"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

August 2006 Topics

- Meningococcal Infection
- West Nile Virus Update
- Shigellosis Update
- Influenza B Diagnosed in Late July
- School Immunization Requirements: 2006-2007 School Year

Meningococcal Infection

A meningococcal related death in a young, previously healthy adult was reported to the North Dakota Department of Health (NDDoH) in August 2006. The case worked at a Fargo day care. Almost 300 people were identified by the NDDoH as potential close contacts with the case. Of these, about 200 were determined to have had contact to the extent to warrant post-exposure prophylaxis and were referred to their health provider. PCR testing performed on the isolate indicates this infection was caused by Neisseria meningitidis serogroup B.

This is the fourth confirmed or probable case reported in North Dakota this year. For more information about prevention and control of meningococcal disease, visit www.cdc.gov/mmwr/preview/mmwrhtml/rr5407a1.htm. The NDDoH disease fact sheet can be viewed at www.health.state.nd.us/Disease/Documents/faqs/Meningococcal.pdf.

West Nile Virus Update

As of Aug. 30, 2006, 67 human West Nile Virus (WNV) cases have been identified in 20 counties. Of these cases, eight have been diagnosed as having encephalitis/meningitis, with the remaining being West Nile fever cases. Out of the 67 cases, 15 have required hospitalization, with one resulting in a fatality. Twenty-five are female and 42 are male, with a median age of 44 years.
Thirty-one dead birds and 20 horses have been submitted to the NDSU Veterinary Diagnostic Laboratory for West Nile virus testing. Nine dead birds, four horses and one mosquito pool have tested positive for WNV. In addition, 754 live sentinel chicken serums have been tested, with 36 positives identified in all eight of the chicken flock locations.

For more information about WNV, visit the NDDoH website at www.ndwnv.com/.

**Shigellosis Update**

As of Sept. 8, 2006, 107 cases of shigellosis had been reported in North Dakota since July 1, 2006. Fourteen North Dakota counties have reported cases of *Shigella*, and 59 percent of the shigellosis cases reside in Rolette County. Seventy-nine cases (74 percent) are children younger than 10. Information gathered during patient interviews indicates primarily person-to-person transmission.

Groups at increased risk of shigellosis include children in child-care centers and people in institutions where personal hygiene is difficult to maintain, elderly people, those with suppressed immune systems, health-care workers and people in homes with inadequate water for hand washing.

If diagnosed with shigellosis, health-care workers, food handlers, and children and staff of day-care centers should stay home until diarrhea has ceased and two consecutive stool cultures test negative for the bacteria.

For information about shigellosis and North Dakota statistics, visit www.health.state.nd.us/disease/Shigella/default.htm or call 701.328.2378. To report a possible infection, call 800.472.2180.

**Influenza Type B Diagnosed in Late July**

In North Dakota, the influenza season typically runs from October until May. In the past five years, there has not been a culture-confirmed influenza case identified in North Dakota outside the typical influenza season. Therefore, the identification of a human influenza infection in July is a noteworthy finding.

The case is a male younger than 18 and a resident of Stark County with a history of travel outside the United States prior to onset of symptoms. The patient presented with classic influenza symptoms (fever, cough and fatigue), and a rapid influenza test indicated flu B infection. Due to the timely reporting of the case to the North Dakota Department of Health, a specimen was obtained and sent to the North Dakota Public Health Laboratory (NDPHL) for culture isolation. The culture confirmed influenza type B, and the specimen has been sent to the CDC for further typing. Results are pending.

A sincere thank you goes out to the providers for their timely reporting and their prompt follow-up with the patient to secure a second sample!!

With the influenza season near, it’s important to remember that your best defense from the flu is to get vaccinated every year!

For more information about influenza, visit the North Dakota Department of Health website at www.ndflu.com.
School Immunization Requirements: 2006-2007 School Year

Immunizations required include:

<table>
<thead>
<tr>
<th>Vaccine Type</th>
<th>Minimum Number of Doses Required Per Grade</th>
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<tbody>
<tr>
<td></td>
<td>Kindergarten-Grade 6</td>
</tr>
<tr>
<td>DTaP/DTP/DT/Td</td>
<td>4 or more*</td>
</tr>
<tr>
<td>IPV/OPV</td>
<td>4†</td>
</tr>
<tr>
<td>MMR</td>
<td>2</td>
</tr>
<tr>
<td>Chickenpox (Varicella)</td>
<td>1#</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>3£</td>
</tr>
</tbody>
</table>

* One dose must have been given on or after the fourth birthday. Three doses of Td are required for children age 7 or older not previously vaccinated.

† In all IPV or all OPV schedule: If the third dose was given on or after the 4th birthday, the fourth dose is not required. If a child has received a total of four doses of any combination of OPV and IPV at least four weeks apart, he (she) is considered adequately immunized against polio.

‡ Two doses of MMR given on or after the first birthday at least four weeks apart are required for children who entered kindergarten or first grade in the 1992-93 school year and thereafter. Each subsequent year, the next higher grade is included; e.g., for the 2006-07 school year, two doses of MMR are required of children attending kindergarten through grade 12.

# Chickenpox (Varicella) vaccine will be required for entrance into kindergarten, effective with the 2004-05 school year and thereafter. Each subsequent year, the next higher grade is included; e.g., for the 2006-07 school year, one dose of chickenpox vaccine is required of children attending kindergarten through second grade. If a child has had history of chickenpox disease, the child is exempt from the vaccine requirement.

£ Three doses of hepatitis B vaccine will be required for entrance into kindergarten, effective with the 2000-01 school year and thereafter. Each subsequent year, the next higher grade is included; e.g., for the 2006-07 school year, three doses of hepatitis B vaccine is required of children attending kindergarten through sixth grade.

Exemptions:

Students may be exempt from immunization requirements for the following reasons:

- **Medical Exemption**: Requires a certificate from a licensed physician stating that the physical condition of the child is such that immunization would endanger the life or health of the child.
• **Philosophical, Moral or Religious Belief Exemption:** Requires a certificate signed by the parent or guardian whose sincerely held philosophical, moral or religious belief is opposed to such immunization.

• **History of Disease Exemption:** Requires a certificate signed by the parent or guardian or physician stating that the child has a reliable history of chickenpox disease.

*Contributing authors of The Pump Handle include Michelle Feist, Molly Sander, 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@state.nd.us.*

*The pump handle picture in the title was obtained from the website [www.ph.ucla.edu/epi/snow.html](http://www.ph.ucla.edu/epi/snow.html).*

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