



**AIRA**  
AMERICAN IMMUNIZATION  
REGISTRY ASSOCIATION

# **Immunization Information System (IIS) Measurement and Improvement**

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**Frequently Asked Questions**

Updated December 2019

## Basics About IIS Measurement and Improvement

### 1. When did the IIS Measurement and Improvement Initiative begin?

The American Immunization Registry Association's (AIRA) community-driven immunization information system (IIS) Measurement and Improvement Initiative was launched in mid-2015, with the goal of providing IIS with information and guidance to more fully align with the IIS Functional Standards. The project connects AIRA testing processes with IIS pre-production (or test) systems, and/or analyzes deidentified data, and shares results through the Aggregate Analysis Reporting Tool (AART). AIRA is continuing to test with a growing number of IIS interfaces, with over 80% of IIS programs currently participating. The data available are helping to guide individual IIS enhancements to align with standards.

### 2. What is MACAW?

The Measurement for Assessment and Certification Advisory Workgroup (MACAW) is an AIRA workgroup that was initiated in early 2016 and is charged with systematically researching and formulating key IIS assessment components, developing measures and tests, and implementing IIS Assessment. MACAW recommends processes and measures to the AIRA Board of Directors for review and approval.

### 3. Who makes up the Advisory Workgroup?

MACAW is made up of IIS and Immunization Program staff, IIS Vendors, and several community partners (The Centers for Disease Control and Prevention [CDC], The National Institute of Standards and Technology [NIST] and Indian Health Services [IHS]). The group is Co-Chaired by two MACAW members and is overseen by the AIRA Board of Directors. Several members of the AIRA Standards Team also support the work of MACAW.

### 4. What are the stages and content areas of the Measurement and Improvement Initiative?

**Testing and Discovery**, the initial stage in IIS Measurement and Improvement, serves to gather preliminary and general information on community alignment with standards. Testing and Discovery precedes all subsequent stages and has been underway since mid-2015.

**IIS Assessment**, the second stage, involves more formal testing to measure individual IIS systems using IIS community-selected measures and tests. Results are shared via the AART application to help facilitate quality improvement. Technical assistance is provided to IIS Programs and Vendors as needed to accelerate improvement. The measures and tests for IIS Assessment are recommended by MACAW and approved by the AIRA Board for each content area. Transport was the first content area of IIS Assessment, introduced in May 2016, followed by

Submission/ Acknowledgment, Query/ Response, and Clinical Decision Support (CDS).

Following the stages of Testing and Discovery and IIS Assessment, **Validation** is a summary stage to acknowledge and share results for IIS that are progressing toward or achieving alignment with community-selected measures and tests. A Validation designation is automatically achieved when an IIS meets the designated measures and tests in a specific content area (e.g., Transport, Submission, Query, etc.). Validation may include all or a subset of the measures in IIS Assessment, but will not include new measures that were not introduced in IIS Assessment.

Content areas (e.g., Transport, Submission/Acknowledgment, etc.) are topics that measure IIS functionality and capability within a specific functional area.

5. Why was Voluntary Certification deferred?

Conversations and surveys with the IIS community regarding Voluntary Certification showed the majority of responding IIS supported moving forward, but some voiced continued concern for those IIS unable to meet certification due to policy or law. This community input suggested that adding a Validation component as the next stage in the measurement process would be the best path forward. While Certification is not being proposed currently based on these reasons, it may be revisited at a later date.

## Benefits of Being Measured

6. What are the anticipated benefits of being measured in the Measurement and Improvement process?

Measurement and Improvement provides IIS with an objective, independent testing process; the available data will enable individual IIS to share their progress toward meeting standards with the broader community. This in turn will build confidence in IIS across other communities and will help prioritize essential improvements and community-wide adoption of standards across both IIS and electronic health record (EHR) systems. Over time, adoption of standards will reduce costs and resources needed for onboarding and maintaining interfaces both now and in the future.

7. Why is it important we move forward with Validation now?

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 independent testing process. The AIRA measurement process is regarded positively throughout the community, and some IIS are ready to share their own results publicly in a structured way.

Stakeholders, such as immunization providers, EHR vendors, and the Office of the National Coordinator (ONC) have voiced a need for this information.

Validation addresses this problem through providing a uniform testing process, community-informed measures and tests, and a method for sharing results as Programs are ready. All measures and tests for IIS Assessment and Validation are developed by MACAW, vetted for comment with the full IIS community via a Town Hall meeting format, and reviewed and approved by the AIRA Board of Directors prior to implementation.

