

Immunization Newsletter

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H1N1 Influenza Makes the News

The 2013-2014 influenza season in North Dakota is officially under way. A large increase in cases was seen in December, with the total reported cases of lab-confirmed influenza reaching 1,927 as of January 30, 2014. The predominant influenza A strain circulating this season in North Dakota and throughout the United States is the 2009 H1N1 pandemic strain (pH1N1). Just as we saw during the 2009-2010 pandemic, we are seeing an increased number of cases in children and young to middle-aged adults. These additional cases in typically healthy populations serve as a reminder that influenza can affect people of any age, and vaccination is recommended for all age groups. The pH1N1 strain is a component of the influenza vaccines available this year. Hand washing, staying home when ill, and taking prescribed medications are also important infection control efforts people can take in addition to vaccination to help prevent spread of influenza.

The NDDoH has a webpage devoted to influenza. Information including statistics, fact sheets, vaccines, educational materials and reporting can be found at www.ndflu.com. If you are interested in what is happening locally you can select any county on the map to get specific information for the number of cases in your area. The information on this site is updated every Thursday. The NDDoH requires providers to report all lab-confirmed cases of Influenza A and B to the state health department within seven days.

It is not too late to vaccinate for seasonal influenza. Patients that have not received an influenza vaccination for the 2013-2014 season should receive a dose. Some children need second doses of seasonal flu vaccine and should be immunized as long as the appropriate vaccine for the child's age is available.

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IAC Influenza Honor Roll

The immunization program would like to recognize that a North Dakota Provider was added to the IAC Influenza Vaccination Honor Roll in November, 2013. Kidder County Community Health Center is the latest North Dakota provider to join the list. The Influenza Vaccination Honor Roll represents providers who have taken the lead in mandating influenza vaccination within their organization or institution. To view the list of requirements and application to join the honor roll you can visit www.immunize.org/honor-roll/influenza-mandates/.



Vaccine Frequently Asked Questions

Would giving an older patient two doses of standard-dose influenza vaccine be the same as administering the high-dose product?

No, and this is not recommended. High dose flu vaccine is a .5mL dose with higher antigen levels than the standard dose .5mL dose. The appropriate dose must be selected based on the age of the patient. Using two or more doses of one vaccine in place of the vaccine indicated is not permitted. For example, two pediatric hepatitis A vaccines must not be used in place of one adult hepatitis A immunization for a client older than 18 years.

Should patients that received the trivalent flu vaccine earlier this season receive a booster dose of the quadrivalent influenza vaccine?

No, there is no recommendation to use quadrivalent flu vaccine as a booster dose.

How late in the season can I vaccinate my patients with influenza vaccine?

Peak influenza activity generally occurs in February. Providers are encouraged to continue vaccinating patients throughout the influenza season including early spring, as long as the vaccine is in the refrigerator and unvaccinated patients present in their office.

Which children should receive pneumococcal polysaccharide vaccine (PPSV23) vaccine (in addition to PCV13)? At what age should they receive it?

PPSV23 is recommended for children with an immunocompromising condition, or functional or anatomic asplenia, and also for immunocompetent children with chronic heart disease, chronic lung

disease, diabetes mellitus, cerebrospinal fluid leak, or cochlear implant. Administer one dose of PPSV23 to children age 2 years and older at least 8 weeks after the child has received the final dose of PCV13. Children with an immunocompromising condition, or functional or anatomic asplenia, should receive a second dose of PPSV23 five years after the first PPSV23.

Who else is PPSV23 recommended for besides adults age 65 years and older?

People ages 2 to 64 years with any of the following conditions:

- A. Cigarette smokers 19 and older
- B. Chronic cardiovascular disease
- C. Chronic pulmonary disease
- D. Diabetes mellitus
- E. Alcoholism
- F. Chronic liver disease
- G. Candidate for or recipient of cochlear implant
- H. Cerebrospinal fluid leak
- I. Functional or anatomic asplenia
- J. Immunocompromising conditions (e.g. HIV infection, leukemia, hodgkins disease, congenital immunodeficiency)
- K. Solid organ transplantation, or bone marrow transplant
- L. Chronic renal failure or nephrotic syndrome

For guidance on when to administer PCV13 and PPSV23 to high risk individuals 19 and older, providers can use the table provided by the CDC found at:

www.cdc.gov/vaccines/vpd-vac/pneumo/vac-PCV13-adults.htm



Vaccine-Preventable Diseases in ND 2013

Preliminary data indicates that 79 cases of pertussis were reported from 16 North Dakota counties in 2013. Five of the cases were hospitalized, and 63 cases were in children and adolescents younger than 18. Pertussis cases in 2013 decreased in comparison to 2012, when 214 cases were reported.

