The Pump Handle

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

December 2015 Topics

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Preexposure Prophylaxis (PrEP) Recommendations

Pre-exposure prophylaxis (PrEP) is a medicine taken daily that can be used by at risk people to reduce their risk of HIV infection. PrEP is for people without HIV who are at very high risk for getting the infection from sexual exposure or injection drug use. Estimates of the number of people at high risk who should be offered PrEP, include about one in four sexually active gay and bisexual men, one in five people who inject drugs, and one in 200 sexually active heterosexual adults. When taken every day, PrEP is safe and highly effective in preventing HIV infection. PrEP is even more effective if it is combined with other ways to prevent new HIV infections like condom use, drug abuse treatment, and treatment for people living with HIV to reduce the chance of passing the virus to others. Many people who can benefit from PrEP aren't taking it. If more health care providers know about and prescribe PrEP, more HIV infections could be prevented.

Health care providers can:

- Test patients for HIV as a regular part of medical care. Discuss HIV risks and continued use of prevention methods, including condom use, with all patients.
- Follow the 2014 PrEP Clinical Practice Guidelines to perform recommended tests and prescribe PrEP to patients without HIV.

- Counsel patients who can benefit from PrEP on how to take it every day and help them apply for insurance or other programs to pay for PrEP.
- Schedule appointments for patients using PrEP every three months for follow-up, including HIV testing and prescription refills.

"PrEP has the potential to dramatically reduce new HIV infections in the nation," says Jonathan Mermin, M.D., M.P.H, director of CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. "However, PrEP only works if patients know about it, have access to it, and take it as prescribed."

Evaluation of Chickenpox Reporting Practices in North Dakota

Since the introduction of varicella vaccine, the number of chickenpox cases has dropped significantly in the United States. According to the CDC, surveillance data from 26 states showed that varicella incidence had declined by 82% from 2000 to 2010. This trend is also present in North Dakota. Before this study was implemented, only 21 cases of chickenpox were reported for 2014 in North Dakota compared to 120 cases in 2005. Chickenpox is currently a reportable condition in North Dakota. It is recommended that all suspected cases of chickenpox be confirmed through laboratory testing. In addition, cases that are diagnosed without laboratory confirmation are still required to be reported to the North Dakota Department of Health (NDDoH).

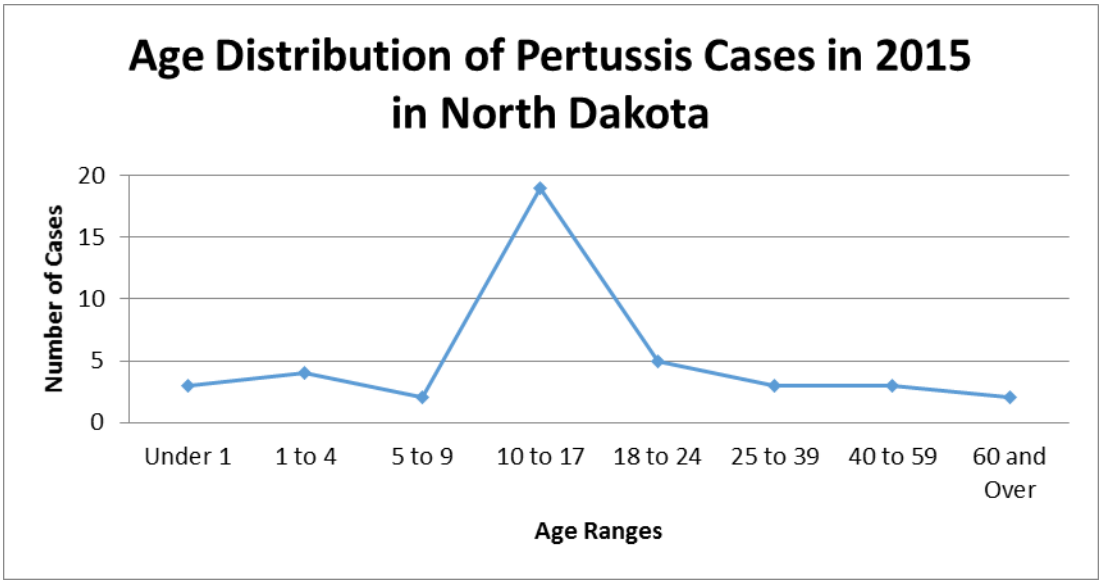
In order to evaluate the effectiveness of our current surveillance system, Stephanie Melquist, an intern for the NDDoH, conducted retrospective identification of chickenpox cases via chart reviews. Two health systems in North Dakota were contacted and asked to participate in this study. These facilities were chosen because of their presence in multiple regions of the state, including those most densely populated. A line-list of patients who met the study criteria was requested from the participating health system's billing departments for the period of time between January 1, 2014 and June 30, 2015.

