Hello AIRA Community,

I am pleased to share with you AIRA’s first Annual Report. Our intention with this report is to showcase AIRA’s progression toward meeting its goals as described in the 2017-2019 Strategic Plan.

The first section of the report describes the structure of both the organization and AIRA’s membership program. This is followed by an overview of the existing landscape of the greater immunization information system (IIS) community and the specific ways in which AIRA is striving to improve IIS operations and serve as a leading authority on IIS. Additional sections identify educational offerings, meetings and resources developed by AIRA over the past year, various initiatives under way to support IIS, such as the Measurement and Improvement Initiative, technical assistance, and the development of services that can be shared across the community. This report concludes with an overview of AIRA’s fiscal position and a thank you - to all of those who work tirelessly to make the IIS community stronger.

To say it was a busy year seems like such an understatement! We sincerely hope you enjoy learning about AIRA and the IIS community.

Sincerely,
Rebecca Coyle

Vision, Mission, and Purpose of AIRA

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

AIRA Mission: To promote and support the use of immunization information to ensure healthy communities.

Purpose: The purpose of AIRA is 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 STEERING COMMITTEES**

- **Assessment Steering Committee (ASC)**
  co-chaired by Deborah Richards and Heather Roth
- **Education Steering Committee (ESC)**
  co-chaired by Jenne McKibben and Katie Reed
- **Modeling Immunization Registry Operations Workgroup (MIROW)**
  co-chaired by Warren Williams, Elaine Lowery, and Mandy Harris
- **Standards and Interoperability Steering Committee (SISC)**
  co-chaired by Mary Woinarowicz and Craig Newman

**AIRA WORKGROUPS**

- **Measurement for Assessment and Certification Advisory Workgroup (MACAW)**
  co-chaired by Aaron Bieringer and Jane Lammers
- **Joint Development & Implementation Advisory Workgroup (JDI)**
  co-chaired by Bill Brand and Michael Flynn
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 for:**

- Building and maintaining strong partnerships with other organizations to resolve common issues together
- Advocacy for funding of IIS development and enhancement through legislation, policy development, and public information
- Contributions to the ongoing development and evolution of IIS through knowledge-sharing opportunities and capacity-building activities
- Advocacy for—as well as development, dissemination, and promotion of—IIS standards

**In 2016-2017, there were 485 AIRA members representing:**

- **11 individuals**
- **57 IIS jurisdictions**
- **6 for-profit organizations**
- **7 non profit organizations**
- **7 IIS implementers**

“...it was very helpful knowing that AIRA is always on top of doing everything they can to help the community and their members... even non-members. AIRA always has great subjects and topics of discussion shared via various methods—webinars, meetings, newsletters, email, etc.”

— Celena Calvo-Story, AIRA 2017 Education Survey
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:**

- **Standardization**
  Implementing standards is a slow and resource-intensive effort.

- **Competing Priorities**
  IIS are managed by jurisdictions, each with their own priorities.

- **Funding**
  There is a lack of dedicated and sustainable funding for IIS.

- **Technology**
  Innovations and modifications are not easily shared.

- **Policy Limitations**
  State laws may restrict data exchange, require signed consent, or prohibit data capture for certain ages.

IIS provide an essential public health service and are an important part of the nation’s public health infrastructure. Yet these persistent problems facing IIS threaten to cripple their very existence.

Through its resources and initiatives, AIRA seeks to reduce variability among IIS, promote shared knowledge, and increase the efficiency of IIS operations. It also seeks to overcome the challenges described above through:

- **Collaboration**
  Uniting IIS in the development of standards and best practices

- **Measurement and Improvement**
  Assessing gaps in 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

There are many 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 annual meeting
- Attend an educational webinar
- Participate in the measurement and improvement initiative.
AIRA strives to represent IIS interests and serve as the voice of the community through attendance and participation at stakeholder meetings across the country. AIRA staff and volunteers attended countless meetings with over 45 unique partners in 2017. Some of the key stakeholder meetings AIRA attended are presented below.

- **JPHIT**
  AIRA is a member organization of this coalition dedicated to promoting public health informatics.

- **AAP**
  Partnered with AIRA to identify non-technical barriers and strategies for increasing provider participation in Kentucky’s IIS (KYIR).

- **ACIP**
  AIRA was approved as a liaison organization and will serve as a subject matter expert on IIS.

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

- **NAIIS**
  AIRA presented to NAIIS on the growing 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 demonstrate vaccine submission and query between IIS and EHRs in real time.

- **HL7 WORKGROUPS**
  AIRA participates in a variety of working group meetings for Health Level Seven expert volunteers.

- **HPV ROUNDTABLE**
  AIRA is a collaborating organization with this consortium and represents the role of IIS in increasing HPV vaccination rates.

“Thank you for your role in supporting IIS!”

