



# Town Hall Meeting: Introducing Validation, and Measures for Transport

November 28, 2017 | 12pm ET



## Topics to Cover

- Welcome and Overview, Review of Agenda – Jane Lammers, Nevada, MACAW Co-Chair
- Overview of Validation – Mary Beth Kurilo, AIRA
- Validation Rollout, First Phase: Transport – Eric Larson
- Overview of AART, Changes Coming – Nathan Bunker
- Questions/Discussion – Jane Lammers



## MACAW Members recommend concepts and measures to the AIRA Board for approval

Jane Lammers, Nevada IIS - Co-Chair  
Aaron Bieringer, Minnesota IIS - Co-Chair  
Brandy Alstadter, STC  
Roger Aikin, Arizona IIS  
Amy Groom, IHS  
Dave McCormick, Indiana Imm Program

Rob Snelick, NIST  
Amy Metroka, NYC IIS  
Wendy Nye, Michigan IIS  
Laura Pabst, IIS Support Branch, CDC  
Eric Schuh, DXC  
Kevin Snow, Envision

#### 4 Two main goals today:

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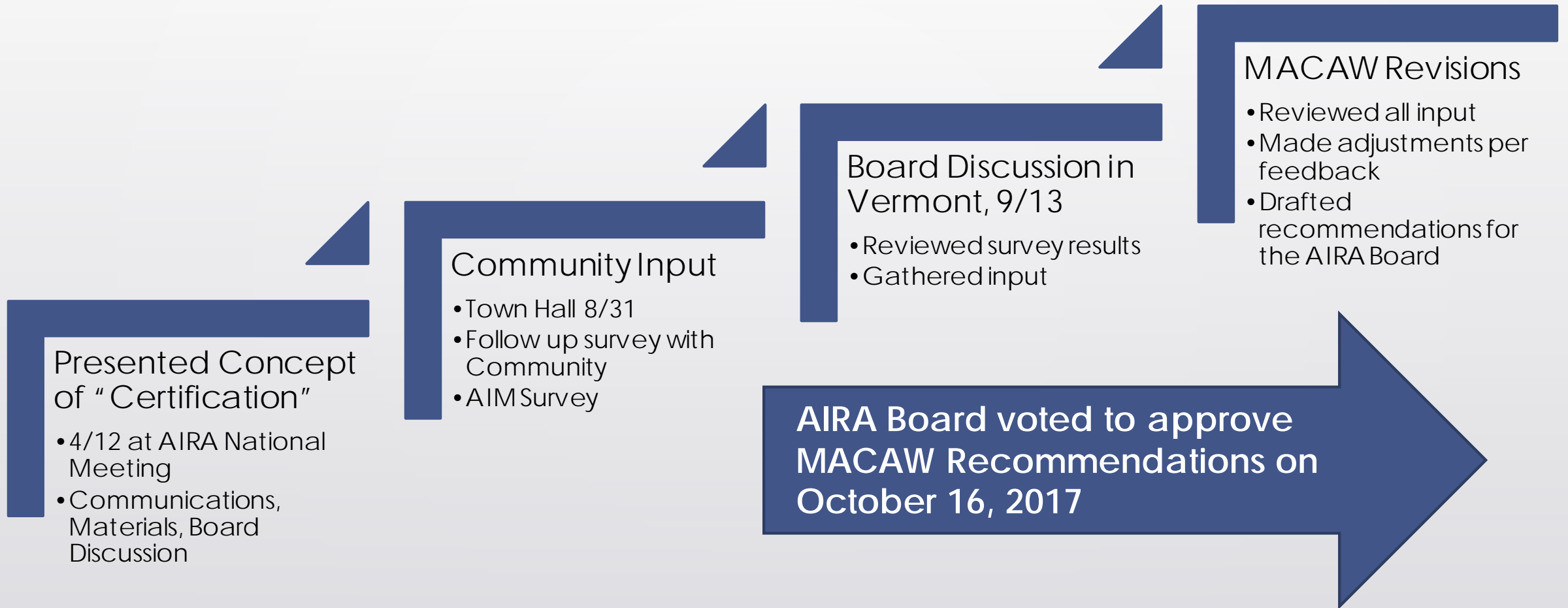
1

