"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

November 2013 Topics
- *Haemophilus influenzae* Type B
- Acute Viral Gastroenteritis Activity Update
- November Influenza Update
- Disease Control New Employee!

*Haemophilus influenzae* Type B

The North Dakota Department of Health (NDDoH) has confirmed a case of invasive *Haemophilus influenzae*, type b (Hib) disease in an unvaccinated child. This is only the second case of Hib disease in a pediatric patient reported in North Dakota since 1991. The last case was reported in 2011. Prior to the availability of Hib vaccine, Hib was one of the most common causes of meningitis and invasive infections in young children.

Symptoms of Hib depend on the part of the body affected. Fever is present in all forms of Hib disease. Meningitis can cause stiff neck, headache and vomiting. Pneumonia may cause a cough that produces mucus and rapid breathing, and patients with epiglottitis usually have noisy breathing and a very sore throat. Swelling and purple-red discoloration of the skin is a symptom of cellulitis.

North Dakota providers should take steps to prevent Hib disease by vaccinating children according to the recommended immunization schedule. According to the 2012 National Immunization Survey (NIS), only 82.1 percent of North Dakota children age 19 to 35 months were fully vaccinated against Hib. Hib conjugate vaccine should be given to all children between 2 months and 5 years of age. Depending on the type of vaccine, children should receive three doses at 2, 4 and 6 months of age or two doses at 2 and 4
months of age. A booster dose should be given at 12 to 15 months of age, regardless of what type of Hib vaccine they previously received. Some older children and adults who are at high risk for complications also are recommended to receive this vaccine. Thirty cases of invasive Hib disease in children younger than 5 were reported in the United States in 2012, and 17 cases have been reported so far in 2013. Hib disease is still a threat and this case underlines the importance of vaccination. Vaccination not only protects the individual being vaccinated, but also those who cannot be vaccinated or are too young to receive the vaccine.

Suspected and confirmed cases of Hib should be reported to the NDDoH immediately. For more information, please contact the NDDoH Immunization Program at 701.328.2378 or toll-free at 800.472.2180.

**Acute Viral Gastroenteritis Activity Update**

As of December 20, 2013, the North Dakota Department of Health has received reports of three viral gastroenteritis outbreaks in long-term care facilities since the beginning of the season, which is considered to be August 1. These outbreaks resulted in a total of 41 residents and 38 staff ill with vomiting and diarrhea.

The North Dakota Department of Health requests that long-term and basic care facilities report outbreaks of gastrointestinal illness which include two or more cases of vomiting and/or diarrhea that occur within 48 to 72 hours of each other and in residents/staff that are in close proximity to each other. To report gastrointestinal illness outbreaks to the North Dakota Department of Health, please visit [www.ndhealth.gov/disease/Gastroenteritis/Gastroenteritis](http://www.ndhealth.gov/disease/Gastroenteritis/Gastroenteritis).

Outbreaks of gastroenteritis most often occur in the winter and early spring. Norovirus is the most common cause of viral gastroenteritis, which is commonly called “stomach flu.” Norovirus is not related to the influenza virus that causes respiratory infections. Symptoms of norovirus infection typically include diarrhea, vomiting, nausea and stomach cramping. Norovirus illness is usually brief in people who are otherwise healthy. Young children, the elderly and people with other medical illnesses are most at risk for more severe and prolonged infection.

Norovirus can spread quickly from person to person in crowded, closed places like long-term care facilities. In a health-care facility, patients with suspected norovirus may be placed in private rooms or share rooms with other patients with the same infection. Additional prevention measures in health-care facilities can decrease the chance of coming in contact with noroviruses:

- Follow hand-hygiene guidelines and carefully washing of hands with soap and water after contact with patients with norovirus infection.
- Use gowns and gloves when in contact with patients who are symptomatic with norovirus.
- Routinely clean and disinfect high touch patient surfaces and equipment with an Environmental Protection Agency (EPA) approved product with a label claim for norovirus.
- Remove and wash contaminated clothing or linens.
- Health-care workers who have symptoms consistent with norovirus should be excluded from work.

For more information on norovirus in health-care settings, please visit www.cdc.gov/HAI/organisms/norovirus.

**November Influenza Update**

Influenza activity is beginning to increase across North Dakota as the 2013-2014 influenza season continues. As of December 14th, there have been 88 lab-confirmed cases of influenza reported to NDDoH. Of these cases, 71 have been influenza type A and five have been influenza type B. Seventeen of the 71 influenza A cases underwent additional laboratory testing: 16 were found to be the 2009 H1N1 pandemic strain, and one strain was found to be H3N2. The 2009 H1N1 pandemic strain of influenza continues to be the predominant strain across the United States this flu season. This is a change from last year, when a majority of influenza A cases tested were H3N2.

It is still not too late to get vaccinated against Influenza. Vaccination is recommended as long as influenza continues to circulate. Influenza vaccination can take up to two weeks to provide full protection against infection, so as cases begin to be reported, vaccination is increasingly important for those who have yet received a vaccination this year. During the holiday season, travel and social interactions become more frequent. In addition to vaccination, frequent hand washing and staying home when you are sick are also important means of reducing spread of influenza virus this time of year.

The NDDoH influenza site is updated weekly on Thursday 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.

**Disease Control New Employee!**

**Name:** Deanna Solhjem  
**Title:** Bismarck Field Epidemiologist  
**Education Background:** M.S. Biology and B.S. Fisheries and Wildlife Biology from UND  
**Past Experience:** I’ve done field research for the U.S. Army Corps of Engineers, North Dakota Game and Fish Department, and Ducks Unlimited; I worked as a Naturalist for the Kansas Department of Wildlife, Parks and Tourism where I did wildlife care and rehabilitation and taught school and adult groups about wildlife and conservation using live animals.  
**Family/Hobbies:** My husband, Thad, and I have been married for 9 years. He is Active Duty Army and is currently deployed to Afghanistan with 4th Brigade Combat Team, 101st Airborne Division out of Ft. Campbell, KY. We have two dogs with which I love spending time. I also like to read, try new craft projects I find on Pinterest, and go on road trips or go camping with my husband.
Contributing authors of The Pump Handle include Alicia Lepp, Jill Baber, Deanna Solhjem, 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.

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