8. What about IIS who are not yet ready to be measured in the Validation process?  
Measurement is encouraged but remains voluntary. The AART application will continue to be used as the platform for declaring a desire to be measured in the stages and content areas of measurement, as well as for declaring sharing settings to allow for transparency. To lower the burden, each IIS will be rolled forward to be included in measurement and share in new content areas and stages; however, AART users can change measurement and sharing settings at any time, and “no” responses will be rolled forward as well.
9. What does my IIS receive if we meet the measures?  
AIRA will provide IIS who meet the status of “Validated” with a formal statement they can include on their communication and marketing materials if desired. These IIS will be positively recognized as “Validated” at AIRA events. IIS that meet a status of “Validated with Minor Differences” or make notable progress toward the measures for Validation will also be recognized at AIRA events.
10. How long is each Validated status good for?  
Validation will be renewed for each calendar year; however, this may be extended for specific content areas to minimize the operational burden of renewal.
11. Is technical assistance available if my IIS does not meet the necessary measures to be Validated?  
Technical assistance is available to IIS Programs and Vendors as needed to support improvement efforts. IIS are encouraged to be measured even if they won’t meet specific measures.

## Operational Questions

12. Who will oversee the Measurement and Improvement process?  
All measures and tests throughout the Measurement and Improvement Initiative have been and will continue to be developed by MACAW, vetted for comment with the full IIS community via a Town Hall meeting webinar format, and reviewed and approved by the AIRA Board of Directors prior to implementation.

13. Will the Measurement and Improvement Initiative be phased, or implemented all at once?

The Measurement and Improvement Initiative is phased. New measures for future content areas, as well as potential new methods for measurement, will be introduced and vetted through the same consistent community-driven process. Measures and tests will continue to be developed by MACAW, vetted for comment with the full IIS community via a Town Hall meeting webinar format, and reviewed and approved by the AIRA Board of Directors prior to implementation.

14. Who will conduct the testing?

AIRA staff will conduct all testing. If, at some future point, testing needs exceed AIRA's capacity, alternatives will be explored with MACAW and the AIRA Board, in conjunction with community input.

15. How will the testing be conducted?

AIRA technical staff are responsible for implementing and conducting all testing efforts within the Measurement and Improvement Initiative. Current test methodology involves connecting with IIS pre-production systems through a Web services interface, submitting test messages, and receiving back test results. Future content areas of measurement may involve new methods that are currently being evaluated by AIRA staff and MACAW. The National Institute of Standards and Technology (NIST) is partnering with AIRA in the testing process to develop conformance test tools in support of this Initiative.

16. What is the timeline for implementing IIS Validation?

Validation began in early 2018 starting with the Transport.

17. What is the difference between a stage and content area of measurement?

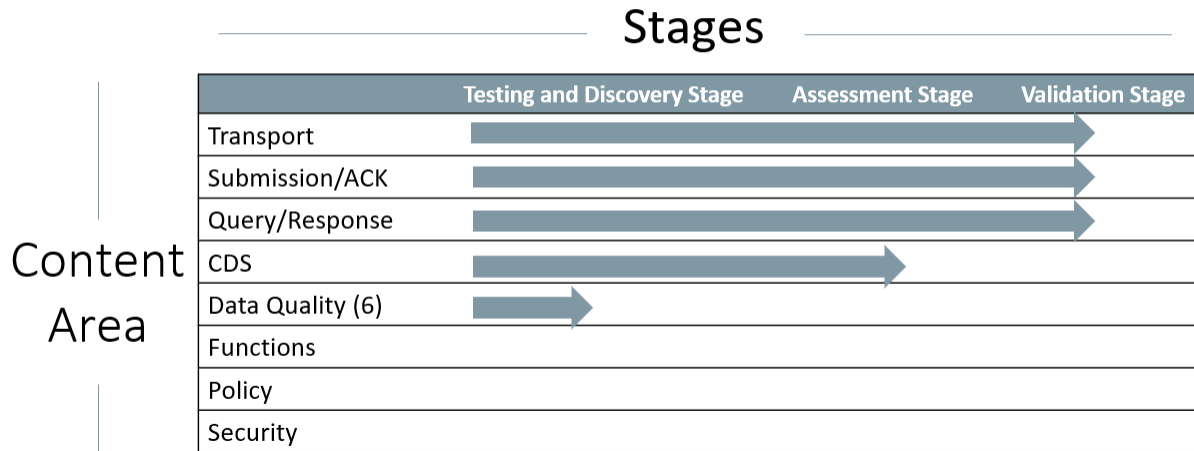
The stages and content areas of measurement were developed by MACAW. Since the Measurement and Improvement Initiative is rolled out incrementally, new measures for future content areas, as well as potential new methods for measurement, will be introduced and vetted through the same consistent community-driven process. The order may be subject to change.

