

Immunization Newsletter

Summer 2018

Immunization Rates for the MCV4 Booster Dose

In January of this year, there were some changes made to North Dakota Administrative Rule 33-06-01 regarding school immunization requirements. One of these changes was a new requirement stating that children are required to have a second dose of meningococcal conjugate vaccine (MCV4) before being admitted to 11th and 12th grade. Immunization coverage rates for the second dose of MCV4 have been historically low (< 40%) in North Dakota so there is a large portion of the adolescent population in need of their booster dose prior to the start of the upcoming 2018 - 2019 school year.

Data from the NDIIS does not show the increase in coverage rates for the MCV4 booster dose that we would hope to see so close to the start of the school year. As of the end of the second quarter of 2018, only 40.9 percent of 16 to 17-year-old adolescents in North Dakota had received their booster dose. This is less than a 1 percent increase from quarter one of this year when the new school requirement was approved.

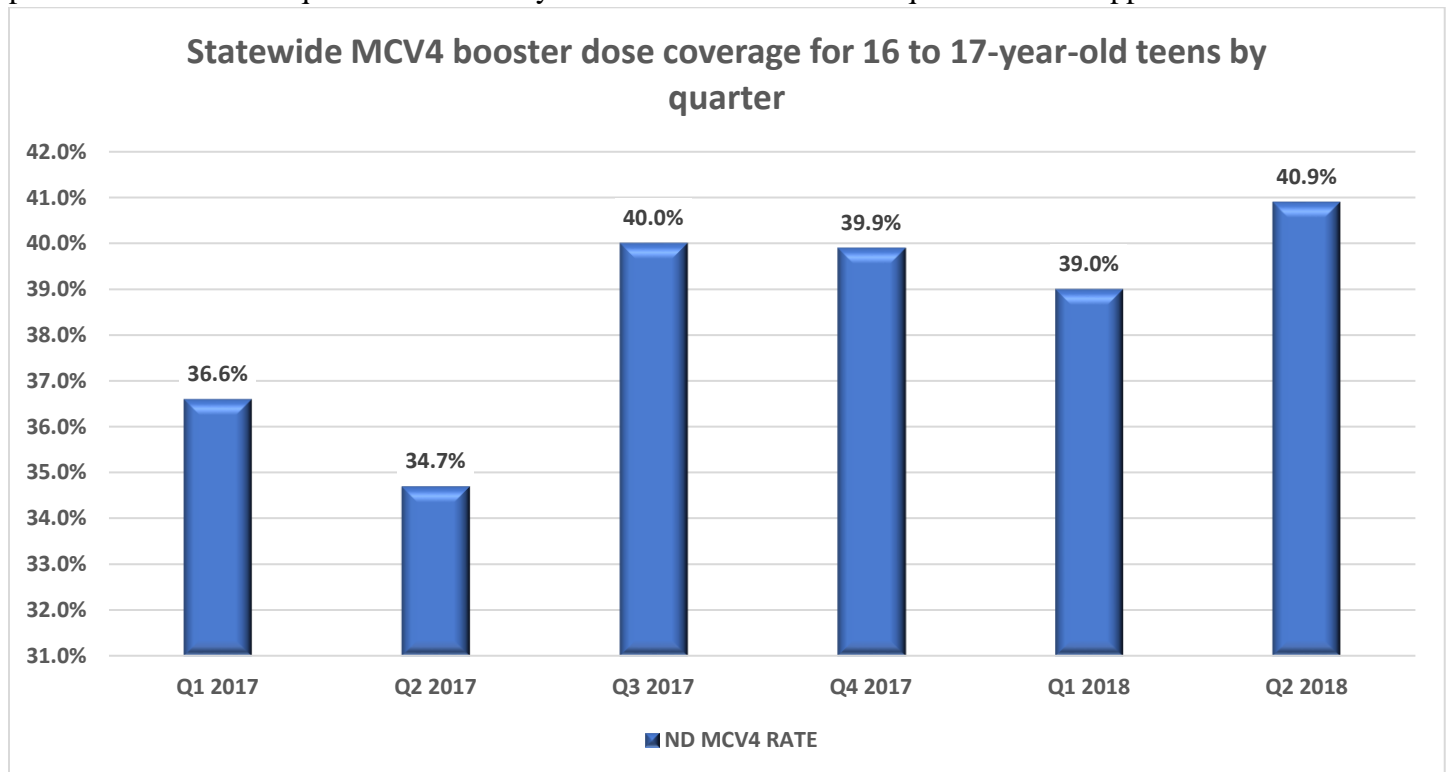


Figure 1. The percent of teens 16-17 years of age up-to-date with the second dose of MCV4 vaccine as of the last day of the quarter.

Additionally, when we look at kids who will be entering 11th and 12th grades during the upcoming school year, the coverage rate for the second dose of MCV4 is only 36.5 percent. This is an increase of 0.6 percent from the previous school year.

