Script for "Data Quality and Error Resolution" Webinar

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Data Quality and Error Resolution

Today, we will be discussing Data Quality and Error Resolution with the Texas Immunization Registry.

Introductions

Hello everyone.

My name is Jonathan Patterson. I will be the main presenter today. I am an Interface Analyst with the Texas Immunization Registry.

I am also joined by Angela De La Cruz, our Interoperability Coordinator, and Paul Spock our Training Coordinator.

Terminology

We will be using abbreviations and acronyms for some of the terminology in this presentation:

- Bi-D-X will be short for Bidirectional data exchange. If you are able to look up immunization records from your EHR, you're using BiDX.

- F-T-P is short for File Transfer Protocol. If you only send records once per week or day, you are using FTP data exchange.

- Registry will be the short name for the Texas Immunization Registry.

- Orgs will mean any provider, healthcare entity, or other organization that participates with the registry.

- And EHR will be used for Electronic Health Records systems.

Overview

The topics we'll cover today include:

- The importance of Data Quality and Error Resolution,

- How to review errors,

- Steps to take when correcting errors,

- Correcting certain common errors,

- And we'll end by addressing specific data quality errors for COVID-19 immunization reporting.

ImmTrac2 Identifiers and Org Structure

So, let's begin by quickly reviewing how organizations are structured and identified in ImmTrac2.

How Are Orgs Identified?

Each organization in ImmTrac2 has a couple of important identifiers.

The first is the Org Code, which usually has four letters followed by four numbers. The org code is used when logging in to the ImmTrac2 website.

The second important identifier is the TX IIS ID number. This is a string of numbers between nine and eleven digits long beginning with a 1 or 2 and is used for sending records through a data exchange connection.

These ID numbers identify which orgs are using the system to add or update records.

How Are Orgs Structured? (1 of 3)

Organizations in ImmTrac2 can either be stand-alone orgs or part of a parent/child relationship.

A stand-alone org means you are reporting for yourself and not associated to any other location or a bigger organization or network.

How Are Orgs Structured? (2 of 3)

If you are a parent org:

- You are the main site for yourself and other sublocation or offices under your purview for reporting data. Parent orgs can have multiple child or sub-sites.

- If you have a data exchange account, your parent org is the owner of that account and you report records for yourself and all of your sub-sites.

- If your organization reports online using the ImmTrac2 website, each site will log in to ImmTrac2 to report separately, but some data quality issues can be reported up to you at the parent org.

How Are Orgs Structured? (3 of 3)

If you are a sub-site:

- That means that you have a parent org that you belong to in ImmTrac2. Sub-sites only have one parent org and can never have sub-sites of their own.

- If your parent organization has a data exchange account, then they will send immunization records to the registry on your behalf.

- If you report records online on the ImmTrac2 website, then your organization is responsible for entering your own records.

Data Entered Into ImmTrac2

Next, we'll discuss the different ways of reporting records to ImmTrac2.

Reporting Methods

There are two ways to add patient records and immunizations to the registry:

- One is online directly through the ImmTrac2 website. This is often referred to as manual entry.

- The other is via a data exchange connection from your EHR to the registry.

Reporting Online

For online reporting, you will need an ImmTrac2 user account:

- Individuals are only assigned one user account, even if they work at multiple orgs

- The account is specific to that individual and may not be shared with anyone else.

- The user account can be used to access multiple different orgs in ImmTrac2 depending on which orgs they've been granted access to.

- When logging into ImmTrac2, you'll need three things:

    o An Org Code to identify which site you're reporting records for,

    o A username,

    o And a password.

Reporting via Data Exchange (1 of 3)

Data exchange reporting uses an Electronic Health Records (EHR) program or other similar system to send patient an immunization records to ImmTrac2.

Stand-alone or parent orgs are assigned a data exchange account, but not sub-sites. Remember, parent orgs report on behalf of their sub-sites when using data exchange.

Data is sent to the registry in HL7 messages using either an FTP or Webservices connection.

The messages must contain the TX IIS ID of the site that is reporting the records so that ImmTrac2 knows which org to credit the records to.

