

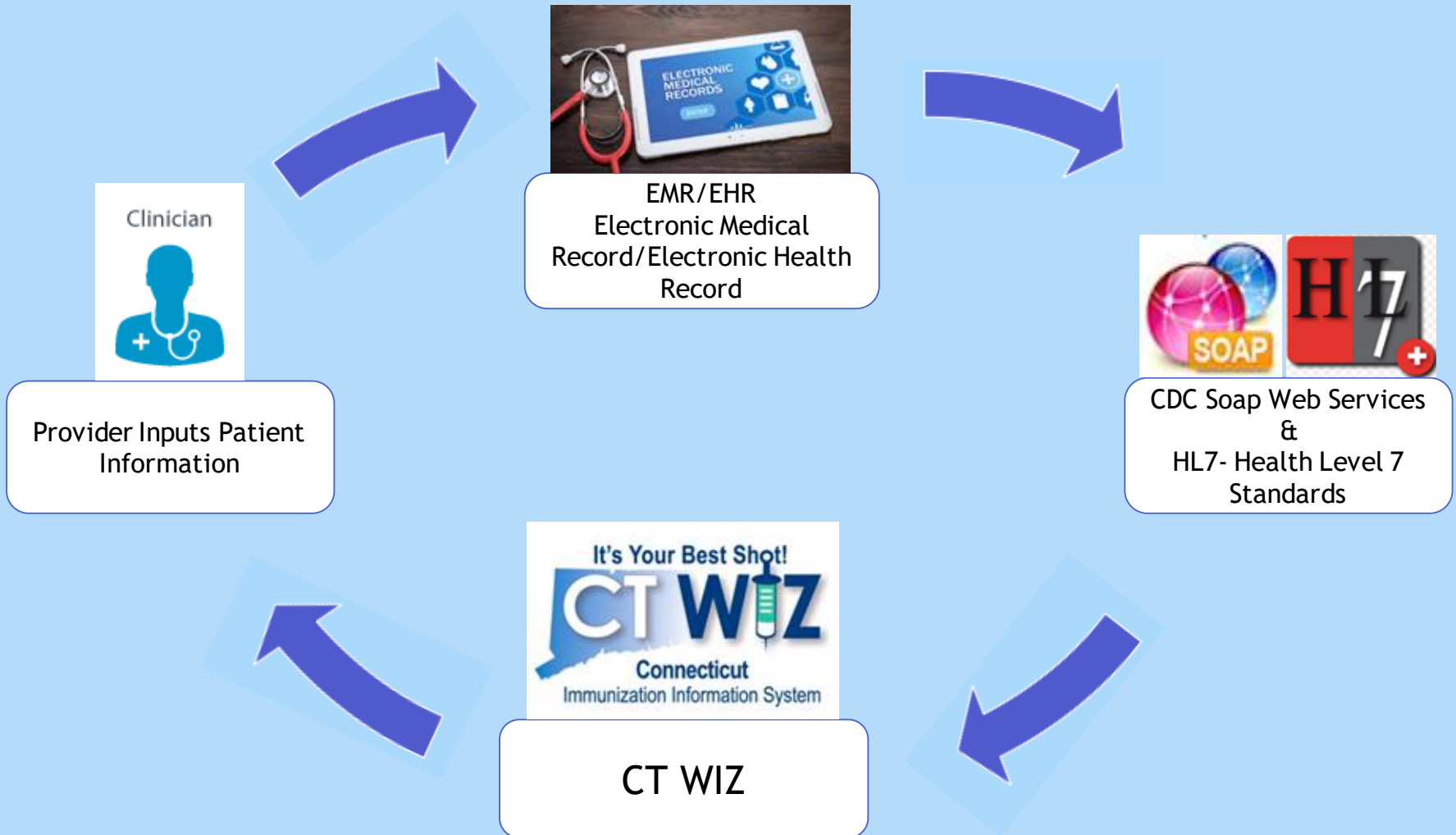


HL7 Management in CT WiZ User Guide (Interface)

Table of Contents

| | |
|---|----|
| Introduction to EHR Interface | 3 |
| Tools for Using HL7 in CT WIZ | 5 |
| CT WiZ - Login | 6 |
| HL7 Message Log | 8 |
| HL7 Security Log | 12 |
| HL7 Documentation | 14 |
| HL7 Traffic Analysis | 17 |
| Reports: Interface Activity - Clinics | 23 |
| HL7 Acknowledgement Messages (ACK) Report | 25 |
| HL7 Activity Report | 26 |
| HL7 Facility Code | 31 |
| HL7 Message Count | 33 |
| DQA Patient Vaccination Report | 35 |
| HL7 Messages By ACK Message | 38 |
| Notes | 40 |
| How to get Help? | 41 |

Introduction to EHR Interface (HL7) Cycle



Introduction to EHR Interface HL7 Messaging

How an EHR Interface - HL7 message works:

- HL7 (Health Level Seven) is a set of standards that facilitate the electronic transmission of healthcare data between applications. It is not an application or software, but a framework that supports interoperability between systems.
- EHR creates an electronic message with patient demographics and immunization information using HL7 (Health Level 7) message platform.
- CT-WiZ receives the message and sends a message back to the EHR saying “Got the Message.” again in the HL7 format. (This is the ACK which means acknowledgement that CT WiZ received the message.)
- CT-WiZ reviews the message to ensure that it has all the required information and that it is correct.
- Any information that is incorrect triggers a warning or an error message AE (Application Error) or AR (Application Reject-message did not load), that is sent back to the EHR for review.
- All the exchange of messages is done in the HL7 format which is translated through the EHR.

Tools for Using HL7 in CT WIZ

- As a part of ongoing data quality monitoring of HL7 message submissions, it is necessary to review ACK messages for warnings and errors.
- CT WiZ has tools like Message Log, Security Log, Documentation & Traffic Analysis available to help with this process.
- CT WiZ also has the provision to run reports for any interface activity like Message Count, Data Quality Analysis (DQA) for Patient's Vaccination reports etc.
- On daily basis, the provider/vendor should review the ACK log to confirm messages are being transmitted to CT WiZ and to review all failures, errors and warnings.



Connecticut's Immunization Information System

Please Enter
your Clinic's
Username &
Password
provided for
CT WiZ

Login

Username

Password

[Forgot Password?](#) | [Forgot Username?](#)

Login

[Trouble Logging in?](#)

[Request User Account](#)

By logging into CT WiZ, you agree to abide by the terms of the Connecticut Department of Health (DPH) that were outlined in your User Confidentiality Agreement. Users are responsible for ensuring they act in accordance with these terms and any other applicable policies. The recipient shall notify DPH of a violation of these policies in accordance with the terms outlined in the User Confidentiality Agreement. Only authorized users of this site may access this system. Monitoring may be conducted for the protection against improper or unauthorized use or access. Any unauthorized and improper use of this system may result in disciplinary action or criminal and civil penalties.



CT WIZ 📍 HL7 UNIT TEST PROVIDER, HL7 UNIT TEST CLINIC 🔍 PATIENT SEARCH



- Home
- Patients +
- Immunizations
- Education
- Inventory +
- Clinic Tools +
- Reports
- HL7 Management +

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Select your Provider & Clinic

Click on the "i" icon for more information.




Default Provider/Clinic

Provider *
HL7 UNIT TEST PROVIDER

Clinic *
HL7 UNIT TEST CLINIC

News

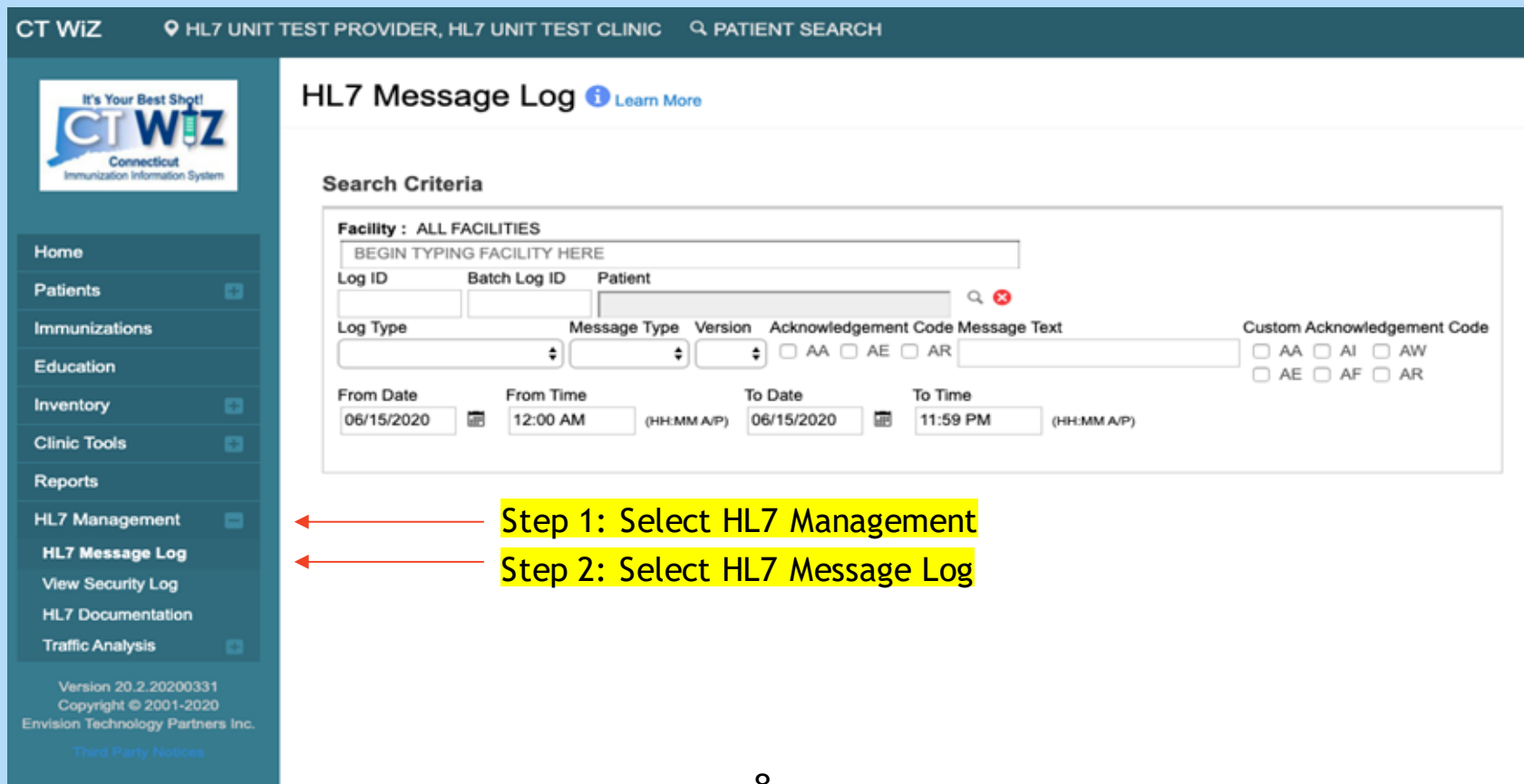
 There are currently no news items available.

