

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

January 2013 Topics

- World TB Day
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World TB Day

March 24 is World TB Day, which commemorates the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacillus that causes tuberculosis (TB), a leading cause of death from infectious disease worldwide. World TB Day provides an opportunity to raise awareness about TB-related problems and solutions and to support worldwide TB control efforts. The U.S. slogan for the 2013 observance is Stop TB in My Lifetime.

Despite the continued decline in U.S. TB cases and rates since 1993, the 2012 rate of 3.4 per 100,000 population has not achieved the 2010 goal of TB elimination (less than one case per 1,000,000) established in 1989. Although TB cases and rates decreased among foreign-born and U.S.-born individuals in 2012, foreign-born individuals and U.S.-born racial/ethnic minorities continue to be affected disproportionately.

The North Dakota Department of Health, along with the Centers for Disease Control and Prevention (CDC), is committed to a world free of TB. Progress toward TB elimination in the United States will require ongoing surveillance and improved TB control and prevention

activities. Sustained focus on domestic TB control activities and further support of international TB control initiatives are needed to address persistent disparities between whites and nonwhites and between U.S.-born and foreign-born individuals.

People all over the world, from the youngest to the oldest, are encouraged to make an individual call for the elimination of TB, and say what changes they expect to take place in their lifetimes.

In their lifetimes, today's children should expect to see a world where no one gets sick with TB. With continued research, hopefully one day an effective vaccine can be made available for all countries to immunize their children and reduce the number of active TB cases and the number of deaths related to TB.

Everyone has a role to play so that one day TB will be eliminated. The North Dakota Department of Health, the CDC and its partners are committed to a world free of TB.



Influenza Update

As of February 16, 2013, a total of 3,633 laboratory-identified influenza cases have been reported to the North Dakota Department of Health (NDDoH) from all 53 counties. Of those cases, 2,941 were identified as Influenza A and 690 as Influenza B. Two cases were reported to be an unknown subtype of influenza. Of the cases further subtyped at the Division of Laboratory Services, 16 have been subtyped as 2009 H1N1 and 188 H3N2. Currently flu activity has decreased to regional activity in the state. Laboratory confirmation of flu appears to have peaked during the week ending December 29, 2012, but outpatient visits for flu-like illness are still somewhat elevated (3.42% ILI).

In addition to influenza, RSV activity is elevated in North Dakota. While the NDDoH does not quantify the number of RSV cases, there are sentinel laboratories in the state that are reporting increased positivity for RSV tests. This is indicative that the majority of influenza-like illness being seen in North Dakota is most likely due to influenza, RSV and other respiratory viruses.

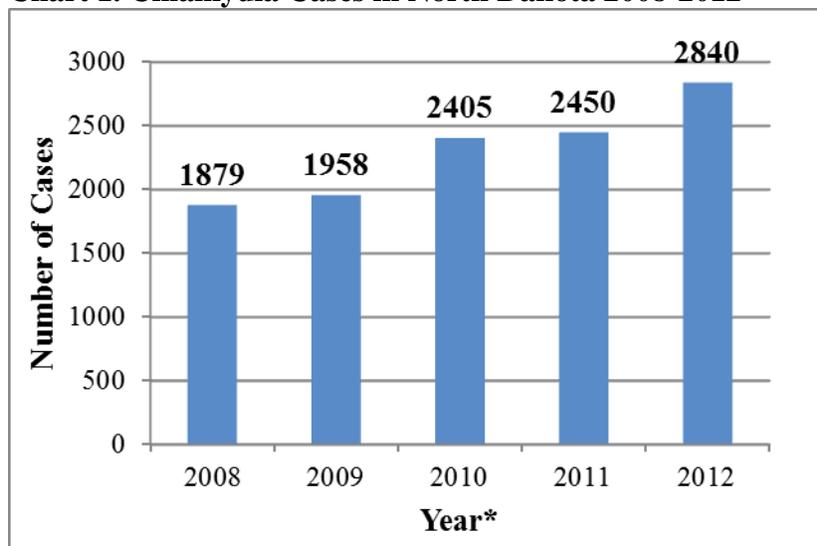
The NDDoH influenza website is updated weekly on Fridays with the latest influenza data. For more information about influenza, the surveillance program or to order free educational materials, visit the NDDoH influenza website at www.ndflu.com.



Preliminary 2012 Data Indicates an Increase of Chlamydia and Gonorrhea

According to preliminary numbers in 2012, there was a 15.9 percent increase in the number of chlamydia cases in North Dakota compared to 2011 (**Chart 1**). The overall rate of chlamydia in North Dakota for 2012 was 422.3 per 100,000. Twelve counties have rates higher than the North Dakota rate and the four highest rates were 1449.4, 1324.3, 1216.2 and 795.0 per 100,000 found in Rolette, Sioux, Benson and Mountrail counties, respectively. Increases in chlamydia rates were seen across the state in 2012 and not focused in a particular region. The majority (70.9%) of chlamydia cases were people ages 15 to 24 and 66 percent were female.

