

Immunization Newsletter

Required Provider Trainings

The Centers for Disease Control and Prevention (CDC) is requiring that all immunization programs train their Vaccine for Children (VFC) providers about VFC requirements, including proper vaccine storage and handling.

The North Dakota Department of Health (NDDoH) Immunization Program is requiring that the primary and back up vaccine coordinators take two web-based trainings by **November 27, 2013**. A minimum of two people per site must complete the trainings, though any staff that handle vaccines are encouraged to participate as well. The trainings are requirements for all VFC and state vaccine providers and must be completed to enroll in the program.

The trainings were prepared by the CDC and each may take an hour to complete.

Training 1: You Call the Shots- Vaccine Storage and Handling

Training 2: You Call the Shots- Vaccines for Children

Both presentations can be found at www.ndhealth.gov/immunize/education/. Individuals who are interested in obtaining CDC continuing education credits can visit www2a.cdc.gov/TCEOnline/ for more information. The credit for these trainings is available from the CDC only.

In order for the NDDoH to track which providers have completed the trainings, providers must complete post-tests that are available at www.ndhealth.gov/Immunize/Education/. Both employees are required to complete the post-tests by the end of the day on November 27, 2013.

If there are any questions or concerns, please contact the immunization program directly at 701.328.3386 or toll-free at 800.472.2180.

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The 2013-2014 School Immunization Survey must be completed by November 15, 2013. The North Dakota School Immunization Guide is available at www.ndhealth.gov/Immunize/Schools-ChildCare/

If you haven't already, you can "Like" the North Dakota Immunization Program Facebook page for up-to-date information about vaccines, outbreaks, resources, articles and exciting immunization news. Find us here: www.facebook.com/NDImmunization





The National Immunization Survey: Adolescents

The National Immunization Survey (NIS) rates for adolescents, ages 13 – 17, were released August 29, 2013. North Dakota reached the Healthy People 2020 goals for Tdap and MCV4 and were above the national average for all adolescent vaccines, with the exception of varicella vaccine and the first dose of HPV for males. North Dakota HPV vaccination coverage rates are well below Tdap and MCV4 rates. North Dakota did have an increase in coverage for each adolescent vaccine from 2011 to 2012.

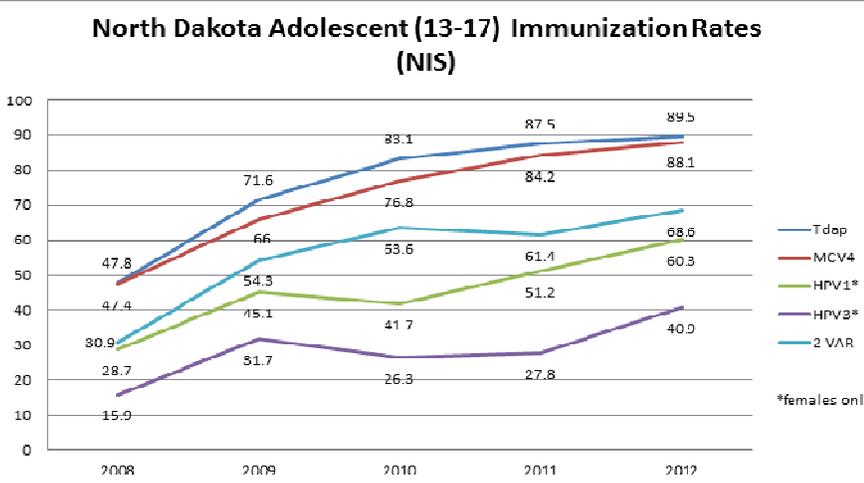
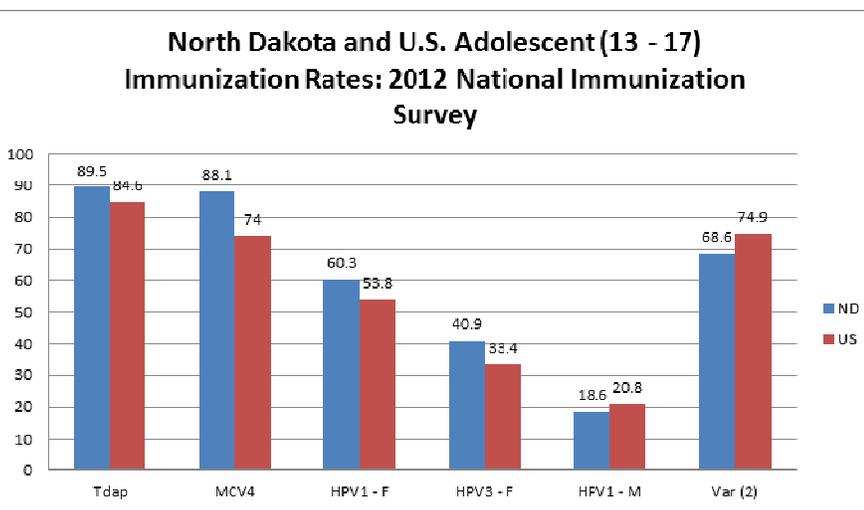
In 2013, the immunization program began an adolescent recall to help providers and the state increase adolescent vaccine coverage rates. Data collected from this recall will be discussed in detail during the November Lunch & Learn. The Adolescent recall is for Tdap, MCV-4, Varicella, and doses two or three of the HPV vaccine series. The recall does not include adolescents that have not started the HPV vaccine series.

