



TEXAS
Health and Human
Services

Texas Department of State
Health Services

Texas Immunization Registry:

Health Level Seven (HL7) Implementation Guide for Electronic Data Exchange

HL7 Version
2.5.1



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Overview

The Texas Immunization Registry is a secure, confidential, statewide computerized immunization information system for Texas residents. The specifications listed in this implementation guide identify the areas and information where Texas HL7 requirements deviate from the Centers for Disease Control and Prevention (CDC) HL7 Version 2.5.1 Implementation Guide for Immunization Messaging (Release 1.5).

The CDC implementation guide can be viewed or downloaded from <http://www.cdc.gov/vaccines/programs/iis/technical-guidance/hl7.html>.

You should first build your specifications according to the CDC implementation guide and then incorporate the following deviations that are specific to Texas to ensure your data exchange with Texas is sound.

COVID-19

For guidance and required reporting elements for COVID-19, refer to the CDC's [COVID-19 Vaccination Program Inter Playbook for Jurisdiction Operations](#).

Registry Contact Information

For more information and support with data exchange, contact the Texas Immunization Registry's Interoperability Team.

Please note that state registry staff support data exchange and HL7 needs that relate to ImmTrac2 generated errors after HL7 files have been submitted. State immunization registry staff do not support HL7 interface development prior to or after HL7 files being submitted.

Email: ImmTracMU@dshs.texas.gov

Phone: (800) 348-9158 (option 3)

Website: <https://www.dshs.texas.gov/immunize/immtrac/>



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Send Unsolicited Immunization Update (VXU) Requirements

Message Header (MSH) Segment

MSH-4, Sending Facility

- Required.
- The Texas Immunization Information System Identification (TX IIS ID) of the main or parent organization must be populated.
- If the TX IIS ID is not known, contact the Texas Immunization Registry.

MSH-5, Receiving Application

- Required.
- The value TXImmTrac must be populated.

MSH-6, Receiving Facility

- Required.
- The value TxDSHS must be populated.

MSH-22, Responsible Sending Organization

Bi-directional Data Exchange:

- Required.
- Use the TX IIS ID of the specific organization (stand-alone, parent, or child) reporting the VXU must be populated.
- Both MSH-22 and RXA-11.4 must contain the same TX IIS ID when RXA-11.4 is populated.

Affirmation of Registry Consent

Texas Administrative Code (TAC), Rule [§100.4](#), requires individuals to give their written permission (via an [official registry consent form](#)) for their personal and immunization information to be stored in the registry. The *Texas Immunization Registry – Consent Overview* contains more information about consents for the registry and is currently being published on the DSHS website, [Forms & Documents](#) webpage.

- Required.
- The TX IIS ID of the organization affirming registry of consent must be populated when PD1-12 and PD1-13 contain affirmation of registry consent information. Refer to the [PD1 Section](#) for more information.
- Additional resources found on our DSHS website, Forms & Documents webpage:
 - 11-15773, Affirmation of Registry Consent via Health Level Seven
 - 11-15702, Texas Immunization Registry – Consent Overview



Patient Identification (PID) Segment

PID-3, Patient Identifier List

- Required.
- One of the following identifiers must be used: MR, PI, PN, or PT.

PID-11, Patient Address

- Required.
- PID-11.1 through PID-11.9 must be populated.
- For PID-11.9 you must use County FIPS Codes.

Patient Demographic Segment (PD1)

PD1-12, Protection Indicator

IMPORTANT: Texas is an “opt-in” state. To keep an individual’s immunization data, minors (younger than 18 years of age) must have an official registry minor consent form signed by their parent or guardian, and adults (18 years old or older) must sign an official registry adult consent form even if they were consented as a minor. If no official registry consent, no data is kept.

The only exception is that data for immunizations given that are directly related to a publicly declared disaster can be kept up to five years by the registry, but after that period, a signed Disaster consent is required for that data to be kept.

Protection Indicator of Records:

- Required by may be empty.
- Often used to indicate a patient’s desire to protect or share their information.
- Protection Indicators:
 - Y - Yes, protect the records
 - N - No, do not protect the records
 - Blank
- Not used in Texas for patient’s consent to the registry; see the **Affirmation of Registry Consent** information below for guidance on consent to the registry.

Affirmation of Registry Consent

Refer to the [MSH-22](#) and [PD1-13](#) specifications as they are required when sending affirmation of registry consent.

- Required.
- When adding patients as registry clients and the official registry consent form has been signed by the patient or their legal guardian, use one of the Registry Consent Indicators to affirm registry consent.



- Registry Consent Indicators:
 - TXA - Consented Adult, >=18 years old
 - TXY - Consented ImmTrac Child, <18 years of age
 - TXD - Disaster consent
- Registry Consent Indicators must only be sent at the time the individual initially signed the official registry consent form. For future visits or instances, you are to send Protection Indicators of Records in this field.
- Additional resources found on our DSHS website, Forms & Documents webpage:
 - 11-15773, Affirmation of Registry Consent via Health Level Seven
 - 11-15702, Texas Immunization Registry – Consent Overview
- Contact the Texas Immunization Registry’s Interoperability Team for support with affirmation of registry consent via HL7 as Texas registry consent is unique.

