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WISCONSIN EPI EXPRESS

WELCOME BACK!

Over the past two and a half years, public health workers have gone above and beyond to ensure basic public health functions were maintained and new services were established, under the extraordinary circumstances of the COVID-19 pandemic. We now have more tools than ever to detect, prevent, and treat COVID-19, and to keep our communities safe. I want to thank all of our public health partners for your perseverance and commitment to protecting the health and safety of the people of Wisconsin. I am honored to work alongside you.

It has been over a year since we published an issue of the [Epi Express](#). As we move forward, we are very excited to have the opportunity to share articles with you from a broad spectrum of program areas across the Bureau of Communicable Diseases.

Traci DeSalvo, MPH

Director, Bureau of Communicable Diseases

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PROGRAM UPDATES

- Guidance for preventing and controlling acute respiratory illness outbreaks in Wisconsin long-term care facilities (LTCFs) is available on a new [webpage](#). The information on the webpage was previously located in BCD Memo 2021–13. Please check the webpage frequently, as the content will be updated as guidance changes.
- Visit the Refugee Health Program's new [Ukrainian Health Resources webpage](#) for resources to provide culturally informed care to people arriving from Ukraine to Wisconsin.
- Three new multidrug-resistant organisms were added as reportable communicable disease conditions in Wisconsin as of July 1, 2022. Visit the [Healthcare-Associated Infections webpage](#) for more information on reportable multidrug-resistant organisms.

Effects of Priftin® (Rifapentine) and Rifampin Shortages on Tuberculosis Public Health Services in Wisconsin

By: Ellena Keener, Refugee Health and Tuberculosis Programs Office Associate

BACKGROUND

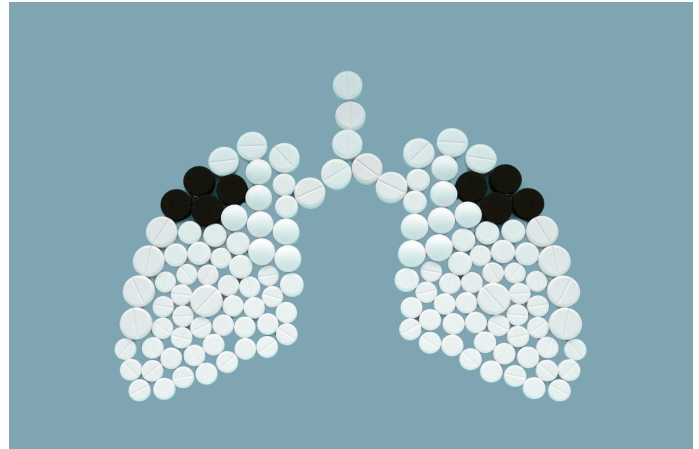
Active tuberculosis (TB) is curable with the use of appropriate multi-drug therapy. The progression from latent TB infection (LTBI) to active TB can also be prevented with treatment. Rifampin is one of the most important drugs to treat both active and LTBI. Rifapentine is used in a preferred regimen to treat LTBI.

The Wisconsin Tuberculosis Program (WTBP) contracts with a private pharmacy to obtain medication for all persons with active TB disease and for persons with latent TB infection (LTBI) who experience financial hardship and who otherwise would not have access to treatment. In March 2020, the WTBP pharmacy first reported difficulty obtaining rifapentine. In February 2022, the WTBP pharmacy announced difficulty obtaining rifampin as well.

SITUATION

Rifapentine shortages can be attributed to several factors, such as increasing global demand since 2019 and supply chain issues due to the pandemic. Most notably, rifapentine shortages were due to Sanofi pausing production in 2020 for nitrosamine impurities. Nitrosamines are naturally occurring chemical compounds that can damage cellular genetic information, potentially leading to cancer. Exposure to nitrosamines is not uncommon. They are found in drinking water, meats, latex, and tobacco products. Impurities can result from active pharmaceutical ingredients, drug synthesis, cross-contamination, or other production processes. While present in daily life, the World Health Organization conveys that presence of nitrosamine impurities in prescription drugs is considered unacceptable.

However, the known risks of not treating or preventing TB outweigh the theoretical risk of cancer associated with short-term nitrosamine exposure. Likewise, rifampin shortages are attributed to both nitrosamine impurities and supply chain issues. In September 2020 the FDA announced a nationwide shortage of rifampin.



