CDC's Provider Onboarding Shared Services for IIS

AIRA Discovery Session

December 17, 2018

4pm Eastern

Onboarding Defined

- **Onboarding (noun) -** \ˈȯn-ˌbȯr-diŋ, ˈän-\

    Merriam-Webster: the act or process of familiarizing a new customer with one's products or services

    AIRA soon-to-be-published Consensus-based Recommendations: the process and activities related to establishing an electronic interface between an immunization provider's electronic health record system (EHR) and a jurisdiction's immunization information system (IIS)

Onboarding Process

Provider expresses intent to establish an interface

Onboarding Process
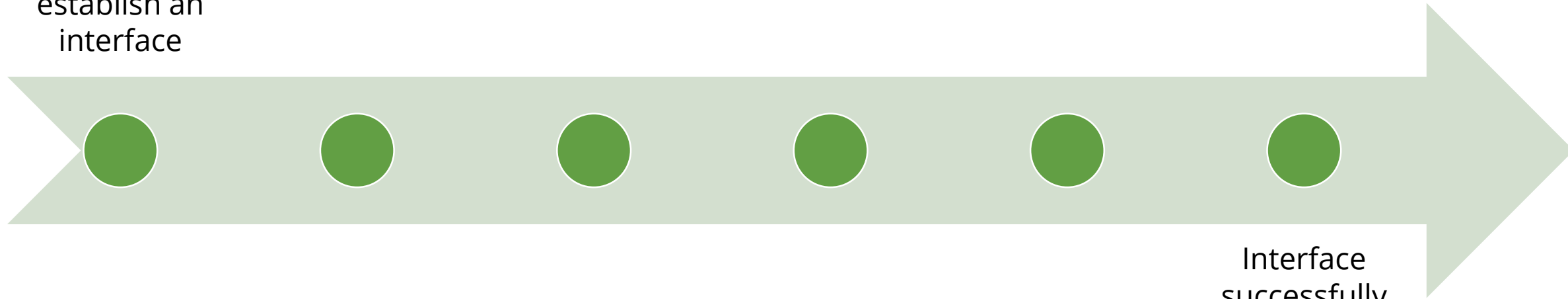
Provider expresses intent to establish an interface

Interface successfully transitioned to IIS production environment

Onboarding Process
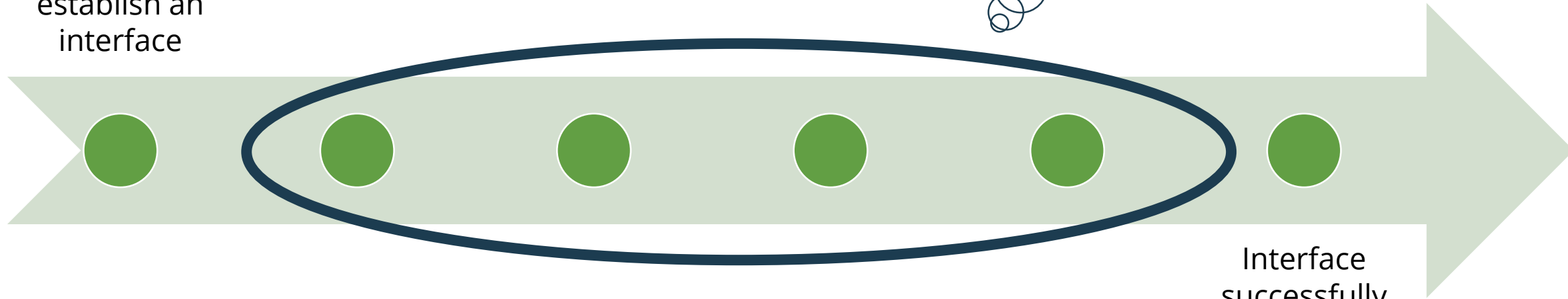
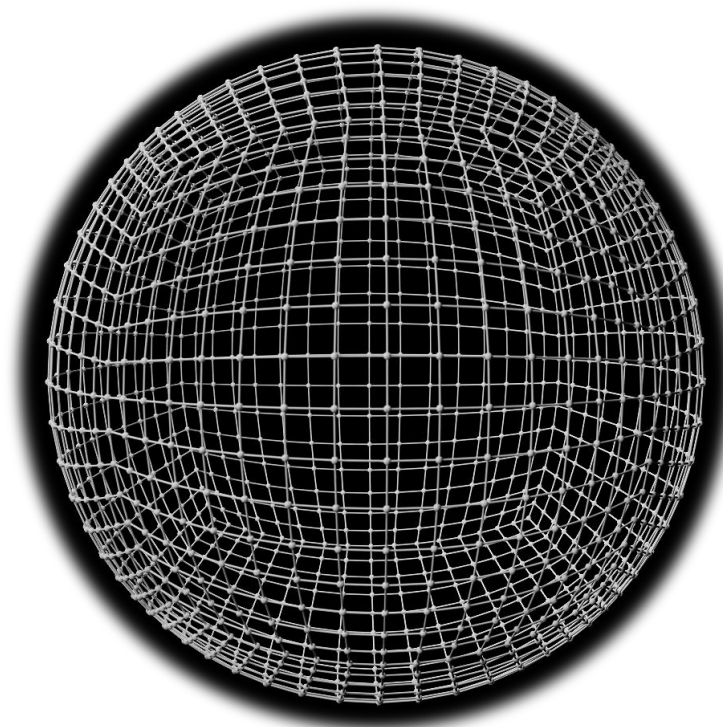Provider expresses intent to establish an interface