Note that this application requires the use of Adobe Reader to view/print some of the files and reports that are available.
[Click here to download a free copy of Adobe Reader.](#)



HL7 Message Log

This screen allows for the monitoring of HL7 messages hitting the database. Users who navigate to the HL7 Message Log page can search the log for a single facility or all facilities that they have permission to view. Users viewing the Message Log, with the Administer HL7 Security Function, will be able to select the sending and receiving facilities to open the Facility Code modal.



The screenshot shows the CT WIZ interface for the HL7 Message Log. The top navigation bar includes 'CT WIZ', 'HL7 UNIT TEST PROVIDER, HL7 UNIT TEST CLINIC', and 'PATIENT SEARCH'. The left sidebar contains a menu with 'Home', 'Patients', 'Immunizations', 'Education', 'Inventory', 'Clinic Tools', 'Reports', 'HL7 Management', 'HL7 Message Log', 'View Security Log', 'HL7 Documentation', and 'Traffic Analysis'. The main content area is titled 'HL7 Message Log' with a 'Learn More' link. Below the title is a 'Search Criteria' section with the following fields:

- Facility: ALL FACILITIES (with a search input field labeled 'BEGIN TYPING FACILITY HERE')
- Log ID, Batch Log ID, Patient (with search input fields)
- Log Type, Message Type, Version (with dropdown menus)
- Acknowledgement Code: AA, AE, AR (with radio buttons)
- Message Text (with a text input field)
- Custom Acknowledgement Code: AA, AI, AW, AE, AF, AR (with radio buttons)
- From Date: 06/15/2020 (with a calendar icon)
- From Time: 12:00 AM (HH:MM A/P)
- To Date: 06/15/2020 (with a calendar icon)
- To Time: 11:59 PM (HH:MM A/P)

Two red arrows point to the 'HL7 Management' and 'HL7 Message Log' items in the sidebar. The text 'Step 1: Select HL7 Management' and 'Step 2: Select HL7 Message Log' is overlaid on the image, with yellow highlighting on the text.

CT WIZ
📍 HL7 UNIT TEST PROVIDER, HL7 UNIT TEST CLINIC
🔍 PATIENT SEARCH
🌐 Support

HL7 Message Log Learn More

Search ▾

Search Criteria

Facility : CONNECTICUT TEST FACILITY (CT9999)

| Log ID | Batch Log ID | Patient | Log Type | Message Type | Version | Acknowledgement Code | Message Text |
|----------------------|----------------------|----------------------|----------------------|--------------|---------|---|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | VXUV04 | 2.5.1 | <input type="checkbox"/> AA <input checked="" type="checkbox"/> AE <input checked="" type="checkbox"/> AR <input type="checkbox"/> AI <input type="checkbox"/> AW <input type="checkbox"/> AF <input type="checkbox"/> AR | <input type="text"/> |

From Date: From Time: (HH:MM A/P) To Date: To Time: (HH:MM A/P)

***Notes**

- AA =Application Accepted Good message.
- AE= Application Error Message has problems that need to be fixed.
- AR Application Reject Message didn't load

Step 1: Select your Facility

Step 2: Select Message Type from the drop down

Step 3: Select Version 2.5.1

Step 4: Select Acknowledgement Code Message Text as appropriate

Step 5: Select the From and To Date

Step 6: Hit Search

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HL7 Message Log



- Home
- Patients
- Immunizations
- Education
- Inventory
- Clinic Tools
- Reports
- HL7 Management
- HL7 Message Log**
- View Security Log
- HL7 Documentation
- Traffic Analysis

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HL7 Message Log [Learn More](#) Search

Search Criteria

Facility : CONNECTICUT TEST FACILITY (CT9999)
 BEGIN TYPING FACILITY HERE

Log ID Batch Log ID Patient

Log Type Message Type Version Acknowledgement Code Message Text Custom Acknowledgement Code

VXUV04 2.5.1 AA AE AR AA AI AW AE AF AR

From Date From Time To Date To Time

06/15/2020 12:00 AM 06/15/2020 11:59 PM

The HL7 Messages will display. Click Analyze to work with the message you choose.

3 records found. Toggle Max Width of HL7 Container

| Date | Log ID | Patient ID | Log Type | Facility Code | Message Type | ACK Code | Custom ACK Code | Version | Action |
|-------------------|--------|------------|------------------|-----------------|--------------|----------|-----------------|---------|--------------|
| 06/15/20 12:56:32 | 603752 | 976711 | Incoming Request | CT9999 ⇒ CT0000 | VXUV04 | AE | AE | 2.5.1 | View Analyze |

HL7 Message

```
PID|1||7372230^^^CT0117^MR||Mouse^Minnie^^^^^L||20160415|N||2131-1^Unknown^CDCREC|330 Old Testing Rd^Bristol^CT^06010^H||^PRN^PH^^203^2179992-^ORN^CP^^860^9999999
PD1||||||||||||||A|20200615|
ORC|RE||41463723300143^CT9999|||||^Donald^Duck^^^^^L||1255344321^Goofy^A E Smith^^^^^NPI^L^^NPI||||^Testing Pediatrics^L
RXA|0|1|20200615114200|20200615114200|130^DTaP-IPV^CVX^58160-0812-43^Kinrix Intramuscular Suspension^NDC|.5|ML^ML^UCUM||00^New immunization record^NIP001^Puleo^Anna^
RXR|C28161^Intramuscular^NCIT^LD^Left Upper Arm^HL70163
OBX|1|DT|29768-9^Date vaccine information published^LN|1|20180824|||||F||20200615
OBX|2|DT|29769-7^Date vaccine information statement presented^LN|1|20200615|||||F||20200615
OBX|2|CE|(find a LOINC Code)^Vaccine funding program eligibility category^LN|2|V02^Medicaid/Medicare Managed^HLN70064| | | |F| |20191220| |VXC40^Eligibility cap
```

Delta Guide Link: https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/infectious_diseases/immunization/EHR-HL7/CTWIZ_DELTA_GUIDE-4_20.pdf

You are directed to a pop-up. If you do not see the pop-up, check the pop-up blocker setting in your internet browser. Errors and more details about the HL7 message are displayed.

ACK Code: **AE**

Custom ACK: **AE**

Log ID: 603752

Patient ID: 976711

Date: 06/15/2020

Version: 2.5.1

Log Type: GET

Engine: V2

Message Type: VXUV04

Security Log ID: 1656248

[Operations](#)

Incoming Request **Outgoing Response**

Message Map

- VXUV04
 - MSH
 - PID
 - PD1
 - ORDER**

Message Code

Select a Theme to save your default: LIGHT WITH SYNTAX

```

1  MSH|^~\&|EEHR|CT9999|CTWIZ|CT0000|20200615114354-0400||VXUV04^VXUV_V04|2020061511435400|
2  PID|1||7372230^CT0117^MR||Mouse^Minnie^L||20160415|M||2131-1^Unknown^CDCREC|330 0
3  PD1|||||||||||||A|20200615|
4  ORC|RE||41463723300143^CT9999|||||^Donald^Duck^L||1255344321^Goofy^A E Smith^
5  RXA|0|1|20200615114200|20200615114200|130^DTaP-IPV^CVX^58160-0812-43^Kinrix Intramuscul
6  RXR|C28161^Intramuscular^NCIT|LD^Left Upper Arm^HL70163
7  OBX|1|DT|29768-9^Date vaccine information published^LN|1|20180824|||||F||20200615
8  OBX|2|DT|29769-7^Date vaccine information statement presented^LN|1|20200615|||||F||20
9  OBX|2|CE|(|find a LOINC Code)^Vaccine funding program eligibility category^LN|2|V02^Medi
10
Ln 4    Col 1    ORDER{0}

```

[Done!]

Search: Type: [clear]

| Problem | Type |
|---|--------------|
| — If RXA-20 is valued "CP" or "PA" and the first occurrence of RXA-9.1 (Administration Note code) is valued "00" then the message SHALL include an OBX segment associated with the RXA with OBX-3.1 shall equal "64994-7" indicating Funding Eligibility. | ERROR |
| Line #: 4 | |
| Column: null | |
| Start #: null | |
| Column: null | |
| End #: null | |
| HL7 Path: ORDER{0} | |
| Diagnostic NumericPath: , NamePath: ORDER{0}, RuleId: , ApplicationErrorCode: IZ-23 (Error Severity increased due to this being a new | |
| Info: Immunization for a location that participates in electronic inventory decrementing) | |

Knowledgebase

[See Full Details](#)

[HL7 Index // 2.5.1 // VXUV04 // ORDER{0}](#)

ORDER

Description: ORDER Group

Click on the Security Log ID to get the Search Criteria

Click on the Error tab to get the error in the message code box

For more information about the different errors, please refer the Delta Guide.

View Security Log

- The Security Log gives a more detailed information on the message.
- This screen allows for the monitoring of connections to the webservice (CT WIZ HL7 Message Analyzer).
- It can be used to search a particular message using the Message ID, Message Text or/and Date Range.
- It can be used to view all the data, monitor the connections to the web services and to view who is submitting the messages

View Security Log - How It Works?