Recognizing the importance of rifampin to public safety, the Centers for Disease Control and Prevention Division of Tuberculosis Elimination maintains a strategic national stockpile of rifampin, with the goal of protecting Americans if a public health emergency caused local supply unavailability. In 2021, they announced that it would allow states to request short-dated rifampin. Over \$800,000 worth of rifampin was shipped to state programs between December 2021 and February 2022. In February 2022, Wisconsin requested enough rifampin to provide an adequate buffer to meet active clients' needs. However, new LTBI orders containing rifampin were paused.

SUMMARY AND OUTLOOK

These shortages left recipients of the WTBP dispensary without consistent access to preferred treatment regimens for LTBI from March 2020 to June 2022. At this time, the supply has stabilized, and medication orders that include rifampin and rifapentine can be submitted to the state dispensary. This exciting news will allow the WTBP to better serve the needs of Wisconsin communities at risk for TB.

Remember: Check the [TB website](#) for more information on LTBI medication availability, refills, and recommendations.

Successful Implementation of Enhanced Barrier Precautions

By: Anna Marciniak, MT(ASCP), CIC Infection Preventionist, Healthcare Associated Infections Prevention Program

BACKGROUND

In recent years, Wisconsin and other areas across the country experienced a rise in the spread of multidrug-resistant organisms (MDROs) like carbapenemase-producing carbapenem-resistant *Acinetobacter baumannii* (CP-CRAB). In 2021, of the 134 individuals in Wisconsin for which CP-CRAB case history information was available, 121 or 90% were either a current or former long-term care facility (LTCF) resident. This may be due to co-morbidities and other contributing health-risk factors among this population.

Many LTCF residents who are colonized with a targeted MDRO are asymptomatic and consequently not placed on contact precautions for infection prevention, which has contributed to the silent spread of MDROs.

In July 2019, the Centers for Disease Control and Prevention (CDC) released [enhanced barrier precautions](#) (EBPs) guidance specifically for nursing homes, indicating the use of gowns and gloves for high-contact resident care activities. EBPs apply in addition to standard precautions for residents colonized or infected with a targeted MDRO, as well as all residents with wounds or indwelling medical devices (regardless of their MDRO colonization status) who reside on the same unit as an MDRO colonized or infected resident.

SUCCESS STORY

North Central Health Care's North Winds Vent Community's vent unit has 16 beds and a robust infection prevention program. The facility already had an EBP policy established when the first CP-CRAB case was identified.

CP-CRAB was isolated from a tracheostomy site. The preliminary result did not specify the resistant *Acinetobacter*; the infection preventionist noted it while reviewing the susceptibility results. The specimen was later sent to the Wisconsin State Laboratory of Hygiene for further testing, which indicated CP-CRAB.

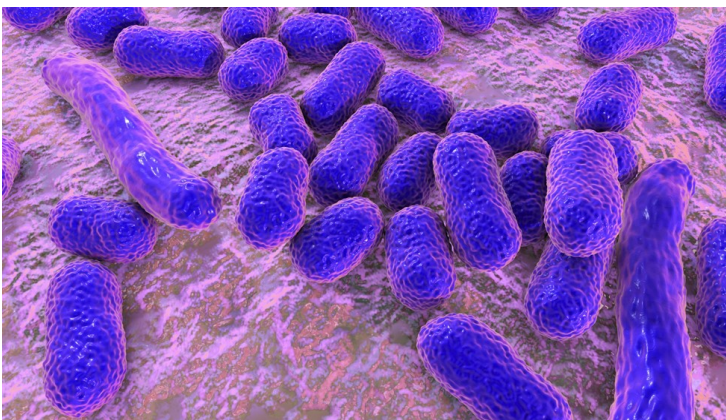
Once CP-CRAB was detected, multiple interventions took place in collaboration with the Division of Public Health, including education, assessments, point prevalence cultures, audits, improved cleaning and disinfection, and additional signage across the facility.

