North Dakota Immunization Practices During the COVID-19 Pandemic Response

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Molly Howell, Immunization Program Manager
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North Dakota Vaccine Doses Administered According to NDIIS

*Doses administered data as of the end of week 18 (2019 week end = May 4th; 2020 week end = May 2nd).

North Dakota Total Doses Ordered from the VFC Program

*7% decrease in vaccine ordering
ND Weekly Doses Administered to Adults >= 19 years According to the NDIIS

County % decrease
Burke 74%
Bakken 73%
Pembina 70%
Grand Forks 68%
Cavalier 68%
Divide 67%
Oliver 67%
Rolette 62%
Bottineau 62%
Benson 57%
McLean 56%
Nelson 56%
Sargent 53%
Dunn 51%
Bowman 50%
Emmons 50%
Renville 50%
Sheridan 50%

Vaccine Coverage Rates decreases from week 1 to week 18

- Teen HPV series start: 1.9% decrease
- Infant 4 doses DTaP: 11.2% decrease
- Infant 3 doses polio: 7.5% decrease
- Infant 1 dose MMR: 1.9% decrease
- Infant 3 doses hep B: 7.2% decrease
- Infant Hib up-to-date: 10.1% decrease
- Infant 1 dose varicella: 1.9% decrease
- Infant 4 doses PCV: 1.8% decrease
- Infant 2 doses hep A: 14.6% decrease
- Infant 1 dose MCV4: 2.5% decrease
- Toddler 4 doses HIB: 11.1% decrease
- Toddler 3 doses HIB: 11.1% decrease
- Toddler 1 dose rotavirus: 13.6% decrease
- Toddler 1 dose pneumococcal: 14.0% decrease
- Toddler 2 doses influenza: 11.1% decrease
- Toddler 1 dose MMR: 1.9% decrease
- Toddler 1 dose varicella: 1.9% decrease
- Toddler 1 dose PCV: 1.8% decrease
Immunization rates by week for infants 19-35 months at the end of each week

- 4:3:1:3:3:1:4 series
- 4 DTaP
- 3 Polio
- 1 MMR
- 3 Hep B
- Hib UTD
- 1 VAR
- 4 PCV
- 2 Hep A

Immunization rates by week for teens 13-15 and 16-18 at the end of each week

- 1 TDAP
- 1 MCV4
- 2 MCV4
- HPV Start
- HPV UTD

* Rates for 1 Tdap, 1 MCV4, HPV start and HPV UTD include kids in the 13-15 year age group.
** Rates for 2 MCV4 include only kids in the 16-18 year age group.

Immunization rates by week for adults 19 years of age and older by the end of each week

- 1 TDAP*
- Zoster Start
- Zoster UTD
- 1 PCV13¥
- 1 PPSV23€

* Rate is based on adults 19 years of age and older who have at least one documented dose of Tdap vaccine in their NDIIS record.
** Rate is based on adults 50 years of age and older who have at least one documented dose of Shingrix® vaccine in their NDIIS record.
*** Rate is based on adults 50 years of age and older who have two documented doses of Shingrix® vaccine in their NDIIS record.
¥ Rate is based on adults 65 years of age and older who have one documented dose of PCV13 vaccine administered after age 65 in their NDIIS record.
€ Rate is based on adults 65 years of age and older who have one documented dose of PPSV23 vaccine administered after age 65 in their NDIIS record.
Decrease in infant immunization coverage rates from week 1 to week 18 of 2020