CT WIZ HL7 UNIT TEST PROVIDER, HL7 UNIT TEST CLINIC PATIENT SEARCH

HL7 Security Log i

Search Criteria

| Message Id | Message Text | Log Type |
|------------|--------------|----------|
| 1656248 | | |

Function Name

- EXECUTE HL7 MESSAGE
- EXECUTE HL7 MESSAGE BYTE
- EXECUTE HL7 MESSAGE WITH LOGIDS (INTERNAL)
- SUBMIT SINGLE MESSAGE (CDC STANDARD)
- CONNECTIVITY TEST (CDC STANDARD)
- UNSUPPORTED OPERATION (CDC STANDARD)
- GENERATE VXU

From Date 06/16/2020 **From Time** 12:00 AM (HH:MM A/P) **To Date** 06/16/2020 **To Time** 11:59 PM (HH:MM A/P)

Previous Criteria Clear Search

Step 1: Click on View Security Log

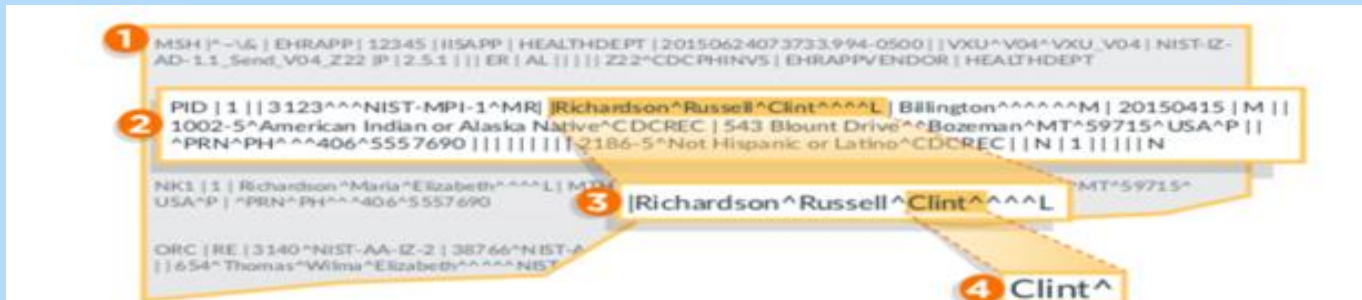
Step 2: Enter the Security Log ID/Message Text or Date to search, which can be obtained from the particular HL7 message you wish to address.

Step 3: Click Search

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HL7 Documentation

- The HL7 Documentation screen provides quick reference regarding HL7 messages, including field definitions and validation tables.
- This can be used to search for a specific message, field or component.



1 Message
A clinical encounter may generate multiple HL7 messages. Each message type supports a specific immunization messaging need. Common message types include immunization event (VXU) and acknowledgment (ACK) messages. The example shows an excerpt of a VXU message.

2 Segment
Messages are made up of multiple segments. Each segment transmits a set of related data. The example highlights the patient identifier segment (PID) which transmits identification information about the patient.

3 Field
Segments are made up of multiple fields, separated by a vertical bar (|). Each field transmits a specific piece of data, like the patient's date of birth. Fields are commonly referred to by the segment abbreviation and position number within the segment. The example shows the PID-5 field, which is the patient's name.

4 Component
Fields can be made up of multiple components, separated by a caret (^). Components can be referred to using the field abbreviation plus a decimal for the component position. The example shows the PID-5.3 segment, which is the patient's first name.

HL7 Documentation

- For each message searched, the HL7 Documentation tab breaks down to each field and component of the message with more details.
- For each field searched, the HL7 Documentation tab breaks down to each component of the field with more details.
- For each component searched, the HL7 Documentation tab gives more details about the component.
- For more information on the HL7 message breakdowns, please refer to the delta guide on the CT WIZ website.

CT WIZ HL7 UNIT TEST PROVIDER, HL7 UNIT TEST CLINIC PATIENT SEARCH Support 2 SHRADDHA

HL7 Index // 2.5.1 // ORUR01 // MSH

HL7 Documentation

Navigate using hyperlinks in the grid, or breadcrumb. You can also type into the search bar any documentation you are trying to research.

Update Download

Search

BEGIN TYPING MESSAGE, SEGMENT, OR FIELD

MSH

Step 1: Click on HL7 Documentation

Step 2: Type the message, segment or field you want the information on

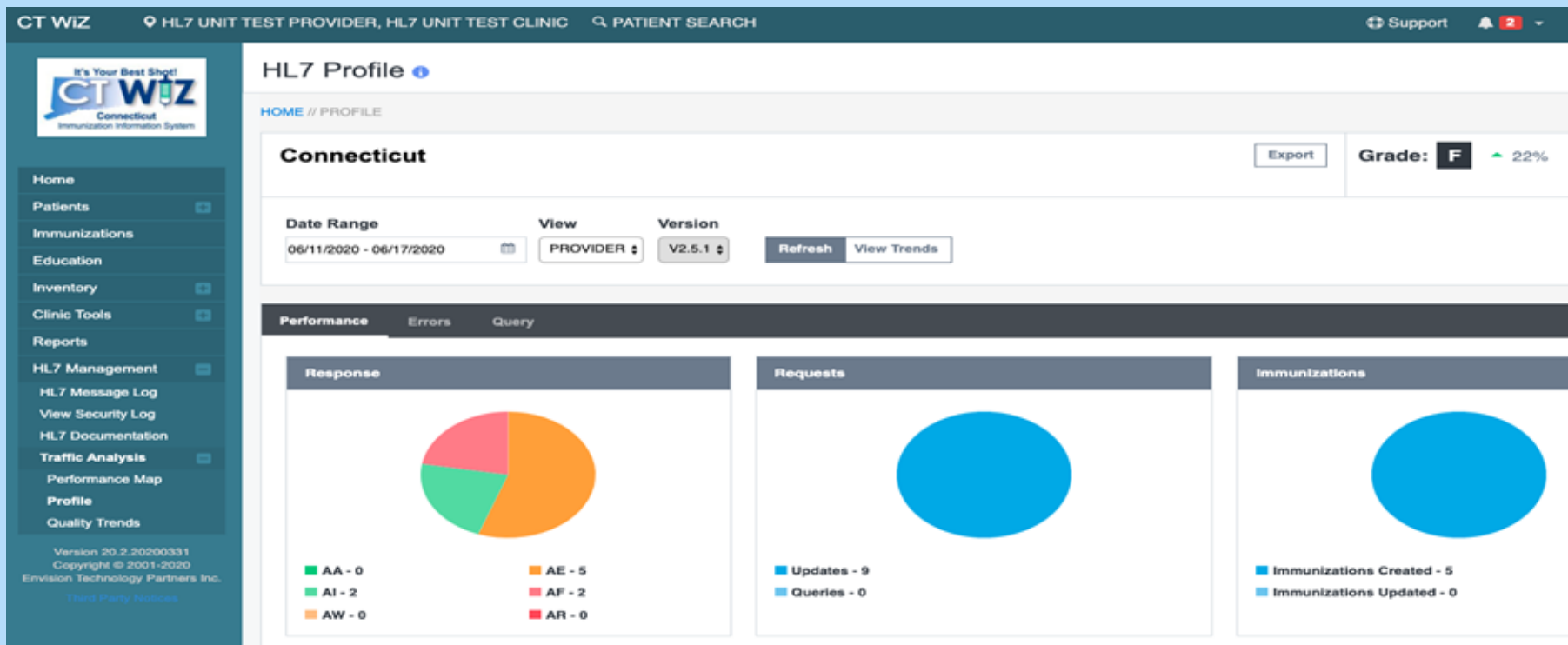
Step 3: Click on any of these hyperlinks for more detailed information

Definition: The MSH segment defines the intent, source, destination, and some specifics of the syntax of a message.
Notes: This begins every message and includes information about the type of message, how to process it, and by whom it was created
Description: Message Header
Min Repeat: 1
Max Repeat: 1

| # | Name | Data Type | Validation Table | Max Len | Usage |
|----|--------------------------------------|-----------|-------------------------|---------|-------|
| 1 | FieldSeparator | ST | | 1 | R |
| 2 | EncodingCharacters | ST | | 4 | R |
| 3 | SendingApplication | HD | | 227 | RE |
| 4 | SendingFacility | HD | HL70362 | 227 | R |
| 5 | ReceivingApplication | HD | | 227 | RE |
| 6 | ReceivingFacility | HD | HL70362 | 227 | R |
| 7 | DateTimeOfMessage | TS | | 26 | R |
| 8 | Security | ST | | 40 | X |
| 9 | MessageType | MSG | | 15 | R |
| 10 | MessageControlId | ST | | 199 | R |
| 11 | ProcessingId | PT | HL70103 | 3 | R |
| 12 | VersionId | VID | | 60 | R |

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[Back Page](#)

- The Traffic Analysis gives an overview of the Clinic's immunization information.
- It gives the provider's facility performance in request and response of the immunization messages sent through the EHR to CT WIZ.



The screenshot displays the 'HL7 Profile' dashboard for 'Connecticut'. The interface includes a navigation sidebar on the left with options like Home, Patients, Immunizations, and Reports. The main content area shows the 'HL7 Profile' for 'Connecticut' with a grade of 'F' and a 22% change. It features filters for Date Range (06/11/2020 - 06/17/2020), View (PROVIDER), and Version (V2.5.1). Below these are three charts: 'Response' (a pie chart showing AA-0, AI-2, AW-0, AE-5, AF-2, AR-0), 'Requests' (a blue circle showing Updates-9 and Queries-0), and 'Immunizations' (a blue circle showing Immunizations Created-5 and Immunizations Updated-0).

Connecticut Export **Grade: F** ▲ 22%

Date Range: 06/11/2020 - 06/17/2020 📅 **View:** PROVIDER ⌵ **Version:** V2.5.1 ⌵ Refresh View Trends

Performance Errors Query

Response

- AA - 0
- AI - 2
- AW - 0
- AE - 5
- AF - 2
- AR - 0

Requests

- Updates - 9
- Queries - 0

Immunizations

- Immunizations Created - 5
- Immunizations Updated - 0

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Traffic Analysis: Performance Map

This page is used to compare providers' HL7 message quality. This page offers a way to quickly analyze the quality of messages sent by facilities.

Home

Step 1:
Select
Performance
Map

Clinic Tools

Reports

HL7 Management

HL7 Message Log

View Security Log

HL7 Documentation

Traffic Analysis

Performance Map

Profile

Quality Trends

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Performance Map

Step 2: Select the View from the dropdown depending on what comparisons you are interested.

Date Range: 06/16/2020 - 06/16/2020

View: **PROVIDER** (selected)
 PROVIDER AND FACILITY
 EHR
 EHR AND FACILITY

V2.5.1 | ALL TYPES | Refresh

HL7 UNIT TEST PROVID...

Step 3: Select the clinic of interest

Note: Change the Threshold as required.

