



Issue 3
2023

WISCONSIN EPI EXPRESS

IN THIS ISSUE

- **Infection Prevention and a One Health Approach to Reduce New Delhi Metallo- β -Lactamase-producing *Escherichia coli* Transmission Risks**, page 2
- **DHS “Fight the Bite” Social Media Campaign**, page 3
- **Back to School Immunization and Disease Prevention**, page 4
- **Communicable Disease Case Counts**, page 5

PROGRAM UPDATES

STAFF UPDATES: BCD welcomes the following staff to their new positions!

Kim Goffard, HAI surveillance and education unit supervisor

Paula Pinter, Southern region infection preventionist

Adriana Soto, Surveillance and outbreak support (SOS) research analyst

Ariel Hernandez, SOS research analyst

Carolyn Muryn, SOS research analyst

Jessica Dable, SOS research analyst

WISCONSIN HIV SURVEILLANCE 2021 REPORTS:

The Wisconsin HIV Program recently published two annual reports, the [Wisconsin HIV Surveillance Annual Report, 2021](#) and the [City of Milwaukee HIV Surveillance Annual Report, 2021](#). A [two-page summary](#) of the comprehensive surveillance report is also available on Wisconsin Department of Health Services' [HIV Program webpage](#).

TICK PREVENTION RESOURCES:

The DHS Vectorborne Diseases Program has published an updated [Wisconsin Tick Safety Guide](#) available in English, Spanish, and Hmong. The program also offers a [Tick Identification Service](#) to help you identify ticks you find.

LTHD HAI AND INFECTION PREVENTION TRAINING PROGRAM:

The Healthcare-Associated Infections (HAI) Prevention Program wrapped up the pilot round of the Local and Tribal Health Department (LTHD) HAI and Infection Prevention Training Program. Effectiveness was measured by pre- and post-test quizzes on program curriculum. The pilot round showcased great results, with a 23% increase in cumulative average scores from pre to post program. A second round of the program will begin in October.

Infection Prevention and a One Health Approach to Reduce New Delhi Metallo- β -Lactamase-producing *Escherichia coli* Transmission Risks

By: Nikki Mueller, Wisconsin Healthcare-Associated Infections (HAI) Prevention Program

BACKGROUND

Carbapenemase-producing carbapenem-resistant Enterobacterales (CP-CRE) are bacteria that can inactivate carbapenem antibiotics, as well as other beta-lactam antibiotics. Several different types of carbapenemases exist, including New Delhi metallo-beta-lactamase (NDM). CP-CRE can also transfer the ability to inactivate carbapenem antibiotics to other bacteria, which can lead to the spread of antibiotic resistance.

SITUATION

In February 2022, DHS was notified of an NDM *Escherichia coli* in a dog's clinical specimen collected by the Minnesota Department of Health (MDH). Upon further investigation, the dog was identified as being from an animal rescue facility in rural Wisconsin. The facility housed many animals, mainly dogs and cats, together in buildings spread throughout facility grounds.

There are few known animal outbreaks of CP-CRE, so this relatively rare occurrence led to public health concerns for transmission to other animals on site, the facility staff and contractors, the veterinary clinics providing care, and the surrounding community. In collaboration with MDH, the CDC (Centers for Disease Control and Prevention) and several agencies within the state of Wisconsin (Department of Agriculture, Trade, and Consumer Protection, Wisconsin State Laboratory of Hygiene, local and Tribal health departments), multiple onsite visits were completed. During these visits, staff sampled additional animals to determine transmission, observed infection prevention and control (IPC) practices and daily workflows, and provided facility staff and contractor education.



RESULTS

Staff identified opportunities for improvement and provided recommendations to mitigate transmission risks, including education focused on diseases spread between animals and humans, multi-drug resistant organisms (MDROs), transmission routes, and infection prevention basics. Updated IPC education and practices were shared with facility staff, contractors, and veterinary clinics through hands-on activities, demonstrations, written procedures and policies, and virtual presentations. Education mainly focused on cleaning and disinfection techniques, personal protective equipment use, separation of clean and dirty items, and other IPC practices. DHS continues to provide IPC consultation and onsite visits to this facility and surrounding veterinary clinics.