<table>
<thead>
<tr>
<th>County</th>
<th>% decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richland</td>
<td>59.5%</td>
</tr>
<tr>
<td>Ransom</td>
<td>54.7%</td>
</tr>
<tr>
<td>Barnes</td>
<td>42.8%</td>
</tr>
<tr>
<td>Cass</td>
<td>40.0%</td>
</tr>
<tr>
<td>Lamoure</td>
<td>35.1%</td>
</tr>
<tr>
<td>Billings</td>
<td>33.3%</td>
</tr>
<tr>
<td>Stutsman</td>
<td>25.7%</td>
</tr>
<tr>
<td>Eddy</td>
<td>24.4%</td>
</tr>
<tr>
<td>Emmons</td>
<td>18.0%</td>
</tr>
<tr>
<td>Traill</td>
<td>15.9%</td>
</tr>
<tr>
<td>Cavalier</td>
<td>15.3%</td>
</tr>
<tr>
<td>Wells</td>
<td>13.7%</td>
</tr>
<tr>
<td>Hettinger</td>
<td>12.3%</td>
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</table>

Decrease in adolescent immunization coverage rates from week 1 to week 18 of 2020

<table>
<thead>
<tr>
<th>County</th>
<th>% decrease 1 dose Tdap</th>
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<tbody>
<tr>
<td>Stutsman</td>
<td>13.9%</td>
</tr>
<tr>
<td>Barnes</td>
<td>11.3%</td>
</tr>
<tr>
<td>Richland</td>
<td>11.2%</td>
</tr>
<tr>
<td>Cass</td>
<td>10.9%</td>
</tr>
<tr>
<td>Steele</td>
<td>10.3%</td>
</tr>
<tr>
<td>Sargent</td>
<td>6.6%</td>
</tr>
<tr>
<td>Griggs</td>
<td>1.8%</td>
</tr>
<tr>
<td>Logan</td>
<td>1.4%</td>
</tr>
<tr>
<td>Foster</td>
<td>0.7%</td>
</tr>
<tr>
<td>Ransom</td>
<td>0.6%</td>
</tr>
<tr>
<td>Traill</td>
<td>0.4%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>County</th>
<th>% decrease 1 dose MCV4</th>
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<tbody>
<tr>
<td>Stutsman</td>
<td>13.0%</td>
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<tr>
<td>Bottineau</td>
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Decrease in HPV up-to-date

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<tr>
<td>Stutsman</td>
<td>14.4%</td>
</tr>
<tr>
<td>Barnes</td>
<td>9.1%</td>
</tr>
<tr>
<td>Richland</td>
<td>6.9%</td>
</tr>
<tr>
<td>Steele</td>
<td>3.7%</td>
</tr>
<tr>
<td>Ransom</td>
<td>2.8%</td>
</tr>
<tr>
<td>Griggs</td>
<td>2.7%</td>
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PROVIDER VACCINATION PRACTICES
Abbi Berg, MPH
STATE OF VACCINATION SURVEY

- Due May 6th
- 189 respondents, not just VFC enrolled
  - 3 hospitals
  - 9 FQHCs
  - 8 IHS/Tribal
  - 1 Mass Vaccinator
  - 14 Other (correctional, university health, long term care)
  - 13 Pharmacy
  - 79 Private providers
  - 47 Local public health
  - 15 Rural health centers

CURRENTLY VACCINATING?

- No (22)
  - 7 Local public health offices
  - 2 Urban, 5 rural
  - 8 Pharmacies
  - 1 Private provider
  - 3 IHS/Tribal
  - 3 Other (university health, long term care, corrections)
REASONS FOR NOT VACCINATING

• Staff pulled for COVID-19 response.
• Offices are closed to the public.
• Pharmacies doing curbside service so vaccination isn’t possible.
• Concerns over exposing staff and other patients/customers.

CURRENTLY VACCINATING?

