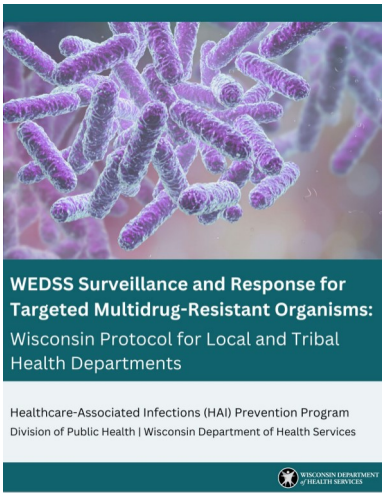
In addition, going forward, CPO cases will also be classified as either “clinical” or “screening” cases. Clinical cases are those where the organism is detected in a clinical specimen, often with associated symptoms of infection. Screening cases are those where the organism or carbapenemase is detected from an asymptomatic individual, usually for the purposes of surveillance or response. Individuals can be colonized with CPOs indefinitely, and silent carriage of these organisms is a major factor in transmission, especially within health care environments.

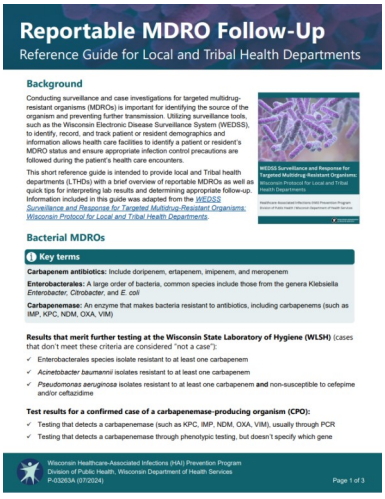
Starting September 1, cases will populate into staging in WEDSS under the “Carbapenemase-Producing Organism, unspecified” classification. From there, they can be imported into WEDSS and changed to either “Carbapenemase-Producing Organism, clinical” or “Carbapenemase-Producing Organism, screening” based on the specimen source.

## INFORMATION AND RESOURCES

For more information on this and other aspects of follow-up for CPO cases, please consult the HAI Prevention Program’s WEDSS Surveillance and Response for Targeted Multidrug-Resistant Organisms (P-03263). The HAI Program has also developed a Reportable Multidrug-Resistant Organism (MDRO) Follow-Up Reference Guide (P-03263A), which highlights the main points for lab interpretation and follow-up of cases.

If you have any questions about these organisms or the upcoming changes in WEDSS, please reach out to the HAI Prevention Program at DHSWIHAIPreventionProgram@dhs.wisconsin.gov.



# First Approved Hepatitis C RNA Point-of-Care (POC) Test

By: Kailynn Mitchell, Adult Viral Hepatitis Unit Supervisor

## BACKGROUND

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). An estimated 2.4–4 million Americans are living with HCV, but only a third of Americans know their status. HCV is curable in more than 95% of patients with 8–12 weeks of direct acting antiviral (DAA) medications. If left untreated, HCV can cause liver damage, including liver cancer.

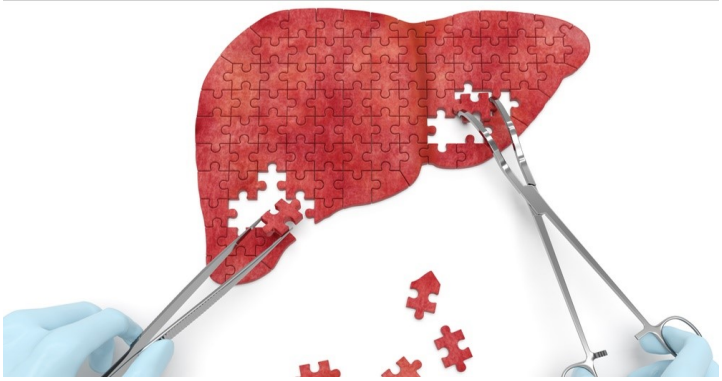
## THE SITUATION

On June 27, 2024, the U.S. Food and Drug Administration (FDA) approved the first point-of-care (POC) test (Cepheid for the Xpert HCV test on the GeneXpert Xpress System) to diagnose HCV in adults. The test may be performed at sites that operate with a Clinical Laboratory Improvement Amendments (CLIA) Certificate of Waiver. The test uses a fingerstick blood sample and takes one hour to detect HCV RNA. The test is for adults with signs or symptoms of hepatitis C or at risk for hepatitis C. The test is not intended for use in monitoring patients undergoing treatment or for use in screening blood, plasma, or tissue donors.