This project was able to identify 66 cases of probable and confirmed chickenpox that should have been reported to the NDDoH by providers. The results of the study indicate a lack of reporting and laboratory confirmation of suspected chickenpox cases. It is recommended that all suspected chickenpox infections be laboratory confirmed, as fewer physicians have direct experience with breakthrough infections and diagnosing chickenpox. Breakthrough infections often have atypical presentation and may lack vesicles. Due to vaccination, chickenpox cases occur less frequently. Laboratory proof of infection also allows individuals to opt-out of the varicella vaccination in the future as it is unnecessary if natural infection has already occurred. The NDDoH investigates each case of chickenpox reported. It is essential that cases are reported in order to prevent further spread of the disease. It is also important for the NDDoH to have an accurate understanding of the number of cases occurring in the state. The current lack of reporting indicates the need for increased education surrounding reporting and laboratory confirmation at the facility level. This study should be replicated at other facilities in the state.

The NDDoH would like to thank the participating facilities for their assistance in this study; it was much appreciated.

North Dakota Pertussis Update

Six new cases of pertussis were reported to the NDDoH during the month of December. The cases were reported from four different counties in North Dakota. Preliminary data indicates that a total of 41 cases of pertussis in eight counties were reported in North Dakota in 2015. This is a decrease from last year when 51 cases were reported in the state. Twenty-eight of the cases reported in 2015 were in children and adolescents younger than 18.



Pertussis (also known as whooping cough) is a contagious disease that lasts for many weeks or months and causes severe coughing. Pertussis is often characterized by a "whooping" sound or coughing that leads to vomiting. The disease can be life threatening for infants, and is usually spread by adults to infants. Generally, the illness is less severe in those who are vaccinated and may present as a prolonged cough. Pertussis should be considered for any patient with an unexplained, prolonged cough illness (longer than 14 days) characterized by one or more of the following symptoms:

- Paroxysms
- Whoop
- Post-tussive gagging/vomiting
- Apnea

People presenting with the above symptoms should be considered as presumptive pertussis cases and should be treated and advised to stay home until after five days of antibiotics or until pertussis has been ruled out. All suspect and confirmed cases of pertussis should be reported to the NDDoH immediately.

Two vaccines are available that protect against pertussis. Diphtheria, tetanus, and acellular pertussis vaccine (DTaP) should be administered routinely to infants at 2, 4, 6 and 15 to 18 months of age. A booster dose of DTaP should be given at 4 to 6 years of age. DTaP vaccine should not be given to children seven years of age and older; however, Tdap vaccine can be used to catch-up under-immunized children seven years and older. Tdap vaccine should be routinely administered to adolescents at 11 to 12 years of age. Adults who have never received a dose of

Tdap should also receive a one-time dose. Pregnant women are recommended to receive a dose of Tdap during each pregnancy.

Acute Flaccid Myelitis Surveillance

In the fall of 2014, several clusters of children hospitalized with illness consistent with acute flaccid myelitis (AFM) were identified in the United States. AFM is characterized primarily by an acute onset of weakness or paralysis in the arms or legs. People with AFM typically also have spinal lesions viewable with radiologic scans. Originally, the clusters were thought to be linked to a nationwide outbreak of enterovirus D68; however, the origin of these illnesses is still unknown and the incidence of AFM illness is not well understood. The NDDoH, along with other states and jurisdictions, has received funding from the Centers for Disease Control and Prevention to investigate AFM in an attempt to understand the true impact of AFM, and determine if cases have a common infectious origin.

In September, the NDDoH released a Health Advisory regarding AFM, requesting providers report cases to the NDDoH, and submit specimens that can aid in the identification of one or more pathogens that may be causing these clusters of disease. The Health Advisory is available here: http://www.ndhan.gov/data/health/2015-09-10-AFM%20HAN.pdf

Because not much is known about the overall incidence of AFM, the NDDoH will begin this surveillance project by surveying providers regarding how often people that had or may have had AFM have presented in their facilities. Providers will be selected for the survey based on practice type. This survey will provide us baseline data to be used in future surveillance. By understanding how commonly AFM illness occurs, we will be better able to determine if the recent clusters may represent a true increase in the rate of AFM, and will also be better equipped to identify increases in the rate of AFM illnesses in the future.

2015-16 Influenza Season Update

Influenza activity for the 2015 – 16 season remained sporadic in December, with a total of 75 cases of lab-identified influenza reported through the last week of 2015. Most cases for a "typical" influenza season happen between January and March; however, significant increases in influenza activity in December have been seen for the previous three seasons, making the current season appear late by comparison. Activity for the 2015 – 16 is expected to increase in the coming weeks, although the overall expected impact of the 2015 – 16 is still unknown. So far, circulating strains are well matched to this year's vaccine. This is in contrast with last season, when a genetically drifted influenza A began circulating early on in the season.

NORTH DAKOTA
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