In 2013, one probable and two suspect cases of mumps were reported. The cases were from different counties and were not linked. Two cases of suspect mumps were reported in 2012. Seven cases of mumps were reported in 2011, four confirmed and three suspect.

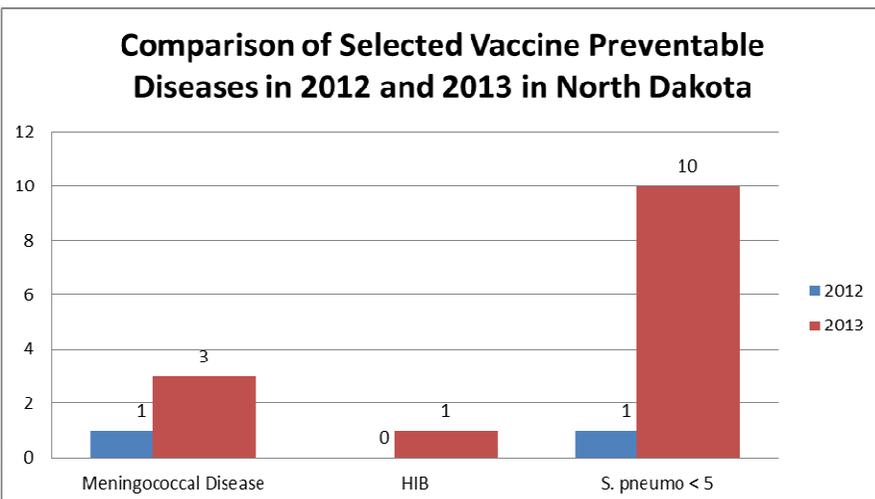
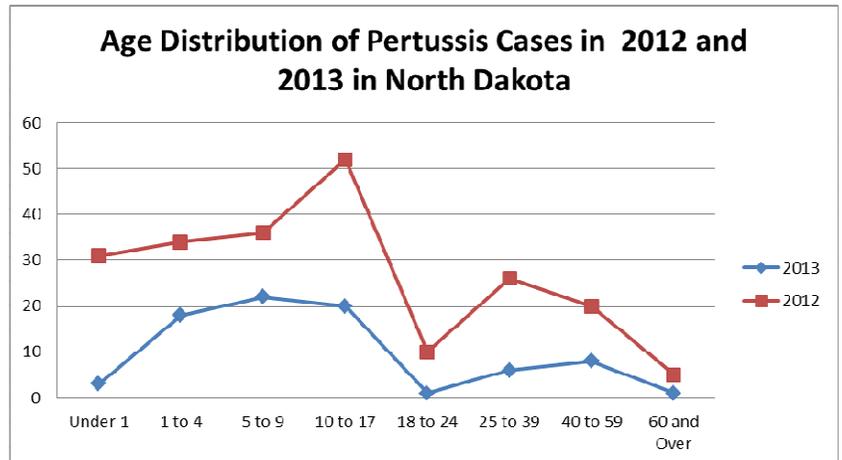
In 2013, three confirmed cases (two serogroup B, one serogroup Z) of meningococcal disease were reported in North Dakota, compared to one confirmed case (serogroup B) in 2012 and two confirmed cases (serogroup Y) in 2011.

Ten cases of invasive *S. pneumoniae* infection in children younger than 5 were reported in 2013 compared to one case in 2012.

One confirmed case of invasive *Haemophilus influenzae type B* (Hib) was reported in 2013. This is only the second case of confirmed invasive Hib disease since 1991; the other case was reported in 2011.

Twenty confirmed and 16 probable cases of chickenpox were reported in 2013 compared with the 18 confirmed and 21 probable cases reported in 2012.

Two suspect cases of rubella were reported in 2013; no cases were reported in 2012.



*There were no cases of measles, diphtheria or tetanus reported in 2013.



