Influenza Vaccine Season is Right Around the Corner!

It is hard to believe, but influenza vaccine season is fast approaching. Vaccine manufacturers started shipping in late July. The Immunization Program will notify providers when Vaccines For Children (VFC) influenza vaccine shipments begin as soon as we have that information. A memo will soon go out explaining our influenza vaccine allocation process and other relevant information within the next few weeks. It will include an updated influenza dosage chart and algorithm. Providers may begin vaccinating as soon as they receive influenza vaccine.

There were a few small changes to recommendations for influenza vaccine that providers should be aware of:

- Live Attenuated Influenza Vaccine (LAIV or FluMist®) is not recommended for the 2017-2018 flu season. Additional data will be presented on LAIV at the October 2017 meeting.
- Afluria® is now recommended for ages five and older, instead of nine and older.
- The ACIP recommended allowing any licensed, approved and age-appropriate trivalent or quadrivalent inactivated influenza vaccine (IIV) or recombinant influenza vaccine (RIV) for pregnant women. Previously, the recommendation had specified use of IIV for pregnant women.

Providers may contact the immunization program at 701-328-3386 or 800-472-2180 with any questions.

Adolescent 16-Year-Old Immunization Platform

Healthcare providers should make sure that all 16-year-old patients receive a well child visit not only to review their vaccination status but to get a check of their overall health. The 16-year-old platform:

- Helps ensure adherence with the recommendations for meningococcal conjugate (MCV4) and meningococcal serogroup B vaccines.
- It also provides an opportunity for healthcare providers to review adolescents’ vaccination status and complete any other needed vaccination and vaccination series (i.e., HPV, varicella).
- Helps ensure that vaccines are covered by either the Vaccines for Children (VFC) Program or parental insurance before becoming an adult.
- Assists to further encourage adherence to recommended screenings and anticipatory guidance during adolescence.

The Immunization Action Coalition has an excellent, archived webinar on the Adolescent 16-year-old platform at http://www.immunize.org/webinars/atkinson2/.
School Immunization Requirements in North Dakota

The start of the new school year is quickly approaching, and it is time to ensure students are up to date on immunizations required for school! North Dakota requires the following immunizations for school entry:

<table>
<thead>
<tr>
<th>Kindergarten Entry</th>
<th>7th Grade Entry</th>
<th>College Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Two doses of MMR</td>
<td>✓ Two doses of MMR</td>
<td>✓ Two doses of MMR</td>
</tr>
<tr>
<td>✓ Five doses of DTaP</td>
<td>✓ One dose of Tdap</td>
<td>✓ Two doses of MCV4</td>
</tr>
<tr>
<td>✓ Four doses of Polio</td>
<td>✓ Four doses of Polio</td>
<td></td>
</tr>
<tr>
<td>✓ Three doses of Hepatitis B</td>
<td>✓ Three doses of Hepatitis B</td>
<td></td>
</tr>
<tr>
<td>✓ Two doses of Varicella</td>
<td>✓ One dose of Meningococcal Conjugate Vaccine (MCV4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Two doses of Varicella (2 doses required for kindergarten through 9th grade. One dose required for 10th through 12th grade)</td>
<td></td>
</tr>
</tbody>
</table>

Immunizations are available at your local public health unit or your health care provider’s office. Students who are not up to date 30 days after school has started will be excluded from school until they receive all required vaccines.

For more information, visit: [http://www.ndhealth.gov/Immunize/Schools-ChildCare/](http://www.ndhealth.gov/Immunize/Schools-ChildCare/) or contact the North Dakota Department of Health (NDDoH) Immunization Program at 701.328.3386.

Don’t forget that MMR and MCV4 are required for entry into North Dakota colleges and universities!
New Coverage Rates Section of Immunization Program Website

The measurement and monitoring of vaccination coverage rates are important to both the public and healthcare providers. The Immunization Program publishes statewide coverage rates, calculated from North Dakota Immunization Information System (NDIIS) data, for routinely recommended childhood, adolescent and adult vaccines, and vaccine series to our Immunization Program website quarterly. NDIIS participation rates, exemption rates by category, and timeliness of vaccine entry data are also available. As of July 2017, all of the same publicly available information has been moved to a separate “coverage rates” tab on the Immunization Program page, found here: https://www.ndhealth.gov/Immunize/NDIIS/Rates.aspx. In addition to state-wide coverage, the website will now show county-level coverage rates for all age groups.

As a reminder, all NDIIS rate data depends on the information entered into the NDIIS. In North Dakota, healthcare providers are required to enter child and adolescent data into the NDIIS, but adult vaccines are not mandated for entry. Adult coverage estimates, therefore, tend to be less accurate. The United States Air Force Bases do not enter into the NDIIS. Also, the population size (denominator) can be difficult to determine due to people moving within and out of the state. Address updates and the marking of records as moved or gone elsewhere (MOGE) continue to help to maintain a more accurate estimate of the denominator. For NDIIS MOGE instructions, please see the training document available on the Immunization Program website at https://www.ndhealth.gov/Immunize/NDIIS/Training.aspx.

Changes to the General Recommendations on Immunization Practices

Recently, the Centers for Disease Control and Prevention (CDC) released their General Recommendations on Immunization Practices, however, it is now called the General Best Practice Guidelines for Immunizations. The recommendations were previously published in an annual or bi-annual MMWR. In 2017, it was released as an online report and can be found here: https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html.

The report still contains the same content as the previous versions of the MMWRs. It is a wealth of knowledge on vaccine administration, the spacing of vaccines, precautions and contraindications, storage and handling, and special population vaccination recommendations. Providers should review this document to ensure they are up-to-date on the CDC and the Advisory Committee on Immunization Practices (ACIP) most recent recommendations.