Reporting via Data Exchange (2 of 3)

To report records via FTP, you'll need a few things:

- An FTP username, also known as you import code,

- An FTP password,

- And the TX IIS IDs for you parent org and sub-sites.

Reporting via Data Exchange (3 of 3)

To report via webservices you'll need

- Your parent org's facility ID,

- A webservice username,

- A webservice password,

- And the TX IIS IDs for you parent org and sub-sites.

Data Quality Issues - Online Reporting

Let's start looking into some of the data quality issues that can come up for online reporting.

Online Reporting Issues

Common issues include:

1. Logging in with the wrong org code,

2. Not having the correct parent and sub-site relationships set up,

3. Entering the wrong lot number,

4. Reporting immunizations for the wrong organization,

5. And entering the wrong date of birth for your patients.

Issue 1: Logging In With Wrong Org Code

Logging in with the wrong org code can occur when a user has access to multiple orgs codes and uses the wrong one to log in with.

This can result in patients and immunizations begin added by the wrong organization in ImmTrac2.

This will impact a variety of reports and metrics for both orgs (the org that was incorrectly reported under and the org that was supposed to be credited) and will prevent vaccine decrementation.

Resolution: Log In With Correct Org Code

Once a user who is associated to multiple organizations is logged into ImmTrac2, they see the Manage Access screen. This displays all the orgs the user is associated to with the current org they are logged in indicated in the yellow banner at the top. In this example, the user is logged in under Lighthouse Pediatrics, with the user's name displayed as Test User and the user's role of Full Access Providers no/DE.

To switch between orgs, the user must select the ImmTrac2 button for the org in which they want to add patients or immunization on behalf of.

Remember, when in doubt, check the yellow banner to ensure you are logged in under the correct org!

Issue 2: Parent and Sub-Site Relationship

Users with access to a parent org in ImmTrac2 should see all of their subsites listed when logging in with the parent's org code. If you notice a site's missing when logging in with a parent org code, it likely means that the sub-site's relationship isn't set up correctly.

Sub-site users may also notice that they are listed under the wrong parent, in which case their relationship was established with the wrong parent org.

Identifying Parent and Sub-Site Relationship (1 of 4)

To verify your parent and sub-site relationships, begin by logging into ImmTrac2 and click the registration/renewal tab at the top of the screen.

Identifying Parent and Sub-Site Relationship (2 of 4)

Next, click the Manage Renewals link.

Identifying Parent and Sub-Site Relationship (3 of 4)

If you logged in with a parent org code, you will see a complete list of all sub-sites with the parent listed at the top. You will have access to your parent and all sub-sites renewals.

Identifying Parent and Sub-Site Relationship (4 of 4)

If you're logged in with a sub-site org code, you will see your site with your parent listed just above. You will only have access to your sub-site's renewal.

Resolution: Parent and Sub-Site Relationship

If you notice any problems with your site relationships, email us at ImmTrac2@dshs.texas.gov.

Be sure to provide us with a description of the problem and include site identifiers for each site affected.

The best site identifiers are the org codes, TX IIS IDs and physical addresses.

Be sure to clearly describe the correct site relationships.

Issue 3: Incorrect Lot Number Entered

The next common issue is the use of incorrect lot numbers.

The lot number field in ImmTrac2, and many EHRs, is a free-text field requiring users to type the lot number in by hand.

For example, imagine the correct lot number for an immunization is EK5730, but the user accidentally typed EK05730 with an extra 0.

This becomes a problem for COVID-19 administrations because the lot number is used to decrement inventory. If the lot number has any errors, that administration won't decrement.

Resolution: Correct the Lot Number (1 of 2)

The lot number can be corrected in ImmTrac2 by a user with access to the reporting or administering organization.

Look up the client and their immunization record in ImmTrac2 and then click the Edit icon next to the affected immunization. The edit icon looks like a pencil and paper.

Resolution: Correct the Lot Number (2 of 2)

You should then see the Edit Immunization screen.

The Vaccine Lot Number field with be highlighted in blue as one of the required fields.

Simply edit the lot number and then click the Save button on the right.

