

Consumer Access to IIS and IIS Cross-jurisdictional Data Exchange and Interoperability Pilot Projects

James Daniel, MPH

Office of the National Coordinator for Health IT

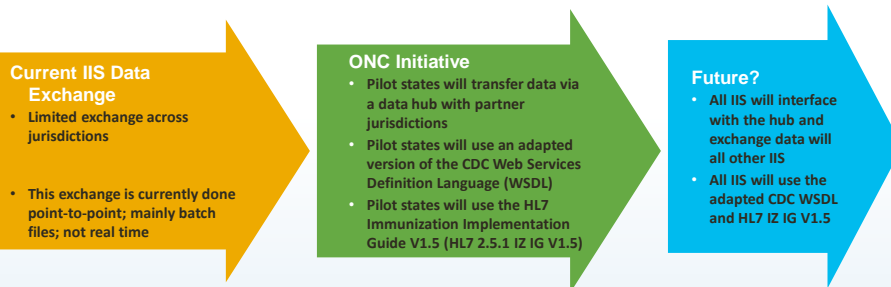
November 5, 2014

1

Introduction

- The Public Health Immunization Pilot Project was launched to address the need to share immunization cross jurisdictional boundaries.
- Upon completion of the project providers will be able to request a patient's record from another immunization registry and retrieve that data across jurisdictional boundaries.
- By creating a transport hub, participating pilot sites will be able to exchange immunization data across jurisdictional boundaries through the centralized hub via a SOAP Web Service ***utilizing adopted and approved standards for interoperability.***

Background & Context



Advantage of HUBsolution:

- Promotes use of adapted CDC WSDL and HL7 IZ IG V1.5 which will drive interoperability
- Will improve use of bidirectional querying by IIS
- Scalable solution
 - More IIS can easily be added to the hub
 - IIS will be able to theoretically communicate with any other IIS on the hub

Project Goal & Solution Advantage



Goal:

- To enhance cross-jurisdictional immunization data exchange by:
 - Providing participating pilot sites with a data hub via which they can exchange immunization data
 - Committing pilot sites to implement the HL7 Immunization Implementation Guide V1.5 and use the adapted CDC WSDL

Advantage of HUB Solution:

- Promotes use of adapted CDC WSDL and HL7 IZ IG V1.5 which will drive interoperability
- Will improve use of bidirectional querying by IIS
- Scalable solution
 - More IIS can easily be added to the hub
 - IIS will be able to theoretically communicate with any other IIS on the hub
- HUB model looks at “envelope” only; does not open contents. PHI passes securely through HUB without being stored; enabled by WSDL updates.

Project Scope



It was determined that the following items would fall in and out-of-scope:

In-Scope

- Using current bi-directional messages to enable the exchange
- Establishing a Data Hub that will be utilized by the pilots
- Allowing for the initiation of data exchange thru the following three methods: Physician directly to Immunization Registry; Physician via EHR to Immunization Registry; Consumer via Patient Portal
- Implementation of release 1.5 of IZ IG
- Updated WSDL (corrects issues and adds ability for intermediary player)

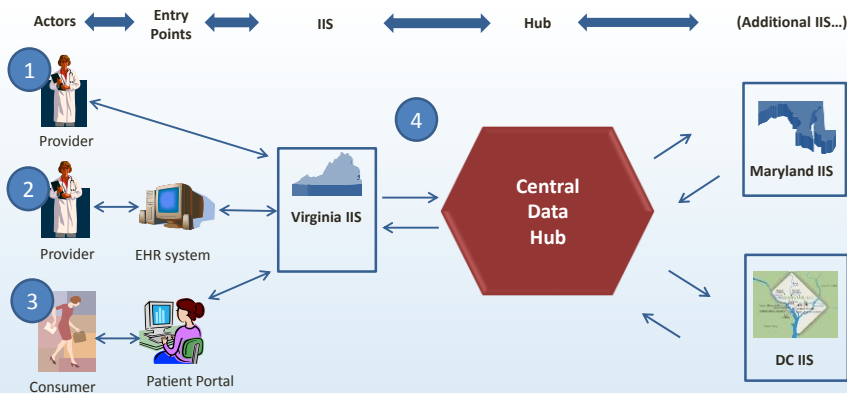
Out-of-Scope

- Dealing with policy issues around data exchange
- Editing/updating information in registries by Consumers
- No transformation, translation, or reading of message content as it passes thru the hub (hub does not store any patient information or data)
- The hub will not ensure that all requesters of information, are authorized to receive immunization data

IIS Data Exchange Use Case Diagram



Use Case Objective: For an Immunization Information System (IIS) to respond to a transaction that contains current or historical addresses that are outside its jurisdiction by triggering a QBP or VXU to the other jurisdiction's IIS.



