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2024

# WISCONSIN EPI EXPRESS

## In This Issue

- **Wisconsin Disease Intervention Specialists**, page 2
- **Campylobacteriosis Exposures and Symptomology by Species in Wisconsin from 2010–2022**, page 3
- **Invasive *Cronobacter* Infections Among Infants Now a Reportable Disease Condition in Wisconsin**, page 4
- **Measles, Mumps, and Rubella (MMR) Vaccination Rates in Wisconsin, 2023 Assessment**, page 5
- **Tuberculosis Cases Increase Post-Pandemic**, page 7
- **Communicable Disease Case Counts**, page 8

## Program Updates

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

**Julia McCarroll**, BCD Communications Director

**Kim Goffard**, HAI & TB Section Manager

**Maegan Brookins**, SURRG Disease Intervention Specialist

**Chelsea Watry**, Northern Regional Disease Intervention Specialist

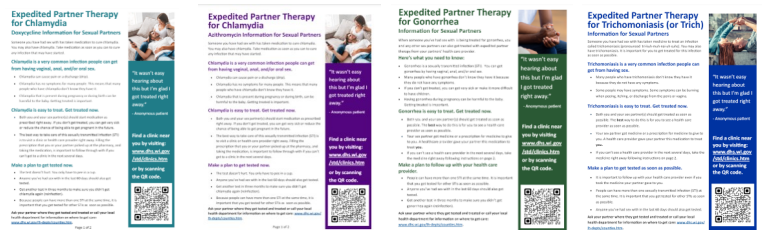
### New webpages and data visualization tools:

The Bureau of Communicable Disease has published three new respiratory illness webpages that each include interactive data visualizations detailing current and past activity for COVID-19, influenza, respiratory syncytial virus (RSV), and other respiratory illnesses across Wisconsin. The webpages include [Respiratory Illness Data](#), [Emergency Department Visit Data for COVID-19, Influenza, and RSV](#), and [Laboratory-Based Respiratory Virus Data](#).

### Updated Expedited Partner Therapy (EPT) fact sheets:

The Sexually Transmitted Infections Intervention Unit has published new EPT patient information factsheets for various sexually transmitted infections (STIs). Each factsheet is available in English, Spanish, and Hmong. The new educational materials include:

- [EPT for Chlamydia-Azithromycin](#)
- [EPT for Chlamydia-Doxycycline](#)
- [EPT for Gonorrhea](#)
- [EPT for Trichomoniasis \(or Trich\)](#)



# Wisconsin Disease Intervention Specialists

By: Brandon Kufalk, STI Unit Supervisor

## BACKGROUND

In 2021, Wisconsin started hiring disease intervention specialists (DIS) around the state using COVID-19 funding from the federal government. Disease intervention specialists are public health personnel who make sure patients get comprehensive medical attention, educate people on infections, and obtain the contacts of people with an infection to stop the spread of the infection. DIS also try to help people find the resources necessary to access medical care.

Many of the infections the DIS work on are sexually transmitted infections (STIs) and human immunodeficiency viruses (HIV), but they can also work on other communicable diseases such as viral hepatitis, TB, and more. Some DIS have also worked on COVID-19 contact tracing, which focused on gathering information from partners and patients.

DIS contact many medical providers around the state to discuss testing and treatment recommendations for people who have an infection and those who may have come into contact with an infection. These discussions with medical providers ensure the latest recommendations regarding patient care are followed.

## ADDITIONALS DIS TASKS

DIS also educate people who have an infection on how the infection may have been obtained, symptoms of the infection, and how treatment may affect them. They discuss risk factors and work with the person to avoid risks while still respecting their choices to avoid shame and stigmatization. One of the more important tasks of DIS is to find the contacts of people who have an



infection to stop the further spread of the infection. By finding people who may have the infection and not know it, and ensuring those people receive the medical care they need, DIS work hard to prevent the spread of infection. These crucial DIS tasks help promote the health and safety of Wisconsinites.

