

AIRA 2018
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=MEETING=

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AMERICAN IMMUNIZATION
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Advancing IIS Together



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The MQE Tool: Everything You Need to Know

Agenda

- Welcome
- Overview of Joint Development and Implementation Initiative
- Message Quality Evaluation (MQE) Tool Project Update
- MQE and Vaccine Code Base Demo
- Next Steps
- Q&A



Acknowledgements

MQE Technical Team

- Josh Hull
- Jason Narine
- Hossam Tamri
- Katelyn Davis

MQE Project Team

- Partners from
 - CA, IL, MI, MN, MO, NYC, OR, Phila, PR, TN
 - DXC, HLN, NIST, SSG
- JDI Advisors
- AIRA Staff
 - Mary Beth Kurilo
 - Nathan Bunker
 - Maureen Neary





Joint Development and Implementation

Mary Beth Kurilo, MSW, MPH

AIRA

Joint Development and Implementation (JDI)

- JDI is any collaborative development or implementation of standards, business requirements, functional or system requirements, design specifications, or production of actual software tools or applications by two or more IIS/Awardees.
 - Work under these initiatives extends to knowledge-sharing, joint decision-making, planning, and prioritization.
 - Potentially includes shared products, (respecting licensure and contracting issues), or shared services



JDI Projects

Project #1: Address Cleansing and Geocoding Service

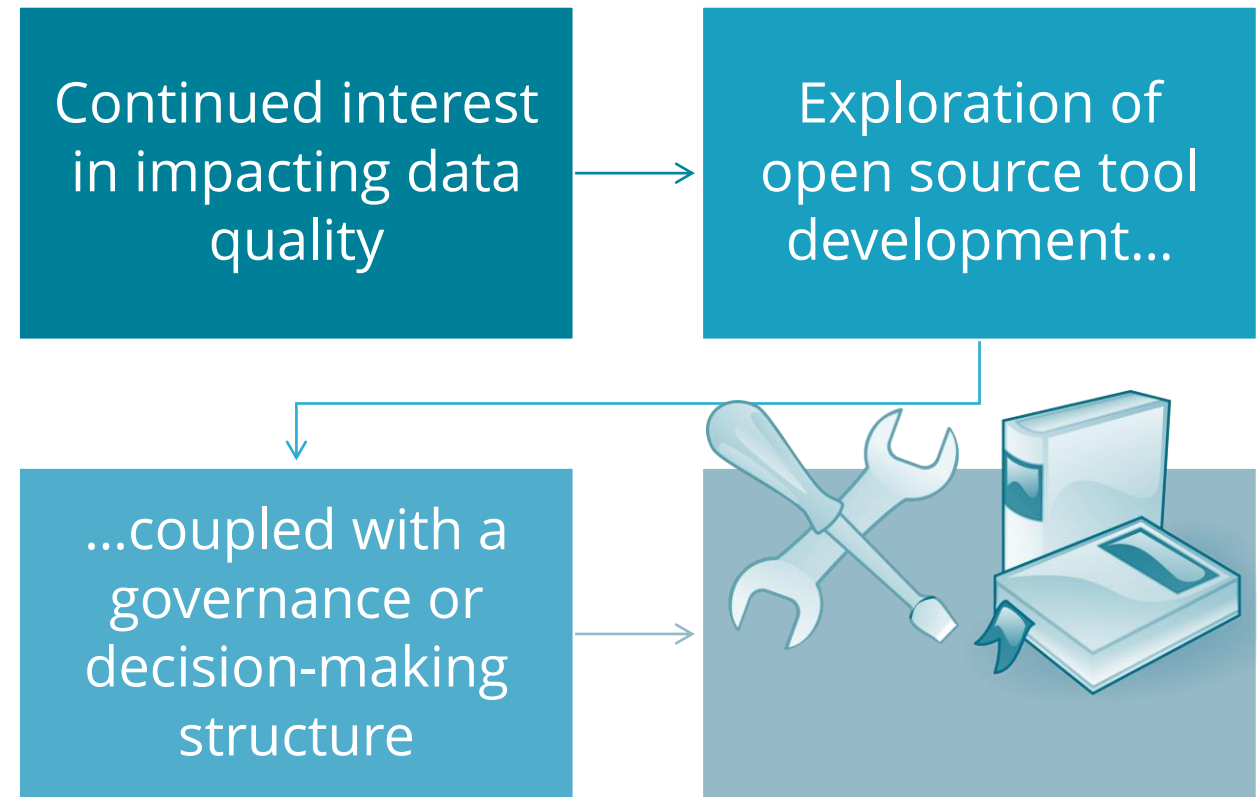
- Centralized purchase and licensing of a shared service to provide unlimited no-cost address standardization, validation, and geocoding
- Implementation Guidance in 2017
- Reintegration Guidance anticipated October 2018

