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WISCONSIN EPI EXPRESS

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PROGRAM UPDATES

STAFF UPDATES:

The Bureau of Communicable Diseases (BCD) welcomes the following staff to their new positions:

- Karen Boegler, Enterics Epidemiologist, karen.boegler@dhs.wisconsin.gov
- Beth Ellinger, Infection Preventionist, beth.ellinger@dhs.wisconsin.gov
- Scott Stokes, HIV Program Section Chief, scott.stokes@dhs.wisconsin.gov

NEW AND REVISED WEBPAGES:

The new Communicable Diseases Archived Webinar Series webpage was recently created to house all recordings from monthly communicable diseases webinars. The Hepatitis C Program has recently revised their webpages.

ONGOING OUTBREAK INVESTIGATIONS:

See the Department of Health Services' Outbreaks and Investigations webpage for up-to-date information on outbreaks and investigations with wide impact in Wisconsin.

NEW RESOURCES:

- The Wisconsin HIV Program recently published the 2018 HIV Surveillance Report. View the entire report and a 2-page summary.
- The Wisconsin Hepatitis C Program recently published the 2018 Hepatitis C Virus Surveillance Annual Review . View the entire report and a 2-page summary.
- The following fact sheets have been created and are available in English, Spanish, and Hmong:
  - Powassan Virus Infection
  - Illnesses Spread by Mosquitoes

Mumps Outbreaks in Immigration and Customs Enforcement (ICE) Facilities

By: Monica Thakur, Immunization Program Advisor

BACKGROUND

Mumps is a viral illness characterized by swelling of the parotid or salivary glands and can be prevented, typically with two doses of MMR vaccine. Recently mumps incidence has risen in the U.S. CDC has reported 2,618 cases from January 1 to October 11, 2019.

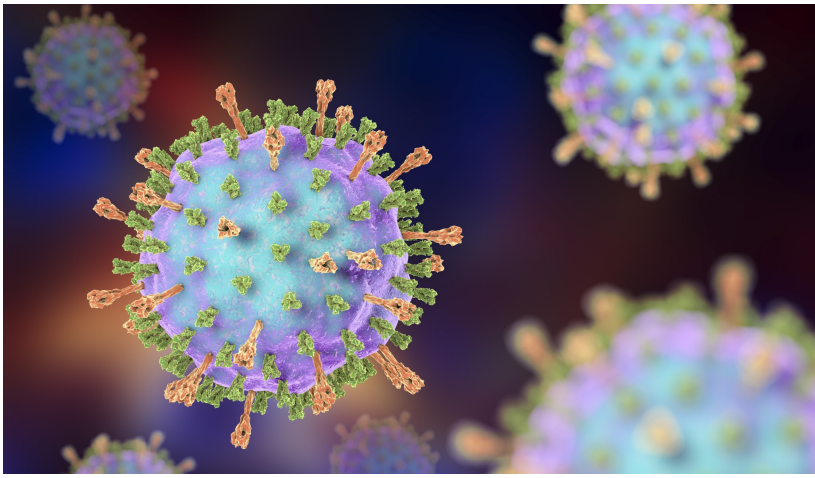
Mumps is a highly contagious virus that can be transmitted in close-contact settings to unvaccinated or inadequately vaccinated people when brought from countries where it is endemic. Typically mumps outbreaks have occurred at universities, schools, and athletic events, but this is the first mumps outbreak that is affecting ICE facilities across the country.

2019 NATIONAL OUTBREAKS IN ICE FACILITIES

IHSC (ICE Health Services Corps) reported 898 mumps cases from 19 states in 57 detention facilities and shelters across the country between September 1, 2018, and August 22, 2019. Among the staff members at these facilities, 33 additional cases were reported. Complications were reported in 527 patients, and hospitalizations occurred in 13 patients.