Data: TOTAL

Providers

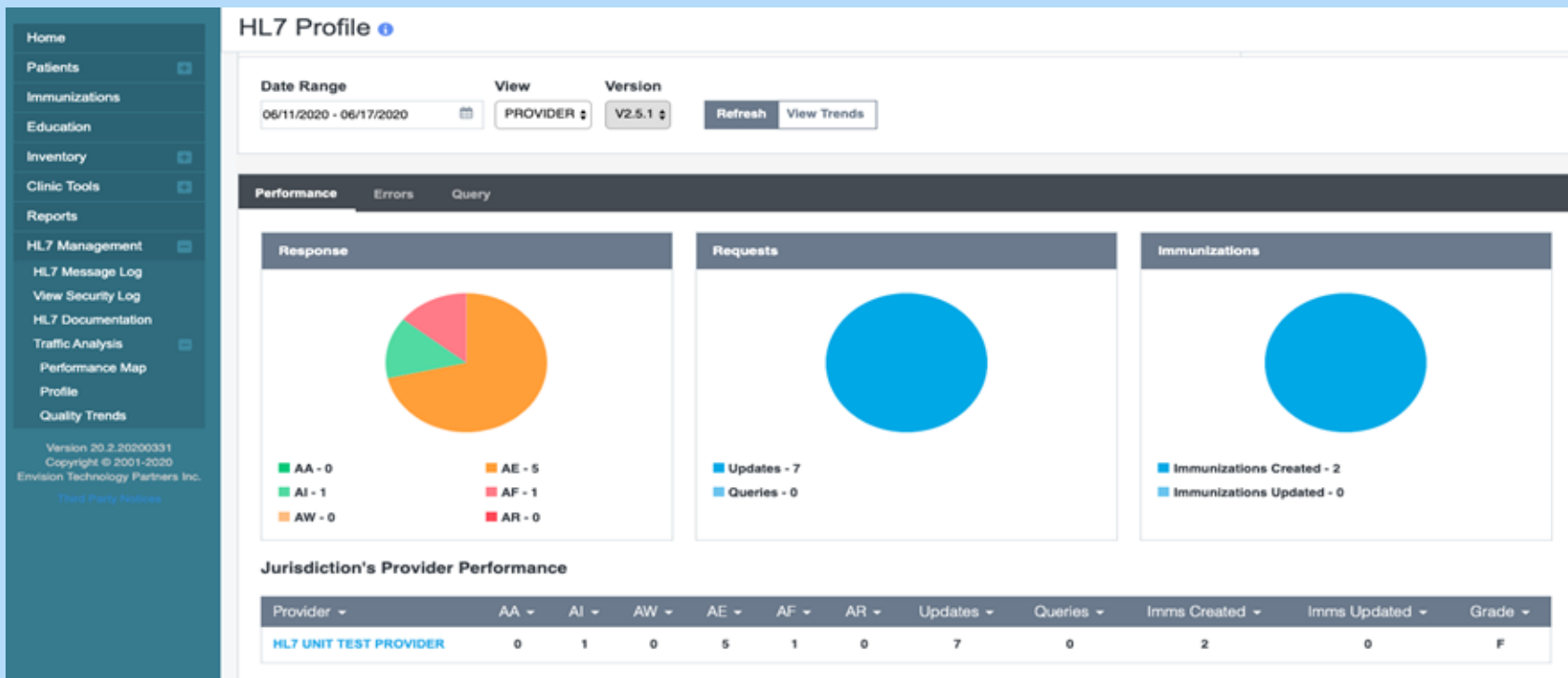
| Provider | Volume | Errors | Grade |
|------------------------|--------|--------|-------|
| HL7 UNIT TEST PROVIDER | 1 | 100% | F |

Error Threshold: Show errors over 49% in red

Traffic Analysis: Performance Map

The Performance tab includes three pie charts:

- **Responses** which includes Custom ACK errors which are present in the date range selected. (AA, AI, AW, AE, AF, AR).
- **Requests** which includes Updates and Queries and
- **Immunizations** which includes Immunizations Created and Immunizations Updated.



Traffic Analysis: Performance Map

The Errors Tab will include a table with sortable columns that lists the top 20 errors (based on Count) for the selected entity.

HL7 Profile

HOME // PROFILE // GENERATIONS FAMILY HEALTH CENTER // CT0196

CT0196 Export **Grade: F** ▲ 33%

Date Range: 06/11/2020 - 06/17/2020 Version: V2.5.1 Refresh

Performance **Errors** Query

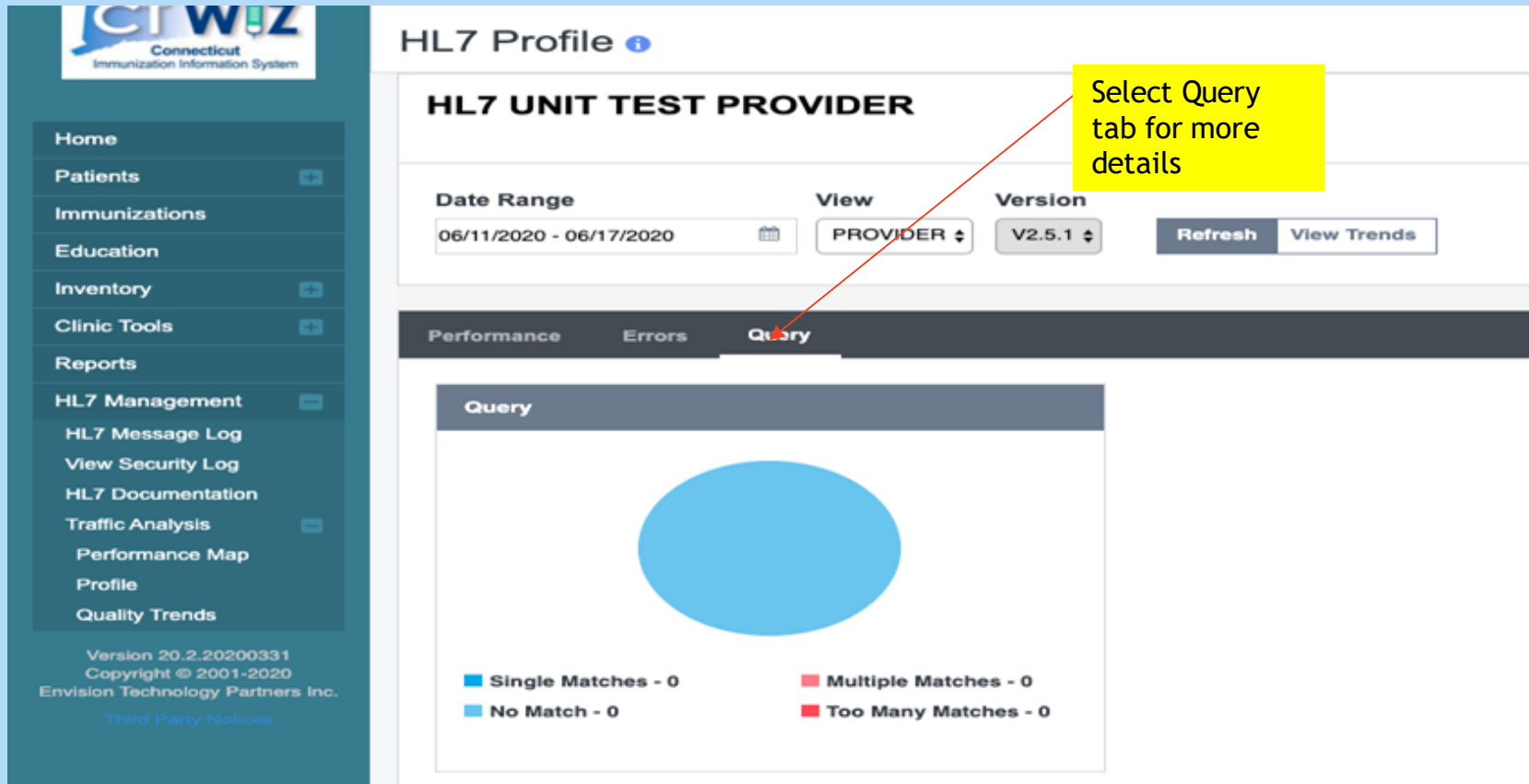
Facility Performance

| Segment | Field Position | Error Code | Severity | Count | User Message |
|---------|----------------|----------------|----------|-------|--|
| ORC | 12 | WEBIZ-701 | I | 3 | ORC-12 (ORDERINGPROVIDER[1]): UNRECOGNIZED/UNSUPPORTED VALUE [1619494945]. EXPECTATION: VALUE MUST BE ONE OF THE FOLLOWING: (IS NULL OR EMPTY OR EXISTS IN THE TABLE OF KNOWN NPIS) WHEN THE IDENTIFIERTYPECODE OR ASSIGNINGAUTHORITY IS SET TO NPL. |
| MSH | 4 | WEBIZ-AUTH-625 | E | 1 | FACILITY IS NOT ACTIVE FOR HL7. |

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Traffic Analysis: Performance Map

The Query tab includes a pie chart for Query Matches. The Query Matches pie chart includes data counts for: Single Matches, Multiple Matches, No Match, Too Many Matches.



The screenshot displays the 'HL7 Profile' interface for 'HL7 UNIT TEST PROVIDER'. The 'Query' tab is selected, showing a pie chart with a single blue segment. A yellow callout box points to the 'Query' tab with the text 'Select Query tab for more details'. Below the pie chart is a legend with four categories, all showing a count of 0.