## LOCAL ASSISTANCE

DIS staff at DPH are available to support local and Tribal health departments (LTHDs) with disease investigation and contact tracing. Based on current funding, DPH DIS staff will be available through December 2025 to support LTHDs with communicable disease follow-up.

To request assistance from DPH DIS team, please reach out to [Craig Berger](#) or [Maegan Brookins](#) or call 608-261-6390.

# Campylobacteriosis Exposures and Symptomology by Species in Wisconsin during 2010–2022

By: Hannah Litwak, CSTE Applied Epidemiology Fellow

## BACKGROUND

Campylobacteriosis is one of the most common causes of bacterial gastroenteritis. Most campylobacteriosis cases are caused by *Campylobacter jejuni*, but there has recently been recognition of other *Campylobacter* species, of which the epidemiology is not well understood. Typical exposures to *Campylobacter* bacteria come from consuming raw or undercooked poultry, contact with animals, or drinking untreated water or raw or unpasteurized milk. Current follow-up and education focuses on gastrointestinal illness and control measures traditionally associated with enteric campylobacteriosis.

## THE SITUATION

Campylobacteriosis is reportable in Wisconsin. A public health case investigation, which can include patient interviews and medical record review, is conducted to gather exposure and symptom information for all campylobacteriosis cases. Using exposure, symptom, and laboratory testing information extracted from campylobacteriosis cases reported to the Wisconsin Electronic Disease Surveillance System (WEDSS) during 2010–2022, odds ratios for exposure and symptoms of new *Campylobacter* species compared to *C. jejuni* were calculated.

## RESULTS

Of 19,198 *Campylobacter* cases reported in Wisconsin during 2010–2022, 12,956 (67.5%) had the species identified and were included in the analysis. The most common was *C. jejuni* (n=11,778, 90.9%). Two species with results of note included *C. ureolyticus* (n=242, 1.9%) and *C. lari* (n=33, 0.3%). Diarrhea and vomiting



in *C. ureolyticus* cases were rare (under 35%) with more diarrhea and vomiting occurrences in *C. jejuni* cases than in *C. ureolyticus* cases. None of the specimens collected from *C. ureolyticus* cases came from stool. The statistically significantly lower odds of gastrointestinal symptoms and lack of stool specimens leads to the argument that *Campylobacter* no longer causes only enteric disease. *C. lari* cases reported higher odds of fish and shellfish/seafood consumption compared with *C. jejuni* cases.

## KEY FINDINGS

Non-traditional symptomology and exposure histories for *C. ureolyticus* and *C. lari* cases suggest changes to educational messaging and follow-up for *Campylobacter* cases in Wisconsin are needed. Traditional prevention messaging no longer applies to all *Campylobacter* species, resulting in inadequate information being given to those infected with these unusual species. Asking additional questions during case follow-up can identify other factors to target in future messaging.

# Invasive *Cronobacter* Infections Among Infants Now a Reportable Disease Condition in Wisconsin

By: Kimberly Zelton, Enteric and Waterborne Diseases Unit Epidemiologist

## BACKGROUND

Invasive *Cronobacter* infections among infants (less than 12 months old) became a nationally notifiable disease condition on January 1, 2024. Invasive *Cronobacter* infections among infants [is now reportable in Wisconsin effective May 1, 2024](#). While rare, these infections can lead to serious illness including meningitis, sepsis, and necrotizing enterocolitis. Onset of *Cronobacter* infection in infants usually starts with a fever and poor feeding, excessive crying, or very low energy. Seizures may also occur.

The disease has received national attention due to its association with consumption of powdered infant formula (PIF); however, *Cronobacter* lives in the environment and has also been detected in water, presenting the possibility for other avenues of transmission as well.