Introduce the  
AIRA Board-  
approved  
concept of  
Validation

2

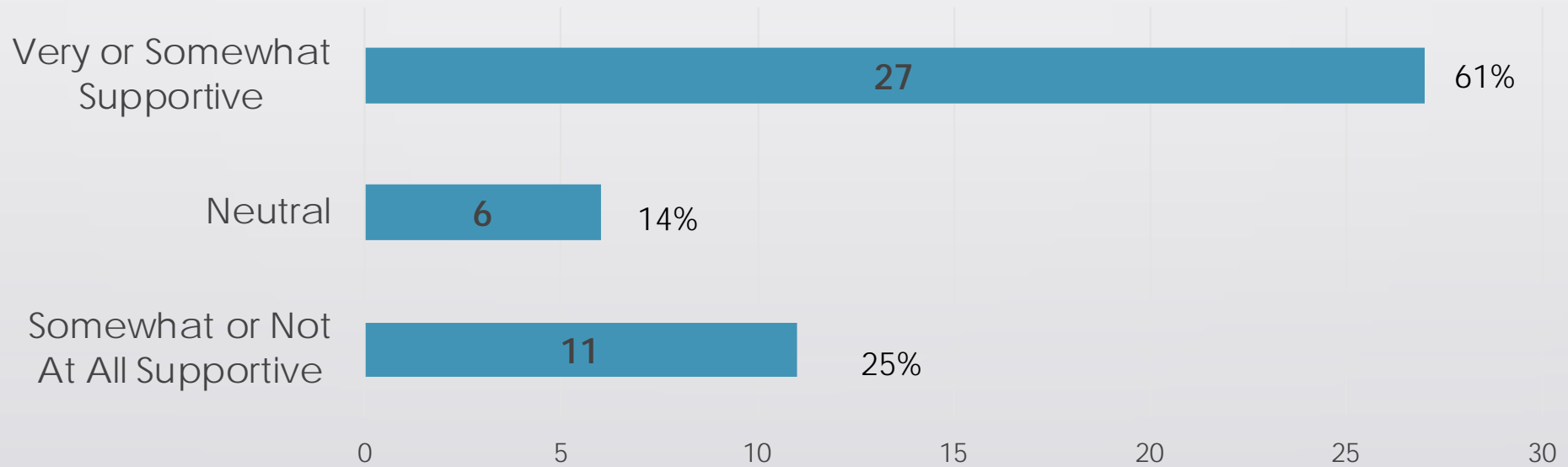
Gather input on  
the measures for  
the first phase of  
Validation:  
Transport


# Review: The Path to Validation



# Preliminary Survey Results on **Voluntary Certification** (N=44 Jurisdictions)

Overall, how supportive are you of the IIS Community moving forward with Voluntary Certification?