## LOOKING AHEAD

This new POC RNA HCV test could allow same-day diagnosis of HCV, allow access to earlier treatment, and could help reduce the number of patients who do not receive treatment at all. The test could increase access to testing and ensure rapid initiation of treatment to help reach our national goals of HCV elimination.

The United State's Viral Hepatitis National Strategic Plan calls for over 80% of people with HCV to be treated by 2030. The Biden Administration's proposed fiscal year 2025 budget for the Department of Health and Human Services includes a proposed five-year



program to eliminate hepatitis C in the U.S. The program aims to significantly expand testing, treatment, prevention, and monitoring of hepatitis C infections in the U.S. This new POC RNA HCV test will aid the national strategic plan and help test and treat those with HCV in the U.S.

## Resources

**For more information about the Wisconsin Hepatitis C Program, please visit: Wisconsin Hepatitis C Program**

**Additional resources include:**

- **FDA Permits Marketing of First Point-of-Care Hepatitis C RNA Test | FDA**
- **CDC is Committed to Advancing Viral Hepatitis Elimination in the United States**
- **Viral Hepatitis National Strategic Plan | HHS.gov**
- **Hepatitis C Basics | Hepatitis C | CDC**

## Contact

**Contact the Wisconsin Adult Viral Hepatitis Unit if you would like to get involved in statewide hepatitis elimination planning: dhshepatitiseliminationplan@dhs.wisconsin.gov**

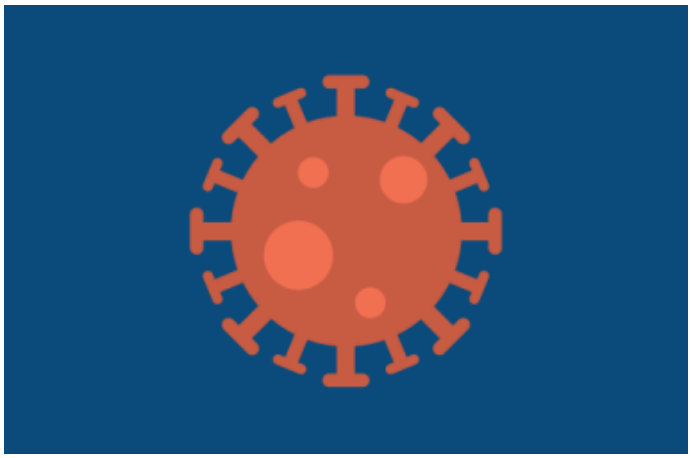
# Wisconsin COVID-19 Data

By: Logan Broennimann, COVID-19 Epidemiologist

## BACKGROUND

Throughout the COVID-19 pandemic, both nucleic acid amplification test (NAAT) results and antigen test results were the primary tools used to track the spread of COVID-19 in Wisconsin. With the end of the COVID-19 public health emergency in May 2023, resources for free lab-based testing were greatly diminished. This reduction in testing resources, coupled with the increased access to affordable at-home tests, led to a decrease in testing reportable to the Wisconsin Department of Health Services (DHS) – making case counts an unreliable surveillance indicator for COVID-19.