RESULTS AND LESSONS LEARNED

After multiple rounds of point prevalence testing for all unit residents between June 2021 and January 2022, the results showed no further transmission of CP-CRAB. These results highlighted the importance of having strategies and policies in place for the prevention and control of MDROs, such as:

- Partnering with the laboratory for testing and early identification.
- Collaborating with public health.
- Having a strong antimicrobial stewardship program.
- Educating staff on EBPs and maintaining compliance through audits.
- Partnering with housekeeping to improve cleaning and disinfection.

These strategies were critical for preventing further transmission of CP-CRAB in North Winds Vent Community.



Closeup of *Acinetobacter*

New Tick Identification Service and Public Health Entomologist

By: DPH Vector-Borne Diseases Program Staff

TICK-BORNE DISEASES IN WISCONSIN

Did you know that 98% of vector-borne disease cases reported in Wisconsin are transmitted by ticks? Did you also know that at least 16 species of ticks can be found throughout Wisconsin, but only three are of medical importance, the blacklegged (deer) tick (*Ixodes scapularis*), the American dog (wood) tick (*Dermacentor variabilis*), and the lone star tick (*Amblyomma americanum*)?

Wisconsin reports some of the highest incidences of tick-borne diseases in the U.S., in particular Lyme disease, which is transmitted by the blacklegged (deer) tick. Recent reports have confirmed the presence of the blacklegged (deer) tick in all Wisconsin counties and in a variety of outdoor settings, including residential yards. However, research has also shown that most people are not able to correctly identify the blacklegged (deer) tick, which is responsible for the large majority of tick-borne diseases in Wisconsin.

NEW TICK IDENTIFICATION SERVICE

The Vector-borne Diseases Program is excited to announce the new [DHS Tick Identification Service](#), which utilizes a web-based survey tool hosted on the DHS website where members of the public can submit an image of a tick found on themselves, a family member, their pets, or wildlife (for example, deer).

To use this service, a person simply needs to upload an image of a tick and complete a few survey questions about where the tick was found. Our team will then identify submitted tick images and provide timely guidance on what to do after a tick bite. By identifying the species of tick encountered, this service is intended to help submitters better understand their potential risk of exposure to a tick-borne disease and whether they should contact a doctor to ask about post-tick bite prophylaxis.

Tick identification, however, should not be used to guide decisions about disease diagnosis or treatment. The DHS Tick Identification Service is a continuation of a similar service provided previously by the Medical Entomology Laboratory at the University of Wisconsin-Madison.



PUBLIC HEALTH ENTOMOLOGIST

The Vector-borne Diseases Program is also excited to announce the hiring of Xia Lee, a new public health entomologist who will work with local health departments and academic institutions to better understand and reduce the risk of vector-borne diseases in Wisconsin. So far, Xia's surveillance of the blacklegged (deer) tick at sentinel sites throughout Wisconsin this summer has found stable tick numbers that are lower than those collected during the summer of 2021, but within the normal range of tick numbers found historically at these sites.



Have questions about illnesses spread by ticks? Contact us!

Phone: 608-267-9003 Fax: 608-261-4976



Decline in Routine Immunizations During the COVID-19 Pandemic

By: Ashley Murphy, Wisconsin Immunization Registry Epidemiologist

BACKGROUND

The introduction of routine immunizations, otherwise known as vaccinations, has greatly reduced the number of vaccine-preventable disease outbreaks in the U.S. Individuals who are unvaccinated or not up to date on their vaccinations are at significantly greater risk of getting sick from vaccine-preventable diseases.

High uptake of routine immunizations is crucial for reducing disease transmission and preventing future outbreaks in our communities; however, preventive efforts to reduce SARS-CoV-2 transmission over the past few years have resulted in a decline of routine immunizations administered during the COVID-19 pandemic.