2019 WISCONSIN OUTBREAK IN ICE FACILITIES

In Wisconsin, Kenosha County Detention Center and Dodge County Detention Center both house ICE detainees. From May to July 2019, 4 confirmed cases were reported; 3 in ICE detainees and 1 general population inmate at the Kenosha Facility. No complications or hospitalizations occurred in any of the confirmed cases. None of the community members or staff members at the two facilities tested positive for mumps. Approximately 265 ICE detainees, 96 staff members, and 130 general population inmates received the MMR vaccine.



CLINICAL MANIFESTATIONS

Symptoms of mumps include parotitis, fever, muscle aches, tiredness, and loss of appetite. Complications such as orchitis, meningitis, oophoritis, and encephalitis can occur.

DIAGNOSIS AND CONFIRMATION

The incubation period for mumps is 16-18 days (range is 12-25 days) from date of exposure. Parotitis should raise suspicion for mumps, but confirmation of mumps virus should be done in the laboratory by RT- PCR or viral culture from a buccal or oral swab.

OUTBREAK RESPONSE AT DETENTION FACILITIES

Federal ICE has control and surveillance guidelines for mumps. A facility affected in Wisconsin should work in collaboration with state and local health department to contain the outbreak. The Wisconsin Communicable Disease Case Reporting and Investigation Protocol (Epinet) outlines mumps follow-up requirements in Wisconsin.

Rabies Updates and Resources

By: Rachel Klos, State Public Health Veterinarian

RABIES OVERVIEW

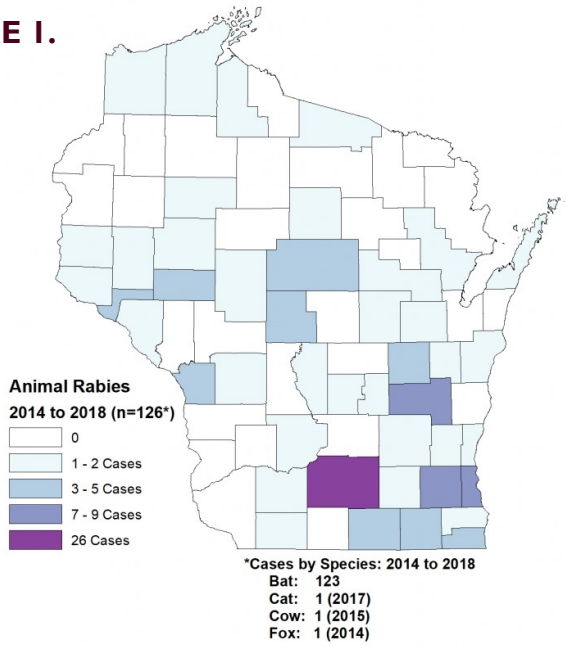
Every day public health officials across the state work closely with human and animal health partners to prevent rabies transmission to people and domestic animals, such as dogs, cats, and livestock.

Rabies is a fatal disease caused by the rabies virus. It can infect all mammals, including humans. Once a person or animal has symptoms of rabies, it can no longer be treated, which is why it is so important that people take steps to prevent the disease if they may have been exposed.

RABIES IN WISCONSIN

During 2014 - 2018, animal rabies cases were detected in 44 of 72 counties in Wisconsin; two domestic animals (1 cat, 1 cow) and 124 wild animals (123 bats, 1 fox) were diagnosed with rabies during that time frame (Figure 1). While bats have been the most common species to test positive for rabies in Wisconsin in the last 5 years, it is important to know that Wisconsin is still home to skunk-variant rabies, and all wild mammals including skunks, raccoons, and foxes are at risk. Additionally, domestic animals like cats, dogs, and livestock are sporadically infected, usually through contact with infected wildlife.

FIGURE 1.



BAT EXPOSURE

Assessing bat exposures can sometimes be difficult. While bites from bats, and all wildlife, are considered a potential rabies exposure, even some non-bite encounters with a bat may be considered an exposure. This is because bites or scratches may have gone unnoticed or unreported. A bat exposure is any of the following:

The Wisconsin State Laboratory of Hygiene tests about 900 animals for rabies each year.

