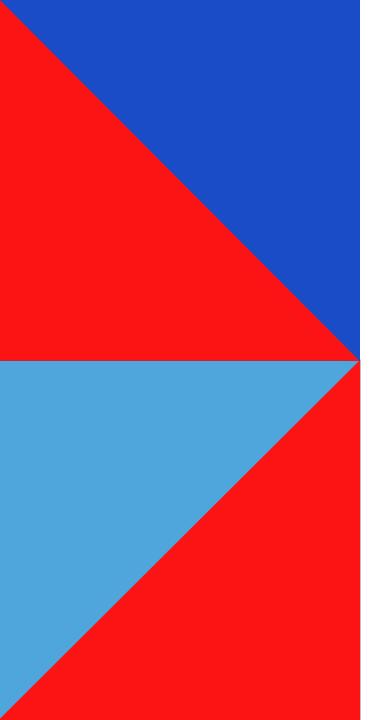
2022 TENNIIS OPEN



Melisse Chassé





INTRODUCTION

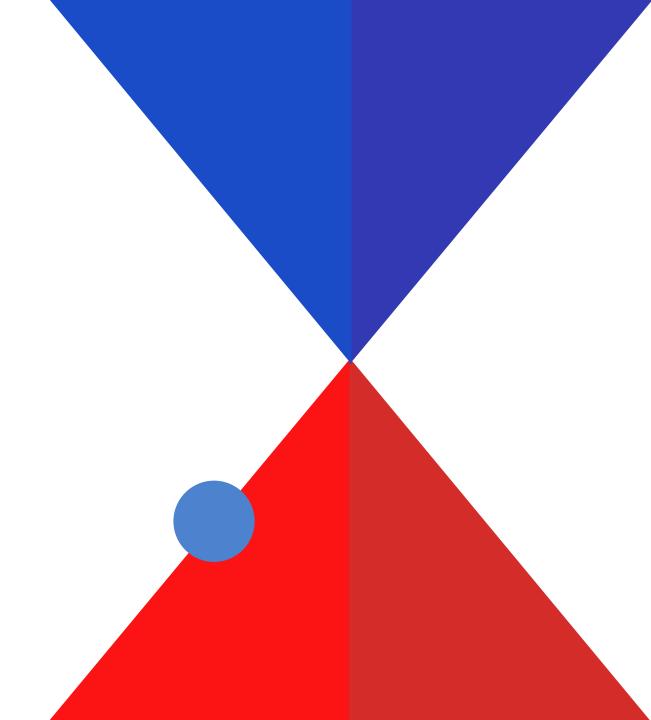
Epidemiologist, Tennessee Department of Health Vaccine Preventable Disease and Immunization Program

Tennessee Immunization Information System

DISCLAIMER

This project was created and designed by Jackie Logan - I am not responsible for the puns you will see here today!







2022 Tenniis Open

Game, Set, Patient Match

ID: 1206

VANDERBILT

A Grand Slam!

Your organization sent in 444,026 (12%) update messages and 3,141,615 (88%) query messages.



Your organization reports data through a **REALTIME** connection

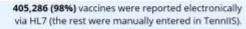


362 active users in your organization



394 active facilities under your organization

Update Messages



318,835 (77%) were administered and 95,611 (23%) were historical.

Your organization's top 3 vaccines reported to TennIIS were:

- 1. INFLUENZA, INJECTABLE, QUADRIVALENT, PRESERVATIVE FREE (16%)
 - 2. TDAP (6%)
- 3. COVID-19, MRNA, LNP-S, PF, 30 MCG/0.3 ML DOSE, TRIS-SUCROSE (6%)

Query Messages

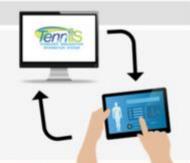
0 (0%) of queries submitted requested only patient history (Z34).

Tenni

1 (0%) of queries submitted requested patient history and forecast (Z44).

Your match rate was:

- 0 (0%) resulted in no patient matches (Z33).
- 0 (0%) resulted in multiple patient matches (Z31).
- 0 (0%) resulted in an exact match with a history (Z32).
- 1 (0%) resulted in an exact match with a history and forecast (Z42) (Ace!)



The ball is in your court! How can you improve?

11% of messages were accepted by TennIIS without warnings or errors.

88% of messages had warnings but were still processed by TennIIS.

1% of messages errored and were not processed by TennilS.

Errors can cause quite a racquet! Our goal is to fix these as quickly as possible. Your #1 error was: PATIENT ADDRESS ZIP IS MISSING

Let's rally to improve our data completeness! 0% of vaccines submitted were missing lot number and 1% were missing manufacturer.

Questions about your connection or how to improve your data quality?

Please reach out to TennIIS.MU@tn.gov!

BACKGROUND

- Sought to showcase hard work of electronic trading partners and their vendors by highlighting submission successes from past year
- Providers want to see aggregate data returned to them
 - Easy to read, eye catching to bring to leadership
 - Guides areas for improvement for the upcoming year
 - Replacement for Meaningful Use attestation letters
- Customizable to support immunization program goals and projects



- Electronic trading partners only
- Organization level
- Different versions based on submission type (VXU only, QBP only, or both)

Sas







CREATION AND SUBMISSION



1

SQL Developer used for the initial large pull of HL7 messages



2

Conducted data analysis in SAS



3

Created data
visualizations in
Tableau (published
to our server)



4

R used to generate
PDFs from Tableau
server and send
emails with
attachment



5

Follow up with providers

A Grand Slam!