Serogroup B Meningococcal Disease Outbreaks

In 2013, there were two Serogroup B meningococcal outbreaks on college campuses in the United States. The schools involved were Princeton University and University of California–Santa Barbara (UCSB).

Princeton's prolonged outbreak has included eight confirmed cases, the first of which was reported in March. The most recent case was reported in November. Princeton University health officials and local health authorities have been working closely together and with the CDC to determine the best way to prevent further transmission and address the needs of the students. The number of cases and the lack of direct connection among the cases is why this is classified as an outbreak. Because more cases are anticipated, Princeton's Institutional Review Board is seeking approval to use a meningococcal B vaccine that is licensed in other countries but not the U.S. The two-dose vaccine series is being recommended to all Princeton University undergraduate students and graduate students that live on campus. The first dose of the vaccine was administered to 91 percent of the population recommended to receive it the week of December 9-12, 2013. The second dose will be offered in February 2014.

While the vaccine is not licensed in the U.S., the FDA confirms that the vaccine can be administered safely and that the risk of serogroup B meningococcal disease outweighs potential adverse effects from the vaccine. Common side effects for adolescents and young adults have included nausea, feeling run down, and headache, which usually last a short amount of time and resolve on their own.

The outbreak at UCSB was first reported in November 2013 having four confirmed cases. No additional cases have been diagnosed since November 21. Both outbreaks are caused by serogroup B but genetic testing shows they are not linked. UCSB implemented immediate antibiotic treatment to close contacts of the cases and began

encouraging behaviors to minimize the risk to other students. For the UCSB outbreak, health officials have focused on raising awareness of symptoms so that students can receive immediate treatment to prevent complications and spread. Health officials announced in January 2014 that the meningococcal vaccine currently approved for use at Princeton University will be offered at UCSB in the next several weeks. Enough vaccines to cover 20,000 students at UCSB will be made available soon.

In the U.S. there are several meningococcal vaccines licensed, but none cover the outbreak strain. Current strains contained in the vaccines required for college students include serogroups A, C Y, and W135. The vaccine being used in this outbreak is manufactured by Novartis and has completed a phase II clinical study in the U.S. After careful review of vaccine schedules and feedback from public health experts, the company has decided to advance a meningococcal vaccine that helps protect against five serogroups (ABCY, and W135) into late stage development. This vaccine would cover the most common serogroups that circulate in the U.S. There is not currently a timeline for the approval of this developing vaccine.

For the 2013-2014 school year, one dose of meningococcal conjugate vaccine is required for 6th or 7th grade, depending on which year middle school begins in that district. For the 2014-2015 school year, all students entering 7th grade will be required to have one dose of meningococcal vaccine regardless of which grade is considered middle school entry.

College students in North Dakota 21 or younger who reside in campus housing are required to provide evidence of at least one dose in the last five years prior to enrolling (after the age of 16) or two doses administered at age 10 years or older and at least eight weeks apart.



National Cervical Cancer Awareness Month



January is Cervical Cancer Awareness Month and the immunization program would like to encourage providers to use the Talking to Parents resources available from the CDC to increase Human Papillomavirus (HPV) vaccination. The tips can be found at www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.html. Gardasil® and Cervarix® both offer protection against HPV strains 16 and 18, which are the cause of 70 percent of cervical cancer cases.

Gardasil® protects against additional strains 6 and 11 and is licensed for use in males and females. HPV-related cancers also affect males, making it equally as important to vaccinate males and females. The vaccines are licensed for people ages 9 to 26. Recommended vaccination is at ages 11 to 12 and catch-up vaccination is at ages 13 to 26. HPV vaccine is available for uninsured, underinsured, Medicaid eligible, and American Indian children 9 to 18 from the VFC program. HPV vaccine is supplied by the state for use in adults 19 to 26 who are uninsured or whose insurance will not cover HPV vaccine.

Vaccine Allocations Update

North Dakota has received additional doses of Pentacel® in January. Because of the additional allocations, the immunization program has implemented a second round of the lottery system. A couple of providers signed up to receive doses that they would need to satisfy the eligible groups in their area needing the vaccine. North Dakota expects to continue receiving similar allocations for the other pertussis-containing vaccines in addition to what has been received in the past several months. It is important to note when ordering that the allocation of Adacel® is weighted more toward the single dose vial presentation and providers are encouraged to order or be prepared to receive that presentation over the syringe presentation. These allocations may also indicate potential difficulty for ordering private supplies. The GlaxoSmithKline pertussis-containing vaccines and PedvaxHib® remain available for order without supply restrictions.