Interface successfully transitioned to IIS production environment

Today's Speakers:

- Kafayat Adeniyi, Public Health Analyst, CDC IIS Support Branch

- Joe Fairbanks, Specialist Master with Deloitte Consulting

IIS Provider Onboarding Shared Services

AIRA Discovery Session
December 2018

Today's Agenda

Topic	Time	Activities
Welcome *(4:00pm – 4:05pm)*	*5 min*	Introduction and Town Hall Objectives
Process Overview *(4:05pm – 4:10pm)*	*5 min*	Process Overview of Today's Exercises
Potential **Shared Services Offerings** ▪ Offering Overview ▪ Interactive Exercise ▪ Review All Offerings ▪ Open Discussion *(4:10pm – 4:59pm)*	*7 min*	1. Central Document and Resource Library
	7 min	2. Provider, EHR Vendor, and IIS Electronic Data Exchange Profiles
	7 min	3. Onboarding Training Modules
	7 min	4. Provider & Vendor Onboarding HL7 Message Help Desk
	7 min	5. Multi-Record Message Data Quality Testing Tool for EHRs
	14 min	Open Discussion: Overall Discussion, Questions, Considerations, etc.
Next Steps *(4:59pm – 5:00pm)*	*1 min*	Wrap Up and Next Steps

Introduction and Objectives

IIS Shared Service Center Vision, Goals, and Benefits

An IIS <u>Shared Service Center</u> is one or more organization that facilitates and/or provides services to more than one jurisdiction's immunization information management activities

Vision

IISs nationwide are standardized and can achieve efficiencies through shared services and support in order to meet the needs of the immunization community

Goals

1 **Provide shared services to awardees** in the following areas: software support, technical support, or programmatic support

2 **Promote adoption of IIS best practices** and lessons learned

3 **Enable reduction of variability** among IIS

4 **Reduce costs and increase efficiency** and effectiveness of IIS operations

Benefits

✓ Addresses challenge of limited resource availability for IISs

✓ Helps improve disparities in performance, implementation of standards, and data quality among IIS

Today's Objectives

Describe progress to date in developing Shared Services offerings to ensure the success and efficiency of provider onboarding

Share details on 5 potential initial onboarding services that a CDC Shared Services Center could offer to support IISs in the onboarding experience

Solicit feedback and input from IISs to modify, enhance, and progress the design of the potential Shared Services offerings to improve provider onboarding

Journey to Date

We are here

| Conduct Research on Current Onboarding Documentation and Processes | Interview IIS Vendors & 15 Awardees: Onboarding Successes and Challenges | Develop List of Key Findings: Critical Needs for Successful Onboarding | Develop List of Initial Services Based on Needs Identified in Key Findings | Gather Stakeholder Input on Potential Services |

Feedback from this Town Hall will be directly used to inform final recommendations and plan for shared services to improve provider onboarding

Overview of Session Exercises

Overview of Today's Exercises

Step 1 – Understanding the service

- **Take 4 minutes** to review 3 slides for an onboarding service.