- Any bite from a bat that abrades or punctures the skin
- Any physical contact with a bat where the victim cannot explicitly rule-out contact to skin or mucous membrane by the bat's tooth or claw (even in the absence of a known bite).
- A person waking to find a bat **in the room** where they were sleeping.
- Discovering a bat **in a room** with an unattended infant, young child, or person who cannot reliably report if contact occurred.
- Any non-bite exposure where saliva or other potentially infectious material may have contaminated an open wound, scratch, or mucous membrane. **NOTE: Infectious materials for rabies include saliva, CSF, salivary gland, and other neural tissue. Blood and urine are not infectious for rabies.**

Rabies Updates and Resources

By: Rachel Klos, State Public Health Veterinarian

RABIES PREVENTION

The following are a list of important steps that you can take to help prevent rabies:

- Vaccinate pet dogs, cats, ferrets, and livestock against rabies. Birds, reptiles, and amphibians do NOT become infected with or transmit rabies.
- Do not approach or touch wild animals, especially those acting abnormally.
- Teach children not to approach any unfamiliar animals (domestic or wild).
- Do not keep exotic or wild animals as pets, regardless of how young or cute they appear.
- Exclude bats from living quarters by keeping screens in good repair and by closing any small openings that could allow them to enter.
- Consider pre-exposure rabies vaccination if you are traveling to a countries in which rabies is highly prevalent, or you are at risk of possible on-going rabies exposure (e.g., veterinarians, animal control officers).

RABIES RESOURCES FOR LHDS

DHS Rabies Algorithm: This DHS online algorithm can walk you through decision making for many common bat and bite scenarios.

Bats and Rabies: A Public Health Guide: DATCP tri-fold brochure including information on steps to take if exposed to a bat, what to do if you find a bat in your home, and tips to keep bats our of your home.

Rabies Bites!: DATCP tri-fold brochure on facts about the 10-day quarantine requirement.

DHS RABIES ALGORITHM

Identify the Animal Involved

Identify the Animal Involved

Return to Rabies prevention flowchart introduction

What species of animal is involved?

Dog, cat, or ferret

Bat

Livestock (Cattle, horse, sheep, or pig, goat)

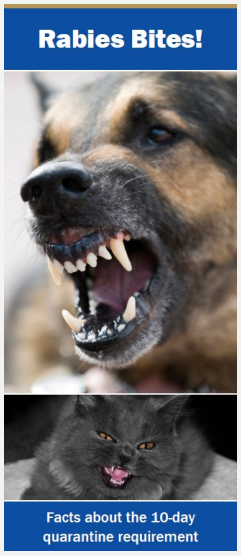
Fox, skunk, weasel, bobcat, raccoon, coyote, opossum, mink or some other wild carnivores

Small rodent (mouse, rat, chipmunk, squirrel, hamster, gerbil, guinea pig) or lagomorph (rabbit, hare)

Large rodent (muskrat-sized or larger) - such as muskrat, beaver, woodchuck (also called groundhog)

BATS AND RABIES: A PUBLIC HEALTH GUIDE

RABIES BITES



Meet Dr. Ryan Westergaard, New Chief Medical Officer

By: Dr. Ryan Westergaard, Chief Medical Officer

The Wisconsin Division of Public Health, Bureau of Communicable Diseases has a new Chief Medical Officer and State Epidemiologist, Dr. Ryan Westergaard. Read on to learn more about his background and what he is looking to accomplish in this role.

HOW DID YOU GET INTERESTED IN PUBLIC HEALTH?

I grew up in Walworth County, Wisconsin, where both my parents worked for local government. My mother worked for the county as a nurse and my dad was a public school teacher. I cannot remember a time growing up when I wanted to be anything other than a doctor, and I believe my parents influenced me to want to work in public service in some capacity.

It was while I was a college student at UW-Madison that I first imagined a career for myself that integrates medicine and public health. I had the opportunity to create an individualized major that allowed me to take all kinds of courses in the social sciences, the history of medicine, and philosophy, and studying these topics led me toward the idea of becoming a "public health doctor," even if I didn't fully understand what that might eventually look like at the time.

