

Immunization Registry Cross-jurisdictional Data Exchange and Interoperability Pilot Project

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- 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.***

Current IIS Data Exchange

- Limited exchange across jurisdictions
- This exchange is currently done point-to-point; mainly batch files; not real time

ONC Initiative

- Pilot states will transfer data via a data hub with partner jurisdictions
- Pilot states will use an adapted version of the CDC Web Services Definition Language (WSDL)
- Pilot states will use the HL7 Immunization Implementation Guide V1.5 (HL7 2.5.1 IZ IG V1.5)

Future?

- All IIS will interface with the hub and exchange data will all other IIS
- All IIS will use the adapted CDC WSDL and HL7 IZ IG V1.5

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

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.

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

In-Scope

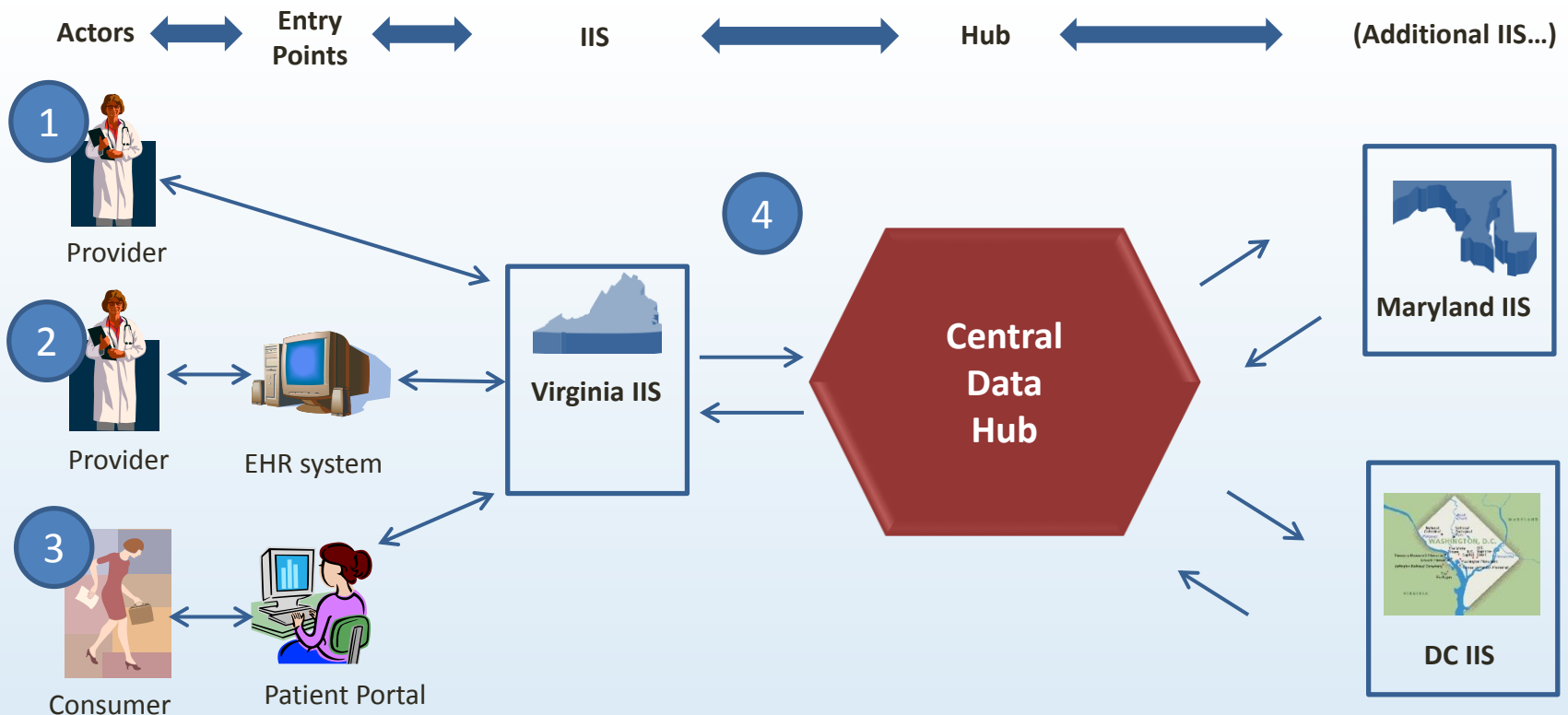
- Using current bi-directional messages to enable the exchange
- Establishing a Data Hub that will be utilized by the pilots
- Allowing for the initiation of data exchange thru the following three methods: Physician directly to Immunization Registry; Physician via EHR to Immunization Registry; Consumer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

