

The Pump Handle



"I had an interview with the Board of Guardians of St. James's parish, on the evening of Thursday, 7th September, and represented the above circumstances to them. In consequence of what I said, the handle of the pump was removed on the following day."

John Snow, 1855

June 2014 Topics

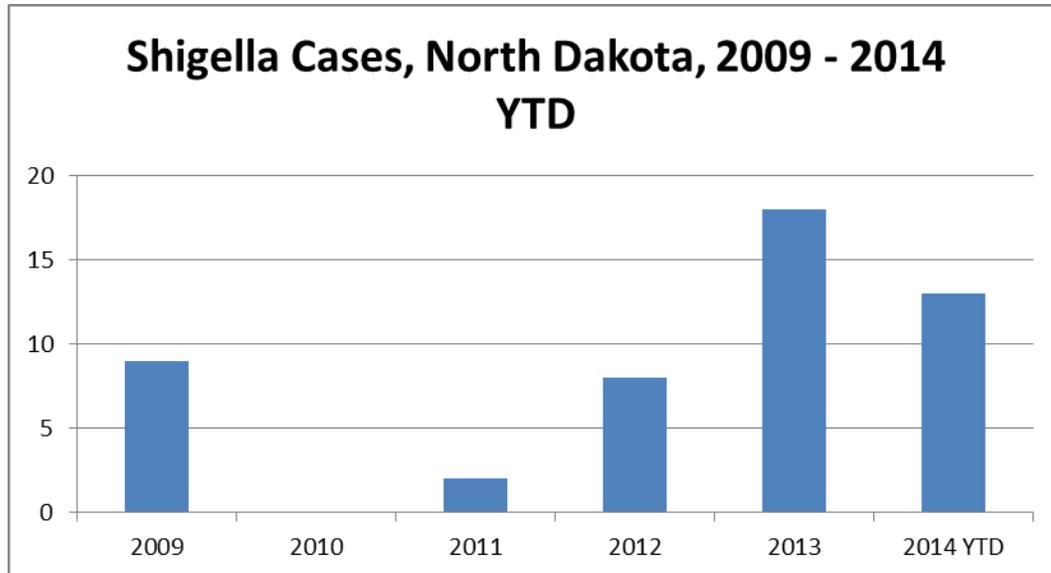
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Increase in Shigellosis Cases

As of July 18, 2014, 13 cases of Shigellosis have been reported to the NDDoH. Eighteen cases were reported in 2013. These numbers demonstrate an increase in reported Shigella cases in the past few years (**Chart 1**). Shigellosis is an infectious disease with symptoms including diarrhea, fever and stomach cramps. The diarrhea is often bloody. The bacterium that causes Shigellosis, *Shigella* or most often *Shigella sonnei*, can be found in the feces of infected people. It may be spread by eating/drinking contaminated food or water or by direct/indirect contact with fecal material from an infected person. Humans are the only known hosts. It is important to follow good hand washing procedures if you have diarrhea to prevent the spread of infection to others.

Chart 1



Arbovirus Update

West Nile virus (WNV) is a common arbovirus in North Dakota. Arboviruses are a group of viruses that are transmitted by arthropod vectors, such as mosquitoes. As of July 18, 2014, there have been no human cases of West Nile virus reported to the NDDoH. On July 8, 2014, the Grand Forks Mosquito Control program did identify a WNV positive mosquito pool. This has been the first indication that WNV transmission is occurring in North Dakota. North Dakota typically sees a peak in human WNV cases at the end of July or early August.

Another Arbovirus that has been making headlines is chikungunya. The first chikungunya case acquired in the United States was reported in Florida on July 17, 2014. The case was in a male who had not recently traveled outside of the U.S. Since 2006, the U.S. has averaged 28 imported cases of chikungunya per year in travelers returning from countries where the virus is common. The virus was first recognized in the Western Hemisphere seven months ago, with Puerto Rico and the U.S. Virgin Islands reporting 123 cases of locally acquired chikungunya.

The mosquitoes that transmit chikungunya, *Aedes aegypti* and *Aedes albopictus*, are not found in North Dakota. However, it is not well known if other *Aedes* species could potentially transmit the disease. People infected with chikungunya virus typically develop fever and joint pain. Other symptoms can include muscle aches, headaches, joint swelling or rash. Infection with chikungunya virus is rarely fatal, but the joint pain can often be severe and debilitating. If you have recently traveled to an area with chikungunya activity and are experiencing these symptoms, it is important to seek medical care. To determine what countries and territories have reported chikungunya cases, visit www.cdc.gov/chikungunya/geo/index.html.



Tickborne Disease Update

As of July 18, 2014, the NDDoH has received two reports of Lyme disease, two anaplasma cases and one ehrlichia case. These diseases are transmitted to humans by the bite of an infected deer tick (*Ixodes scapularis*). The majority of our Lyme disease, anaplasma and ehrlichia cases report travel to Minnesota, where deer ticks are found, in the past few weeks prior to their symptom onset. However, deer ticks have also been identified in eastern counties in North Dakota. To prevent tick bites, avoid wooded and brushy areas with high grass and leaf litter, use repellents that contain 20 to 30 percent DEET on exposed skin and clothing, and perform tick checks after coming indoors. The most common symptoms of tick-related illnesses are fever and chills, aches and pains, and sometimes a rash. It is important to see a health care provider if you have been bitten by a tick and experience any of these symptoms.

For more information on tickborne diseases, please visit

www.ndhealth.gov/disease/Tickborne .