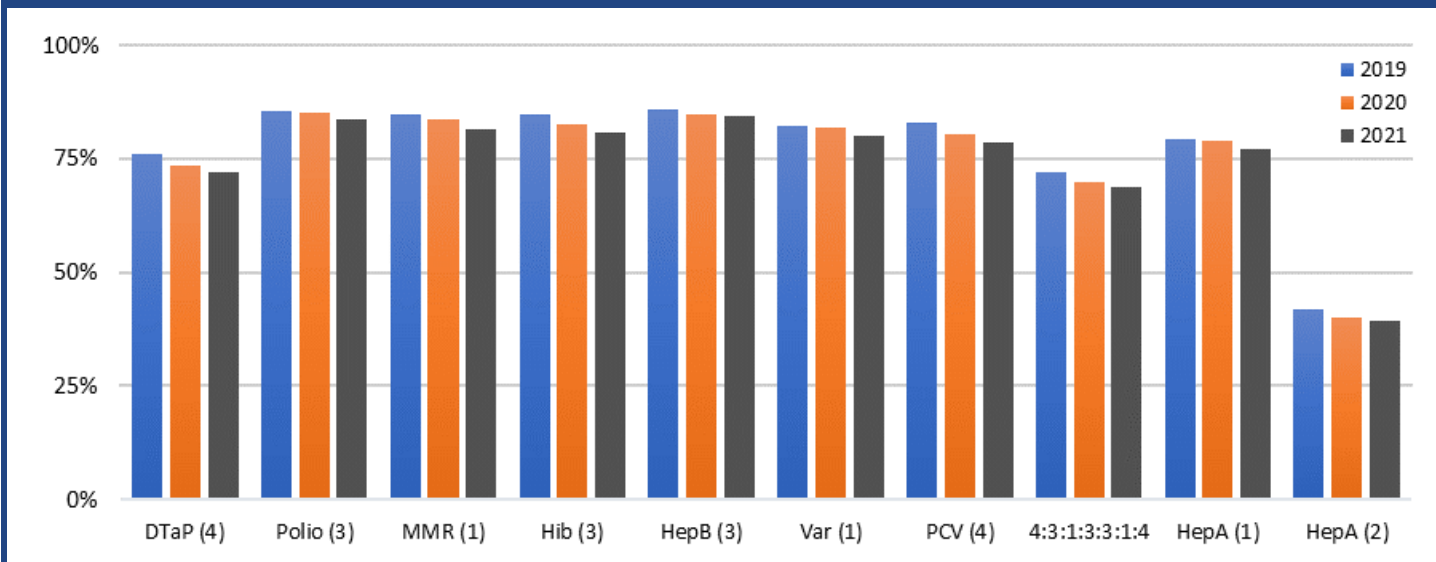
As children and adolescents return to in-person learning and socializing, it's imperative that we implement vaccination strategies to prevent additional outbreaks. Communicating the importance of routine vaccinations to catch-up patients is essential to increasing vaccination rates that have declined during the COVID-19 pandemic.



CHILDHOOD IMMUNIZATIONS

Immunization coverage declined across all assessed vaccine groups (DTaP, Polio, MMR, Hib, Hepatitis B, Varicella, PCV, and Hepatitis A) among Wisconsin children from 2019 to 2021. The percentage of two-year-olds who were up-to-date for the 4:3:1:3:3:1:4 series declined by 3.3% during the COVID-19 pandemic (Figure 1). The decline in coverage is concerning since vaccine-preventable diseases can lead to serious outcomes, including death, especially among young children.