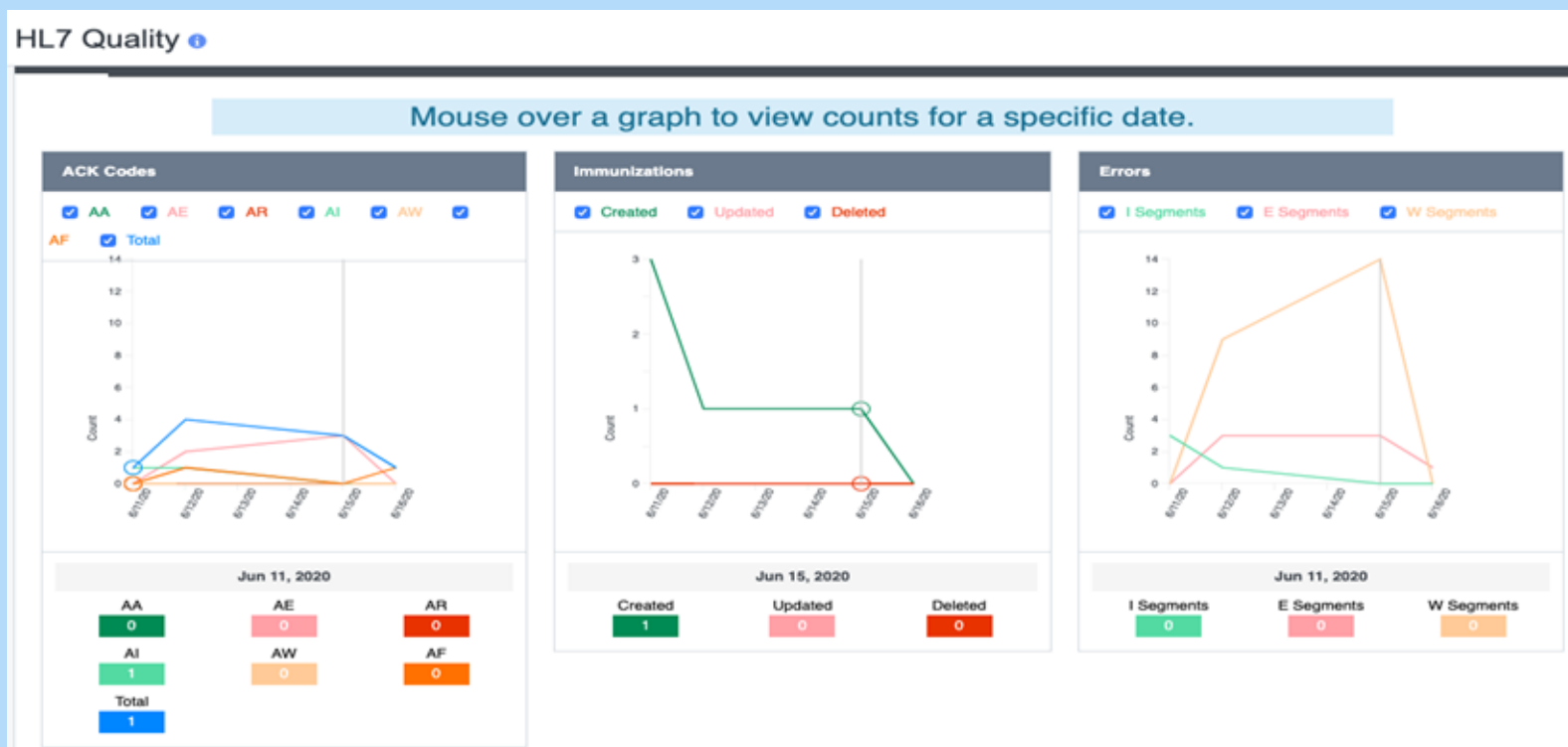
| Category | Count |
|------------------|-------|
| Single Matches | 0 |
| Multiple Matches | 0 |
| No Match | 0 |
| Too Many Matches | 0 |

Traffic Analysis: Quality Trends

This page allows a user with access to the HL7 module to view messages trends, such as volume of messages and data quality over a selected time period.

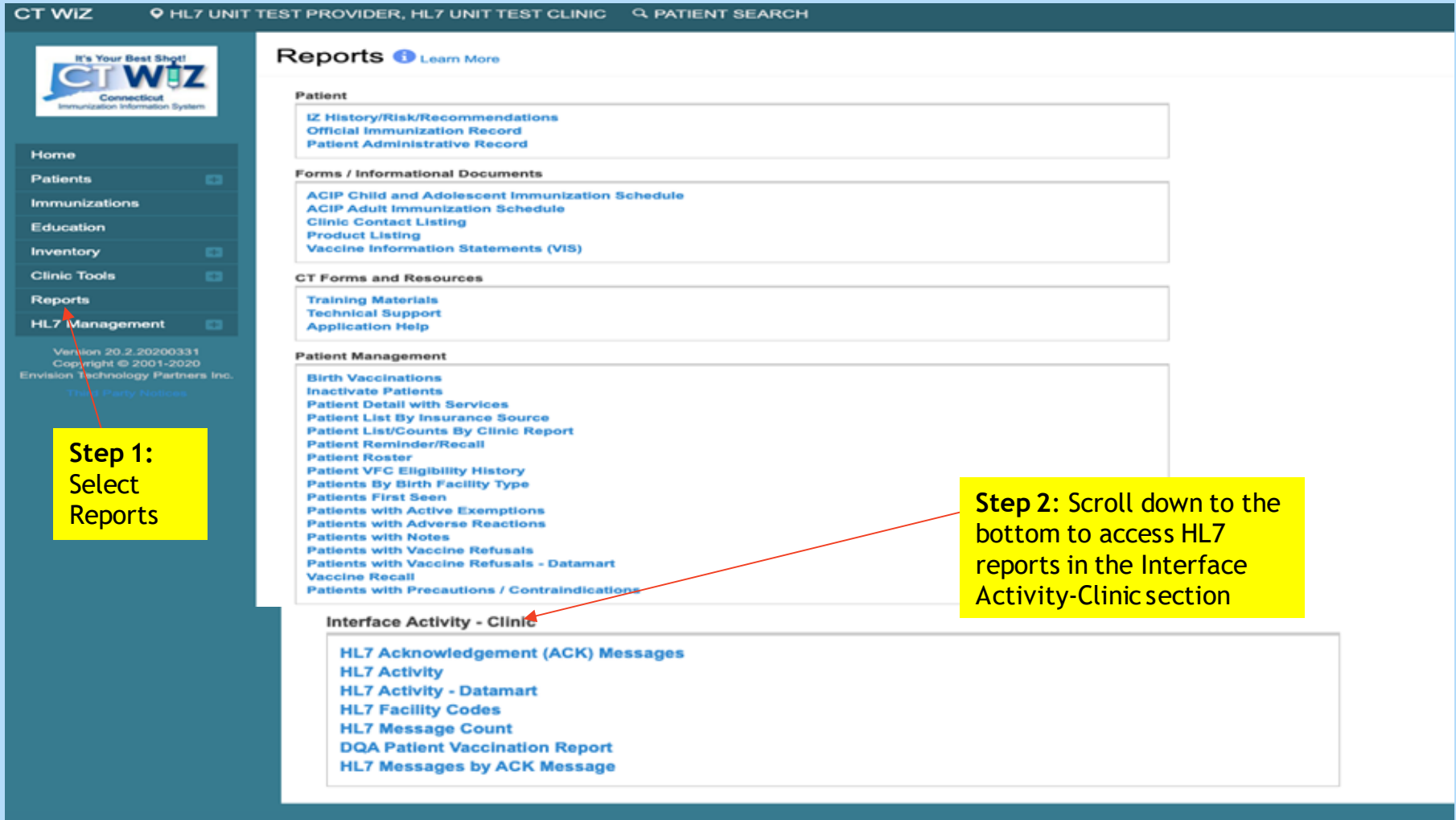
The trends section includes three graphs.

- **ACK Codes.** The table will display columns for AA, AI, AW, AE, AF, AR and Total.
- **Immunizations.** Select options: Created, Updated, Deleted
- **Error Segments.** Select options: I Segments, E Segments, W Segments



Reports

Reports: Interface Activity-Clinic



The screenshot shows the CT WIZ web application interface. At the top, there is a navigation bar with the text 'CT WIZ' and 'HL7 UNIT TEST PROVIDER, HL7 UNIT TEST CLINIC'. Below this is a sidebar menu with options: Home, Patients, Immunizations, Education, Inventory, Clinic Tools, Reports, and HL7 Management. The main content area is titled 'Reports' and contains several sections: 'Patient', 'Forms / Informational Documents', 'CT Forms and Resources', 'Patient Management', and 'Interface Activity - Clinic'. The 'Interface Activity - Clinic' section is highlighted with a red arrow pointing to a yellow callout box. A second yellow callout box points to the 'Interface Activity - Clinic' section from the right side of the screen.

CT WIZ HL7 UNIT TEST PROVIDER, HL7 UNIT TEST CLINIC PATIENT SEARCH

Reports [Learn More](#)

Patient

- [IZ History/Risk/Recommendations](#)
- [Official Immunization Record](#)
- [Patient Administrative Record](#)

Forms / Informational Documents

- [ACIP Child and Adolescent Immunization Schedule](#)
- [ACIP Adult Immunization Schedule](#)
- [Clinic Contact Listing](#)
- [Product Listing](#)
- [Vaccine Information Statements \(VIS\)](#)

CT Forms and Resources

- [Training Materials](#)
- [Technical Support](#)
- [Application Help](#)

Patient Management

- [Birth Vaccinations](#)
- [Inactivate Patients](#)
- [Patient Detail with Services](#)
- [Patient List By Insurance Source](#)
- [Patient List/Counts By Clinic Report](#)
- [Patient Reminder/Recall](#)
- [Patient Roster](#)
- [Patient VFC Eligibility History](#)
- [Patients By Birth Facility Type](#)
- [Patients First Seen](#)
- [Patients with Active Exemptions](#)
- [Patients with Adverse Reactions](#)
- [Patients with Notes](#)
- [Patients with Vaccine Refusals](#)
- [Patients with Vaccine Refusals - Datamart](#)
- [Vaccine Recall](#)
- [Patients with Precautions / Contraindications](#)

Interface Activity - Clinic

- [HL7 Acknowledgement \(ACK\) Messages](#)
- [HL7 Activity](#)
- [HL7 Activity - Datamart](#)
- [HL7 Facility Codes](#)
- [HL7 Message Count](#)
- [DQA Patient Vaccination Report](#)
- [HL7 Messages by ACK Message](#)

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Step 1:
Select
Reports

Step 2: Scroll down to the
bottom to access HL7
reports in the Interface
Activity-Clinic section

HL7 Acknowledgement Messages (ACK) Report

- Generates a list of ACK messages based on the selection criteria.
- This report searches the HL7 Message Log for any Acknowledgement (ACK) messages that match the search criteria.

HL7 Acknowledgement (ACK) Messages

Enter the selection criteria and click "Run Report" or click "Cancel" to return to the previous page.