Rare Tularemia Cluster in North Dakota

On June 10, 2014, the NDDoH was notified that four individuals from Benson County were recently hospitalized with an unknown respiratory illness. These individuals worked together for two days at the end of May and started experiencing symptoms a few days later. A public health investigation was launched to determine the etiologic agent causing infection, the types of activities that took place and if there were other individuals similarly sick within the community. No additional cases were reported except a suspect fifth case that took part in some of the activities on one of the two days. The fifth case did not develop respiratory illness similar to the original four cases so it is unclear if this individual's symptoms are related to the outbreak cluster.

Laboratory testing was performed for a variety of bacterial, viral and mycotic pathogens. As of July 18, 2014, two of the five cases have been confirmed tularemia infections. Confirmatory testing for the other three individuals is currently ongoing. Over the course of the outbreak investigation, the NDDoH has been working to determine a likely source exposure for these infections.

People can become infected through bites from infected ticks or deer flies; handling infected animals; inhaling contaminated dust or aerosols; or ingesting insufficiently cooked infected meat or contaminated water. The signs and symptoms of tularemia include fever accompanied by varying symptoms depending on the route of entry into the body. These symptoms can include ulcers on the skin or mouth, swollen and painful lymph glands, swollen and painful eyes, and a sore throat. Pneumonia can also develop, which is the most serious form of the disease. This form develops when people breathe in dust or aerosols that contain the bacteria which causes tularemia.

For more information about tularemia, visit the NDDoH website at

www.ndhealth.gov/disease/Tickborne.



Measles Cases Continue to Rise

The number of measles cases continues to increase in the United States. From January 1 through July 11^t there have been 566 confirmed measles cases from 20 states, the most documented cases nationally since 2000. The majority of these cases are either

unvaccinated or have an unknown vaccination status. Several cases have required hospitalization. Measles is a virus that causes rash, cough, runny nose, eye irritation and fever. It can lead to ear infection, pneumonia, seizures, brain damage and death. North Dakota health-care providers should maintain a high awareness for measles among febrile patients with rash. For more information, please see the measles health advisory at www.ndhan.gov/health.

All children are recommended to be vaccinated against measles at ages 12 to 15 months and 4 to 6 years. Measles is included in a combination vaccine with mumps and rubella (known as MMR vaccine). All adults born in 1957 or later should have at least one dose of MMR vaccine. All health-care workers should have two doses of MMR vaccine. Additionally, infants between the ages of 6 months and 12 months who are planning international travel to high-risk areas are recommended to receive a dose of MMR vaccine.



HIV/STD/TB/Hepatitis Symposium and Disease 101 Workshop: September 16-18, 2014

The 2014 HIV/STD/TB/Hepatitis Symposium will be held Sept. 17 and 18, 2014, at the Radisson Inn, 605 E. Broadway Ave., in Bismarck. A pre-conference “Disease 101” workshop will be held at the Radisson on Sept. 16, 2014.

The symposium will include both plenary and breakout sessions, and the following topics will be presented:

- HIV/STDs/TB/Viral Hepatitis in North Dakota
- Best Practices and Integration of Services
- Tuberculosis Outbreak in Grand Forks
- Effective Partner Services
- Affordable Care Act
- Tuberculosis and Diabetes
- Hepatitis C Outbreak in Ward County
- *Mycobacterium bovis*
- Syphilis Diagnosis and Treatment
- Risk Behaviors for Youth

The audience for the symposium includes all health-care and substance abuse professionals who provide services to individuals with HIV, sexually transmitted diseases, tuberculosis or viral hepatitis. The symposium will provide an opportunity to receive education and resources to improve the capacity to provide these services.

Prior to the symposium, there will be a hepatitis C training workshop on Sept. 16, 2014, at the Radisson Inn in Bismarck. This training is targeted to new health educators, HIV/STD counselors and testers, medical providers, substance abuse counselors, case managers, support group leaders, patients and other health professionals who will provide education, support and advocacy for people and populations affected by hepatitis C.

The topics presented at the “Disease 101” workshop will include:

- Symptoms, transmission, screening, diagnosis, treatment and prevention of:
 - TB, HIV, chlamydia, gonorrhea, syphilis and hepatitis C
- Fundamentals of Counseling
 - Client-Centered Counseling, Risk Assessments & Open Ended Questioning
- Rapid HIV & HIV test training

Continuing education credits are being requested for the HIV/STD/TB/Hepatitis Symposium and the “Disease 101” workshop from the North Dakota Board of Nursing, North Dakota Board of Addiction Counseling Examiners and the North Dakota Board of Social Workers. The registration form, conference flyer and nomination form for awards of excellence can be found at www.ndhealth.gov/HIV/Symposium.htm. The registration deadline is Sept. 1, 2014.

For more information, please contact the North Dakota Department of Health at 701.328.2378 or 800.472.2180.



Disease Control New Employee!

Name: Twila Singh

Title: Fargo Field Epidemiologist

Education Background: Undergraduate degree in Biological Anthropology from the University of Oregon in 2009; Masters of Public Health from North Dakota State University in 2014.

Past Experience: I worked for the U.S. Peace Corps in Malawi for two years, and participated in health-related research projects across the Midwest during graduate studies. Prior to this position, I was working in alcohol and drug abuse prevention programming, and the NDSU Athletic Department.

Family/Hobbies: Married to an awesome (albeit crazy) Punjabi, and we’re expecting our first baby in about a month (he’ll probably be crazy as well).



Terry Dwelle, MD, MPHTM, State Health Officer
 Kirby Kruger, Director, Division of Disease Control; Chief Medical Services Section
 Tracy K. Miller, MPH, State Epidemiologist