How to Increase Your Immunization Rates

Sixty-five Assessment Feedback Incentive eXchange (AFIX) visits were completed in 2016 at Vaccines for Children Program (VFC) provider clinics. At least 21 providers had an increase of seven percent or better in coverage rates for the 4:3:1:3:3:1:4 series (4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 HBV, 1 Varicella, and 4 PCV) or human papillomavirus (HPV) vaccine completion.

These 21 providers were asked how they increased their rates from the initial AFIX visit to the three-month follow-up visit. Fourteen of the contacts replied to the email. The following is a summary of the most common initiatives:

- Inactivate patients in the North Dakota Immunization Information System (NDIIS) who are no longer seen at your clinic. To inactivate patients in the NDIIS, run the Non-Compliance Survey Report, and evaluate the names that are listed per your search criteria. If those patients are no longer in your area, you can inactivate them in NDIIS.
- Create a reminder/recall process and using it routinely. There are several ways of doing a reminder/recall system. Examples could include keeping a binder of patient forecasts to determine who needs to be recalled or send out recall letters signed by a physician or mid-level practitioner. Use the NDIIS forecaster at every visit to determine if a child needs vaccines. Use every visit as an opportunity to vaccinate. Motivate coworkers to look at the patient’s recommended vaccines at every visit.
- Offer all vaccines to those who are not current.
- Call all parents of 2 – 36 month-old children monthly in the evening to let them know their child was not up-to-date for vaccines.
- Obtain standing orders for vaccines so a visit is not required in order to vaccinate.
- Update NDIIS with all of the children who have had a history of chickenpox disease and will not need to receive varicella vaccine.
- Run quarterly reports to check for data entry errors or omissions in NDIIS.
- Use the statement, “these are the vaccines that you are due for today,” when talking to patients.
- Schedule the next appointment before the patient leaves the office.
• Have parents sign up for access to the electronic health records so they will get email reminders of vaccines that are due.
• Share missed opportunities with co-workers so everyone is aware of ways to improve the process.
• Share rates with coworkers to continually motivate them to increase the immunization rates.

The top two strategies chosen by all VFC providers at AFIX visits were implementing a reminder/recall system and inactivating (MOGE or lost to follow up) patients in the NDIIS. These strategies are easy to implement, and usually increase rates. Keep in mind that as you have additional AFX visits, you will be asked to choose strategies that you have not chosen before. The expectation is that once you implement a strategy, you will continue that strategy as a standard of practice.

The feedback from these providers reflects many of the best practices that are reviewed during an AFIX visit. Many of these strategies are not time consuming to implement. Choose a few strategies to implement at your own clinic if you are struggling with achieving recommended immunization rates. Contact anyone in the Immunization Program if you need help with AFIX strategies.

**Save the Date!**

**2018 North Dakota State Immunization Conference**

Come one and come all!! The 2018 North Dakota State Immunization Conference will be here before you know it.

The conference will take place on July 17 and 18, 2018 at the Bismarck Event Center. We outgrew our previous venue in 2016! Anyone involved in immunizations is encouraged to attend, including nurses, mid-level practitioners, physicians, pharmacists, front desk staff, medical technicians, school nurses, public health staff, administration and anyone with an interest in learning more about immunizations.

The Immunization Program is currently in the planning stages and ideas are welcome. Please email Abbi Berg at alberg@nd.gov with ideas for speakers or topics.

Hope to see you there!

**North Dakota Influenza Vaccination Rates**

According to the NDIIS, a slightly lower percentage of North Dakota children have been fully vaccinated against the flu this year when compared to the same time last year (Figure 1). However, a higher percentage of adolescents and adults over 19 years of age have been vaccinated against the flu this season. Current vaccination rates for each age group fall between 24-29 percent for the flu season, which is comparable to previous years. The national Healthy People 2020 Goal is for 70 percent of all healthy persons to be fully vaccinated against seasonal influenza annually.
Figure 1: Among North Dakota residents 6 months to 9 years of age, influenza coverage rates are lower for the 2016-2017 flu season as compared to the 2015-2016 flu season. Influenza coverage rates for adolescents 10-18 years of age and adults 19 years of age and older are higher in the 2016-2017 flu season.

