

North Dakota Pharmacy Collaboration to Improve Vaccine Administration

Mary Woinarowicz, MA
NDIIS Manager

Background - North Dakota Immunization Information System (NDIIS)



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

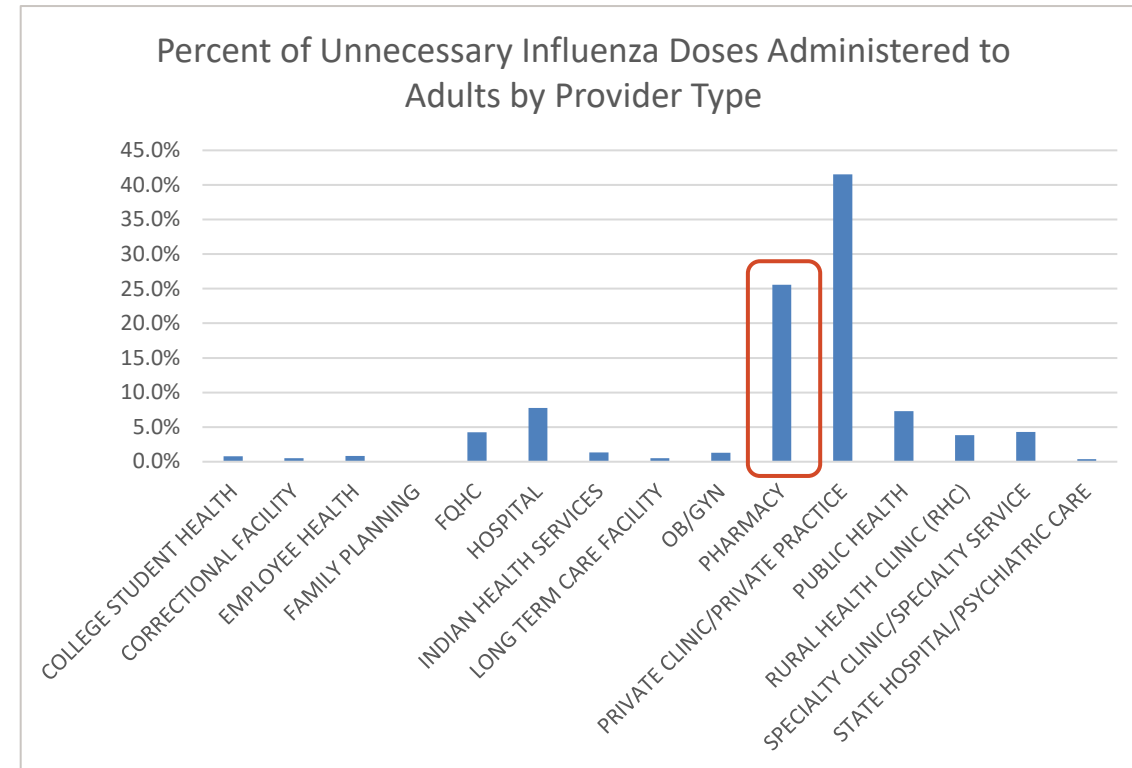
121
pharmacies
have
submitted
administered
immunizations
to the NDIIS in
2023

ND
pharmacies
administer
22% of all
doses to
adults

83
pharmacies
submit data
electronically
via HL7
(submission
only)

