Texas Vaccines for Children Vaccine Accountability and Data Quality

Prageet Kaang, Manager II, Data Analytics Team
Texas Immunization Registry

Introduction

- The Texas Vaccines for Children (TVFC) program covers over 3,000 providers, facilitating immunization access for 5.2 million children.

- TVFC plays a significant role in enhancing vaccine coverage rates and lessening incidence of vaccine-preventable diseases.

- Evaluation of vaccine accountability is paramount to ensure the accurate and timely delivery of vaccinations to the TVFC-eligible population.

Photo from the Texas Vaccines for Children and Adult Safety Net Provider Manual.

The Ecosystem

Vaccine Allocations and Ordering System (VAOS)

- This is a place for providers to manage their ordering, waste, transfers, and other vaccination details.

Texas Immunization Registry (ImmTrac2)

- This is a place for providers to report their vaccine administration data. It is a secure and confidential system that safely consolidates and stores immunization records from multiple sources.

TVFC Vaccine Accountability Outreach Efforts

Report	Frequency	Audience	Purpose
Texas Vaccine for Children Vaccine Accountability Reports	Monthly	Responsible Entities	• To provide information to responsible entities on the status of TVFC dose reporting by organizations in their jurisdiction. • To provide a list of providers who report no doses or less than 50% of the doses in ImmTrac2.
Texas Vaccine for Children Vaccine Accountability Outreach Emails	Once every two months	TVFC providers who receive doses in VAOS and report no doses or less than 50% of the doses in ImmTrac2.	• To provide information to organizations on shipping, transfer, waste, and ImmTrac2 reporting numbers. • To resolve any reporting or data quality issues.

TEXAS
Health and Human Services

Texas Department of State
Health Services

Data Quality Outreach Efforts

Report	Frequency	Audience	Purpose
Vaccine Eligibility Codes Outreach	Once every two months	TVFC providers	• To provide a list of TVFC vaccines reported to ImmTrac2 without vaccine eligibility codes.
RSV (Beyfortus) Outreach	Once every two months	TVFC providers	• To provide a list of incorrectly reported Beyfortus doses.
Age-Inappropriate COVID Vaccines Outreach	Once every two months	TVFC providers	• To provide a list of age-inappropriate COVID vaccines reported to ImmTrac2.

TVFC Vaccine Accountability: Analysis and Outreach

Variables Used from VAOS: Doses Shipped

- Report shows doses shipped to or received by the organization in VAOS from April 1, 2022–October 31, 2023.

- Report includes all TVFC vaccines (except Flu).

VAOS: Doses Transferred Out

- Report shows doses transferred to other organizations in VAOS from April 1, 2022–October 31, 2023.

- Report includes all TVFC vaccines (except Flu).

VAOS: Doses Wasted

- Report shows doses reported as waste in Vaccine Allocation and Ordering System from April 1, 2022–October 31, 2023.

- Report includes all TVFC vaccines (except Flu).

VAOS: Doses Administered

- Report shows doses reported as administered in VAOS April 1, 2022–November 30, 2023.

- Report includes all TVFC vaccines (except Flu).

ImmTrac2: Doses Reported

- Report shows doses reported to ImmTrac2 with consent from April 1, 2022–November 30, 2023.

- Report includes only TVFC doses or products that were received by the organization in VAOS.

- Report includes all TVFC vaccines (except Flu).

Final Calculation

Report includes the following metrics:

- **Percentage Doses Reported in ImmTrac2**: Doses Reported in ImmTrac2 divided by (Doses shipped minus transferred out minus wasted).

- **Percentage Doses Reported in VAOS**: Doses Reported as Administered in VAOS divided by (Doses shipped minus transferred out minus wasted).

Discrepancies in Doses Reported in ImmTrac2 versus VAOS

Consent in ImmTrac2

- ImmTrac2 is an opt-in registry, so immunization data cannot be stored in the registry unless an individual has given proper written consent (ImmTrac2 consent form) to the Texas Immunization Registry.

TEXAS
Health and Human Services

Texas Department of State
Health Services

Error Message for Consent Issue

The Health Level Seven Error Guide for Electronic Data exchange states:

- **"CLR-100**:: Client Rejected. No existing consent on file."

  - **"Explanation**: Identifies that the individual is not in the registry as a registry client. No data is stored in the registry."