A few interesting sections of the online report have been highlighted below, along with the page number for reference. These rules should never be applied regularly or used for scheduling immunization appointments. They are solely there if vaccinations have already been administered.

Hepatitis A (Page 14)

If the first and second doses of hepatitis A vaccine were administered less than six months apart, the second dose is invalid and should be repeated six months after the invalid second dose. However, if this repeat dose (the third dose), is administered anytime six months or more after the first dose, the series can be considered complete.
Hepatitis A Example:

1<sup>st</sup> dose of Hepatitis A: 1/1/2017
2<sup>nd</sup> dose of Hepatitis A: 4/1/2017 (invalid because it was given too close to the first dose)
3<sup>rd</sup> dose of Hepatitis A: 7/1/2017 (considered valid because it is correctly spaced from the first dose

This rule is specific to hepatitis A vaccine alone. All other vaccine doses must be spaced appropriately from all invalid and valid doses. The NDIIS forecaster is current with this rule.

**Interval between Two Live Vaccines and Using the Grace Period (Page 23)**

Two or more live vaccines not administered on the same day should be separated by at least four weeks to minimize the potential risk for interference. If two such vaccines are separated by less than four weeks, the second live vaccine should not be considered valid, and the dose should be repeated at least four weeks later.

For some vaccine intervals, four day grace periods are allowed to be used which may be used to shorten the minimum interval between doses of the same vaccine, even if live vaccines were given. However, the four day grace period cannot be applied to the four-week minimum interval for two different live vaccines.

Live Vaccine Example #1

1/1/2017: MMR and Chickenpox given (both valid)

Example #2

1/1/2017: MMR
1/27/2017: Chickenpox (Invalid and must be repeated at least four weeks later)

Example #3

1/1/2017: MMR
1/27/2017: MMR (Valid because you are administering the same live vaccine and using the four day grace period)

The NDIIS forecaster is current with this rule.

If providers have any questions on this or any other immunization recommendation they should contact the immunization program at 701-328-3386 or toll-free 800-472-2180.
Deceased Client Records Reporting

The Immunization Program currently receives death record data from North Dakota Vital Records for individuals who have died within the state approximately every two weeks. These records are automatically compared to the active client records within the NDIIS to remove records of deceased clients. The NDIIS staff also review any unmatched client records and manually mark these records as “deceased,” where a matching record is found. In some cases, Vital Records may send a death record notification before an infant’s birth record has been received by the NDIIS. For this reason, the NDIIS staff manually review previous death record files each time a new notification is received, to try and remove infant records that should be marked as deceased.

The NDIIS recently implemented a new procedure to allow NDIIS users to flag deceased client records easily. When a user learns of a deceased patient, they should type the word “deceased” into the second address line on the demographics tab of the NDIIS record. Make sure not to delete any other demographic information. Each Thursday, along with the routine scan for duplicate records, the NDIIS staff will query the registry and mark reported records as deceased. These records are automatically excluded from provider rate reports, immunization rates data, and from all reminder-recall mailings. For a detailed walkthrough of how to report deceased records to the NDIIS, see the guidance document found under the Immunization Program website NDIIS tab at https://www.ndhealth.gov/Immunize/NDIIS/.

NDIIS School Module Functionality

Since 2016, the NDDoH has been working with the technical development team for the NDIIS to develop functionality that will help schools better manage their students’ immunization information, calculate immunization rates for their school, and easily identify students who are not up-to-date with school-required immunizations.

Currently, schools may have access to the NDIIS to view immunization records only and must look up records for one student at a time. With the implementation of this new functionality, the NDIIS will be auto-populated with student enrollment information from the statewide longitudinal data system (SLDS) that will assign a grade level and school to each student. Each student will have an immunization forecast, showing which immunizations the student is coming due and are past due for according to school immunization requirements. Schools will have the ability to enter immunizations, update student information in the NDIIS, and print the official Certificate of Immunization for their students.

School users will also have access to the NDIIS reminder/recall report. This report will compile a list of all students for their school who are in a selected grade and are either coming due or are past due for selected school-required immunizations. This report can be used to make phone calls or send letters or postcards to parents reminding them of immunizations needed before the start of the school year.

Additional reports that will be available to all school users in the NDIIS will allow schools to:

- generate a list of all the students (by grade) assigned to their school in the NDIIS to ensure all students are accounted for;
- generate a report of all students (by grade) that will display the students’ complete immunization history, including vaccine exemptions;
- calculate the rate of students (by grade) who are up-to-date with school-required immunizations;
• generate a report of all students (by grade) who are not up-to-date with school-required immunizations and will display the students’ immunization forecast;
• and calculate the rate of immunization exemptions for all students (by grade) and will display the rate for each type of exemption by the vaccine.

There are some limitations to the NDIIS school immunization module to note. The United States Air Force Bases do not enter into the NDIIS. Therefore, these students will not have complete immunization records in NDIIS. Students moving to North Dakota from out-of-state will also not have records in NDIIS and need to be entered. The NDIIS school immunization module will not be connected to PowerSchool, so schools that choose to use PowerSchool to track student immunizations will continue to have to re-enter doses into PowerSchool. For the 2017-2018 school year, schools will continue to have to complete the annual school survey and submit to the NDDoH. We are hopeful in the future that the NDIIS school immunization module will replace the annual school survey.