Challenges With Pharmacies

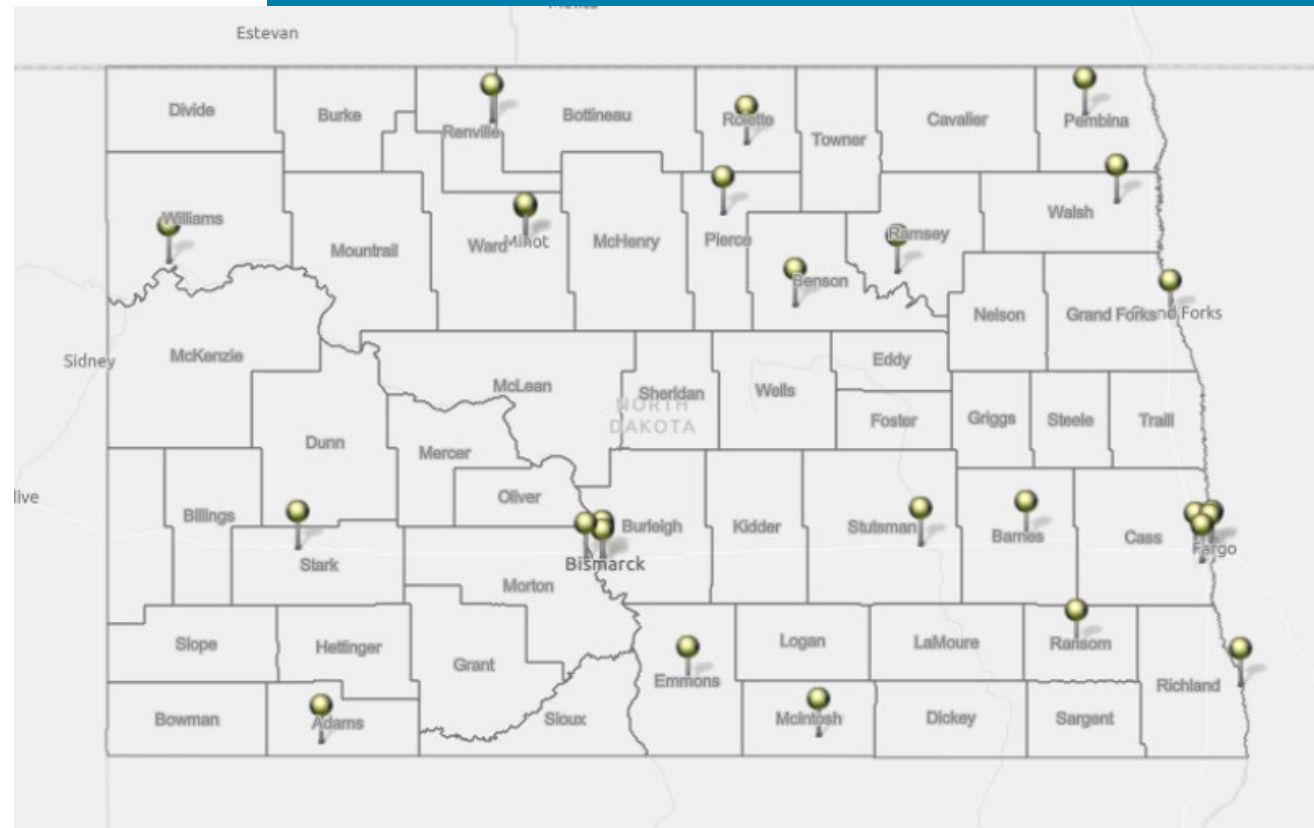
- Pharmacy interfaces are not bi-directional
- Pharmacy providers are not fully leveraging the NDHIS to view patient vaccination histories and forecasts
 - Article ND published in *Journal of Public Health Management and Practice* identified pharmacies as provider group responsible for administering the second highest volume of unnecessary immunizations to adults.



Local Pharmacy Chain

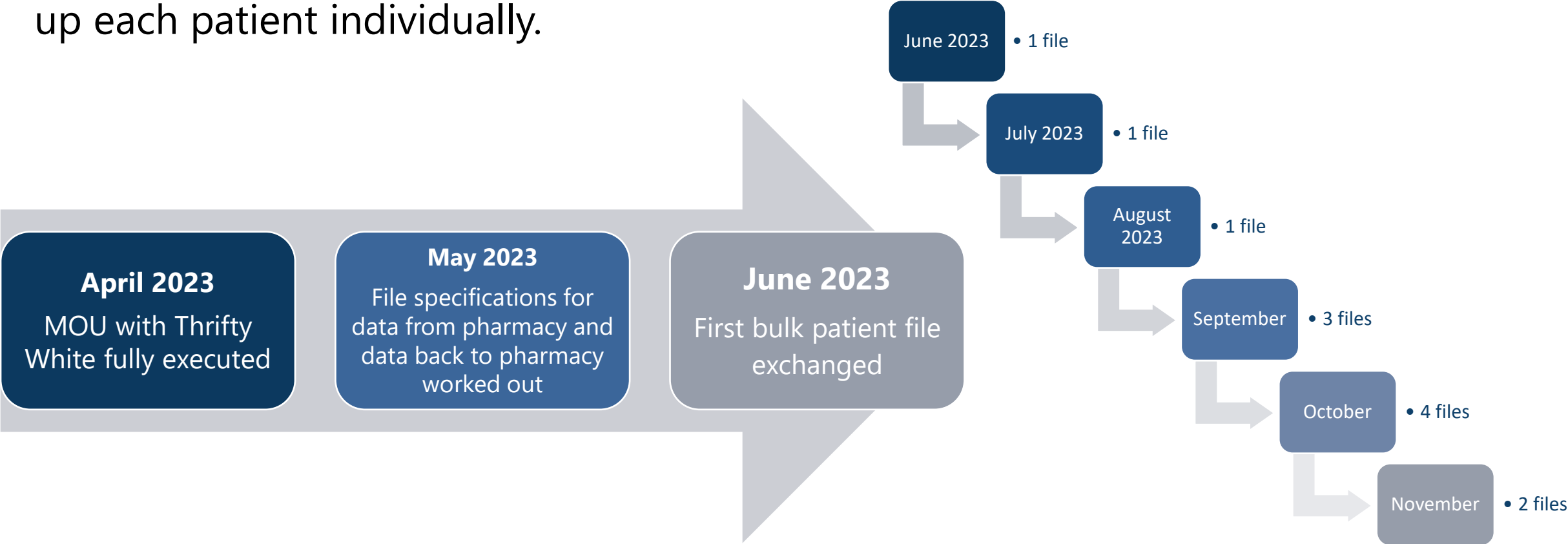
Thrifty White is a group of 34 individual pharmacy locations spread out across the state