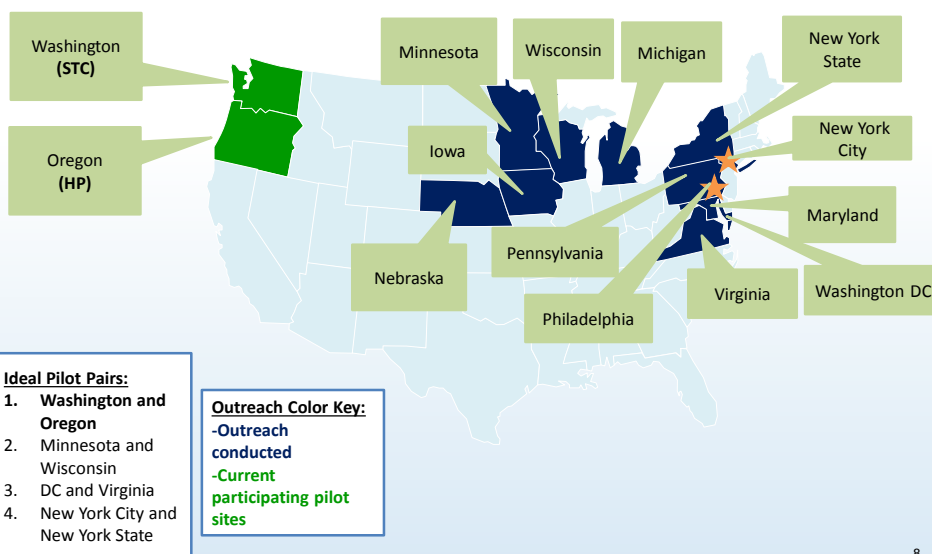
Pilot Outreach



- Conducted outreach to jurisdictions publicizing the hub solution
- Outlined the project expectations for jurisdictions so that they could assess their ability to participate
 - The following map displays all areas where outreach was conducted


7

Project Outreach



8

Pilot Criteria




All pilot sites must...

- Upgrade to the new CDC WSDL adapted for the Data Hub Solution
 - The WSDL is backwards compatible
- Adopt the HL7 Version 2.5.1 IG Immunization Messaging Release 1.5
- Implement any changes required to setup the Data Hub as an integration partner
 - Configuring firewalls, ports, etc.
- Maintain a test and production instance of the IIS and utilize the test version of the Data Hub for Testing and the Production version of the Data Hub for Pilot (production)
- Have the capacity to issue queries via a QBP
- Have the capacity to accept and process RSPs
- Have the capacity to consume a VXU (assumed)
- Have the ability to create or handle any additional errors from the WSDL or HL7 ACK
- Adapt the IIS to process business rules that:
 - Recognize when a new patient's current address (jurisdiction) is in a partner IIS' jurisdiction
 - Recognize when a patient's address (jurisdiction) in the IIS has changed from a partner IIS' jurisdiction to this IIS' jurisdiction

All pilot sites should...

- Provide capacity to generate an explicit request (i.e. via a "button" or process that requested the data from a partner jurisdiction)

Project Metrics for Success



Functional metrics:

- Data hub development time
- Registry interface development time
- Number of participating pilot sites and sub sites
- Percent of messages sent thru the hub correctly

Data hub technical metrics:

- Traffic Volume
- Average response times
- Production volumes
- Error rates
 - Total errors
 - Total queries
- Query processing time
- Availability/uptime
- Peak message volume throughput

State metrics:

- Errors
 - Queries Sent
 - Queries Received
- Message response times
- Percentage of messages rejected due to multiple match
- Number of end users
 - Number of unique users providing queries

Need to update

Projected Outcomes & Status



Target Outcomes (Need to develop more metrics)

- Develop and implement a transport hub allowing for providers to request a patient's record from another immunization registry
- Provide higher quality immunization data to providers, their patients, and other public health programs with an interest in patients' immunization history

Current Status

- In Development
 - At the end of FY 2014 it is projected that UAT testing ,with regards to interfacing with the transport hub, will completed and the hub will be implemented in test and production environments

11

Consumer Access to IIS



- Five pilot states
- Consumer portal communicates with IIS
 - Bi-directional standards
- Policy Issues
 - Provider Education
 - Patient Authentication
- Marketing as well as technology solution

[Program Name] gives you quick, easy and secure online access to your family's immunization records. It's ideal for:

- Proof of immunization for school or camp registration
- Seeing a new healthcare provider
- Tracking boosters and yearly vaccines, like the flu shot
- Managing immunization records for an elderly parent
- Preparing for foreign travel or moving to another country
- Being prepared in case of emergency

FOR OFFICE USE ONLY
Temporary Password/PIN

Sign up today... It's easy!
Call or visit us online today!
000-000-0000
ProgramName.com

LOGO HERE

View online at [ProgramName.com](#) with valid IP address.
View on any device with a browser and internet connection.
*Not for use with mobile devices. © 2014 Program Name, Inc. All rights reserved.

You need an easy way to access your family's immunization records.

Inject more CONVENIENCE into your family's immunization records.

