



# SNAPSHOTS

IMMUNIZATION REGISTRY NEWS *from* AMERICAN IMMUNIZATION REGISTRY ASSOCIATION (AIRA)

## PRESIDENT'S REPORT

Dear Colleagues,

Returning from the AIRA 2018 National Meeting, I have had time to reflect on the amazing presentations I heard and the new ideas that were shared. The meeting offered an opportunity for AIRA staff, immunization information system (IIS) program staff, vendors, and IIS partners to share their experiences and expertise. It's impossible to adequately describe the value of this exchange of ideas and the value of this community. In simplest terms, we progress.

### *Progress - Verb*

To go forward; To grow or develop in complexity or scope; To develop to a higher, better, or more advanced state.

I can't think of a better way to describe what AIRA and its members do every day. Every day we move forward, whether it's developing inventory decrementing, assuring the IIS utilizes the CDC WSDL, developing onboarding practices for query and response, or implementing SmartyStreets for address cleansing. The IIS world has become increasingly complex, with an ever-expanding scope that has both public health and clinical implications. The world of health care technology is changing rapidly, and we move forward with it.

As a community, we have identified ways to move to a better, more advanced state and ways to measure our progress (noun). MACAW, the Measurement for Assessment and Certification Advisory Workgroup, has assessment and validation measures approved by the AIRA membership for Transport, Submission and Acknowledgement, and Query and Response. Soon we will see assessment measures for Clinical Decision Support.

As a community, we also progress (verb) by sharing ideas and software. Together we develop best practice documents, develop and clarify standards, and utilize common software. Five plenaries and eight breakout sessions at the National Meeting only touched the tip of the iceberg. There is so much to share! If you were unable to attend the Utah meeting, please check the AIRA website for the PowerPoint presentations. Most of all, whether or not you were able to attend the National Meeting, your continued involvement with AIRA is encouraged and welcomed.

I remain deeply thankful for this community,

**Kim Salisbury-Keith, MBA**

KIDSNET Development Manager

Center for Health Data & Analysis, Rhode Island Department of Health

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Welcome to *SnapShots*, the American Immunization Registry Association's newsletter about the progress, best practices, and accomplishments of immunization information systems across the country. We invite you to share news about your registry. Email us at [info@immregistries.org](mailto:info@immregistries.org) or call us at 202-552-0208 with information about a successful programmatic or technical innovation, major accomplishment, or milestone that your registry has reached.



## GLOBAL ELECTRONIC IMMUNIZATION REGISTRIES / IMMUNIZATION INFORMATION SYSTEMS WORKSHOP

On August 13, 2018, in Salt Lake City, AIRA hosted a global workshop on immunization information systems (IIS).

Fifty participants attended from UNICEF, CDC – Global Immunization Division (GID), Gavi – the Vaccine Alliance, Bill & Melinda Gates Foundation, World Health Organization (Headquarters and Western Pacific Regional Office), Pan American Health Organization, European Centre for Disease Prevention and Control, Zambia Ministry of Health, Ghana Health Services, Chinese Center for Disease Control and Prevention, MesVaccins.net, International Training and Education Center for Health, Public Health Informatics Institute, Taskforce on Global Health, National Institute for Public Health – Netherlands, National Center for Immunisation Research and Surveillance – Australia, PATH, and University of Ottawa.

The purpose of the meeting was to bring together global partners working on immunization information systems (IIS) to discuss best practices and challenges regarding the use of electronic immunization registries (EIRs) to improve immunization coverage and public health interventions for vaccine-preventable diseases.



The workshop was chaired and moderated by CDC-GID and AIRA. In the opening session, Rebecca Coyle, the executive director of AIRA, spoke about the US perspective on IIS and the role of AIRA, and Peter Bloland, the branch chief of the Strategic Information and Workforce Development Branch in CDC-GID, gave an overview of global efforts on EIRs/IIS. The workshop used the “World Café” concept to engage partners in small group discussions on six topics related to EIRs/IIS: design, development, implementation, evaluation, sustainability, and transition from paper to electronic systems. Within each topic, the small groups discussed gaps in available resources, key areas/components that need to be addressed, cross-cutting areas (e.g., interoperability, governance, and sustainability), potential areas of overlap, potential global or regional collaborations, and EIR innovations. The small groups summarized and reported on the conclusions and recommendations for each topic. Details from the discussions, summary, and recommendations on the six topics will be included in a report that will be shared with partners.