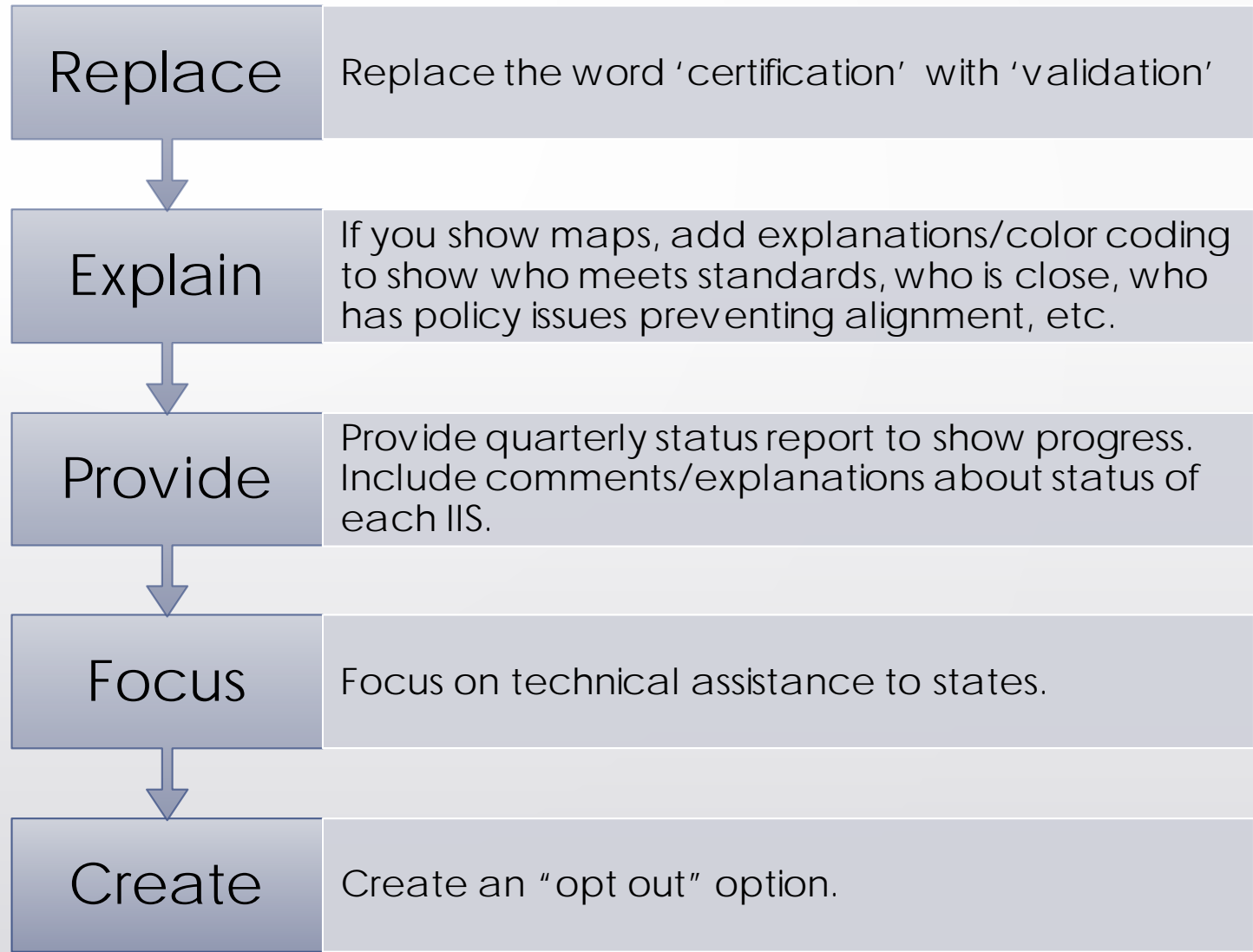


Discussion at the  
AIRA Board Meeting,  
Vermont,  
September 13, 2017

- **Problem Statement:** There is a lack of available information regarding how fully IIS are meeting Functional Standards.
  - As part of Measurement and Improvement, this information is objectively captured
  - Some sites want and are ready to share their validated results in a structured way
  - Stakeholders (e.g., Providers, EHRs, ONC) want this information
  - MACAW believes this effort will both benefit and motivate the community

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## Sample of Input from the AIRA Board



# MACAW Recommendations

1. Move forward with a “validation” designation that is automatically achieved when an IIS meets the designated measures and tests in IIS Assessment
2. Include gradations of “minor differences” and “major differences” to better demonstrate incremental progress
3. Continue to publish quarterly aggregate reports, but also include quarterly identified maps with gradations
  - Provide opportunity for IIS to add footnotes (policy prohibitions, etc.)
4. Simplify participation and sharing through shifting to automatic roll forward, opt out vs. opt in, while continuing to offer full access to sharing settings
5. Increase messaging and communication
6. Increase emphasis on technical assistance



## Recommendation to the AIRA Board of Directors: Next Steps for IIS Measurement and Improvement

*Developed and Reviewed by MACAW (Measurement for Assessment and Certification Advisory Workgroup)*

### BACKGROUND AND CONTEXT

Immunization Information Systems (IIS) Voluntary Certification has been discussed as the public facing aspect of IIS Measurement and Improvement since early 2015. Although a majority of the community is supportive of this step (see Appendix A), there is still concern about the broader impact of the certification effort, particularly for those IIS that cannot meet the measures due to local policy.

In addition, it is worth noting that there is also some confusion and questions regarding the stages and phases of Measurement and Improvement. After extensive discussions with the IIS Community, the AIRA Board of Directors, AIM Program Managers, and partners, MACAW is suggesting introducing a “validation” process in place of voluntary certification, while still considering the possibility of revisiting voluntary certification at a later date.

Phases and Stages of Independent Measurement and Improvement

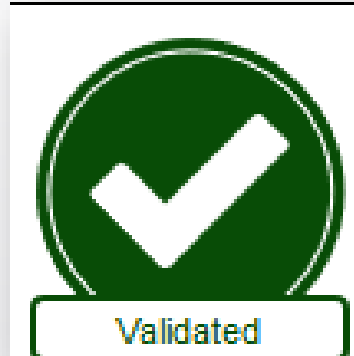


### PROBLEM STATEMENT

MACAW and the AIRA Board agreed on the following problem statement: **There is a lack of available information regarding how fully IIS are meeting functional standards.** As part of the current Measurement and Improvement effort, this information is objectively captured through AIRA's third-party testing process. The AIRA measurement process is regarded positively throughout the community, and some IIS are ready to share this information publicly in a structured way. Stakeholders (immunization providers, EHRs, ONC) have voiced a need for this information. Although Voluntary Certification was proposed as one solution to this problem, the process of “certification” may seem too big a step at this point.

# Measurement and Improvement

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Definition: Following the stages of Testing and Discovery and IIS Assessment, Validation is a summary stage to acknowledge IIS that are progressing toward or achieving alignment with community-selected measures. A Validation designation is automatically achieved when an IIS meets the designated measures and tests in a specific phase (e.g., Transport, Submission, etc.).

What happens at each stage?



# Phases and Stages of Measurement

## Stages

## Phases

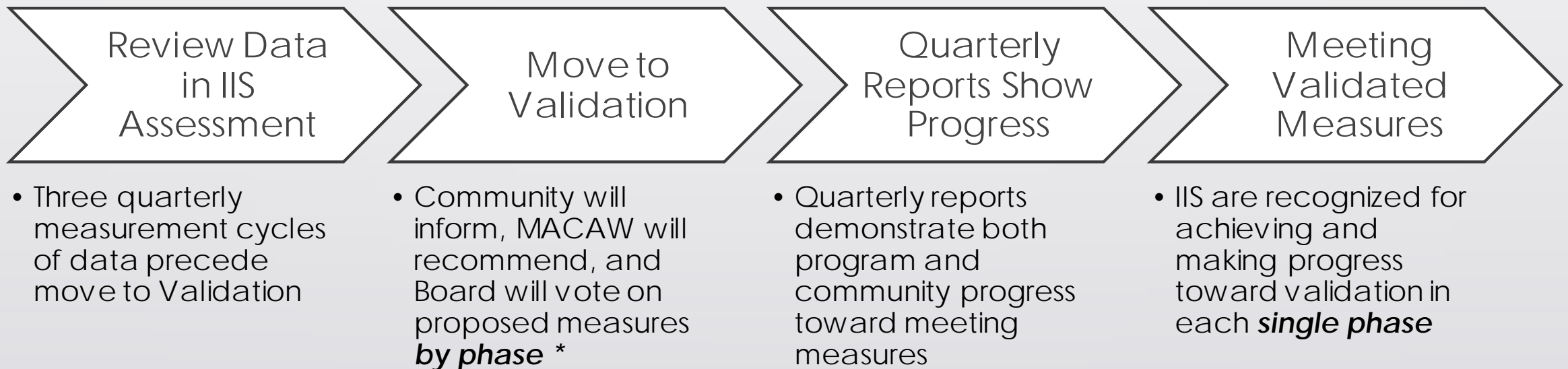
	Testing and Discovery Stage	Assessment Stage	Validation Stage
Transport			
Submission/ ACK			
Query/ Response			
CDS			
Data Quality (6)			
Functions (e.g. AFIX)			
Policy			
Security			