HOW DID YOU BECOME INTERESTED IN INFECTIOUS DISEASES, SPECIFICALLY?

HIV/AIDS is really an ideal example of a "socially transmitted disease." All throughout the epidemic, patterns of HIV incidence and prevalence have been shaped by complicated social factors. As HIV treatment became available in the U.S., health disparities by race, income, and geography have become more and more pronounced. People who get AIDS in 2019 are people who either do not have sufficient access to prevention services, or whose lives are complicated by a host of challenges such as addiction, unstable housing, and poverty. Large scale societal problems such as structural racism and homophobia continue to pose barriers to HIV elimination. Tackling important social problems in the service of reducing the burden of preventable infections has always struck me as a challenge worthy of dedicating one's career to, so that's what I have tried to do.

WHAT IS THE FOCUS OF YOUR RESEARCH WITH HEPATITIS C AND HIV?

Our team focuses our research and interventions on preventing diseases among people who are falling through the cracks of our health care system and social safety net. In 2019, the most acute example of this is the large number of people who inject drugs and are at risk of dying from overdoses as well as infections such as HIV and hepatitis C. Our largest current project is working with communities of people who inject drugs in a number of rural Wisconsin communities. We are trying to ensure that everyone has access to a full range of prevention and treatment services, including traditional harm reduction services like clean needle exchange, training people to prevent opioid overdose with naloxone, and linking people to care for treatment of hepatitis C.

Our results so far are staggering. More than a third of people in our study already have hepatitis C, most did not know about it before they joined the study, and very few people know how to access treatment. We are learning that a great deal of work needs to be done to improve the health of people living with addiction in Wisconsin.

Meet Dr. Ryan Westergaard, New Chief Medical Officer

By: Ryan Westergaard, Chief Medical Officer

WHAT EXPERIENCES INFLUENCED YOUR PATH TO YOUR CURRENT ROLE?

I did my clinical training in an urban setting in Baltimore where the main driver of HIV infection was heroin injection. When I moved to Wisconsin, the geography changed dramatically, but the issues facing people living with opioid use disorder are unfortunately very similar. The number of people who receive medication assisted treatment for addiction, which is an evidence-based intervention known to reduce mortality, is unacceptably low.

WHAT ARE YOU MOST LOOKING FORWARD TO IN THIS POSITION?

We have a wonderful, experienced, and dedicated team of professionals in the Bureau of Communicable Diseases. I am looking forward to supporting them as much as I can. I'm also really looking forward to building strong relationships with local health departments and other agencies across the state who are working in public health. I am excited to work together to have a positive impact on the health of Wisconsin residents.

WHAT GOALS ARE YOU HOPING TO ACCOMPLISH IN THIS POSITION?

There are so many aspects of communicable disease prevention and control that our state and local health departments already do very well. I am mostly eager to support this work to the best of my ability and help ensure we are ready for the next big infectious disease threat.

The areas that I would most like to help us improve as a state are the areas that require an "all hands on deck" approach by many different partners. Eliminating HIV and hepatitis C as a public health threat can't be done by health departments or health care organizations alone. We need to develop strategies that include all sectors of government and community-based organizations to ensure that no one is left behind.

WHAT ARE SOME ACTIVITIES YOU ENJOY OUTSIDE OF WORK?

I have three extraordinary children who are either blessed or cursed by having two physicians for parents. This means that frank conversations about all sorts of embarrassing topics tend to flow freely around our dinner table. My wife, Mary, is an emergency medicine physician at UW Hospital in Madison. When we're not lecturing our kids about behavioral strategies to prevent communicable diseases or traumatic injuries, we love to go camping and canoeing as a family.

CONTACT INFORMATION

You can reach Dr. Westergaard at:

Email: ryan.westergaard@dhs.wisconsin.gov

Phone: 608-267-9006

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.