Step 1: Select your Clinic (points to the Clinic dropdown menu)

Step 2: Select your Facility Code (points to the Receiving Facility Code dropdown menu)

Step 3: Check the errors you want to run the reports for (points to the Acknowledgement Code checkboxes: AA, AE, AR)

Step 4: Select the Date Range (points to the From Date and To Date fields)

Step 5: Run Report (points to the Run Report button)

Report Selection Criteria

Provider *: HL7 UNIT TEST PROVIDER

Receiving Facility Code *: CT9999

Clinic *: HL7 UNIT TEST CLINIC

Sending Facility Code: CT0000 -

Batch Log ID: [Empty]

Acknowledgement Code: AA AE AR

Patient: [Empty]

Message Text: [Empty]

Custom Acknowledgement Code: AA AI AW AE AF AR

From Date: 06/17/2020 **From Time**: 12:00 AM (HH:MM A/P)

To Date: 06/17/2020 **To Time**: 11:59 PM (HH:MM A/P)

Output Type: EXTRACT - Delimiter: .

Run Report **Cancel**

This report generates a summary of HL7 activity per Provider/Clinic. It calculates all the types of messages processed from the provider/clinic specified.

The screenshot shows the 'HL7 Activity' report generation interface. On the left is a navigation menu with options: Home, Patients, Immunizations, Education, Inventory, Clinic Tools, Reports, and HL7 Management. The main area is titled 'HL7 Activity' and contains a search bar with the text 'Enter the selected provider or click "Cancel" to return to the previous...'. Below this is the 'Report Selection Criteria' section with the following fields:

- Provider ***: HL7 UNIT TEST PROVIDER
- Facility Code**: CT9999
- Clinic ***: HL7 UNIT TEST CLINIC
- User**: (empty)
- EHR Vendor**: (ALL VENDORS)
- EHR Product**: (empty)
- Message Type**: (ALL)
- From Date**: 06/02/2020
- From Time**: 12:00 AM (HH:MM A/P)
- To Date**: 06/17/2020
- To Time**: 11:59 PM (HH:MM A/P)
- Output Type**: PDF EXTRACT - Delimiter: |

Four yellow callout boxes with red arrows point to specific elements:

- Step 1: Select the Provider/clinic** points to the 'Provider' dropdown.
- Step 2: Select the Facility Code** points to the 'Facility Code' dropdown.
- Step 3: Select the Date Range** points to the 'From Date' field.
- Step 4: Run Report** points to the 'Run Report' button.


At the bottom right, there are 'Run Report' and 'Cancel' buttons.



HL7 Activity Report (Output)



This report displays the number of messages of different types that are sent and received is explained in this report.



CT WIZ
HL7 Activity

June 17, 2020

Provider = HL7 UNIT TEST PROVIDER, Clinic = HL7 UNIT TEST CLINIC, HL7 Facility = CT9999, EHR Vendor = (ALL VENDORS), From Date = 06/02/2020, From Time = 12:00 AM, To Date = 06/17/2020, To Time = 11:59 PM

HL7 UNIT TEST PROVIDER (2)
HL7 UNIT TEST CLINIC (2) - HL7_UNIT_TST
 HL7 Facility Code: CT9999 Username: HL7_UNIT_TEST_USER

| Message Type | Log Type | # of Calls | First Call | Last Call |
|--|----------|------------|--------------------|---------------------|
| VXQV01 | Received | 0 | | |
| VXRV03 | Sent | 0 | | |
| VXXV02 | Sent | 0 | | |
| VXUV04 | Received | 12 | Jun 9 2020 10:43AM | Jun 16 2020 9:53AM |
| QB PQ11 | Received | 0 | | |
| QCKQ02 | Sent | 0 | | |
| RSPK11 | Sent | 0 | | |
| ORUR01 | Received | 0 | | |
| ACK - AA | Sent | 4 | Jun 9 2020 10:45AM | Jun 12 2020 12:49PM |
| ACK - AE | Sent | 8 | Jun 9 2020 10:43AM | Jun 16 2020 9:53AM |
| ACK - AR | Sent | 0 | | |
| BATCH | | 0 | | |
| HL7 Facility Code CT9999 Total: | | 24 | | |
| Clinic HL7 UNIT TEST CLINIC (2) Total: | | 24 | | |
| Provider HL7 UNIT TEST PROVIDER (2) | | 24 | | |
| Total: | | | | |

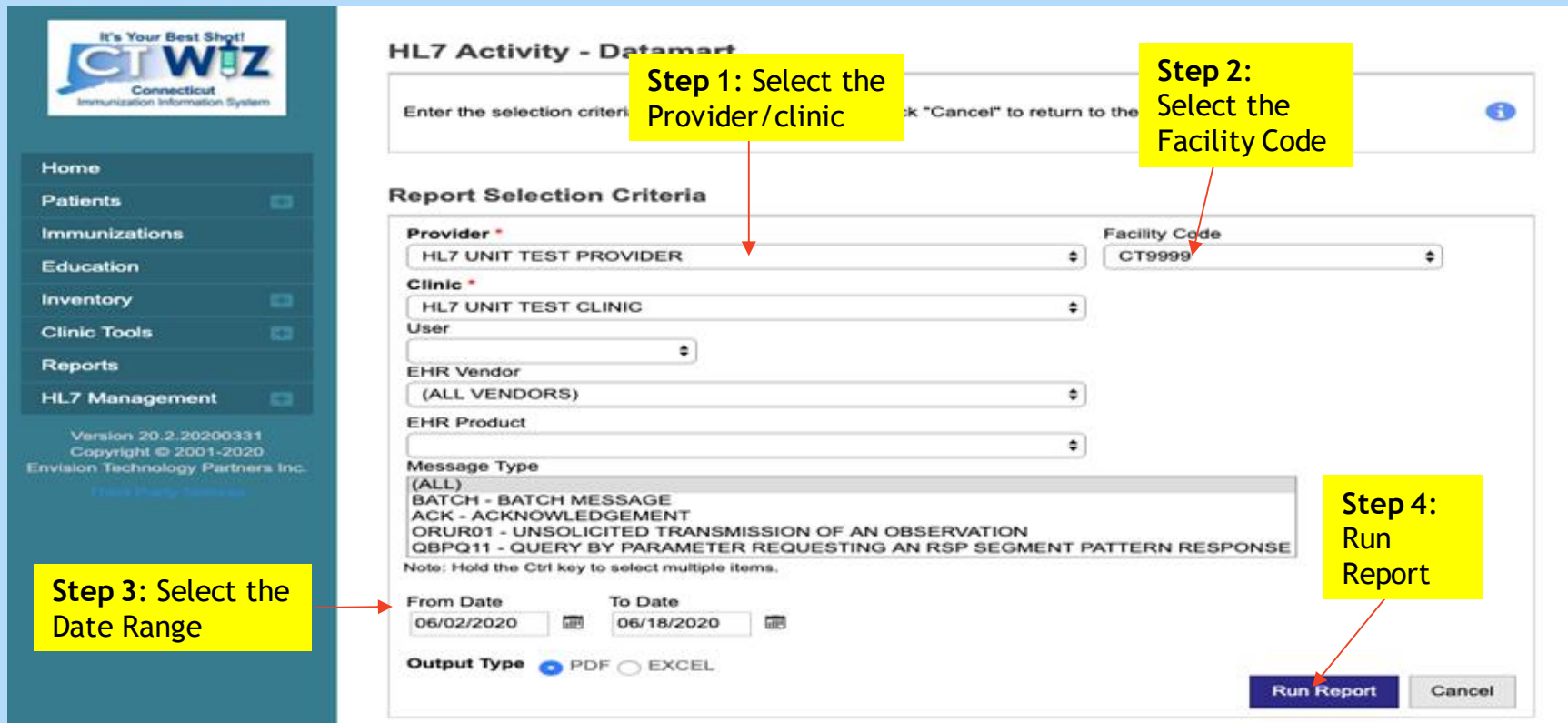
HL7 Activity Report

Message Type Definitions

| Message Type | Definition |
|--------------|--|
| VXQV01 | N/A |
| VXRV03 | N/A |
| VXXV02 | N/A |
| VXUV04 | Unsolicited vaccination record update |
| QBPQ11 | Bi-directional Query - Query Parameter Definition |
| QCKQ02 | N/A |
| RSPK11 | Bi-directional Response - Segment pattern response |
| ORUR01 | N/A |
| ACK-AA | Acknowledgement for Application Accepted |
| ACK-AE | Acknowledgement for Application Error |
| ACK-AR | Acknowledgement for Application Reject |

This report generates a summary of HL7 activity per Provider/Clinic.

- Calculates all the types of messages processed from the provider/clinic specified.
- Data for this report is refreshed nightly and will only reflect information as of the previous day.



Step 1: Select the Provider/clinic

Step 2: Select the Facility Code

Step 3: Select the Date Range

Step 4: Run Report

HL7 Activity - Datamart

Enter the selection criteria. Click "Cancel" to return to the home page.

Report Selection Criteria

Provider *
HL7 UNIT TEST PROVIDER

Facility Code
CT9999

Clinic *
HL7 UNIT TEST CLINIC

User
[Dropdown]

EHR Vendor
(ALL VENDORS)

EHR Product
[Dropdown]

Message Type
(ALL)
BATCH - BATCH MESSAGE
ACK - ACKNOWLEDGEMENT
ORUR01 - UNSOLICITED TRANSMISSION OF AN OBSERVATION
QBPO11 - QUERY BY PARAMETER REQUESTING AN RSP SEGMENT PATTERN RESPONSE

Note: Hold the Ctrl key to select multiple items.