When adolescent males or females are seen for other immunizations, HPV vaccine should be

recommended and offered. Appointments for the second and third HPV doses can be made at that time with reminder cards or phone calls prior to the appointment date. Discussing the vaccine early with parents is encouraged to address any questions or concerns. As with all vaccines, it is important for the person to be immunized before they are exposed.

The immunization program is optimistic that the results for the 2013 NIS for adolescents will reflect an increase in HPV vaccination for all doses of the series and an increase in all other adolescent vaccines.

There are three more planned adolescent recall mailings or phone calls for the remainder of 2013 and 2014. Providers will be emailed the day before to prepare for possible phone calls and appointments. If a provider is seeing an influx of adolescent patients as a result of recalls and must order more than the current suggested maximums for VFC vaccine, please leave a comment in your order indicating the reason for ordering more



than the suggested maximum to ensure that vaccine orders are filled. The immunization program does not want adolescents to be turned away because there is not state supplied vaccine available.



When to Vaccinate with Flu Vaccine

The CDC recommendations for this influenza season are to start vaccinating as soon as vaccine supply is available. This is to avoid missed opportunities and rushes between October and December. It is acceptable to start vaccinating as soon as supply is received. However, there have been several studies showing that influenza vaccine immunity may wane sooner than previously suspected, especially in seasons where the peak of illness comes later than expected.

One study that took place in Spain for the vaccine effectiveness (VE) of 2011-2012 seasonal flu vaccine showed that within the first 100 days after vaccination, there was a VE of 61 percent, which dropped to 42 percent between days 100 and 119, and protection ceased after 120 days. This study showed that those vaccinated 120 or more days before diagnosis were at much greater risk for contracting influenza than people vaccinated less than 100 days prior. (Castilla, J.; et. Al).

For the same influenza season, a VE study was conducted in the United Kingdom. This season had a late peak in cases, week eight of 2012, with the majority of cases being diagnosed in elderly patients. The adjusted VE was 53 percent if the time from onset to vaccination was less than three months and dropped sharply to 12 percent if onset was 3 months or more after vaccination. (Pebody, R.G.; et. Al).

If possible, flu vaccine should be offered by October to patients and employees to promote adequate protection during flu season.

Flu Vaccine Administration FAQs

There are some children that will require two doses of flu vaccine to produce optimal immunity. Children 6 months to 8 years that did not or do not know if they received two doses of seasonal flu vaccine since the 2010-2011 season should receive two doses of flu vaccine separated by four weeks. Also, if children in the same age group did not receive two doses of seasonal vaccine in any previous season and one dose of a 2009 H1N1 vaccine, they should also receive two doses separated by four weeks. The flu algorithm for the 2013-2014 season is available on the immunization program website.

This time of year, minimum interval violations can occur when school aged children receive (live vaccines) chickenpox, MMR, and Flumist vaccines too close together. With all live vaccines, if not administered in the same appointment, they must be separated by a minimum of 28 days. There is no four day grace period for live vaccine intervals. Timely data entry in NDIIS, and checking immunization records and the forecaster prior to vaccinating, can prevent these errors.

Antivirals for influenza are also subject to minimum intervals. LAIV should not be administered to a person receiving antivirals until 48 hours after the last dose of medication. If antivirals are started less than two weeks after receiving LAIV, the patient should be revaccinated 48 hours after the last dose. Inactivated Influenza vaccine may be administered to a person on antivirals or anytime before or after antiviral treatment has been started.