Each onboarding service follows the same template visualized below:

Page 1 of 3

Solution Name

Challenge That Is Being Addressed

!

Challenge Details

- ▪
- ▪

Page 2 of 3

Solution Name

Solution Name

Solution Users

Solution Description

Page 3 of 3

Solution Name

Jurisdiction Responsibilities

- ▪
- ▪

Expected Outcomes and Impact

- ✓
- ✓

Overview of Today's Exercises

Step 2 – Providing feedback on the first service

- **Take 3 minutes** to answer questions specific to the presented onboarding service through Poll Everywhere (explanation of how to use Poll Everywhere will be shared later on)

- *How likely are you to use this service?*

- *What do you like most about this service?*

- *How could this service be improved?*

- *What are the barriers that you anticipate to using this service?*

Step 3 – Reviewing the remaining services

- **Repeat steps 1-2** for the remaining 4 onboarding services

Step 4 – Evaluating all of the services

- After all services are reviewed and polled, **take 7 minutes** to ask any questions and rank the services

- *Rank the different services in terms of your most desired service.*

- *What other services would you have liked to see?*

- *What other considerations should we take into account when developing onboarding shared services?*

Step 5 – Sharing comments, questions, and considerations

- Discuss any new services and considerations

Using Poll Everywhere
Interactive Audience Participation

Your participation in today's discussion is encouraged. We will be using Poll Everywhere to capture your anonymous feedback.

How do I participate?
1. From a computer or mobile browser, access: https://pollev.com/bstratton.
2. When a poll is displayed, submit your response(s) to the question.
3. We will solicit volunteers to discuss responses to poll questions.

To respond, from a computer or mobile browser, access:
https://pollev.com/bstratton

Overview of Potential Shared Service Offerings

Potential Shared Service Offerings

Based on literature review, awardee interviews, SME discussions, and meetings with the CDC, the following shared services are the most likely to be helpful to improve provider onboarding

Central Document and Resource Library. Host onboarding documentation organized by jurisdiction on a public website that providers and vendors can easily access, reference, and use to understand requirements throughout the onboarding process with any jurisdiction.

Provider, EHR Vendor, and IIS Electronic Data Exchange Profiles. Create profiles on the shared services site of how organizations perform electronic data exchange to allow their partners to better prepare for onboarding. Content in profiles could include supported connection types, supported HL7 message types, etc.

Onboarding Training Modules. Provide self-guided training modules that walk through the "what" and "why" for specific core topics necessary for successful onboarding (such as "Establishing a Connection").

Provider & Vendor Onboarding HL7 Message Help Desk. Develop and staff a Help Desk that gives providers and vendors access to real time support that can help them perform self-testing during initial construction and generation of their HL7 messages without involving IIS staff.

Multi-Record Message Data Quality Testing Tool for EHRs. Offer providers and EHR vendors with a secure, web-based platform to analyze message quality from EHRs without intervention from IIS staff, similar to how IISs are able to use the MQE tool with their own systems.

#1 – Central Document and Resource Library

Challenge: Inaccessible, Hard to Find, or Out of Date Onboarding Documentation

- Providers and vendors often **do not have access to up to date or adequate documentation** to help inform them of a jurisdiction's onboarding process.

- Instead, they rely on documents posted on the CDC's website, which **do not account for jurisdiction variations**.

- IIS staff then have to **spend significant time during onboarding focusing on providing jurisdictional-specific documents** and requirements to providers and vendors as well as educating providers and vendors on some of the basics of electronic data exchange.
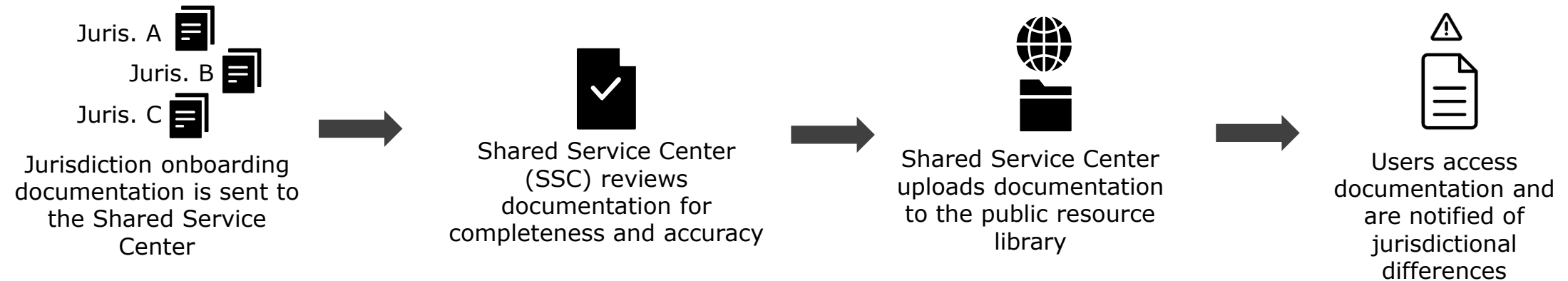
Solution: Central Document and Resource Library