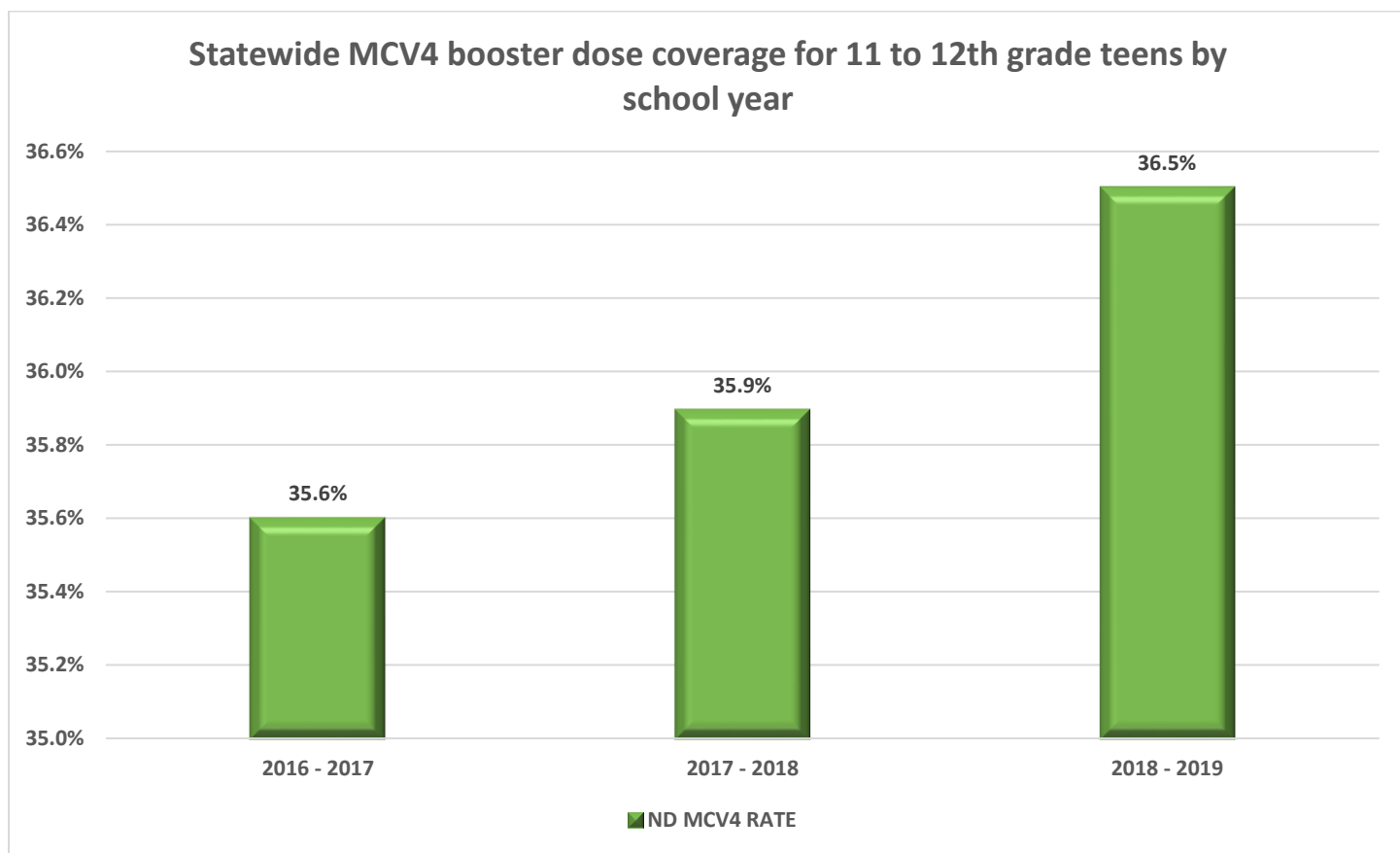


Figure 2. The percent of teens who will be entering 11th and 12th grade up-to-date with the second dose of MCV4 vaccine as of July 31st.

With less than one month left before the start of the new school year, roughly 55-60 percent of North Dakota teens are still in need of their MCV4 booster dose. Health care providers and local public health units should be using every opportunity, including sports physicals and using the NDIIS forecaster and reminder/recall system, to identify kids who are missing this vaccine and get them up-to-date before school starts this fall.

School Immunization Requirements

The start of the new school year will be here soon, and it is time to ensure students are up to date on immunizations. A few changes to North Dakota school immunization requirements will go into effect with the upcoming 2018-2019 school year.

One dose of MCV4 is now required for students entering 7th through 10th grade and a second dose of MCV4 is required for those entering grades 11 and 12. Most students have not received their second dose. If a student receives their first dose of MCV4 on or after their sixteenth birthday, only one dose is required.

School immunization requirements for students entering kindergarten have remained the same. Students in all grades should be compliant with immunization requirements before starting school. All students must be compliant by October 1 or be excluded from school. Health care providers should ensure their patients are up to date on all recommended vaccinations, not only school requirements.



More information regarding the 2018-2019 school immunization requirements can be found at <http://www.ndhealth.gov/Immunize/Schools-ChildCare/>.

<u>Vaccine</u>	Number of Required Doses		
	Kindergarten - 6 th grade	Grades 7-10	Grades 11-12
DTaP	5	5	5
Hepatitis B	3	3	3
Polio	4	4	4
MMR	2	2	2
Varicella (chickenpox)	2	2	1
Meningococcal (MCV4)	0	1	2
Tdap	0	1	1

June 2018 ACIP Update

The Advisory Committee on Immunization Practices (ACIP) met June 20 - 21, 2018. There were only two votes during this meeting, so most of the content included updates, data for future votes, or additional information that had been requested by the group.

2018 - 2019 Influenza Vaccine Recommendations

The influenza vaccine recommendations will remain unchanged from the last season. Everyone six months of age and older is recommended to receive an influenza vaccine. If a child received at least two doses prior to July 1, 2018 they only need one influenza vaccine during the 2018 – 2019 influenza season. The official recommendations will be published in an MMWR sometime later this summer, generally in August.

The committee received updates on influenza vaccine effectiveness, cell cultured vs. egg-based influenza vaccines, and influenza season vaccine safety. High dose flu vaccine was found to be 8.4 percent more effective than the standard egg-based influenza vaccine. Cell culture influenza vaccine was found to be 10 percent more effective than the standard egg-based influenza vaccine. No concerns on influenza vaccine safety were found in the last influenza season.

The formulation of the influenza vaccine used during this season will be slightly different. The H3N2 and B influenza strains will be changed.