# Process for Validation

# Validation Rollout

A "Validation" designation is automatically achieved when an IIS meets the designated\* measures and tests in IIS Assessment



## Phases Nearing Validation

TRANSPORT

3

1<sup>st</sup> Assessment  
Q3 2016

Will Discuss  
Today

SUBMISSION

14

1<sup>st</sup> Assessment  
Q1 2017

Future Discussion

QUERY

8

1<sup>st</sup> Assessment  
Q1 2017

Future Discussion



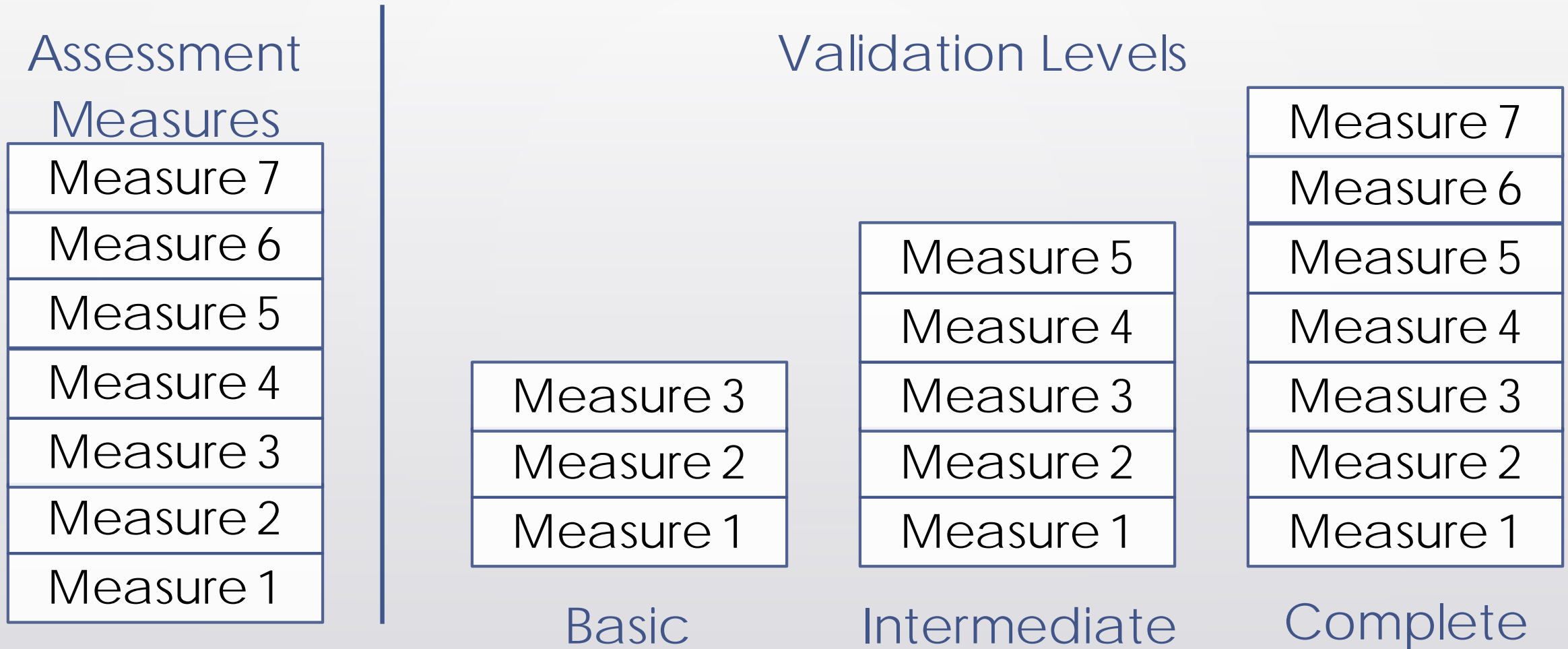
# Using Assessment Measures for Validation

