



AIRA

AMERICAN IMMUNIZATION
REGISTRY ASSOCIATION

Technical Assistance Service Offerings

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Introduction

AIRA receives funding from the Centers for Disease Control and Prevention (CDC) to provide technical assistance (TA) to immunization information systems (IIS) and their partners. This TA is provided to increase IIS alignment with national standards and improve interoperability between IIS and data exchange partners with an emphasis on data quality. TA is defined as non-financial assistance provided by local specialists and includes sharing information and expertise, instruction, skills training, transmission of working knowledge, and consulting services. AIRA prioritizes group TA, TA directly related to [Measurement and Improvement \(M&I\)](#), and TA that assists IIS in better aligning with national standards. AIRA's TA offerings also include digital and onsite options to meet a range of needs, including provider onboarding, epidemiology support, and data visualization services.

AIRA has a wide range of expertise to assist the IIS community, including:

- Technical Health Language Seven (HL7) and interoperability expertise
- Provider onboarding
- Smarty address cleansing implementation assistance
- System testing and enhancement strategies
- Consultation on development of reports and other data outputs
- Development of data quality plans and strategies
- Discussion of policy and staffing challenges
- Development of business continuity plans
- Data analysis and visualization
- Requirements development

AIRA closely collaborates with CDC and the Public Health Informatics Institute ([PHII](#)) to collectively support IIS and immunization programs. This catalog documents AIRA's available services and resource offerings to the IIS community.

Anyone from the IIS community is invited to submit requests for TA via AIRA's [online form](#).

General Responsive TA

Type	Description
Ad Hoc, Remote TA	<p>AIRA staff are available to respond to questions and queries as needed by phone, email, or TA Request Form.</p> <p>Categories include AART access, data quality/data use, Epidemiology Shared Services, HL7/interoperability standards, Measurement and Improvement/AART, Onboarding Shared Services, Data at Rest (DAR), and other.</p>
Onsite TA	<p>Subject to available funding, staff, and/or CDC approval, AIRA staff are available to provide onsite TA. This requires a project charter that outlines goals, deliverables, resources (AIRA and IIS program), and a timeline.</p> <p>Topics include HL7 and interoperability training, Smarty address cleansing implementation, consulting on development of reports, and discussion of legal, policy, and staffing challenges, etc.</p>
Project-Based TA	<p>Subject to available funding, staff, and/or sponsor/leadership approval, AIRA staff are available to provide TA via webinars, individual/group virtual meetings, and other digital platforms. This requires a project charter that outlines goals, deliverables, resources (AIRA and IIS program), and a timeline. Projects have varying duration needs, ranging from weeks to months.</p> <p>Topics include but are not limited to:</p> <ul style="list-style-type: none">• IIS staff mentoring and coaching• Data analysis/epi support• Data visualization support• Data quality plan and strategy development• Business continuity plan development• Program/project recommendations

Measurement and Improvement (M&I)

The Measurement and Improvement (M&I) Initiative provides IIS with information and guidance to align with the [IIS Functional Standards](#). The following TA services are organized by tools and content areas.

Aggregate Analysis Reporting Tool (AART)

Type	Description
Responsive TA	Technical assistance ensuring IIS is connected and exchanging data with AART either for the first time or routinely. Submit a request here .
Video	An Introduction to AART Nine-minute introductory video to the navigation of AART.
On-Demand Recorded Webinar	AART Q&A Sessions Two 45-minute webinar sessions with questions from the IIS community and answers from AIRA technical team.
Reference Doc	Participation and Sharing Settings Information describing AART settings, where an IIS can select its interest in being measured in Measurement and Improvement and how it would like its results shared.
Instructor-Led Training	Interoperability Course Five-part course covering connecting systems, immunization messages, conformance and profiles, onboarding, and testing. Connecting Systems was held in 2022; videos and other course resources are available on the AIRA repository. The other five courses are currently under development. Trainings will be posted to the AIRA events calendar , shared with relevant user groups, and emailed to the IIS community.