Issue 4: Immunization Entered by Wrong Org Code

Because users can have access to multiple orgs in ImmTrac2, they can sometimes enter records while logged in with the wrong org code.

For example, a user could be logged in with org code WELS0026 when adding immunization records that were actually administered at NORT0321.

This error is important for COVID-19 immunizations because the organization that administers and reports the vaccine must be the same one that it was shipped to. If the administering org in ImmTrac2 doesn't match the org that received the vaccine, it will not decrement.

Resolution: Correct the Org Code Who Administered (1 of 6)

To confirm if an administration was reported using the correct org code, log in to ImmTrac2 using the correct org code and navigate to the immunization record to want to check.

Under the "Owned?" column, if you see the word No that means the immunization with reported by a different org.

Resolution: Correct the Org Code Who Administered (2 of 6)

You can see what org the immunization was reported by clicking the word "No". A small window will pop up with the reporting org's information.

Resolution: Correct the Org Code Who Administered (3 of 6)

Correcting this error will require coordination between the two orgs (the reporting org and the org that was supposed to be the reporting org). For this reason, it's best if the error is corrected by a user that has access to both orgs.

Begin by logging in to ImmTrac2 with the org code that incorrectly reported the immunization and navigate to the immunization record.

Click the Edit button.

Resolution: Correct the Org Code Who Administered (4 of 6)

On the Edit Immunization screen, click the Delete button on the right. This will remove the incorrect record from ImmTrac2.

Resolution: Correct the Org Code Who Administered (5 of 6)

A pop-up window will ask you to confirm that you want to delete the record.

Click OK.

Resolution: Correct the Org Code Who Administered (6 of 6)

Confirm that the record was deleted by checking the client's immunization record.

A user with access to the correct org code will then need to log in and reenter the immunization.

If this was a COVID-19 immunization, the corrected immunization must be re-added on the same day or the patient's account will be automatically deleted by ImmTrac2.

Issue 5: Incorrect DOB for Patient

Date of birth errors occur whenever a patient's client account is created using the wrong date of birth. This can have a significant impact depending on what date of birth was entered.

If the patient's minor or adult status wasn't affected by the error, then correcting the DOB is fairly simple.

Log in to ImmTrac2 and navigate to the patient's client page.

Click the Edit Client button on the right.

Resolution: Correct DOB for Patient (1 of 2)

The Birth Date field will be highlighted in blue.

Simply change the date and then click Save on the right.

Resolution: Correct DOB for Patient (2 of 2)

If the DOB error does change the patient from and adult to a minor or vice-versa then you will need to contact the registry for assistance.

The patient's client account will need to be deleted, which can only be done by the state.

Email us at ImmTracMU@dshs.texas.gov with the subject line "COVID DOB Correction" and your Org code.

Describe the error and provide us the patient's client ID number.

Once the account has been deleted, you will need to recreate the patient's client account with the correct information.

Data Exchange Reporting Overview

Now let's go over some errors that can occur when reporting via a data exchange connection.

Reporting via Data Exchange

When you participate in data exchange with the registry, your organization's immunization records are sent to the registry in messages.

Whenever ImmTrac2 receives a message it first reviews the message for any data quality issues or errors before any of those records are added to ImmTrac2.

ImmTrac2 looks to see if any information is missing or if there are any major problems like conflicting information or structural problems with the message itself.

Date Exchange Overview (1 of 4)

When being analyzed, the system identifies any issues under the following categories:

- File rejection, meaning the file is missing key elements to even be considered for processing such as the file contains no data, file exceeds size limit, invalid file types and such.

- Message rejection, meaning the HL7 data is not in the correct order or that required information is missing or blank, or even that the TX IIS ID for the orgs are not in the correct parent/sub site hierarchy.

- Client rejection, meaning required patient information is missing or invalid such as date of birth, patient name, address etc.

- Immunization rejection, meaning required immunization information is missing or invalid, such as the date of the immunization or administering organization.

- Informational error or warning, meaning that data that is not required but would be helpful to reporting associated to the patient or immunization is missing or invalid.

Data Exchange Overview (2 of 4)

To summarize...

