



# The Pump Handle

November 2018

**"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

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## North Dakota Department of Health Seeing an Increase in Pertussis Cases

The North Dakota Department of Health (NDDoH) is seeing a rise in pertussis cases, mostly in school-aged children in Ward County. So far in 2018, 41 cases have been [reported](#) to the NDDoH. Three of these cases have been reported in Ward County in the last month. The NDDoH is reminding providers to suspect pertussis in patients with prolonged coughs or coughs accompanied by paroxysms, post-tussive vomiting, inspiratory whoop or apnea (in infants younger than 12 months). If pertussis is suspected, the patient should be [treated appropriately](#) and excluded from school and other group activities until five days after the start of effective antimicrobial treatment. Providers should not wait for laboratory results to treat, and suspected pertussis cases must be reported immediately to the NDDoH (701.328.2378).

Pertussis (known as whooping cough) is a contagious disease that lasts for many weeks or months and can cause severe coughing with a “whooping” sound or coughing that leads to vomiting. The disease can be life threatening for infants. Generally, the illness is less severe in those who are vaccinated and may present as just a prolonged cough.

The clinical criteria for pertussis is a cough lasting at least 2 weeks with at least one of the following symptoms:

- Paroxysms (uncontrollable bursts) of coughing,

- Inspiratory whoop,
- Post-tussive vomiting, or
- Apnea (in infants < 12 months)

### **Testing:**

**The NDDoH recommends providers collect a nasopharyngeal swab for polymerase chain reaction (PCR) testing from all persons with suspected pertussis.**

- If possible, the nasopharyngeal swab should be collected within three weeks of cough onset.
- Swabs may be placed in a sterile tube for transport to the laboratory.
- Pertussis testing kits are available at most major medical centers and from the Division of Laboratory Services at the NDDoH (701-328-6272).
- The fee for pertussis testing through the NDDoH is \$60.
- Serological testing for pertussis is not confirmatory and is not recommended.

### **Patient Management:**

**The NDDoH recommends that people suspected of having pertussis be treated and excluded from community activities, including school, extracurricular activities, child care, or work, until five days of antibiotics have been completed. Do not wait for laboratory testing results to treat; report the suspected case to the NDDoH immediately.** If treatment is started early in the course of illness, symptoms may be lessened. Only the antibiotics listed on the [Pertussis Treatment and Chemoprophylaxis Guidelines](#) are effective in treating pertussis. Cases that have been coughing longer than 21 days do not need to be treated with antibiotics.

### **Contacts:**

Patients are most infectious early in the illness, but communicability may persist for three weeks after onset of cough. Antimicrobial therapy decreases communicability and may limit the spread of disease. **All household contacts of confirmed pertussis cases, regardless of symptoms, should be placed on the appropriate antibiotics.** The NDDoH will determine if any other contacts need to receive prophylaxis and will refer them to their primary care provider for evaluation and treatment.

The incubation period for pertussis is usually seven to 10 days, but can range from four to 21 days. Symptomatic contacts to confirmed cases should be treated, reported to the NDDoH, and advised to exclude themselves from all activities until five days after the start of effective antimicrobial treatment or 21 days of cough have passed.

### **Pertussis Immunization:**

Diphtheria, tetanus and acellular pertussis vaccine (DTaP) should be administered routinely to infants at 2, 4, 6 and 15 to 18 months of age. A booster dose of DTaP should be given at 4 to 6 years of age. DTaP vaccine should not be given to children seven years of age and older.

Tetanus, diphtheria and acellular pertussis vaccine (Tdap) should be administered to the following:

- Adolescents at 11 to 12 years of age
- Adolescents who did not receive Tdap at 11 to 12 years of age or for those ages 7 to 10 years who are incompletely vaccinated
- A single dose of Tdap should replace a Td booster (recommended every 10 years) for all adults not previously vaccinated with Tdap, including adults 65 years of age and older.
- Health care workers
- Pregnant women during the third trimester (preferably at 27-32 weeks gestation) regardless of last Tdap or Td
- People in contact with infants (parents, grandparents, caregivers, child care providers, etc.)