- 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



Collaboration Project

- Project Goal: The ability for Thrifty White to mass upload patient immunization histories from the NDIS into their pharmacy system so staff do not have to look up each patient individually.



Process

Step 1

- Pharmacy contact sends file with all pharmacy patients to the NDHIS via secure FTP
- File from pharmacy includes patient name, birthdate, and address

Step 2

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

Step 3

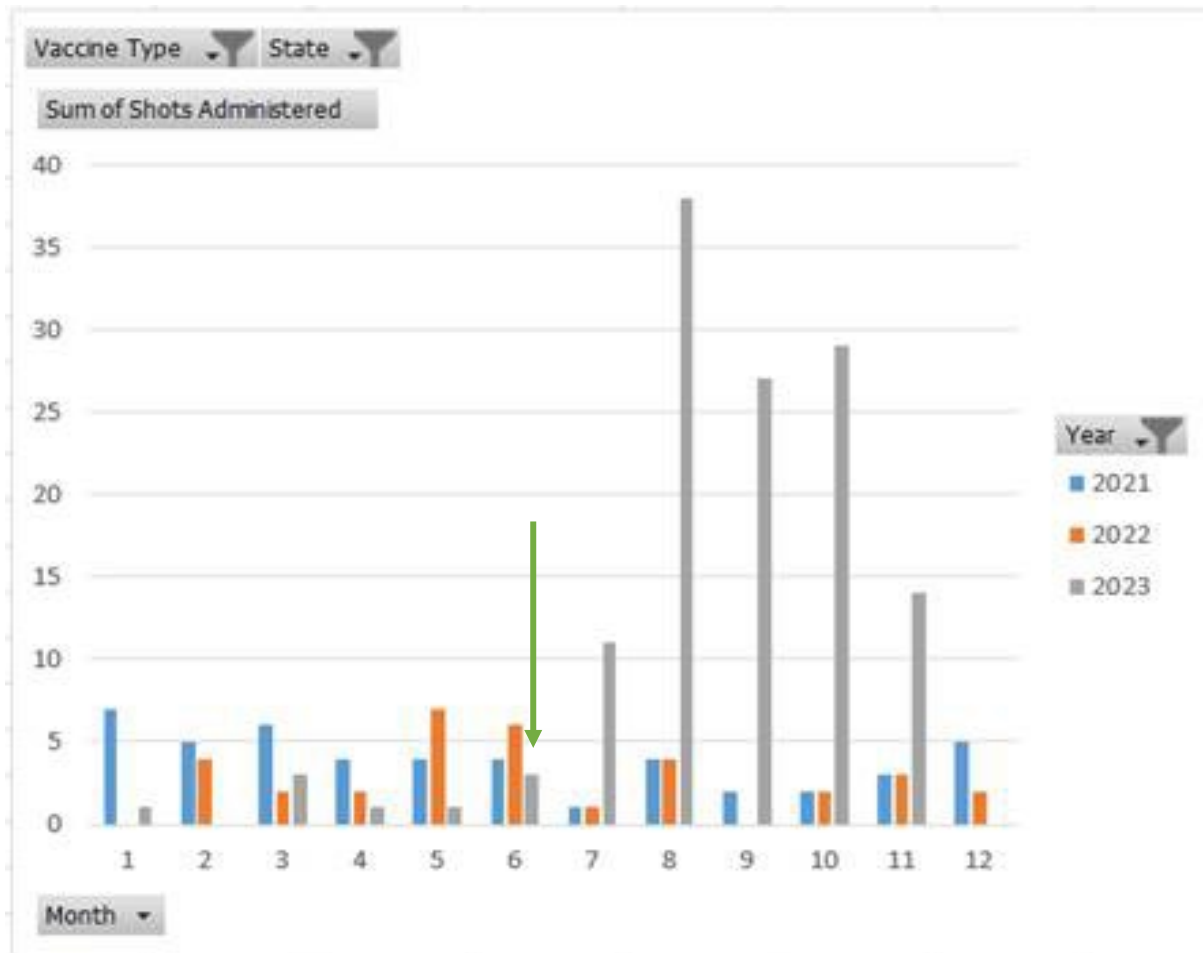
- SAS code generates data for the pharmacy that includes all immunizations from matched patient IIS records
- routine immunizations, seasonal influenza, and COVID