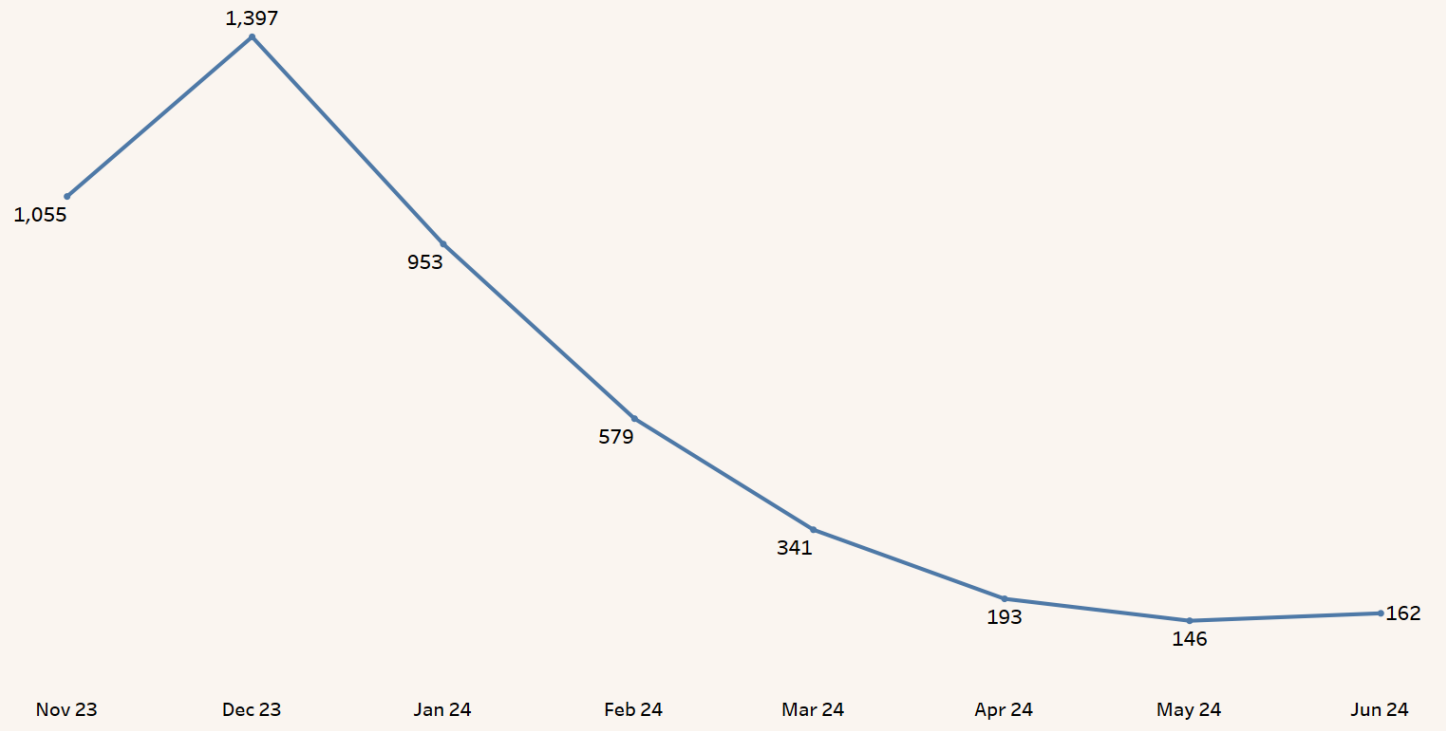
Data collected throughout the pandemic indicates that COVID-19 hospital admission levels have been highly correlated with overall community transmission levels. This led DHS to move from tracking all COVID-19 cases to tracking COVID-19 hospitalizations to monitor the severity of COVID-19 in the community and guide personal and community decisions related to risk and prevention behaviors. Tracking COVID-19 associated hospitalizations allows DHS to detect early changes in COVID-19 trends. The Bureau of Communicable Disease (BCD) informed local health departments and other partners of this change in the late summer of 2023 with changes in reporting initiated on November 1, 2023. The new reporting policy only requires COVID-19 lab results to be reported if they are associated with a hospitalization.