Seasonal influenza vaccines are still available on a first-come-first-serve basis. The brands and presentations that are available for ordering are in the ordering table in NDIIS. There is still time to vaccinate patients that have not been immunized for the 2013-2014 influenza season and to provide the second doses to children that need it. Even if a patient has had the flu during this season, it is still beneficial to vaccinate them against the strains contained in the vaccine that they may not have been exposed to. Influenza vaccine can be administered at the same time as other vaccines including live virus vaccines. If FluMist® or other live virus vaccines (MMR, Varicella, and MMRV) are not given at the same appointment, they must be administered a minimum of 28 days apart with no four day grace period for validity.



Hib Case in North Dakota

A confirmed a case of invasive *Haemophilus influenzae*, type b (Hib) disease in an unvaccinated child was reported to the NDDoH in 2013. The child was philosophically exempt from all vaccines. This is only the second case of Hib disease in a pediatric patient reported in North Dakota since 1991. The last case was reported in 2011. Prior to the availability of Hib vaccine, Hib was one of the most common causes of meningitis and invasive infections in young children.

Symptoms of Hib depend upon the part of the body affected. Fever is present in all forms of Hib disease. Meningitis can cause stiff neck, headache and vomiting. Pneumonia may cause a cough that produces mucus and rapid breathing, and patients with epiglottitis usually have noisy breathing and a very sore throat. Swelling and purple-red discoloration of the skin is a symptom of cellulitis.

North Dakota providers should take steps to prevent Hib disease by vaccinating children according to the recommended immunization schedule. According to the 2012 National Immunization Survey (NIS) only 82.1 percent of North Dakota children 19 to 35 months were fully vaccinated against Hib. Hib conjugate vaccine should be given to all children between 2 months and 5 years of age. If using ActHib®, children should receive three doses at 2, 4 and 6 months of age or, if using PedvaxHib®, two doses at 2 and 4 months of age. A booster dose should be given at 12 to 15 months of age, regardless of what type of Hib vaccine they previously received. Some older children and adults who are at high risk for complications also are recommended to receive this vaccine. Thirty cases of invasive Hib disease in children under 5 were reported in the United States in 2012 and seventeen cases have been reported so far in 2013. Hib disease is still a threat and this case underlines the importance of vaccination. Vaccination not only protects the individual being vaccinated, but also those who cannot be vaccinated or are too young to receive the vaccine.

The Immunization Action Coalition (IAC) and the CDC have resources available for talking to parents that are hesitant about vaccinating their children. It is important that before a parent exempts their children, that they receive proper education about the risks and potentially dangerous consequence of not vaccinating, as well as the safety and potential side effects of receiving a vaccine. Due to the effectiveness of vaccines in reducing diseases, many people forget how dangerous these diseases are. Providers must ensure that parents understand that the diseases are still occurring and that leaving a child unvaccinated also leaves them susceptible.

Suspected and confirmed cases of Hib should be reported to the NDDoH immediately. For more information, please contact the NDDoH Immunization Program at 701.328.2378 or toll-free at 800.472.2180.