LOGO HERE

Getting started is as easy as 1-2-3. All you need to do is:

- Register.** Complete a [Program Name] enrollment form online or at your healthcare provider's office.
- Request.** Your healthcare provider approves your request and sets up the account while you're at their office.
- Review.** Log in as soon as possible and activate your account. You'll have immediate access to your family's immunization records to view, download or print as often as you need.

Now you can manage your family's immunization records online. When you sign up for [Program Name], you can use any trusted computer to view your up-to-date immunization records. You can also download or print an official copy. Why use [Program Name]?

It's easy. Getting access to your immunization records is simple. Just complete a [Program Name] enrollment form online or at your healthcare provider's office. Your healthcare provider can request your account for you. If you don't get approved the first time, you can request a temporary password. Log in as soon as possible to activate your account. You'll have immediate access to your family's immunization records. But if you're only using a laptop, it's not possible to view immunization records for your elderly family.

It's convenient. You log in and view your immunization records often, but when you're in a [Program Name] enrollment form, you can efficiently download and print official copies on one visit. Whether you're visiting your healthcare provider's office, whether you're requesting the information on a secure device, or using a secure mobile device, you can request your records from wherever you are. You'll have immediate access to your family's immunization records. But if you're only using a laptop, it's not possible to view immunization records for your elderly family.

It's secure. Accessing your immunization records through [Program Name] is just as private and secure as banking or paying bills online. We adhere to the highest security standards. Plus, we create your own password. You control it, only you see it, and there's no one else who can see your family's immunization records. There are other personal information available through the tool. Your information is protected.

Provider Frequently Asked Questions

- What is [Program Name]?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- What are the goals of [Program Name]?** [Program Name] allows you to view and print your family's immunization records online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- How does [Program Name] work?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- What is the enrollment process?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- How secure is [Program Name]?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- Can my patients print records?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- Can my patients print records for their elderly family?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- Can my patients print records for their elderly family?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.

Technical Support: 800-000-0000

Provider Frequently Asked Questions, continued

- How secure is [Program Name]?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- Can my patients print records?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- Can my patients print records for their elderly family?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.
- Can my patients print records for their elderly family?** [Program Name] is a secure online tool that allows your family's immunization records to be viewed and printed online. It's ideal for seeing a new healthcare provider, tracking boosters and yearly vaccines, like the flu shot, and managing immunization records for an elderly parent. It's also ideal for preparing for foreign travel or moving to another country, and being prepared in case of an emergency.

Technical Support: 800-000-0000

Learn how your patients can easily and securely access their immunization records online.

[Program Name] SOLUTIONS
The way patients
access their immunization records.

[Program Name] gives your patients access to their own and their families' immunization records.

- Reduce administrative workload for your staff.
- Empower your patients with more control over their immunization records.
- Simple, one-time enrollment process takes less than two minutes for your patients to complete!

To learn more or to participate in [Program Name], call or email [Contact Name, phone, email].

**000-000-0000
ProgramName.com**

I want my family's immunization records when I need them.

Inject more CONVENIENCE into your family's immunization records.

LOGO HERE

Now you can review and print your family's official immunization records online with [Program Name]. Getting started is easy. All you need to do is:

- Register.** Complete a [Program Name] enrollment form online or at your healthcare provider's office.
- Request.** Ask your healthcare provider to approve your request and set up your account.
- Review.** Log in as soon as possible and activate your account. You'll have immediate access to your family's immunization records to view, download or print as often as you need.

Call or visit [Program Name] online for more information.
**000-000-0000
ProgramName.com**

with banner ad
ProgramName.com

Confidently access your family's immunization records online.

I access my banking online. Now I can confidently access my family's immunization records, too.

Inject more SECURITY into your family's immunization records.

LOGO HERE

Now you can review and print your family's official immunization records online with [Program Name]. Getting started is easy. All you need to do is:

- Register.** Complete a [Program Name] enrollment form online or at your healthcare provider's office.
- Request.** Ask your healthcare provider to approve your request and set up your account.
- Review.** Log in as soon as possible and activate your account. You'll have immediate access to your family's immunization records to view, download or print as often as you need.

Call or visit [Program Name] online for more information.
000-000-0000 • ProgramName.com

My patients need an easy, secure way to access their immunization records.

Inject more SOLUTIONS into your family's immunization records.

LOGO HERE

[Program Name] gives your patients access to their own and their families' immunization records.

- Reduce administrative workload for your staff.
- Empower your patients with more control over their immunization records.
- Simple, one-time enrollment process takes less than two minutes to complete!

To learn more or to participate in [Program Name], call or email [Contact Name, phone, email].

**000-000-0000
ProgramName.com**

Your vaccination records online. IT'S EASY. Ask me how!

Program Name Here

[LOGO HERE]

Inject more CONVENIENCE into your family's immunization records.

LOGO HERE

Questions?

James.Daniel@hhs.gov

Follow me @jim_daniel