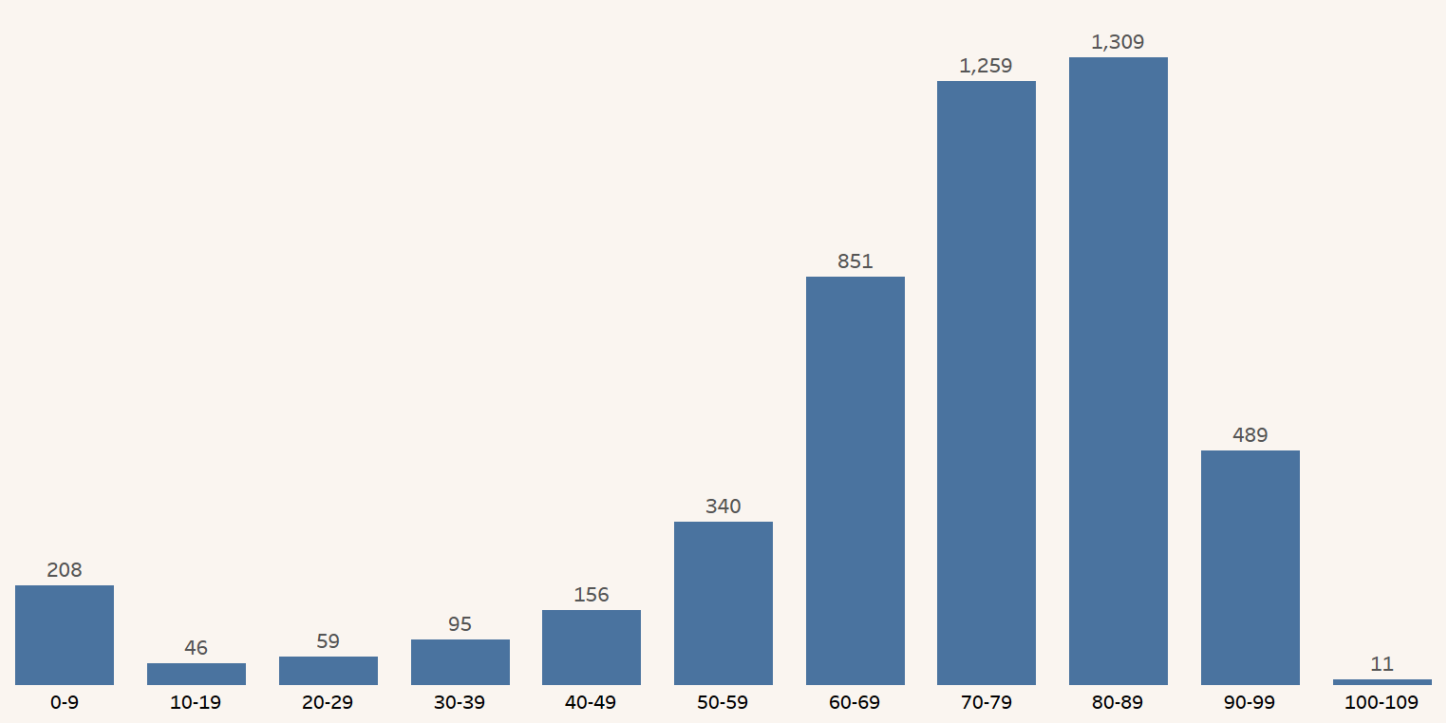
## WISCONSIN COVID-19 HOSPITALIZATIONS

From the beginning of November 2023 through the end of June 2024, there were 4,826 Wisconsin residents who were hospitalized for at least 24 hours due to COVID-19 and had a positive COVID-19 NAAT or antigen test result. Of the total cases reported, 52% of cases reported being male and 48% reported being female. Figure 1 shows the reported hospitalizations by month during this time. COVID-19 hospitalizations peaked in December and have steadily declined every month through the end of June. The COVID-19 hospitalization data was also analyzed to identify the impact on various age groups in Wisconsin. Figure 2 highlights the total number of hospitalizations by age from November through June. As shown in Figure 2, the majority of COVID-19 hospitalizations in Wisconsin occurred in older individuals with approximately 80% of individuals hospitalized aged 60 years or older. This follows available data showing adults older than 65 tend to be at a higher risk for severe illness from respiratory diseases, including COVID-19, due to weakened immune systems and underlying health conditions.