For children who fall under the Advisory Committee on Immunization Practices (ACIP) recommendation to receive two doses of seasonal influenza vaccine, the 2016-2017 flu season compliance rates are higher among all age groups compared to the 2015-2016 flu season (Figure 2).

Figure 2: Among North Dakota children in the 6-23 month old, 24-59 month old and 5-8 year old groups, two-dose influenza coverage rates are higher for the 2016-2017 flu season as compared to the 2015-2016 flu season.
Who Should Get Vaccinated Against Influenza?

So long as the influenza virus circulating, vaccination is recommended. Every person six months of age and older, without a contraindicating medical condition or precaution, should be vaccinated each flu season. The single best way for North Dakotans to protect themselves and their children from the flu is to get vaccinated every year.

For children six months through eight years of age who are being vaccinated for the first time, or have received less than two total doses of flu vaccine before July 1, 2016, two doses of influenza vaccine separated by at least four weeks should be administered. Otherwise one dose should be given.

Children ages six months and older may receive the inactivated quadrivalent (IIV4) vaccine, and children age 4 and older may also receive inactivated trivalent vaccine (IIV3) or inactivated cell culture based (ccIIV4) vaccine. Adults should receive a dose of IIV3, IIV4, ccIIV4 or recombinant-trivalent (RIV3) influenza vaccine. Older adults, ages 65 and above, may alternatively receive a single dose of high-dose IIV3 or adjuvanted (aIIV3) vaccine, both of which are designed to elicit a stronger immune response in this age group.

Perinatal Hepatitis B Prevention Program

Transmission of the hepatitis B virus from mother to infant during the perinatal period is the most efficient mode of hepatitis B virus infection. About 90 percent of infants born to hepatitis B surface antigen (HBsAg) positive women will develop chronic hepatitis B virus infection if they do not receive the appropriate prophylaxis at birth, and one fourth of these infants will eventually die from chronic liver disease.

Pregnancy in a hepatitis B positive woman is a reportable condition in North Dakota, and all health care providers are responsible for reporting. The NDDoH’s Perinatal Hepatitis B Prevention Program was developed to ensure infants born to HBsAg positive mothers receive appropriate prophylaxis at birth complete the hepatitis B vaccine series, and are tested for HBsAg infection and antibody to hepatitis B surface antigen (anti-HBs).

Proper prophylaxis for infants born to HBsAg positive women consists of hepatitis B immune globulin (HBIG) and the birth dose of Hepatitis B vaccine, both given within 12 hours of birth. Birthing hospitals are required to report when an HBsAg positive woman delivers.

The infant’s primary care provider should ensure the infant receives the remaining two doses of the hepatitis B vaccination series followed by serological testing one to two months after the final dose and when the infant is at least nine months old. This ensures the infant has not developed an infection of HBsAg, and that they have developed adequate antibody to hepatitis B surface antigen (anti-HBs), which protects the infant from the virus. The NDDoH should be notified following each vaccination and serological testing.

If a child’s anti-HBs is not positive after the initial hepatitis B vaccine series, a single dose should be given and the anti-HBs testing should be repeated in one to two months. At this time, if the anti-HBs is still negative, the remaining two doses in the series should be given and the child should be tested again in one to two months after the last dose.

The number of births to HBsAg positive women reported to the NDDoH has increased over the years. In 2010, only nine births to hepatitis B positive women were reported. In 2016, that number reached 34 (Figure 3).
Hepatitis B is underreported in the state, and the number of births to hepatitis B positive women in North Dakota is likely higher than what is reported to the NDDoH.

![Number of Births to Hepatitis B Surface Antigen Positive Women in North Dakota, 2010-2016](image)

Figure 3: Number of births to hepatitis B positive women reported to the NDDoH from 2010 – 2016.