## Assessment Measures

Measure 7
Measure 6
Measure 5
Measure 4
Measure 3
Measure 2
Measure 1

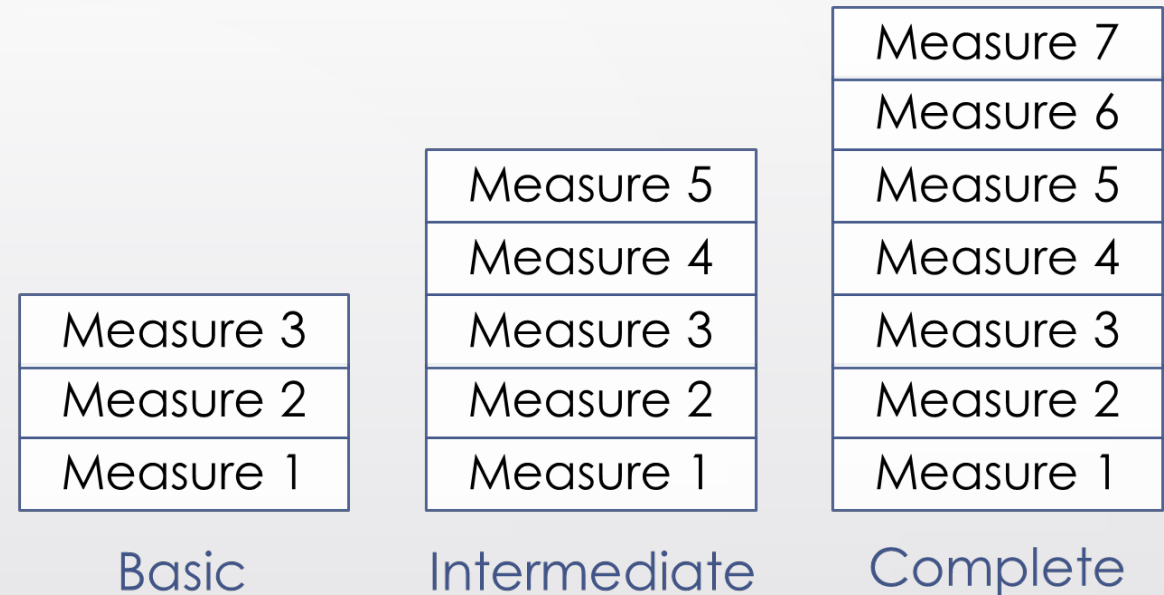
## Validation Levels

# Using Assessment Measures for Validation



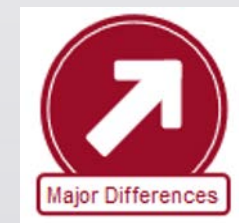


## Validation Levels



## Validation Statuses

With Validation Levels defined, an IIS can be measured and assigned a validation Status for each level



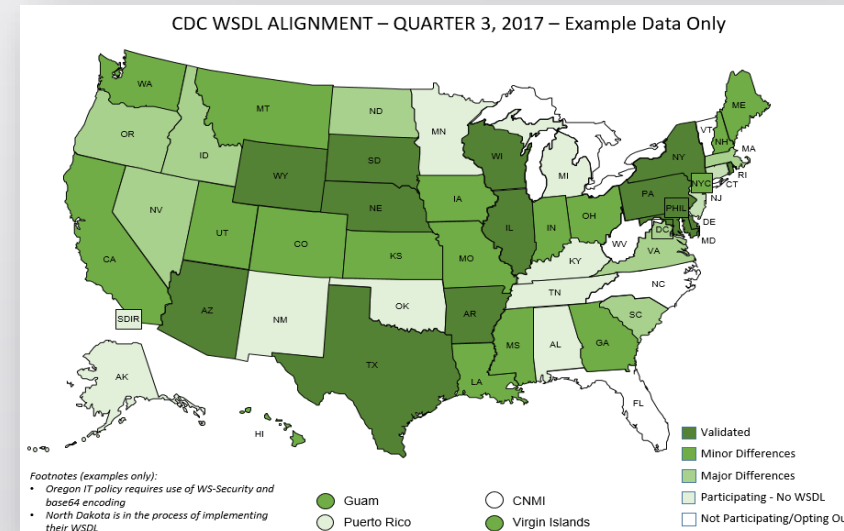
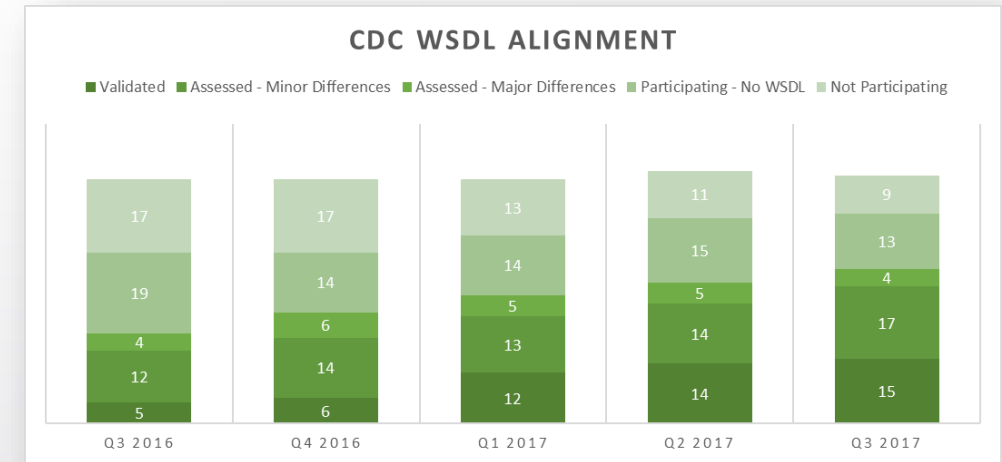
## Validation Statuses