KEY TAKEAWAYS

- Animals, such as dogs, can become infected with and spread MDROs.
- Proactive education on zoonotic illnesses, MDROs, and IPC practices is beneficial for both human and animal health care settings.
- Timely MDRO identification and response by public health departments and collaboration between federal, state, and local partners is essential for the containment of MDROs.

DHS “Fight the Bite” Social Media Campaign

By: DHS Vectorborne Diseases Program

INTRODUCTION

For most of us, it’s been a busy summer— nature walks, camping trips, hikes at Devil’s Lake, and gardening. As summer has transitioned into fall, it’s important to remember that ticks and mosquitoes in Wisconsin are still common in the fall and can cause disease.

ABOUT THE DATA

Reported cases of [Lyme disease](#) have been on the rise in Wisconsin with 5,327 cases reported in 2022.

Unfortunately, the tick that spreads Lyme disease thrives in Wisconsin, and warmer winters due to climate change allow ticks to remain active for most of the year. In fact, due to the early warm weather we had this year, we saw more ticks out earlier in the spring than usual. While the tick that spreads Lyme disease is most common in the northern part of the state, it is also found in wooded parks and backyards in southern Wisconsin. Illnesses spread by mosquitoes in the state are much less common than those spread by ticks. However, at least a few cases of [West Nile virus](#) and [Jamestown Canyon virus](#) are reported each year. While rare, these infections can cause severe illness and outcomes in some people.

SITUATION

In Wisconsin, there are two types of ticks that often bite people: the blacklegged tick (commonly known as the deer tick) and the American dog tick (commonly known as the wood tick). Deer ticks are responsible for causing nearly all illnesses spread by ticks in Wisconsin. Deer ticks not only spread Lyme disease, but can also cause other diseases such as [anaplasmosis](#) and [babesiosis](#). Wood ticks on the other hand, are not known to spread disease in Wisconsin except in very rare instances.

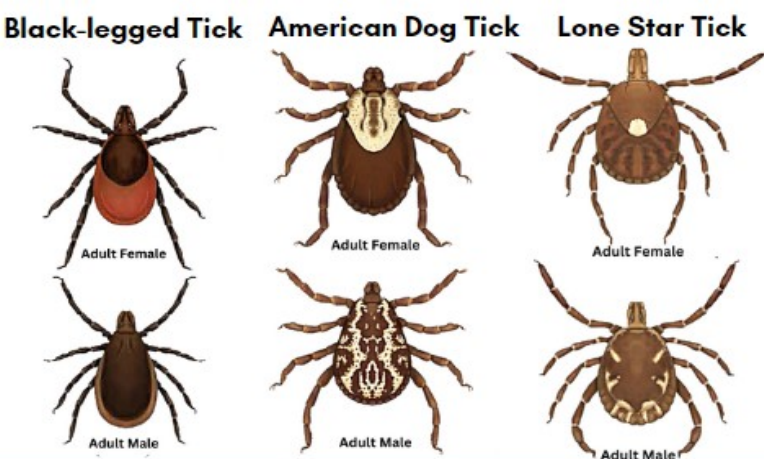
EFFORTS TO REDUCE DISEASE RISK

There are steps that can be taken to significantly reduce one’s risk of getting a tick-borne (or mosquito-borne) illness while enjoying the great outdoors, such as wearing long sleeves, pants, and socks; using insect repellent; and checking for ticks after an excursion. To increase awareness of these prevention measures, the DPH Vectorborne Diseases Program has continued the “Fight the Bite” social media campaign on Facebook and Instagram. The campaign started in 2019 and has been successful in increasing awareness of tick-borne and mosquito-borne illnesses and detailing prevention tips.