This is also the first influenza season where there will be three influenza vaccines available for use in children 6 months – 35 months old. Fluarix® and Flulaval® (0.5 mL dose), both manufactured by GlaxoSmithKline and

Fluzone® manufactured by Sanofi Pasteur (0.25 mL). Providers must pay close attention to the dosage sizes for this age group. The correct dosage based on the brand and licensure must be given or it will not be considered a valid dose.

Anthrax

The ACIP voted in favor of recommendations for the use of anthrax vaccine (AVA) as post-exposure prophylaxis (PEP). Should there be an inadequate supply of AVA available for PEP, either two full doses or three half doses of AVA may be used to expand vaccine coverage. In immunocompetent individuals 18-65 years of age, antimicrobials given in conjunction with vaccine may be discontinued at 42 days after the first vaccine dose or 2 weeks after the last vaccine dose, whichever comes later. Details of antimicrobial treatment changes and vaccination recommendations will be published in a future MMWR.

HPV Vaccine in Persons Over 27 Years of Age

Data was presented showing reductions in human papillomavirus (HPV) -related cancers in persons vaccinated after 27 years of age. Merck has submitted a licensure application for use of Gardasil 9® in persons 27 – 45 years of age.

At the next ACIP meeting in October, more data will be presented, including cost effectiveness data. HPV schedule harmonization with males and females will be discussed, and potentially voted on, at the same time as the expanded age indication. A vote will likely not take place on either change until 2019.

Three-Dose MMR Recommendations During Outbreaks

The CDC presented guidance on the use of a 3rd dose of MMR vaccine during mumps outbreaks. Previously state health departments would collaborate with the Centers for Disease Control (CDC) once an outbreak occurred to determine if a 3rd dose was recommended. The CDC has now released guidelines for when a 3rd dose should be recommended in an outbreak setting. There is no routine recommendation for a 3rd dose of MMR vaccine.

PCV13 Vaccine Recommendations in those 65 and Older

Vaccine safety and efficacy data was reviewed for people 65 years and older who have received a PCV13. No safety concerns have been found. Studies have shown the largest reduction of invasive pneumococcal disease is occurring because of childhood pneumococcal vaccination, and only small reductions through adult vaccination. The ACIP will continue to review data and make future recommendations based on cost effectiveness and reduction of invasive pneumococcal disease.

North Dakota HPV Vaccination Coverage Distribution

North Dakota is one of six Centers for Disease Control and Prevention (CDC) Sentinel Sites, selected to receive additional grant funding because the NDIIS has consistently met the following three criteria: at least 85 percent of vaccine provider sites are enrolled in the IIS; at least 85 percent of the children less than 19 years of age are participating in the IIS and at least 70 percent of the doses administered from the sentinel site area are submitted to and processed by the IIS within 30 days of administration. As part of yearly Sentinel Site evaluation activities, the NDIIS recently completed a project looking at the geographic distribution of HPV vaccine coverage among adolescents across the state. The goal of this study was to compare published National Immunization Survey-Teen (NIS-Teen) HPV coverage estimates to NDIIS data. Since NIS-Teen has

historically published only limited coverage estimate information by race/ethnicity and geography, this study also aimed to assess HPV coverage rates in North Dakota's various geographic areas, including rural and urban areas, oil-producing counties and in our state's four American Indian (AI) reservation areas. At the statewide level, it was found that NDIIS rates tended to compare quite closely with coverage rate estimates published by the NIS-Teen. Looking at smaller geographic areas, using individual address information from the NDIIS, the results of this study were quite informative and reflected what is often noted by the immunization program and by healthcare providers. According to study data, HPV coverage rates tended to be lower in western, rural and oil-producing counties versus eastern and more urban counties in the state. The divide in coverage by geographical areas can be seen in the map below.

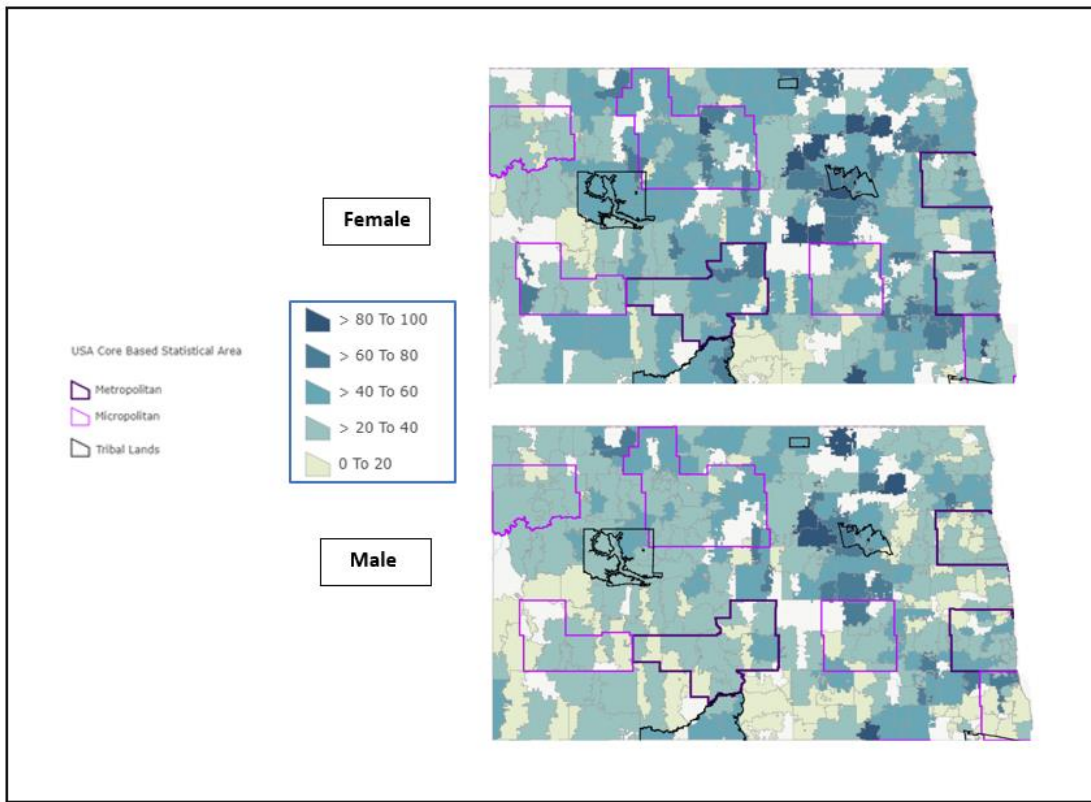


Figure 3: 2015 Female and male adolescent HPV 3-dose coverage rates according to NDIIS by zip code.