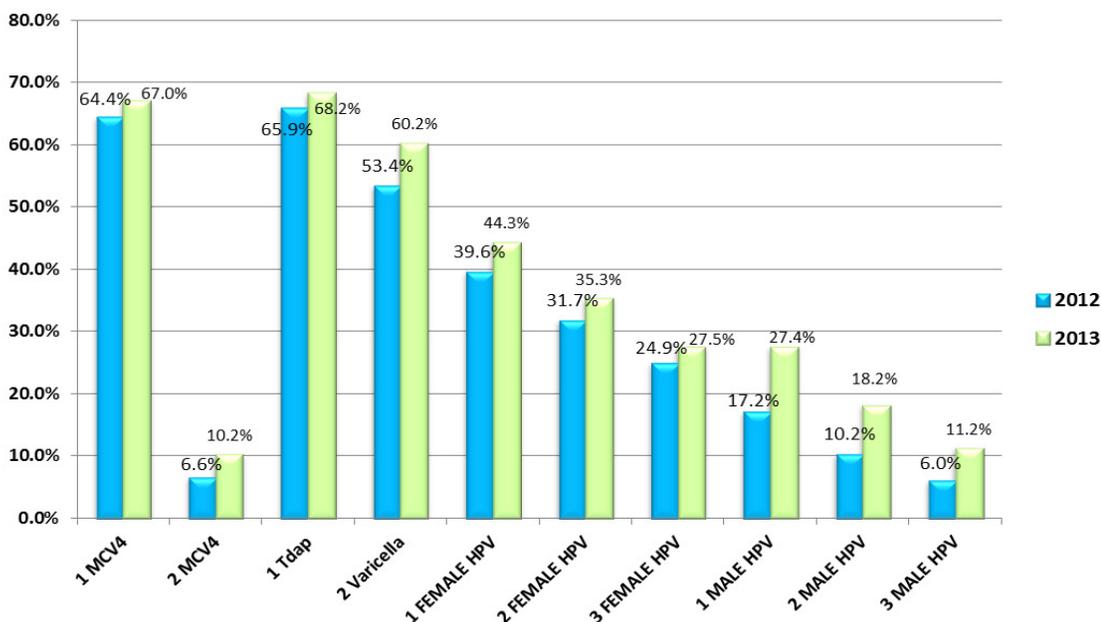
Adolescent Reminder Recall 2014

In April 2013, the North Dakota Immunization Program began conducting state-wide immunization recall for adolescents using NDIIS. The recall includes 12 to 17-year-olds who are 30 or more days past due for one dose of tetanus, diphtheria, pertussis (Tdap) vaccine, one and two doses of meningococcal (MCV4) vaccine, one and two doses of varicella vaccine, and the second and third dose human papillomavirus (HPV) vaccine based on the recommended vaccination schedule from the Advisory Committee on Immunization Practices (ACIP). Since the start of the adolescent recall project 75,632 postcards have been sent out and 87,850 automated phone calls have been made as of November 12, 2013. The percent of adolescents up-to-date with all of the included vaccines has increased when comparing the rates for 2012 to 2013. The adolescent recall will continue, using a combination of postcards and automated phone calls, through August of 2014.

All of the adolescent vaccines are available from the VFC program for VFC-eligible children 0 to 18 years. The immunization program has begun an adolescent Assessment, Feedback, Incentives and eXchange (AFIX) program that included volunteer participants in 2013 and currently remains voluntary. Providers that have volunteered to participate will receive their adolescent immunization rates as well as information for overcoming barriers and using reminder recall to increase immunization rates. The reminder recall being performed by the state is helping providers increase their immunization rates for this age group as seen in the graph below. In addition to reminder recall, providers must also be recommending these immunizations whenever an adolescent presents and needs to be brought up-to-date on their required and recommended vaccines. Using the Forecaster in NDIIS at each visit will show what the adolescent is due for and may be offered at that time.

Impact of Adolescent Recall on Immunization Rates

(percent of adolescents up-to-date based on data in the North Dakota Immunization Information System (NDIIS))



Making the Case for Flu Vaccine



Influenza is associated with significant illnesses and deaths every year in the United States. From 1976 to 2007, annual deaths from influenza ranged from 3,300 to 49,000. The flu vaccine is recommended to prevent illness and other complications from influenza. The ACIP recommends that everyone 6 months and older be vaccinated against influenza each year. Vaccine efficacy was taken into account when calculating these potential outcomes. Vaccine effectiveness for the 2012-2103 season varied from 32 percent among people 65 and older to

58 percent for children 6 months to 4 years. The CDC estimates that vaccination resulted in 79,000 fewer hospitalizations during the 2012-2013 flu season. Based on estimates of the percentage of flu illnesses that involved medical attention, vaccination also prevented approximately 6.6 million flu illnesses and 3.2 million medically-attended illnesses. These numbers are significant considering that less than half of eligible Americans were vaccinated in the 2012-2013 flu season. If vaccination rates were higher it would have resulted in prevention of a substantial number of additional cases. If vaccination rates had reached the Healthy People 2020 target of 80 percent for children and healthy adults 6 months to 64 years and 90 percent for high risk adults and all adults 65 and older, approximately 4.4 million illnesses, 1.8 million medically-attended illnesses and 30,000 additional hospitalizations could have been avoided. This data indicates a promising future with increased influenza vaccination.