Information errors do NOT prevent records from being added to ImmTrac2.

Rejection errors (file, message, client and immunization) indicate significant problems and DO prevent records form being added to ImmTrac2.

Rejection errors must be identified and resolved by your organization as they impact accurate reporting to ImmTrac2.

Data Exchange Overview (3 of 4)

After analyzing the patient and immunization information, ImmTrac2 creates a response or error report for the orgs to review and identify the specific information that resulted in errors.

For FTP orgs, all of the errors are summarized into three reports, which are generated for each batch file submitted, and are available in the FTP data exchange account. The first report is the most commonly used and is known

as the DQA or Data Quality Analysis, report. This can be found in the DQA-report folder of the FTP account. This contains the original data that was submitted and the errors associated to the data. This report is more user friendly as you can identify the patient and immunization data easily. The second and third reports are found in the Receive folder of the FTP account.

The Consent Notification File (or CNF) identifies the patients who are existing registry clients and patients who resulted in a questionable match. A questionable match means the system couldn't make a solo determination to match the patient the org reported with an existing registry client. This requires org intervention to resolve the questionable match as data doesn't get added to ImmTrac2 if the patient is flagged as a questionable match.

Data Exchange Overview (4 of 4)

For BiDX orgs, the response is sent immediately to your EHR and per message. The responses returned to the Org contains an HL7 response (raw) error report. BiDX orgs do not receive a batch file like they once when submitting via FTP.

We recommend you work very closely with your EHR vendor to identify how or where these responses can be accessible to you and your org for identifying and resolving issues. You'll need to contact your EHR vendor to learn how to review your error logs.

ImmTrac2 isn't able to send DQA reports for BiDX sites, but EHRs usually have some way for you to access and review your errors.

Data Quality Reports – Data Exchange Reporting

How do you read and use a DQA report?

Reviewing Errors (1 of 7)

For the remaining portion of the presentation we will focus on orgs who report via FTP. Similar steps could be used for BiDX orgs once the response files are accessible to their staff.

For FTP orgs, a user from your organization must access the FTP website at least once a week to download and review the HL7 DQA reports for recent submissions.

DQAs should be opened using an advanced text editor such as Notepad++ or Programmer's File Editor (PFE). These programs are not provided or supported by the registry. Contact your local IT for support with these programs.

Reviewing Errors (2 of 7)

After logging in the FTP website, navigating to the DQA Report folder by clicking on the folder name.

Reviewing Errors (3 of 7)

Download the DQA by either clicking the box next to the files and then clicking 'Download' at the top of the page, or simply clicking on the file's name.

Reviewing Errors (4 of 7)

The file will then begin downloading.

Reviewing Errors (5 of 7)

DQA reports use the following structure for each message:

- First, you'll see an HL7 Message. HL7 messages can be a little difficult to read, but with a little practice you can learn to identify which patient and immunizations a message is for.

- Next, you'll see any Rejection errors for that message that prevented part or all of the message from being added to ImmTrac2.

- Finally, you'll see any Informational Errors for that message which may indicate problems with the data quality of your messages.

This structure will repeat for each message that had an error.

Reviewing Errors (6 of 7)

Before we get too much further, let quickly review what an HL7 message is.

An HL7 message contains one patient's information and any immunizations your organization reported for that patient. This is how computer systems like your EHR and the registry can share records back and forth.

HL7 messages look like a block of words and numbers separated by vertical lines. The patient's name, for example, can be found in the line beginning with the letters 'PID.'

The types of the immunizations reported can be found in the lines beginning with the letters 'RXA' There can be multiple 'RXA' lines; one for each immunization reported for that patient.

Reviewing Errors (7 of 7)

As I mentioned previously, errors have a unique error code that begins with a three-character alphabetic code followed by a three-digit number. The error code is followed by a short text description.

For example: "MER-105::Message Rejected. Required field PID-11 missing".

The error code here would be MER-105. The error code is important because it can make researching the error in the HL7 error guide a lot easier and faster.

The short description for this example would be "Message Rejected. Required field PID-11 missing." The short description will sometime have specific information about the error that can help you or your EHR vendor focus in on the exact cause of the error.