— Leanne Bailey, Vaccine Policy & Government Relations (Merck)
AIRA serves as the leading authority in education and training for the IIS community. Over the past year, AIRA provided the following educational and training opportunities:

- **10 Discovery Session** webinars were held for those new to the IIS community.
- **4 Webinars** were hosted by the Education Steering Committee.
- **4 Webinars** were offered to introduce a New Educational Tool or Resource.
- **4 Issues** of *SnapShots* were published, highlighting the progress, best practices, and accomplishments of IIS across the country.
- **2 In-Person Regional Workshops** were held, one in the Southeast and one in the Central region.

“**The regional meeting was such a great opportunity to discuss current hot topics with others in a smaller, more intimate setting.”**
— anonymous from the Oklahoma City Regional Meeting Evaluation

**960 TOTAL ATTENDANCE**

“**at Discovery Sessions and ESC webinars over the past year**
AIRA’s fifth annual national meeting was a huge success and featured:
- Keynote presentations from Dr. Nancy Messonnier, the director of the National Center for Immunization and Respiratory Diseases (NCIRD), and Dr. Zubin Damania (ZDogg MD)
- 30 breakout sessions and 71 unique presentations on a variety of topics
- 3 small-group roundtables that focused on targeted topics
- Regional breakout session, where attendees were provided a networking opportunity within their geographic region
- A live AIRA gameshow that highlighted AIRA’s recent products and activities

“Great conference. Really good mix of breakouts, plenaries, and roundtables. Also, ample time for networking which can be key to learning.”
— anonymous attendee, AIRA 2017 National Meeting Evaluation

2017 AIRA Award Winners

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

1ST PLACE: Illinois Comprehensive Automated Immunization Registry Exchange (I-CARE)

VOLUNTEER SERVICE AWARD RECIPIENTS

Aaron Bieringer
Michael Flynn
Therese Hoyle
Kevin Snow

LIFETIME ACHIEVEMENT AWARD

Amy Metroka
Rob Savage

The AIRA 2017 National Meeting would not have been possible without the generous contributions of its meeting sponsors. AIRA thanks each of its sponsors who helped make this year’s meeting a success.
AIRA employs the following process when developing best-practice or educational guidance documents:

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

AIRA developed a variety of guides during the 2016-17 fiscal year to support IIS readiness and performance, including:

**October 16, 2016**
Confidentiality and Privacy Considerations for IIS
summarizes different IIS confidentiality/privacy issues and provides considerations and sample forms.

- **327** people
- **11** hours

**February 16, 2017**
Data Validation Guide for the IIS Onboarding Process focuses on the data validation process within the onboarding process.

- **545** people
- **10** hours

“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
March 15, 2017

**Practical Examples of IIS Population-Based Coverage Assessments** describes real-life examples of coverage assessments using IIS data.

- **Release Date**: March 15, 2017
- **Hours to develop**: 273
- **Number of people involved**: 24

July 7, 2017

**Security Guidance: Considerations for IIS** explores the various issues that impact IIS security and provides guidance on addressing common security concerns.

- **Release Date**: July 7, 2017
- **Hours to develop**: 541
- **Number of people involved**: 21

August 25, 2017

**Comparing & Communicating Vaccination Coverage Estimates** offers tips and tools that can be used to help explain vaccination coverage assessment results to decision makers.

- **Release Date**: August 25, 2017
- **Hours to develop**: 565
- **Number of people involved**: 21

September 26, 2017

**IIS Data Quality Practices – Monitoring and Evaluating Data Submissions** focuses on the ongoing data monitoring and evaluation process for incoming data submissions.

- **Release Date**: September 26, 2017
- **Hours to develop**: 450
- **Number of people involved**: 17

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“As a first-time participant, I enjoyed learning more about AIRA and the work being done. I am excited at the opportunity to participate more in the community and with AIRA.”

— anonymous attendee, AIRA 2017 National Meeting Evaluation
In 2015, AIRA launched the Measurement and Improvement Initiative to assess and increase the level of alignment between IIS and the community’s interoperability standards. This initiative follows a three-step process for IIS to measure their alignment with current standards:

1. **Testing and Discovery** – gathers preliminary information on community alignment with standards
2. **IIS Assessment** – involves more formal testing to measure individual IIS systems using IIS community-selected measures and tests
3. **Validation** – the summary stage to acknowledge and share results for IIS that are progressing toward or achieving alignment with community-selected measures and tests

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.

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

1. **Message Transport**
2. **HL7 Submission and Acknowledgement**
3. **HL7 Query and Response**

A summary of the highlights and progress of the IIS community for each measurement area follows.

“Participating in IIS assessment has given us a lot of really great information on how our system stacks up against national standards. While we have some work to do, it is nice to have a no cost, very thorough, testing of our application done to help identify some of the changes we need to make.”