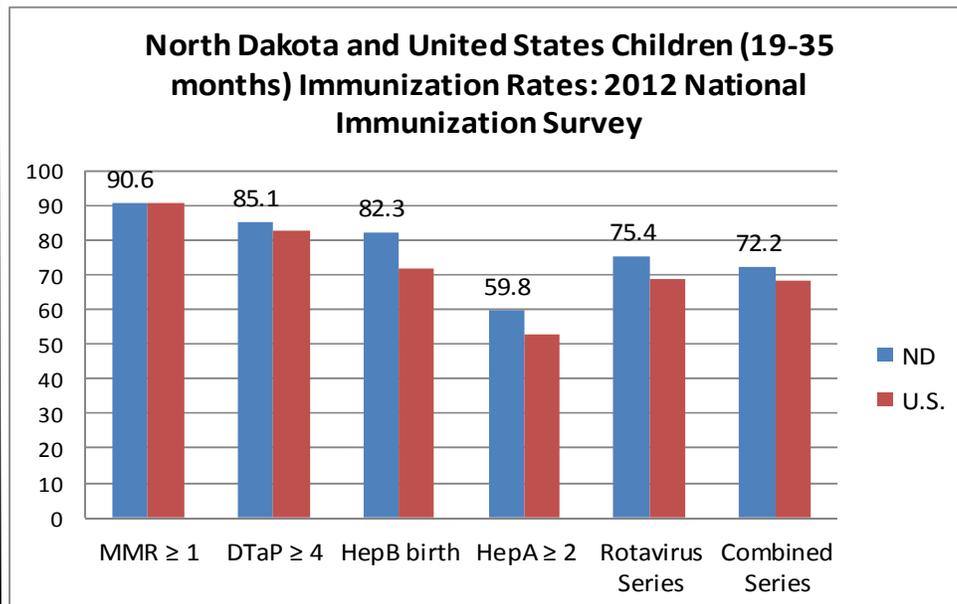


National Immunization Survey: Children 19-35 Months

The NIS rates for children 19-35 months were released September 13, 2013. The Healthy People 2020 objectives set for childhood vaccination is at 90 percent for having one or more doses of MMR and varicella, three or more doses of Hepatitis B and poliovirus, four or more doses of Pneumococcal conjugate and DTaP, and series completion for Hib vaccines.

The coverage rates in 2012 are not directly compared to the rates of 2011 due to changes in the NIS sampling methods. Land line telephones used to be the primary avenue for data collection from families, limiting the range of participants. In 2012, 45 percent of children were living in homes with only cellular phone access. In 2011, the number of homes with cellular phones was estimated at only 11 percent. The 2012 sample is believed to closely resemble the U.S. population with respect to telephone services, and the data collected should be considered a baseline against which future coverage trends can be evaluated.

North Dakota fell below the Healthy People 2020 goals for DTaP, Hepatitis B, Hepatitis A, Rotavirus, and combined series completion. North Dakota rates were slightly higher than the national average for all vaccines except for MMR, but only MMR met the Healthy People 2020 goals. The chart below demonstrates North Dakota's immunization rates for 2012 versus the national averages for these vaccines and the series completion.



Using the forecast tool in NDIIS at all immunization appointments will help reduce the number of missed opportunities. The Reminder/Recall function can help providers contact children who are overdue and coming due for immunizations. The consistent use of these tools will increase North Dakota and provider immunization rates.

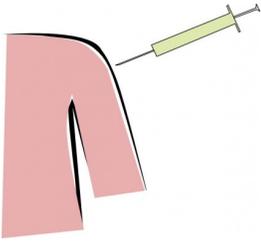


Rotavirus vaccine has a new Vaccine Information Statement that is required to be used as of August 26, 2013. The Multi VIS for childhood vaccines should be supplemented with the new Rotavirus VIS.