More information on the NDDoH Perinatal Hepatitis B Prevention Program, as well provider responsibilities and report forms, is available on the NDDoH Immunization website: [www.ndhealth.gov/Immunize/Providers/PerinatalHepB.aspx](http://www.ndhealth.gov/Immunize/Providers/PerinatalHepB.aspx).

**Measles Outbreak in Minnesota**

Measles is a highly infectious, vaccine preventable disease caused by a virus. The disease typically begins with cold like symptoms such as runny nose, watery eyes, high fever and a cough. Three to five days after these symptoms, a rash begins. The rash consists of flat red spots on the face and spreads downward to the rest of the body. After a few days, so long as there are no complications, the fever subsides and the rash fades.

Measles can be a serious disease, especially in children younger than five years and adults older than 20 years. Complications can include hearing loss, diarrhea, pneumonia and encephalitis. About one or two of every 1,000 children who get measles will die from the disease.

The virus, which is extremely contagious, is spread through coughing and sneezing and is able to live for up to two hours in the air. Infected individuals are able to spread the disease for four days before the rash even develops and can continue to transmit the virus for up to four days after the rash appears.

The measles vaccine used today was introduced in 1968. This vaccine is combined with the mumps and rubella vaccines in MMR. Thanks to the vaccine, measles was declared eliminated from the United States in 2000.
Unfortunately, measles is still common throughout the world, and we continue to see cases in the United States. About 20 million people worldwide are infected with measles every year, and about 146,000 will die from the disease. European countries have seen multiple outbreaks over the past year. Romania has been experiencing an ongoing outbreak with over 4,025 cases and 18 deaths from measles since January 2016. In January and February alone of this year, over 1,500 cases have been reported in European countries.

Measles cases are also being reported in the United States. As of May 31, 2017, the Minnesota Department of Health has confirmed 70 cases of measles. Most of the cases have been in children, and 66 have been confirmed unvaccinated. The last reported measles case in North Dakota was in 2011.

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.

For more information about measles, please see the following health advisory: www.ndhealth.gov/Immunize/Documents/Providers/Memo/2017MeaslesHAN.pdf.

2017 AIRA Update

NDIIS Team Presents North Dakota Accomplishments with Public Health Collaboration at National Conference

The American Immunization Registry Association (AIRA) national meeting was held April 11-13, 2017 in Chicago, Illinois. With this year’s theme, “Advancing IIS Together,” the NDIIS Manager, Mary Woinarowicz and NDIIS Coordinator, Dominick Fitzsimmons, presented on the number of ways the North Dakota Immunization Program collaborates with other public health programs in North Dakota and with other IIS programs across the U.S. and on our innovative use of NDIIS data.

NDIIS collaboration with other public health programs

The NDIIS team and Immunization Program have developed several key partnerships with immunization stakeholders and other public health programs in North Dakota. These partnerships are all working towards our common goal of improving the health of North Dakotans. Described below are three key partnerships that have been established by the NDIIS team that continue to add value to public health programs in North Dakota.

In 2014, the CDC Sentinel Site Project provided supplemental funding to explore data exchange with other public health registries. As part of this work, the North Dakota Immunization Program established a query/response HL7 connection to our disease surveillance program, MAVEN. This connection helped increase the efficiency of our investigations of vaccine preventable diseases by reducing the need for data entry of vaccine histories into MAVEN. The NDIIS receives an average of more than 400 queries per month from MAVEN and the immunization program is currently surveying our epidemiologists to evaluate the impact the electronic connection has had on their workflow.

The immunization program has also recently begun a partnership with the Ryan White program in North Dakota. We are using the NDIIS to provide current immunization status and vaccine forecasts to Ryan
White case managers. They will use this information when working with their clients and determining which vaccines recommended for individuals living with HIV/AIDS they still need. A future enhancement of the connection between the NDIIS and MAVEN will provide this same information electronically for Ryan White clients in MAVEN.