Schools that would like access to the NDIIS and all of the new school functionality must have a completed Provider Site Agreement on file with the NDDoH Immunization Program. Once the agreement has been completed, users can submit the online Individual Request for Access form to receive their login credentials. Both forms can be found on the Immunization Program NDIIS web site at http://www.ndhealth.gov/Immunize/NDIIS/.

We would encourage any schools wanting access to the NDIIS to start the process of submitting their Provider Site Agreement and individual requests for access now to avoid a backlog of requests at the beginning of the school year. Additionally, only NDIIS users with access as a school user will be able to utilize this new functionality. Current NDIIS users that will need school access must submit an individual request for access form with a comment that they need a specific school added to their current access.

Schools must also consider the requirements of the Family Educational Rights and Privacy Act (FERPA) around obtaining parental consent before entering data into the NDIIS. Consent is not required for viewing immunization information or running reports in the NDIIS; it only applies to sharing new information (i.e. creating new records in the NDIIS or entering missing immunizations in an existing student record). It is the responsibility of the school to obtain this consent and to track that they received it.

The NDIIS school immunization module functionality is in its final stage of testing with NDDoH staff, as well as, with some different NDIIS users. It is anticipated that the final testing will be complete in early August and the new functionality will be available in the NDIIS before the start of the 2017-2018 school year. The NDIIS team will be scheduling some web-based training sessions for school users and will have additional training materials available on the NDIIS Trainings website.
**NDIIS Immunization Forecaster Frequently Asked Questions**

**Why is a dose marked as invalid when it really should be valid?**

- When a user enters an immunization into a patient’s NDIIS record, the forecaster immediately evaluates the dose. If a user makes a data entry mistake, particularly with dose administration date, they may correct the dose date, but that doesn’t change the dose from invalid back to valid. If you come across a dose that says it’s invalid but should be valid, contact a member of the immunization program to have the dose validity updated.

- When the NDIIS forecaster rules are updated or changed, all records that were impacted by the rule change are reevaluated by the forecaster using the new/changed rules. This process will update doses from invalid back to valid in the background of the NDIIS but does not change dose from invalid back to valid on the patient’s immunization tab of their NDIIS record. You can tell if a dose is valid because it will be listed in the “Vaccination Summary” section of the forecaster PDF even if the validity says “No” on the patient’s record and an official certificate of immunization. If you come across a dose that says it’s invalid but is listed as a valid dose in the forecaster “Vaccination Summary,” contact a member of the immunization program to have the dose validity on the certificate of immunization set back to valid.

**The comment for the invalid dose says it’s a duplicate, but I don’t see a duplicate dose in the record so why is the dose still invalid?**

- In this case, there used to be a duplicate dose in the patient’s NDIIS record. Someone removed the duplicate dose, but the dose that was left in the record was not updated back to valid. They can be reported to the Immunization Program to be re-validated.

**My EHR is connected to the NDIIS, but the forecast in my EHR is different than the one in the NDIIS. Why is that?**

- Not all provider electronic health record (EHR) systems are technically capable of accepting the NDIIS forecast.
- Some EHR systems have their own forecaster and choose not to display the NDIIS forecast for their users.
  - The NDIIS sends the patient forecast to EHR systems when a patient’s vaccination history is looked up. All providers are encouraged to use the NDIIS forecast information.
- The NDIIS team has worked hard to update our forecaster to align with national standards and test cases for forecasting. However, North Dakota has some custom rules in the NDIIS forecast to account for some recommendations not addressed in the national standard test cases. Most EHRs will not have these custom rules.
- When the ACIP makes new immunization recommendations, it takes time to get the forecaster updated to reflect these changes. The NDIIS and an EHR may make changes for new recommendations at different times.

**How do I report potential issues with the forecaster?**

- Any potential problem with the NDIIS forecaster should be reported directly to Mary Woinarowicz (mary.woinarowicz@nd.gov).
- Any problem with the forecaster is prioritized based on how many records will potentially be impacted by the issue and the age group affected by the issue.
The NDIIS forecaster is maintained and updated by a third party vendor. All issues are submitted to the supplier to be fixed.

What happens when the forecaster is updated? Will my patient’s records be updated?

- When the NDIIS forecaster is updated:
  - Potentially affected records will be run back through the forecaster for correction or updating. Depending on how many records are impacted by the new rules and how many records need to be re-forecasted, this process could take a few days or a few weeks.
  - Individual records are re-forecasted as soon as an NDIIS user queries the NDIIS through their EHR or directly in the NDIIS when a user opens and views the forecaster PDF.

June Advisory Committee on Immunization Practices Update

The ACIP met June 21 and 22, 2017. Below is a summary as to what was discussed at the meeting. Complete minutes and presentations from the meeting will be available in the future at www.cdc.gov/vaccines/acip/index.html.

Hepatitis A Vaccine:

- The ACIP is in the process of updating the 2006 Hepatitis A recommendations. The committee chose to explore catch-up hepatitis A vaccination and post-exposure prophylaxis (PEP)
- Catch-up vaccination of children ages two to 18:
  - Hepatitis A vaccine is currently recommended for children at ages 12 to 23 months.
  - Rates of hepatitis A vaccination in infants lag behind other infant vaccines.
  - Cases and outbreaks of hepatitis A continue to occur in the U.S.
  - The committee was presented a cost-effectiveness study to determine whether to implement a catch-up recommendation for the hepatitis A vaccine, the only childhood vaccine without one. Results showed that catch-up was not cost effective given the current low disease rate. However, the model used only considered childhood vaccination and not its effect on herd immunity in adults, nor the effects of childhood vaccination on adult disease, especially as children age into adulthood.
  - Hepatitis A vaccination catch-up will continue to be discussed at the February 2018 meeting.
- Hepatitis A PEP:
  - Hepatitis A vaccine is currently recommended for PEP in people ages 12 months to 40 years.
  - Immunoglobulin (Ig) is recommended for PEP in people older than 40.
  - Recent studies have shown a decreased potency of Ig due to adults not having antibodies to hepatitis A.
  - Additionally, Ig is not readily available.
  - The ACIP will discuss this issue at the February 2018 meeting.

