

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

April 2011 Topics

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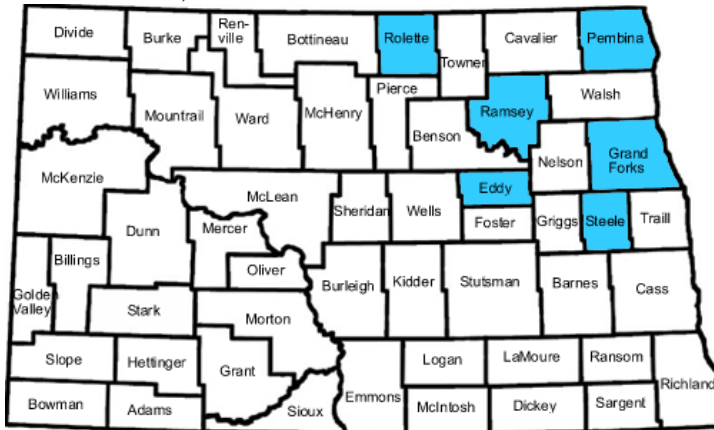
Tick Surveillance in North Dakota

Tick-borne diseases are reportable to the North Dakota Department of Health (NDDoH). Several of these include tularemia, Rocky Mountain spotted fever (RMSF), Ehrlichiosis, Anaplasmosis and Lyme disease. In the past, North Dakota residents were not considered to be at risk for Lyme disease unless they traveled outside of the state, since the presence of the tick vector, the deer tick or *Ixodes scapularis*, previously was not well documented in North Dakota. However, in recent years, the NDDoH has received increasing reports of Lyme disease. Some of the reported cases did not indicate travel outside of the state. In addition, North Dakota borders Minnesota, a highly endemic state for Lyme disease. Minnesota tick surveillance has documented a northwesterly expansion of the *Ixodes* population. Also, Manitoba has reported the presence of *Ixodes* sp.

Last summer, the NDDoH, the North Dakota Game and Fish Department, North Dakota State University and the University of North Dakota partnered together to conduct tick surveillance throughout the state to determine if the deer tick is in North Dakota. Through these surveillance efforts, the deer tick has been identified in six counties in the northeastern region of the state (**Figure 1**). The *Ixodes scapularis* ticks collected were tested for tick-borne disease pathogens. Several ticks in Grand Forks County were found

to be infected with *Borrelia burgdorferi*, *Anaplasma phagocytophilum* and *Babesia* species. Babesia also was identified in ticks in Ramsey County.

Figure 1. Counties with established populations of *Ixodes scapularis* ticks identified, North Dakota, 2010



Ticks will be collected again this year to further assess the presence of the deer tick in North Dakota and the risk of Lyme disease and other tick-borne diseases in the state. Simple prevention measures, such as wearing long pants and sleeves and applying insect repellent containing DEET when entering tick-infested areas, will reduce the risk of having a tick attach to the skin.

For more information, visit the tick-borne disease website at www.ndhealth.gov/disease/tickborne/ or call the NDDoH at 800.472.2180 or 701.328.2378.



FINALLY! Shed the Snow Boots, Summer is Just Around the Corner

People who are cleaning cabins or other buildings that were closed for the winter should protect themselves against hantavirus, a disease transmitted by infected mice. Hantavirus pulmonary syndrome (HPS) is a viral infection that causes severe lung disease.

The rodent vector is the deer mouse, and the virus is shed in the stool, urine and saliva of infected rodents. Infection usually results from inhalation of the virus when droppings and urine are disturbed. People infected with the virus develop a rapidly progressing illness.

- Eleven cases of HPS have been reported to the NDDoH since 1993; the most recent was reported in 2009. Six of the cases were fatal, with the most recent being in 2008. Early symptoms are “flu-like,” with fever, headache, muscle ache and malaise. Vomiting and diarrhea also have been reported. Pulmonary signs and symptoms develop quickly, with shortness of breath and low blood-oxygen levels. Treatment is supportive with careful attention to fluids, electrolytes and blood pressure management. Additional information regarding the clinical management of HPS can be found at www.cdc.gov/ncidod/diseases/hanta/hps/index.htm.

The Department of Health offers the following tips for preventing rodent infestation from occurring and for properly disinfecting areas contaminated by rodents:

- For severe or persistent infestations, contact a pest-control professional for rodent eradication or a building contractor for rodent exclusion (rodent proofing).
- Seal all entry holes through which a rodent can enter.
- Clear clutter and tall grass away from buildings to eliminate sources of nesting materials.
- **Do not** sweep or vacuum areas with evidence of rodent infestation, such as nests or fecal droppings. This action may stir up and aerosolize the viral particles. Wear rubber, latex, vinyl or nitrile gloves.
- Thoroughly wet contaminated area with a disinfectant or bleach solution before wiping up with a paper towel. Soiled cleaning materials may be double bagged and discarded in the trash or disinfected before reuse.