Out-of-Scope

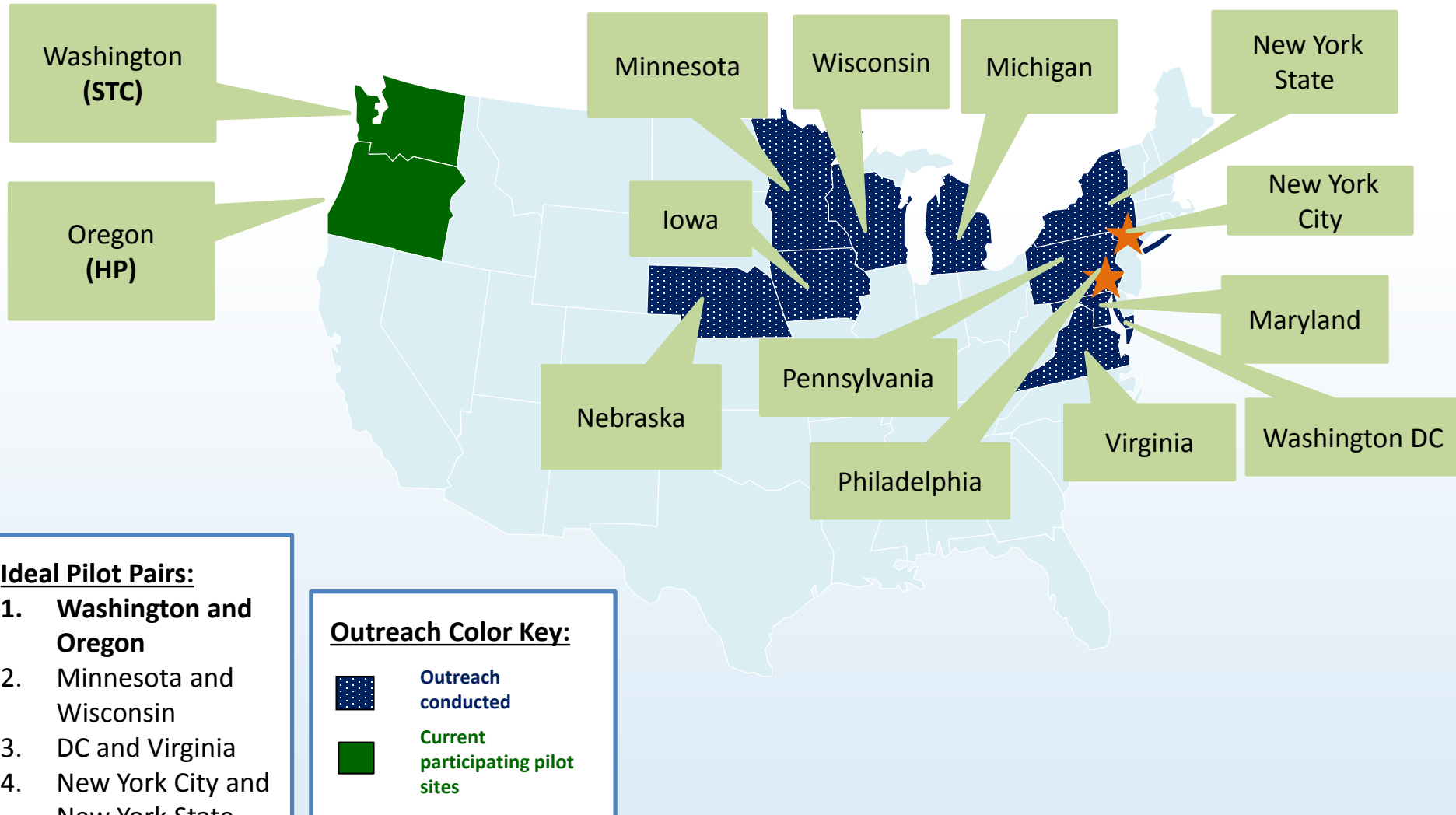
- Dealing with policy issues around data exchange
- Editing/updating information in registries by Consumers
- No transformation, translation, or reading of message content as it passes thru the hub (hub does not store any patient information or data)
- The hub will not ensure that all requesters of information,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



- 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



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)

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

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

Questions?

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