Tdap should be administered, regardless of when the last Td was administered.

The NDDoH supplies DTaP, DTaP-containing and Tdap vaccines for all Vaccines For Children (VFC) eligible children (18 and younger and either Medicaid eligible, American Indian, uninsured or underinsured). State-supplied Tdap may be ordered for uninsured and underinsured adults. Please refer to the Immunization Program website at [www.ndhealth.gov/Immunize](http://www.ndhealth.gov/Immunize) for additional information regarding pertussis.

Please contact the NDDoH Division of Disease Control, at 701.328.2378 or toll-free at 800.472.2180 with any questions or concerns regarding this issue.



### **Healthcare Providers Urged to Maintain a High Awareness for Tuberculosis Especially in Northeastern North Dakota:**

The NDDoH asks health care providers, especially those in Northeastern North Dakota, to maintain a high vigilance for tuberculosis (TB). The NDDoH is currently investigating a person diagnosed with TB disease who is linked to an outbreak first identified in 2010. A second case is pending confirmation but may also be linked to this same outbreak. Since March 2010, 37 people with TB have been reported due to this outbreak. Because TB cases relating to this outbreak continue to occur, it is possible these individuals were not indicated/found for testing during previous investigations in the community. The majority of people associated with this outbreak have been identified in Grand Forks County; however, there are reports from other areas of the state.

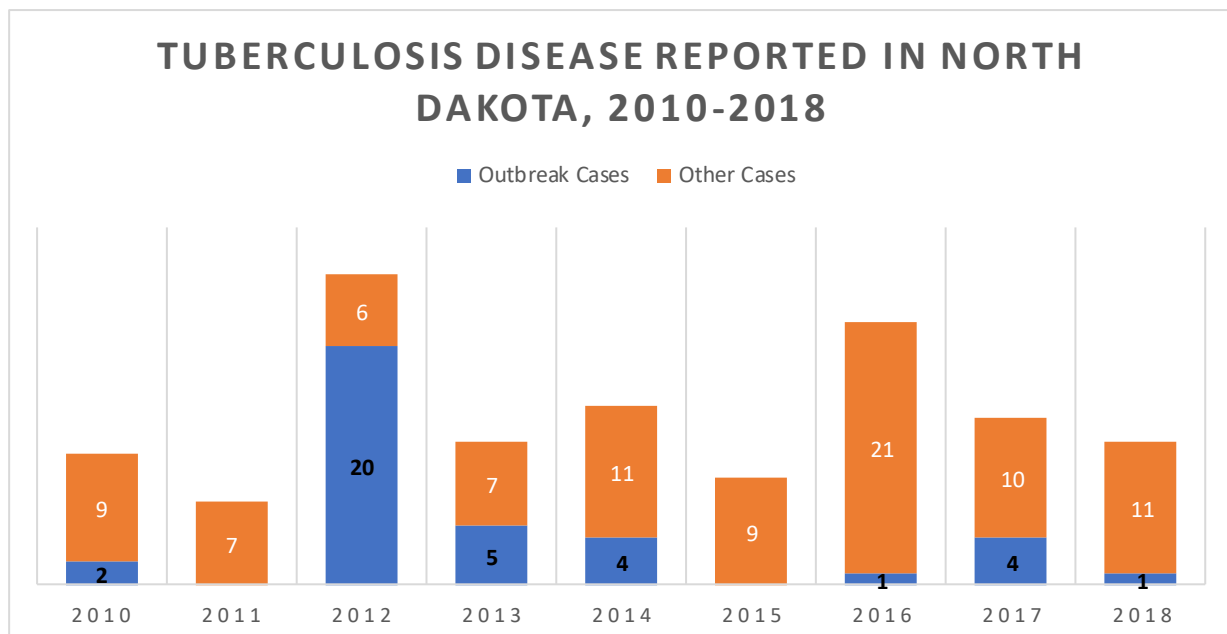
Health care providers throughout North Dakota, but especially in Grand Forks County, are encouraged to suspect TB when evaluating patients presenting with symptoms suggestive of TB, as it is often misdiagnosed as pneumonia. TB should be high on the list as a differential diagnosis for people who present with a cough reported to have lasted more than three weeks, complaints of night sweats, weight loss, hemoptysis, fever or malaise. These individuals should be evaluated for TB disease. If clinical suspicion is high, isolate the patient within a negative-pressure space