Influenza Vaccine:

- The 2016-2017 influenza season was moderate in severity. Influenza A, H3N2 was the predominant strain. There were 101 pediatric deaths due to influenza reported.
Flu vaccine effectiveness (VE) for the 2016-2017 season:
  o All ages, any flu strain: 42%
  o Ages 18 to 49, any flu strain: 19%
  o Ages 65 and older, any flu strain: 25%
  o Ages eight months to six years, any flu strain: 61%
  o All ages, Influenza A H3N2: 34%
  o All ages, Influenza B: 56%

LAIV (FluMist®) is not recommended for the 2017-2018 influenza season. Additional data will be presented on LAIV at the October 2017 meeting.

The ACIP voted to recommend Afluria® for people ages five and older, instead of nine and older.

The ACIP voted to recommended allowing any licensed, recommended and age-appropriate trivalent or quadrivalent inactivated influenza vaccine (IIV) or recombinant influenza vaccine (RIV) for pregnant women. Previously, the recommendation had specified use of IIV for pregnant women.

Herpes Zoster Vaccine:

The ACIP was presented data from a long-term effectiveness study of Zostavax® (Merck). Overall VE against herpes zoster (HZ) was 49.1%, which was similar to the Shingles Prevention Study rate of 51%. The VE ranged from 67.5% within one year of vaccination to 31% by seven to eight years. A small proportion of the patients in this study received Zostavax® when they were immunocompromised, and the VE was similar.

A new GlaxoSmithKline zoster vaccine (Shingrix®) should be licensed before the October 2017 ACIP meeting. A vote on recommendations for that vaccine is anticipated at that time.
  o The new zoster vaccine was found to be safe, even if previously vaccinated with Zostavax®.
  o Data reported in the New England Journal of Medicine showed that in adults ages 70 and older, two doses of the GSK zoster vaccine demonstrated 90% protection compared with a placebo. The efficacy of the GSK zoster vaccine went down only slightly, from 90% to 88%, four years after people were vaccinated.
  o There is not yet pricing for the new zoster vaccine, so a cost-effective analysis has not yet been completed. The ACIP zoster workgroup would like to see the vaccine recommended at age 50, but it will depend on cost effectiveness. Zostavax® is currently recommended at age 60.

Mumps Vaccine:

6,320 cases in the US in 2016. 3,299 cases so far in 2017.
Data shows that an individual is more likely to get mumps if it has been 13 or more years post MMR vaccination. (waning immunity)
Data was presented on implementing a third dose of MMR during an Iowa mumps outbreak. Data showed an incremental increase in mumps VE after a third dose.
The ACIP needs more data to make recommendations regarding a third dose of MMR for mumps.

Meningococcal Vaccine:

Eculizumab (Solaris®) therapy increases the risk of serious meningococcal infections (1,000 – 2,000 times the incidence).
Both MenACWY and serogroup B meningococcal (MenB) vaccines should be administered to patients receiving eculizumab according to ACIP guidelines. ACIP noted that one patient died from a nongroupable meningococcal strain in spite of elevated MenB-4C (Bexsero®—Novartis) antigens collected in the patient’s blood at the time of death. Nongroupable strains rarely cause infections. A review of other cases demonstrated nongroupable strains caused 50% of cases of infection. Vaccination
appears to cause incomplete or no protection for patients receiving eculizumab, suggesting that antibiotic prophylaxis may be necessary for patients receiving this drug.

**Dengue Vaccine:**

- DenVaxia® (Sanofi) is a dengue vaccine that may be submitted to the FDA for approval shortly.
  - Clinical trials for DenVaxia® are in people living in endemic areas, not travelers.
- Dengue is endemic in the Caribbean and Pacific Islands. Outbreaks have occurred in Florida, Hawaii, and Texas.

**Yellow Fever Vaccine:**

- The shortage of YF-Vax (Sanofi) vaccine has been caused by transitioning of production to a new facility and shutdown of the old facility. During this shortage, the Stamaril® (Sanofi) vaccine is being imported from France and distributed under FDA guidance. The Expanded Access Program (EAP) is allowing 250 sites to distribute the vaccine under an investigational new drug (IND) protocol. The sites, which were selected by volume of yellow fever vaccine distributed the previous year, must sign an agreement, undergo training, follow protocol, track vaccine use, and monitor safety. The new manufacturing facility will start supplying YF-Vax by mid-2018.
- For the IND, patients will be required to be screened for inclusion and exclusion criteria, sign a consent, and report any adverse effects that occur. The exclusion criteria are stricter than current ACIP recommendations and include women who are breastfeeding, as well as infants ages six to eight months.

**North Dakota Immunization Program Collaboration with the North Dakota Ryan White Program**

The NDDoH Immunization Program has developed partnerships with the Ryan White Program in North Dakota to improve immunization coverage rates for the Ryan White program participants. The Ryan White program provides primary health care and support services to individuals diagnosed with HIV and AIDS. Participants in the program have a case manager that they work closely with to coordinate their care. People living with HIV/AIDS are recommended to receive some additional immunizations above what is recommended for their age group, as they are a population that is more vulnerable to disease. The NDIIS does not capture information about high-risk conditions, and the immunization forecaster does not include rules for any high-risk conditions. Prior to the two programs working together, looking up immunization histories for the program participants or reviewing immunization recommendations was not part of ongoing case management. The Ryan White Program Coordinator at the NDDoH and Ryan White case managers did not routinely access the NDIIS to look up their client’s immunizations, and they did not discuss vaccinations with their clients.