This assessment also found that adolescents living on three of the four AI reservations in North Dakota had significantly higher HPV coverage rates as compared to the statewide and surrounding county rates. For example, female teens age 13-17 years had between 32 percent and 53 percent higher HPV immunization rates on Standing Rock reservation, as compared to those in bordering Emmons and Grant counties. While this analysis did not look specifically at HPV coverage by race or ethnicity, there is strong indication that there are both geographic and demographic disparities in immunization coverage in the state.

As future steps, the results of this study can be used to inform targeted outreach to areas with low immunization coverage among adolescents. This may include increased education with local providers and increasing availability of VFC program awareness and vaccine availability.

Immunization Program Collaboration with QHA

The Quality Improvement Organization (QIO) program is one of the largest federal programs supported by the Centers for Medicaid and Medicare (CMS) that works to improve health quality for Medicare beneficiaries. The impact of QIO activities, which includes improvement of adult immunization rates and the reduction of immunization disparities, is reported to Congress each fiscal year. The NDIIS has been collaborating with our state's QIO, Quality Health Associates of North Dakota (QHA), since 2015 to improve outreach to adult immunization providers and partners. Through this work, the NDIIS has been able to reach smaller, rural and non-traditional immunization providers including pharmacies, long term care facilities, and home health agencies that are enrolled in QHA's initiatives. Adult providers have unique barriers to assessing patient needs, providing immunizations and reporting their patients' immunizations to the NDIIS. QHA and the NDIIS share common goals and have been working to reach these providers and support their efforts to address barriers. Through collaboration, the NDIIS and QHA have been able to host large training events focusing on routine adult and healthcare worker immunization recommendations, training on NDIIS functionality and recruitment of provider sites for electronic immunization data exchange. Information on provider immunization, data entry and assessment practices has also been obtained through this work. In addition to outreach and training, QHA obtains an alternate source of provider-level immunization coverage data via Medicare billing information from their enrolled facilities. Currently, the NDIIS is working to compare NDIIS and QHA data to identify and assess overlap in areas of low immunization rates and/or reporting that will be a focus of further outreach from the program. The results of this comparison are expected to be completed later this summer.

WIC and Immunization Best Practices

The ACIP general best practice guidelines recommend that health care providers, including state and local public health vaccination programs, coordinate with partners to reach populations at risk for under vaccination and vaccine-preventable diseases*. In 2017, the Women, Infants and Children (WIC) program in North Dakota served almost 50 percent of infants born in the state, with 22,000 total individual participants during the year**. In addition to the mission of promoting health and nutrition among pregnant women, mothers and children, WIC is the largest single point of access to preschool children nationally. WIC recognizes immunizations as an important component of children's health and its local offices in North Dakota routinely complete health and eligibility screenings for enrolled individuals. These screenings are important opportunities to reach children who are at a critical point for protection against vaccine preventable diseases. During a WIC visit, providers may look up children's immunization records in the North

Dakota Immunization Information System (NDIIS) and run the forecaster to assess upcoming immunization needs. WIC agencies should refer their attendees to their local public health unit or healthcare provider directly for immunizations that are needed, thus avoiding missed opportunities for children who are due for vaccination. These encounters are also an opportune time to remind parents that all the routinely recommended vaccines are available to eligible children via the Vaccines for Children (VFC) program.

WIC locations are encouraged to request access to the NDIIS for their facility and staff (<https://www.ndhealth.gov/Immunize/NDIIS/>), and to review NDIIS training materials to familiarize themselves with how to find patient records in NDIIS, and how to run and interpret the forecaster (<https://www.ndhealth.gov/Immunize/NDIIS/Training.aspx>). There are also useful introductory immunization-related training materials available from the Every Child by Two organization,

designed to give WIC staff an overview of childhood immunizations and the routinely recommended vaccine schedules

(<https://wicworks.fns.usda.gov/wicworks/Topics/Vaccines101Guide.pdf>).

*Kroger AT, Duchin J, Vázquez M. *General Best Practice Guidelines for Immunization. Best Practices Guidance of the Advisory Committee on Immunization Practices (ACIP)*. [www.cdc.gov/vaccines/hcp/acip-recs/general-recs/downloads/general-recs.pdf]. Accessed on 7/5/2018.

**(http://www.ndhealth.gov/wic/publications/2017_ND_WIC_Annual_Report.pdf)

North Dakota Influenza and Adult Immunization Grant Awards

As a strategy to increase North Dakota's influenza and adult immunization rates, the North Dakota Immunization Program has awarded six immunization grants to increase influenza and adult immunization rates. Award recipients include Lake Region Health District, City County Health District, Rolette County Public Health District, Dickey County Public Health, and Valley Health. Grant activities include, but are not limited to, offsite immunization clinics, general population education, mandatory health care worker education, clinic immunization policy development and implementation, off hours immunization clinics, nontraditional provider collaboration, and NDIIS data entry.