and practice airborne droplet precautions. Perform a chest radiograph to assess for cavitation and infiltrates.

For diagnostic purposes, all persons suspected of having TB disease at any site should have sputum specimens collected for AFB smear and culture, even those without respiratory symptoms. Specimens should be collected 8 to 24 hours apart with at least one being an early morning specimen. Submit these specimens for diagnostic microbiology assessment. The presence of acid-fast bacilli (AFB) by microscopy often indicates tuberculosis disease. However, please reflex the specimens to culture and nucleic acid amplification testing (NAA) to confirm. Testing for antibodies to tuberculosis should occur with an interferon-gamma release assay (IGRA) test over a PPD/TST test in all suspected tuberculosis situations. IGRA offers an advantage in that test results are not dependent on the patient returning for care to get a test result. Please note TST and IGRA testing may be negative in people who have tuberculosis disease. A negative result may be due to recent vaccination, poor immune functions, poor nutrition, accompanying viral infection or steroid therapy.

The NDDoH Division of Microbiology offers tuberculosis testing including AFB smears with quantification, culture and amplified testing along with rifampin resistance on sputum specimens submitted for testing. Testing and specimen collection information along with online supply requests can be found at [www.nd.health.gov/microlab](http://www.nd.health.gov/microlab).

All cases in this outbreak show the same low-level isoniazid antibiotic resistance pattern, the same genotype pattern and are U.S. born. This means cases may need alternate courses of therapy and consultation with the NDDoH should occur before treatment initiation.



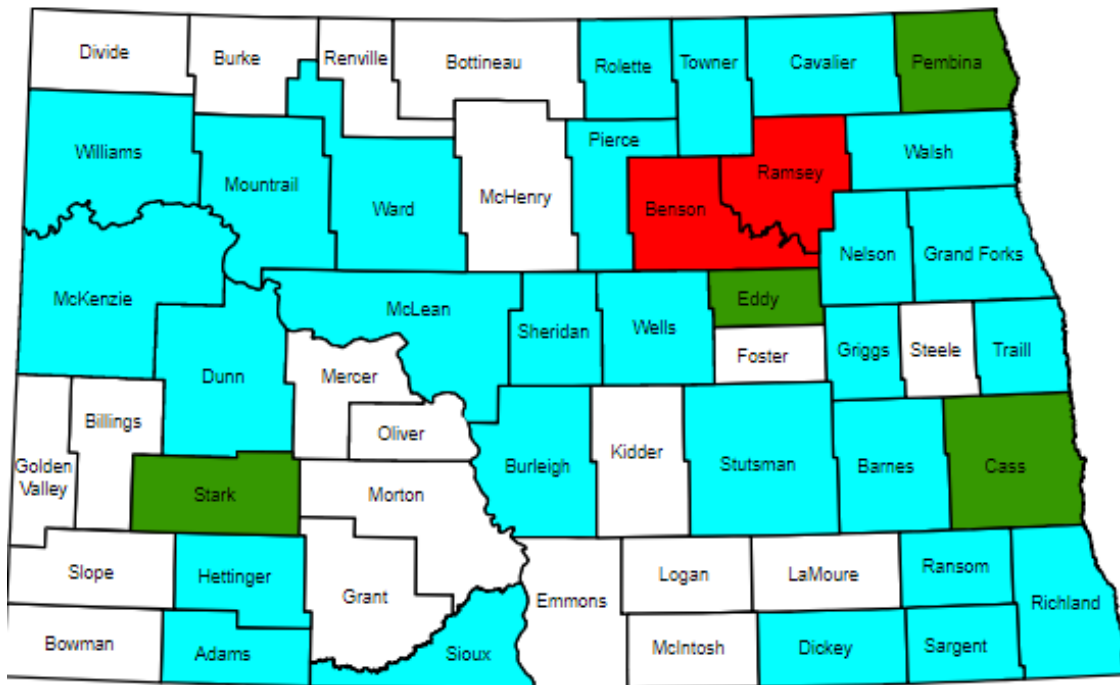
All suspected tuberculosis cases should be reported to the NDDoH Tuberculosis Controller within 24 hours of initial suspicion by calling 701.328.2378.