Project #2: Message Quality Evaluation Tool



The Message Quality Evaluation (MQE) Tool

- Broad and representative engagement across the IIS community
- Development of governance/decision making
- Open source exploration



Project Constraints and Assumptions

Constraints

- JDI is still new ground for AIRA and the IIS Community
 - Community ownership of open source product and JDI process is essential
- No dedicated funding stream
- AIRA's technical resources are limited
- Many DQ tools on the market

Assumptions

- JDI Advisory Workgroup has a role in overseeing this process
- Process includes Joint Development and Joint Implementation
- Participating programs will be expected to contribute, and will be among the first to benefit

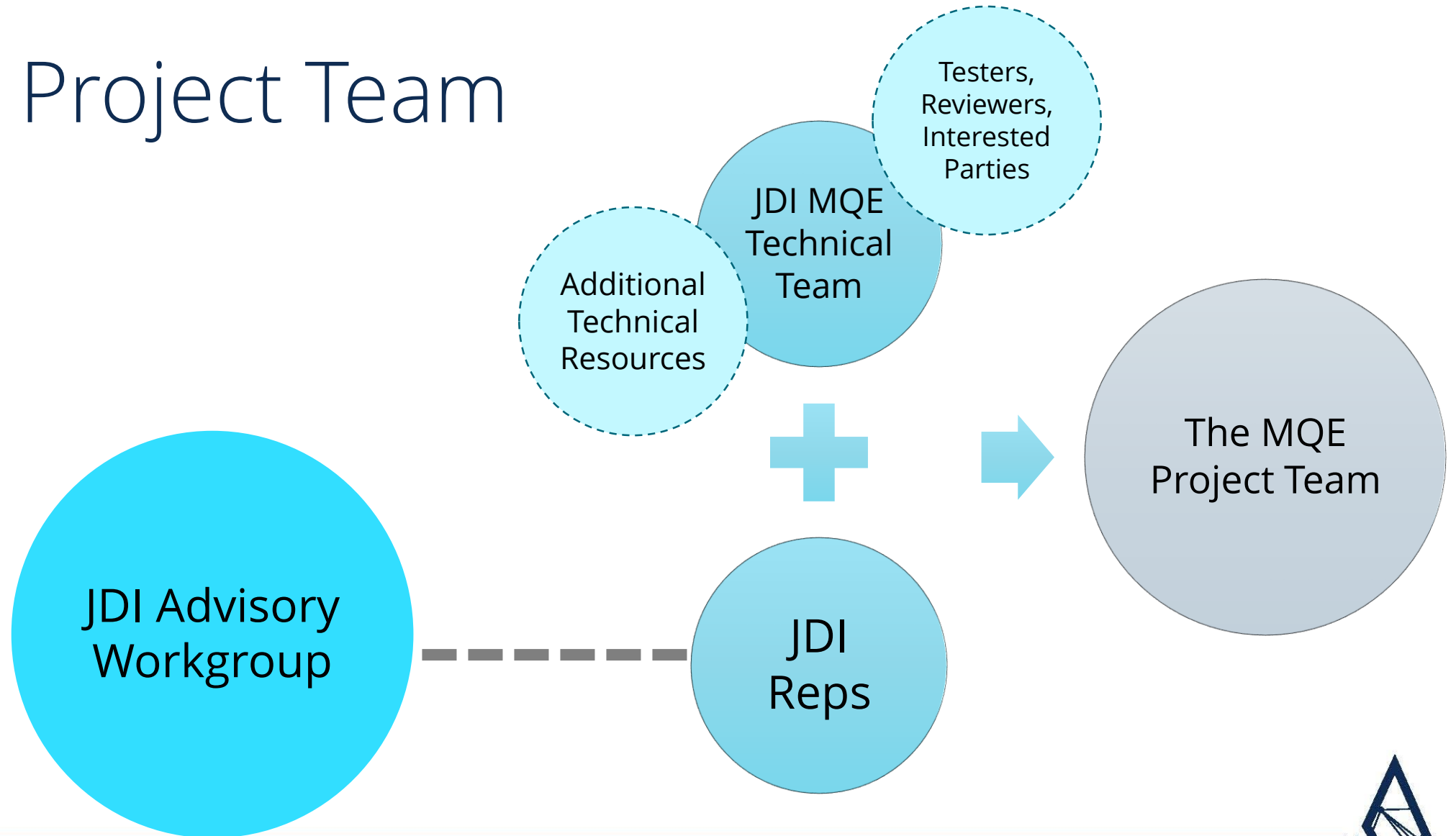




Message Quality Evaluation (MQE) Tool Project Update

Michelle Barber, MS
AIRA Consultant

MQE Project Team



Who are they and what have they done?

Project Team

- Comprised of people interested in the project
- Some tech, some non-tech
 - NIST
 - AIRA
 - IIS Programs
 - Vendors
 - Consultants

Technical Team

- Comprised of tech people interested in the project, including:
 - NIST
 - AIRA
 - IIS Programs
 - IIS Vendors (needed!)



What is the MQE Tool?

- Designed to assist sites in **consistently evaluating and improving the quality of data** coming into their IIS
- Allows users with varying levels of expertise to quickly and easily generate a series of reports that describe the quality of incoming immunization data



Technical Architecture Goals