Adult Immunization Rates in North Dakota

The North Dakota Immunization Program utilized the NDIIS to determine the 2018 quarter two adult immunization rates for the tetanus, diphtheria, and pertussis (Tdap); pneumococcal conjugate (PCV13, Prevnar®); and pneumococcal polysaccharide (PPSV23, Pneumovax®). Statewide averages are greater than or equal to national averages, but below the Healthy People 2020 goals for Tdap, pneumococcal conjugate, and pneumococcal polysaccharide vaccines.

Tdap Vaccine

- Healthy People 2020 goal is 80 percent immunization rate.
- Tdap NDIIS immunization rates for North Dakota's population 19+ years of age range from 36.5 percent - 71.1 percent with a statewide average of 54.7 percent.
- There are currently 30 counties with adult NDIIS Tdap rates for adults 19+ years of age below the state average.
- In 2017, 55,515 doses of Tdap were documented in NDIIS as administered to individuals 19 years of age and older in the NDIIS.

Pneumococcal Conjugate Vaccine

- Healthy People 2020 goal is 90 percent immunization rate.
- Prevnar® NDIIS immunization rates for North Dakota's population 65+ years of age range from 25.9 percent - 73.1 percent with a statewide average 53.2 percent.
- There are currently 33 counties with adult NDIIS Prevnar® immunization rates below the state average.
- In 2017, 16,310 doses of Prevnar® were documented as administered to individuals 65 years of age and older in the NDIIS.

Pneumococcal Polysaccharide Vaccine

- Healthy People 2020 goal is 90 percent immunization rate.
- Pneumovax® NDIIS immunization rates for North Dakota's population 65+ years of age range from 26.5 percent – 65 percent with a statewide average 45.7 percent.

- There are currently 33 counties with adult NDIIS PPSV23 immunization rates below the state average.
- In 2017, 11,407 doses of Pneumovax® were documented as administered to individuals 65 years of age and older in the NDIIS.

Shingrix® Supply



Due to high demand for Shingrix®, providers should anticipate ordering limits, backorders, and shipping delays for Shingrix® vaccine through 2018. GlaxoSmithKline (GSK) is currently working to make more doses available in the near future for the US market to meet the demand.

Providers should request a backorder through GSK as well as an additional wholesaler and/or distributor. Once a Shingrix® order has been received, it is recommended to order additional doses to maintain a sufficient supply. For additional alerts or information regarding Shingrix® supply, please see www.gskdirect.com.

Vaccine Administration Errors with Recombinant Zoster Vaccine

Recombinant zoster vaccine (RZV) which is known as Shingrix® was licensed in October 2017 and is FDA approved for adults 50 years and older. RZV has been preferentially recommended over zoster vaccine live (ZVL) or Zostavax®. RZV and ZVL differ in a few ways this can be seen in the table below.

Comparison of shingles vaccines		
	Zostavax®	Shingrix®
Storage	Freezer	Refrigerator
Route of delivery	SubQ	IM
Age of patient	Immunocompetent adults 60 years and older	Adults 50 years and older
Number of doses	1 dose	2 doses minimum of 8 weeks apart
Vaccine type	Live attenuated virus	Recombinant adjuvanted

From October 20, 2017 through February 20, 2018, 155 events involving RZV were reported to the Vaccine Adverse Event Reporting System (VAERS). Of the reported events thirteen events were related to administration errors and nine errors were related to route of delivery. Other events that were reported to VAERS were injection site reactions, inappropriate age of the patient, receiving the wrong vaccine information statement, not being instructed to return for the

second dose of RZV, administration of RZV instead of varicella vaccine to a patient of unreported age, administration of frozen RZV, and administration of only the adjuvant component of the vaccine without being reconstituted. Vaccine administration errors took place in both pharmacies and provider offices.

Providers should be aware of the differences between RZV and ZVL to ensure all patients are being administered appropriate and viable vaccine.

National Immunization Conference

Three of the Immunization Program staff recently spoke at the NIC in Atlanta. Andy Noble, Dominick Fitzsimmons and Miranda Baumgartner were able to share how North Dakota is working on projects in adult immunizations, immunization information systems, and vaccine storage and handling.

Andy presented on how he is working with the Ryan White program to increase the immunization rates in patients who are high risk. Immunization rates among North Dakota Ryan White clients have increased due to immunization reminder/recall, healthcare worker education, and increased awareness of high-risk immunization recommendations through program collaboration. Immunization coverage rates are then assessed using the NDIIS at 30, 60, and 90 days after immunization letters are distributed.

Dominick presented findings on HPV coverage. The NDIIS recently completed an assessment of HPV vaccine coverage among adolescents in North Dakota's rural areas, oil-producing counties and on AI reservations (results described in earlier article). The goal of the study was to compare published NIS-Teen coverage estimates to NDIIS data, and to assess areas of potential geographic and demographic disparity among teens. The analysis found that North Dakota's statewide HPV coverage rates tend to be quite close to NIS-Teen estimates, while western, predominantly rural, oil-producing counties have tended to have markedly lower rates among teens as compared to the eastern and more urban counties in the state. In contrast, rates on AI reservations were found to be among some of the highest in the state. The results of this study validated the usefulness of the NDIIS in identifying potential disparities in immunization coverage in North Dakota.

Miranda presented on temperature excursion reporting in North Dakota. Results of the project showed the difference in the number of providers that report their temperature excursions and those providers whose temperature excursions are found through monthly review of temperature logs. Her analysis also compared the cost of vaccine lost in each of these groups as well. Findings showed that many VFC providers are not reporting temperature excursions when they occur, as many excursions were discovered by the North Dakota Department of Health (NDDoH) by reviewing monthly temperature logs that were submitted. This means some VFC providers are not reviewing data logger temperatures or responding to temperature excursions as they occur. Nonviable vaccine being administered and the need for revaccination impacts the public trust in vaccines and provider facilities.