*- Submitted by Apophia Namageyo-Funa and Anita Samuel,  
Centers for Disease Control and Prevention – Global Immunization Division (CDC-GID)*



## HEPATITIS B VACCINE DOSES IN MEDI-CAL AND THE CALIFORNIA IMMUNIZATION REGISTRY

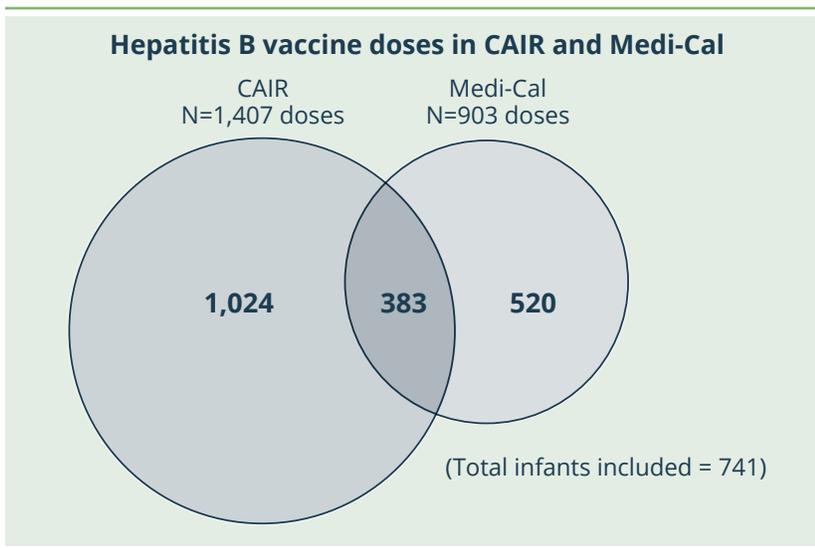
Immunization information systems (IIS) support health care provider vaccination activities by providing up-to-date patient vaccination histories and guidance on vaccines due.

However, immunization histories in IIS can be incomplete if not all vaccinating providers participate. This is true of the California Immunization Registry (CAIR), for which reporting is voluntary and therefore less complete than in states that require participation.

Supplementary sources of vaccination data have the potential to increase data completeness and value to users of an IIS. One potential source of additional data is Medicaid program claims and encounters. (Medicaid is called Medi-Cal in California.)

We assessed the overlap of hepatitis B vaccine doses in Medi-Cal and CAIR among infants enrolled in the Perinatal Hepatitis B Prevention Program (PHBPP) to assess the potential mutual benefits of data sharing between these two

programs. Pregnant women with hepatitis B infection and their infants are enrolled in the PHBPP to ensure that infants of infected mothers receive post-exposure prophylaxis and complete the three-dose hepatitis B vaccine series. A finder-file of infants born in 2012 and 2013 enrolled in both PHBPP and Medi-Cal was provided to California's Department of Health Care Services (DHCS), and their Medi-Cal claims, encounter, and enrollment data were made available for this analysis. Medi-Cal hepatitis B vaccine claims were identified using current procedural terminology and national drug codes. During the analysis period, CAIR was available to providers in 48 of California's 58 counties. PHBPP, birth certificate, Medi-Cal, and CAIR data were linked to develop the analysis data set. Doses were then categorized as being documented in CAIR only, Medi-Cal only, or both systems.



**Supplementary sources of vaccination data have the potential to increase data completeness and value to users of an IIS.**

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## HEPATITIS B VACCINE DOSES IN MEDI-CAL AND THE CALIFORNIA IMMUNIZATION REGISTRY *Continued from page 3.*

Seven hundred forty-one PHBPP infants had hepatitis B doses documented in either CAIR or Medi-Cal, which equated to 1,407 doses in CAIR and 903 doses in Medi-Cal. One thousand twenty-four (73%) CAIR doses were not in Medi-Cal, which equates to a potential 113% increase in hepatitis B vaccine doses available to Medi-Cal if data were shared. Five hundred twenty (58%) Medi-Cal doses were not in CAIR, which equates to a potential 37% increase in hepatitis B vaccine doses available to CAIR if data were shared. This analysis had several limitations. First, Medi-Cal claims data include only those vaccinations financed by Medi-Cal. Second, the benefit to Medi-Cal of receiving CAIR data is an overestimate because hepatitis B doses received by infants while still enrolled under their mothers' Medi-Cal identification number (prior to receiving their own unique Medi-Cal identification number) were unavailable for this analysis but might actually be represented in the Medi-Cal claims data. Third, since the time of the data analyzed in this analysis, data quality improvements have been implemented in both CAIR and Medi-Cal, so a present-day analysis could produce different results.

