# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELCOME</td>
<td>3</td>
</tr>
<tr>
<td>STRUCTURE</td>
<td>4</td>
</tr>
<tr>
<td>IIS COMMUNITY</td>
<td>5</td>
</tr>
<tr>
<td>FUTURE OF IIS</td>
<td>6</td>
</tr>
<tr>
<td>ADVOCACY</td>
<td>7</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>8</td>
</tr>
<tr>
<td>AIRA NATIONAL MEETING</td>
<td>9</td>
</tr>
<tr>
<td>IIS RESOURCES</td>
<td>10</td>
</tr>
<tr>
<td>ALIGNMENT</td>
<td>12</td>
</tr>
<tr>
<td>ASSISTANCE</td>
<td>14</td>
</tr>
<tr>
<td>SHARED SERVICES</td>
<td>15</td>
</tr>
<tr>
<td>FINANCES</td>
<td>17</td>
</tr>
<tr>
<td>THANKS</td>
<td>18</td>
</tr>
</tbody>
</table>
Hello AIRA Community,

Another year has flown by, and we at AIRA are excited to share with you all of the accomplishments and progress that have been made in advancing immunization information systems (IIS). Collaboration is the cornerstone behind all of AIRA's work; we couldn't do any of it without the support and engagement of the IIS community. I want to sincerely express my gratitude to those who have gotten involved with AIRA at any level — your work makes our entire community stronger. For those new to our community, I encourage you to get involved in any way you can — there is still so much to do!

Sincerely,
Rebecca Coyle
AIRA Executive Director

Hello AIRA Community,

As president of AIRA's board of directors during the 2018 fiscal year, I am extremely proud of the many accomplishments that are outlined in this annual report. AIRA's extraordinary staff, the dedicated participation of membership, and AIRA's funders are responsible for supporting and advancing the IIS community. Future advances for IIS depend on continued active engagement of the organization's membership to meet both challenges and opportunities that the ever-changing landscape presents. Your continued representation and advocacy are needed!

Kim Salisbury-Keith, MBA
AIRA President 2017–2018
Rhode Island Department of Health

AIRA's Vision, Mission, and Purpose

VISION
To facilitate the sharing and use of immunization information by all partners and ensure that immunization information systems are fully supported and represented.

MISSION
To promote and support the use of immunization information to ensure healthy communities.

PURPOSE
To support and promote the development, implementation, and interoperability of immunization information systems through partnerships, peer and professional education/training, and resource development.
AIRA is more than just its dedicated staff and board members. Many of AIRA’s initiatives are created and carried out by members who participate on AIRA steering committees and workgroups. AIRA also employs the services of consultants with expertise in technical writing, facilitation, and project management to ensure the success of its guidance documents and initiatives. This combination of staffing, volunteers, and consultants enables AIRA to support the needs of the organization and the IIS community.
AIRA offers membership to immunization information systems, IIS implementers, and not-for-profit organizations that share and support its mission. AIRA’s Partnership Program offers an opportunity for individuals and entities who support AIRA to work together to address health issues affecting the nation.

**AIRA membership provides opportunities to:**

- Build strong partnerships
- Advocate for IIS funding through legislation, policy development, and public information
- Share knowledge across the IIS community
- Develop and promote IIS standards

In 2017–2018, AIRA had 499 members representing:

- 9 individuals
- 59 IIS jurisdictions
- 8 for-profit organizations
- 8 nonprofit organizations
- 6 IIS implementers

“AIRA plays a meaningful role in facilitating projects for the greater IIS community. Colorado’s IIS is stronger because of guidance put forth by AIRA and our staff have greatly benefitted from participating in AIRA’s events.”