## Figure 1: COVID-19 hospitalizations by month, November 2023 – June 2024




## Figure 2: COVID-19 hospitalizations by age group, November 2023 – June 2024



# 2023–2024 Wisconsin School Immunization Assessment

By: Laura Gregor, Vaccine Preventable Disease Epidemiologist

## BACKGROUND

The Wisconsin Student Immunization law requires students to receive a minimum number of immunizations, be in the process of receiving those immunizations, or have a signed waiver to attend school. The law applies to all Wisconsin public, private, and independent charter school students. Every fall, schools are required to report the total number of students who have met the minimum requirements, are in the process of meeting the requirements, are behind schedule, have a waiver, or have no immunization or record on file to the Wisconsin Department of Health Services (DHS). These definitions are outlined in the School Immunization Requirements booklet.

## 2023-2024 RESULTS

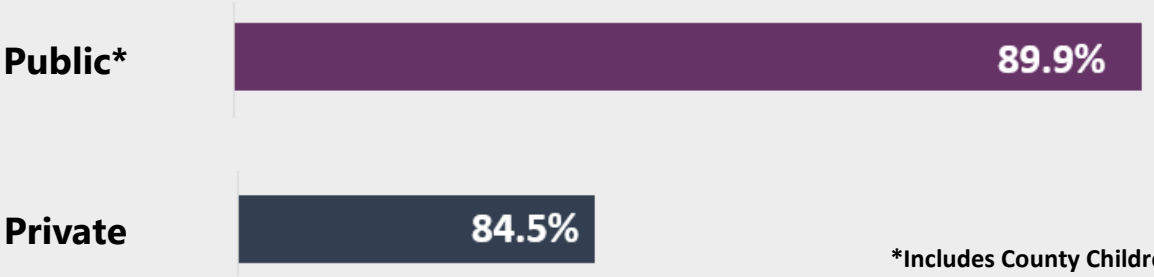
Results from the 2023–2024 School Immunization Assessment indicate that more students were vaccinated this past year compared to previous school years that were impacted by the COVID-19 pandemic. However, the percentage of students that received the minimum number of immunizations required to attend school has not rebounded to pre-pandemic levels. This trend is accompanied by an increase in the percent of students reported with at least one waiver. Although the percentage of students with a health or religious waiver

has remained relatively constant since the 1997–1998 school year, the percentage of students with a personal conviction waiver has largely increased.

## TRENDS BY SCHOOL TYPE

An analysis of school immunization and Department of Public Instruction (DPI) data by school type suggests striking disparities in student immunization coverage when comparing rates by public and private schools in Wisconsin. Private schools reported fewer students meeting all minimum immunization requirements (Figure 1). In addition, they reported a higher percentage of students with any type of waiver (Figure 2). Private schools also reported a higher percentage of students who were behind schedule, had no immunization record on file, or had waived all vaccines and received no immunizations.