Transport

Type	Description
Responsive TA	AIRA staff are available to provide responsive TA regarding a range of content-area-related topics (e.g., consulting on development of reports, discussion of legal and policy challenges, review of records retention plan, requirements development, HL7 and interoperability, etc.). Submit a request here .
Responsive TA	Technical assistance reviewing Transport AART reports, individualized questions, and suggestions for improving results. Submit a request here .
Measurement Report	Discovery, Assessment, and Validation results and reports. Access results through AART .
Reference Doc	IIS Assessment Measures and Tests for Transport Final IIS Assessment measures and tests for Transport.
Measurement Report	Transport IIS Assessment Aggregate Status Report These reports include aggregate results of Transport Assessment for those IIS that were measured.
Reference Doc	IIS Validation Measures and Tests for Transport

	Final IIS Validation measures and tests for Transport.
Measurement Report	Transport Validation: Basic Level This is an Aggregate summary Validation report at the Basic level.
Measurement Report	Transport Validation: Complete Level This is an Aggregate summary Validation report at the complete level.
Video	Transport 101 Four-minute video brief on the history of transport options.
Video	SOAP WSDL 101 Four-minute video understanding the SOAP WSDL.
Video	SOAP Transition Strategies Ten-minute video including five tips for a successful transition to SOAP.
Reference Doc	Common Standard for Transport of Immunization Messages Promotes unified adoption of a standard transport protocol to improve interoperability and information sharing among EHRs and IIS to support public health immunization goals.

Submission/Acknowledgment

Type	Description
Responsive TA	AIRA staff are available to provide responsive TA regarding a range of content-area-related topics (e.g., consulting on development of reports, discussion of legal and policy challenges, review of records retention plan, requirements development, HL7 and interoperability, etc.). Submit a request here .
Responsive TA	Technical assistance reviewing Submission/Acknowledgment AART reports, individualized questions, and suggestions for improving results. Submit a request here .
Measurement Report	Discovery, Assessment, and Validation results and reports. Access results through AART .
Reference Doc	IIS Assessment Measures and Tests for Submission and Acknowledgment Final IIS Assessment measures and tests for Submission and Acknowledgment.
Measurement Report	Submission and Acknowledgment IIS Assessment Aggregate Status Report These reports include aggregate results of message submission (VXU) and acknowledgment (ACK) assessment for IIS that were measured.

Reference Doc	IIS Validation Measures and Tests for Submission and Acknowledgment Final IIS Validation measures and tests for Submission and Acknowledgment.
Measurement Report	Submission and Acknowledgment Validation: Basic Level This is an Aggregate summary Validation report at the Basic level.
Measurement Report	Submission and Acknowledgment Validation: Complete Level This is an Aggregate summary Validation report at the Complete level.
User Group	Standards and Interoperability Steering Committee (SISC) SISC provides technical support and guidance to interoperability efforts.
User Group	HL7 Immunization User Group The HL7 Immunization User Group supports IIS and EHR implementers globally as they work to create and maintain immunization interfaces.
Reference Doc	HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5 2018 Update The purpose of this document is to provide a single document containing essential HL7 information so that implementers and developers have a convenient single set of information to work from.
On-Demand Recorded Webinar	HL7: How to Read a Message An HL7 Basics recorded webinar focused on how to read an HL7 message.
Video	NIST Immunization Test Suite v1.3.0 Four-minute video demonstration of the NIST Immunization Test Suite.
Reference Doc	IIS Functional Guide Series The IIS Functional Guide series is a valuable resource within the IIS community that defines the capabilities and requirements an IIS will need in order to enable business functions needed by their end users.
On-Demand Recorded Webinar	Webinar introducing the Functional Guide Volume 2: CDC Endorsed Data Elements.
Reference Doc	Foundational Guidance for Minimum Functionality to Improve Visibility and Access to Information from Acknowledgment Messages Describes the process of summarizing acknowledgment messages (ACKs) in aggregate reports produced by IIS, EHRs, and third parties.
On-Demand Recorded Webinar	Webinar introducing the Functional Guide Volume 2: CDC Endorsed Data Elements.

Query/Response

Type	Description
Responsive TA	AIRA staff are available to provide responsive TA regarding a range of content-area-related topics (e.g., consulting on development of reports, discussion of legal and policy challenges, review of records retention plan, requirements development, HL7 and interoperability, etc.). Submit a request here .
Responsive TA	Technical assistance reviewing Query/Response AART reports, individualized questions, and suggestions for improving results. Submit a request here .
Measurement Report	Discovery, Assessment, and Validation results and reports. Access results through AART .
Reference Doc	IIS Assessment Measures and Tests for Query and Response Final IIS Assessment measures and tests for Query and Response.
Measurement Report	Query and Response IIS Assessment Aggregate Status Report These reports include aggregate results of Query and Response Assessment for IIS that were measured.
Reference Doc	IIS Validation Measures and Tests for Query and Response Final IIS Validation measures and tests for Query and Response.
Measurement Report	Query and Response Validation: Basic Level This is an Aggregate summary Validation report at the Basic level.
Measurement Report	Query and Response Validation: Complete Level This is an Aggregate summary Validation report at the Complete level.
User Group	Standards and Interoperability Steering Committee (SISC) SISC provides technical support and guidance to interoperability efforts.
User Group	HL7 Immunization User Group The HL7 Immunization User Group supports IIS and EHR implementers globally as they work to create and maintain immunization interfaces.
Reference Doc	HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5 2018 Update The purpose of this document is to provide a single document containing essential HL7 information so that implementers and developers have a convenient single set of information to work from.
On-Demand Recorded Webinar	HL7: How to Read a Message An HL7 Basics recorded webinar focused on how to read an HL7 message.
Video	NIST Immunization Test Suite v1.3.0 Four-minute video demonstration of the NIST Immunization Test Suite.