The goal of the partnership between the two programs was to identify which vaccines each Ryan White participant has received, which vaccines are still needed and provide those details to their case managers. Using the NDIIS, the North Dakota Immunization Program Public Health Advisor (PHA), looked up the unique client ID for each Ryan White participant. Ryan White participants were identified using MAVEN, North Dakota’s disease surveillance system. Records were found in the NDIIS for 189 (78.1%) of the total 239 program participants. Once there was a complete list of NDIIS client IDs, the NDIIS Manager and PHA calculated the vaccination coverage rates for this group and determined which vaccines each participant still needed.
The PHA created a standard reminder/recall letter for all of the Ryan White case managers for each of their clients. The letter provided vaccine recommendations for individuals diagnosed with HIV and AIDS, such as which vaccine or vaccines their clients still needed, where they could get their missing immunizations and provided information about insurance coverage for the vaccines. These letters were given to Ryan White program participants during annual enrollment in February of 2017. The impact of the reminder/recall was evaluated by assessing baseline coverage rates for the whole group as well as by individual Ryan White program site. This data was re-assessed 30, 60 and 90 days after the date the letters were sent to the case managers. At all benchmarks, there was an improvement in the coverage rate for Tdap, pneumococcal conjugate (PCV), pneumococcal polysaccharide (PPSV), and meningococcal conjugate (MCV) vaccines. The rates for hepatitis A, hepatitis B, and human papillomavirus (HPV) vaccine series start and series completion (UTD) saw little to no difference. The coverage rate for influenza (flu) vaccine for the current 2016-2017 flu season increased at the 30-day benchmark but did not change at the 60-day benchmark. The 60-day benchmark was completed in May, which is near the end of the current flu season so we would expect to see very little change to any coverage rates for flu at this point in the year.

Additional benefits we have seen from this partnership include providing education to the Ryan White program about immunization recommendations for their participants, offering details to the case managers about the health care needs of their clients, and giving an opportunity for case managers to educate their clients on immunization recommendations. The North Dakota Immunization Program plans to repeat the whole process every six months, during Ryan White program enrollment and when Ryan White program participants complete their health insurance coverage enrollment.
The NDIIS is currently connected to the EHR system for 294 individual provider locations and the North Dakota Health Information Network (NDHIN). These 294 locations include local public health units, hospitals, private healthcare providers, specialty clinics, pharmacies and university student health centers and represent almost 80% of all data entered into the NDIIS. Another 16 providers will be connected by the end of July 2017. There are an additional 59 provider sites in the queue to connect and 16 actively engaged in onboarding and technical testing.

Any health care professional wishing to connect to the NDIIS must first submit a Registration of Intent form to Mary Woinarowicz (mary.woinarowicz@nd.gov). This form, as well as our Declaration of Readiness for Meaningful Use, technical specifications, agreements and other forms, are located on the NDIIS Interoperability web site at http://www.ndhealth.gov/Immunize/Interop/. There is also a link on this website to a map of all the participating providers. The NDIIS team prioritizes connections based on the volume of immunizations administered, as well as, the readiness of the provider EHR to connect based on the NDIIS technical specifications.

**Adult Immunization AFIX Site Visits and Education Now Available!**

The NDIIS shows North Dakota’s adult immunization rates range from 12 to 69%, depending on the vaccine, leaving many adults susceptible to vaccine preventable diseases. As a strategy to increase adult vaccination rates, the North Dakota Immunization Program has implemented adult Assessment, Feedback, Incentive, and eXchange (AFIX) site visits with healthcare facilities throughout the state.

AFIX site visits assess a healthcare facility’s current immunization rates and identify areas of improvement.

The North Dakota Immunization Program provides an adult immunization continuing education opportunity for clinic staff. During this training, the adult immunization schedule; adult, high risk, and healthcare worker recommendations; clinic, county,
and state immunization rates; best practices; and potential quality improvement projects are reviewed to assist in increasing the facility’s adult immunization rates.

Adult AFIX site visits and immunization training are available to private and public providers, long-term care facilities, home health agencies, pharmacies, and other organizations striving to increase adult immunization rates in North Dakota. Nursing continuing education credits are available for adult AFIX visits.

For more information regarding adult AFIX site visits, please contact Andy Noble at (701) 328-4557.

**Minnesota Measles Outbreak Update**

The Minnesota Department of Health (MDH) has confirmed 79 cases of measles in the state as of August 2, 2017. The majority of cases have been out of Hennepin County, with a total of 70 cases. Additionally, three cases were reported out of Ramsey County, four in Crow Wing County, and two in Le Sueur County. Most cases have been in Somali Minnesotan children. Health officials have confirmed 71 cases were unvaccinated. Three cases had one dose of MMR (measles, mumps, and rubella) vaccine, three cases had two doses of MMR, and two cases still have an unknown vaccination status. After remaining at 78 cases for almost a month, another case has been confirmed. Two 21 day incubation periods must pass without any new cases of the outbreak to be declared over.

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. Additional states that have reported at least one case of measles this year include California, Florida, Maryland, Michigan, Nebraska, New Jersey, New York, Pennsylvania, Utah, and Washington. The last reported measles case in North Dakota was in 2011. European countries, many of which have MMR coverage rates below 95%, are also experiencing multiple outbreaks this year. The outbreaks in Minnesota and around the world are reminders of how quickly measles can spread in an unvaccinated population.