Your organization sent in 444,026 (12%) update messages and 3,141,615 (88%) query messages.



Your organization reports data through a **REALTIME** connection



362 active users in your organization



394 active facilities under your organization

A Grand Slam!

Your organization sent in 14,055 (26%) update messages and 41,000 (74%) query messages.



Your organization reports data through a **BATCH** connection



14 active users in your organization



active facilities
under your organization



Update Messages

405,286 (98%) vaccines were reported electronically via HL7 (the rest were manually entered in TennIIS).

318,835 (77%) were administered and 95,611 (23%) were historical.

Your organization's top 3 vaccines reported to TennIIS were:

INFLUENZA, INJECTABLE, QUADRIVALENT, PRESERVATIVE FREE (16%)
 TDAP (6%)

3. COVID-19, MRNA, LNP-S, PF, 30 MCG/0.3 ML DOSE, TRIS-SUCROSE (6%)

Query Messages

13,432 (33%) of queries submitted requested only patient history (Z34). **27,568 (67%)** of queries submitted requested patient history and forecast (Z44).

Your match rate was:

2,258 (6%) resulted in no patient matches (Z33).

66 (0%) resulted in multiple patient matches (Z31).

12,554 (31%) resulted in an exact match with a history (Z32).

26,030 (63%) resulted in an exact match with a history and forecast (Z42) (Ace!)



The ball is in your court! How can you improve?

11% of messages were accepted by TennIIS without warnings or errors.88% of messages had warnings but were still processed by TennIIS.1% of messages errored and were not processed by TennIIS.

Errors can cause quite a racquet! Our goal is to fix these as quickly as possible. Your #1 error was: PATIENT ADDRESS ZIP IS MISSING

Let's rally to improve our data completeness! **0%** of vaccines submitted were missing lot number and **1%** were missing manufacturer.

The ball is in your court! How can you improve?

39% of messages were accepted by TennIIS without warnings or errors.60% of messages had warnings but were still processed by TennIIS.1% of messages errored and were not processed by TennIIS.

Errors can cause quite a racquet! Our goal is to fix these as quickly as possible. Your #1 error was: VACCINATION NDC CODE IS UNRECOGNIZED

Let's rally to improve our data completeness! **7%** of vaccines submitted were missing lot number and **7%** were missing manufacturer.

Tenniss Manageron engamental Eritim

Update Messages

Your organization queries data from TennIIS, but does not send patient demographic or vaccination updates.

Our data at rest would greatly benefit from receiving updates from your organization.

If your organization would like to start updating TennIIS, please use the email at the bottom of the page to contact our team!

QBP only providers

Query Messages

Queries are a great opportunity for your organization to access your patient's vaccination records directly from your electronic health record system.

Your organization can either query for patient vaccination history or patient vaccination history and forecast.

If your organization would like to implement querying, please use the email at the bottom of this page to contact our team!



VXU only providers

SUPPORTS PROGRAM PROJECTS AND GOALS



DOSE LEVEL ACCOUNTABILITY

- Completeness of lot number, manufacturer, funding source
- Conflicting funding source and patient eligibility



CONTACT INFORMATION

- Patient phone number (DAR, NIS-IIS, RR)
- Patient email (DAR)
- Patient Address



DAR

- Race and ethnicity field completeness
- Timeliness of patient and vaccination entry to IIS

FUTURE CONSIDERATIONS

Back end

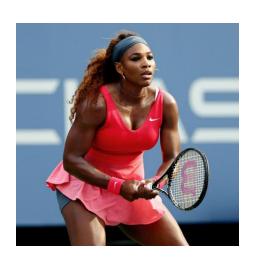
- SAS code improvement to reduce run time
- Issue with some providers who submitted VXUs and QBPs populating the query section with 0's

Front end

- Highlight how to improve query matches
- Summary of patient population based on submissions
- [MONTH] was your busiest month this year! You submitted [X] patients and [X] vaccines / Volume over time
- Comparisons to other orgs as a whole
 - Ex. "You're in the top [x]% of TennIIS organizations for reporting within 1 day of administration"

DON'T BE AFRAID TO GIVE UP THE GOOD TO GO FOR THE GREAT.

Serena Williams



THIS COULD BE YOU!

"Dig into the nitty GRITty of your HL7 messages!"

GRITS

Georgia

"SIMON says, let's improve your data!"

SIMON

South Carolina

"SHOWME your data!"

SHOWMEVAX

Missouri

"Don't let your messages error – stay ALERT!"

ALERT

Oregon

"Improving XYZ could really make an IMMPACT on your query results!"

IMMPACT

Maine

THANK YOU!

Jackie Logan – Project mastermind

Mike Bin, WA – SQL savior

Caleb Wiedeman, TDH – R legend

Melisse Chassé melisse.chasse@tn.gov