- Open-source and freely available to the IIS community
 - Pre-configured to be ready to process data
 - Intuitive user interface
 - Quick installation on modern OS
 - Quickly create an easy to read/easy to navigate data quality report
- Identify data quality issues in a batch of HL7 messages
 - Based on business rules/needs of IIS
 - Not primarily focused on message conformance (NIST Integration)
 - Evaluate data quality in a batch messages by submitter
 - Allow data quality analyst to get above the weeds and see the big picture



National Standards and Local Variation

Pre-configured

- CDC Implementation Guide HL7 2.5.1 r1.5 and addendum
 - VXU will be used to accept data
- AIRA ACK Guidance document
 - ACK will indicate the results of the analysis of single message
- MIROW guidance on Data Quality
- CDC Vaccine Code Sets

Configurable

- Status of coded values and additional local codes
- Issue level setting for validation detections (errors vs warnings)
- Report weight and section enabling configuration



Documentation and Resources

Documentation

- Business Case (and the “pitch”)
- Functional Requirements
- Resource Planning
- Implementation Guide
- User Guide
- Testing Guidance
- Decision Framework & Sustainability Plan

Other Technical Resources

- <https://github.com/immregistries/mqe>
 - Anyone can download the app or source code
 - Account needed to branch code or edit issues (with approval of Tech Team)
- Communication
 - Slack (<https://slack.com>) – developer communication
 - Uberconference.com (need Google Chrome to screen share)

