North Dakota Pharmacy Collaboration to Improve Vaccine Administration
Web-based version first established in 1996.

Lifespan system that includes records for 100% of ND residents, including all adults 19 and older.

99% of doses are entered within 30 days of administration and 90% of doses are entered within 1 day.

More than 80% of all data comes in electronically via HL7 interfaces and 84% of all interfaces are fully bi-directional.
Background – ND Pharmacies

There are 175 community pharmacies operating in North Dakota.

Pharmacies can administer all ACIP recommended immunizations to anyone 3 years and older.

170 pharmacies are set up in the NDIIS.

121 pharmacies have submitted administered immunizations to the NDIIS in 2023.

ND pharmacies administer 22% of all doses to adults.

83 pharmacies submit data electronically via HL7 (submission only).
Challenges With Pharmacies

• Pharmacy interfaces are not bi-directional
• Pharmacy providers are not fully leveraging the NDIIS to view patient vaccination histories and forecasts
  • Article ND published in *Journal of Public Health Management and Practice* identified pharmacies as provider group responsible for administering the second highest volume of unnecessary immunizations to adults.
Thrifty White is a group of 34 individual pharmacy locations spread out across the state

- Administer 32% of all pharmacy doses across the state
- Administer 7% of all doses to adults
- Were an important partner during pandemic, receiving direct Federal vaccine allocations and vaccinating LTC facilities
- Have been interoperable with the NDIIS since 2014
Project Goal: The ability for Thrifty White to mass upload patient immunization histories from the NDIIS into their pharmacy system so staff do not have to look up each patient individually.

- April 2023: MOU with Thrifty White fully executed
- May 2023: File specifications for data from pharmacy and data back to pharmacy worked out
- June 2023: First bulk patient file exchanged
- July 2023: 1 file
- August 2023: 1 file
- September: 3 files
- October: 4 files
- November: 2 files
Step 1
• Pharmacy contact sends file with all pharmacy patients to the NDIIS via secure FTP
  • File from pharmacy includes patient name, birthdate, and address

Step 2
• NDIIS staff extract patient and vaccination data from the IIS
• Use SAS to match pharmacy patient list to NDIIS data
  • Exact match on first name, last name, and birthdate (75-80% match rate)

Step 3
• SAS code generates data for the pharmacy that includes all immunizations from matched patient IIS records
  • Routine immunizations, seasonal influenza, and COVID

Step 4
• List of pharmacy patients with their IIS immunization records sent back to the same pharmacy contact via secure FTP
Results (from Thrifty White)

Hepatitis B

Pneumococcal
Results (from Thrifty White)

Zoster

Tdap
Results (from NDIIS)

Total Routine Doses (Thrifty White)

Total Routine Doses (NDIIS)
What’s next

• In September 2023, NDIIS team completed project with North Dakota Pharmacy Association (NDPA) to automate the bulk query process

• NDPA is currently piloting the process with three pharmacies (not part of Thrifty White)

• NDHHS is working with NDPA to survey pilot sites about experience with new process

• NDPA will continue to promote new process with additional member pharmacies in 2024

• Will move Thrifty White to the automated API process in 2024

Step 1 • Member pharmacies can upload patient list to NDPA system

Step 2 • NDPA system sends bulk query via API to the NDIIS

Step 3 • NDIIS returns patient vaccination history and forecast via same API

Step 4 • Pharmacy can export patient information from NDPA system
Thank You!

Huge Thanks to:

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