## DISEASE REPORTING

Prior to January 1, 2024, invasive *Cronobacter* infections among infants was reportable in very few health jurisdictions nationwide, resulting in a lack of standardized epidemiologic information to determine true disease burden and inform prevention efforts. The goals of disease surveillance include:

- Prompt outbreak detection to ensure timely response.
- Accurately estimating disease burden and incidence.
- Explaining risk factors for transmission to inform prevention and control measures.



## CASE DEFINITION AND REPORTING REQUIREMENTS

For specific information about the invasive *Cronobacter* infection among infants case definition and reporting requirements, see the [Cronobacter Case Reporting and Investigation Protocol \(P-03586\)](#).

## Questions?

For questions regarding *Cronobacter* infections, contact the Enteric and Waterborne Diseases Unit at 608-267-7143 or by sending an email to [DHSDPHEnterics@dhs.wisconsin.gov](mailto:DHSDPHEnterics@dhs.wisconsin.gov)

# Measles, Mumps, and Rubella (MMR) Vaccination Rates in Wisconsin, 2023 Assessment

By: Maeve Pell, Immunization Epidemiologist

## INTRODUCTION

The [CDC \(Centers for Disease Control and Prevention\) reports](#) there have been 151 measles cases in 22 jurisdictions as of June 14, 2024, which is already twice the total case count reported in 2023. Sixty-seven percent of cases so far in 2024 were associated with an outbreak. As of June 14, 2024 there has been [one confirmed](#) case of measles in Wisconsin. Of the 151 nationwide cases reported in 2024, 83% of the individuals have been unvaccinated or of unknown vaccination status. The best way to prevent measles illness is the measles, mumps, and rubella (MMR) vaccine. One dose is 93% effective, and two doses of MMR vaccine are 97% effective in preventing measles. At least 95% of the population must have two doses of the MMR vaccine to reach herd immunity and minimize risk of an outbreak. Given the increase in measles cases in the U.S. and the importance of community vaccination rates, the Wisconsin Immunization Program conducted a subcounty analysis of MMR rates in Wisconsin.

## WISCONSIN MMR VACCINATION DATA SUMMARY

In 2023, 84% of 5–18-year-olds and 74% of 5–6-year-olds received two doses and 82% of 24-month-olds received one dose of the MMR vaccine. Vaccination rates have consistently decreased in Wisconsin; in 2013, the 24-month MMR vaccination rate was 88%. MMR rates vary by race; of 24-month-olds who are identified as white, 90% have one dose compared to 81% of infants who are identified as Black. MMR vaccination rates also vary greatly across the state. The 5–18-year-old rate ranged from 67% in Vernon County to 92% in Menominee County.



## MMR VACCINATION DATA BY CENSUS TRACT

A census tract analysis revealed MMR vaccination patterns that can be obscured by the overall county coverage statistic. For example, in Marathon County, the 5–18-year-old MMR rate overall was 88% in 2023 but when analyzed by census tract ranged from 63% to 93%. Differences were even greater when comparing census tracts across the state. The percent of 5–18-year-olds with two doses of MMR by census tract ranged from 25% to 100% across the state. Ten percent of census tracts had a 5–18-year-old MMR rate greater or equal to 90%. Only three census tracts had a 5–18-year-old MMR rate that met the herd immunity threshold (greater or equal to 95%). The MMR census tract map (Figure 1) is available for local health departments on the PCA Portal.

# Measles, Mumps, and Rubella (MMR) Vaccination Rates in Wisconsin, 2023 Assessment

By: Maeve Pell, Immunization Epidemiologist

## ROUTINE VACCINATION RATES

The COVID-19 pandemic resulted in lower childhood vaccination coverage. Fewer children received routine vaccines during the COVID-19 pandemic compared to the average vaccination rates from 2017–2019. As of 2023, many childhood vaccination rates had still not returned to pre-pandemic levels.

It is vital that children, adolescents, and adults stay up to date with their seasonal and routine vaccinations. Missed or delayed vaccinations leave people more vulnerable to preventable diseases and increase the risk of outbreaks. Let's work together to help more Wisconsinites get protected by vaccines.