Find it here: www.cdc.gov/vaccines/hcp/vis/vis-statements/rotavirus.pdf



Influenza Vaccination Coverage Among Pregnant Women



Pregnant women and infants younger than six months are at an increased risk for influenza-related illness and hospitalizations. Influenza vaccination of pregnant

women has been shown to reduce the risk for illness in both the mother and the infant. The ACIP and American College of Obstetricians (ACOG) recommend influenza vaccination for all women who are or will be pregnant during flu season regardless of trimester. A CDC internet survey of women that were pregnant at any time in the four month period of October 2012 to January 2013 showed that 50.5 percent of women reported being immunized for flu before or during their pregnancy. Influenza vaccination was higher among women reporting a healthcare provider recommendation and offer of vaccination (70.5 percent) compared to women that received the recommendation but no offer (46.3 percent). Women who received no recommendation but did get offered made up 16.1 percent of the group. Overall only 72.3 percent of women reported receiving a healthcare provider recommendation for vaccination. The top three reasons women reported for vaccination during pregnancy were

to protect their infant from influenza, with 33.2 percent; to protect themselves, with 20 percent; and because their healthcare provider recommended it, with 15.7 percent. The top concern (20.5 percent) among mothers who did not get vaccinated was concern about the safety risk to the infant.

Providers have a responsibility to educate their patients about the safety and efficacy of vaccines and vaccine options available for pregnant women. Pregnant woman may receive any of the inactivated seasonal flu vaccines including both trivalent and quadrivalent vaccines. Pregnant women may not receive FluMist®. Women should also receive a dose of Tdap during each pregnancy between 27 and 36 weeks gestation regardless of an immunization history of Tdap. This recommendation from the ACIP is to protect the mother and infant from pertussis through the transfer of antibodies. Please use prenatal and other check up appointments to discuss flu vaccine with your pregnant patients or women trying to become pregnant, as they are at a higher risk for complications with flu and flu like illnesses.

IAC Honor Roll for Patient Safety

The Immunization Action Coalition (IAC) Patient Safety Honor Roll is a place for recognition of hospitals and other medical providers that have taken steps to increase patient safety through the implementation of a mandatory influenza vaccination for employees. In North Dakota there are currently five facilities on the list, including Altru Health, Jamestown Regional Medical Center, St. Joseph's Hospital and Health Center, Upper Missouri District Health Unit, and Family Health Care Center. All providers that have made this a mandatory contingency of employment can apply for the Honor Roll by going to www.immunize.org/laws/mandates.aspx. The immunization program has examples of policies already in place for providers looking to implement an influenza vaccine policy in their practices. Copies can be requested by contacting Amy Schwartz, Immunization Surveillance Coordinator.



Storage and Handling Guides Available



The immunization program has recently created storage and handling, purchasing, and temperature monitoring guidance. Manufacturer phone numbers and “Do Not Unplug” signs have been available online for providers to use for their storage units. Temperature



logs have been updated to include separate Fahrenheit and Celsius logs for freezers and refrigerators. On the new temperature logs, providers will notice that occasionally temperatures fall into a range category, for example -50°C to -25°C , where the actual temperature must be now recorded. The provider ID number must be included when the logs are submitted each month for the documents to be filed. If the provider number is not included, the document will not be filed. Temperature logs should now be faxed to 701.328.0355.

There is now guidance for purchasing thermometers and storage units that meet both the VFC program requirements and recommendations. Actual models and prices are included in the guidance. Additionally, guidance for vaccine transport can be found on the immunization program website, including models and prices. These units are for vaccine transport during community-based clinics or for transferring vaccine between providers. Temperature monitoring is required during all transport and community clinic events.

After many temperature excursions and wastages in 2013, the immunization program has created a Vaccine Storage Troubleshooting Guide to walk providers through what to do when there is a storage and handling error. The guide includes a list of manufacturer phone numbers and factors that could be contributing to temperature excursions, a log for recording action taken, and step by step directions for handling an excursion. When there is a temperature excursion, providers are required to complete the steps on this form, as well as record all the steps taken and manufacturers guidance. This guide will help make it a less daunting task.

As winter approaches, the immunization program would like to remind providers that having appropriate back up storage for vaccine is essential. Back up storage units must have a calibrated thermometer for temperature monitoring and demonstrated ability to maintain stable temperatures. Back up storage is subject to the same requirements as primary storage. Vaccines should not be stored with foods or other liquids, and the temperature must be recorded while the vaccine is in the substitute unit. Grocery stores, kitchens and restaurants are not appropriate venues for back up storage. Providers are encouraged to work with other vaccine providers in the area that have generators, pharmacies or other medical facilities. This may mean traveling to the next town to move vaccine if necessary. If there are concerns or questions, or if you need assistance finding appropriate alternate storage, please call the immunization program.

All of the new storage and handling forms and guidance can be found at:
www.ndhealth.gov/Immunize/Providers/Forms.htm.