— Heather Roth, Colorado Department of Public Health & Environment
IIS are important tools in the public health system and exist to improve and protect the nation’s health from vaccine-preventable diseases. Yet, despite their importance and necessity, IIS face persistent challenges including:

Overcoming challenges to sustain IIS

Competing Priorities

Standardization Funding

Policy Technology

Limitations

These persistent problems threaten to cripple the very existence of IIS. AIRA strives to overcome these challenges through:

Collaboration
Uniting IIS in the development of standards and best practices

Measurement & Improvement
Assessing IIS adherence to standards and providing technical assistance to help IIS programs improve

Support
Providing ongoing education, technical assistance, and advocacy

Shared Services
Identifying services that can benefit all IIS for one price

Through these resources and initiatives, AIRA seeks to reduce variability among IIS, promote shared knowledge, and increase the efficiency of IIS operations.

Opportunities for AIRA Members to Get Involved:

- Join a committee or workgroup
- Volunteer as a subject matter expert
- Write an article for SnapShots
- Present at the National Meeting
- Attend an educational webinar
- Participate in the Measurement and Improvement Initiative
AIRA actively engages partners to provide guidance on IIS policy and strategy through attendance and participation at stakeholder meetings across the country. AIRA staff and volunteers attended countless meetings with over 65 unique partners in 2018. Some of the key stakeholder meetings AIRA attended are presented below.

**AIM**
AIRA partners with AIM on projects impacting immunization programs.

**AAP**
AIRA partnered with AAP to identify non-technical barriers and strategies for increasing provider participation.

**ACIP**
AIRA serves as a liaison organization and subject matter expert on the way CDS impacts IIS.

**NAIIS**
AIRA participated in the NAIIS providing perspectives on the role of IIS and adult immunizations.

**ASTHO**
AIRA co-facilitates a community of practice with ASTHO to increase jurisdiction-to-jurisdiction data exchange.

**HIMSS**
AIRA collaborated with partners to identify ways to engage IIS and EHR partners.

**NVAC**
AIRA serves as a liaison member and as a subject matter expert on the value of IIS.

**HL7 WORKGROUPS**
AIRA participates in a variety of working group meetings for Health Level Seven expert volunteers.
AIRA serves as the leading authority in education and training for the IIS community. This is accomplished in a large part thanks to the efforts of AIRA’s Education Steering Committee (ESC), which provides leadership and input to the organization about the current training needs and priorities of the IIS community. Over the past year, AIRA provided the following educational and training opportunities:

**Discovery Session** webinars were held for the IIS community.

**Webinars** were hosted by the Education Steering Committee.

**Webinars** were offered to introduce a **New Educational Tool or Resource**.

**Issues** of the **SnapShots** newsletter were published, highlighting the progress, best practices, and accomplishments of IIS across the country.

**Issues of AIRA’s Monthly Update** were published to inform the community about the latest happenings and activities within AIRA.

**Town Hall meetings** were held to discuss important issues to the IIS community.

**In-Person Regional Workshops** were held in the Midwest and Northeast regions.

**AIRA National Meeting** was held in Salt Lake City, Utah, for IIS, immunization programs, and partners to come together to share new ideas and innovative strategies.

“Loved it! It is great to see how other states are dealing with common issues.”
— Anonymous attendee from the Cincinnati, Ohio, Regional Workshop Evaluation

AIRA’s quarterly **SnapShots** newsletter is distributed to **1,240** individuals interested in IIS.

AIRA’s educational and training opportunities, including Discovery Sessions, Educational Webinars, Town Hall meetings, Regional Workshops, and the AIRA 2018 National Meeting reached **1,552 INDIVIDUALS!**
The AIRA National Meeting is an annual gathering of the IIS community. AIRA’s sixth annual national meeting was held in Salt Lake City, Utah, in August 2018 and featured a strong global focus. Key highlights include:

- **390 ATTENDEES** representing 5 out of 7 continents and more than 140 unique organizations
- A keynote presentation from Scott Burris, JD, that applied a moral framework to immunizations
- 35 breakout sessions and 105 presentations on a variety of topics
- A record 16 sponsors that supported the meeting
- Multiple opportunities to build connections within the IIS community through networking, roundtables, and small-group discussions
- A live AIRA gameshow that included an IIS/EHR “Love Connection” skit
- Since 2012, AIRA has seen a 53% increase in the number of National Meeting attendees.