  - **"How to Fix**: This is the most common HL7 error. As the registry is opt-in, this error can be addressed by increasing patient participation in the registry and ensuring you are following registry policies and processes for adding individuals as registry clients."

Reporting Incorrect Organization TX IIS ID

According to the Hl7 Error Guide for Electronic Data exchange:

- **"MSH-4"**: This field is populated with parent TX IIS ID.

- **"RXA-11.4"**: This field is populated always with administering organization TX IIS ID.

- **"MSH-22"**: This field contains the same value as "RXA-11.4," which is the administering organization TX IIS ID.

Error Messages for Incorrect Organization TX IIS ID

The Hl7 Guide for Electronic Data exchange states:

- **"MER-400**::Message Rejected. The provider organization that initiated this data exchange is not identified as a parent or vendor of the organization that it labeled as the sending provider organization for this record."

- **"MER-403**::Message Rejected. The sending facility in MSH-4 is a child organization; it should instead be the parent organization."

- **"MER 405**::Message Rejected. The administering organization in RXA-11.4 is not recognized."

Manufacturer Trade Name Mismatch

The Hl7 Guide for Electronic Data exchange states:

- **"IMR- 128**::Immunization Rejected. Manufacturer code is inaccurate or missing data."

- **"IMR- 129**::Immunization Rejected. Trade Name (Prevnar13) is not produced by manufacturer (WAL)."

Missing Lot Number

As of March 4, 2022, ImmTrac2 validates when RXA-15 is missing for a new immunization. The Hl7 Guide for Electronic Data exchange states:

- **"IMR-141**: Lot number is missing for the immunization."

Reporting Production Data in Testing Phase

- The provider has not completed the steps in setting up a data exchange connection to the registry.

- The provider assumes that they are in Production or Report Production Data while still in Testing.

- Any data submitted during testing phase is not imported to the registry and must be resubmitted upon promotion into Immtrac2 PROD.

Reporting Production Data in Testing Phase (continued)

How do you know what environment your data exchange file was received in?

- You will be able to see that information in the file acknowledgement email.

Promotion to ImmTrac2 Production Environment

- Ensure that your organization's three most recent data exchange files do not have any rejection errors. If so, please submit at least three rejection-free files.

- Email the registry stating you have submitted at least three rejection error free files and requesting to be promoted into Unidirectional FTP-Batch Production environment.

- Once the registry validates the data from the files, you will receive an acknowledgment email from ImmTracMu@dshs.texas.gov confirming you are now live in ImmTrac2 Production environment.

Data Quality Outreach to TVFC Providers

Correct Vaccine Eligibility Codes

Eligibility Code	Description	Age Criteria
V01	Private Pay/Insurance	< 19 years old
V02	Medicaid	< 19 years old
V03	No insurance	< 19 years old
V04	American Indian/Alaskan Native	< 19 years old
V05	Underinsured, FQHC/RHC/Deputized	< 19 years old
TXA01	CHIP	< 19 years old
TXA02	Underinsured, Not FQHC/RHC/Deputized	< 19 years old
TXA03	19-Year-Old Completing Series	=19 years old
TXA04	Adult, No insurance	>=19 years old
TXA05	Adult, Underinsured	>=19 years old
TXA06	Adult, Private Pay/Insurance	>=19 years old

Missing Vaccine Eligibility

If OBX-5.1 (vaccine eligibility code) is missing, the immunization will get rejected.

- Example of Error:

```
MSH|^~\&|EHRExport|1234567890|TXImmTrac|TxDSHS|20220105134300||VXU^V04^VXU_V04|5385188334134300|P|2.5.1|||AL|AL|
PID|1||123998^^^Nameofsystemidentifyingvalue^MR||Van^Damme||19601018|M||2106-3^White^CDCREC|Karate Avenue^Apt 1^Houston^TX^77002^USA^^^TX201||^PRN^PH^^
PD1|||||||||||||Y|20220506
ORC|RE|||||||||||
RXA|0|1|20220410|20220410|33^pneumococcal polysaccharide PPV23^CVX|.5|mL^mL^UCUM||00^NEW IMMUNIZATION RECORD^NIP001|^Queen^Bee^^^^^^L^^^|Org name^5235
RXR|C28161^Intramuscular^NCIT|RD^Right Deltoid^HL70163
OBX|1|CE|64994-7^Vaccine funding program eligibility category^LN|1|^VFC eligible-Medicaid/Medicaid Managed Care^HL70064||||||F|||20220410|

Error message:
**IEE-104::Warning. RXA #1 rejected because of invalid OBX.
**IMR-100::Immunization rejected. OBX #1 ignored. Required field OBX-5 missing.
```

RSV (Beyfortus) Outreach

RSV (Beyfortus) Reporting

- ImmTrac2 is designed to accept reporting of all Center for Disease Control and Prevention (CDC) recommended vaccines.