Despite these limitations, our findings indicate that data sharing could be mutually beneficial for improving immunization information completeness for both programs.

**DHCS and CAIR are moving forward with larger-scale data-sharing pilot projects with the hope of implementing routine, ongoing data sharing in the future.**

This evaluation could not have been completed without the valuable input and assistance from Linette Scott, My-Ai Bui, and Angelique Lastinger from the California Department of Health Care Services and Rosie Glenn-Finer, Jennifer Zipprich, Kathleen Harriman, Steven P. Nickell, and Sarah Royce from the California Department of Public Health Immunization Branch.

*- Submitted by Erin L. Murray,  
California Department of Public Health  
Immunization Branch*



## COLORADO INTRODUCES NEW MEANINGFUL USE MODULE

The Colorado Department of Public Health and Environment (CDPHE) released a comprehensive, Meaningful Use (MU) module in early August 2018.

This MU module, the Colorado Public Health Reporting (CoPHR) portal, provides Colorado's health care community MU support for the following public health reporting programs:

- Cancer Registry Reporting
- Electronic Lab Reporting
- Immunization Registry Reporting
- Syndromic Surveillance Reporting

CDPHE had already implemented an immunization information system (IIS) resource center that allowed its partners to complete required enrollment documentation for the Colorado Immunization Information System (CIIS); complete CIIS access request forms; perform self-serve, automated HL7 message pre-testing; monitor the status of interface projects; register intent for MU; print MU Report Cards for attestation; and submit online support tickets to the CIIS Help Desk. The CIIS team wanted to provide its partners with a one-stop shop for MU, so they worked with the other MU public health programs at CDPHE to test and deploy this added functionality for their program areas. Within CoPHR, external partners can register intent and print MU Report Cards for the attestation process for all of these public health programs.

During the testing process, the CIIS team worked with the system vendor to migrate and fully validate data from previous MU registrations of intent that had been entered into a legacy departmental-level tool. CIIS team members performed multiple iterations of detailed review to ensure accuracy and zero data loss so that providers would have access to all their previous MU data for attestation purposes. In addition, the development of this new functionality was tested and revised numerous times so the CIIS team could ensure accuracy and ease of use for their partners.

CDPHE is very excited to implement this new feature, which allows external partners to get all of their MU needs met in one location. It offers a huge benefit to our external partners, but it will also lessen the administrative burden previously shouldered by CDPHE program staff because partners can obtain their attestation documentation directly in the system without having to contact the public health reporting program for an attestation letter.

*- Submitted by Kim Gulliver,  
Colorado Immunization Information System*



# LIFTOFF! THE MESSAGE QUALITY EVALUATION (MQE) TOOL LAUNCHES

The AIRA Joint Development and Implementation (JDI) Advisory Workgroup is excited to announce that the Message Quality Evaluation (MQE) Tool, an open-source application, is available to members of the IIS community at no cost.

The tool assists sites in consistently evaluating and improving the quality of data coming into their IIS. It allows users with varying levels of expertise to quickly and easily generate a series of reports that describe the quality of incoming immunization data.

## Why use it?

Integrating the MQE Tool into ongoing data quality assurance activities speeds up onboarding by providing fast and thorough data checks on all incoming messages. Automated metrics with adjustable thresholds for success identify problems quickly and accurately and enable staff confidence.

## Where did it come from?

In 2011, Nathan Bunker, working as a private developer, coded the initial version of a data quality assurance (DQA) tool. In 2018, he joined with a cadre of interested developers in the IIS community—Josh Hull (Michigan), Katelyn Davis (SSG), Jason Narine (California), and Hossam Tamri (NIST)—to modernize and expand its functionality. New features in the resulting MQE Tool are the direct result of requests made by the IIS community.