Flu Vaccine Administration and Abbreviations

The 2012-2013 flu season had more reported cases of flu than any other year in North Dakota, with 4,833 cases. A and B strains of influenza were reported. In North Dakota there were nine deaths, 210 hospitalizations and 32 long term care facility outbreaks reported for the 2012-2013 season. Based on NIS data, vaccine coverage was lowest at 10 percent in people 19-64 years, and 26.9 percent in those 9-18 years. Small children and elderly residents also had low immunization rates despite being the more likely to suffer complications with influenza. Children 6 months–8 years had a 45.7 percent immunization rate, and of those 65 years and older, 30 percent were immunized. Flu immunizations must be entered in the registry for any person 18 years and younger, and providers are strongly encouraged to enter all immunizations regardless of age. There is an increased need for immunization records, and accurate records prevent unnecessary revaccination or minimum interval errors.

In the 2013-2014 flu season, there are several quadrivalent flu vaccines available that contain two A and two B strains. Previous seasons contained two A and only one B strain of influenza. It is hoped the new vaccine will provide more coverage. The specific strains contained in the trivalent vaccine this year are A/California/7/2009 (H1N1) pdm09– like virus, A (H3N2) virus antigenically like the cell-propagated prototype virus A/Victoria/361/2011, and B/Massachusetts/2/2012-like virus. The quadrivalent vaccine will also contain B/Brisbane/60/2008–like strain. There is no expressed preference for use of any one vaccine over another. Whatever vaccine is on hand and appropriate for the patient should be administered to avoid missed opportunities and leaving at-risk patients susceptible. Below is a list of abbreviations used on seasonal flu vaccine packaging and in NDIIS for entering doses.

LAIV4	Live attenuated Influenza Vaccine, quadrivalent
IIV3	Inactivated Influenza Vaccine, trivalent
IIV4	Inactivated Influenza Vaccine, quadrivalent
ccIIV3	Cell Culture-based Inactivated Influenza Vaccine, trivalent
RIV3	Recombinant hemagglutinin influenza vaccine, trivalent

There are 2013-2014 seasonal influenza vaccine information statements for inactivated and live flu vaccines available from the CDC. All providers are required to offer VISs to all patients receiving any vaccines, including influenza. Copies may

be laminated and kept in patient rooms, made available at the time of check in, sent home with children prior to school flu clinics, and must be available at all mass immunization clinics. While they are available online, many patients will not know that or will not read them prior to appointments, and for this reason it is the provider’s responsibility to ensure that the VIS is made available prior to immunization. Taking a moment to discuss the VIS is important, but the discussion cannot take the place of offering a copy to the patient. This is a federal requirement for all providers and all vaccines. Please ensure that enough copies are on hand for appointment days and mass clinics.

2013-2014 Influenza VISs can be found at www.cdc.gov/vaccines/hcp/vis/vis-statements/flu.html.



Pertussis in 2013

In 2013, North Dakota has seen fewer cases compared to the same time in 2012. There have been 61 reported cases of pertussis so far. For 13 states and Washington DC, however, the number of cases is much higher than last year. Most cases have occurred in pockets around the state, with the majority of cases being reported in unvaccinated and incompletely vaccinated children. The same pockets of pertussis are occurring nationwide.

A recent study in California used data from the 2010 outbreak of pertussis, which infected 9,120 people and included 10 infant deaths. The study has shown a correlation between pockets of nonmedical exemptions from vaccines and areas with higher numbers of cases. Data showed that people living in areas where a large number of people opted out of vaccination were two and a half times more likely to live in an area with a large number of pertussis cases.

A surprising part of the study was that the outbreaks were not in areas with poorer socioeconomic households that possibly have less access to health care. Researchers found instead that clusters of pertussis cases and those opting out of vaccinations were in areas with higher socioeconomic variables. The cases of pertussis were pocketed in areas where parents were choosing not to vaccinate their children, rather than in areas where people were not able to get their children vaccinated.

Many people that opt out of vaccines for nonmedical reasons are basing that decision on misinformation. The vaccine schedule for an infant is two, four, and six months, and 15-18 months, with a booster between four and six years. Adults or children seven years and older that are not completed vaccinated with DTaP should receive a dose of Tdap. Women should receive one dose of Tdap during each pregnancy. Tdap has been shown to provide protection to infants up to six weeks after birth, when they are eligible to receive their first DTaP. Adults need only one dose of Tdap ever. Caregivers, parents and other family members should be up to date with their Tdap vaccination to protect infants not yet eligible for DTaP vaccine. DTaP and Tdap vaccines can be administered with all other childhood or adult vaccines.