HL7 Error Guide

You will use the registry's HL7 2.5.1 Error Guide for Electronic Data Exchange, available on our DSHS website, to look up the error codes and identify how to resolve the issue. The error guide explains all errors returned by the registry and offers solutions to many errors.

Using the HL7 Error Guide

Once you have an error you need to research, begin by looking the error up in the error guide.

The error guide is sorted by error codes and has a table of contents containing each error at the beginning.

The table of contents links directly to each error, so you can simple click on the error code once you've found it in the table of contents and it takes you straight to that section/page in the guide.

Using the HL7 Error Guide cont.

Here is the anatomy of error in the error code breakdown in the guide.

At the top of each entry you'll see the error codes, in this example you see IMR-124.

Next, you see the message or short description of the error code. In this example, the short description is " IMR-124::Immunization Rejected. Vaccine Administration date is required."

The following line has the Acknowledgement Code (ACK Code) that identifies to your EHR system whether the data was accepted by our system or not. ACK Codes have three values: Application Accept (AA), Application Error (AE), or Application Reject (AR).

Next is the Explanation of the error, which describes the error and what it means in simplified terms.

The "How to Fix" section gives advice about how to correct the error and may tell you who you need to contact if it's not an error orgs can usually correct themselves.

Finally, some entries include an example of the correction HL7 message with the correction itself highlighted in bold font.

Troubleshooting Error Resolution

Once you understand the errors you're receiving, the next step you should often take is to review your patient and medical documentation to make sure there were no errors or gaps in your EHR.

If there were no problems in your documentation, the next step would be to review the errors with your EHR vendor. There may be changes they can make in their system that you don't have access to.

Finally, if you and your EHR vendor are unsure how to resolve an error, contact the registry for assistance.

Remember that not all errors can be corrected by your EHR vendor or the registry.

Your organization may need to adjust documentation workflows to ensure that all required information, such as immunization manufacturers or lot numbers, are being captured and sent to the registry.

Data Quality Issues – Data Exchange Reporting

So, let's discuss the more common errors and issues we see for data exchange reporting.

Data Exchange Issues

These are the most common issues the registry see orgs struggling with via data exchange:

1. Using the incorrect parent and sub-site relationship,

2. Reporting the wrong parent TX IIS ID in messages,

3. Reporting the wrong TX IIS ID for the org who administered the immunization,

4. Entering the Lot number incorrectly,

5. Entering the incorrect date of birth for patients,

6. Not entering or entering incorrect county of residence for patient, and

7. Not entering or entering incorrect race and ethnicity for patient.

Issue 1: Incorrect Parent/Sub-site Relationship

Organizations within a company often share a data exchange account. In these situations, one site is identified as the parent or HQ and all other sites are considered subsites or child sites. This relationship must be defined in ImmTrac2 as part of your site registration or renewal in order function correctly.

If this relationship is missing in ImmTrac2, then all messages sent for the child site will be rejected. This is often a more severe problem for bigger health network systems who have multiple parent orgs with data exchange accounts and data is crossed between parent orgs in data exchange.

The error associated to this issue is "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."

In this example, the TX IIS ID reported in RXA-11.4 is not associated to the parent orgs TX IIS ID found in MSH-4 in ImmTrac2. Therefore the immunizations reported are rejected.

Resolution: Correct the Parent/Sub-site Relationship

If you get this error, check your sub-site's agreement information in ImmTrac2.

You will likely need to submit a site renewal in ImmTrac2 to correct the missing relationship.

You can find instructions for submitting a site renewal in the ImmTrac2 Site Renewal Guide. Page 10 covers the site relationships.

If you need any support or the relationship needs to be corrected urgently, in the case of COVID reporting, then contact the registry.

Once the site relationship has been updated in ImmTrac2 by the state, resend all the rejected messages in a new file to have the data reprocessed.

Issue 2: Reporting Wrong Parent TX IIS ID in Messages

MSH-4 is the field in HL7 where the parent organization that owns the data exchange account is identified.

ImmTrac2 will reject any messages that uses a child organization's ID number in MSH-4.