Lunch and Learn Schedule 2014



Lunch and Learns have been well received and the immunization program will continue the presentations through 2014. The presentations are approximately one hour in length and are available for one contact hour of continuing education credit.

Lunch and Learns will always be held the second Wednesday of each month at noon CST. After each presentation, the post-test must be completed for credit. The presentations are all archived with slides on the immunization program website. The credit is available for two weeks after the original presentation. The immunization program would

like to encourage providers to share topics they would like to see covered by Lunch and Learns. An email will be sent the first and second Monday of the each month to allow providers time to register for the presentation. If multiple people will be watching from one location, we recommend having one person register as lines are limited.

- January 8
- February 12
- March 12
- April 9
- May 14
- June 11
- July 9
- August 13
- September 10
- October 8
- November 12
- December 10

Meningococcal Vaccine Recommendations



On October 23, 2013, the ACIP voted to recommend use of Menveo® (MCV4 from Novartis) in high risk children 2 to 23 months of age, in addition to the licensure for use in children 2 years and older. Menactra® (MCV4 from GlaxoSmithKline) remains licensed and recommended for use in children 9 months and older.

MenHibrix® (HibMenCY from GlaxoSmithKline) is licensed for children 6 weeks to 18 months of age and at an increased risk for meningococcal disease. Infants considered at higher risk have recognized persistent complement pathway deficiencies, anatomic or functional asplenia, sickle cell disease, or are living in or traveling to communities with serogroups C and/or Y outbreaks. Due to the narrow group of children that would need MenHibrix®, each state was given an annual allocation that is a percentage of the total number of VFC-eligible infants. North Dakota received only twenty doses in this allocation. The vaccine can be ordered in single dose increments should the need for it arise. This vaccine should only be requested when an infant that is in the recommended group is presented to a clinic or known ahead of the appointment.

Vaccine Information Statements

As VFC enrollment nears and 2014 site visits begin, please take a moment to make sure that all Vaccine Information Statements are up to date. Please note that the Tdap vaccine information statement is separate from the Td/Tdap information statement.

The Td/Tdap VIS should be used for Td only until the new Td VIS is released. The immunization program will inform all providers when new VISs are available for use and required.

Offering a VIS for each vaccine at all immunization appointments, including mass clinics, is a federal requirement. VISs can be printed and laminated for each room as long as they are sterilized between patients, or provide as paper copies at each immunization appointment. The VIS must be offered prior to immunization, not after. Not all patients will have internet access or take time to go online to view VISs prior to the appointment, so please do not offer this as the only method of disseminating the VIS to patients.

Check your stock of VISs against this list. If you have outdated VISs, get current versions.

Adenovirus	7/14/11	MCV/MPSV	10/14/11
Anthrax	3/10/10	Multi-vaccine	11/16/12
Chickenpox	3/13/08	PCV13	2/27/13
DTaP	5/17/07	PPSV	10/6/09
Hib	12/16/98	Polio	11/8/11
Hepatitis A	10/25/11	Rabies	10/6/09
Hepatitis B	2/2/12	Rotavirus	8/26/13
HPV-Cervarix	5/3/11	Shingles	10/6/09
HPV-Gardasil	5/17/13	Td/Tdap	1/24/12
Influenza	7/26/13	Tdap	5/9/13
J. enceph.	1/24/14	Typhoid	5/29/12
MMR	4/20/12	Y. fever	3/30/11
MMRV	5/21/10		



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Upcoming Immunization Conferences in 2014

National Vaccine Advisory Committee Meeting

ACIP Meeting

2014 Spring Clinical Vaccinology Course

17th Annual Conference on Vaccine Research

2014 Massachusetts Adult Immunization Conference

National Conference on Immunization and Health Coalitions

For a complete list of immunization events in 2014, please visit www.immunize.org/calendar/

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Calendar of Events

**The North Dakota
Immunization
Conference is July 15
and 16, 2014, in
Bismarck, North Dakota**

**Suggestions for areas of
interest to be addressed
during the conference
are welcome! Please
email Abbi Pierce with
Suggestions!**

**National Infant
Immunization Week
April 26-May 3, 2014**

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February 11-12

February 26-27

March 21-23

April 28-30

May 20

May 21-23