— Aaron Bieringer, MIIC Interoperability and Technical Lead
Since the initial baseline measurement, the following progress has been seen in each measurement area:

<table>
<thead>
<tr>
<th>MEASUREMENT AREA</th>
<th>HIGHLIGHTS</th>
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<tbody>
<tr>
<td>Message Transport</td>
<td>42% increase in the number of IIS nearing alignment (meeting two of the three tests)</td>
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<tr>
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<td>71% increase in IIS known to have a Centers for Disease Control and Prevention web services definition language (CDC WSDL) implementation</td>
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<td></td>
<td>200% increase in the number of IIS aligning with CDC WSDL specification</td>
</tr>
<tr>
<td>HL7 Submission and Acknowledgement</td>
<td>42% increase in the number of IIS able to accept the minimally required messages</td>
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<td></td>
<td>400% increase in IIS passing the acknowledgment (ACK) measure</td>
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<tr>
<td>HL7 Query and Response</td>
<td>40% increase in the number of IIS meeting the timeliness measure of returning 95% of queries within five seconds</td>
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<td>47% increase in the number of IIS passing the core data elements measure</td>
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<td></td>
<td>250% increase in the number of IIS successfully passing the measure for returning a conformant response when no patients are found in the IIS</td>
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AIRA continues to re-measure each of these areas every quarter and is developing test cases to measure IIS clinical decision support capabilities.
In January 2016, AIRA started a formal process by which its members could request technical assistance (TA). Last year, AIRA received 154 TA requests. AIRA publishes its TA responses in a “Frequently Asked Questions” format on the AIRA website.

AIRA experienced a 16% INCREASE in TA requests from 2016 to 2017.

**Topic of TA request**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>HL7 Format, Messaging, IG</td>
<td>42%</td>
</tr>
<tr>
<td>Software Products (DQA, SMM, etc.)</td>
<td>12%</td>
</tr>
<tr>
<td>AART and Measurement</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
<tr>
<td>Standards, Specifications, Codesets (CDSi, etc.)</td>
<td>9%</td>
</tr>
<tr>
<td>Transport</td>
<td>8%</td>
</tr>
<tr>
<td>Policy (MU, HIPAA, etc.)</td>
<td>6%</td>
</tr>
</tbody>
</table>

AIRA staff or consultants visited the following locations to provide in-depth technical assistance:

- **California**
  - December 2016
  - To review and provide input on California’s transition from a series of regional IIS to a state wide system

- **Texas**
  - March 2017
  - To review and provide input on their transition from a legacy IIS to a new state wide system

- **Oklahoma**
  - June 2017
  - To assist in operationalizing their HL7 query functions

- **Idaho**
  - August 2017
  - To review IRIS reports and assist in connecting to AART

- **Guam**
  - September 2017
  - To provide HL7 training through peer-to-peer assistance

- **Spain**
  - September 2017
  - To facilitate needs assessment with the Spanish Ministry of Health to identify key system functionalities

"Without the assistance and support we have received through AIRA, we could not do what we are doing now in the same effective and efficient manner."

— anonymous IIS manager/director – Information or Technical Assistance Request Evaluation, 2017

**Satisfaction with quality and completeness of response**

- 92% Very satisfied
- 5% Somewhat satisfied
- 3% Neutral

**Likelihood to request TA again**

- 95% Very likely
- 2.5% Somewhat likely
- 2.5% Neutral

AIRA experienced a 16% INCREASE in TA requests from 2016 to 2017.
AIRA supports the coordination, facilitation, and development of collaborative tools, applications, and technologies that can be implemented in multiple IIS programs. The following timeline highlights the accomplishments of this initiative.

**Pilot Findings**

The pilot successfully demonstrated that the standardization, validation, and geocoding processes available through SmartyStreets improved the accuracy and completeness of incoming and existing data, as well as improved core IIS processes such as deduplication.

Following SmartyStreets standardization, pilot participants saw an increase in the deliverability of their reminder/recall messages from 71% to 88%.

“The way we incorporated SmartyStreets into our workflow was quick and easy.”

— Pilot Summary, Address Cleansing and Geocoding Services
The financial information provided below summarizes AIRA's financial position as of September 30, 2017.

### 2017 Overview

#### 2017 Income by Type
- **88%** Cooperative Agreements/ Federal Funding
- **9%** National Meeting
- **2%** Membership Dues
- **1%** Other

#### 2017 Expenditures by Function
- **96%** Program Service
- **4%** Administration
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 to develop products, submitted articles for SnapShots, presented on a webinar, contributed to the AIRA 2017 National Meeting planning, and participated on a workgroup or steering committee. 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.

The map above illustrates the AIRA members who contributed (in green) to one of these initiatives over the past year and indicates committee and workgroup members who attended at least 50% of monthly meetings in the past year.

**Partner Contributors:**

- AthenaHealth
- DXC Technology
- Scientific Technologies Corporation (STC)
- Envision Technology Partners, Inc.
- HLN Consulting, LLC
- Cerner
- Centers for Disease Control and Prevention (CDC)
- National Institute of Standards and Technology (NIST)
- Epic Systems Corporation
- Public Health Informatics Institute (PHII)
- Association of Immunization Managers (AIM)
- Joint Public Health Informatics Taskforce (JPHIT)
- National Committee for Quality Assurance (NCQA)
- Allscripts
- Texas Children’s Hospital
- Battelle
- Spokane Regional Health District
- Denver Public Health
- University of Michigan

AIRA’s educational and training opportunities, including its Educational Webinars, Discovery Sessions, Regional Meetings, and the AIRA 2017 National Meeting reached 1,418 INDIVIDUALS.