MSH-4 must always be the parent org's TX IIS ID number.

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

In this example, the parent's TX IIS ID is 1192900005 but the sub-site's number, 1113922000, is being used in MSH-4. This caused the message to be rejected.

Resolution: Report Correct Parent TX IIS ID in Messages

You will likely need to contact your EHR vendor to correct any error in MSH-4.

Make sure you're EHR vendor knows which site is your parent org and what their TX IIS ID number is.

Once corrected, resend all the rejected messages so that they can be added to ImmTrac2.

Issue 3: Reporting Wrong TX IIS ID as Administered the Immunization

Reporting the wrong site's TX IIS ID number in RXA-11.4 won't create an error in your DQA report, but it's an important issue that impacts your reports and COVID-19 decrementation, so we're covering it here.

The TX ISS ID number sent in RXA-11.4 represents the org that administered the vaccine.

ImmTrac2 does not validate RXA-11.4 beyond making sure that it is a valid TX IIS ID number and related to the parent in MSH-4.

If the wrong subsite is in RXA-11.4, you will not get an error in the DQA report.

In this example, TX IIS ID 1234500010 was reported in RXA-11.4, but the site that actually administered the vaccine was 1234500012. The site with the ID number ending in 10 will get credit for the shot and not the site ending in 12.

COVID-19: Incorrect Reporting Org

Reporting shots given at the wrong org has a significant impact on COVID-19 immunizations. COVID-19 immunizations must be reported by the org they were allocated to.

If another site reports those immunizations, they will not decrement correctly.

The reporting org is identified by the administering organization's TX IIS ID in RXA-11.4.

Resolution: Correcting the TX IIS ID As Administered the Immunization

To resolve these problems, work with your internal IT Support and EHR vendor to map all subsites with the correct TX IIS ID. The registry can provide you with a list of all the sites that fall into parent-sub-site relationship to help with mapping the relationships in your EHR.

Once the issue has been resolved in your EHR, you will need to remove the incorrect records from ImmTrac2 by sending a deletion request using the original messages with the indicator "D" in RXA-21. You may need to work with your EHR vendor to do this.

After the records have been deleted, send the corrected records with the right TX IIS ID in RXA-11.4.

Anytime a new site is acquired or established within your parent's hierarchy, the parent org needs to identify that new site's TX IIS ID and provide it to the EHR vendor for mapping, making sure the sites are updated in ImmTrac2 via a registration or renewal as a subsite of the parent.

Issue 4: Lot Number Entered Incorrectly

Another issue you may encounter that won't show up in your DQA reports is using the wrong lot number.

The registry performs high-level analysis of lot numbers reported for COVID-19 immunizations to determine is any incorrect lot numbers have been reported and performs outreach when incorrect lot numbers are found.

The lot number reported to ImmTrac2 must be exactly correct in order to decrement in VAOS.

COVID-19: Incorrect Lot Number

Some common errors include adding unnecessary spaces, swapping characters, typing incorrect characters (such an S instead of a 5) or entering anything that isn't a lot number (such as the word unknown).

Any of these errors will prevent records from decrementing.

In the examples here, you can see a few different ways the lot number EK5730 could be reported incorrectly as well as where the lot number appears in an HL7 message.

Resolution: Update the Correct Lot Number

To correct this error, retrain staff to documentation in your EHR the lot number as it appears on the medication or immunization.

Make corrections in your EHR to those patients who had the incorrect lot number.

Resend the immunization record with the corrected lot number for file processing.

If the documentation was correct, then contact your EHR and ask them to investigate why the lot number was not sent to ImmTrac2.

Once the error has been corrected, resend all the rejected messages so that they can be added to ImmTrac2.

Issue 5: Incorrect DOB for Patient (1 of 2)

As with online record entry, reporting the wrong date of birth can cause a variety of problems for orgs that report via data exchange.

In the example here, an org tried to report a birthdate in the future, which caused the record to be rejected with the error CLR-303: Client rejected. Invalid date of birth. Must be prior to or equal to today.

Issue 5: Incorrect DOB for Patient (2 of 2)

Not all DOB problems will appear in DQA reports.