Central Document and Resource Library

Users: IIS, EHR Vendors, Providers

Create a centralized library with up-to-date onboarding documents for all IIS jurisdictions allowing easy access by vendors, providers, and other jurisdictions. In addition, provide a mechanism to illuminate jurisdictional differences.

Juris. A

Juris. B

Juris. C

Jurisdiction onboarding documentation is sent to the Shared Service Center

Shared Service Center (SSC) reviews documentation for completeness and accuracy

Shared Service Center uploads documentation to the public resource library

Users access documentation and are notified of jurisdictional differences

Solution: Central Document and Resource Library

Expected Jurisdiction Responsibilities

- Jurisdictions will send their onboarding documentation to SSC via email or web app

- SSC will review uploaded documentation and propose a standard format. The jurisdictions will approve or provide feedback on the standard formats

- Jurisdictions will maintain their onboarding document updates on the central document and resource library

Expected Outcomes and Impact

- ✓ Decreases time spent by stakeholder groups going back and forth providing and confirming requirements, correct documentation, timelines, and expectations

- ✓ Puts documentation for each jurisdiction in the location that providers and vendors can rely on

- ✓ Increases IIS staff availability to focus on major challenges that come up during onboarding

# Solution: Central Document and Resource Library

1. How likely are you to use this service?

2. What do you like most about this service?

3. How could this service be improved?

4. What are the barriers you anticipate to using this service?

Submit responses using the following:
https://pollev.com/bstratton

To respond, from a computer or mobile browser, access:
https://pollev.com/bstratton
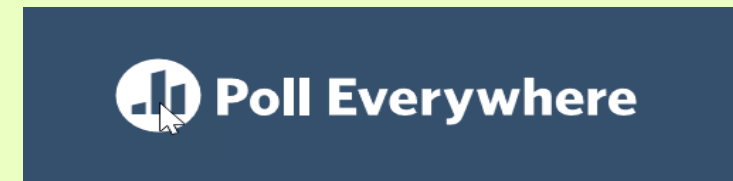
#2 – Provider, EHR Vendor, and IIS Electronic Data Exchange Profiles

Challenge: Working with Unknown Partners

- The onboarding process is **often delayed when an awardee, provider, or EHR vendor is not familiar with the onboarding processes and procedures** of the other stakeholders.

- IIS staff dedicate **a significant portion of time during onboarding to gather and clarify this information**, which includes identifying POCs, confirming EHR versions, noting technical capabilities, etc.

Solution: Provider/EHR Vendor/IIS Electronic Data Exchange Profiles

Provider, EHR Vendor, and IIS Electronic Data Exchange Profiles

Users: IIS, EHR Vendors, Providers

Create profiles of how organizations perform electronic data exchange to enable their partners to better prepare for onboarding; host profiles on a public website.

Suggested Profile Attributes

EHR Vendor

Supported connection type | EHR releases | HL7 messaging capabilities | EHR upgrade timeline | Vendor support structure for providers | POC for onboarding by position

Medium to Large Provider

Supported connection types | Technical support structure within the organization | Organization's EHR type | EHR version by site | POC for onboarding by position

IIS

Location of IIS | Supported and preferred connection types | Supported and preferred HL7 versions | Implementation guide used | POCs for onboarding

Solution: Provider/EHR Vendor/IIS Electronic Data Exchange Profiles

Expected Jurisdiction Responsibilities

- Jurisdictions review the proposed profile attributes and provide feedback

- Jurisdictions submit online profile form to receive access to other stakeholder profiles

