Utah Statewide Immunization Information System (USIIS)
Developing an Electronic Data Interface to USIIS

The Utah Department of Health (UDOH) Utah Statewide Immunization Information System (USIIS) is a software application that enables healthcare providers to enter and submit immunization records for persons in Utah. USIIS maintains immunization histories, consolidating information submitted across providers. The USIIS application also offers clinical decision support and vaccine inventory management modules. USIIS is a lifespan system, managing records for individuals of all ages.

Healthcare providers may submit immunization information to USIIS by two methods—by using the online web application and/or by submitting data from providers' electronic health record (EHR) systems via electronic data interfaces.

This document provides an overview of:
- USIIS interface options
- The process for an EHR vendor to develop an interface to USIIS
- The on-boarding process for Utah providers to implement an EHR-USIIS interface

Data interface options
USIIS supports the following options to accommodate a variety of EHR system and healthcare provider needs.

HL7 and ASCII flat file
USIIS supports HL7 versions 2.3.1, 2.4 and 2.5.1.

USIIS does not develop new ASCII interfaces with EHR vendors, but continues to support some legacy interfaces.

Uni- and bi-directional
USIIS supports uni-directional interfaces—i.e., data submitted to USIIS, and bi-directional interfaces—i.e., data submitted to USIIS with a full immunization history returned from USIIS.

Batch and real-time
USIIS accepts data in batches—i.e., one or more patient records submitted periodically via a file, and real-time—i.e., a record sent immediately from a source EHR system to USIIS.

Secure transport methods
Data submitted to USIIS must be transported by a secure network connection. USIIS accepts data transferred manually via the USIIS File Transfer web application (HTTPS), or automated via SFTP, VPN, SOAP web service, and HTTP Post web service. Real-time interfaces must use a VPN, SOAP web service, or HTTP Post web service connection. USIIS will also accept immunization data passed through the Utah Health Information Network's (UHIN) Clinical Health Information Exchange (cHIE) when available.

EHR-USIIS interface development and implementation

EHR vendors will undertake the following steps to develop and deploy a new interface with USIIS. This work must be completed prior to offering an EHR-USIIS interface to vendors' customers in Utah.

1. Contact the USIIS Program to discuss and define the interface.

    a. Does the EHR vendor provide a "hub" connection for interface data submission for their Utah customers? If so, determine the transport method.

    b. Obtain the applicable USIIS implementation guide for HL7 messaging.

2. Develop the interface that will extract data from the EHR system and format according to the HL7 standard from the applicable implementation guide.

3. Submit test data to USIIS.

    a. USIIS will first visually inspect test messages for accurate format and content.

    b. USIIS will then process test messages into the USIIS test system.

    c. The EHR vendor will update the interface based on USIIS feedback about the test data. This is usually an iterative process.

4. If there is an EHR vendor hub, configure the network connection.

    a. Test the network connection and hub data submission to USIIS.

5. Select a customer pilot site at which to deploy and test the interface.

    a. If the EHR vendor does not provide a hub connection, establish a secure network connection with the provider.

    b. The EHR vendor will install and configure the interface to submit authentic pilot site data to USIIS for processing into its test system.

    c. USIIS will assess the data to ensure the interface accurately processes authentic data.

    d. The EHR vendor will update the interface to address any issues identified by the pilot test.

6. Determine the EHR-USIIS interface deployment processes.

    a. Define how the EHR vendor will work with both USIIS and a customer when ready to implement the interface at a Utah customer's location(s).

    b. Define how the EHR vendor and USIIS Program will maintain the interface into the future—to accommodate enhancements and bug fixes.

7. Communicate to Utah customers the availability of the EHR-USIIS interface.

    a. Provide instructions on how to request the interface.

    b. Provide instructions on how to configure the interface, as applicable.

    c. Provide instructions on how to turn on and run the interface, as applicable.

On-boarding an EHR-USIIS interface at a Utah healthcare provider's location

Providers will undertake the following process to implement an EHR-USIIS interface at their location(s).

1. Check the USIIS website or contact the USIIS Program if to find out if the EHR vendor has an USIIS interface.

2. If the EHR vendor has not yet developed a USIIS interface, request that they develop an interface to USIIS.

3. If the EHR vendor has an USIIS interface in production:

    a. Follow the EHR vendor's process for ordering the EHR-USIIS interface.
    Note: some EHR vendors may charge for their interface software or the EHR-USIIS interface.

    b. Provide the EHR vendor the USIIS Provider ID(s) of your facility locations. **Note:** This is the USIIS Provider ID, not your VFC PIN.

    c. Work with the EHR vendor to get the interface installed and/or configured at your location(s).

    d. If the EHR interface requires you to establish a secure network connection with USIIS—i.e., the vendor does not provide a vendor "hub", contact USIIS to do this.

    e. Work with the EHR vendor and USIIS Program to initiate sending patient data from the EHR system to USIIS via the interface.

        i. USIIS will assess the data and process into the USIIS test system.

        ii. USIIS will contact the EHR vendor and customer if the EHR interface has not been configured accurately, causing inaccurate or incomplete data submission.

        iii. USIIS will contact the customer if data completeness or quality requires one of the following actions:

            I. User-defined EHR table value (pick-list) seems to be inaccurate.

            II. Important data is not being entered into the EHR system that is important for USIIS—especially if the provider participates in the VFC program, or uses USIIS Vaccine Inventory.

    f. Once USIIS establishes the provider's data is accurate and complete, it will move the interface to production, processing subsequent data to be processed into USIIS.

For more information about EHR-USIIS interfaces, email: usiis@utah.gov