Video	Query Assessment and How to Improve A five-minute video with step-by-step instructions on how to improve your Query results in the Aggregate Analysis Reporting Tool (AART) by using the NIST Immunization Test Suite.
Reference Doc	IIS Functional Guide Series The IIS Functional Guide series is a valuable resource within the IIS community that defines the capabilities and requirements an IIS will need in order to enable business functions needed by their end users.
On-Demand Recorded Webinar	Webinar introducing the Functional Guide Volume 1: Query and Response.
On-Demand Recorded Webinar	Webinar introducing the Functional Guide Volume 2: CDC Endorsed Data Elements.
Reference Doc	HIMSS; handling and measuring multiple and inexact match responses from IIS; recommendations for monitoring Query and Response in aggregate: Metrics , Functionality Catalog , and a Summary of both solutions .
Responsive TA	Inclusion of functionality within EHRs that can improve handling of multiple and inexact match response from IIS.

Clinical Decision Support (CDS)

Type	Description
Responsive TA	AIRA staff are available to provide responsive TA regarding a range of content-area-related topics (e.g., consulting on development of reports, discussion of legal and policy challenges, review of records retention plan, requirements development, HL7 and interoperability, etc.). Submit a request here .
Responsive TA	Technical assistance reviewing CDS AART reports, individualized questions, and suggestions for improving results. Submit a request here .
Measurement Report	Discovery and Assessment results and reports. Access results through AART .
Reference Doc	Measures and Tests for Assessment – Clinical Decision Support Final IIS Assessment measures and tests for CDS.
Reference Doc	Assessment Measure Thresholds A description of CDS Assessment thresholds.
Video	Introduction to Clinical Decision Support (CDS) A seven-minute video on how to view CDS results in the Aggregate Analysis Reporting Tool (AART) and how to view more detailed results through the integrated CDS feature within AART.

Data Quality

Type	Description
Responsive TA	Jurisdiction-specific data quality plans and customized programmatic recommendations. Submit a request here .
Responsive TA	AIRA staff are available to provide responsive TA regarding a range of content-area-related topics (e.g., consulting on development of reports, discussion of legal and policy challenges, review of records retention plan, requirements development, HL7 and interoperability, etc.). Submit a request here .
Responsive TA	Technical assistance reviewing Data at Rest AART reports, individualized questions, and suggestions for improving results. Submit a request here .
Measurement Report	Discovery results and reports. Access results through AART .
Reference Doc	IIS Data Quality Practices – To Monitor and Evaluate Data at Rest The purpose of the guide is to provide practical guidance on techniques, methodologies, and processes for IIS to use in assessing the quality of data at rest.
Reference Doc	IIS Data Quality Practices – Monitoring and Evaluating Data Submissions This guide focuses on the ongoing data monitoring and evaluation process for incoming data submissions.
Reference Doc	IIS Data Quality Practices – Monitoring and Evaluating Data Submissions This guide focuses on the ongoing data monitoring and evaluation process for incoming data submissions.
Reference Doc	Data Validation Guide for the IIS Onboarding Process This guide provides recommendations on the data validation process within onboarding. This is the first resource of a multiyear project that reviewed different aspects of IIS data quality.
Reference Doc	Importing Legacy Data to Improve IIS Saturation This guide describes best practice guidance for standardizing and improving data backloads to increase IIS data saturation.
Reference Doc	Foundational Guidance for Minimum Functionality to Improve Visibility and Access to Information from Acknowledgment Messages Describes the process of summarizing acknowledgment messages (ACKs) in aggregate reports produced by IIS, EHRs, and third parties.
Responsive TA	Assist in the development and distribution of reports that summarize acknowledgment message data; focus on potential impact and comprehension by non-technical audiences.