The annual campaign consists of social media posts targeting parents with children under the age of 10, pet owners, and older adults between the ages of 55–75 in Wisconsin, as these groups tend to have a higher risk of getting a vectorborne disease. The campaign has included giveaways to increase interaction on social media and help Wisconsinites promote the “Fight the Bite” campaign with their prizes.

Additionally, the [Wisconsin Tick Safety Guide](#) was updated this summer. The guide is a wallet-sized card that Wisconsinites can carry around with them and includes information about ticks found in Wisconsin, tick prevention tips, and instructions on how to safely get rid of a tick. The guide is typically distributed to local and Tribal health departments and is available in English, Spanish, and Hmong.

DO YOU KNOW YOUR TICKS?



Learn more:

dhs.wisconsin.gov/tick/bite-prevention.htm



Back to School Immunization and Disease Prevention

By: DHS Immunization Program

INTRODUCTION

Kids have gone back to school and with a new school year comes the spreading of germs. It's inevitable, but steps can be taken to build healthy habits and build up children's protection against illnesses to help keep them healthy and ready to learn. Vaccination is the best way to keep kids safe from disease and allow them to stay in school.

ABOUT THE DATA

CDC data shows that kindergarten vaccination rates have steadily declined for all vaccines over the past two school years from 95% to 93% nationally, and by as much as 10% in certain jurisdictions. According to the CDC, 6% of kindergartners in Wisconsin had nonmedical exemptions from vaccines in 2021-22, compared to the national average of 2.3%. Last year, 89.9% of Wisconsin students met the minimum immunization requirements, an 1.2% increase from the following year, but down from 91.1% in 2020-2021. To prevent sickness before it starts, it's important for children to stay up to date on their vaccinations.

STAY UP TO DATE WITH VACCINATIONS

Vaccines are safe and effective at preventing serious disease. Getting a vaccine is a lot like the lessons kids learn in school. Vaccines contain information that your body "reads" about how to detect and react to certain germs. So while a vaccine leaves your body quickly, it leaves behind a lesson for your body on how to protect itself when exposed to that germ again. If that germ comes along in the future, children may have no symptoms or less severe symptoms, and may be less likely to spread germs to others. That means less missed school, healthier kids, and a healthier classroom for all.

As respiratory illness season is here, kids should also receive their annual flu shot and COVID-19 vaccine. It's never too early or too late to get vaccinated. Vaccination is especially important for children with health conditions, such as asthma or heart disease, that can put them at a higher risk for severe respiratory illness.



Parents can check their child's vaccination record to see their current vaccination status on the [Wisconsin Immunization Registry](#). Parents can contact a health care provider or their local health department to schedule an appointment to get their kids up to date.

ADDITIONAL PREVENTION TIPS

Reminding kids that one of the easiest ways to stop spreading germs is frequent handwashing can go a long way to keeping them (and an entire household) healthy. It is especially important to wash hands before eating, after using the bathroom, and after blowing your nose, coughing, or sneezing. Kids should be washing their hands for at least 20 seconds to make sure they are washing germs away. If they don't have access to soap and water, use hand sanitizer instead.

Finally, if your kids do get sick, follow your school's guidelines about when they should stay home. When sick kids stay home, it keeps germs away from others. Getting vaccines, handwashing, and staying home when sick are all great ways to help kids stay healthy at school.

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 2023 third quarter (Q3) and year-to-date (YTD) are through September 15, 2023.