• Yes (154)
  • 3 Hospitals
  • 9 Federally Qualified Health Centers (FQHCs)
  • 6 Tribal
  • 1 Mass vaccinator
  • 11 Other
  • 5 Pharmacies
  • 77 Private Providers
  • 40 LPHUs
  • 15 Rural Health Centers (RHCs)

WAYS TO ENSURE HEALTH OF PATIENTS

• Options selected frequently were:
  • Screening patients for symptoms
  • Staggering appointments
  • Rooming patients immediately
  • Cohorting ill patients to separate sections, floors, wings or buildings to reserve clinic space for well patients
  • Utilizing drive-thru COVID testing sites to allow for vaccination in clinics
  • Working with LPHUs to partner for vaccinations
WAYS TO ENSURE HEALTH OF PATIENTS

Other:
- Requiring mask wearing 100% of the time by staff and patients.
- Separating pediatric and adult vaccination days
- Patients call in from parking lot and are called back when their exam room is ready. Roomed immediately upon entry.
- Well child exams and vaccination in the morning, sick visits in afternoon.
- Clinics closing early for deep cleaning.
- Only allowing one parent for minors, everyone else must come alone.

WAYS TO ENSURE HEALTH OF PATIENTS

Registration, consent and screening done over the phone prior to appointments
- Call upon arrival and prepare vaccinations prior to them entering the office
- Alternative vaccination opportunities such as using time when students are scheduled to return their school equipment
- Use separate doors for well patients
- Discontinuation of walk-in vaccinations, by appointment only

WAYS TO ENSURE HEALTH OF PATIENTS

Nurses doing home visits for vaccination while wearing PPE
- Only allowing one family/client in the facility at a time
- Space appointments to allow for cleaning in between
- Curbside vaccination
Almost all providers are vaccinating all age-appropriate groups at their facilities.

- Two private providers were only vaccinating 0 – 24 months old.
- One health system is only vaccinating children under 6 years of age.
- One district LPHU is only vaccinating 0 – 24 months.
CURRENTLY OFFERING WELL CHILD VISITS

- Yes (104)
- No (8)
  - 7 IHS/Tribal
  - 1 RHC
- Not applicable (77)
  - This is based on facility type: pharmacy, LPHU, hospital etc.

BARRIERS TO VACCINATION

- Office closed
- Clients don't want to come in
- Rural areas will require more planning because they usually use school vaccination clinics to catch children up
- Lack of school clinics
- Prioritizing facilities/appointments for ill children
- Telehealth appointments
- Staff responding to COVID-19 cases and investigations
- Staff shortages/furloughs
- Clinic is housed within a closed building
- Staff do not feel comfortable
- Lack of PPE

PARENTAL ATTITUDES TOWARDS VACCINATION

- Overwhelming majority said that parents are willing to vaccinate but don’t want to bring children into facility
- Many also reported mixed feelings such as some parents delaying while others prioritizing vaccinations to keep their children safe.
- Parents of infants more willing to vaccinate and hold off on bringing in older children.
- Some LPHUs are seeing more children as parents feel more comfortable at their offices, instead of large health systems or pediatrician’s office.
CONCLUSIONS

- North Dakotans are at risk for vaccine preventable diseases if not caught up on missed immunizations.
- Health care providers and local public health units can implement safe ways to immunize.
- Back-to-school immunization requirements cannot be relaxed due to the risk of outbreaks in schools.

RECOMMENDATIONS

- Use NDIIS reminder/recall functionality to bring patients back in for missed immunizations.
- Conduct mass, drive-thru back-to-school immunization clinics.
  - Use NDIIS reminder/recall to notify patients of events.
- Vaccinate at every opportunity, even sick visits.
- Work collaboratively in your communities to ensure access to immunizations.
- Communicate the importance of immunizations to parents/patients.
- Promote the VFC Program, as many North Dakotans have experienced unemployment.

2020 – 2021 INFLUENZA VACCINE PREBOOK
INCREASE FLU PREBOOK?

- Yes (65)
- No (87)
- Unknown (37)
- Influenza vaccine is going to be increasingly important this season.

INCREASING INFLUENZA VACCINATION THIS FALL

- Expect SARS-CoV-2 to still circulate in Fall
- Increasing flu vaccination coverage will decrease stress on healthcare
  - Decrease doctor visits and hospitalizations
  - Decrease individuals seeking diagnostics
- Focus on adults at higher risk from COVID-19
  - staff and residents of LTCF
  - adults with underlying illnesses and African-Americans
  - adults who are part of critical infrastructure.
- Vaccinating children prevents flu in adults.