**FIGURE 1:** Percentage of Public vs. Private Students Meeting All Minimum Immunization Requirements



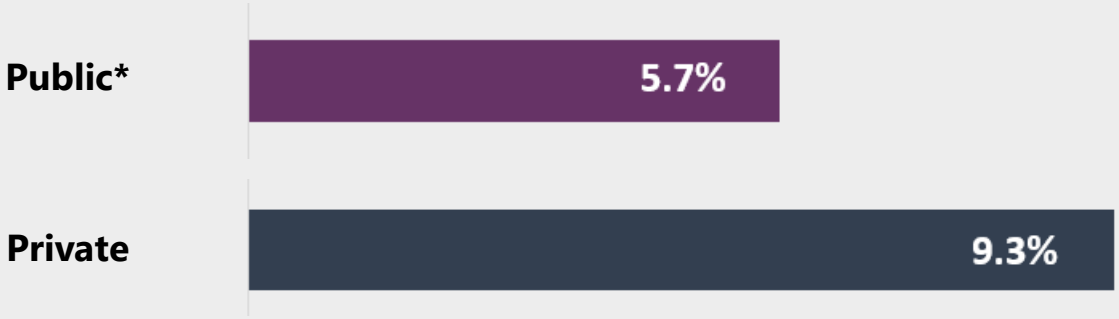

***Includes County Children with Disability Education Board (CCDEB), Independent Charter Schools, and State Schools.**

By: Laura Gregor, Vaccine Preventable Disease Epidemiologist

## TAKEAWAYS

In Wisconsin schools overall, the decrease in students meeting minimum immunization requirements in combination with an increase in the number of waivers and decrease in number of students in process, behind schedule, or with no record, suggests an overreliance on waivers to maintain student compliance with the immunization law. It may also point to an increase in public distrust of routine childhood vaccines in the wake of the COVID-19 pandemic. Decreasing vaccination rates among students increases the risk of vaccine-preventable disease (VPD) outbreaks in a school setting. Under- and unvaccinated children are at an increased risk of serious illness from a VPD. Continued efforts on the part of schools, health care providers, and public health are all needed to ensure parents continue to have confidence in vaccines and see that children stay up to date on their recommended vaccines and schools are a healthy place to learn and grow.

**FIGURE 2:** Percentage of Public vs. Private Students with a Waiver




***Includes CCDEB, Independent Charter Schools, and State Schools.**

## Resources

**For more information about the school immunization requirements and assessment results, please visit:** Immunization Requirements

## Questions?

**For questions regarding immunization data, contact the Immunization Program by sending an email to** DHSImmProgram@dhs.wisconsin.gov