### 2018 AIRA AWARD WINNERS

#### CENTERS OF EXCELLENCE
Innovative Approaches to Increasing or Demonstrating Value of IIS

**1ST PLACE:**
Minnesota Department of Health

#### LIFETIME ACHIEVEMENT AWARD
Belinda Baker

#### ADVANCING IIS AWARDS
Michigan Care Improvement Registry
Minnesota Department of Health
Oregon Immunization Program
Washington State Department of Health

#### VOLUNTEER SERVICE AWARD RECIPIENTS
Jane Lammers
Noam Artz

“I am so happy with it. Never found a meeting like this.”
— Anonymous attendee, AIRA 2018 National Meeting Evaluation
AIRA employs the following process when developing best-practice or educational guidance documents:

1. Need for guidance identified
2. AIRA member and partner engagement
3. Community review
4. Product developed
5. Product finalized
6. Product released
7. Introduction webinar held
8. AIRA project resources identified

AIRA developed a variety of guides during the 2017–18 fiscal year to support IIS readiness and performance, including:

- **MIROW – Consolidating Demographic Records and Vaccination Event Records** offers best practice recommendations in implementing and sustaining the consolidating records functionality.
  - **2,608 people** involved
  - **41 people** in development
  - **14 people** in the workgroup responsible
  - MIROW

- **Identifying Immunization Pockets of Need Using Small Area Analysis** explores how to use small area analysis to find pockets of need and provides strategies for responding to those areas.
  - **462 people** involved
  - **14 people** in development
  - **ASC**

- **Functional Guide on Query Response** defines the capabilities and requirements on select aspects of query and response that an IIS will need in order to enable business functions.
  - **580 people** involved
  - **17 people** in development
  - **SISC**

- **Preparing for Vaccination Coverage Assessments: A VFC Provider’s Guide to Success** provides recommendations on how to best utilize IIS reports to improve data quality prior to running a vaccination coverage rate assessment.
  - **458 people** involved
  - **35 people** in the workgroup responsible
Message Quality Evaluation (MQE) Tool documents provide an overview of the MQE tool and the functional requirements, implementation guidance, user guidance, testing guidance, and more.

IIS Reintegration of Cleansed Addresses and Geocodes provides a more in-depth exploration of address cleansing for IIS programs and offers guidance for reintegrating validated and standardized addresses and geocodes back into IIS.

The National Error Code Set Guidance and Compiled Error Codes documents outline the creation, management and use of national-level error codes as well as catalog additional application error codes.

Guidance on Unit of Sale/Unit of Use Lot Numbers clarifies the process and sets expectations for management of varied vaccine lot numbers.

Guidance on Detailed Message Structure and the Use of Specific LOINC Codes contains best practice recommendations on how to structure and populate VXU and RSP messages using specific LOINC codes to include observations such as patient immunity, refusals, indications/contraindications, and adverse reactions.

“The quality and quantity of guidance and educational materials over the 7 years I have been in this role has improved significantly—which we have used to improve our IIS. Thank you.”

— Nancy McConnell, AIRA Education Survey
AIRA’s Measurement and Improvement Initiative aims to assess and increase the level of alignment between IIS and the community’s interoperability standards. The project connects AIRA testing processes with IIS preproduction systems and shares results through the Aggregate Analysis Reporting Tool (AART). This initiative follows a three-step process:

1. **Testing and Discovery**
   - Gathers preliminary information on community alignment with standards.

2. **IIS Assessment**
   - Involves more formal testing of individual IIS systems using community-selected measures.

3. **Validation**
   - Summarizes and shares results of IIS that are progressing toward or achieving alignment with standards.

This process is overseen by the Measurement for Assessment and Certification Advisory Workgroup (MACAW). MACAW recommends processes and measures to the AIRA board for review and approval once they have been vetted and accepted by the IIS community. Participation in this initiative is completely voluntary. Currently, more than two thirds of the community’s IIS are participating.