Additionally, the NDIIS team has developed a partnership with both the North Dakota Cancer Coalition (NDCC) as well as the staff working with the North Dakota Cancer Registry. Since 2012, the NDIIS Manager has participated in an HPV workgroup sponsored by the NDCC, using NDIIS data to provide HPV vaccination rates for educational materials as well as helping to set HPV-related goals and benchmarks for the Cancer Division within the Department of Health. In 2015, the NDIIS team completed a data match project with the Cancer Registry as part of the work under the Sentinel Site cooperative agreement. After completing the initial project, our two teams have developed a list of future projects that would look at vaccination status and trends among cancer survivors.

NDIIS sentinel site collaboration

North Dakota is one of six CDC IIS sentinel sites that received additional grant funding for targeted activities related to our IIS data. Sentinel sites are selected based on their high level of participation (data reporting) as well as maintaining a high level of data quality. In 2016, all six sentinel sites collaborated on a single project for the first time.

The Oregon sentinel site showed there was a difference between the U.S. census population estimates and the population in the Oregon IIS, so the six sentinel sites worked to identify potential data quality issues that may be contributing to the overrepresentation of specific groups within the IIS populations. Each state also collaborated to replicate another site’s project to give feedback and to act as an initial assessment of the feasibility and usefulness of this effort in another program.

North Dakota chose to analyze the effect of students attending college in North Dakota but whose permanent residence may be out-of-state. These students represent approximately 49 percent of North Dakota’s total college and university population. Our results showed that a small group of college students may be identified according to their vaccination patterns, which are potentially contributing to an overestimate of our true population. This finding may be useful and applied in states that have large student populations or a significant proportion of out-of-state students.

The NDIIS also replicated the Minnesota IIS project attempting to identify records belonging to migrant populations with uncertain or unknown birthdates and with more than one record in the IIS. We found that this is not yet a significant issue affecting NDIIS data quality. However, should demographics change in our state thanks to the collaborative process, it is an issue that we may now be aware of for future purposes.

As an initial model of a collaborative effort to improve IIS data quality, in defining a more accurate population-representation and fostering interstate comparison of IIS structures and relationships, it is hoped that this project will act as a primer for similar future efforts and promote avenues amongst IIS to find practical solutions to shared problems.
Keeping Current on Storage and Handling Requirements

With the summer months fast approaching, keep in mind summer storms can cause power outages that can put the viability of your vaccine at risk. With temperature excursions, action should be taken as soon as the alarm is found and before any vaccine is administered. Anytime providers experience a temperature excursion, the manufacturers should be contacted as to the viability of the vaccine, and the Immunization Program should be made aware of the excursion. Since October, 2016, the NDDoH has had 35 reported temperature excursions resulting in 223 doses of wasted vaccine for a total of $9,836.92. There have also been 47 unreported temperature excursions since that time. These are excursions found when monthly temperature logs were sent to NDDoH and not reported to the Immunization Program, which resulted in 475 doses of vaccine being wasted for a total of $18,130.57. There have also been two providers that needed to revaccinate patients due to not reporting temperature excursions right away, and nonviable vaccine being administered to patients.

Common temperature excursions recently reported to NDDoH are related to the vaccine units failing, providers leaving the unit doors open, power outages (either by storms or planned power outages), provider was unaware an excursion had occurred in their units and the probe falling out of the units.

If you have any questions or need to report a temperature excursion, please contact the NDDoH at 701.328.3386 or toll-free at 800.472.2180.

NDIIS Wins Award at National Conference

The 2017 Centers of Excellence Awards from AIRA for Innovative Approaches to Increasing or Demonstrating the Value of IIS were presented in April during the AIRA national meeting in Chicago, Illinois. The NDIIS team won second place for our innovative use of NDIIS data to predict future vaccine funding needs.