## How do I use it?

Users can choose a stand-alone implementation of the MQE or integrate the tool with their IIS. Both methods automate decisions about whether or not data are appropriate for IIS consumption. Benefits of the MQE Tool include:

- Its ability to process data immediately
- An intuitive user interface
- Quick installation on a modern OS
- The ability to quickly create a simple, readable data quality report

## What standards does the tool leverage?

The MQE Tool adheres to national standards including:

- CDC Implementation Guide HL7 2.5.1 r1.5 and addendum
- The AIRA ACK guidance document
- MIROW guidance on data quality
- CDC vaccine code sets

It also permits local variation and allows configuration of:

- The status of coded values and additional local codes
- Issue-level setting for validation detections (errors vs. warnings)
- Report weight and formatting

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# LIFTOFF! THE MESSAGE QUALITY EVALUATION (MQE) TOOL LAUNCHES *Continued from page 6.*

## How is this tool supported?

Detailed supporting documentation is available for the MQE Tool, including:

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

As the project is community-led, peers at other IIS are the most knowledgeable support. Users can learn more about the tool and/or help to shape its future by joining monthly MQE Project Team meetings.

## How does it benefit the IIS community?

Evaluation of incoming data varies from site to site. The MQE Tool is not the only option available; many IIS may have built-in data quality tools and functions! However, there may be cost or resource savings with integrating an open-source tool. Furthermore, if multiple sites evaluate incoming data using the same tool and compare the same elements with the same code sets and metadata, sites will be able to collaborate better to solve common data quality issues—across messages and submitters or even within vaccine types.

## How can my IIS participate?

Working together, we seek to harmonize data quality processes and provide a sustained forum for shared resources and training. There are many opportunities to participate! You can:

- **Review** the MQE documentation
- **Download** the app or source code
- **Watch** the launch webinar
- **Join** the MQE Project Team and help shape the future of this tool

## Questions?

If you are interested in learning more about the MQE Tool, please contact Maureen Neary at [mneary@immregistries.org](mailto:mneary@immregistries.org).

*- Submitted by Mary Beth Kurilo  
and Maureen Neary, AIRA*



## REMEMBER: WHAT HAPPENS IN SALT LAKE CITY. . . GETS REPORTED IN SNAPSHOTS!

AIRA was pleased to welcome the IIS community to the AIRA 2018 National Meeting in Salt Lake City, Utah.

From data quality sessions that were standing-room-only to a talented community member who showcased her chicken call, it was a lively event!

### Think global, work local

This year, the meeting featured a strong global bent, which was present in plenary content from David A. Ross, ScD, president and CEO of The Task Force for Global Health, as well as Tarik Derrough, senior expert for vaccine-preventable diseases at the European Centre for Disease Prevention and Control. Tove Ryman, senior program officer for vaccine delivery at the Bill & Melinda Gates Foundation, shared some challenges faced by global health workers with a report on the Better Immunization Data Initiative.

A global perspective came also from the multifaceted perspectives of and presentations from our meeting registrants, who hailed from Guam, the Marshall Islands, the Federated States of Micronesia, the Northern Mariana Islands, Palau, and Puerto Rico as well as the countries of Australia, Canada, China, France, Ghana, Grenada, the Netherlands, and Sweden.

### Stats at a glance

Here are some fun facts about the 2018 AIRA National Meeting:

- **390** people registered to attend.
- **134** registrants had never attended an AIRA meeting before.
- Attendees represented **5** out of **7** continents. (Can we get a pass for Antarctica?)
- Participants delivered **105** presentations across **35** breakout sessions.
- **30** IIS signed up for consultations at AIRA's onsite AART clinics.
- A record **16** sponsors supported the meeting, and we're thankful they did!
- Onsite, attendees consumed **25** pounds of candy over **2.5** days.



Scott Burris, JD, applied a moral framework to immunizations and shed light on those contentious Thanksgiving family dinners in the process.

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# REMEMBER: WHAT HAPPENS IN SALT LAKE CITY. . . GETS REPORTED IN SNAPSHOTS!

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## We share the same challenges

Roundtable conversations on the first day revealed that, though IIS bring real value in the shape of assessment, school and childcare immunization compliance, interoperability, and geographic analysis, staff face many challenges. Funding is at the top of that list, followed by turnover, data quality, and a lack of agency to effect change within one's infrastructure.

Attendees discussed their challenges and strategies during breakout sessions on interoperability, IIS preparedness, onboarding, outbreak response, sustainability, and many other topics.