# 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 third quarter (Q3) and year-to-date (YTD) are through August 31, 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 | 390 | 339 | | 1,025 |
| Cholera[1, 4] | 0 | 1 | 0 | 0 | | 1 |
| Cryptosporidiosis[4] | 543 | 69 | 93 | 220 | | 382 |
| Cyclosporiasis[4] | 68 | 0 | 25 | 30 | | 55 |
| *E. coli*, Shiga toxin-producing (STEC)[4] | 510 | 88 | 128 | 110 | | 326 |
| Giardiasis[4] | 517 | 94 | 80 | 161 | | 335 |
| Hemolytic uremic syndrome | 5 | 1 | 1 | 0 | | 2 |
| Listeriosis | 23 | 4 | 9 | 9 | | 22 |
| Salmonellosis[4] | 1,030 | 220 | 271 | 225 | | 716 |
| Shigellosis[4] | 84 | 25 | 23 | 13 | | 61 |
| Typhoid fever[4] | 8 | 0 | 1 | 0 | | 1 |
| Vibriosis (non-cholera) | 44 | 17 | 7 | 6 | | 30 |
| Yersiniosis | 185 | 59 | 63 | 38 | | 160 |
| **Invasive Bacteria** | | | | | | |
| Group A streptococcal disease | 539 | 121 | 124 | 49 | | 294 |
| Group B streptococcal disease | 643 | 138 | 166 | 105 | | 409 |
| **Fungal** | | | | | | |
| Blastomycosis[4] | 138 | 34 | 17 | 2 | | 53 |
| Coccidioidomycosis[1] | 11 | 3 | 5 | 1 | | 9 |
| Histoplasmosis[4] | 29 | 6 | 2 | 1 | | 9 |
| **Respiratory** | | | | | | |
| Coronavirus disease (COVID-19)[3, 4] | 138,771 | 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 |
| Influenza-associated hospitalizations | 1,693 | 2,378 | 327 | 31 | | 2,736 |
| Legionellosis[4] | 215 | 19 | 55 | 50 | | 124 |
| Tuberculosis[4] | 54 | 14 | 20 | 13 | | 47 |
| Latent TB infection[4] | 1,435 | 338 | 313 | 132 | | 783 |
| **Sexually Transmitted** | | | | | | |
| *Chlamydia trachomatis* | 25,002 | 5,996 | 5,667 | 3,840 | | 15,503 |
| Gonorrhea | 7,009 | 1,785 | 1,564 | 1,211 | | 4,560 |
| HIV | 260 | N/A | N/A | N/A | | N/A |
| Syphilis (all stages) | 1,800 | 364 | 342 | 152 | | 858 |
| **Vaccine Preventable** | | | | | | |
| Diphtheria | 0 | 0 | 0 | 0 | | 0 |
| *Haemophilus influenzae* invasive disease | 132 | 38 | 38 | 17 | | 93 |
| Hepatitis B, acute (confirmed cases only) | 7 | 2 | 3 | 2 | | 7 |
| Hepatitis B, perinatal | 1 | 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 | | 1 |
| Meningococcal disease | 2 | 1 | 2 | 3 | | 6 |
| Mumps | 4 | 2 | 2 | 1 | | 5 |
| Pertussis (whooping cough) | 51 | 35 | 239 | 424 | | 698 |
| Poliomyelitis | 0 | 0 | 0 | 0 | | 0 |
| Rubella | 0 | 0 | 0 | 0 | | 0 |
| *Streptococcus pneumoniae* invasive disease | 518 | 199 | 140 | 30 | | 369 |
| Tetanus | 0 | 1 | 1 | 0 | | 2 |
| Varicella (chickenpox) | 188 | 59 | 54 | 24 | | 137 |
| **Vectorborne** | | | | | | |
| Babesiosis[4] | 124 | 6 | 37 | 55 | | 98 |
| Dengue virus infection[1] | 12 | 9 | 5 | 8 | | 22 |
| Eastern equine encephalitis virus (EEEV) | 0 | 0 | 0 | 1 | | 1 |
| Ehrlichiosis/Anaplasmosis[4] | 743 | 15 | 455 | 149 | | 619 |
| Jamestown Canyon virus infection | 13 | 0 | 2 | 0 | | 2 |
| La Crosse virus infection | 1 | 0 | 0 | 0 | | 0 |
| Lyme disease[4] | 6,379 | 637 | 2,210 | 2,045 | | 4,892 |
| Malaria[1] | 20 | 3 | 7 | 2 | | 12 |
| Powassan virus infection | 2 | 0 | 9 | 2 | | 11 |
| Spotted fever group rickettsioses (spotted fevers)[4] | 13 | 6 | 4 | 3 | | 13 |
| West Nile virus infection | 25 | 0 | 0 | 3 | | 3 |
| Yellow fever[1] | 0 | 0 | 0 | 0 | | 0 |
| Zika virus infection[1, 2] | 0 | 0 | 0 | 0 | | 0 |
| **Zoonotic** | | | | | | |
| Brucellosis | 0 | 1 | 0 | 2 | | 3 |
| Hantavirus infection | 0 | 0 | 0 | 0 | | 0 |
| Leptospirosis | 0 | 0 | 0 | 0 | | 0 |
| Mpox[4] | 8 | 1 | 1 | 2 | | 4 |
| Psittacosis | 0 | 0 | 0 | 0 | | 0 |
| Q Fever, acute | 3 | 0 | 0 | 0 | | 0 |
| Q Fever, chronic | 0 | 0 | 0 | 0 | | 0 |
| Rabies (human) | 0 | 0 | 0 | 0 | | 0 |
| Toxoplasmosis | 1 | 1 | 0 | 0 | | 1 |
| Tularemia | 2 | 0 | 0 | 0 | | 0 |
| **Other** | | | | | | |
| CP-CRE | 46 | 0 | 0 | 0 | | 0 |
| Hepatitis A | 23 | 7 | 12 | 5 | | 24 |
| Hepatitis C, acute | 82 | 12 | 13 | 2 | | 27 |
| Hepatitis E, acute | 3 | 1 | 1 | 0 | | 2 |
| Kawasaki disease | 20 | 6 | 7 | 2 | | 15 |
| Lymphocytic choriomeningitis virus infection | 0 | 0 | 0 | 0 | | 0 |
| Transmissible spongiform encephalopathy (human) | 4 | 1 | 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.