

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

September 2007 Topics

- Salmonella Infections Associated With Baby Chickens
- West Nile Virus (WNV) Update
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Salmonella Infections Associated With Baby Chickens

Since May 2007, the North Dakota Department of Health (NDDoH) has investigated seven cases of salmonella related to contact with baby chickens. Most recently, three children from the same family were hospitalized with severe salmonella infections after playing with chicks.

Cases of salmonella related to handling baby chickens have been reported from several states and can be serious. Even chicks that appear healthy can be infected and can shed salmonella in their stool. Oftentimes, the birds' feathers and beaks are contaminated, so just touching the birds and then putting a finger in the mouth or touching food can lead to infection.

The risk of acquiring salmonella infections from baby chickens can be reduced by following these guidelines.

- Do not purchase chicks as gifts.
- Do not let children younger than 5 touch or handle chicks or the packaging and cages in which the chicks are being held.
- Wash hands thoroughly with soap and water after handling chicks or touching objects in contact with the chicks.
- If objects such as toys, pacifiers or bottles come into contact with the chick environment, wash them with warm soapy water.

- Do not allow anyone to eat or drink while interacting with the chicks or their environment.
- Keep chicks away from areas where food is prepared or consumed.
- Talk to your veterinarian, nurse or doctor about health risks associated with chicks.

Symptoms of infection with salmonella include diarrhea, abdominal cramps and fever, usually within eight to 72 hours after exposure. The illness usually lasts four to seven days, and most healthy people recover without antibiotic treatment. Infants, young children, the elderly and those who have impaired immune systems are at greater risk for severe infections.

For additional information about proper handling of chicks and ducklings to prevent salmonella infection, visit www.cdc.gov/healthypets/animals/birds.htm. To report a case of salmonella to the NDDoH, call 800.472.2180 or 701.328.2378.



West Nile Virus (WNV) Update

As of Sept. 28, 2007, 324 human WNV infections have been reported to the state health department from a total of 48 counties. Of the 324 cases, 74 required hospitalization, 43 were diagnosed with encephalitis and/or meningitis and two died. The cooler weather typically means lower numbers of mosquitoes; however, until there is a good, hard frost, the risk of WNV infection is still a possibility. Insect repellent and protective clothing should be used, especially if outdoors between dusk and dawn and when participating in fall sporting activities, farming, hunting or other outdoor activities.

Additional WNV activity includes nine dead birds, four positive horses, five positive sentinel chickens and seven positive mosquito pools. More than 170 dead birds from across the state have been reported online.

For more information about WNV, visit the NDDoH website at www.ndhealth.gov/wnv.



2007 Norovirus Surveillance

Noroviruses are the most common cause of infectious gastroenteritis in the United States, resulting in about 23 million illnesses each year. Norovirus outbreaks occurring in institutional settings – including nursing homes, hospitals and schools – are not uncommon, especially during the winter months. Person-to-person spread (among staff, visitors and residents) is a common mode of transmission in these settings. In 2006, two emergent strains of norovirus likely accounted for a nationwide increase of outbreaks in long-term care facilities. Also in 2006, norovirus-associated deaths were reported in the United States for the first time. For more information about 2006 and 2007 norovirus activity in the United States, visit www.cdc.gov/mmwr/preview/mmwrhtml/mm5633a2.htm.

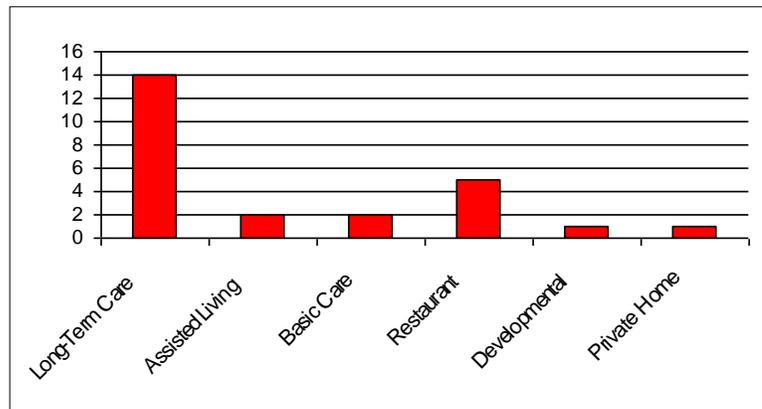
A viral gastroenteritis outbreak is considered consistent with norovirus if ALL of the following are met:

- Vomiting is present in more than 50 percent of cases.
- The incubation period is from 24 to 48 hours.
- The duration of illness is from 12 to 60 hours.
- No bacterial pathogens are isolated from stool.