From Date 06/02/2020 **To Date** 06/18/2020

Output Type PDF EXCEL

Run Report **Cancel**

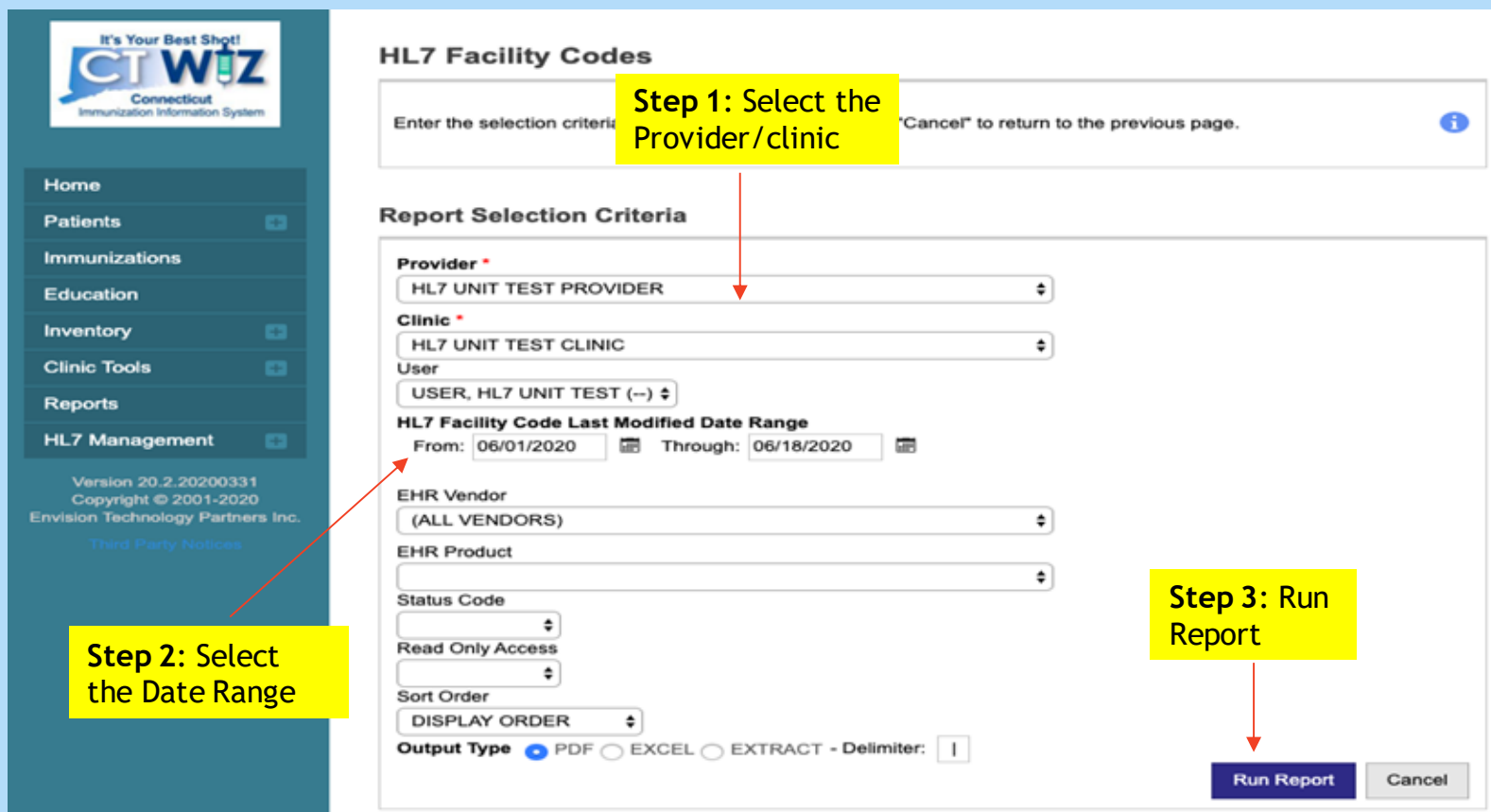
HL7 Activity- Datamart (Output)

- PDF output includes totals by Message Type, Facility Code, Clinic, and Provider.
- The report calculates all the types of messages processed from the provider/clinic specified.
- This report runs against the datamart query database, which is refreshed at regular intervals. Therefore, the data is not as current as the production database, but by querying a separate database, larger amounts of data can be retrieved without impacting production.

|  | | |
|--|------------------------|------------|
| CT WIZ HL7 Activity - Datamart | | |
| <small>Provider = HL7 UNIT TEST PROVIDER, Clinic = HL7 UNIT TEST CLINIC, HL7 Facility = CT9999, User = (ALL USERS), EHR Vendor = (ALL VENDORS), EHR Product = (ALL EHR PRODUCTS), Message Type = 0, From Date = 06/02/2020, To Date = 06/18/2020</small> | | |
| HL7 UNIT TEST PROVIDER (2) | | |
| HL7 UNIT TEST CLINIC (2) - HL7_UNIT_TST | | |
| HL7 Facility Code: CT9999 | EHR Vendor: UNDEFINED | |
| Username: HL7_UNIT_TEST_USER | EHR Product: UNDEFINED | |
| Message Type | Log Type | # of Calls |
| ACK | AA | 4 |
| ACK | AE | 8 |
| ACK | AR | 0 |
| BATCH | UNDEFINED | 0 |
| ORUR01 | UNDEFINED | 0 |
| QBPQ11 | UNDEFINED | 0 |
| QCKQ02 | UNDEFINED | 0 |
| RSPK11 | UNDEFINED | 0 |
| VXQV01 | UNDEFINED | 0 |
| VXRV03 | UNDEFINED | 0 |
| VXUV04 | UNDEFINED | 12 |
| VXXV02 | UNDEFINED | 0 |
| HL7 Facility Code CT9999 Total: | | 24 |
| Clinic HL7 UNIT TEST CLINIC (2) Total: | | 24 |
| Provider HL7 UNIT TEST PROVIDER (2) Total: | | 24 |

HL7 Facility Codes

- The report generates a list of HL7 facility codes based on the criteria set.
- This is a unique code representing the type of organizational setting where the clinical encounter, service, interaction, or treatment occurred. In our case any institution providing the vaccination/immunization service.



The screenshot shows the 'HL7 Facility Codes' report generation interface. On the left is a navigation menu with 'HL7 Management' selected. The main area contains a search box at the top, followed by 'Report Selection Criteria' with various dropdown menus and date range pickers. At the bottom right are 'Run Report' and 'Cancel' buttons. Three yellow callout boxes with red arrows indicate the steps: 'Step 1: Select the Provider/clinic' points to the 'Provider' dropdown, 'Step 2: Select the Date Range' points to the 'HL7 Facility Code Last Modified Date Range' date pickers, and 'Step 3: Run Report' points to the 'Run Report' button.


Step 1: Select the Provider/clinic

Step 2: Select the Date Range

Step 3: Run Report

HL7 Facility Codes (Output)

- This report generates Provider, Clinic, Facility Code, Facility Name, HL7 User, Status, User created/last updated by with date/time, read only flag, and EHR Product.
- It shows the status of the clinic whether it is active, in read only mode and whether the data is received in batches.



CT WIZ
HL7 Facility Codes

June 18, 2020

Provider = (ALL PROVIDERS), Clinic = (ALL CLINICS), Sort Order = DISPLAY ORDER, EHR Vendor = (ALL VENDORS)

| Provider | Clinic | Facility Code | Facility Name | HL7 User | Status | Read Only | Receives Batches |
|------------------------|----------------------|---------------|---------------------------|--------------------|--------|-----------|------------------|
| HL7 UNIT TEST PROVIDER | HL7 UNIT TEST CLINIC | CT9999 | CONNECTICUT TEST FACILITY | HL7 UNIT TEST USER | A | N | N |

EHR Vendor:

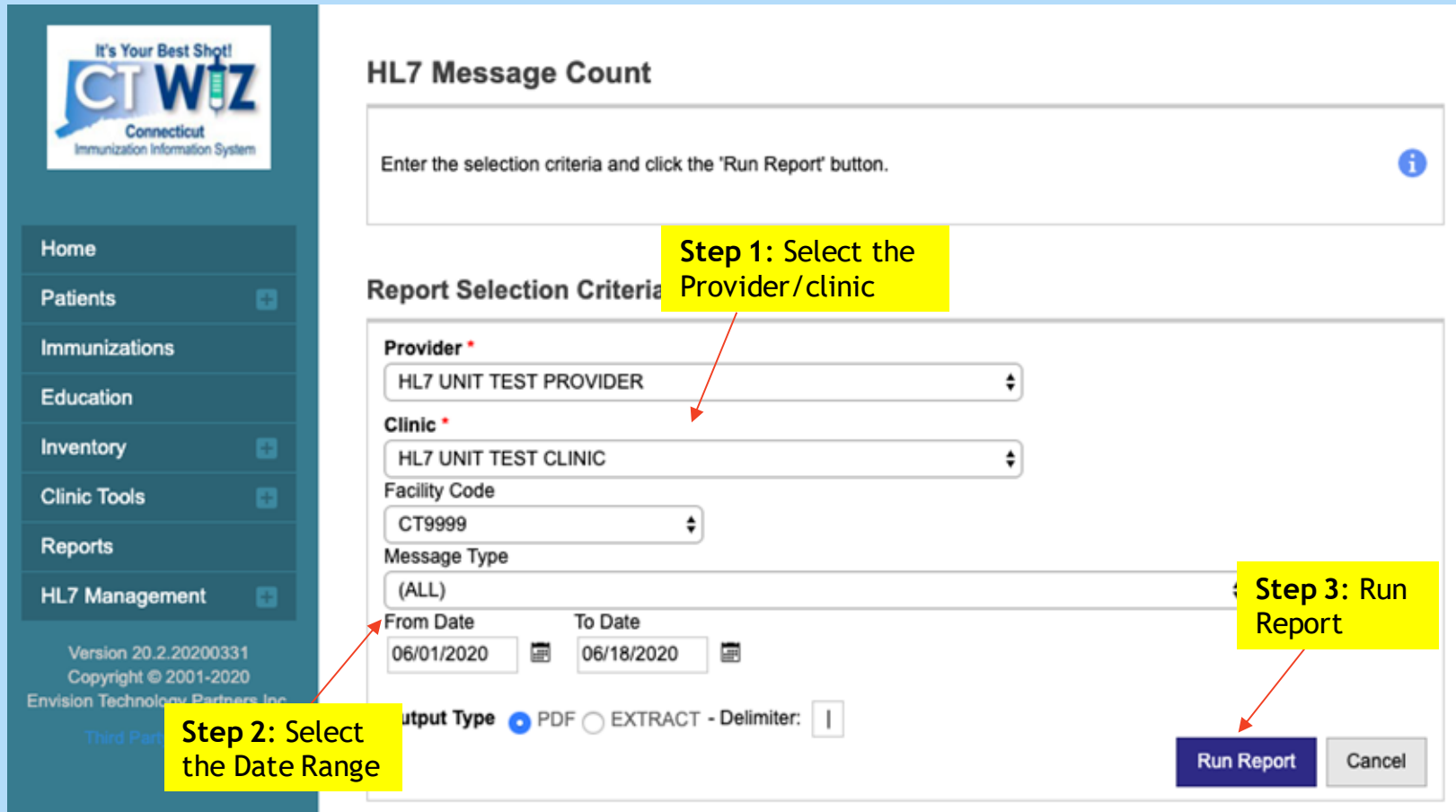
EHR Product:

Created By: SYSTEM ADMINISTRATOR on 09/14/2018

Comments: HL7 UNIT TEST FACILITY

Modified By: ALEJANDRA ARIAS on 09/17/2019 08:45:5

This report queries the selected facility to display the number of HL7 messages sent during the defined date range.