## Resources

Learn more about MMR vaccination rates by county:

- [By 24 months of age, P-02420](#) (PDF)
- [5–6 years of age, P-02420A](#) (PDF)
- [5–18 years of age, P-02420B](#) (PDF)

Learn more about vaccination coverage among Wisconsin children by age 24 months:

- [By vaccine, region, and year, P-02003A](#) (PDF)
- [By vaccine, county, city, and year, P-02003](#) (PDF)

For more information about measles, please visit:

[Immunizations: Measles](#)

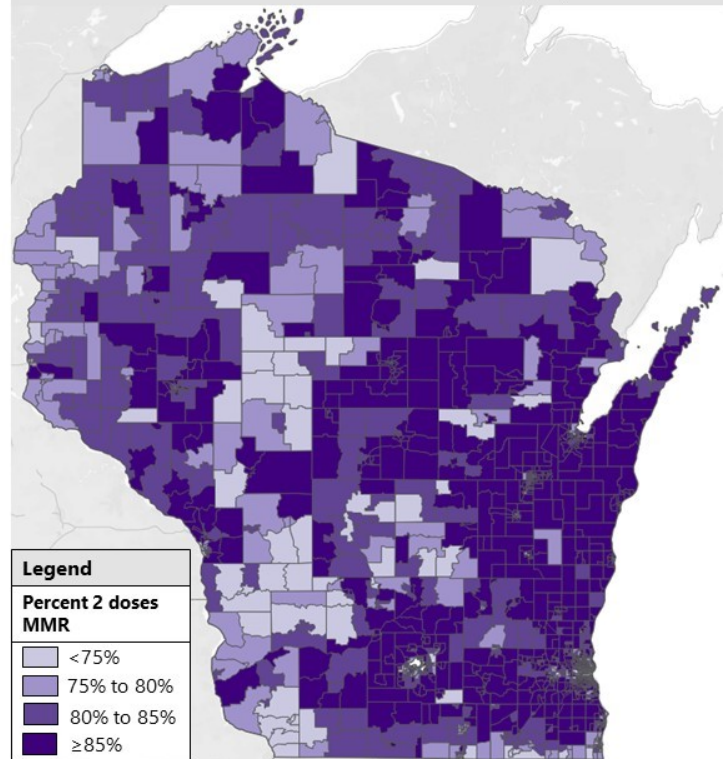
## Questions?

For questions regarding immunization data, contact the Immunization Unit by sending an email to

[DHSImmProgram@dhs.wisconsin.gov](mailto:DHSImmProgram@dhs.wisconsin.gov)

**Figure 1. Percent of school-aged children (ages 5-18) with 2 or more doses of measles, mumps, and rubella (MMR), by census tract**

Data source: Wisconsin Immunization Registry



**Figure 1: Percent of school-aged children (ages 5-18) with two or more doses of measles, mumps, and rubella (MMR), by census tract.**