PD1-13, Protection Indicator Effective Date

Affirmation of Registry Consent

- Required.
- When PD1-12 contains one of the Registry Consent Indicators to affirm registry consent, then this field must be populated with the date registry consent is obtained in the YYYYMMDD format.
- Contact the Texas Immunization Registry’s Interoperability Team for support with affirmation of registry consent via HL7 as Texas registry consent is unique.

Next of Kin (NK1) Segment

Recommendations

- It is strongly encouraged that organizations provide the registry with all the contact information on file for the next of kin listed for individuals younger than 18 years of age (minors).
- This data assists the registry in performing outreach measures.
- Do not enter placeholder data in this field. Placeholder data increases the likelihood of an incorrect data match in the registry.

Pharmacy/Treatment Administration (RXA) Segment

RXA-5, Administered Code

- Required.

Reporting Disaster Related Antivirals, Immunizations and Other Medications (AIMs)

- State legislation ([1 TAC, Rule 100.7](#)) requires health care providers to report antivirals, immunizations and other medications (AIM) administered during a declared disaster to the registry.



- Reporting disaster related immunizations follows existing HL7 specifications such as non-disaster related immunizations.
- Reporting of disaster related antivirals requires changes to HL7 specifications, specifically RXA-5, and must follow the below guidance to be accepted into the Texas Immunization Registry:
 - RXA-5.1 – Name of the antiviral
 - RXA-5.2 – Description of the antiviral
 - RXA-5.3 – Tradename Indicator = WVTN
 - This indicates that the code being reported is the tradename instead of CVX or NDC Codes.
- Here is an example of a RXA-5 Segment used to report Remdesivir, an antiviral approved to treat COVID-19 patients: **|Remdesivir^COVID19 Antiviral^WVTN|**
 - When formatted correctly, our system produces an informational error, IEE-103::Informational error. If supplied, RXA-5-3 should match constraint listed in spec, that may be ignored.
- All other HL7 specifications for reporting antivirals follow those of immunizations.
- For further assistance or questions related to reporting of antivirals, please contact us.

RXA-11, Administered at location

- Required.
- The TX IIS ID of the organization that administered the vaccination must be populated in RXA-11.4 when RXA-9 is valued as 00 for new vaccinations.
 - Both MSH-22 and RXA-11.4 must contain the same TX IIS ID when RXA-11.4 is populated.
- If the TX IIS ID is not known, contact the Texas Immunization Registry.

Observation (OBX) Segment

OBX-5, Observation Value

- Required.
- When OBX-2 is valued CE and OBX-3 is valued 64994-7, then one of the vaccine eligibility codes must be used.
- For vaccine eligibility codes, use:
 - V01 for Private Pay/Insurance
 - V02 for Medicaid
 - V03 for No Insurance
 - V04 for American Indian/Alaskan Native
 - V05 for Underinsured, FQHC/RHC/Deputized
 - TXA01 for CHIP
 - TXA02 for Underinsured, Not FQHC/RHC/Deputized
 - TXA04 for Adult, No Insurance



- TXA05 for Adult, Underinsured
- TXA06 for Adult, Private Pay/Insurance
- For assistance with these codes and who falls into these categories, contact the Texas Vaccine for Children Program at (800) 252-9152.

OBX-14, Date/Time of the Observation

- Required for every OBX segment.
- The date of the observation must be entered in the YYYYMMDD format.



Query by Parameter (QBP) Requirements

The items listed in this guide identify the information that deviates from the [CDC's HL7 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5](#) to meet the requirements specific to Texas.

MSH Segment

MSH-4, Sending Facility

- Required.
- The Texas Immunization Information System Identification (TX IIS ID) of the main or parent organization must be populated.
- If the TX IIS ID is not known, contact the Texas Immunization Registry.

MSH-5, Receiving Application

- Required.
- The value TXImmTrac must be populated.

MSH-6, Receiving Facility

- Required.
- The value TxDSHS must be populated.

MSH-22, Responsible Sending Organization

- Required.
- Use the TX IIS ID of the specific organization (stand-alone, parent, or child) performing the query must be populated.

Query Parameter Definition (QPD) Segment

QPD-3, Patient List

- Required.
- One of the following identifiers must be used: MR, PI, PN, or PT.

QPD-4, Patient Name

- Required.
- Must contain the first and last name of the patient.
- If the middle name is known, it should be included.

QPD-6, Patient Date of Birth

- Required.
- Must contain the date of birth of the patient.



QPD-8, Patient Address

- Required.
- QPD-11.1 through QPD-11.9 must be populated.
- For QPD-11.9 you must use County FIPS Codes.

Response Control Parameter (RCP) Segment

RCP-2, Quantity Limited Request

- Required.
- The returned response depends on how your electronic health records (EHR) were configured by your vendor.
- Must contain a value between 1 and 10 as the registry can only return a maximum number of 10 records.
- If RCP-2 is set to a value of 1, then the registry can return:
 - A record if a possible registry match is found, or
 - A message stating "Warning. More clients were found than requested (1). No clients returned." if multiple registry client matches are found.
- If RCP-2 is set to a value of 2 through 10, then the registry can return up to 10 records of registry clients who match the query criteria submitted.



Data Exchange Resources

For additional documentation, publications, or webinars to support your data exchange needs with the registry, please refer to the below webpages found on our [DSHS website](#):

- User Training
 - Contains instructional videos for ImmTrac2 users, upcoming instructional webinars and previously recorded webinars.
- Forms & Documents
 - Contains resources pertaining to registry consent, data exchange, data quality and error resolution, and general use of ImmTrac2.