Step 4

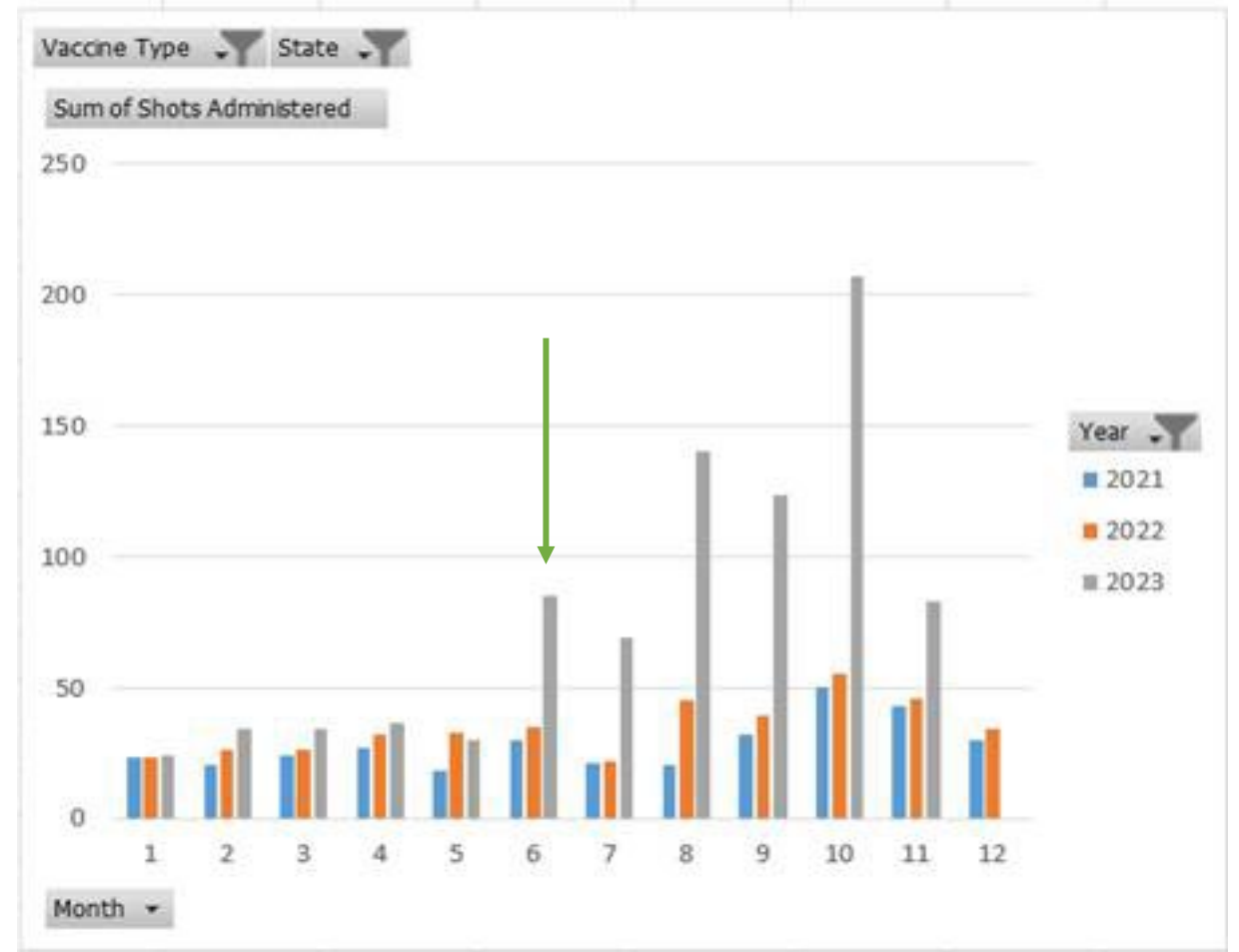
- List of pharmacy patients with their IIS immunization records sent back to the same pharmacy contact via secure FTP

Results (from Thrifty White)