## We've got spirit!

As always, the IIS community's spirit radiated! More people than not gamely sported an AIRA temporary tattoo. Sunrise yoga and an SLC walking tour were both packed. And attendance at the AIRA welcome reception was unprecedented as was the silliness factor in the photo booth pictures.

## Can I buy a vowel?

This year, Eric Larson emceed a redux version of last year's gameshow mashup, and community members competed passionately for bragging rights—and airport gift shop trinkets. Standout performances by Bill "The Bachelor" Brand, Warren "Mailman" Williams, and Jeffrey "No Soap" McIntyre sent everyone to dinner laughing and chatting happily about address cleansing and onboarding.



This guy, indeed.



We only hope he's considering making his AIRA temporary tattoo sleeve permanent.



Proof that some have it all: passion for IIS and motivation for yoga before sunrise.

## Until we meet again...

We are already thinking ahead to Indianapolis! We hope you'll be there August 13–August 15, 2019, to celebrate 20 years of AIRA and the IIS community advancing together!



## AIRA 2018 NATIONAL MEETING AWARDS

### AIRA 2018 Centers of Excellence Awards

The AIRA Centers of Excellence awards are annual awards presented to IIS that have actively implemented strategies in support of the activities and goals of their immunization program. This year, Minnesota received the AIRA 2018 Centers of Excellence award in recognition of its work to quantify the prevalence of immunization overutilization and to identify populations, whether immunization administration sites, specific patient populations, or certain vaccine series, that may be at higher risk of overutilization. This work was conducted via subpopulation analyses that highlighted particular subpopulations with higher rates of overutilization. The results were then translated into estimated costs to quantify the financial impact of overutilization. The ultimate outcomes were the rates of overutilization and estimated costs within study populations. These results are currently being drafted for publication. Tennessee, North Dakota, and New York City all received Centers of Excellence honorable mentions.

### AIRA 2018 Volunteer Service Award

AIRA recognized Noam Arzt and Jane Lammers this year with the AIRA 2018 Volunteer Service Award. This award recognizes the special achievements and efforts made by AIRA volunteers who work above and beyond to further the progress of IIS and the vision and goals of AIRA.

Noam Arzt was selected for this award for his service as an AIRA volunteer in the IIS community. Since AIRA's founding in 2002, he has served on 14 committees or workgroups, including the Standards & Interoperability Steering Committee, Education Steering Committee, and Joint Development & Implementation Advisory Workgroup. Noam's passion and commitment to the IIS community and to public health are also reflected in the open-source release of the Immunization Calculation Engine (ICE) and a data quality tool developed by HLN Consulting.

Jane Lammers was selected for this award in recognition of her HL7 expertise. She has often volunteered to teach her IIS peers about HL7, is quick to respond to community questions, and assists with special interoperability projects. Jane is an active member of the Standards & Interoperability Steering Committee and the HL7 Immunization User Group and serves as a co-chair for the Measurement for Assessment & Certification Advisory Workgroup (MACAW).

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# AIRA 2018 NATIONAL MEETING AWARDS *Continued from page 10.*



Dannette Dronenburg accepts a 2018 Advancing IIS Award on behalf of the Washington State Department of Health.

### New in 2018 – the Advancing IIS Award

This new AIRA award recognized jurisdictions that participated the most in various AIRA activities from January through December 2017. Participation calculations were based on the number of activities a jurisdiction had contributed to (the number of people from a jurisdiction participating was not part of this calculation). Minnesota, Washington state, Oregon, and Michigan all received this award for participating in at least 14 different AIRA projects, committees, workgroups, publications, and presentations.

### AIRA 2018 Lifetime Achievement Award

This year’s Lifetime Achievement Award honored Belinda Baker. Before retiring, Belinda was actively involved in the IIS community for nearly two decades. She served on the AIRA board of directors as a director and treasurer and was known for her willingness to assist new IIS managers and others from the IIS community in a humble and patient way.

### With Thanks and Appreciation

Congratulations to all of the winners and thank you to everyone who has contributed significantly to AIRA and the IIS community. As a membership-driven organization, AIRA depends on dedicated volunteers and enthusiastic partners to achieve its goals. We are all AIRA.



Certificates of Validation were also presented at the AIRA National Meeting. Indiana accepts their certificate recognizing their work in completing Transport Validation, the first content area prioritized within AIRA’s Measurement and Improvement Initiative