Vaccine Information Online: The Good, the Bad, and the Untrue

It is no secret that anti-vaccine information is easy to find by conducting a Google search or reading blogs written by people with no medical or science background who encourage parents not to vaccinate. Parents that are on the fence because of confusing, conflicting, or seemingly legitimate information are the people that all immunization programs and providers must appeal to. Offering parents reputable, scientific, and parent-friendly sources for information can help aid in informed decision making. Social media and blogs are becoming a great and also dangerous source of information. It is important to help people understand the difference in credibility between sources of information, such as peer reviewed studies, medical professionals research, and personal opinions. Hearing from families that chose to vaccinate or those who did not only to later experience the preventable disease is an effective tool. The immunization program encourages providers to direct patients to reputable sources, even if the dissemination of information is through a blog. A list of credible sources is provided on the next page!



Reputable Sources to Parents on the Fence

The North Dakota Department of Health's Immunization Program Facebook page follows a wide variety of great sources for immunization information. Some sources are more science oriented with studies and statistics, while others contain more personal experience and information. A recent article in the Huffington Post has encouraged the pro-vaccination population to come out and be a source of information for the public. Anti-vaccine information is readily available online, and it is important that correct information is just as easily found. Please consider referring patients

to these websites and webpages if they are searching for more information on safety, studies, autism concerns, and personal experiences with pertussis.

www.facebook.com/NDImmunization

Vaccinate Your Baby: www.vaccinateyourbaby.org/

Seattle Mama Doc: www.seattlemamadoc.com

Immunization Action Coalition: www.immunize.org/

Voices for Vaccines: www.voicesforvaccines.org

Shot by Shot: www.shotbyshot.org

Sounds of Pertussis: www.soundsofpertussis.com

Measles Outbreaks

Measles is a highly contagious, acute viral illness that can lead to complications and death. In 2000, it was declared eliminated in the United States. From 2001 to 2012, the median annual number of measles cases reported in the U.S. was 60, including 26 imported cases. A total of 159 cases of measles have been reported between January 1-August 24, 2013. That is more cases than the previous highest reporting year of 2008, with 140 cases.



This year, 42 of the cases were imported from other countries and attributed to eight reported outbreaks. Seventeen of these cases required hospitalization due to complications. Of the total cases, 82 percent were unvaccinated, 9 percent had unknown vaccination status, and only three people had received two doses of MMR vaccine. The largest outbreaks were in New York City, all cases with no history of vaccination; North Carolina with mostly unvaccinated people; and Texas with 85 percent of the confirmed cases having no history of MMR vaccination. Of the 159 cases, 157 were import-associated, meaning that U.S. residents returned from abroad with the disease, or visitors to the U.S. arrived with it and spread it to susceptible people around them. An estimated 20 million cases of measles occur each year worldwide.

Continuing vaccination is the best method for preventing outbreaks in susceptible populations. Providers must educate parents and individuals choosing not to vaccinate about the continued prevalence of the diseases around the world and possible consequences to the health of the individual and community if patients are left unvaccinated. MMR vaccine is recommended to be administered at 12 months and between four and six years. If a child must be caught up, they may receive two doses of MMR separated by four weeks. Adults working in healthcare are required to have proof of immunity or two doses of MMR vaccine. Healthcare personnel are at risk if left unvaccinated when treating patients with measles as well as other vaccine-preventable diseases.



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Calendar of Events

**National Foundation for
Infectious Diseases
Conference
November 15-17, 2013**

**National Influenza
Vaccination Week
(NIVW) is December
8-14, 2013**

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

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Nods to Nurses

This Fall, the immunization program would like to thank Melissa Fettig of First District Health Unit in Minot. As an active member of the North Dakota Influenza Vaccination Coalition, she created a combined LAIV/ IIV Vaccine Information Statement (VIS) that anyone may use. These are especially helpful for school and mass clinics. If you are not a part of the coalition but wish to have this resource for your influenza clinics, please email Amy Schwartz at the address above for a PDF copy. The immunization program recognizes the many ideas and helpful efforts that Melissa has put forth in many aspects of immunization, including influenza and school clinics. We thank her for taking the time to create this VIS for North Dakota providers.

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Publication is available in alternative forms; for more information, contact Janna Pastir, editor, *Immunization Newsletter*.

EQUAL OPPORTUNITY EMPLOYER