



# The Pump Handle

**September 2019**

**"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

## **Topics**

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## **Legionnaires' Disease**

The North Dakota Department of Health (NDDoH) has investigated multiple laboratory confirmed cases of Legionellosis over the last month, with four new cases of *Legionella* in Cass, Burleigh, and Ward counties. In 2018, 10 cases of Legionellosis were reported to the NDDoH.

In addition, the NDDoH received notice that two non-residents had possible environmental exposure in North Dakota. Among other possible exposures, these individuals had exposures at a single healthcare facility.

Legionellosis is a bacterial disease caused by *Legionella pneumophila* that can range from mild respiratory illness to severe pneumonia. Most cases occur as single isolated events, and outbreaks are relatively rare. There are three distinct forms of the disease: "Legionnaires' disease", "Pontiac fever", and, "extrapulmonary legionellosis." The early symptoms of legionellosis are muscle aches, headache, tiredness, loss of appetite and dry cough followed by

high fever (102°F to 105°F), chills and occasionally diarrhea. Medical providers should consider the diagnosis of Legionnaires' disease in patients presenting with clinical features of pneumonia, fever and cough. Symptoms usually begin 2–10 days after exposure. Testing for legionellosis should be considered in patients who:

- Have failed outpatient antibiotic therapy
- Have severe pneumonia, particularly those requiring intensive care
- Are immunocompromised
- Traveled away from home within two weeks prior to the onset of illness
- Are suspected of having healthcare-associated pneumonia

Several testing options are available for the detection of infections due to *Legionella pneumophila*. Both urine antigen assay and culture of respiratory secretions on selective media are the preferred diagnostic tests for Legionnaires' disease.

People can get Legionnaires' disease when they breathe in a mist or small droplets of water in the air that contains the bacteria. The bacteria grow best in warm water, like the kind found in hot tubs, cooling towers, hot water tanks, parts of the air-conditioning systems, and the water distribution systems of large buildings provide ideal conditions for the proliferation of the bacteria. Household exposures to humidifiers or CPAP machines have also been associated with infection. Person-to-person spread does not occur. Outbreaks occur following the exposure of many individuals to a common source of the bacteria in the environment, such as places like hotels, hospitals, and other large buildings, when the water supply becomes contaminated.



### **Influenza Season and ILINet Provider Recruitment**

As fall approaches, so does the start of the 2019-2020 influenza season. Each year, the NDDoH, in conjunction with the Centers for Disease Control and Prevention (CDC), host a program known as the Influenza-Like Illness Surveillance Network, or ILINet. As part of this program, providers from around the state will send information to Disease Control staff regarding the number of patients that were seen each week for influenza-like illness. This information is used to help estimate the total burden of influenza on the health care system in the state. These providers are also encouraged to send samples to the NDDoH DM for free typing/sampling.

The NDDoH Division of Disease Control is recruiting new providers for the upcoming influenza season. For providers who are interested in participating in this program, or would like more information, please contact Levi Schlosser, NDDoH Division of Disease Control at 701.328.3341 or visit [www.ndflu.com](http://www.ndflu.com).



### **Primary Syphilis on the Rise**

The NDDoH is seeing an increase in the number of reported cases of primary syphilis, showing that active transmission is occurring across the state. There have been seven reported cases of primary syphilis in July and August, which is equal to the total number of reports from January to June. Primary syphilis is the first stage of the infection and is highly infectious. It typically presents with a painless lesion, also known as a chancre, and occurs at the anatomical site in which the bacterium enters the body. However, in some instances the chancre cannot be seen. Risk factors for these infections have been men who have sex with men, injection drug use and/or having anonymous sexual partners.

In order to stop the transmission of syphilis, those infected and all their sexual partners need to be treated. The treatment for primary syphilis is 2.4 million units benzathine penicillin G IM. Persons who have had sexual contact with an infected person within 90 days of an early syphilis diagnosis should be tested and treated presumptively with 2.4 million units benzathine penicillin G IM. For treatment guidelines and clinical management of syphilis, please refer to the [STD Treatment Guidelines](#). For any questions, please contact the NDDoH STD program at 701.328.2378 or 800.472.2180.



### **MMWR Weekly Publication**

The *Morbidity and Mortality Weekly Report* (MMWR) is a series prepared by the CDC. The MMWR is CDC's primary vehicle for scientific publication of timely, reliable, accurate, objective, and useful public health information and recommendations. MMWR electronic subscriptions are **free** and sent to your email each week. To subscribe, visit [www.cdc.gov/mmwr/mmwrsubscribe.html](http://www.cdc.gov/mmwr/mmwrsubscribe.html).



### **New Disease Control Employees**

**Name:** Carmen Cardenas

**Title:** NDIIS Data Quality Coordinator

**Education Background:** I received my undergraduate in Public Health from the University of Texas at San Antonio, and my Masters in Public Health from the University of Texas Health Science Center at Houston.

**Past Experience:** I have worked primarily in clinical research since the start of my undergraduate degree. I recently moved from Texas (first time out of the Lone Star State!) – eager to begin my new journey with Disease Control.

**Family/Hobbies:** I'm here with my soon to be husband. We enjoy traveling the world! Some fun places we've been to include: Australia, Bali, Hawaii, Italy, U.K., Germany, France, Netherlands, and numerous small islands across the Caribbean – my favorite being St. Lucia. Also, I dedicate 1hr in the early mornings to working out – I've found the perfect balance to maintaining the physique I want, while also enjoying a happy and healthy lifestyle.

**Name:** Brandy Chap

**Title:** Administrative Assistant – Immunization Program

**Education Background:** I graduated from Oak Hills High School in Cincinnati, and went on to get a technical certificate as a Certified Ophthalmic Technician.

**Past Experience:** For 19 years I worked as an ophthalmic assistant, completing my Certified Ophthalmic Technician certificate in 2014. Most recently, I was the lead technician as well as the education coordinator for the training of all techs at Dakota Eye Institute where I was employed for 12 years (if you ever have an eyeball question, I'm your gal). Right before this position, I also worked in data entry in Vital Records for the NDDoH.

**Family/Hobbies:** I've been married to Matthew for 19 years. He is also employed for the state with the Historical Society. Together we have two teenagers (send help!): Katarina, 17, a ballet dancer and artist, who works at the Former Governor's Mansion, and Keegan, 14, a tennis player, member of Science Olympiad, and drumline member at Legacy High School. My hobbies include driving everyone to their activities, scheduling their activities, and yelling at them to be on time. Not kid related, I am a HUGE gaming nerd, Harry Potter obsessed book lover, karaoke superstar, and fantastic napper. I also watch so much Forensic Files and Dateline that it scares my husband.



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