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 97 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.
Every year, the Immunization Program awards providers who have achieved immunization rates that stand out above other providers. The data used to determine these awards are the immunization rates from the first quarter of each year in NDIIS. In the years that there is an Immunization Conference, a certificate is awarded during the lunch on one of the days. This year, congratulatory letters and certificates will be mailed to the recipients.

Five award categories have been selected for providers and healthcare facilities that see children aged 19 months to 17 years, and two award categories have been selected for facilities that provide immunization services for North Dakota’s adult population. The awards are listed below with a brief description of each and the providers who received them.

**Adolescent Award - 6 Recipients:**
The Adolescent Award was given to those providers who achieved 90% or greater for the 1:1:2 series (1 Tdap, 1 MCV4, 2 Varicella), 60% or higher for HPV completion rates, and 70% or higher for having 16 to 17 year olds immunized with the second MCV4 vaccine during the first quarter of 2017.

<table>
<thead>
<tr>
<th>Provider Name</th>
<th>1:1:2 %</th>
<th>Female HPV Completion %</th>
<th>Male HPV Completion %</th>
<th>2MCV4 %</th>
</tr>
</thead>
<tbody>
<tr>
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<td>97.1</td>
<td>87.2</td>
<td>63.3</td>
<td>85.4</td>
</tr>
<tr>
<td>Ransom County Public Health</td>
<td>92.9</td>
<td>69.3</td>
<td>69.5</td>
<td>77.1</td>
</tr>
<tr>
<td>North Dakota Youth Correctional Center</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>72.7</td>
</tr>
<tr>
<td>Early Childhood Tracking</td>
<td>95.0</td>
<td>84.2</td>
<td>81.0</td>
<td>77.8</td>
</tr>
<tr>
<td>Altru Devils Lake</td>
<td>100</td>
<td>67.4</td>
<td>68.2</td>
<td>81.6</td>
</tr>
<tr>
<td>Family Medicine at Altru Professional Center</td>
<td>98.7</td>
<td>61.6</td>
<td>63.5</td>
<td>70.2</td>
</tr>
</tbody>
</table>
Most Improved HPV Award - 4 Recipients
The Most Improved HPV Award was awarded to those providers that increased both the male and female HPV completion rates by 25% or greater from first quarter 2016 to first quarter 2017.

<table>
<thead>
<tr>
<th>Provider Name</th>
<th>Increase for Male HPV Completion %</th>
<th>Increase for Female HPV Completion %</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHS - Fort Yates</td>
<td>26.8</td>
<td>33.3</td>
</tr>
<tr>
<td>Sanford Health Hillsboro</td>
<td>27.3</td>
<td>25.6</td>
</tr>
<tr>
<td>Essentia Health Valley City</td>
<td>32.4</td>
<td>40.8</td>
</tr>
<tr>
<td>Clinicare</td>
<td>39.7</td>
<td>44.7</td>
</tr>
</tbody>
</table>

DTaP4 Award - 14 recipients
The DTaP4 Award was awarded to those providers who had at least 20 children in the 19-35 month age range and achieved a rate of 90% or greater for the fourth dose of DTaP during the first quarter of 2017.

<table>
<thead>
<tr>
<th>Provider Name</th>
<th>DTaP4 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fargo Cass Public Health</td>
<td>95.7</td>
</tr>
<tr>
<td>Cavalier County Health District</td>
<td>94.7</td>
</tr>
<tr>
<td>Lake Region District Health Unit Ramsey County</td>
<td>95.5</td>
</tr>
<tr>
<td>Walsh County Health District</td>
<td>100</td>
</tr>
<tr>
<td>First District Health Unit Minot</td>
<td>90.6</td>
</tr>
<tr>
<td>Foster County Public Health</td>
<td>93.2</td>
</tr>
<tr>
<td>Rolette County Public Health District</td>
<td>95.0</td>
</tr>
<tr>
<td>Essentia Health Wahpeton</td>
<td>92.3</td>
</tr>
<tr>
<td>Altru Family Medicine Center</td>
<td>95.7</td>
</tr>
<tr>
<td>Independent Family Doctors</td>
<td>95.9</td>
</tr>
<tr>
<td>Midgarden Family Clinic</td>
<td>90.5</td>
</tr>
<tr>
<td>Trinity Health Center West Pediatrics</td>
<td>94.2</td>
</tr>
<tr>
<td>St. Alexius Minot</td>
<td>91.3</td>
</tr>
<tr>
<td>Family Medicine at Altru Professional Center</td>
<td>96.0</td>
</tr>
</tbody>
</table>
Most Improved Pediatric Award-10 Recipients

The Most improved Pediatric Award was given to providers who had at least 20 children aged 19-35 months in their practice and increased the series (4:3:1:3:1:4) rate by 10% or greater from first quarter 2016 to first quarter 2017.

<table>
<thead>
<tr>
<th>Provider Name</th>
<th>Percent Increase in 4:3:1:3:1:4 Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fargo Cass Public Health</td>
<td>23.4</td>
</tr>
<tr>
<td>Upper Missouri District Health Unit McKenzie County</td>
<td>10.8</td>
</tr>
<tr>
<td>Central Valley Health District - Stutsman County</td>
<td>13.6</td>
</tr>
<tr>
<td>Upper Missouri District Health Unit Williams County</td>
<td>16.6</td>
</tr>
<tr>
<td>Family Healthcare Center</td>
<td>11.0</td>
</tr>
<tr>
<td>Sanford Health Mayville</td>
<td>11.4</td>
</tr>
<tr>
<td>Sanford Health West Fargo</td>
<td>14.7</td>
</tr>
<tr>
<td><strong>Essentia</strong> South University Family Practice</td>
<td>14.9</td>
</tr>
<tr>
<td>St. Alexius Minot</td>
<td>11.9</td>
</tr>
<tr>
<td>Valley Community Health Center - Grand Forks</td>
<td>47.6</td>
</tr>
</tbody>
</table>
**Influenza Award-12 Recipients**

The Influenza Award was awarded to providers who achieved an influenza immunization rate of 70% or greater for at least one age group that was analyzed for the 2016-2017 influenza season.

