

PROGRESS, SUCCESSES:

IIS MEASUREMENT AND IMPROVEMENT

BACKGROUND

Immunization information systems (IIS) have grown in functionality and complexity over the last twenty years. IIS are now interfacing with numerous large Electronic Health System (EHR) vendors and pharmacy chains that span multiple states; both sides of these interfaces rely on uniform adoption of standards for smooth onboarding and efficient, stable exchange of information. Greater alignment with standards speeds the onboarding process, minimizes the need for explanations of operational variations, and can lower costs and help sustain the IIS community moving forward.

AIRA's 2014-2018 Cooperative Agreement with the Centers for Disease Control and Prevention (CDC) includes an initiative to conduct formal evaluations of IIS practice or operations. Although there are many valuable outcomes of this project, the overarching goals are to: *Provide IIS with actionable information to more fully align with IIS Functional Standards, while developing a summary picture of how well IIS are aligning with standards and best practices.*

APPROACH

AIRA partnered with the National Institute of Standards in Technology (NIST) to launch an independent, third party method of IIS evaluation, where the Measurement for Assessment and Certification Advisory Workgroup (MACAW) works with the IIS community and the AIRA Board to refine a series of objective measures and tests with IIS pre-production or test systems. These measures are comparable across IIS, and offer a more uniform, standardized approach for measurement than current self-report methods.

EARLY PROGRESS

Throughout the first two years of IIS Testing and Discovery, project findings increased awareness, incentivized enhancements, and highlighted critical areas where standards themselves are in need of further clarification. The following are demonstrable examples of progress in IIS measurement and improvement:

PARTICIPATION

Near-universal participation of IIS in this project signals that the need for independent measurement to assess alignment with standards is broadly recognized as a priority. Of the 59 IIS targeted for participation, 48 participated in the last transport measurement.

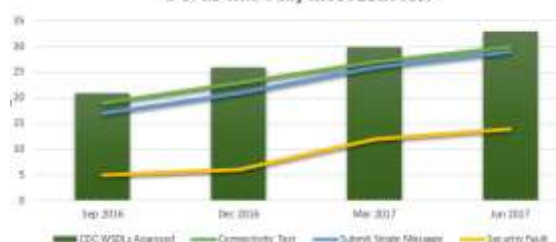
Quarter 2 2017 Transport Assessment Remeasurement Participation



TRANSPORT RESULTS

The latest remeasurement for transport (June 2017) demonstrates a significant increase in IIS participating and passing the transport measure and tests.

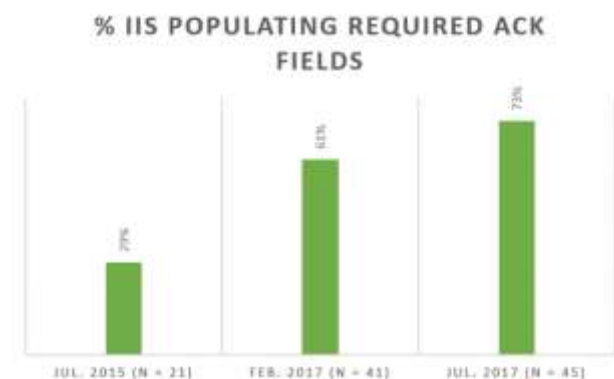
Transport Layer Trend Line
of IIS who Fully Meet Each Test



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ACKNOWLEDGEMENT MESSAGE CONFORMANCE

Early testing highlighted a gap in guidance around acknowledgement messaging. Guidance was created and released, along with individualized reports, and alignment with acknowledgement standards have increased substantially since the first measurement in July 2015.



DATA VIEWING & SHARING ON AART

The introduction of the Aggregate Analysis Reporting Tool (AART¹) allows IIS and their vendors visibility into their own system as well as their peers' systems (permission granted in named or unnamed form) to know where they may be in or out of step with their peers, and where they can collaborate, learn, and even adopt enhancements from each other. Fifty-four IIS programs and several IIS Vendors are currently logging in and using AART.

EXAMPLES OF SUCCESS FOR INDIVIDUAL IIS

- In supporting California's transition from 7 regional registries (CAIR 1) to 1 statewide registry (CAIR 2), testing provided clear information about interface differences to better prioritize issues and communicate with data exchange partners. On their first day live with CAIR 2, California imported 250,000 real-time HL7 messages.
- Minnesota used the AART tool to see what issues were needed for enhancements and used it to prioritize development. The AART testing diagram was also used before and after implementing 2.5.1 so Minnesota's team could demonstrate improvements to stakeholders.
- IIS Vendor Envision used the AART reports as communication tools with clients to help both vendor and client quickly understand and prioritize needed enhancements.
- New York City uses trend data from AART to monitor their development progress and improvements over time.



Submission and Acknowledgement Assessment

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Additional phases and stages of measurement and improvement will continue to roll out, but these early themes demonstrate the value of independent, third-party testing. Multiple EHR vendors have reached out to voice their support of this process as well, and many across the IIS community believe that IIS Assessment and Validation, coupled with EHR adoption of 2015 certified technology, will create a stronger, sustainable culture of interoperability throughout the health care ecosystem. For more information on engaging with IIS Measurement and Improvement, [contact the AIRA Technical Assistance Team](#).

¹ <http://ois-pt.org/dqacm/home>