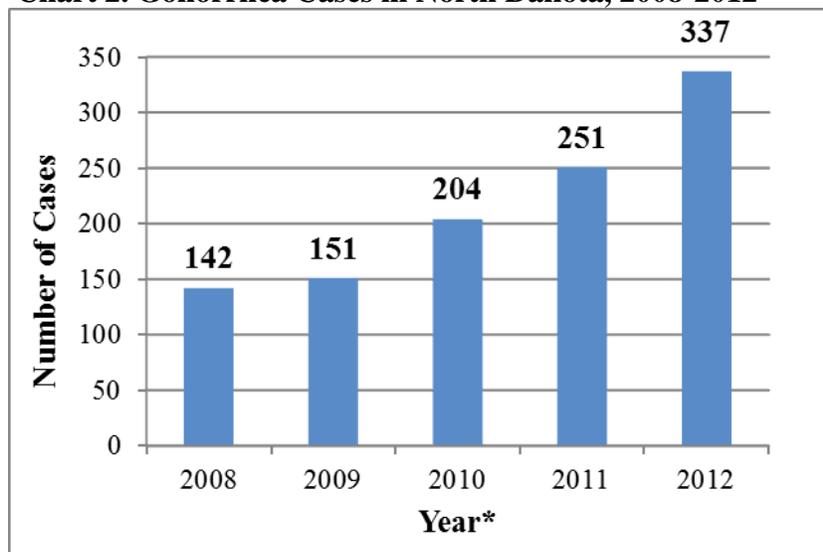
Chart 1. Chlamydia Cases in North Dakota 2008-2012



*2012 data is preliminary

The increase seen in gonorrhea in 2012 was greater than that seen for chlamydia compared to 2011. A 34.3 percent increase was seen in gonorrhea from 2011 in 2012 (**Chart 2**). Increases in Cass and Rolette counties accounted for the rise of cases seen in 2012. As with chlamydia, the four counties with the highest gonorrhea rates include Sioux, Rolette, Benson and Mountrail counties with rates of 674.2, 315.7, 180.18 and 143.4 per 100,000 respectively. Sixty-one percent of gonorrhea cases were male and 58 percent were between the ages of 15 and 24.

Chart 2. Gonorrhea Cases in North Dakota, 2008-2012



*2012 data is preliminary

Increasing chlamydia and gonorrhea rates highlights the importance of partner services. Providers are encouraged to play an active role in partner management. Timely treatment of sex partners is essential for decreasing the risk for reinfesting the index patient. Utilizing expedited partner therapy (EPT) can be an option for providers to engage in partner management. More information on EPT can be found at www.ndhealth.gov/STD/Expedited/. For additional

information on partner management or STDs in North Dakota, please contact the STD Program at 701.328.2378.



Sydney Norovirus

Norovirus is the most common cause of viral gastroenteritis outbreaks and often is called the stomach flu, although it has no relationship to the influenza virus that causes respiratory infections. Most norovirus outbreaks are caused by GII.4 strains. During the past decade, new GII.4 strains have emerged every 2 to 3 years, replacing previously predominant GII.4 strains.

In March 2012, a new GII.4 strain was identified in Australia and was named GII.4 Sydney. In the United States, GII.4 Sydney has spread rapidly nationwide, causing an increasing number of outbreaks. During September through December of 2012, a total of 143 (53%) of the 266 norovirus outbreaks reported to Calicinet, a network of public health laboratories in 25 states that submit norovirus sequences identified from outbreaks into a national database, were caused by GII.4 Sydney. GII.4 Sydney appears to have replaced the previously predominant GII.4 strain.

Since October 1, 2012, 25 viral gastroenteritis outbreaks have been reported to the North Dakota Department of Health (NDDoH) by institutions. Of these outbreaks, 18 occurred in long-term care facilities, five occurred in basic care facilities and two occurred in assisted living facilities. At this point last year, six outbreaks were reported to the NDDoH by institutions. Proper hand hygiene, environmental disinfection and isolation of ill persons until 24 to 72 hours after symptoms resolve are recommended measures for the prevention and control of norovirus infections. Please visit www.cdc.gov/norovirus/index.html for more information about prevention of norovirus and the GII.4 Sydney strain.

To report an acute viral gastroenteritis outbreak, please contact the NDDoH at 800.472.2180 or submit an online report form at www.ndhealth.gov/disease/GI/norovirus.aspx.