A **stage** is defined as distinct level of testing in the Measurement and Improvement process.

A **content area** is defined as a functional area for measuring IIS functionality and capability within a specific functional area, made up of distinct measures and tests. Measures and tests will become more formalized as they progress into different stages.

Stages and content areas combine to provide a high-level roadmap for Measurement and Improvement:

# Stages of Measurement



## 18. What measures will be included in Validation?

Measures for each content area of Validation will be drawn from published IIS Assessment measures and tests, where results are already available to individual IIS via the AART application. No new measures or tests will be introduced in the Validation stage that are not already measured and visible in the Assessment stage.

## 19. What are the Validation statuses?

The statuses for Validation are defined as follows:

- **Validated:** The IIS has achieved full alignment with community-selected measures. This designation is automatically achieved when an IIS meets all the designated measures and tests in a specific content area (e.g., Transport, Submission, Query, etc.).
- **Validated with Minor Differences:** The IIS has achieved full alignment with community-selected measures except for differences that 1) are allowed within the measures and test, or 2) are meeting requirements of local policy/law that do not conflict with measures and tests.
- **Major Differences:** The IIS cannot support the measures because of additional requirements that conflict with the national standard; the IIS must make significant changes in one or more measures to align with standards.
- **Not Measured:** The IIS has communicated willingness to be measured but is not able to be tested at this time.
- **Opted Out:** The IIS has chosen not to be measured.

AART Validation statuses will be displayed with the following graphics:



## 20. Why are there levels of Validation (i.e., Basic, Complete)?

Some content areas may be broken down into “Basic, and/or Complete” measures. This graduated approach allows for more nuanced results and makes it easier to show both success and improvement. The “Basic” level includes essential measures an IIS would be expected to pass to minimally meet a specific functional area or content area, while the “Complete” level includes more comprehensive sets of measures for a given content area. Specific categories of Basic and Complete (where applicable), and definitions on which measures contribute to the statuses of Validated, Validated with Minor Differences, and Major Differences will be drafted by MACAW for each content area of measurement. These recommendations will then be shared with the IIS community for input and voted on by the AIRA Board **as each new content area is added to the Measurement and Improvement process.**

## 21. When will future content areas of Validation roll out?

Transport began in early 2018, followed by Submission/Acknowledgment and Query/Response in the second quarter of 2018. Since the Measurement and Improvement Initiative is phased, new measures for future content areas, as well as potential new methods for measurement, will be introduced and vetted through the same consistent community-driven process. The order in which the content areas roll out may be subject to change.

## Funding and Costs

### 22. What will it cost my IIS to be measured?

All testing is conducted by AIRA at no cost to Immunization Programs and IIS. Recommended system enhancements discovered through the testing process may have system modification costs.

### 23. Who is funding AIRA to do this testing work?

The Measurement and Improvement Initiative is part of AIRA’s Standards Cooperative Agreement with CDC. The Cooperative Agreement charges AIRA with conducting evaluations of IIS adherence to standards and identifying gaps in adoption and implementation.

As a member organization, AIRA's primary mission is to serve our members. The Board of Directors guide the design and implementation of initiatives.

24. Will my funding be affected if I'm not meeting measures included in Validation?

AIRA has not recommended any connection between funding and Validation. AIRA continues to advocate for additional funds to support enhancement needs identified by the Measurement and Improvement process.

25. Can I use CDC cooperative agreement funds for enhancements needed to meet Validation measures?

Yes, CDC allows base cooperative agreement funds to be used to meet all functions tested for Measurement and Improvement. Functions included in the Measurement and Improvement Initiative are based on the IIS Functional Standards; achievement of the Functional Standards is a required activity in the Immunization Program Operations Manual (IPOM).

26. Are CMS HITECH 90/10 match funds an option for funding enhancements needed to meet Validation measures?

Yes, the initial content areas of measurement directly focus on interoperability functions. CMS HITECH 90/10 match funds can be used to fund enhancements to meet these measures.

## Technical Assistance

27. What if my IIS is not yet connected for testing?

Contact AIRA technical staff by submitting a request form found [here](#).

Technical assistance is available to connect IIS and IIS vendor test systems for testing. Barriers to connectivity may exist that are outside the control of individual IIS, and we will work with other partners (AIM, ASTHO, CDC, etc.) to provide advocacy and information as needed.

28. Is there technical assistance available to help my IIS staff, Immunization Program Manager, IIS Vendor, or Central IT partners prioritize and plan enhancements?

Yes, AIRA technical and programmatic staff are available to meet with teams to strategize on how best to prioritize enhancements.

29. Where can I find more information about the Measurement and Improvement process?

Please visit the [AIRA website](#) for more information on the Measurement and Improvement Initiative.