The North Dakota Immunization Program uses CDC’s VTrckS system to order all of our publicly funded vaccine. When submitting vaccine orders to VTrckS, the NDDoH must assign a specific public funding source (i.e. state, VFC, Section 317, etc.) for all vaccine purchases. The NDDoH has historically used doses administered data from the NDIIS to predict our future vaccine funding needs. When we starting use VTrckS to place our vaccine orders, we used the NDIIS doses administered data to populate the VTrckS fund split template that would auto-assign the specific public funding source to all of our vaccine orders. Vaccine inventory in the NDIIS is only tracked by public vs. private vaccine, so our goal was to demonstrate that provider sites did not have to separate their public vaccine by different funding type and the immunization program could still determine how much vaccine would be needed by separate public funding source. We also wanted to show that using a discreet vaccine funding source, not
inferring funding source from Vaccines for Children (VFC) eligibility status, would more accurately predict future vaccine funding needs.

We used doses administered from the NDIIS for one, full fiscal year and looked at the doses by both discreet funding source and VFC eligibility status for each dose and again by inferring funding source from the VFC eligibility. Using the same logic as is used to populate the fund split template to assign either state, VFC or 317 public funding source to the doses administered data we were able to determine how much of each type of vaccine was administered. The number of doses administered as well as the total cost of the public vaccine doses administered was compared to the amount of vaccine actually ordered in VTrckS for the same time period.

Through our analysis, we were able to show that capturing public vs. private funding source as a discreet field and not inferring the funding source value from VFC eligibility status allowed for more accurate forecasting of future vaccine funding needs. This also means that our enrolled provider sites are able to continue to separate their vaccine inventory by public vs. private and the immunization program can still accurately assign a more specific public funding source during our ordering process without having to require providers to track their public vaccine separately.

**National Infant Immunization Week and CDC Immunization Champion Award**

National Infant Immunization Week (NIIW) was April 22-29, 2017. Since 1994, this annual observance highlights the critical role vaccination plays in protecting our children, communities and public health. While vaccines are important throughout the lifespan, NIIW focuses specifically on the benefits of immunization for children under the age of two years old.


North Dakota’s 2017 CDC Childhood Immunization Champion is Chantel Hillius-Kramlich from Mid Dakota Clinic. She was nominated and selected from a pool of health professionals, community advocates and other immunization leaders for making a significant contribution to public health in North Dakota through her work in childhood immunization. For more information about her work as a champion, visit [https://www.cdc.gov/vaccines/events/niiw/champions/profiles-2017.html](https://www.cdc.gov/vaccines/events/niiw/champions/profiles-2017.html).

Thank you to all North Dakota immunization providers for all of your hard work to increase infant immunization rates in North Dakota. The 2015 National Immunization Survey (NIS) showed that North Dakota’s infant immunization rates met the Healthy People 2020 Goal of 80% (Figure 4).
February ACIP Update

The ACIP met in February to discuss a variety of immunization-related topics.

The only vote that occurred was regarding hepatitis B vaccine for infants born to hepatitis B positive women. Infants born to hepatitis B positive women are recommended to receive hepatitis B immunoglobulin and a dose of hepatitis B vaccine within 12 hours of birth, followed by two additional doses of hepatitis B vaccine according to schedule. Post-vaccination serologic testing is recommended one to two months after the last dose of hepatitis B vaccine is administered. If seronegative, infants were previously recommended to receive another full series of hepatitis B vaccine. At the February meeting, ACIP voted to recommend that for seronegative infants, one additional dose of hepatitis B vaccine should be administered, followed by serologic testing one to two months later. If seropositive, then no additional doses of hepatitis B vaccine are needed. If seronegative, then the infant must complete the series of hepatitis B vaccine.

ACIP was presented and discussed additional information about high dose influenza, live attenuated influenza, mumps, and zoster vaccines. For a more in-depth update about the meeting, please watch the National Foundation for Infectious Diseases (NFID) presentation at https://cc.readytalk.com/cc/s/meetingArchive?eventId=y8tlkr26j05b.
High Dose Influenza Vaccine

According to the CDC, the vast majority of influenza deaths occur in elderly patients over the age of 65. Thus, saving lives is one of the main goals of influenza vaccination, and a new study published in March in the *Journal of Infectious Diseases* says that high-dose vaccine may do a better job than its standard-dose counterpart of reducing mortality in this group, at least in H3N2-dominated seasons.