Hepatitis B

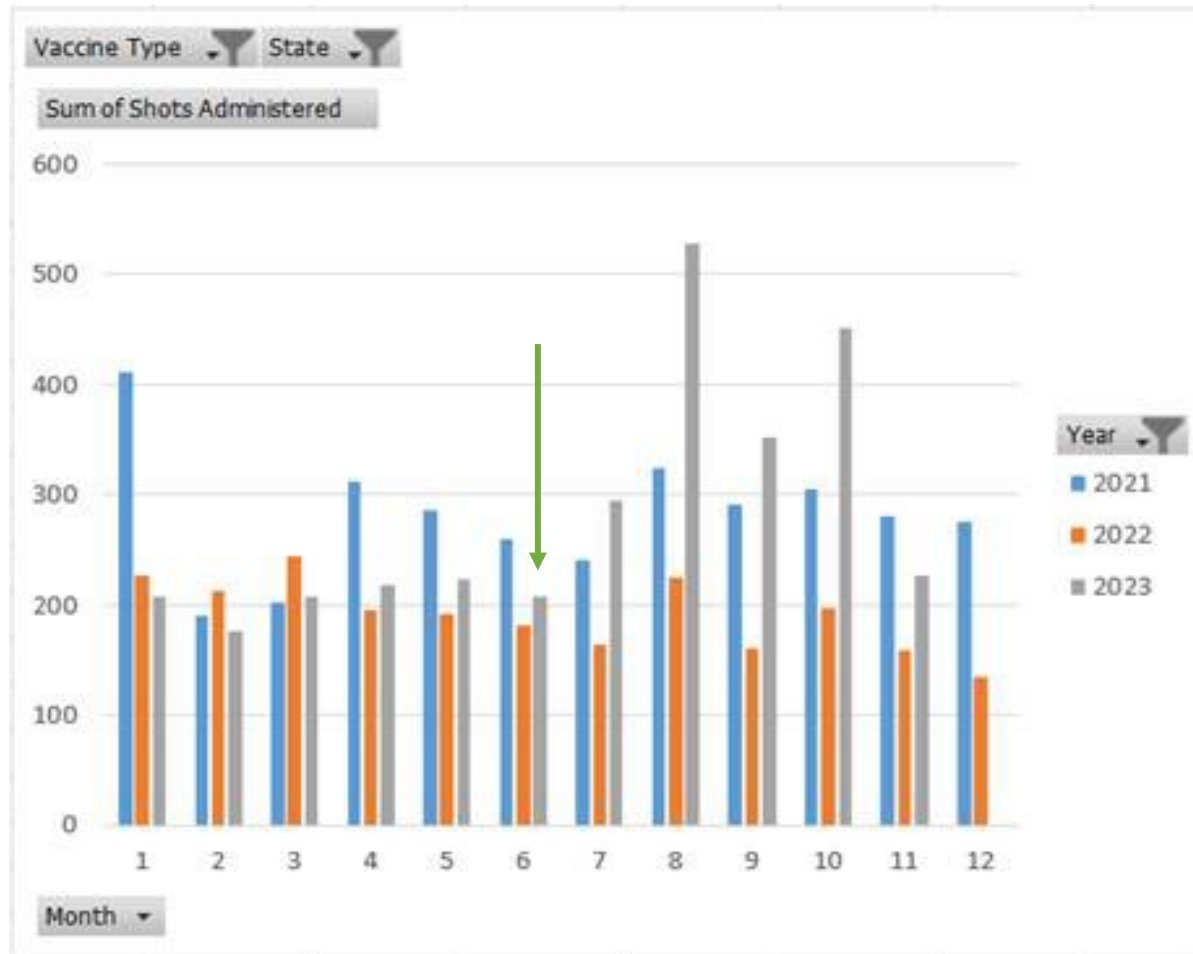


Pneumococcal