AIRA has completed the testing and discovery, IIS assessment, and validation phases for three specific areas of IIS functionality:

- Message Transport
- HL7 Submission and Acknowledgement
- HL7 Query and Response

“Participating in Measurement & Improvement has given us a way to help push forward enhancements to our IIS. Not only has the AART tool helped us identify exactly where we were off standard, but it provides us with a third-party perspective to show our leadership exactly where we should focus our limited funding.”

— Jenne McKibben, ALERT IIS Director, Oregon Immunization Program

AIRA remeasures each of the content areas every quarter and is developing test cases to measure IIS clinical decision support capabilities.
Since the initial baseline measurement, the following progress has been seen in each assessment measurement area:

<table>
<thead>
<tr>
<th>Measurement Area</th>
<th>Highlights</th>
<th>Since baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Transport</strong></td>
<td>55%</td>
<td>131% increase</td>
</tr>
<tr>
<td>55% of IIS measured have a fully compliant WSDL (meet 3 of 3 measures), which represents a 131% increase since baseline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 of the IIS measured meet the security fault measure, which represents a 340% increase since baseline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HL7 Submission and Acknowledgement</strong></td>
<td>80%</td>
<td>8% increase</td>
</tr>
<tr>
<td>80% of all VXU measures are fully met, representing an 8% increase since baseline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27% of all ACK measures are fully met, representing a 600% increase since baseline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HL7 Query and Response</strong></td>
<td>68%</td>
<td>64% increase</td>
</tr>
<tr>
<td>68% of IIS measured meet the evaluation and forecast capability measure, which represents a 64% increase since baseline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32% of all IIS measured meet the patient not found conformance measure, representing a 283% increase since baseline.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

58 of the 64 IIS jurisdictions have the technological capability to participate in the Measurement and Improvement Initiative.
AIRA provides specialized technical assistance (TA) and support to its members through a variety of methods, including email responses, phone calls, online training videos, and in-person visits. AIRA publishes its TA responses in a “Frequently Asked Questions” format on the AIRA website. During the 2018 fiscal year, AIRA received a total of 183 requests for technical assistance. With these requests, AIRA provided TA to 46 unique IIS jurisdictions and 19 unique partners.

During the 2018 AIRA National Meeting, AIRA staff met with 30 IIS jurisdictions to provide targeted technical assistance. The purpose of these brief meetings was to provide feedback and education on the findings from the Measurement and Improvement Initiative, answer questions, and assist states in prioritizing their jurisdiction-specific recommendations. Feedback from the participants on these sessions was overwhelmingly positive.

“We always receive a timely and educated answer to our questions from AIRA experts.”
— Anonymous – Information or Technical Assistance Request Evaluation, 2018
AIRA supports the development of collaborative tools and technologies that can be implemented in multiple IIS programs. To date, AIRA has coordinated the creation of two shared service projects: an address cleansing and geocoding service and a message quality evaluation (MQE) tool. A description of both projects and their implementation to date is provided below.

**Address Cleansing**

The need for uniform, valid addresses is an issue that plagues every IIS. The JDI Advisory Workgroup recognized this need and embarked on a project to identify and roll out a service to provide address cleansing functionality. After a thorough review of the available service offerings and a successful pilot, SmartyStreets was selected as the preferred vendor. SmartyStreets provides address standardization, validation, and geocoding for submitted addresses. AIRA purchased a three-year, unlimited license with SmartyStreets and made it available to all AIRA member IIS programs beginning in June 2017.

“We have definitely benefited from address cleansing already through reduced returns on our reminder/recall postcards.”

— Josh Yates, Alabama Immunization Registry, ImmPRINT

**Summary**

- **135,924,722** addresses have been submitted and cleansed.
- **16** IIS have signed up and are able to use SmartyStreets.
- AIRA published an Implementation Guidance document that describes how an IIS can use and integrate the SmartyStreets service into its organization.
- AIRA published a second document that provides guidance on reintegrating validated and standardized addresses and geocodes back into IIS.
- AIRA hosts a monthly user group to discuss and troubleshoot implementation of SmartyStreets. This user group is made up of 40 participants, representing 18 IIS jurisdictions.