  - An exception is that during a disaster event, all antivirals, immunizations, and medications are accepted.

- On August 3, 2023, the CDC's Advisory Committee on Immunization Practices (ACIP) recommended addition of Beyfortus monoclonal antibody to the Vaccines for Children Program (VFC).

Challenges with Beyfortus Reporting

- Beyfortus is not a disaster related vaccine but a standard monoclonal antibody (mAB).

- For children up to 24 months of age who remain at increased risk for severe RSV in their second RSV season, the recommended dosage of Beyfortus is a single 200 mg dose administered as two IM injections (2 x 100 mg).

Correct Way To Report Beyfortus Doses

When reporting two doses of Beyfortus 1.0 ml given on the same day:

- Doses should be given in two different anatomical locations and billed as two administrations.

- The two RSV doses should be reported as two separate events.

Correct Way To Report Beyfortus Doses (continued)

Duplicate Warning Override

- Add the two RSV doses and click "Save Selected."
- The immunization screen should reflect both doses with the same vaccination date.

WARNING!
You are attempting to enter potential duplicate immunization records.

	Admin Date	Vaccine Group	Trade Name	Lot #	Date Entered	Hist?	Selected
Incoming:	06/25/2023	RSV	Beyfortus 1.0mL	ABC123		N	☑
Incoming:	06/25/2023	RSV	Beyfortus 1.0mL	ABC123		N	☑

To make corrections to your entries, click Make Edits.
To OVERRIDE the system and save the DUPLICATE immunizations, check the incoming immunizations you want to save and click Save Selected.

Make Edits   Save Selected

Reporting RSV mAb Second Dose via Data Exchange (DX)

Providers will submit two different DX messages for the two Beyfortus doses administered on the same day.

- Each segment will have '1' in the RXA-6 and 'mL' in RXA-7 field.

- The date of vaccination should be the same for both doses.

Errors Associated with Beyfortus Reporting

Scenario 1: Two RSV doses within 14 days in same DX message. For example:

- The first dose is a tradename from the RSV group (excluding Beyfortus 1.0 ml).

- The second dose is same or any other tradename from the RSV group (excluding Beyfortus 1.0 ml).

- The result is that the second dose will be rejected.

  "Rejection Error: IMR-110::Immunization rejected. This immunization matches another immunization in incoming file."

Errors Associated with Beyfortus Reporting (continued)

Scenario 2: Two RSV doses within 14 days—first dose is Beyfortus 1.0 ml. For example:

- The first dose is Beyfortus 1.0 ml.

- The second dose is any other tradename (excluding Beyfortus 1.0 ml) from the RSV group.

- The result is both doses will be rejected.

"Rejection Error: IMR-148:: Immunization rejected. The immunization has been rejected because combination of RSV tradenames submitted is invalid."

Age-Inappropriate COVID Vaccine Outreach

Age-Inappropriate COVID Doses

Step 1: Identify organizations who report:

- Age-Inappropriate 2023–2024 COVID vaccines.
- Unauthorized Bivalent and Monovalent COVID vaccinations after their end date.

Age-Inappropriate COVID Doses (continued)

Step 2: Provide customized error reports to organizations.

- Report is provided in the secure FTP folder.
- Report contains the client and immunization information.

Summary of Outreach Efforts

TVFC Vaccine Accountability Outreach Efforts:

- Texas Vaccine for Children Vaccine Accountability Reports
- Texas Vaccine for Children Vaccine Accountability Provider Outreach Emails

TVFC Data Quality Outreach Efforts:

- Vaccine Eligibility Codes Outreach
- RSV (Beyfortus) Outreach
- Age-Inappropriate COVID Vaccine Outreach

Resources

- **For providers reporting manually through ImmTrac2:**
  - ImmTrac2@dshs.texas.gov, or
  - 800-348-9158, option 1

For providers reporting through data exchange:
  - ImmTracMU@dshs.texas.gov, or
  - 800-348-9158, option 3

Thank you!