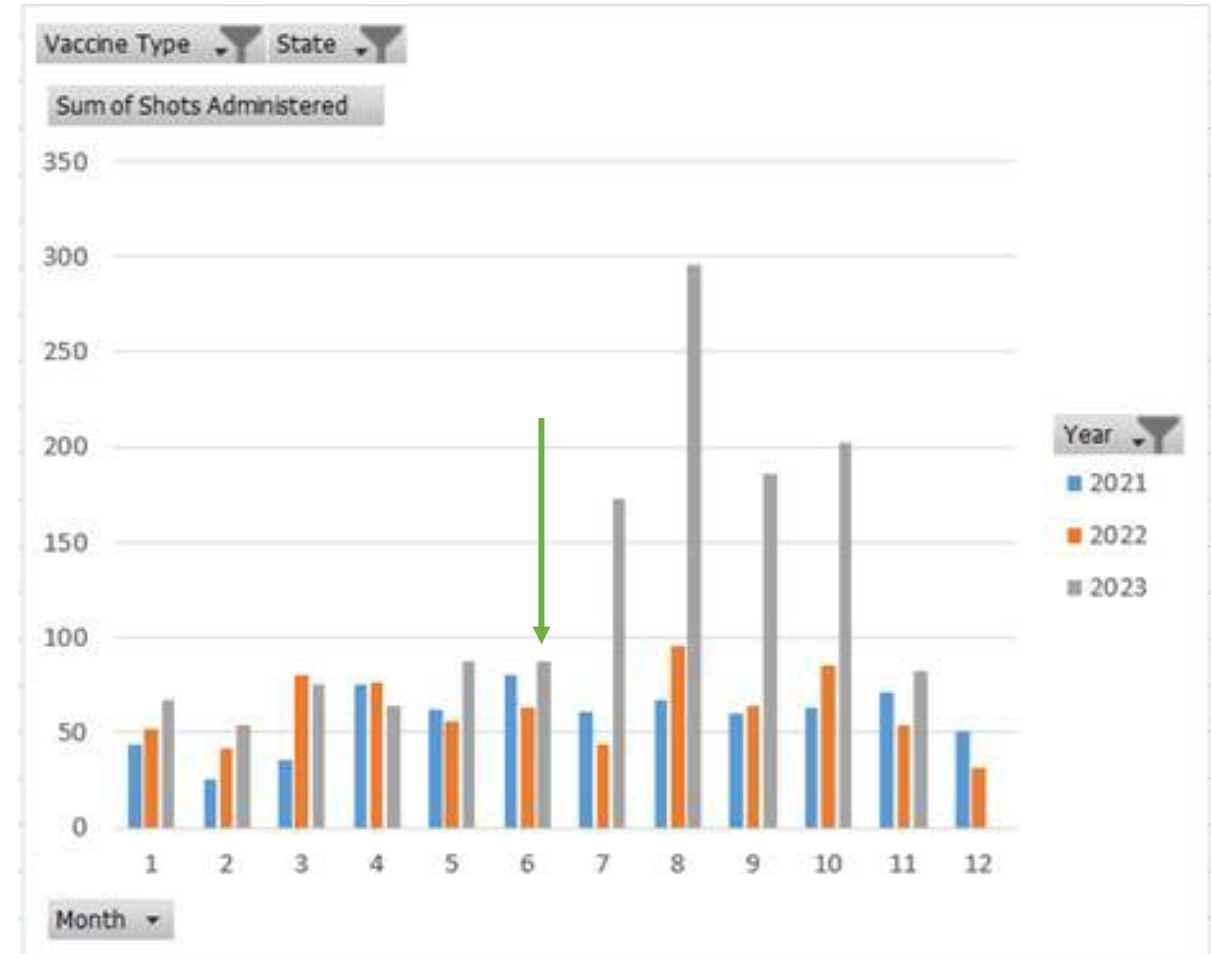


Results (from Thrifty White)