- SSC prompts stakeholders to review other stakeholder profiles

- SSC prompts stakeholders to maintain updates to their profiles

Expected Outcomes and Impact

- ✓ Clearly identifies activities and requirements for participating in electronic data exchange that can be completed ahead of time

- ✓ Allows partners to better prepare to work with each other prior to onboarding kick off and to eliminate common issues encountered during the initial steps of onboarding

- ✓ Promotes better initial and ongoing relationships between IISs and healthcare organizations by showing how best to work together

# Solution: Provider/EHR Vendor/IIS Electronic Data Exchange Profiles

1. How likely are you to use this service?

2. What do you like most about this service?

3. How could this service be improved?

4. What are the barriers you anticipate to using this service?

Submit responses using the following:
https://pollev.com/bstratton

To respond, from a computer or mobile browser, access:
https://pollev.com/bstratton
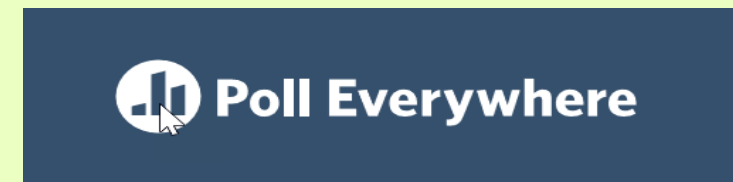
#3 – Onboarding Training Modules

Challenge: Educating Providers and EHR Vendors on Onboarding Basics

- IIS staff spend **considerable time working with providers and EHR vendors educating them on fundamental aspects** of onboarding.

- The work required to support providers and vendors on these basic onboarding concepts **takes time away from addressing more complex tasks** and issues related to establishing interfaces for production and assuring data quality.

Solution: Onboarding Training Modules

Onboarding Training Modules

Users: IIS, EHR Vendors, Providers

Provide self-guided training modules that walk through the "what" and "why" for specific core topics necessary for successful onboarding; house trainings on a public website.

Proposed Training Modules

- Onboarding Overview
- Basics of HL7 Messaging
- How to Set Up HL7 Messages
- Establishing a Connection
- Using Vaccine Code Sets
- Addressing Jurisdictional Variations

Training Medium

Training modules can take a variety of forms. The Service Center will develop modules using training development best practices which incorporate audio-visual, interactive, and reinforcement techniques

Solution: Onboarding Training Modules

Expected Jurisdiction Responsibilities

- Jurisdictions review and provide feedback on proposed training modules

- Jurisdictions validate training module content

- Jurisdictions advertise training modules during kick off call and throughout the onboarding process

Expected Outcomes and Impact

- ✓ Reduces provider and vendor reliance on IIS staff for training and troubleshooting on fundamental aspects of onboarding

- ✓ Increases IIS staff time to focus on more difficult challenges during onboarding

- ✓ Improves provider and vendor understanding of onboarding and electronic data exchange

- ✓ Streamlines the onboarding process by enhancing provider and vendor knowledge and competencies related to onboarding

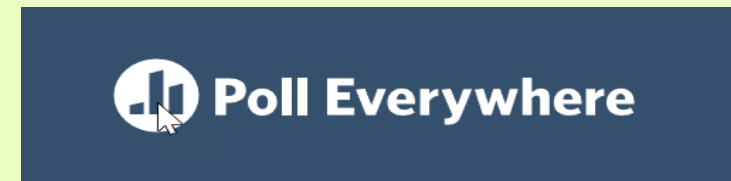# Solution: Onboarding Training Modules

1. How likely are you to use this service?

2. What do you like most about this service?

3. How could this service be improved?

4. What are the barriers you anticipate to using this service?

Submit responses using the following:
https://pollev.com/bstratton

To respond, from a computer or mobile browser, access:
https://pollev.com/bstratton

#4 – Provider & Vendor Onboarding HL7 Message Help Desk

Challenge: Educating Providers and EHR Vendors on Onboarding Basics

- The initial construction and generation of HL7 messages **poses a significant challenge during the development and testing phase** as many providers and vendors **do not have prior experience with HL7 messaging.**

- Providers and vendors often spend time calling and emailing IIS staff about basic aspects of development and testing during onboarding, **detracting time away from IIS Staff to address more complex onboarding issues**.