To confirm the etiology of an acute viral gastroenteritis outbreak, two or more stool samples must be confirmed by laboratory testing. **Call the NDDoH at 800.472.2180 or 701.328.2378 for more information about norovirus testing in North Dakota.**

North Dakota norovirus surveillance in 2006 resulted in 25 outbreak investigations; 14 occurred in long-term care facilities, five in restaurants, two in assisted-living facilities, two in basic health-care facilities, one in a developmental center and one in a private home. The majority of norovirus outbreaks occurred in October and November.

North Dakota Norovirus Outbreaks by Setting, 2006 – Present



Report all outbreaks of suspected acute viral gastroenteritis using the online report form located on the NDDoH Division of Disease Control website at www.ndhealth.gov/disease/Gastroenteritis/. For more information about norovirus surveillance in North Dakota, call Julie Goplin at 701.328.2378.



Flu Is Going to the Birds

The spread of avian influenza, a.k.a. bird flu (H5N1 virus), in Asia has created ample amounts of media coverage because of the human mortality associated with it. An intra-agency work group in North Dakota has been formed to develop the state's avian influenza response plan. Agencies involved include NDDoH, N.D. Game and Fish, U.S. Department of Agriculture (USDA) Wildlife Services, USDA – Animal Plant Health Inspection Service (APHIS), State Board of Animal Health, U.S. Fish and Wildlife, N.D. Turkey Growers Association, N.D. Zoos, N.D. Department of Emergency Services and the N.D. State University Veterinary Diagnostic Laboratory.

Part of the national and state work group planning process includes active surveillance for the highly pathogenic H5N1 virus as well as H5 or H7 low pathogenic viruses. In the fall of 2006, the N.D. Game and Fish, USDA Wildlife Services and the State Board of Animal Health initiated active surveillance in North Dakota. A summary of their findings are listed below:



North Dakota Game and Fish

In 2006, the N.D. Game and Fish Department collected 941 avian influenza samples from hunter-killed waterfowl, captured wild waterfowl and waterfowl collected under scientific collecting permits. Birds collected included a variety of shorebirds (i.e., sandpipers, gulls and killdeer), ducks (i.e., mallards, pintails and shovelers), sandhill crane and tundra swans. No highly pathogenic H5N1 avian influenza was identified.



USDA/APHIS/Wildlife Services

In 2006, USDA/APHIS/Wildlife Services collected 1,010 environmental (fecal) samples throughout North Dakota. In addition, 994 cloacal samples were collected from 35 wild species of birds, including shorebirds, gulls, sandhill cranes, tundra swans and waterfowl. Samples were taken from birds that had been live-captured or from hunter-harvested birds. No highly pathogenic H5N1 avian influenza was identified.



State Board of Animal Health

Starting in 2006 and continuing through 2007, the State Board of Animal Health has collected tracheal swabs on more than 2,000 samples. Samples were collected from a variety of domestic ducks, geese, chickens, pigeons, turkeys (noncommercial), etc. No highly pathogenic H5N1 or low-path H5 or H7 avian influenza has been identified.

All three agencies have continued similar avian influenza surveillance activities in 2007.



Hepatitis Program Update

During the 2007 Legislative Assembly, legislation was passed calling for the creation of a state viral hepatitis program and appropriating \$200,000 from the general fund to support viral hepatitis activities for the current biennium (July 1, 2007, through June 30, 2009). Included in the appropriation are expenditures for a public education and awareness campaign, health-care provider professional development, viral hepatitis testing supplies and vaccine, and contracts with select local public health units (LPHUs) to provide testing and to administer vaccine.

The program includes targeted hepatitis C virus (HCV) testing and hepatitis A virus (HAV) and hepatitis B virus (HBV) vaccination, to be administered through select LPHUs beginning Oct. 1, 2007. To utilize existing service infrastructure, the NDDoH has identified 10 LPHUs throughout the state already serving as HIV counseling, testing and referral sites to participate in this new program. At this time, viral hepatitis testing and vaccination will be provided only to those clients who identify injection drug use (current or past) as a risk factor. The HCV antibody test, offered through the Division of Laboratory Services, and HAV/HBV vaccination, supplied by the Division of Disease Control, will be offered to the client free of charge.

For more information about the hepatitis program, contact Kim Weis at the NDDoH at 701.328.2378.

Contributing authors of The Pump Handle include Michelle Feist, Kim Weis, Julie Goplin, Tracy Miller and Kirby Kruger. For questions, suggestions or inquiries, or to be removed from the mailing list, please contact Julie Goplin of the Division of Disease Control at 701.328.2375 or by email at jgoplin@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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