Zoster

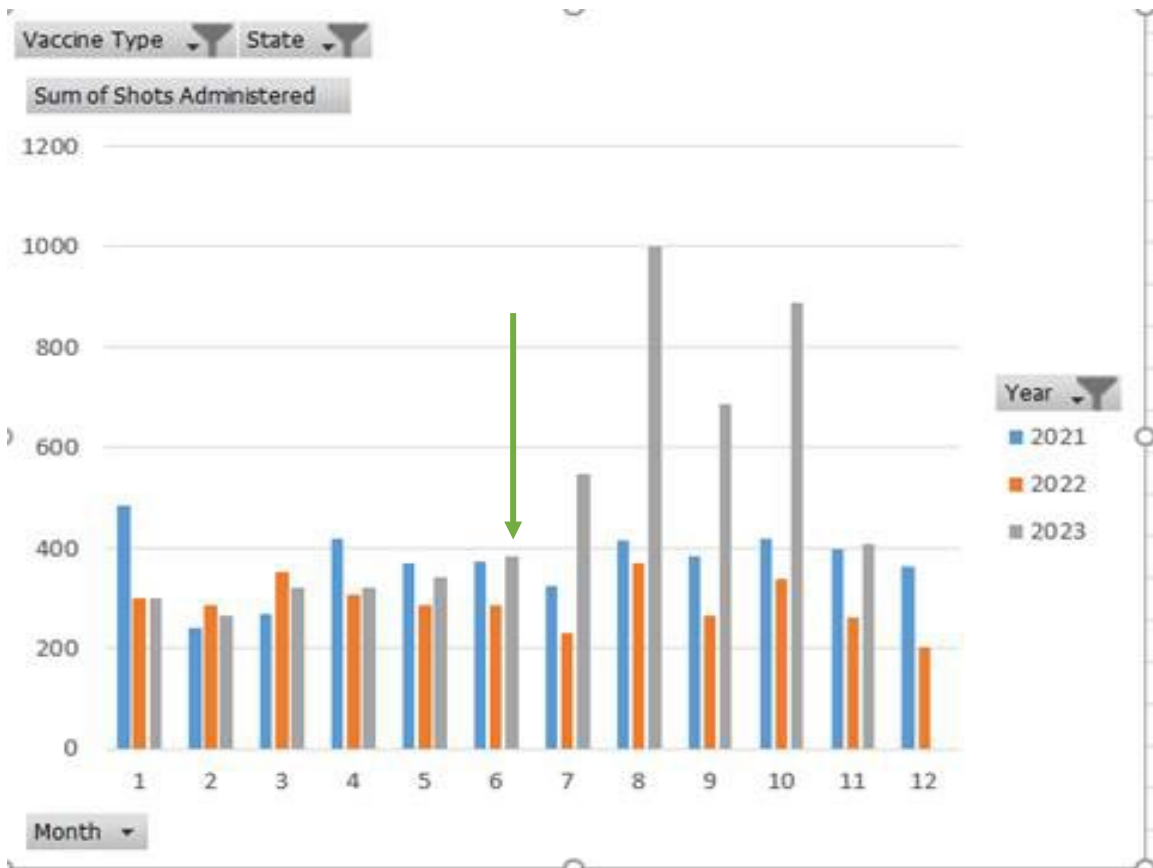


Tdap

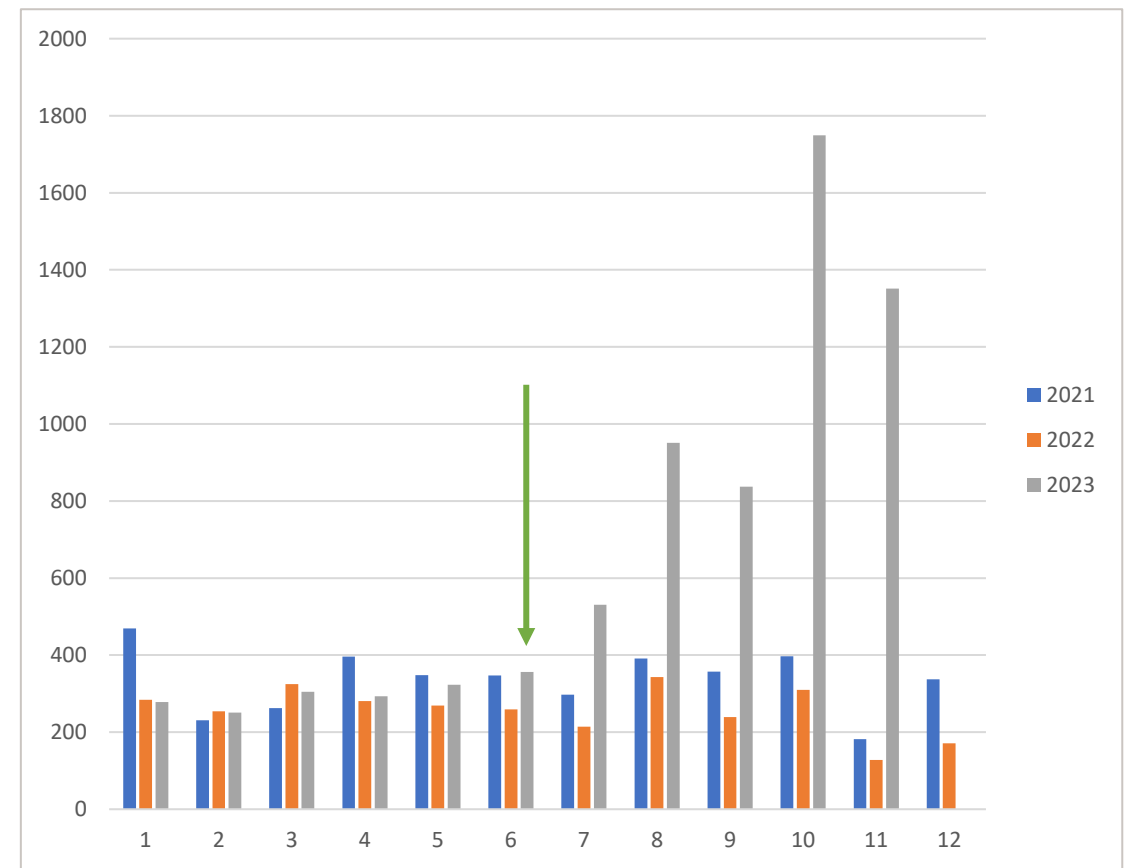


Results (from NDIIS)