INCREASING INFLUENZA VACCINATION THIS FALL

- Plan for how to increase influenza vaccination rates this fall.
- Prebook additional doses of influenza vaccine.
- How will you replace workplace vaccination, if employees are working from home?
- How will you ensure influenza vaccination while social distancing?
  - Drive-thru clinics
  - Staggering of patients
COVID-19 UPDATE

1571 Positive Cases
46261 Negative
47382 Total Tested
877 Recovered

38 Currently Hospitalized
122 Total Hospitalized
38 Deaths

CHANGE IN REMOVAL FROM ISOLATION

• Symptom-based strategy:
  • At least 10 days have passed since symptoms first appeared, AND
  • At least 3 days (72 hours) have passed since recovery, defined as:
    • Resolution of fever, without the use of fever-reducing medications, AND
    • Progressive improvement or resolution of respiratory symptoms (e.g., cough, shortness of breath)

CHANGE IN REMOVAL FROM ISOLATION

• Test-based Strategy:
  • Resolution of fever without the use of fever-reducing medications, AND
  • Improvement in respiratory symptoms (e.g., cough, shortness of breath), AND
  • Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive upper respiratory specimens collected at least 24 hours apart (total of two negative specimens).
For patients with laboratory-confirmed COVID-19 who have not had any symptoms, health care providers might use either:

- **Time-based Strategy**: At least 10 days have passed since the date of their first positive COVID-19 diagnostic test, assuming they have not subsequently developed symptoms since their positive test. Because of the absence of symptoms, it is not possible to gauge where these individuals are in the course of their illness.

- **Test-based Strategy**: Because of the absence of symptoms, it is not possible to gauge where these individuals are in the course of their illness. Follow the Test-based Strategy above with the modification that initiation of testing can begin immediately.

The NDDoH continues to recommend that clinicians use their judgment to determine if a patient has signs and symptoms compatible with COVID-19 and whether the patient should be tested. Health care providers should not turn patients away for COVID-19 testing who have upper or lower respiratory illness. **COVID-19 testing is critical in order to identify cases and prevent further spread through case investigation and contact tracing.** Health care providers are asked to have a high suspicion for COVID-19 and test accordingly.

Clinicians should consider testing any patient with one (1) of the following signs/symptoms with new or worsening onset:
- cough
- shortness of breath
- difficulty breathing

OR
COVID-19 TESTING GUIDANCE

- Two (2) of the following signs/symptoms with new or worsening onset:
  - fever (measured or subjective)
  - runny nose
  - sore throat
  - chills
  - myalgia
  - fatigue
  - headache
  - loss of taste and/or smell

MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN REPORTED IN THE UNITED STATES

- May 4: NYC Health Department disseminated HAN regarding 15 children with multisystem inflammatory syndrome hospitalized between April 17 and May 1
- May 6: NYS Department of Health disseminated HAN regarding 64 children (including NYC) since May 5th
- More than 150 suspected cases of MIS in children have been reported to NYS to date
- Unverified reports from Atlanta, Boston, Minnesota, and New Jersey

MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN ASSOCIATED WITH SARS-COV-2

- Prominent Features
  - Persistent fever
  - Inflammation
    - Increased lab values: neutrophilia, elevated C-reactive protein, lymphopenia, etc.
  - Evidence of single or multi-organ dysfunction
    - Shock, cardiac, respiratory, renal, gastrointestinal or neurological disorder
  - Some had features consistent with Kawasaki disease
  - About two-third had PCR negative, but vast majority were serology positive
  - Mostly teenagers
MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN ASSOCIATED WITH SARS-COV-2

- Case definition
- Health advisory
- Reporting to NDDoH

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QUESTIONS?