



The Pump Handle

April 2019

"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

Topics

- Hemolytic-Uremic Syndrome – Brenton Nesemeier
- North Dakota's 2018-2019 Kindergarten Vaccination Rates Remain Level – Jenny Galbraith
- May is Hepatitis Awareness Month – Shari Renton
- New Disease Control Employee – Levi Schlosser



Hemolytic-Uremic Syndrome

Hemolytic-uremic syndrome (HUS) is a complication that can result from an infectious diarrheal illness and may result in acute kidney failure. HUS typically occurs after a gastrointestinal illness associated with shiga toxin-producing *E. coli* (STEC); however, HUS has been linked to other gastrointestinal illnesses such as shigellosis or campylobacter. Symptoms of HUS include bloody diarrhea, decreased urine output, fatigue, acute onset of anemia with microangiopathic changes on blood smears, renal failure/injury, and low platelet count (thrombocytopenia) may be detected early in the illness. The use of antibiotics or anti-diarrheal medication is thought to increase the risk of developing HUS in patients. The North Dakota Department of Health (NDDoH) recently investigated a case of HUS that was treated with antibiotics and anti-diarrheal medication. Testing for a disease causative agent in patients who present with diarrheal illness and before prescribing treatment is recommended.

As a reminder, HUS is a mandatory reportable condition to the NDDoH. Since 2018, nine cases (seven in 2018, two YTD) have been reported to the NDDoH. Of the HUS cases

reported to the NDDoH in 2018, seven cases (~78%) were associated with STEC, in which two received antibiotic treatment. All cases were hospitalized, and no deaths occurred.

The NDDoH Division of Microbiology provides enteric testing for facilities who request these services. A complete listing of services and associated costs can be found at the NDDoH Division of Microbiology's [website](#).



North Dakota's 2018-2019 Kindergarten Vaccination Rates Remain Level

Data from the 2018-2019 school immunization assessment indicates that North Dakota's kindergarten immunization rates remain similar to the previous year. The school immunization assessment is conducted annually by the NDDoH.

Thanks to the hard work of North Dakota schools, health care providers, local public health units, North Dakota State University, the NDDoH, and the North Dakota Department of Public Instruction, school immunization rates have been increasing for the last few years. This year, kindergarten rates did not increase, but remained around 94%. An MMR coverage rate of 95% is recommended to maintain herd immunity in schools and prevent cases and outbreaks. Outbreaks have become more commonplace in the United States due to low vaccination rates and the ease of travel.

The percent of North Dakota parents claiming an exemption due to reasons of personal belief increased from 3.1% to 3.9%. Approximately 400 kindergarten students are exempt from immunizations due to a parental personal belief.

Before entering school in North Dakota, children must have five doses of DTaP, four doses of IPV (polio), three doses of HBV (hepatitis B), two doses of MMR, and two doses of varicella vaccine. Students entering seventh through twelfth grade need one dose of Tdap, which protects against tetanus, diphtheria, and pertussis (Tdap). Students in grades 7 through 10 need one dose of meningococcal conjugate vaccine (MCV4) and students entering grades 11 and 12 need a second dose of MCV4.

Children can be vaccinated at local public health units or private health care providers. The exclusion date for students not compliant with requirements is October 1.

School immunization rates and county breakdowns can be found on the NDDoH Immunization [website](#). For more information on school immunization requirements,

contact Jenny Galbraith, North Dakota Department of Health, at 701.328.2335, or visit the website at www.ndhealth.gov/immunize.



May is Hepatitis Awareness Month

Millions of Americans are living with hepatitis B and C, but as many as three quarters are unaware of their status. Hepatitis Awareness Month and Testing Day on May 19 provides an opportunity to highlight the importance of addressing hepatitis and the need to improve our response to these epidemics. In 2018, over 1,180 individuals were reported with hepatitis C in North Dakota.

In the United States, the devastating health consequences of the opioid epidemic reach beyond addiction and overdose. Fueled by increases in injection drug use, new hepatitis C infections have nearly tripled between 2010 and 2015 and previous gains made in hepatitis B prevention have reversed. Undiagnosed hepatitis B and hepatitis C infections in priority populations, including baby boomers, African Americans, Asian Americans and Pacific Islanders, and American Indians and Native Alaskans, are driving up rates of liver cancer and deaths.

To make an impact on viral hepatitis prevention, the NDDoH is asking partners and stakeholders to bring viral hepatitis to the forefront of the conversation throughout May, especially in discussions around substance abuse and prevention. Here are just a few strategies that will impact viral hepatitis in North Dakota:

1. Increase community awareness of viral hepatitis and decrease stigma and discrimination.
2. Identify persons infected with viral hepatitis early in the course of their disease. One way partners can work towards this goal is to incorporate viral hepatitis screening in non-traditional settings such as substance abuse treatment centers.
3. Decrease health disparities by partnering with and educating priority populations and their communities about viral hepatitis and the benefits of available prevention, care and treatment.
4. Discuss with community leaders and coalitions the impact a syringe services program may have on your community. Refer at risk individuals to syringe service programs if there is one in your community. Currently, there are three syringe service programs authorized through the NDDoH; they are located in Mandan, Fargo and Minot.

The National Academies of Sciences, Engineering, and Medicine, with the support of the Centers for Disease Control and Prevention (CDC), the U.S. Department of Health and

Human Services, the American Association for the Study of Liver Diseases (AASLD), the Infectious Diseases Society of America (IDSA), and the National Viral Hepatitis Roundtable have released a national Strategy for the elimination of hepatitis B and C. This national strategy indicates that the elimination of hepatitis B and C is possible by 2030 by completing outlined strategies such as those listed above. The NDDoH is available to assist communities, health care providers and partners in their efforts towards hepatitis prevention and elimination. More information on the report is available [here](#). Please contact the NDDoH at 701.328.2378 for technical assistance or if you have any questions regarding viral hepatitis prevention.



New Disease Control Employee

Name: Levi Schlosser

Title: Respiratory and Syndromic Surveillance Coordinator

Education Background: I received my undergraduate in Microbiology, as well as my Masters in Public Health in the Management of Infectious Disease tract, from North Dakota State University.

Past Experience: Previously, I worked as a Research Assistant for the NDSU Department of Public Health, studying antimicrobial stewardship practices. During this time, I also worked as a medical scribe, assisting ER providers as they documented Emergency Room visits.

Family/Hobbies: My hobbies include playing guitar, running, and performing standup/improv comedy with friends! I also like old sci-movies and trivia; my goal is making it on Jeopardy one day!



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