For example, ImmTrac2 doesn't validate if immunizations are appropriate for the age of the patient, so reporting the wrong year of birth for a patient won't appear in a DQA report.

During the first round of allocations of COVID-19, only first responders and employees of health systems were being immunized which were all adults. In this example, the patient is probably an adult and the date of birth was entered in correctly with a 2020 year instead of a 2002.

Resolution: DOB for Patient (1 of 2)

To correct future DOB rejections, retrain your staff to enter the patient DOB into your EHR accurately.

Make the corrections to your documentation and then resend the records to ImmTrac2.

Resolution: DOB for Patient (2 of 2)

If the patient's age reported caused them to fall into the wrong age group (minor vs adult), you will need to take the same steps as with online reporting.

The patient's client account will need to be deleted, which can only be done by the state.

Email us at ImmTracMU@dshs.texas.gov with the subject line COVID DOB Correction" and your Org code.

Describe the error and provide us the patient's client ID number.

Once the account has been deleted, you will need to resend the corrected records to ImmTrac2.

Issue 6: Missing or Incorrect County of Residence for Patient (1 of 2)

Another problem that will not appear in DQA reports is missing or inaccurate patient county information.

ImmTrac2 does not validate whether the patient's county of residence is missing in PID-11.9 so it will not appear anywhere in your DQA reports.

The registry is performing high-level analysis for COVID-19 immunizations to identify missing county information and performing outreach.

Missing county information results in inaccurate reporting for the state and counties.

Issue 6: Missing or Incorrect County of Residence for Patient (2 of 2)

In these examples you can see PID-11.9 is either missing or using the name of the county instead of the Federal Information Processing Standard Publication (FIPS) County Codes.

COVID-19: Missing or Incorrect County

The patient's home address county is a required element for COVID-19 reporting.

The client's county must be reported using the county FIPS code in PID-11.9.

This information is used for reporting to the CDC.

Resolution: Correct County of Residence for Patient

To correct this, work with your IT and HER vendor to make sure you system is set up to document and report patient's FIPS County codes.

FIPS County codes are five-digit codes. All FIPS codes for Texas counties begin with the numbers 48.

Once you have made the necessary changes to your system and documentation, resend all affected records with the county information included.

Issue 7: Missing or Incorrect Race and Ethnicity for Patient (1 of 2)

The final issue we will cover that doesn't appear in your DQA reports is missing race and ethnicity information.

ImmTrac2 doesn't validate in the race is present in PID-10 or ethnicity in PID-22, so they will never appear in your DQA reports.

The registry is performing high-level analysis for COVID-19 immunizations to identify missing race and ethnicity information and performing outreach.

As with missing county information, this results in inaccurate reporting for the state.

Issue 7: Missing or Incorrect Race and Ethnicity for Patient (2 of 2)

In these examples you can see PID-10 and PID-22 are either missing or using plain text instead of the required HL7 codes for race and ethnicity.

Resolution: Correct Race and Ethnicity for Patient

To correct this, work with your IT and EHR vendor to make sure you system is set up to document and report patient's race and ethnicity using HL7 codes.

Once you have made the necessary changes to your system and documentation, resend all affected records with the race and ethnicity information included.

Takeaways

Finally, let's recap on today's presentation.

Reminders (1 of 2)

Regardless of whether you are reporting online using the ImmTrac2 website or via a data exchange connection, you must always:

- Check that you are reporting under the correct organization,

- Review for any and all data quality issues,

- Resolve data quality issues timely,

- Resend and data that was rejected or had errors with corrections,

- Report you lot numbers accurately, and

- Report all required elements for COVID-19 such as patient county, race and ethnicity.

Reminders (2 of 2)

The registry offers a variety of resources on our website at **https://www.dshs.texas.gov/immunize/immtrac/**.

If you need any support, you can contact us via email at

- ImmTrac2@dshs.texas.gov for support with access or site registrations and renewals,

- Or at ImmTracMU@dshs.texas.gov for support with data exchange and promoting interoperability.

Thank You!

This concludes our presentation on Data Quality and Error Resolution.

Thank you.