North Dakota Immunization Program was Recognized at National Immunization Conference



The National Immunization Conference (NIC) was held May 15-17, 2018 in Atlanta. During the opening plenary, the North Dakota Immunization Program was recognized for the coverage rate of influenza vaccination among children. Three members of the immunization program had their picture taken with Dr. Nancy Messonnier, CDC, during the conference to recognize this achievement.

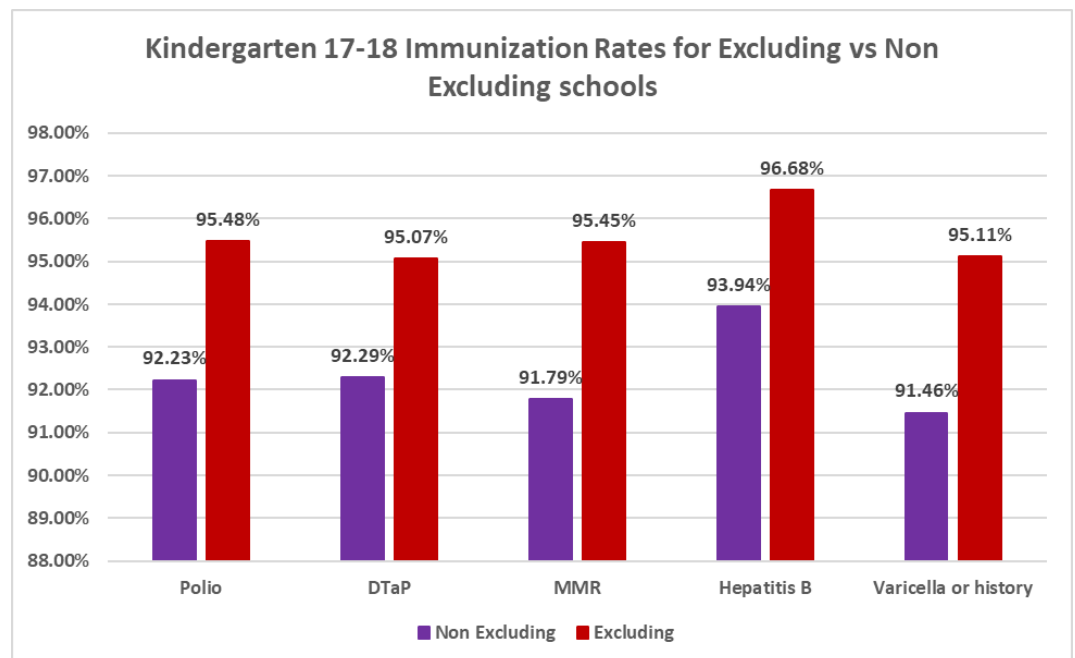
NDIIS Wins Award at AIM Leadership Conference

The 2018 Bull's Eye Awards from the Association of Immunization Managers (AIM) for immunization program innovation and initiative were presented in June during the AIM Leadership Meeting in San Diego, California. The North Dakota Immunization Program won a Bull's Eye award for the *School Immunization Quality Improvement* project done in partnership with North Dakota State University (NDSU).

During the 2012-2013 school year, kindergarten entry rates in North Dakota dropped below 90 percent for the first time. At the same time coverage rates were decreasing, personal belief exemption rates were increasing. North Dakota Century Code allows for religious, philosophical, and moral exemptions and only a one-time parent signature is required. Exemption rates, although increasing, were less than 3 percent, but immunization rates are only around 90 percent. That meant that approximately 7 percent of children were either not up-to-date or didn't have a record on file with their school. Because of this continued decrease in immunization rates and increase in exemption rates, the NDDoH immunization program started a quality improvement (QI) project in spring of 2014. The QI project team included members from the NDDoH, the Department of Public Instruction (DPI), local public health units, rural and urban schools and the Attorney General's office. The goal of the QI project was to increase kindergarten immunization rates to 95 percent (HP 2020 Objective) by December 31, 2018.

The QI project team came up with a number of different activities to try and increase kindergarten immunization rates. These activities included using the NDIIS to send reminder/recall letters in the summer to parents of children attending kindergarten or 7th grade in the fall; sending a joint letter to schools from the NDDoH and DPI about the importance of immunizations and enforcement; the assistant Attorney General presented to superintendents about legal requirements for immunization enforcement and potential liability; the NDDoH updated school immunization training documents; school immunization rate report cards were sent to superintendents, schools and local public health units; and the NDDoH contracted with NDSU Immunization to conduct an in-depth review of school immunization rates, exemption rates and immunization requirement enforcement.

After the study, NDSU had a few recommendations to help improve immunization rates. They



suggested that DPI, working with the NDDoH, should mandate enforcement of school immunization requirements. They also suggested that North Dakota require parents to obtain a health care provider's signature in order to receive a

personal belief exemption, which would ensure the parent received education on immunizations and the diseases they prevent. They also suggested schools utilize their local public health units to improve rates and compliance, that DPI incorporate training opportunities for school administrators and staff who are tasked with immunization policies, DPI and NDDOH should encourage all schools to use an electronic system to track immunizations, schools should work with LPH to enter out-of-state immunization records into NDIIS, and schools should consider hosting immunization clinics to increase immunizations rates.

