"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 2017 Topics
- Minnesota Measles Outbreak Update – Lexie Barber
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- Syphilis Treatment HAN – Shari Renton
- NDDoH Using iNaturalist Application to Aid in Summer Tick and Mosquito Surveillance – Laura Cronquist

Minnesota Measles Outbreak Update
The Minnesota Department of Health (MDH) has confirmed 73 cases of measles in Minnesota as of June 1, 2017. The majority of the outbreak has taken place in Hennepin County, with 64 cases. Additionally, four cases have been reported in Crow Wing County, two in Le Sueur, and three cases in Ramsey County. Most cases have been in children, and in Somali Minnesotans. Health officials have confirmed 68 of the cases have been in unvaccinated individuals. Of the remaining cases, three received two doses of MMR (measles, mumps, and rubella) vaccine and two had one dose of MMR. MDH is recommending all children in Hennepin, Ramsey, Le Sueur and Crow Wing counties, as well as Somali children throughout Minnesota, receive their second dose of MMR if they have not already. The North Dakota Department of Health (NDDoH) is not making any additional vaccination recommendations for North Dakota at this time, but is encouraging everyone to make sure they and their children are up to date on MMR vaccination.
The outbreak in Minnesota is a reminder of how quickly measles can spread in an unvaccinated population. Although MMR coverage rates for Minnesota born Somali children used to be higher than non-Somali Minnesotan children, the trend has changed. In 2008, a local news story reported higher autism rates in Somali Minnesotan children than in non-Somali children. During the story, one parent blamed the MMR vaccine for her child’s autism. Since then, rates have dropped. Anti-vaccine groups have targeted this sensitive population to increase fears of autism and perpetuate the discredited link between MMR and autism. The link between MMR and autism has been discredited by many studies, and the original study suggesting the link has been proven to be falsified, yet there are still fears in the community. MDH is working to reach out to the community about the importance of MMR vaccine, and the seriousness of measles.

Although measles was declared eliminated from the United States in 2000, about 20 million people worldwide are still infected with measles every year, and about 146,000 will die from the disease. As of April of this year, there have been 61 cases of measles reported in the United States from 10 states (California, Florida, Michigan, Minnesota, Nebraska, New Jersey, Pennsylvania, Utah and Washington). Last year, 70 cases were reported in total in the United States. The last reported measles case in North Dakota was in 2011. European countries, many of which have MMR coverage rates below 95 percent, have seen multiple measles outbreaks over the past year. The largest outbreak has been in Romania, with over 4,700 cases and 18 deaths from measles since January, 2016.

Measles is a highly infectious, vaccine preventable disease caused by a virus. The disease typically begins with cold like symptoms, such as runny nose, watery eyes, high fever and a cough. Three to five days after these symptoms, a rash begins. The rash consists of flat red spots on the face, and spreads downward to the rest of the body. After a few days, as long as there are no complications, the fever subsides and the rash fades. Complications can include hearing loss, diarrhea, pneumonia and encephalitis. About one or two of every 1,000 children infected with measles will die from the disease.

The virus is spread through coughing and sneezing, and is able to live for up to two hours in the air. Infected individuals are able to spread the disease for four days before the rash develops and can continue to transmit the virus for up to four days after the rash appears. If health care providers are suspecting measles, the patient should be isolated following airborne precautions and reported to the NDDoH immediately.

The most important way to protect yourself from measles is to be sure you are up to date on your MMR vaccinations. The measles vaccine has an efficacy of about 98 percent after two doses, and 93 percent after one dose. Children are recommended to receive the first dose at 12 to 15 months and the second dose at 4 to 6 years. Two doses of MMR are required for entry into kindergarten and universities in North Dakota. All health care providers should have documentation of two doses of MMR, or proof of immunity to measles.

Increase of HIV in North Dakota
North Dakota is experiencing a recent and rapid increase in HIV infections among men who have sex with men (MSM). State health officials are recommending all men who have sex with men be tested for HIV. Since the beginning of 2016, 28 men, whose primary risk factor for HIV infection is having sex with other men, have been reported to have HIV in North Dakota. Prior to 2016, North Dakota reported an average of eight new cases of HIV each year among MSM. Ten
new MSM HIV cases have already occurred in 2017. Many of the recent HIV cases have reported the use of dating apps, such as Grindr, to meet sexual partners anonymously.

HIV Pre-Exposure Prophylaxis (PrEP) is a medication that, if taken as directed, can reduce the risk of HIV infection by more than 90 percent and is recommended, along with other prevention methods, for individuals at high risk for HIV infection. Individuals at high risk should be screened for HIV every three to six months. Information about HIV can be found by visiting www.ndhealth.gov/hiv or www.cdc.gov/hiv/. For more information about HIV screening and PrEP, please contact the NDDoH HIV program by calling 800.472.2180.

**Shortage of Bicillin L-A® for Syphilis Treatment**

Pfizer, the sole manufacturer of penicillin G benzathine (Bicillin L-A®), is experiencing an ongoing manufacturing delay. Bicillin L-A® is the recommended treatment for syphilis, and the only recommended treatment for pregnant women infected or exposed to syphilis. With an increase of infectious syphilis cases nationally, orders are not keeping pace with projected syphilis treatment demands among patients and their sex partners. An increase of syphilis cases has also been seen in North Dakota. With over 60 cases of syphilis reported in 2016, this reflects a 42 percent increase in the number of cases from 2015 in N.D.

Until normal quantities of Bicillin L-A® are available, report any shortages to the NDDoH. Contacting Pfizer may also help your agency find wholesalers with available supply. Pfizer can be contacted at 800.533.4535.

Refer to the most recent STD Treatment Guidelines (https://www.cdc.gov/std/tg2015/default.htm) with questions about syphilis clinical management, or contact the NDDoH STD program by calling 800.472.2180.

**NDDoH Using iNaturalist Application to Aid in Summer Tick and Mosquito Surveillance**

The NDDoH is hoping to involve the general public in their Tick and Mosquito Surveillance Programs this year. Two projects, “Ticks in North Dakota” and “Mosquitoes in North Dakota,” have been created in iNaturalist to record observations of ticks and mosquitoes seen within our state. iNaturalist, which can be found at iNaturalist.org, is a website that allows users to document and share observations of organisms they’ve found. Observations should include variables such as date, time and geographic location, as well as uploaded photographs of the organism. Laboratorians at the NDDoH will identify the tick and mosquito species in the pictures that are submitted. iNaturalist mobile apps are also available for Android and Apple devices.

For more information, please contact Laura Cronquist at lcronquist@nd.gov or 701.328.2694.