Peer Support

Type	Description
User Groups	<p>AIRA offers user groups to encourage peer-to-peer relationships between jurisdictions and create a community in which members can share their successes and challenges.</p> <ul style="list-style-type: none"> • Tableau User Group • Power BI User Group • Smarty User Group • HL7 Immunization User Group • Interjurisdictional Community of Practice (ICoP) <p>ICoP is a quarterly forum for sharing various perspectives and working together as a community to address common IIS-to-IIS data exchange barriers and solutions. The group focuses primarily on policy issues.</p>
Peer Support	<p>Peer-to-Peer Connection: Epi Connect is an informal network of peers to provide support to one another.</p> <p>IIS epidemiologists/data analysts will be paired with peers who have complementary skills to broaden connections in the IIS community.</p> <p>Connections can occur as frequently and through whichever platform paired participants desire (e.g., phone, email, web-based meetings, face-to-face during conferences and events). To participate, send a request through AIRA's online form.</p>

Epidemiology Shared Services

Type	Description
Responsive TA	<p>Upon request, responsive TA, including but not limited to support with SAS coding, Tableau dashboard development, and data analysis. Submit a request here.</p>
Office Hours	<p>Office hours with AIRA's epidemiologist are available on Tuesdays from 11 a.m. to noon ET and Thursdays from 3 to 4 p.m. ET. De-identified data sets may be sent in advance of office hours; submit a request here.</p>
Instructor-Led Training	<p>AIRA offers live, instructor-led, immunization-data-driven training programs for Tableau and Power BI data visualization tools.</p> <p>Trainings will be posted to the AIRA events calendar, shared with</p>

	relevant user groups, and emailed to the IIS community.
Community Resource	Shared Code Library: The code library is an electronic storage space where relevant, non-proprietary code and scripts can be shared. The intent is to create a shared space where other IIS data analysts can copy and edit coding for their own projects. The Shared Code Library will be available on the Epi Shared Services web page in fall 2022.
On-Demand Recorded Webinar	Discovery Session: Help for IIS Analysts Via AIRA's IIS Epi Shared Services This recording of the March 2022 session provides an overview of the ESS program and the community needs it addresses.
Reference Doc	Identifying Immunization Pockets of Need – Small Area Analysis of IIS Data to Detect Undervaccinated Populations This document explores how to use small area analysis to find pockets of need and provides strategies for responding to pockets of need.
Reference Doc	Preparing for Vaccination Coverage Assessments: A VFC Provider's Guide to Success This document provides guidance for immunization provider sites and provides best practice recommendations on how to best utilize IIS reports to improve data quality prior to running a vaccination coverage rate assessment.
Reference Doc	Comparing and Communicating Vaccination Coverage Estimates from IIS, NIS, and Related Assessments This guide provides practical tips that can be used to help explain vaccination coverage assessment results to decision makers, such as senior public health leadership, legislators, and the media.
Resource Toolkit	Centralized Reminder/Recall: A Deep Dive into Using a New Toolkit A three-part webinar series hosted by AIRA and researchers at the University of Colorado describes a toolkit on conducting centralized reminder/recall. Several IIS also share their experiences with implementing and sustaining reminder/recall using their IIS. Centralized reminder/recall can be a powerful tool in improving immunization rates and enhancing your clinic and provider reminder/recall efforts.

Provider Organization Onboarding

Type	Description
Responsive TA	Documentation and tool development includes the review of and feedback on any current documentation, adaptation of current documentation to AIRA's Onboarding templates, and/or the development of new documentation from AIRA's Onboarding templates.
Responsive TA	Process consultation includes onboarding process one-on-one training and guidance, and provider onboarding consultation.
Instructor-Led Training	Instructor-led training applicable to jurisdictions with staff new to onboarding roles and overseeing the onboarding process. Offered as a live, instructor-led, six-session webinar series held twice per year based on need. The course draws on the Onboarding Consensus-Based Recommendations and Data Validation Guide for the IIS Onboarding Process . Trainings will be posted to the AIRA events calendar , shared with relevant user groups, and emailed to the IIS community.
Responsive TA	The onboarding Best Practices Alignment Analysis (BPAA) includes the review of and feedback on any current processes and related documentation. It's intended to capture and understand jurisdictional onboarding practices and documentation, identify priority onboarding assistance needs and opportunities, and deliver recommendations for improvement to a jurisdiction's onboarding processes.
Reference Doc	The Local Implementation Guide Delta Analysis reviews local IIS messaging requirements for VXU messaging, as compared to the HL7 Version 2.5.1 Implementation Guide (IG) for Immunization Messaging, Release 1.5 and Addendum (National IG), for AIRA use in discussion with jurisdictional staff.
Functional Tools	Local Requirements Pre-Testing Tool Development is applicable to jurisdictions needing an HL7 message conformance pre-testing tool using local requirements to support the provider readiness portion of their onboarding process.