NDSU also compared immunization rates in schools who enforced the exclusion policy and schools who did not enforce the exclusion policy. NDSU found that for all kindergarten immunizations, enforcing schools had significantly higher immunization rates; all of them reached 95 percent. Non-enforcing schools did not meet the 95 percent goal and instead, rates hovered around 90 percent. Although the increasing exemption rates were a concern,

NDSU looked at the impact that decreasing the exemption rate would have versus decreasing the rate of students who are simply not up-to-date. At the time of the study, 91 percent of kindergarteners were fully vaccinated, 3.3 percent had an exemption, and 5.7 percent had an unknown status. If the law was changed to no longer allow for philosophical exemptions, that would likely bring the exemption rate down to only 2 percent. The unknown status would stay the same and immunization rates would increase to only 92 percent. But, the goal of 95 percent can be reached with enforcement. If current laws were enforced, there would still likely be about 1 percent of students with an unknown status, but that would go down from 5.7 percent. In addition, the exemption rate would stay the same, and immunization rates would increase to 95.7 percent, which is above the 95 percent goal.

North Dakota State Immunization Conference



The 2018 North Dakota State Immunization Conference was held on July 17 – 18, 2018 in Bismarck. There were over 300 participants and 15 vendors registered for the conference. This was the first year that we offered a vendor bingo and had great interest in winning our bingo prizes! We offered a variety of topics ranging from immunization recommendation changes to

communication strategies to international travel vaccines and measles outbreaks! If it had to do with immunizations, it was covered. We hope everyone who attended enjoyed it and look forward to seeing everyone in 2020!



2018 Immunization Provider Awards

Each year the immunization program recognizes providers for achievements such as high immunization rates or a large increase in a designated rate from one year to the next. The immunization rates used to determine the recognition awards were rates calculated for the first quarter (Q1) of 2018.

This year the certificates were handed out during the Immunization Conference Awards Luncheon on July 18. For those who could not attend, certificates were mailed.

The [2018 Immunization Champion Award](#) was given to TyAwna Ackerman, a nurse from Jacobson Memorial Hospital Care Center in Elgin and Glen Ullin. This award recognizes TyAwna as a recipient of the CDC Childhood Immunization Champion Award for North Dakota. That award goes to individuals who make a significant contribution toward improving public health through the work they do with childhood immunization. The [2017 Immunization Champion Award](#) was given to Chantel Hillius-Kramlich. Because we did not have a conference in 2017, she received her award and recognition this year. [Congrats to both winners and thank you for the great work you do!](#)



Chantel Hillius-Kramlich 2017 Immunization Champion



TyAwna Ackerman 2018 Immunization Champion

Other awards given during the luncheon include:

The **DTaP 4 Award** was given to providers who achieved > 97 percent DTAP 4 and had at least 10 children in that age group.

DTaP 4 Awardees	DTaP 4 Rate
First District Health Unit - Sheridan County	100.0
First District Health Unit - McHenry County	100.0
City County Health District	100.0
Family Medicine at Altru Professional Center	97.6
Essentia Health Wahpeton	98.4
DTaP 4 Awardees	DTaP 4 Rate
Lake Region District Health - Ramsey County	97.7
Rolette County Public Health District	98.0
Altru Family Medicine Center	98.4

The **Most Improved Pediatric Award** was awarded to providers who increased the 4:3:1:3:3:1:4 rate at least 20 percent from Q1 2017 to Q1 2018 and had at least 10 children.

Most Improved Pediatric Awardees	Q1 2017 Rate	Q1 2018 Rate	Increase in 4:3:1:3:3:1:4 Rate
First District Health Unit - Sheridan County	80.0	100.0	20.0
First District Health Unit - McHenry County	71.4	100.0	28.6
Dickey County Health District	45.0	70.8	25.8
West River Health Services - Hettinger Clinic	47.1	69.4	22.3
Sanford Clinic Wahpeton	69.3	90.0	20.7

The **Adolescent Award** was given to providers who achieved ≥ 90 percent for the 1:1:2 immunization rate, >70 percent for 2 MCV4 and >70 percent for HPV UTD (up to date).

Adolescent Awardees	1 Tdap, 1 MCV4, 2 Var Rate	2 MCV4 Rate	HPV UTD Rate
Lake Region District Health Unit - Eddy County	96.9	92.5	83.1
First District Health Unit - McHenry County	100.0	92.7	96.9
Ransom County Public Health	96.6	75.0	77.0
First District Health Unit - Renville County	100.0	91.7	70.6
Richland County Health Department	100.0	77.8	88.5
Dickey County Health District	100.0	80.5	91.9
Trenton Community Clinic	96.8	74.5	73.0
Altru Family Medicine Center	96.8	70.7	72.3

HPV Award was given to providers who increased the HPV UTD rate from Q1 2017 to Q1 2018 by ≥ 30 percent and had at least six children in that age group.

HPV Awardees	Q1 2017 HPV UTD Rate	Q1 2018 HPV UTD Rate	Increase in HPV UTD Rate
Richland County Health Department	56.8	88.5	31.7
Indian Health Services - Dunseith	20.0	81.8	61.8
West River Health Clinic - Bowman Clinic	40.0	71.0	31.0
Sanford Broadway Children's Clinic	26.5	66.3	39.8

The providers that achieved at least 70 percent coverage for influenza vaccine for the children they see in 2 of the 3 indicated age groups were awarded the **Influenza Award**.

Influenza Awardees	6 month- 4 years Rate	5-12 years Rate	13-17 years Rate
Cavalier County Health District	70.1	70.0	65.3
Family Healthcare Center South Fargo	53.9	100.0	97.0

Providers who achieved >70 percent for both PPSV23 and PCV13, excluding pharmacies and LTC (Long Term Care), were awarded the **Adult Pneumococcal Award**.

Adult Pneumococcal Awardees	PCV13 Rate	PPSV23 Rate
Northwood Deaconess Clinic - Larimore	91.5	72.6
Northland Community Health Center - McClusky	75.0	71.4
Dickey County Health District	91.5	81.3
Northwood Deaconess Clinic	88.7	70.3
Essentia Health Valley City	81.4	72.6
Cavalier County Health District	80.3	70.4

If a provider, excluding pharmacies and LTC, achieved > 70 percent for the herpes zoster vaccine, they were awarded the **Adult Zoster Award**.