Rabid Cat Sheltered at Bismarck Impound

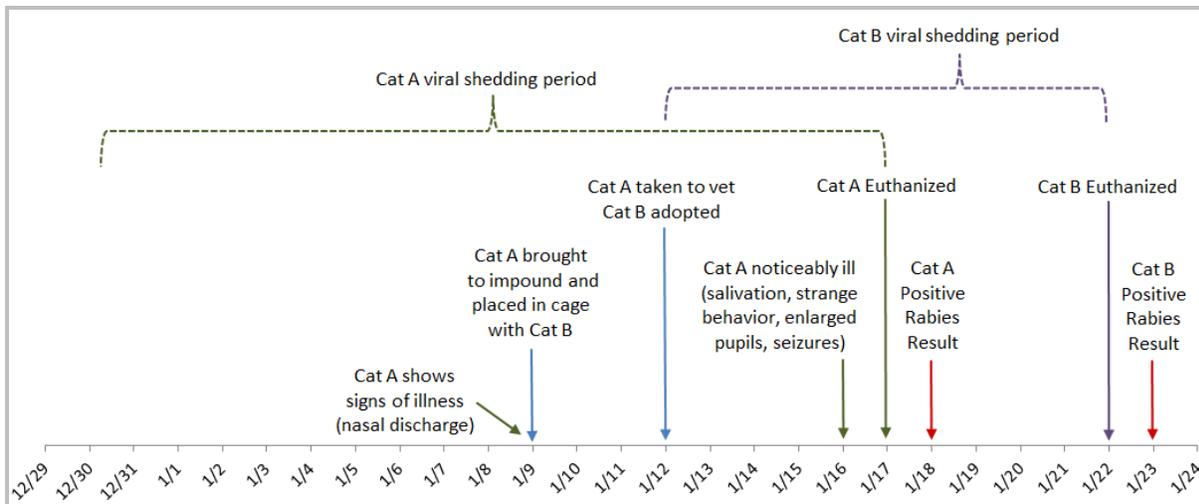
On January 9, 2013, a stray cat (cat A) was picked up by Bismarck Animal Control and taken to the Bismarck Animal Impound. Upon arrival, cat A was seemingly healthy except for some nasal discharge. Cat A was placed in a cage along with another stray cat (cat B). Cat A remained at the impound through January 12 when it was taken to another facility for veterinary care. Cat B was adopted by a North Dakota family the morning of January 12, 2013.

On January 16, cat A showed signs of excess salivation and the following day began acting strange, had enlarged pupils and started to seizure. Cat A was euthanized on January 17 and sent to the North Dakota Department of Health Division of Laboratory Services for rabies testing. On January 18, 2013, cat A tested positive for rabies.

A statewide news release was issued to identify people who may have been in contact with cat A during its infectious period. Impound employees and volunteers and local veterinary staffs were evaluated for rabies exposure. Those with possible exposures were referred to a health-care provider for further evaluation and the need to initiate rabies post-exposure prophylaxis. Cat A was noticeably ill (salivation, strange behavior, enlarged pupils, seizures)

Investigation efforts continued as animal-to-animal contacts were evaluated at the Bismarck Impound. All remaining cats at the impound that had potential contact with cat A were

ethanized. The adoptive family of cat B was notified that their cat was exposed to a rabid cat (cat A) at the Bismarck Animal Impound. Cat B was euthanized and brought to the Division of Laboratory Services for rabies testing. Cat B was seemingly healthy and was not exhibiting clinical signs of rabies at the time it was euthanized. On January 23, 2013, cat B also tested positive for rabies. Contacts to cat B were evaluated and those with exposures were referred to a health-care provider.



Identification of the two positive cats associated with the city impound demonstrates the risk of rabies transmission to both humans and other animals. Additionally, it stresses the importance of prompt and thorough investigation of contacts to administer appropriate rabies prevention and control efforts. For more information about rabies, visit www.ndhealth.gov/disease/Rabies/.



Legislative Update

The 63rd Legislative Assembly convened in January of this year. Although more than 800 bills have been introduced, relatively few have a direct impact on the work of the Division of Disease Control. Here is a summary of the bills that we are following/tracking or providing testimony on.

HB 1088 – The department supported this bill that allows the state health officer’s written orders to have the same effect as a physician’s standing orders. This has passed the House and will now be heard in the Senate.

HB 1165 – The department supported this bill that would have mandated adult immunizations be entered into the North Dakota Immunization Information System (NDIIS) and require non-compliant providers be reported to the appropriate licensing board for possible disciplinary action. This bill failed in the House.

HB 1314 – This bill adds a layer of confidentiality to genetic testing performed on people and allows for certain exemptions. The department tracked this one and provided recommendations for amendments. The concern with the original bill is that it may apply to diagnostic testing, especially for those tests that detect DNA or RNA of infectious agents. An additional concern addressed by the amendments was public health testing that is performed often to aid in understanding the epidemiology of a disease cluster. This bill has passed the House as amended and will now go to the Senate.

HB 1038 and SB 2193 – Both of these bills establish an autism registry. Disease Control is monitoring these bills because there is a potential that our electronic disease reporting system could be used to host the autism registry. HB 1038 has passed through the House and will move on to the Senate. SB 2193 has passed the Senate and will now be heard by the House.

SB 2250 – This bill defines the confidentiality of electronic health data shared with the State’s Health Information Network, which is currently under development. We are monitoring to make sure the law will not interfere with disease surveillance or the exchange of immunization records. This bill has passed the Senate and will now be heard by the House.

Contributing authors of The Pump Handle include Dee Pritschet, Sarah Weninger, Alicia Lepp, Michelle Feist, 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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