

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

September 2013 Topics

- West Nile Virus Update
- Norovirus Illness Associated with a Wedding Reception
- Influenza Update
- Hepatitis C Outbreak Investigation in Ward County
- HIV/STD/TB/Hepatitis Programs New Education Opportunity



West Nile Virus Update

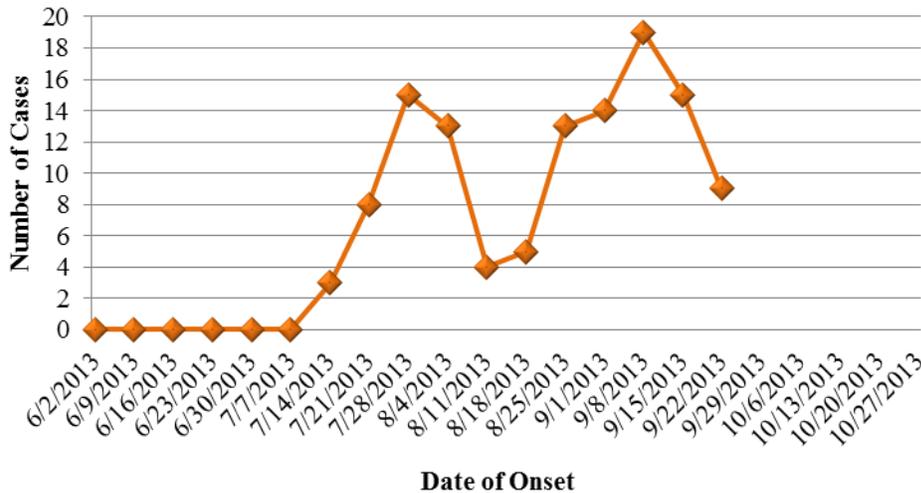
As of October 29, 2013, 120 human West Nile virus (WNV) infections from 25 counties have been reported to the North Dakota Department of Health (NDDoH). Of these WNV infections, 57 (48%) were neuroinvasive cases. North Dakota has one of the highest incidences of neuroinvasive disease in the United States, with 8.5 cases per every 100,000 people. There have been two WNV-related deaths reported. The first week in September is when North Dakota reached its peak of cases, with 19 cases reported to the NDDoH that week (**Figure 1**).

Nationwide there have been 2,059 human WNV infections from 46 states as of October 29, 2013. Of these, 1,015 (49) were classified as neuroinvasive disease. There have been 83 deaths reported to the Centers for Disease Control and Prevention (CDC).

In addition to the 120 human cases in North Dakota, nine birds, one horse, two cows and one dog from six counties have also tested positive for WNV.

Check the North Dakota WNV website at the end of the year for a final 2013 North Dakota WNV report at www.ndhealth.gov/WNV.

Figure 1. WNV Cases by Date of Onset, North Dakota, 2013.



Norovirus Illness Associated with a Wedding Reception

On October 14, 2013, the North Dakota Department of Health (NDDoH) received a complaint of gastrointestinal illness associated with eating at a wedding reception on October 12, 2013, in Burleigh County.

The NDDoH interviewed 175 guests by phone using a standardized questionnaire. Of the 175 interviewed, 62 (35%) became ill after eating at the wedding reception. The most commonly reported symptoms were diarrhea (90%), nausea (89%), stomach cramps (77%), vomiting (75%) and chills (66%). The onsets of illness were reported to be from seven to 48 hours (median 29 hours) after the wedding reception meal and the duration of illness ranged from 11 to 78 hours (median 36.5 hours).

Four stool specimens were sent to the NDDoH Division of Laboratory Services. All four samples tested positive for Norovirus Group 2 by PCR.

The wedding was held at a hotel and the food was catered by that same hotel, along with some outside food items that were offered to the guests. An environmental assessment of the hotel’s meal preparation practices did not reveal any deficiencies. The food vehicle in this outbreak was unable to be determined.

Norovirus is one of the most common causes of gastrointestinal illness outbreaks. It is often spread by eating or drinking contaminated food or water, but also can be spread from person to person. Proper food handling, strict hand washing after using the bathroom, and allowing sick employees who handle food to stay home when they are ill are simple measures that can be taken to prevent norovirus outbreaks.

If you would like to report a foodborne illness or have questions about foodborne illness, please contact the NDDoH at 800.472.2180 or 701.328.2378.