FIGURE 1. Vaccination Coverage by 24 months by Vaccine or Series



Decline in Routine Immunizations During the COVID-19 Pandemic

By: Ashley Murphy, Wisconsin Immunization Registry Epidemiologist

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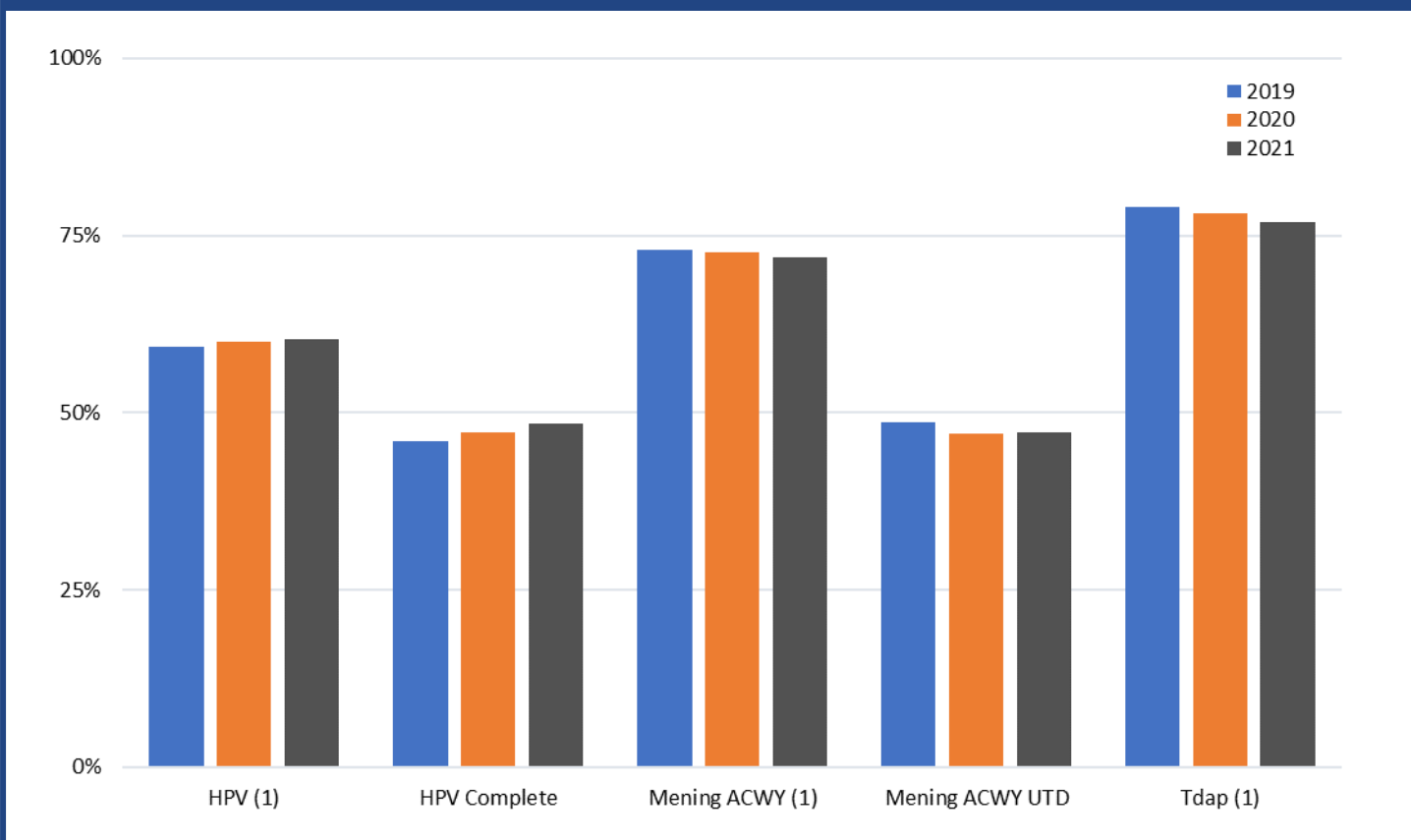
ADOLESCENT IMMUNIZATIONS

Immunization coverage declined across assessed vaccine groups, aside from HPV, among Wisconsin adolescents from 2019 to 2021. The percentage of adolescents who received one dose of Tdap declined by 2.0% and one dose of Meningococcal ACWY by 1.1%. Individuals who were up to date for Meningococcal ACWY decreased by 1.4% during the COVID-19 pandemic (Figure. 2).

ADDITIONAL RESOURCES

- [Wisconsin Immunization Data](#): Find additional data on immunization coverage, including county-level data.
- [Immunization Rates Dashboards](#): These interactive dashboards show that fewer children and adolescents received their routine vaccines so far during the COVID-19 pandemic compared to the average number of children vaccinated from 2015 to 2019. The biggest decline in vaccine rates occurred in children ages 5 to 6 years.
- [Strategies for Increasing Vaccination Rates](#): This resource provides CDC guidance for providers on increasing vaccination rates among their

FIGURE 2. Vaccination Coverage Among Wisconsin Adolescents Ages 13 Through 18 Years, by Vaccine or Series



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.