HL7 Message Count

Enter the selection criteria and click the 'Run Report' button. i

Report Selection Criteria

Provider *
HL7 UNIT TEST PROVIDER

Clinic *
HL7 UNIT TEST CLINIC

Facility Code
CT9999

Message Type
(ALL)

From Date: 06/01/2020 To Date: 06/18/2020

Output Type: PDF EXTRACT - Delimiter: |

Step 1: Select the Provider/clinic (points to Provider dropdown)

Step 2: Select the Date Range (points to From Date field)

Step 3: Run Report (points to Run Report button)

Run Report Cancel

HL7 Message Count (Output)



CT WIZ HL7 Message Count

June 18, 2020

Provider = HL7 UNIT TEST PROVIDER, Clinic = HL7 UNIT TEST CLINIC, HL7 Facility = CT9999, Message Type = (ALL), From Date = 06/01/2020, To Date = 06/18/2020

| <u>Provider</u> | <u>Facility Code</u> | <u>Facility Description</u> | <u>Message Count</u> | <u>VXQ</u> | <u>Connection Type</u> |
|-------------------------|----------------------|-----------------------------|----------------------|------------|------------------------|
| EHR Vendor: | | | | | |
| HL7 UNIT TEST PROVIDER | CT9999 | CONNECTICUT TEST FACILITY | 12 | 0 | |
| EHR Vendor Total | | | 12 | 0 | |
| Report Total | | | 12 | 0 | |

DQA Patient Vaccination Report

- DQA (data quality analysis) is the process of scientifically and statistically evaluating data in order to determine whether they meet the quality required for projects or business processes and are of the right type and quantity to be able to actually support their intended use.
- The purpose of this report is to generate a list of any vaccinations that meet the criteria.

DQA Patient Vaccination Report

- DQA - Data Quality Analysis
- The purpose of this report is to generate a list of any vaccinations that meet the criteria.
- This report can be helpful for monitoring data quality.
- Opted out patients are not included in the results.
- **Input Criteria:** Vaccine, Provider, Clinic, Include All Global Users, Date Range Filters, Vaccinations, Created By, Updated By, Output Type

Report Selection Criteria

Step 1: Select the Vaccine

Vaccine: (ALL VACCINES) ▾

Step 2: Select the provider/clinic

Provider *: HL7 UNIT TEST PROVIDER ▾

Clinic *: HL7 UNIT TEST CLINIC ▾

Include All Global Users (WebiZ and School Module) NO ▾

Date Range Filters

Vaccination Date Range ← **Step 3: Select any one Date Range**

From: 06/02/2020 📅 Through: 06/23/2020 📅

Vaccination Audit Create Date Range

From: MM/DD/YYYY 📅 Through: MM/DD/YYYY 📅

Vaccination Audit Update Date Range

From: MM/DD/YYYY 📅 Through: MM/DD/YYYY 📅

Date of Birth Date Range

From: MM/DD/YYYY 📅 Through: MM/DD/YYYY 📅

Vaccinations

All Historical Invalid

Vaccinations Created and Updated By

Created By * ← **Step 4: Select the created by-**

(ANY USER)
 KOPYLEC, ANGELA (-)
 MEHTA, SHRADDHA (-)
 SHAIK, SHABEENA (-)
 USER, HL7 UNIT TEST (-)

Updated By *

(ANY USER)
 KOPYLEC, ANGELA (-)
 MEHTA, SHRADDHA (-)
 SHAIK, SHABEENA (-)
 USER, HL7 UNIT TEST (-)

DQA Patient Vaccination Report (Output)

The DQA Report is generated in Excel. It gives the following information:

- **Patient Information.** Patient Default Clinic Code, Patient Default Clinic Name, Creation date of patient record, Last update date of patient record, Type of Patient, Patient ID, MRN, Name, DOB, Gender, Clinic Patient Status, Ethnicity, Language, Race(s), Patient Eligibility, Mother Name, Address, Primary Contact Information, Phone, Email.
- **Vaccination Information.** Creation date of the vaccination, Update date of the vaccination, HL7 Facility Code, Vaccination Clinic Code, Vaccination Clinic Name, Vaccination Code ID, NDC, Vaccination Description, Vaccination Date, Manufacturer, Lot number, Expiration date, Dosage, Historical (Y/N), Body Site, Body Route, Vaccine Funding source, Vaccination Eligibility, Administered (Y/N), Administered by, Prescribed by, VIS Given Date, VIS Name, Vaccination Created by User, Vaccination Updated by User.

- Generates a list of multiple ACK messages based on the selection criteria and grouped by ACK message.
- This report searches the HL7 Message Log for any Acknowledgement (ACK) messages that match the search criteria.

HL7 Messages By ACK Message ⓘ **Step 1: Select the Date Range** Cancel Run Report ▾

Report Criteria

Date of Message

From Date *

Through Date *

Provider ▾

Clinic ▾

Vendor Name ▾

Step 2: Select the Provider/Clinic/Vendor


Step 3: Run the Report

HL7 Messages By ACK Message (Output)

| Vendor Name | Software Name | HL7 Facility Code | Clinic Code | Clinic Name | HL7 ACK Code | Severity Of Error | Segment | HL7 Field Position | HL7 Field Name | Error Code | User Message | Total Errors | Action | Start Period | End Period |
|-------------|---------------|-------------------|--------------|----------------------|--------------|-------------------|---------|--------------------|-------------------------|------------------------------|--|--------------|---------------------------|--------------|------------|
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | E | | | | Invalid value | valued "00" then the message SHALL include an OBX segment associated with the RXA with OBX-3.1 shall equal "64994-7" indicating Funding Eligibility. | 5 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | | | | Required observation missing | valued "00" then the message SHALL include an OBX segment associated with the RXA where OBX-3.1 shall equal "30963-3" indicating the Funding Source. | 5 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | ORC | ORC.17.1 | EnteringOrganization | Required observation missing | ORC-17 (EnteringOrganization): Has a conditionally required element [Identifier]. Expectation: value is populated with a valid facility code when the first occurrence of RXA-9.1 is valued "00" and RXA-20 (CompletionStatus) is valued "CP" or "PA". | 5 | Leave this field in blank | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | RXA | RXA.11.4 | AdministeredAtLocation | Required observation missing | | 5 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | | | | | | | | 4 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | PID | PID.13.4 | HomePhoneNumber | Invalid value | Expectation: value must be one of the following: (is null or empty or needs to be a valid email address). | 2 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | E | PID | PID | | Required observation missing | The message will not load due to the PID segment missing required data. Expectation: value PID- | 2 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | I | PID | PID.3.5 | PatientIdentifierList | Table value not found | PID-3 (PatientIdentifierList[1]): Unsupported value [P]. Expectation: value must be in the list of | 2 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | PID | PID.11. | PatientAddress | Required observation missing | Expectation: value is an incomplete address. Address will not load unless Street Address, City, State and a valid Zip are all entered for this address type. | 1 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | | I | PD1 | PD1.12. | ProtectionIndicator | Invalid value | The PD1-12 (ProtectionIndicator) has been set, the contents of this message will not be loaded. | 1 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | E | | | | Invalid value | Authorization Error: User does not have permission to send for this facility | 1 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | E | MSH | MSH.6.1 | ReceivingFacility | Invalid value | MSH-6 (ReceivingFacility): Unable to process this message: Expected value [CT0000] but found | 1 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | E | MSH | MSH.6.1 | ReceivingFacility | Table value not found | MSH-6 (ReceivingFacility): No matching facility found for [CT]. | 1 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | OBX | OBX | | Table value not found | : Unrecognized/unsupported value []. Expectation: value element ./3/1 exists in table NIP003. | 1 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | OBX | OBX.10. | NatureOfAbnormalTest | Table value not found | OBX-10 (NatureOfAbnormalTest[1]): Unrecognized/unsupported value [F]. Expectation: value | 1 | Leave this field in blank | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | OBX | OBX.11. | ObservationResultStatus | Invalid value | OBX-11 (ObservationResultStatus): Unrecognized/unsupported value: []. Expectation: value is | 1 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | OBX | OBX.16.3 | ResponsibleObserver | Illogical Value error | Internal Parser Error: Field too long: 96 > 30 | 1 | Leave this field in blank | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | OBX | OBX.3.1 | ObservationIdentifier | Table value not found | OBX-3 (ObservationIdentifier): Unrecognized/unsupported value [[Find a LOINC Code]]. | 1 | | 05/01/2020 | 06/18/2020 |
| | | CT9999 | HL7_UNIT_TST | HL7 UNIT TEST CLINIC | AE | W | OBX | OBX.5. | ObservationValue | Illogical Value error | [253088698300029511191030*HPV Vaccine VIS*cdogs1vis]. Expectation: value in OBX-5.1 (ObservationValue) must have a value in CDCG51VIS when OBX-3.1 (ObservationIdentifier) is | 1 | | 05/01/2020 | 06/18/2020 |

- All errors should be addressed. Use the Quick Reference to fix VXU Errors https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/infectious_diseases/immunization/EHR-HL7/CT_WiZ_HL7_Quick_Reference_to_Fix_VXU_Errors.pdf for assistance with error correction.
- Some warnings can be ignored but not all. Refer to ACK Message Guidance for Common Errors in CT WiZ https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/infectious_diseases/immunization/EHR-HL7/CT_ACK_Guidance_042020.pdf
- Please refer to the Delta Guide which provides guidance on HL7 message structure and requirements specific to CT WiZ. https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/infectious_diseases/immunization/EHR-HL7/CTWIZ_DELTA_GUIDE-4_20.pdf

How To Get Help

- Click on the icon  located at the top of the page to get a description of whichever screen you are on.
- Some pages have a [Learn More](#) link. Click on this to see short "How To" videos. These appear on a separate page so you can play videos while navigating through CT WiZ.
- Visit the CT WiZ training page [here](https://portal.ct.gov/DPH/Immunizations/CT-WiZ-Training) (<https://portal.ct.gov/DPH/Immunizations/CT-WiZ-Training>). The training page has numerous documents and step by step videos to help you.
- Still can't find an answer to your question? After you exhausted all of the above options, submit a help desk ticket to get the quickest answer. For any CT WiZ issues, please raise a help desk ticket by using the helpdesk app found at <https://dph-cthelpdesk.ct.gov/>