- This back and forth leads to **long delays between the kickoff call and data quality testing in the IIS test environment**.
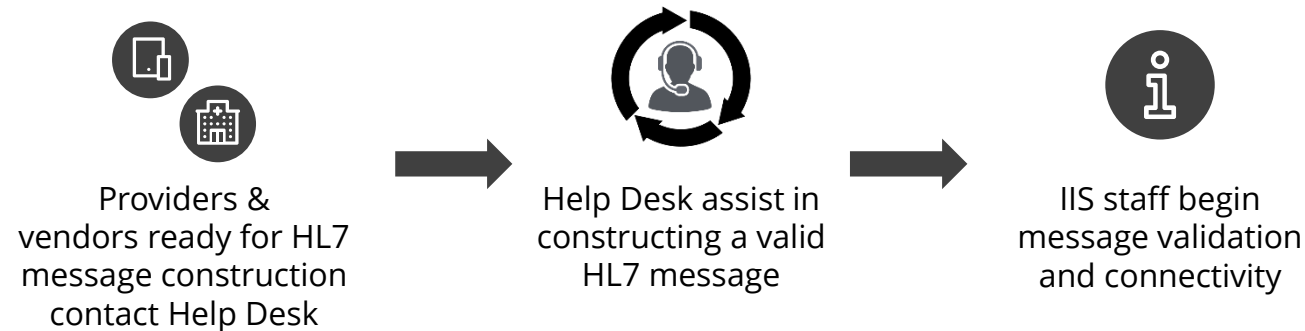
Solution: Provider & Vendor Onboarding HL7 Message Help Desk

Provider & Vendor Onboarding HL7 Message Help Desk

Users: EHR Vendors, Providers

Develop and staff a help desk that gives providers and vendors access to real time support for performing self-testing during initial construction and generation of HL7 messages without involvement of IIS staff.

Providers & vendors ready for HL7 message construction contact Help Desk

→

Help Desk assist in constructing a valid HL7 message

→

IIS staff begin message validation and connectivity

Solution: Provider & Vendor Onboarding HL7 Message Help Desk

Expected Jurisdiction Responsibilities

- Jurisdictions provide jurisdiction specific HL7 implementation guides to Help Desk, if applicable

- Jurisdictions advertise the Help Desk during kick off call for providers and vendors to use when constructing an HL7 message

- Vendor or provider sends test message to IIS for data validation

Expected Outcomes and Impact

- ✓ Allows IIS staff to focus on data quality issues during Dev & Testing, rather than on message construction or generation

- ✓ Gives providers and vendors near real-time support during the onboarding process to help troubleshoot issues, inform on best practices, and proceed through testing phases

- ✓ Provides real-time feedback to providers and vendors during onboarding keeping engagement during the onboarding process

# Solution: Provider & Vendor Onboarding HL7 Message Help Desk

1. How likely are you to use this service?

2. What do you like most about this service?

3. How could this service be improved?

4. What are the barriers you anticipate to using this service?

Submit responses using the following:
https://pollev.com/bstratton

To respond, from a computer or mobile browser, access:
https://pollev.com/bstratton
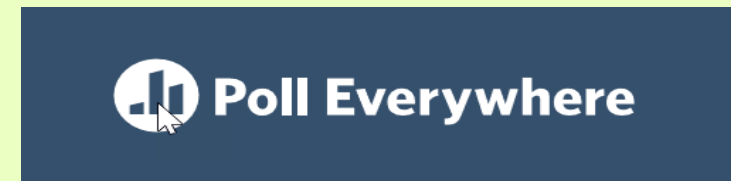
#5 – Multi-Record Message Data Quality Testing Tool for EHRs

Challenge: Data Quality Issues from Providers and Vendors

- Providers and EHR vendors **spend a significant amount of time in the development and testing phase on construction and validation of HL7 messages**.

- HL7 data quality issues and data validation are **time consuming efforts for IISs, vendors, and providers**.

- These data challenges involve **manually sending messages back and forth** between provider or vendor staff to the IIS staff to check for completion and accuracy.