# Validation Statuses, Explained



# National Validation Reports


- Include gradations of “validated with minor differences” and “major differences” to better demonstrate incremental progress.
- Include quarterly identified maps with gradations, with footnotes that clarify policy differences



Example Data Only



# Transport Measures for Validation



## First Proposed Phase: Transport Functional Standards

2018-2022 Essential Infrastructure Functional Standards

8. The IIS exchanges data with health information systems in accordance with current interoperability standards endorsed by CDC for message content, format, and transport.

8.1 The IIS supports the Simple Object Access Protocol (SOAP) standard Interface, Web Services Definition Language (WSDL), or other transport solutions as endorsed by CDC.

1) The IIS supports the SOAP specification and WSDL endorsed by CDC



1) The IIS shall implement the connectivity test operation

2) The IIS shall implement the Submit Single Message operation

3) The IIS shall have the ability to throw a security fault

1a) The IIS shall implement the connectivity test operation

1b) The IIS shall implement the Submit Single Message operation

1c) The IIS shall implement the ability to respond with a security fault

## Transport measures

- Content of transport measures and tests remains the same
- To ensure consistency with new levels of validation, will discuss and display as three discrete measures instead of one measure and three tests

## First Proposed Phase: Transport Background

Baseline measured in IIS Assessment:

September 2016

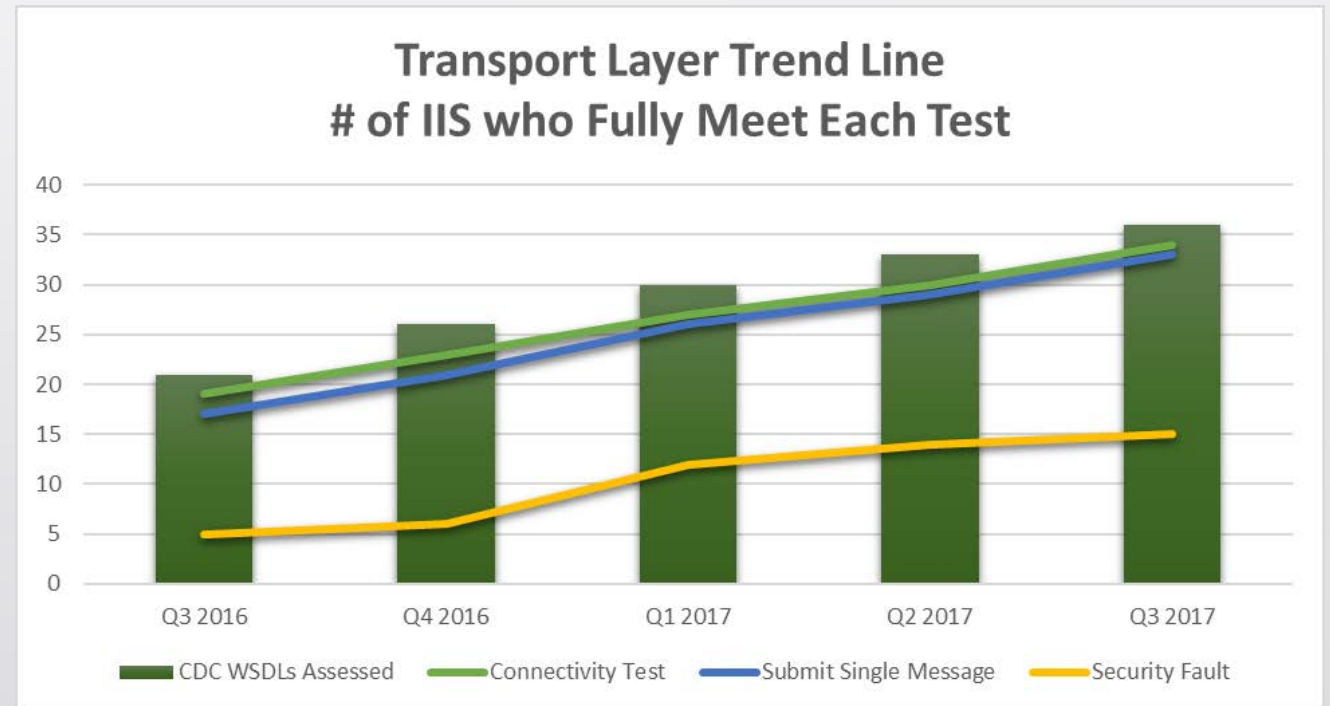
Remeasurements occurred:

December 2016

March 2017

June 2017

September 2017




## Measure Levels - Transport

Measure	Basic	Complete
1 – Connectivity Test	X	X
2 – Submit Single Message	X	X
3 – Security Fault		X



# AART, Overview and Upcoming Changes



## The Aggregate Analysis Reporting Tool (AART) - Improvements

AART is the application developed by AIRA to display and share measurement and improvement results for individual IIS and the full IIS community. Improvements include:

- New Interactive Dashboard
- Easier to Understand Participation and Sharing Setup
- Updated Discovery Report
- Support for Transport Validation
- Support for Clinical Decision Support (CDS) Assessment

*Work is under development, screenshots include fictitious data*

## Announcements and Welcome!

First time user? Watch this quick orientation video for AART! IIS Assessment Reports for CDS are available as of 8/15/2017. Other training resources for AART.