For more information about HPS, please call the NDDoH at 701.328.2378 or 800.472.2180 or visit www.ndhealth.gov/disease.



Gastrointestinal Illnesses in the Summer Season

As the summer season is approaching, North Dakotans are going to be outside camping, swimming, picnicing and barbecuing. As people are enjoying the outdoors, they need to be aware of the possible exposure to bacteria, viruses or parasites that can make them ill. Bacteria, such as *Salmonella*, *Campylobacter* and *E.coli*; viruses, such as norovirus; and parasites, such as *Cryptosporidium* and *Giardia*, can cause diarrhea and/or vomiting in individuals who are exposed to these pathogens during summer activities.

Campylobacter and *E.coli* are bacteria often associated with cattle. Most cases of campylobacteriosis occur in spring and summer. Ranchers and other individuals with exposure to animals are at risk for these and other bacterial infections. Individuals also can acquire *Campylobacter* and *E.coli* from drinking contaminated water or unpasteurized milk.

Recreational water illness (RWI) is spread by swallowing, breathing or having contact with contaminated water from swimming pools, water parks, interactive fountains, spas, lakes, rivers or oceans. The most commonly reported RWI is diarrhea caused by pathogens such as *Cryptosporidium*, norovirus, *Shigella*, *Escherichia coli* and *Giardia*. Children, pregnant women and people with compromised immune systems are at greatest risk for RWIs.

Food safety is very important for summer picnics and barbecues. Fresh fruits and vegetables can be the sources of bacteria such as *Salmonella* and *E.coli*. Thoroughly wash all fruits and vegetables before eating, cutting or cooking. When grilling meats such as hamburgers and chicken, use a food thermometer to ensure the meat has reached the proper temperature to destroy harmful bacteria.

Always wash your hands with soap and water before preparing meals. If you currently are experiencing symptoms of vomiting and/or diarrhea, do not prepare meals for large gatherings. One of the most common cause of foodborne outbreaks is an ill food worker preparing meal items.

To report a foodborne outbreak, or if you have questions about food safety or other gastrointestinal illnesses, please visit www.ndhealth.gov/disease/GI or call 800.472.2180.



National Recreational Water Illness Prevention Week Is May 23-29, 2011

May 23-29, 2011, is the seventh annual National Recreational Water Illness Prevention Week. This observance provides an opportunity for public health agencies to increase awareness of recreational water illness and promote healthy water experiences.

Recreational water illness (RWI) is spread by swallowing, breathing or having contact with contaminated water from swimming pools, water parks, interactive fountains, spas, lakes, rivers or oceans. The most commonly reported RWI is diarrhea caused by pathogens such as *Cryptosporidium*, norovirus, *Shigella*, *Escherichia coli* and *Giardia*. Children, pregnant women and people with compromised immune systems are at greatest risk for RWIs.

The following tips can help protect you from RWI:

- Refrain from swimming while experiencing diarrhea.
- Avoid swallowing pool water or even getting it in your mouth.
- Shower before swimming, and wash your hands after using the toilet or changing diapers.
- Take children on bathroom breaks or check diapers often.
- Change diapers in a bathroom and not at poolside, and thoroughly clean the diaper-changing area.

For more information regarding healthy swimming or to report a waterborne illness, call the NDDoH at 701.328.2378 or 800.472.2180 or visit www.ndhealth.gov/disease/GI.



Know Your Risk Website-NEW!!

The Department of Health HIV, STD and viral hepatitis programs created an online risk assessment survey. The website is www.ndhealth.gov/knowyourrisk. On this website, individuals will take a survey asking demographic questions as well as questions pertaining to risky health behaviors associated with HIV, other STDs and viral hepatitis.

After an individual completes the survey, he or she will receive information about the risks associated with current behaviors identified in the survey. For example, one of the questions on the survey asks: “Have you ever injected drugs?” If the person answered yes, once the survey was complete, the individual would be given information on injection drug use and the risk of acquiring HIV and viral hepatitis.

By taking this confidential survey, individuals can determine if their current health behaviors are putting them at risk for HIV, other STDs or viral hepatitis. If an individual learns that his or her behaviors put them at risk for HIV, other STDs or viral hepatitis, information about where to get tested is available on the website.

If you have any further questions regarding the Know Your Risk HIV/STD/Viral Hepatitis risk assessment, please contact the NDDoH at 800.472.2180 or 701.328.2378.

Contributing authors of The Pump Handle include Lindsey VanderBusch, Sarah Weninger, Julie Wagendorf, Tracy Miller and Kirby Kruger. For questions, suggestions or inquiries, or to be removed from the mailing list, please contact Sarah Weninger, 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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