- Providers and EHR vendors would benefit from a tool that allows them to proactively **identify issues with messages prior to sending test messages to the IIS**.
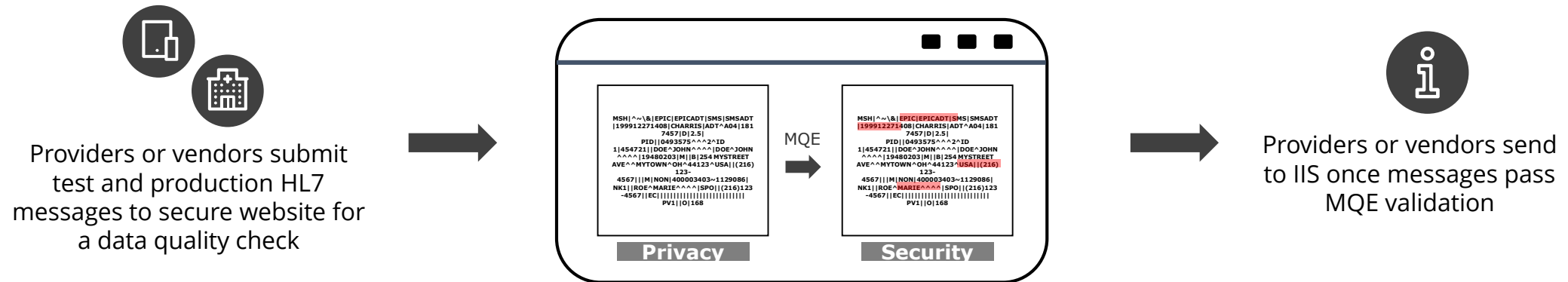
Solution: Multi-Record Message Data Quality Testing Tool for EHRs

Multi-Record Message Data Quality Testing Tool for EHRs

Users: EHR Vendors, Providers

Offer providers and EHR vendors with a secure, web-based platform to analyze message quality from EHRs without intervention from IIS staff, similar to how IISs are able to use the MQE tool with their own systems.

Providers or vendors submit test and production HL7 messages to secure website for a data quality check

Providers or vendors send to IIS once messages pass MQE validation

Solution: Multi-Record Message Data Quality Testing Tool for EHRs

Expected Jurisdiction Responsibilities

- Once messages are of baseline quality, providers and vendors send messages to local IISs to finalize development and testing

- SSC provides a personalized dashboard to stakeholders that provides a history of data quality throughout testing and production

Expected Outcomes and Impact

- ✓ Frees up IIS staff to focus on issues regarding establishing an interface during production and other aspects of testing

- ✓ Enables providers, vendors, and IISs to proactively and rapidly monitor ongoing data message quality

- ✓ Increases amount of self-testing providers and vendors can do by assuring that provider messages conform to standards and allowing them to examine the data quality of their own messages

Solution: Multi-Record Message Data Quality Testing Tool for EHRs
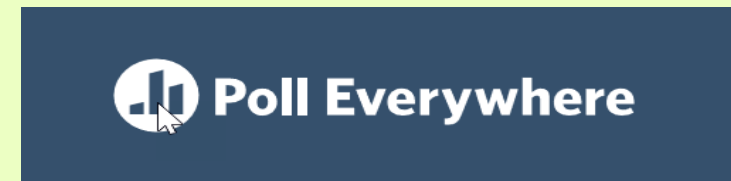
1. How likely are you to use this service?

2. What do you like most about this service?

3. How could this service be improved?

4. What are the barriers you anticipate to using this service?

Submit responses using the following:
https://pollev.com/bstratton

To respond, from a computer or mobile
browser, access:
https://pollev.com/bstratton

Open Discussion

Shared Services Onboarding Offerings – Open Discussion with Poll Everywhere

1. Please rank the services from most to least likely you are to use them

2. What other services would you have liked to see?

3. What other considerations should we take into account when developing onboarding shared services?

To respond, from a computer or mobile browser, access:
https://pollev.com/bstratton

Next Steps

Next Steps

❑ **Synthesize the results of the discussion, including but not limited to:**

    o Key Takeaways from the discussion

    o Prioritization of shared services

    o Potential short-term vs. long-term options

❑ **Provide synthesis back to the IIS community for feedback**

❑ **Begin to develop high level implementation plan for top choices**

For additional feedback on the potential services, polls will remain open until 5pm EST on December 21st
https://PollEv.com/surveys/1XJ3DQr4siL5Kk5PVdFfF/web

Please email Kafayat Adeniyi with any other questions you have: kga9@cdc.gov

Discussion, Questions?

Thanks so much!

A survey link with a brief evaluation
will be emailed to all attendees
following this webinar