The study was conducted with data gathered from more than one million Medicare recipients who received either the standard or high-dose vaccine at community pharmacies during the 2012-13 and 2013-14 flu seasons.

The high-dose flu vaccine was 36.4 percent more effective at preventing deaths than the standard-dose vaccine among the patients during the 2012-13 flu season, when the H3N2 strain dominated. In 2013-14, when H1N1 dominated, the high-dose vaccine was only slightly (2.5 percent) more effective, and the difference was not statistically significant.

Besides reducing the risk of death, the high-dose vaccine reduced the chance of influenza-based hospitalizations by 22.1 percent and influenza-like illness (ILI) by 22 percent for the 2012-13 season. There was no reduction in hospitalizations or ILIs in 2013-14.

The ACIP has not expressed a preference for the high-dose flu vaccine over the standard dose flu vaccine in the elderly, therefore, either vaccine may be used.

The high-dose vaccine is an inactivated trivalent vaccine approved for use by the Food and Drug Administration (FDA) in 2009. It contains four times more antigen than the standard dose (60 micrograms vs 15 micrograms per strain).

2017 North Dakota Legislative Update

Senate Bill (SB) 2099 was proposed by the NDDoH. Due to the required reduction in the general fund budget, the NDDoH requested changes to North Dakota Century Code 23-01-29 to reflect the discontinuation of the universal vaccination program at local public health units (LPHUs). The universal vaccination program provided vaccines to LPHUs for administration to children who have health insurance. SB 2099 passed the Senate in its original form, but was amended in the House. The House version kept permissive universal vaccination language in NDCC 23-01-29 in case funding became available for this program in the future. The Senate concurred with the amended bill. SB2099 was signed by Governor Burgum. LPHUs are currently purchasing private vaccine and billing insurance for the cost of the vaccine and administration fees.
Please take a moment to review your Vaccine Information Statement (VIS) and make sure that they are up to date.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>VIS Date</th>
<th>Vaccine</th>
<th>VIS Date</th>
</tr>
</thead>
<tbody>
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<td>MMRV</td>
<td>05/21/2010</td>
</tr>
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<td>Anthrax</td>
<td>3/10/2010</td>
<td>Multi-Vaccine</td>
<td>11/05/2015</td>
</tr>
<tr>
<td>Chickenpox</td>
<td>3/13/2008</td>
<td>PCV13</td>
<td>11/5/2015</td>
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<td>5/17/2007</td>
<td>PPSV</td>
<td>4/24/2015</td>
</tr>
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<td>4/02/2015</td>
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<td>7/20/2016</td>
<td>Rabies</td>
<td>10/06/2009</td>
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<td>4/15/2015</td>
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<td>12/02/2016</td>
<td>Shingles</td>
<td>10/06/2009</td>
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<td>Td</td>
<td>4/11/2017</td>
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<td>1/24/2014</td>
<td>Tdap</td>
<td>2/24/2015</td>
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<td>8/09/2016</td>
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</tr>
<tr>
<td>MMR</td>
<td>4/20/2012</td>
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</tr>
</tbody>
</table>

Offering a VIS for each vaccine at all immunization visits, including mass clinics, is a federal requirement. A VIS can be printed and laminated for each room as long as they are sterilized between patients, or paper copies can be provided at each immunization visit. The VIS must be offered prior to immunizations, not after. Check your VIS stock against this list. If you have outdated VIS forms, obtain the current version.

**Vaccine Returns and Wastages for Quarter One (January – March 2017)**

Below is a chart showing the total vaccine dollars lost due to wasted or expired state-supplied vaccine during the first quarter of 2017.