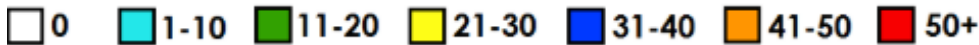
## 2018-19 Influenza Season Update

The flu season got off to an early start in North Dakota this year, with considerable localized activity in the Benson/Ramsey county areas, and sporadic activity across other parts of the state. As of November 3, 2018, there have been 306 laboratory-confirmed cases of influenza had been reported to the NDDoH. The Influenza A 2009 H1N1 train has predominated so far this season, although it is too early to tell if this train will predominate overall. Influenza A 2009 H1N1 last predominated during the 2015-16 influenza season. While flu can affect anyone, this strain tends to disproportionately affect children and young adults. Given the early circulation, any North Dakotans six months of age or older who have not already done so should get their flu vaccine as soon as possible. The vaccine takes about two weeks to provide protection.

**Influenza Cases by County**



**Legend**



## One Health Day

November 3<sup>rd</sup> was One Health Day, a global day of action to promote awareness of the relationship among the health of people, animals, plants, and their shared environment. One Health is a collaborative, transdisciplinary approach working at local, regional, national, and global levels to achieve optimal health outcomes. Examples of One Health activities at a

worldwide level include the Global Health Security Agenda and the World Organisation for Animal Health (OIE) Collaborating Center for Emerging and Reemerging Zoonotic Diseases. At a state and national level, the NDDoH has been working with state and federal public health agencies, animal health partners, agricultural industry stakeholders, state and county fair boards, 4-H programs, and others to promote biosecurity and zoonotic disease education through the Influenza and Zoonoses Education among Youth in Agriculture Program. To learn more about this program, please contact Laura Cronquist at [lcronquist@nd.gov](mailto:lcronquist@nd.gov) or 701.328.2694.



### **On the Move – New Immunization Surveillance Coordinator!**

Jenny Galbraith, the Epidemiology Assitant, recently accepted a full-time postion as the Immunization Surveillance Coordinator. She will be reponsible for Vaccine Preventable Disease investigations and Perinatal Hepatits B.



### **New Disease Control Employee!**

★**Name:** Becky Hamann

**Title:** Administrative Assistant – Immunization Program

**Education Background:** I attended Interstate Business College and the University of Phoenix in pursuit of a degree in Business Management/Business Administration

**Past Experience:** I have been working as an administrative assistant or in a customer service role for more than 20 years. The last eight years I worked for an Electric Motor Repair Shop as an administrative assistant. I also worked doing data entry at Cross Country Freight Solutions for nine years.

**Family/Hobbies:** I have one daughter, Morgan, who just turned 14 at the end of October. I enjoy spending time with my family and friends and going to the Freeborn County Fair in Albert Lea, MN. I started going to the fair when I was 14 years old and over the years I have seen Garth Brooks, Faith Hill and Tim McGraw, just to name a few. When I am not playing chauffeur to my daughter I also enjoy reading and doing counted cross stich.



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