Adult Zoster Awardees	Zoster Rate
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Trenton Community Clinic	72.7
Twin Buttes Clinic	72.7
Towner County Public Health	71.0

To view pictures of our conference award winners, please check our Facebook page. Feel free to tag and share pictures of your clinic!

NDIIS Interoperability

Since 2011, the NDIIS has been establishing connections to provider electronic health record (EHR) systems for electronic immunization data exchange and Meaningful Use. Data exchange is based on the standards set by the national HL7 Implementation Guide (IG) for Immunization Messaging. The NDIIS has completed the upgrade of our electronic messaging system to be able to support the newest version of the HL7 IG, which is required for Meaningful Use Stage 3. The NDIIS is currently connected to 348 individual provider sites including 36 hospitals, 43 pharmacies, 25 local public health units, 3 university student health centers and 241 clinics. The NDIIS is also connected to the North Dakota Health Information Network (NDHIN). Approximately 80 percent of all immunization data entered in the NDIIS comes in through these electronic interfaces. In addition to our sites that are currently connected, the NDIIS has 76 provider sites on-boarding, engaged in technical testing and in our queue for connecting. Providers interested in connecting their EHR to the NDIIS should visit our interoperability website (<http://www.ndhealth.gov/Immunize/Interop/>) for more information.

THOR is changing, the NDIIS is not

Effective July 1st, 2018, Blue Cross Blue Shield of North Dakota (BCBSND) has disabled a number of applications that were previously available on their THOR network. Disabled THOR applications have moved to a new system called Availity (contact BCBSND for questions about Availity or to get access to the applications that have moved). The NDIIS is not affected by this change. The NDIIS has always been considered a separate application, even when it was accessed through the THOR application suite. In 2016, the NDIIS was moved out of THOR and now stands entirely on its own. NDIIS users will continue to login to the NDIIS and access all NDIIS functionality as they always have.

Provider NDIIS Vaccine Shipping Information



When updating provider demographic information in NDIIS Vaccine Ordering, Returns and Wastage Module, the address information should not contain a PO Box. This information is used for shipping purposes and should use only a physical deliverable address. This has been causing confusion with the shipping of some vaccines.

Hepatitis A Outbreaks in the United States

Since 2017, hepatitis A outbreaks continue to occur in multiple states across the country. The table below shows outbreak related hepatitis A case counts for ongoing outbreaks in various states. Hepatitis A is transmitted through the fecal oral route either person-to-person or by consumption of contaminated food or water. In the ongoing outbreaks, transmission seems to be mostly person-to-person. The outbreaks have occurred primarily

among the homeless population and injection and non-injection drug users. Part of the challenge in these outbreaks is that people who are homeless often do not have access to clean toilets and handwashing facilities. It may also be more difficult to reach people who are homeless to offer vaccinations. Hospitalization rates have also been high during the outbreaks. This is likely due to comorbidities of those infected.

In addition to their homeless population, Michigan has also reported a number of cases in foodservice workers in various facilities. Those who are infected with hepatitis A are contagious two weeks before symptoms begin through one week after jaundice started, so it is possible for a foodservice worker who is not following proper hand hygiene to expose many individuals before even knowing he or she is infected. Symptoms of hepatitis A include yellow eyes or skin, abdominal pain, nausea and vomiting, pale stool, and dark urine.

Hepatitis A vaccine is routinely recommended for all children at 12 to 23 months of age. Two doses given at least six months apart are needed to be fully protected. The vaccine first became available in 1995, so most adults have not been vaccinated. Hepatitis A vaccine is also recommended for people ages 12 months and older who live in a community with a high rate of hepatitis A, men who have sex with men, people who use injection or non-injection drugs, people who travel to countries with high rates of hepatitis A, those with long term liver disease, those receiving blood products to help blood clot, those who work with HAV-infected animals, and those who work with HAV in research settings. No cases of hepatitis A have been reported in North Dakota in 2017 or so far in 2018.

Hepatitis A Outbreak-Related Cases			
State	Outbreak Related Cases	Hospitalizations	Deaths
California	704	461	21
Indiana	414	180	1
Kentucky	1,425	809	9
Michigan	877	707	27
Missouri	163	69	0
Ohio	256	162	0
Tennessee	153	88	0
Utah	275	148	2
West Virginia	1,031	562	2



Calendar of Events

National Immunization Awareness Month, August 2018

www.cdc.gov/vaccines/events/niam.html

Preventing Hepatitis B Infections in US Adults Webinar, August 28, 2018

<https://cc.readytalk.com/registration/#/?meeting=obce8bfrqh3&campaign=x3507c1h7g4y>.

Current Issues in Vaccine webinar, September 5, 2018

<https://www.chop.edu/centers-programs/vaccine-update/vaccine-webinar-series>

NDDoH Immunization Lunch and Learn, August 8, 2018

www.ndhealth.gov/Immunize/

NDDoH Immunization Lunch and Learn, September 12, 2018

www.ndhealth.gov/Immunize/

Evidence-Based Communication Strategies for Improving Child and Adolescent Vaccine Uptake, September 19

<https://events->

na5.adobeconnect.com/content/connect/c1/951358841/en/events/event/shared/1480695977/event_registration.html?sco-id=1962431491&campaign-id=500& charset =utf-8.

NDDoH Immunization Lunch and Learn, October 10, 2018

www.ndhealth.gov/Immunize/

ACIP Meeting October 24-25, 2018

<https://www.cdc.gov/vaccines/acip/meetings/register.html>

Got Your Shots? Immunization Conference, November 1-2, 2018

<http://www.health.state.mn.us/divs/idepc/immunize/conference/>

Clinical Vaccinology Course, November 9-10, 2018

<http://www.nfid.org/professional-education/conferences>



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