**Since Community Rollout**

Jointly developed projects increase efficiency, improve data quality, and bring value to IIS.
Message Quality Evaluation (MQE) Tool

For its second project, the JDI Advisory Workgroup continued to focus on data quality within IIS. A group of IIS came together and worked collaboratively to develop a tool to assess data quality. The tool is open source, which means its software is available for everyone to use — and at no cost. The purpose of the MQE tool is to assist sites in consistently evaluating and improving the data coming into their IIS.

“The MQE Tool will provide our Data Exchange team a faster, more efficient way to evaluate test data during onboarding.”
— Eric Dansby, California’s Data Exchange Unit Chief

KEY FEATURES of the MQE tool:

It quickly identifies problems in existing data feeds to facilitate onboarding new submitters.

- It can be used as a stand-alone tool, or it can be integrated into an IIS to automate evaluation and report generation.
- It allows users to easily generate a series of reports that describe the quality of incoming immunization data.

It is available as an open-source application. As such, all IIS are welcome to use it and/or be part of the ongoing evolution of the tool.

- Many resources are available that support the implementation, ongoing development, and governance of the tool.

Since Community Launch:

The ongoing development of the MQE tool has transitioned to a group of interested individuals who were previously involved in the tool’s development. The MQE Project Team is comprised of more than a dozen jurisdictions and community partners. The group meets monthly to learn about the tool’s evolution and to suggest relevant functionality. Michigan has deployed a part of the MQE tool in its data quality process. The goal over the next year is to assist other jurisdictions in implementing the tool as well.
The financial information provided below summarizes AIRA's financial position as of September 30, 2018.

### 2018 Overview

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Assets</strong></td>
<td>$922,780</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>$366,274</td>
</tr>
<tr>
<td><strong>Total Unrestricted Net Assets</strong></td>
<td>$556,506</td>
</tr>
<tr>
<td><strong>Change in Net Assets</strong></td>
<td>$212,664</td>
</tr>
<tr>
<td><strong>Cash &amp; Cash Equivalents Year-End</strong></td>
<td>$922,780</td>
</tr>
</tbody>
</table>

**2018 Income by Type**
- 87% Cooperative Agreements/Federal Funding
- 9% National Meeting
- 3% Other
- 1% Membership Dues

**Total Income:** $3,015,687

**2018 Expenditures by Function**
- 97% Program Service
- 3% Administration

**Total Expenditures:** $2,803,023
Thank You to Volunteers!

AIRA is a membership-based organization that values the voluntary and collaborative interaction of all its members. AIRA would like to sincerely thank those who volunteered. Without their time, input, and effort, AIRA would be unable to achieve its mission and vision. AIRA largely credits its success to the collaboration of its members.

Overall, 69% of IIS jurisdictions volunteered their time and talents with AIRA.

39% of IIS jurisdictions presented on an educational webinar, wrote an article for SnapShots, or presented at the AIRA 2018 National Meeting.

44% of IIS jurisdictions contributed to one of the AIRA resources developed this past year.

44% of IIS jurisdictions regularly attended an AIRA committee or workgroup meeting this past year.

25% of IIS jurisdictions participated in an AIRA shared service (such as address cleansing or MQE tool).

Partner Collaborators:

- Accuvax
- Atlantic Management Center, Inc (AMCI)
- Bay Health
- Bill and Melinda Gates Foundation
- Centers for Disease Control and Prevention (CDC)
- Countermind
- Docket.Care
- Downstate University
- DXC Technology
- Envision Technology Partners, Inc.
- Epic Systems Corporation
- HLN Consulting, LLC
- Kaiser Permanente Southern California
- Merck
- National Institute of Standards and Technology (NIST)
- Northrop Grumman
- Qvera
- Pfizer
- Public Health Informatics Institute (PHII)
- Salkowitz Associates, LLC
- Sanofi Pasteur
- Seqirus
- Software Partners
- Spectrum Health
- Strategic Solutions Group
- Scientific Technologies Corporation (STC)
- Trey Industries, Inc.
- Yakima Valley Farm Workers