# Tuberculosis Cases Increase Post-Pandemic

By: Wisconsin TB Program Staff

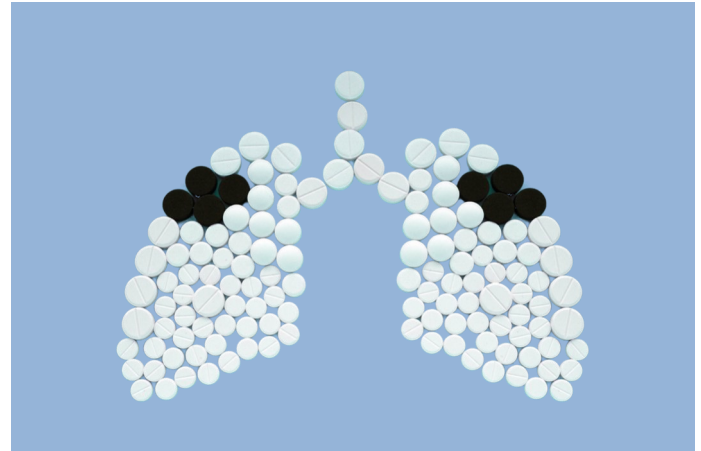
## BACKGROUND

Tuberculosis (TB) is the second leading cause of infectious mortality worldwide, killing more people than both HIV and malaria. While often thought of as a disease of the past, TB still causes significant morbidity and deaths worldwide. One quarter of the global population is infected with the bacteria that causes TB. Unfortunately, TB disproportionately affects Wisconsin communities with structural inequities causing reduced or difficult access to care. These communities include those not born in the U.S. and people who are Black. Difficulty accessing health care and routine screening is a barrier for the prevention, evaluation, and treatment of tuberculosis. This usually increases the risk for missed or delayed diagnosis and death.

The data surrounding TB can improve. TB is curable and preventable. Accessing timely evaluation and treatment for tuberculosis can preserve the health and wellness of people and prevent the further spread of disease in the communities. Wisconsin supports the goal of the World Health Organization and the CDC (Centers for Disease Control and Prevention) to eliminate TB by helping ensure access to tuberculosis screening and testing for those at risk and encouraging treatment for those with active TB disease and latent TB infection.

## CONCERNING TREND

The CDC published the provisional 2023 TB case data on March 28, 2024 (Figure 1 on the following page). The number of people with TB in the United States continued to rise in 2023 (Williams et al, 2024). The reversal of the nearly 30-year-long downward trend began after 2020. There was a considerable decline in



cases in 2020, coinciding with the COVID-19 pandemic. The uptick in cases and incidence is concerning, both for individuals who may have a delay in their diagnosis, potentially causing negative outcomes, and for public health. In 2023, the United States reported 9,615 cases of active TB disease and an incidence rate of 2.9 per 100,000 population (Williams et al, 2024). These numbers are higher compared to 2022, when the United States reported 8,331 cases and an incidence of 2.5 per 100,000. Most U.S. states or reporting jurisdictions also saw an increase in TB case rates, including Wisconsin. Wisconsin reported 54 people with active TB disease in 2023 with an incidence rate of 0.9 per 100,000. Wisconsin saw a low incidence rate of 0.6 per 100,000 in 2020, reflecting the pandemic low also experienced nationwide. The number of cases of TB may continue to trend upward for at least a short time as we find and diagnose more people with TB that were not diagnosed during the pandemic years.