## Cambridge Dashboard

Testing and Discovery



Assessment



Validation

### Discovery

Connected

June 2017



### NDC

Eligible to Participate



### Transport

Mar 2017



### Submission and Acknowledgement

May 2017



### Query and Response

May 2017



### CDS

Eligible to Participate



### Transport - Complete

2018



AART  
Dashboard  
in Development  
(example data  
only)

## Transport - Complete

Congratulations your Transport interface is almost compatible with CDC standards.

## Cambridge Dashboard

✓ Basic ✓ Complete

### Transport - Complete

2018



Minor Differences

#### Validation Details

#	Validation Measure	Result
1	The IIS shall implement the Connectivity Test Operation	Meets
2	The IIS shall implement the Submit Single Message Operation	Meets
3	The IIS shall have the ability to throw a Security Fault	Deviates

How was this calculated?

### Review and Annotate

Validating this test system:

**Does this report represent and test the same functionality as is available in production?**

☐ Yes

☐ Will be available by

☐ No, because

**Is this CDC WSDL available for EHRs and other submitters to use?**

☐ Yes

☐ Will be available by

☐ No, because

**Do you have any local law/policy that you would like to have noted in this report?**

Save Review

## Transport - Complete

2018



### Validation Details

#	Validation Measure	Result
1	The IIS shall implement the Connectivity Test Operation	Meets
2	The IIS shall implement the Submit Single Message Operation	Meets
3	The IIS shall have the ability to throw a Security Fault	Deviates

### Applicable Law or Policy

Providers must complete user agreement before obtaining an account.

- Available: **Yes**
- Ready for use: **March 2018**

This report was reviewed by Ryan Goreling on 11/20/2017.

## What is Transport Validation?

IIS that support transport will be able to accept real-time HL7 messages from EHR and other providers. Meeting this validation standard means that these submitters can implement the common standard and can connect to your IIS without adaptation or custom work.

There are two levels of support:

- **Basic:** The submitter will be able to send data as long as the credentials are correct.
- **Complete:** The submitter can send and will receive a correct response if the credentials are not correct.

# Fremont Dashboard Dashboard

## Participation and Sharing Settings

Indicate your IIS Program's participation and level of sharing below. Sharing your IIS Program's results will also allow you to see other IIS Programs' shared results for each area.

Discovery

Participate?

Would you like to share your results with these group of users?

	Yes	No	IIS Programs	IIS Vendors	CDC/NIST	EHR Vendors
IIS Testing and Discovery	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No
NDC Discovery	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No

Assessment

Participate?

Would you like to share your results with these group of users?

	Yes	No	IIS Programs	IIS Vendors	CDC/NIST	EHR Vendors
Transport Assessment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No
Submission and Acknowledgement Assessment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No
Query and Response Assessment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No
Clinical Decision Support Assessment	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No

Validation

Participate?

	Yes	No
Transport Validation	<input checked="" type="radio"/>	<input type="radio"/>

Do you have any questions or concerns? We would like to hear from you!

Save

AART Dashboard  
in Development  
(example data  
only)

# Fremont Dashboard Dashboard

## Participation and Sharing Settings

Indicate your IIS Program's participation and level of sharing below. Sharing your IIS Program's results will also allow you to see other IIS Programs' shared results for each area.

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NDC Discovery	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No

Assessment

Participate?

Would you like to share your results with these group of users?

	Yes	No	IIS Programs	IIS Vendors	CDC/NIST	EHR Vendors
Transport Assessment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No
Submission and Acknowledgement Assessment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No
Query and Response Assessment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No
Clinical Decision Support Assessment	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> Yes - Unnamed <input type="radio"/> No

Validation

Participate?

	Yes	No
Transport Validation	<input checked="" type="radio"/>	<input type="radio"/>

Do you have any questions or concerns? We would like to hear from you!

Validation

Participate?