<table>
<thead>
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<th>Wastage Reason</th>
<th>Total Vaccine Lost in Dollars</th>
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</thead>
<tbody>
<tr>
<td>Expired Vaccine</td>
<td>$51,223.96</td>
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<tr>
<td>Failure to Store Properly Upon Receipt</td>
<td>$0</td>
</tr>
<tr>
<td>Refrigerator Too Cold</td>
<td>$14,792.49</td>
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<tr>
<td>Refrigerator Too Warm</td>
<td>$2,062.23</td>
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<tr>
<td>Broken Vial or Syringe</td>
<td>$131.02</td>
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<tr>
<td>Open Vial and Not All Doses Administered</td>
<td>$886.72</td>
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<tr>
<td>Vaccine Drawn into Syringe but Not Administered</td>
<td>$1,595.86</td>
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<tr>
<td>Other</td>
<td>$15,972.04</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$89,745.02</strong></td>
</tr>
</tbody>
</table>
Selecting the Correct Vaccine Return/Wastage Reason in NDIIS

There are many different options available in NDIIS based on why a certain vaccine is either being returned or wasted. Many of them are included in this table, but some are not listed because a valid reason was not selected. There is a pre-defined reason for almost everything, which brings us to our topic for this quarter.

The dreaded “other” option is always present, it always fits, yet just doesn’t seem quite right at the same time. If you’ve been following our last few quarterly updates on vaccine return and wastage reports, you will notice that “other” is a common option. For the first quarter of 2017, the dollar amount associated with it wasn’t quite as high as the end of 2016, but still a very popular option. If you are entering either a return or wastage and you find yourself selecting “other,” ask yourself, “Have I read all the other options and am I selecting the best option?” A common mistake is for providers to enter a vaccine wastage for expired vaccines (aside from open multi-dose vials,) and enter it as “other” with a comment as “expired,” simply because expired wasn’t an option. This should be a red flag that you may not be entering the wastage in the right place. All vaccine that has expired, aside from open multi-dose vials, should be entered as a return and sent back to McKesson. Note that “expired” is in fact an option when entering a vaccine return.

The “other” option should only be used in the very, very rare circumstance of when your vaccine return or wastage truly does not fit into one of the other categories. If for some reason you find yourself needing to enter a wastage or return under the “other” category, be sure to leave a detailed note as to why this vaccine is no longer viable. The Immunization Program tries to make sure that all vaccine that is non-viable is being entered correctly, and also being returned to McKesson when appropriate. If you ever have questions on which category to choose, feel free to contact the Immunization Program.

NDIIS Update

The NDDoH Immunization Program recently finished a number of updates to the immunization forecaster in the NDIIS. These updates include rules for the new two-dose recommendation for HPV vaccine, as well as a number of fixes for outstanding issues that have been previously reported to the NDIIS team. With all of the major changes that have been made to the NDIIS forecaster over the past few months, the technical team has been working to update individual client record forecasts for all NDIIS clients and for those clients impacted by a specific rule fix. This means that the forecaster will correctly identify which doses in an individual client record are valid and will recommend the next doses due.

The immunization forecaster is a very complicated tool and we recognize that keeping the rules correct and up-to-date is an on-going effort. The NDIIS team is continuing to work on fixing known issues with our forecaster rules and we are making every effort to ensure they are correct. Any questions or concerns about the forecaster should be submitted to the Immunization Program.

One other major project currently in progress is the development of new 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 students are 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, print the official certificate of immunization for their students and run the NDIIS reminder/recall report for their student population. New reports are also being created that will be available to all school users in the NDIIS and generate a list of all the students (by grade) assigned to their school; report all students’ complete immunization history, including vaccine exemptions; calculate the rate of students (by grade) who are up-to-date with school-required immunizations; report all students (by grade) who are not up-to-date with school-required immunizations and display the students’ immunization forecast; and calculate the rate of immunization exemptions for all students (by grade) and display the rate for each type of exemption by vaccine.