# Tuberculosis Cases Increase Post-Pandemic

By: Wisconsin TB Program Staff

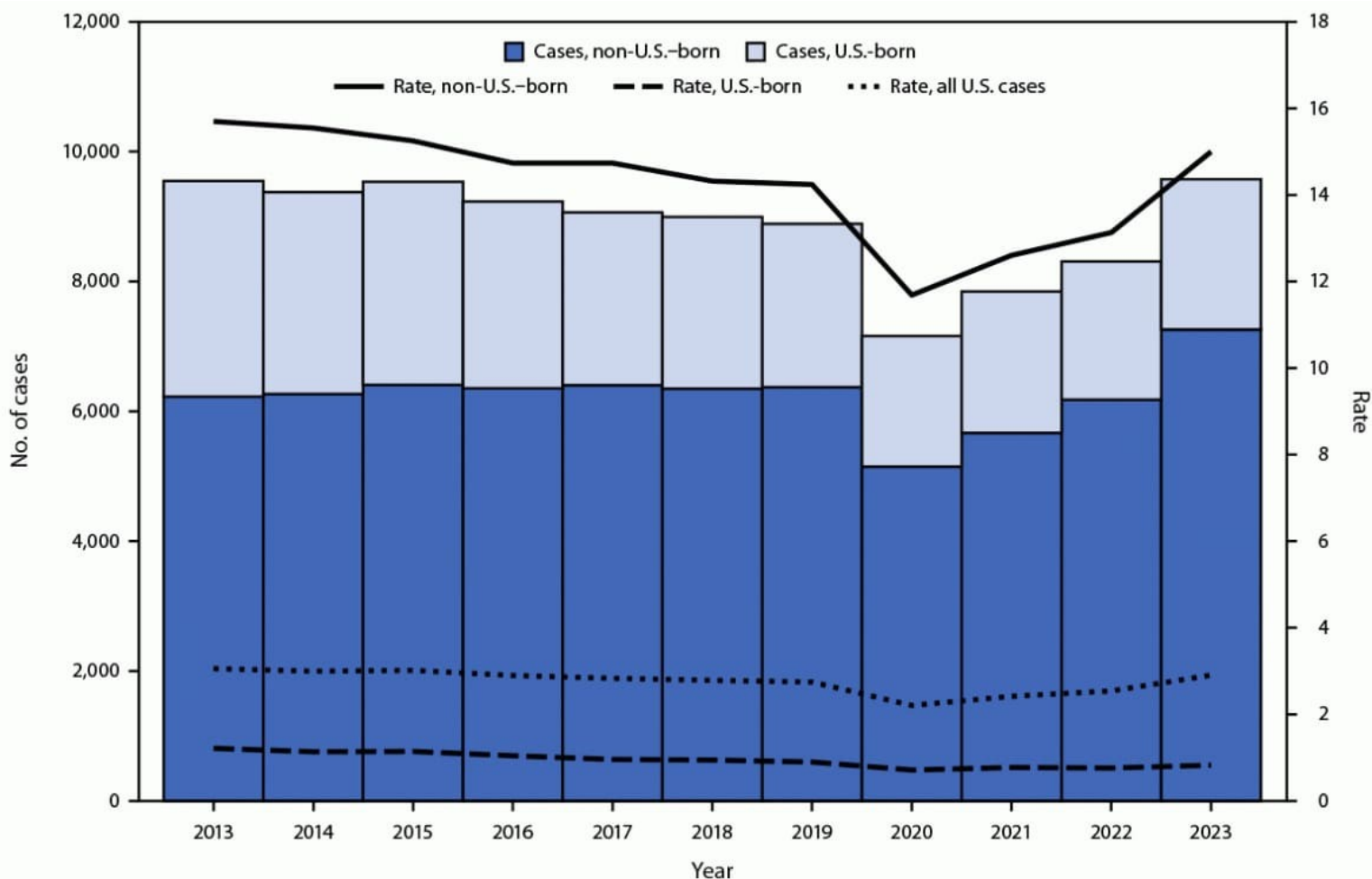


Figure 1: Annual number and rate of cases of TB by birth origin in the U.S., 2013-2023.

## REFERENCES

Williams, P. M., Pratt, R. H., Walker, W. L., Price, S. F., Stewart, R. J., & Feng, P.-J. I. (2024). Tuberculosis — United States, 2023. *MMWR. Morbidity and Mortality Weekly Report*, 73(12), 265–270. <https://doi.org/10.15585/mmwr.mm7312a4>.