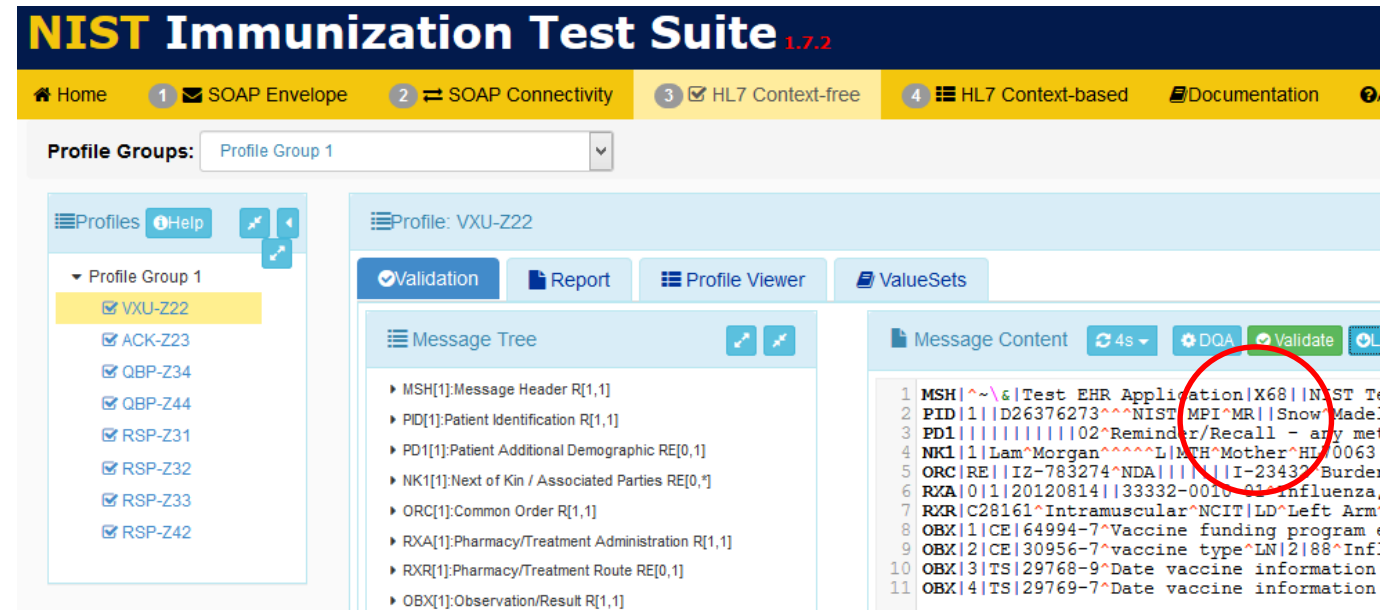




Demo

Integration with NIST Software

- NIST has integrated MQE detections
- MQE leverage NIST checker to identify message conformance errors



Screenshot from NIST Immunization Test Suite for Meaningful Use



Vaccine Code Base (vaccine meta-data)

- Vaccine code tables are integrated with MQE but actually exist external to the application
- Updating CodeBase
 - When 2+ people agree with data, it gets updated (else it remains in limbo)
 - Changes suggested but not updated by 2+, reviewed at an MQE meeting
 - Changes will be maintained by AIRA
 - MQE will have feature that allows updates to be incorporated
- Tool that allows feedback from community to keep metadata up to date





Next Steps

Current Status

- Initial public release of MQE available **today!**
- Project documentation is complete
- Ready to transition from AIRA to community-led



Transitioning to the Community

- Project Team – 30 min/monthly
 - Community
 - **Meeting facilitation [needed]**
 - Prioritization setting
 - Documentation review/update
 - AIRA
 - Administration: agendas/minutes, webinar hosting
 - Documentation repository
- Technical Team – monthly sprints
 - Community
 - **Scrum Master (sprint facilitation) [needed]**
 - Developers (bug fixes and enhancements)
 - GitHub documentation updates
 - AIRA
 - Code Base management



Ways to be Involved in the MQE Project Team

Develop

- Join the tech team and shape the tool

Test

- Make sure the tool works the way it's supposed to

Use

- Identify what you like and what you think can make it better

Govern

- Lead the project and prioritize enhancements ongoing





Questions and Answers

Discussion

- What resources might your program have to bring to support the ongoing evolution of this tool? (e.g., developer time, bug and pilot testing, document review, etc.)
- Will you join the MQE Project Team monthly meetings?
 - If so, will you consider taking on the role of Scrum Master or Meeting Facilitator?
- Is there anyone you recommend for the MQE Team?
- How can we better engage vendors?



Considerations

How would your workflow improve if you adopted the MQE?

- What are the obstacles to adopting the MQE tool in its current state?
- What additional functions/requirements do you have for future releases?
- Do you anticipate using it as it evolves?

How can this project be successfully transitioned from AIRA to being community-led?

- What are the strengths/challenges to being part of an community-led, community-supported, open-source project like the MQE?

What obstacles do you face in implementing open-source applications with your IIS?

- Have you considered using the Open Source Evaluation Worksheet to evaluate the MQE?
- What kind of post-deployment support do you anticipate needing?





Thank you for attending!

For more information, visit the AIRA website at
<http://www.immregistries.org/initiatives/joint-development/mqe-tool>

Or

<https://github.com/immregistries/mqe>

Questions? Contact Maureen Neary, AIRA Project Manager, at mneary@immregistries.org