This new functionality is scheduled to be available in the NDIIS prior to the start of the 2017-2018 school year and will only be available to users who are associated with a school provider in the NDIIS. Live, web-based, one hour training sessions will be scheduled in August 2017, and additional training materials will be available on the Immunization Program web site at www.ndhealth.gov/Immunize/NDIIS/Training.htm.

**Adult Immunization Reminder/Recall Pilot Underway in North Dakota**

The North Dakota Immunization Program will continue the adult immunization reminder/recall pilot project by distributing immunization reminders in late May/early June. Immunization recall letters and postcards will be distributed in Stutsman, Morton and Grand Forks counties to adults 60 years of age and older who are 30 or more days past due for the shingles, Prevnar® and Pneumovax® vaccines. Recall messaging will request individuals contact their primary healthcare provider or local public health unit for immunizations recommended by the Advisory Committee on Immunization Practices.

Immunization reminder/recall is a strategy the North Dakota Immunization Program is implementing to increase adult immunization rates. Reminder/recall activities can be implemented at the state, local public health and private provider level. For more information regarding the adult immunization reminder/recall pilot project or reminder recall training, contact the North Dakota Immunization Program.

Adults who no longer wish to receive reminder/recall notices should visit the Immunization Program website at: www.ndhealth.gov/immunize/ and complete the Immunization Recall Exclusion Form. If you receive questions from individuals that do not understand the immunization recall letter or postcard, please review the NDIIS immunization forecaster. If you have further questions, please contact the Immunization Program.
**Yellow Fever Vaccine Supply Update**

The United States-licensed yellow fever vaccine supply is expected to be depleted by mid-2017. The CDC outlined a plan to ensure a continuous yellow fever vaccine supply in the United States following the anticipated depletion of the U.S.-licensed YF-VAX yellow fever vaccine in mid-2017, according to a Morbidity and Mortality Weekly Report published April 28, 2017 ([https://www.cdc.gov/mmwr/volumes/66/wr/mm6617e2.htm](https://www.cdc.gov/mmwr/volumes/66/wr/mm6617e2.htm)).

In 2016, a manufacturing issue at Sanofi Pasteur limited the production of YF-VAX, and no yellow fever vaccine is expected to be available by mid-2017. YF-VAX is the only yellow fever vaccine licensed for use in the United States and is distributed to approximately 4,000 clinic sites.

Because yellow fever is a potentially serious disease, CDC and Sanofi Pasteur collaborated on a plan to distribute limited quantities of Stamaril yellow fever vaccine to prevent people from becoming infected by the virus until production of YF-VAX resumes at a new facility in 2018. Stamaril is manufactured by Sanofi Pasteur in France and distributed in more than 70 countries. In October 2016, the U.S. Food and Drug Administration authorized an Expanded Access Investigational New Drug protocol that allows for the distribution of Stamaril to designated U.S. clinic sites until YF-VAX production resumes.

To ensure broad accessibility to limited quantities of the Stamaril vaccine, Sanofi Pasteur and CDC targeted clinic sites that administered a high volume of yellow fever vaccine to international travelers in 2016 or can provide coverage to an area of geographic need. Based on these criteria, Sanofi Pasteur identified approximately 250 U.S. clinics to distribute Stamaril. This is a significant decrease from the approximately 4,000 clinic sites that distribute YF-VAX. In North Dakota, it is anticipated that only one site will be selected to distribute Stamaril.

Calendar of Events

Immunization Program Lunch & Learn
June 14, 2017

ACIP Meeting - Atlanta, Georgia
June 21 and 22, 2017

NACCHO Annual Meeting 2017 - Pittsburgh, Pennsylvania
July 11, 12, and 13th.

Immunization Program Lunch & Learn
July 12, 2017

South Dakota Immunization Conference – Sioux Falls, South Dakota
August 4, 2017

Immunization Program Lunch & Learn
August 9, 2017

Current Issues in Vaccine webinar series
provided by the Vaccine Education Center at Children’s Hospital of Philadelphia (CHOP)
September 13, 2017