The age groups were six months to 4 years, 5-12 years and 13-17 years.

<table>
<thead>
<tr>
<th>Provider Name</th>
<th>Six months-4 years</th>
<th>5-12 years</th>
<th>13-17 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Region District Health Unit Benson County</td>
<td>73.1</td>
<td>72.9</td>
<td>76.1</td>
</tr>
<tr>
<td>Cavalier County Health District</td>
<td>80.9</td>
<td>72.6</td>
<td></td>
</tr>
<tr>
<td>Avera Clinic of Ellendale</td>
<td>75.0</td>
<td></td>
<td>75.0</td>
</tr>
<tr>
<td>IHS PHN Dunseith</td>
<td>75.0</td>
<td>80.0</td>
<td></td>
</tr>
<tr>
<td>West River Regional Medical Center</td>
<td>75.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Fargo Family Health</td>
<td>71.4</td>
<td>86.7</td>
<td></td>
</tr>
<tr>
<td>UND Family Medicine Residency Fargo</td>
<td>72.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altru Devils Lake</td>
<td>75.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northland Community Health Center-McClusky</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anne Carlsen Center</td>
<td>100</td>
<td>95.0</td>
<td></td>
</tr>
<tr>
<td>WelCore Health</td>
<td>100</td>
<td>75.0</td>
<td></td>
</tr>
<tr>
<td>MHA Bismarck Clinic</td>
<td></td>
<td>80.0</td>
<td></td>
</tr>
</tbody>
</table>
Adult Immunization Award Recipients

Zoster Immunization Award-19 Recipients
The Zoster Immunization Award has been given to healthcare facilities with 30 or more patients 60 years of age and older that have achieved an immunization rate of 60% or greater during the first quarter of 2017.

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Zoster Immunization Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>City-County Health District</td>
<td>60.6</td>
</tr>
<tr>
<td>Independent Family Doctors</td>
<td>63.0</td>
</tr>
<tr>
<td>Midgarden Family Clinic</td>
<td>64.0</td>
</tr>
<tr>
<td>Dickey County Health</td>
<td>64.2</td>
</tr>
<tr>
<td>Sanford Health Sunset Drive Continuing Care Center</td>
<td>64.5</td>
</tr>
<tr>
<td>Mid Dakota Clinic - Center for Women</td>
<td>65.7</td>
</tr>
<tr>
<td>McIntosh District Health Unit</td>
<td>65.9</td>
</tr>
<tr>
<td>Cavalier County Health District</td>
<td>66.6</td>
</tr>
<tr>
<td>First District Health Unit - Sheridan</td>
<td>68.1</td>
</tr>
<tr>
<td>Parshall Health Care Center/Clinic</td>
<td>68.9</td>
</tr>
<tr>
<td>LaMoure County Public Health Department</td>
<td>70.2</td>
</tr>
<tr>
<td>Trenton Community Clinic</td>
<td>71.3</td>
</tr>
<tr>
<td>First District Health Unit - Garrison</td>
<td>71.4</td>
</tr>
<tr>
<td>Altru Clinic - Family Medicine</td>
<td>72.8</td>
</tr>
<tr>
<td>Rolette County Public Health District</td>
<td>74.3</td>
</tr>
<tr>
<td>Marian Manor Healthcare Center</td>
<td>75.5</td>
</tr>
<tr>
<td>Towner County Public Health</td>
<td>77.5</td>
</tr>
<tr>
<td>Twin Buttes Field Clinic</td>
<td>82.4</td>
</tr>
<tr>
<td>Dickinson VA Community Based Outpatient Clinic</td>
<td>88.1</td>
</tr>
</tbody>
</table>
Pneumococcal Conjugate Vaccine (PCV) Immunization Award-6 Recipients

The PCV Immunization Award has been given to healthcare facilities with 30 or more patients 65 years of age and older that have achieved an immunization rate of 90% or greater during the first quarter of 2017.

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>PCV Immunization Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strasburg Care Center</td>
<td>90.3</td>
</tr>
<tr>
<td>Towner County Medical Center</td>
<td>92.0</td>
</tr>
<tr>
<td>Viscito Family Medicine</td>
<td>92.1</td>
</tr>
<tr>
<td>Northwood Deaconess Health Center - Larimore</td>
<td>92.7</td>
</tr>
<tr>
<td>Ashley Medical Center and Nursing Home</td>
<td>96.7</td>
</tr>
<tr>
<td>Rosewood on Broadway</td>
<td>96.8</td>
</tr>
</tbody>
</table>

Association of State and Territorial Dental Directors endorses promotion of the HPV vaccine to reduce the risk of HPV-related oropharyngeal cancer

On July 10, the Association of State and Territorial Dental Directors (ASTDD) published a white paper on human papillomavirus and oropharyngeal cancer in which they endorsed promotion of the HPV vaccine to reduce the risk of HPV-related oropharyngeal cancer.

In addition, ASTDD recommended incorporating HPV-related oropharyngeal cancer awareness strategies into oral health promotion efforts and healthcare professional academic curricula.