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

Disease	2018 Case Counts	2019 Case Counts				
	Total	Q1	Q2	Q3	Q4	2019 YTD
Enteric/Gastrointestinal (also includes suspect cases)						
Campylobacteriosis	1,705	307	399	519		1,225
Cryptosporidiosis	862	113	136	354		603
Cyclosporiasis	319	3	57	48		108
E. coli, Shiga toxin-producing (STEC)	565	79	130	203		412
Giardiasis	675	92	95	291		478
Hemolytic uremic syndrome	8	0	2	1		3
Listeriosis	20	3	3	9		15
Salmonellosis	1,039	138	264	299		701
Shigellosis	129	21	30	44		95
Typhoid fever	5	1	2	0		3
Vibriosis (non-cholera)	31	10	8	15		33
Yersiniosis	84	14	27	18		59
Invasive Bacteria						
Group A Streptococcal disease	265	64	77	47		188
Group B Streptococcal disease	624	127	173	195		495
Mycotic						
Blastomycosis	110	16	25	21		62
Coccidioidomycosis	26	4	3	5		12
Histoplasmosis	22	2	9	6		17
Respiratory						
*Please refer to the Weekly Respiratory Virus Surveillance Report						
Influenza-associated hospitalizations	6,243	2,523	749	21		3,293
Influenza, novel	0	0	0	0		0
Legionellosis	331	34	35	117		186
Tuberculosis (TB)	49	9	12	14		35
Latent TB infection	*	259	262	205		729
Sexually Transmitted						
Chlamydia trachomatis	28,225	7,237	6,980	7,611		21,828
Gonorrhea	7,925	1,928	1,973	2,472		6,373
HIV	215	50	51	59		160
Syphilis (all stages)	510	154	136	162		452
Vaccine Preventable						
Diphtheria	0	0	0	0		0
Haemophilus influenza, invasive disease	117	31	18	20		69
Hepatitis B, acute (confirmed cases only)	14	4	0	1		5
Hepatitis B, perinatal	0	0	0	0		0

Communicable Disease Case Counts (cont.)

Disease	2018 Case Counts	2019 Case Counts				
	Total	Q1	Q2	Q3	Q4	2019 YTD
Vaccine Preventable (continued)						
Measles (rubeola)	0	0	0	0		0
Meningococcal disease	10	1	1	2		4
Mumps	28	7	8	6		21
Pertussis (whooping cough)	697	107	91	122		220
Poliomyelitis	0	0	0	0		0
Rubella	0	0	0	0		0
Streptococcus pneumoniae, invasive disease	518	127	145	64		336
Tetanus	2	0	0	0		0
Varicella (chickenpox)	300	71	84	91		246
Vectorborne						
Babesiosis	64	2	14	34		50
Ehrlichiosis/Anaplasmosis	517	14	154	174		342
Jamestown Canyon virus infection	22	0	3	12		15
La Crosse virus infection	0	0	0	2		2
Lyme disease	1,883	72	579	1,169		1,820
Malaria[1]	16	3	2	7		12
Powassan virus infection	3	0	2	3		5
Rocky Mountain spotted fever	29	1	4	6		11
West Nile virus infection	33	0	0	2		2
Yellow fever[1]	0	0	0	0		0
Zika virus infection[1, 2]	0	0	0	0		0
Zoonotic						
Brucellosis	3	0	0	0		0
Hantavirus infection	0	0	0	0		0
Leptospirosis	8	1	0	2		3
Psittacosis	0	0	0	0		0
Q Fever (acute)	6	0	2	0		2
Q Fever (chronic)	0	1	0	0		1
Rabies (human)	0	0	0	0		0
Toxoplasmosis	7	5	0	10		15
Tularemia	1	0	1	1		2
Other						
CP-CRE	*	8	5	13		26
Hepatitis A	15	4	5	6		15
Hepatitis C, acute	142	35	30	21		86
Hepatitis E, acute	0	0	1	3		4
Kawasaki disease	23	3	2	1		6
Lymphocytic choriomeningitis virus infection	0	0	0	0		0
Transmissible spongiform encephalopathy (human)	2	0	1	3		4

[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.
*Denotes conditions which became reportable during 2018, where 2019 is the first full surveillance year.