Yes

No

Transport Validation

☒

☐

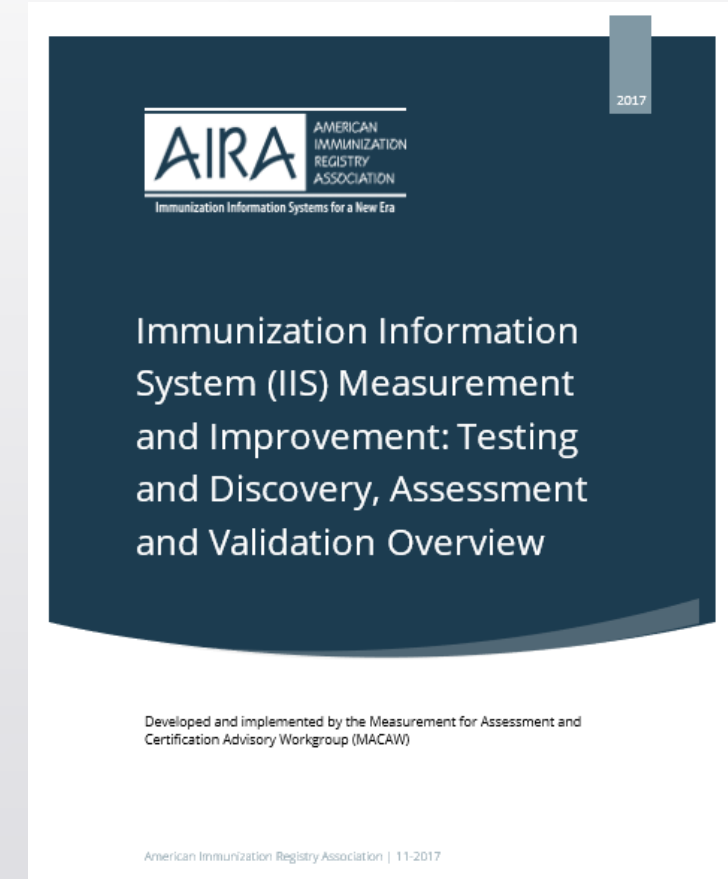
Do you have any questions or concerns? We would like to hear from you!



# Timeline and Communications

## Additional Information Is Available on the AIRA Website

- There is an updated overview document that talks about Measurement and Improvement overall, and goes into detail about Validation - it can be found on the [Measurement and Improvement Initiative: Validation page](#)
- FAQs and a 1-2 page summary are also coming soon





# Timeline for Transport Validation Rollout

Nov 2017

- Town hall with community on Validation, transport measures

Jan 2018

- New AART released
- Participation and Sharing Settings Updated

March 2018

- Reports on Assessment and Validation for transport available in AART, IIS confirm/adjust settings

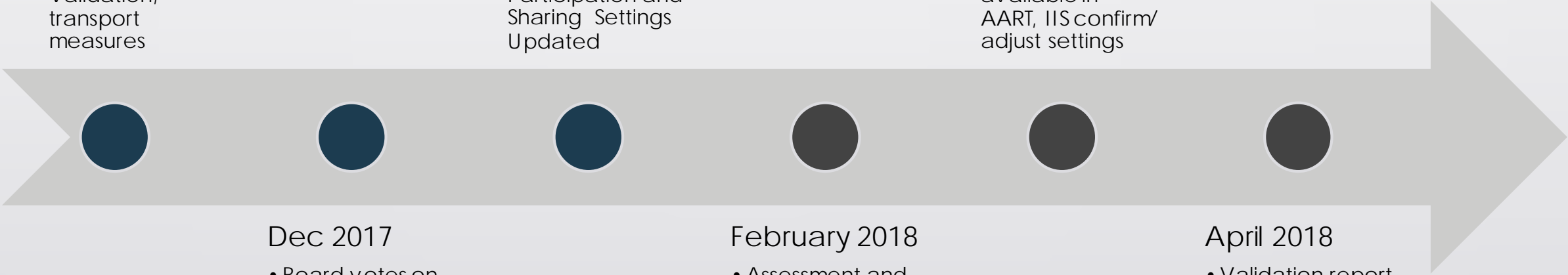
Dec 2017

- Board votes on transport measures for Validation

February 2018

- Assessment and Validation for Q1 2018 transport measured

April 2018

- Validation report available
- 

# Validation – Getting the Word Out

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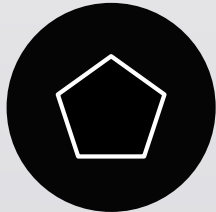
## Webinars/Town Hall Meetings

Webinar scheduled for November 28<sup>th</sup>,  
Planning additional Webinar in  
January to coincide with roll-out



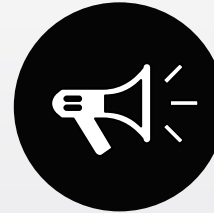
## Print Materials

Updating Overview Document, FAQ,  
Brief Summary (1-2 pager)



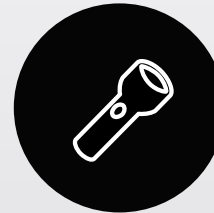
## AART

Revamping dashboard and look and  
feel to increase usability



## Program Manager Outreach

Coordinating with AIM to ensure  
Program Managers have the  
information they need about  
measurement overall, and validation in  
particular



## Transparency

Publishing results of measurement,  
engaging community to ensure  
measures, tests and context are  
understood



## Technical Assistance

Increasing resources to support IIS in  
making changes to better align with  
standards ongoing, offering “clinics” at  
AIRA 2018



# Discussion



## Questions Or Clarifications

- Phone lines have been unmuted
- Please share your **questions or clarifications** about the concept of Validation first

*Note: we will open the floor for  
**comments** on the Transport Phase next*

## Comments

- Please share your **comments** about the transport measures





Thank you!

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