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

Disease	2021 Case Counts		2022 Case Counts			
	Total	Q1	Q2	Q3	Q4	2022 YTD
Enteric/Gastrointestinal (also includes suspect cases)						
Campylobacteriosis	1,343	236	322	411		969
Cholera ¹	0	0	0	0		0
Cryptosporidiosis	626	96	111	219		426
Cyclosporiasis	97	1	38	17		56
<i>E. coli</i> , Shiga toxin-producing (STEC)	439	65	117	156		338
Giardiasis	563	85	73	135		293
Hemolytic uremic syndrome	4	0	2	3		5
Listeriosis	17	5	2	6		13
Salmonellosis	900	183	249	350		782
Shigellosis	53	24	35	29		88
Typhoid fever	0	0	2	6		8
Vibriosis (non-cholera)	34	14	10	12		36
Yersiniosis	94	34	37	37		108
Invasive Bacteria						
Group A streptococcal disease	111	26	14	7		47
Group B streptococcal disease	672	3	1	0		4
Mycotic						
Blastomycosis	97	26	14	7		47
Coccidioidomycosis ¹	32	3	1	0		4
Histoplasmosis	25	7	4	3		14
Respiratory						
Coronavirus disease (COVID-19)	651,429	400,343	144,461	130,697		675,501
Please refer to the weekly respiratory virus surveillance report .						
Influenza, novel	4	0	0	1		1
Influenza-associated hospitalizations	257	429	284	19		732
Legionellosis	223	25	52	102		179
Tuberculosis	66*	13	17	9		39
Latent TB infection	941	217	187	124		528
Sexually Transmitted						
<i>Chlamydia trachomatis</i>	27,907	6,473	6,529	5,658		18,660
Gonorrhea	10,513	2,463	2,180	1,959		6,602
HIV	258	63	71	63		197
Syphilis (all stages)	1,613	459	490	315		1,264
Vaccine Preventable						
Diphtheria	0	0	0	0		0
<i>Haemophilus influenzae</i> invasive disease	83	19	23	26		68
Hepatitis B, acute (confirmed cases only)	5	4	4	4		12
Hepatitis B, perinatal	0	0	0	0		0

Communicable Disease Case Counts (continued)

Disease	2021 Case Counts		2022 Case Counts			
	Total	Q1	Q2	Q3	Q4	2022 YTD
Vaccine Preventable (continued)						
Measles (rubeola)	24*	0	1	0		1
Meningococcal disease	2	1	0	0		1
Mumps	5	0	3	4		7
Pertussis (whooping cough)	21	13	6	7		26
Poliomyelitis	0	0	0	0		0
Rubella	0	0	0	0		0
<i>Streptococcus pneumoniae</i> invasive disease	296	100	95	28		223
Tetanus	2	0	0	0		0
Varicella (chickenpox)	159	28	51	28		107
Vectorborne						
Babesiosis	101	3	18	55		76
Dengue virus infection ¹	3	1	1	4		6
Eastern equine encephalitis virus (EEEV)	1	0	0	0		0
Ehrlichiosis/Anaplasmosis	834	6	292	182		480
Jamestown Canyon virus infection	10	0	2	0		2
La Crosse virus infection	2	0	0	0		0
Lyme disease	2,184	459	1,484	2,331		4,274
Malaria ¹	17*	6	2	7		15
Powassan virus infection	3	0	5	1		6
Spotted fever group rickettsioses (spotted fevers)	5	0	4	4		8
West Nile virus infection	8	0	0	2		2
Yellow fever ¹	0	0	0	0		0
Zika virus infection ^{1,2}	0	0	0	0		0
Zoonotic						
Brucellosis	0	0	0	0		0
Hantavirus infection	0	0	0	0		0
Leptospirosis	0	0	0	0		0
Psittacosis	0	0	1	0		1
Q Fever, acute	7	0	0	0		0
Q Fever, chronic	0	0	0	0		0
Rabies (human)	0	0	0	0		0
Toxoplasmosis	1	0	0	0		0
Tularemia	5	0	0	0		0
Other						
CP-CRE	0	0	0	0		0
Hepatitis A	25	5	10	5		20
Hepatitis C, acute	135	21	18	7		46
Hepatitis E, acute	5	1	2	1		4
Kawasaki disease	14	2	3	2		7
Lymphocytic choriomeningitis virus infection	0	0	0	0		0
Transmissible spongiform encephalopathy (human)	5	0	0	0		0

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.

* Includes outbreak-associated cases among people who traveled from Afghanistan and were living at Fort McCoy.