Influenza Update

The 2013-2014 influenza season in North Dakota has begun. As of October 19, five cases of influenza have been reported: three cases of influenza A and two cases of influenza B. This sporadic activity is normal for the first few weeks of the season. NDDoH also collects sentinel site information on school absenteeism, the influenza-like illness being seen in medical offices, and influenza testing data being seen in laboratories. This information is gathered from select locations across the state to help characterize influenza activity. Current information from these sources is consistent with the low, early season activity we are seeing.

These early days of flu season are a great time to get vaccinated against seasonal influenza. The vaccine can take up to two weeks to provide full protection against the flu, so vaccination earlier in the season provides the best protection. However, vaccination later in the season can still be effective, so even if you cannot get to a doctor, pharmacist, or local flu clinic in the next few weeks, vaccination is still encouraged. Seasons vary in timing, but it is not unusual for cases to continue through May.

The NDDoH influenza site is updated weekly on Fridays with the latest influenza data. For more information about influenza, the surveillance program, local flu shot clinics, or to order free educational materials, visit the NDDoH influenza website at www.ndflu.com.



Hepatitis C Outbreak Investigation in Ward County

The North Dakota Department of Health (NDDoH) is investigating a cluster of Hepatitis C virus (HCV) cases in Ward County. As of November 12, 2013, there have been 35 cases identified in this outbreak. Laboratory analyses indicate that the virus from the 35 cases is genetically-linked, suggesting a common source of infection.

At the start of this investigation, three acute cases were diagnosed within a few months in the first quarter of 2013 within the same geographic area. Reporting of clusters of acute HCV cases is unusual in North Dakota. The outbreak investigation seeks to ascertain whether a connection exists among these cases. At this time, a source has yet to be identified.

Health officials are currently working in conjunction with community health-care partners to identify how these cases may have been exposed and whether there is a common source. Any possible associations among identified cases will be evaluated. Individuals who may have exposures or events in common with identified cases may also be screened for hepatitis C.

Hepatitis C is a viral infection of the liver caused by the hepatitis C virus. Hepatitis C can lead to lifelong infection and can cause serious liver damage (e.g., cirrhosis or liver cancer) and death. About 80 percent of individuals infected with HCV have mild or no symptoms initially. Symptoms may include fatigue, loss of appetite, nausea, abdominal discomfort, vomiting, dark urine or jaundice. Some people recover fully, but 55 percent to 85 percent of infected individuals develop chronic infection.

Hepatitis C is spread primarily through direct exposure to blood or blood products from an infected person. Risk factors include:

- Current or past injection drug users.
- Recipients of blood and/or solid organs before 1992.
- Recipients of clotting factors (products given to help blood clot) made before 1987.
- Hemodialysis patients.
- Infants born to infected mothers.

As the investigation progresses, the NDDoH will release updates through media outlets and through the following website: www.ndhealth.gov/Disease/Hepatitis/HCVOutbreak2013.htm.

For more HCV information, please visit the NDDoH viral hepatitis website at www.ndhealth.gov/disease/Hepatitis/. Additional HCV information is also available from the Centers for Disease Control and Prevention (CDC) at <http://www.cdc.gov/hepatitis/c/>.



HIV/STD/TB/Hepatitis Programs New Education Opportunity

The HIV/STD/TB/Hepatitis Program in the Division of Disease Control is starting a series of Lunch and Learn Webinars for health-care professionals. Each month will be a new topic and will be held from 12:00 p.m. to 1:00 p.m. CST on the fourth Wednesday of the month. Nursing education credits will be available for these presentations. Registration and schedule of topics are available at: www.ndhealth.gov/disease/Hepatitis/EducationTraining.htm. The schedule of topics will be updated as they become available. These presentations will also be archived and available on this website.

The first presentation is November 27, 2013, at 12:00 p.m. and is entitled “2013 HIV Surveillance and Testing Data in North Dakota.” This presentation will highlight current national and statewide trends being seen in HIV testing and morbidity. Participants will be able to identify 1) target populations in North Dakota where HIV incidence is increasing, 2) areas within the state where HIV testing presents challenges, 3) successes of outreach within communities, and 4) populations at risk for HIV in North Dakota.

To receive e-mails regarding upcoming Lunch and Learn presentations, please contact Sarah Weninger at sweninger@nd.gov.

For more questions on these new monthly educational presentations, please contact Shannon Jahner at 701.328.1059.

Contributing authors of The Pump Handle include Alicia Lepp, Jill Baber, Sarah Weninger, Tracy Miller and Kirby Kruger. For questions, suggestions or inquiries, or to be removed from the mailing list, please contact Sarah Weninger of the Division of Disease Control, at 701.328.2366 or by e-mail at sweninger@nd.gov.

The pump handle picture in the title was obtained from the website www.ph.ucla.edu/epi/snow.html.



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