The ASTDD white paper is available to download at www.astdd.org; scroll to Human Papilloma Virus (HPV) and Oropharyngeal Cancer (July 2017).

The Association of State and Territorial Dental Directors is a national nonprofit organization that represents the directors and staff of state public health agency programs for oral health.
Vaccine Supply Update

- **Recombivax® vaccine:** Merck anticipates that its pediatric and adult hepatitis B vaccines will be unavailable now through mid-January 2018. Merck’s supply of the dialysis formulation of hepatitis B vaccine, however, is not affected and is expected to remain available. GlaxoSmithKline’s hepatitis B vaccine, Engerix®, should be available to fill in the supply gaps.

- **Td vaccine:** Tenivac® vaccine (Tetanus and Diphtheria Toxoids Adsorbed) is temporarily unavailable. It is anticipated that the product will become available in the second half of 2017. Grifols, who markets and distributes another US-licensed Td vaccine manufactured by MassBiologics and with labeled indications for the same use as Tenivac®, has indicated that they have sufficient supply available to address the historical demand for Td vaccine during this time period.

- **Yellow fever vaccine:** The supply of Sanofi Pasteur's yellow fever vaccine YF-Vax® is depleted in the United States until the middle of next year, the company recently said in a press release. Sanofi states the vaccine would be available again once Sanofi moves production to their new "state of the art" facilities.

  In the meantime, Sanofi said that Stamaril®, the company's yellow fever vaccine manufactured in France, will be made available to Americans through the Food & Drug Administration's Expanded Access Investigational New Drug Application. Stamaril® is considered investigational in the United States, and not licensed for use.

  According to CDC's travelers' health Web site, Americans may still be able to find YF-Vax at their local clinic. The CDC provides a map of YF-Vax® and Stamaril® supplies across the United States.

  Given the IND restrictions, a limited number of clinical sites can participate in this program. Sanford Medical Center in Fargo has been selected by Sanofi Pasteur as the Stamaril® administration site for North Dakota. Once YF-Vax is no longer available at your facility, please refer your patients in need of yellow fever vaccine to Sanford Medical Center Fargo.

  If you have any questions please contact the Immunization Program at 701.328.3386 or toll-free at 800.472.2180.

Vaccines for Children (VFC) Site Visit Review

VFC visits are currently being conducted. Providers will be contacted by coordinators to schedule visits if they are due for a VFC visit this year. Below are a list of common VFC corrective actions that are currently being seen:

- Vaccine eligibility and screening documentation - chart review documentation for VFC eligibility is not complete or accurate based on NDIIS documentation.
- Vaccine dose documentation - documentation is missing VIS dates, who administered the vaccine, lot number, which facility the vaccine was administered at.
- Borrowing documentation - borrows are occurring that are not being documented on the paper borrow and return form, or excessive borrowing is occurring.
• Borrowing reasons- excessive accidental borrowing is occurring, or not all of the paper borrow and return forms are filled out or filled out completely.
• Vaccine management plan- providers either do not have a plan, or the plan is not completely filled out.
• VIS and VAERS - providers do not have the up-to-date VISs for all the vaccine they administer. Providers are unaware of how to report to VAERS.
• Disconnection from power source- vaccine unit plug-ins and/or the circuit breaker are not marked with “do not disconnect” signs.
• ACIP recommended vaccines- providers do not carry all ACIP recommended vaccines for the populations they serve.

If you have any questions either prior to your visit or after your visit, feel free to contact the Immunization Program at 701.328.3386 or toll-free at 800.472.2180.

August is National Immunization Awareness Month

National Immunization Awareness Month (NIAM) is an annual observance held in August to highlight the importance of vaccination for people of all ages. NIAM was established to encourage people of all ages to make sure they are up to date on the vaccines recommended for them. Communities have continued to use the month each year to raise awareness about the important role vaccines play in preventing serious, sometimes deadly, diseases.

NPHIC, in collaboration with CDC’s National Center for Immunization and Respiratory Diseases, developed communication toolkits to help you communicate about vaccines for various audiences. Each week of #NIAM17 focuses on a different stage of the lifespan:

• Babies and young children (July 31-August 6)
• Pregnant women (August 7-13)
• Adults (August 14-20)
• Preteen/Teen (August 21-27)
• Back to School (July/August)

There is also an abbreviated toolkit for school-aged children to help you remind parents to get their children vaccinated before the school year starts. The toolkits include sample key messages, media materials, social media messages, FAQs, and web links and resources. You can also get eye-catching NIAM logos and banners to highlight your participation in NIAM on your social media profiles. A media outreach toolkit is one of the new resources available this year to help you reach out to media on immunization-related topics. To download the toolkits, visit NPHIC’s NIAM website.

The NDoDH immunization program will be posting promotional messages about NIAM on its Facebook page at https://www.facebook.com/NDImmunization.
Calendar of Events

*September 13*
Immunization Program Lunch & Learn

*September 13*
Current Issues in Vaccines webinar series
Vaccine Education Center at The Children’s Hospital of Philadelphia.
Registration is required

*September 16-19*
2017 AAP National Conference & Exhibition,
Chicago, IL

*October 11*
Immunization Program Lunch & Learn

*October 25 & 26*
ACIP Meeting
Atlanta, GA

*November 8*
Immunization Program Lunch & Learn

*November 3-5*
Fall 2017 Clinical Vaccinology Course
Bethesda, MD

*November 15*
Current Issues in Vaccines webinar series Vaccine Education Center at The Children’s Hospital of Philadelphia.
Registration is required