Total Routine Doses (Thrifty White)

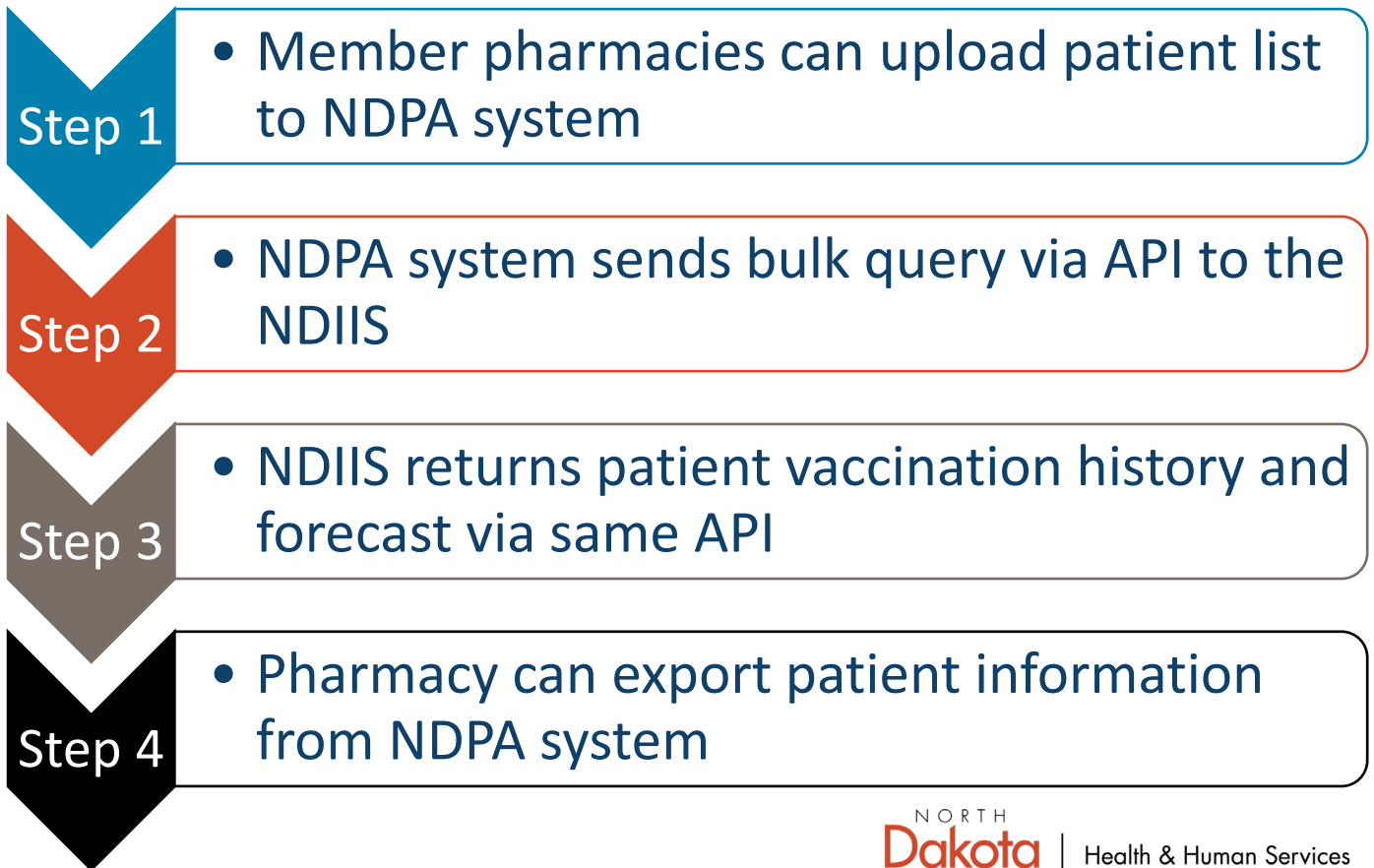


Total Routine Doses (NDIIS)



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



Huge Thanks to:



***Thrifty White pharmacy** for partnering with NDHHS to improve public health in North Dakota and for their willingness to share their doses administered data.*

Thank You!

Contact information:

Mary Woinarowicz

mary.woinarowicz@nd.gov