## Questions?

For questions regarding TB, the Wisconsin TB Program can be contacted at 608-261-6319 or by sending an email to [DHSWITBProgram@dhs.wisconsin.gov](mailto:DHSWITBProgram@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 second quarter (Q2) and year-to-date (YTD) are through June 19, 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
<b>Enteric and Gastrointestinal</b>						
Campylobacteriosis	1,600	296	267			563
Cholera <sup>1</sup>	0	1	0			1
Cryptosporidiosis	543	69	67			136
Cyclosporiasis	68	0	2			2
<i>E. coli</i> , Shiga toxin-producing (STEC)	510	87	83			170
Giardiasis	517	93	54			147
Hemolytic uremic syndrome	5	1	1			2
Listeriosis	23	4	7			11
Salmonellosis	1,028	213	189			402
Shigellosis	84	25	18			43
Typhoid fever	8	0	1			1
Vibriosis (non-cholera)	44	17	5			22
Yersiniosis	185	55	45			100
<b>Invasive Bacteria</b>						
Group A streptococcal disease	539	121	101			222
Group B streptococcal disease	643	137	130			267
<b>Fungal</b>						
Blastomycosis	134	23	4			27
Coccidioidomycosis <sup>1</sup>	10	2	3			5
Histoplasmosis	29	6	3			9
<b>Respiratory</b>						
Coronavirus disease (COVID-19) <sup>3</sup>	138,771	N/A				N/A
Please refer to the <a href="#">weekly respiratory virus surveillance report</a> and <a href="#">respiratory illness data webpage</a> .						
Influenza, novel	0	0	0			0
Influenza-associated hospitalizations	1,693	2,376	323			2,699
Legionellosis	215	18	34			52
Tuberculosis	54	14	18			32
Latent TB infection	1,417	316	192			508
<b>Sexually Transmitted</b>						
<i>Chlamydia trachomatis</i>	24,999	5,994	4,712			10,706
Gonorrhea	7,010	1,798	1,310			3,108
HIV	260	N/A	N/A			N/A
Syphilis (all stages)	1,799	364	221			585
<b>Vaccine Preventable</b>						
Diphtheria	0	0	0			0
<i>Haemophilus influenzae</i> invasive disease	132	41	28			69
Hepatitis B, acute (confirmed cases only)	7	1	3			4
Hepatitis B, perinatal	0	0	0			0

# Communicable Disease Case Counts (cont.)

Disease	2023 Case Counts		2024 Case Counts			
	Total	Q1	Q2	Q3	Q4	2024 YTD
<b>Vaccine Preventable (continued)</b>						
Measles (rubeola)	1	0	1			1
Meningococcal disease	2	1	0			1
Mumps	4	2	1			3
Pertussis (whooping cough)	51	35	131			166
Poliomyelitis	0	0	0			0
Rubella	0	0	0			0
<i>Streptococcus pneumoniae</i> invasive disease	518	199	125			324
Tetanus	0	1	0			1
Varicella (chickenpox)	188	59	50			109
<b>Vectorborne</b>						
Babesiosis	124	6	12			18
Dengue virus infection <sup>1</sup>	12	9	3			12
Eastern equine encephalitis virus (EEEV)	0	0	0			0
Ehrlichiosis/Anaplasmosis	741	16	236			252
Jamestown Canyon virus infection	13	0	0			0
La Crosse virus infection	1	0	0			0
Lyme disease	6,378	635	1,518			2,153
Malaria <sup>1</sup>	20	3	7			10
Powassan virus infection	2	0	2			2
Spotted fever group rickettsioses (spotted fevers)	13	6	1			7
West Nile virus infection	25	0	0			0
Yellow fever <sup>1</sup>	0	0	0			0
Zika virus infection <sup>1, 2</sup>	0	0	0			0
<b>Zoonotic</b>						
Brucellosis	0	1	0			1
Hantavirus infection	0	0	0			0
Leptospirosis	0	0	0			0
Mpox	8	1	1			2
Psittacosis	0	0	0			0
Q Fever, acute	3	0	0			0
Q Fever, chronic	0	0	0			0
Rabies (human)	0	0	0			0
Toxoplasmosis	1	1	0			1
Tularemia	2	0	0			0
<b>Other</b>						
CP-CRE	46	9	6			15
Hepatitis A	23	7	7			14
Hepatitis C, acute	82	10	10			20
Hepatitis E, acute	3	1	0			1
Kawasaki disease	20	6	5			11
Lymphocytic choriomeningitis virus infection	0	0	0			0
Transmissible spongiform encephalopathy (human)	4	1	0			1

<sup>1</sup> Denotes diseases where all cases in Wisconsin residents are travel-associated. No local transmission occurs.

<sup>2</sup> Due to enhanced surveillance, asymptomatic confirmed cases are included.

<sup>3</sup> COVID-19 reporting requirements have [changed](#), and individual cases are no longer reportable as of 11/1/2023.