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

Disease	2022 Case Counts	2023 Case Counts				
	Total	Q1	Q2	Q3	Q4	2023 YTD
Enteric and Gastrointestinal (also includes suspect cases)						
Campylobacteriosis	1,347	269	384	453		1,106
Cholera ¹	0	0	0	0		0
Cryptosporidiosis	548	86	103	216		405
Cyclosporiasis	65	1	30	32		63
<i>E. coli</i> , Shiga toxin-producing (STEC)	456	99	127	167		393
Giardiasis	422	85	106	120		311
Hemolytic uremic syndrome	6	2	0	1		3
Listeriosis	22	5	9	5		19
Salmonellosis	1,030	193	262	273		728
Shigellosis	111	24	14	16		54
Typhoid fever	0	4	3	4		11
Vibriosis (non-cholera)	49	12	11	11		34
Yersiniosis	141	43	57	36		136
Invasive Bacteria						
Group A streptococcal disease	229	202	175	59		436
Group B streptococcal disease	591	151	142	143		436
Fungal						
Blastomycosis	143	34	18	7		59
Coccidioidomycosis ¹	16	2	1	1		4
Histoplasmosis	36	11	2	4		17
Respiratory						
Coronavirus disease (COVID-19)	776,454	55,862	15,961	14,940		86,763
Please refer to the weekly respiratory virus surveillance report .						
Influenza, novel	1	0	0	0		0
Influenza-associated hospitalizations	3,648	592	66	27		685
Legionellosis	235	22	40	74		136
Tuberculosis	52	13	11	11		35
Latent TB infection	1,005	264	302	155		721
Sexually Transmitted						
<i>Chlamydia trachomatis</i>	25,688	6,352	6,253	5,007		17,612
Gonorrhea	8,746	1,707	1,715	1,460		4,882
HIV	289	N/A	N/A	N/A		N/A
Syphilis (all stages)	1,928	504	514	228		1,246
Vaccine Preventable						
Diphtheria	0	0	0	0		0
<i>Haemophilus influenzae</i> invasive disease	109	37	25	17		79
Hepatitis B, acute (confirmed cases only)	12	2	1	2		5
Hepatitis B, perinatal	0	0	0	0		0

Communicable Disease Case Counts (cont.)

Disease	2022 Case Counts		2023 Case Counts			
	Total	Q1	Q2	Q3	Q4	2023 YTD
Vaccine Preventable (continued)						
Measles (rubeola)	0	0	0	0		0
Meningococcal disease	1	1	0	0		1
Mumps	9	1	0	0		1
Pertussis (whooping cough)	20	4	9	12		25
Poliomyelitis	0	0	0	0		0
Rubella	0	0	0	0		0
<i>Streptococcus pneumoniae</i> invasive disease	432	131	119	49		299
Tetanus	0	0	0	0		0
Varicella (chickenpox)	161	58	49	26		133
Vectorborne						
Babesiosis	91	1	30	52		83
Dengue virus infection ¹	9	0	1	2		3
Eastern equine encephalitis virus (EEEV)	1	0	0	0		0
Ehrlichiosis/Anaplasmosis	573	3	311	272		586
Jamestown Canyon virus infection	5	0	3	1		4
La Crosse virus infection	0	0	0	0		0
Lyme disease	5,327	465	1,283	2,450		4,198
Malaria ¹	24	2	1	5		8
Powassan virus infection	8	0	1	1		2
Spotted fever group rickettsioses (spotted fevers)	11	2	5	4		11
West Nile virus infection	6	0	0	4		4
Yellow fever ¹	0	0	0	0		0
Zika virus infection ^{1, 2}	0	0	0	0		0
Zoonotic						
Brucellosis	0	0	1	0		1
Hantavirus infection	0	0	0	0		0
Leptospirosis	0	0	0	0		0
Mpox	87	1	5	1		7
Psittacosis	0	0	0	0		0
Q Fever, acute	7	0	0	0		0
Q Fever, chronic	1	0	0	0		0
Rabies (human)	0	0	0	0		0
Toxoplasmosis	2	0	0	0		0
Tularemia	4	0	0	0		0
Other						
CP-CRE	43	14	6	7		27
Hepatitis A	31	8	10	2		20
Hepatitis C, acute	105	25	23	8		56
Hepatitis E, acute	11	3	0	1		4
Kawasaki disease	14	8	3	0		11
Lymphocytic choriomeningitis virus infection	0	0	0	0		0
Transmissible spongiform encephalopathy (human)	1	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.

