AIRA
AMERICAN IMMUNIZATION REGISTRY ASSOCIATION

SNAPSHOTS

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

PRESIDENT'S REPORT

Dear Colleagues,

2018 has been a good year for AIRA: educational webinars, global and regional meetings, advocacy, partnerships, guidance documents, technical assistance, a very successful national meeting, and a new look and feel with which to share them. We also welcomed several new board members on November 1: Aaron Bieringer (president-elect) from Minnesota, Heather Roth (treasurer) from Colorado, Dannette Dronenburg from Washington, Christy Gray from Virginia, Nathalie Hartert from Tennessee, Jeffrey McIntyre from Mississippi (voting directors), and Steve Murchie from Envision Technology Partners (non-voting director). Continuing their board terms are myself from Nevada (president), Kim Salisbury-Keith from Rhode Island (immediate past president), Jenne McKibben from Oregon (secretary), Bridget Ahrens from Vermont, David McCormick from Indiana (voting directors), and Kevin Dombkowski from the University of Michigan (non-voting director). Representing IIS from coast to coast, we aim to serve effectively and thoughtfully.

Please do not hesitate to reach out to your board with questions. You can find our contact information by searching the Members Only section of the AIRA website.

Now, I may be a little biased, but I think it's safe to say that AIRA has had many good years: 19 of them—nearly 20, in fact! That's right: 19 years of collaboration, 19 years of best practices, 19 years of learning from each other how to be the best we can be, 19 years of discovery and innovation. What an accomplishment! While AIRA excels at looking forward, it's also important to reflect on the contributions that moved us to where we are.

As many of us sit down to a special dinner this season with friends and loved ones, we'll share our thanks—for family, for shelter, for health. Today, and always, I extend my thanks to you—the AIRA community. You should all be proud of what you've helped create. You've reviewed lengthy documents, participated in numerous phone meetings, and shared your expertise. You've bid your offices and families adieu to travel throughout the country—even the world! I'd also like to extend a special thank-you to the managers, the spouses and partners, the children and grandchildren—thank you for supporting us! We do what we do for you, and we're not stopping any time soon. To the next 20 years!

"Coming together is a beginning; keeping together is progress; working together is success." —*Edward Everett Hale*

Regards,
Mandy Harris
AIRA Board President
Nevada Department of Health and Human Services

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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 (IIS) across the country. We invite you to share news about your IIS. Email us at info@immregistries.org with information about a successful programmatic or technical innovation, major accomplishment, or milestone that your IIS has reached.

DATA IS POWERFUL.

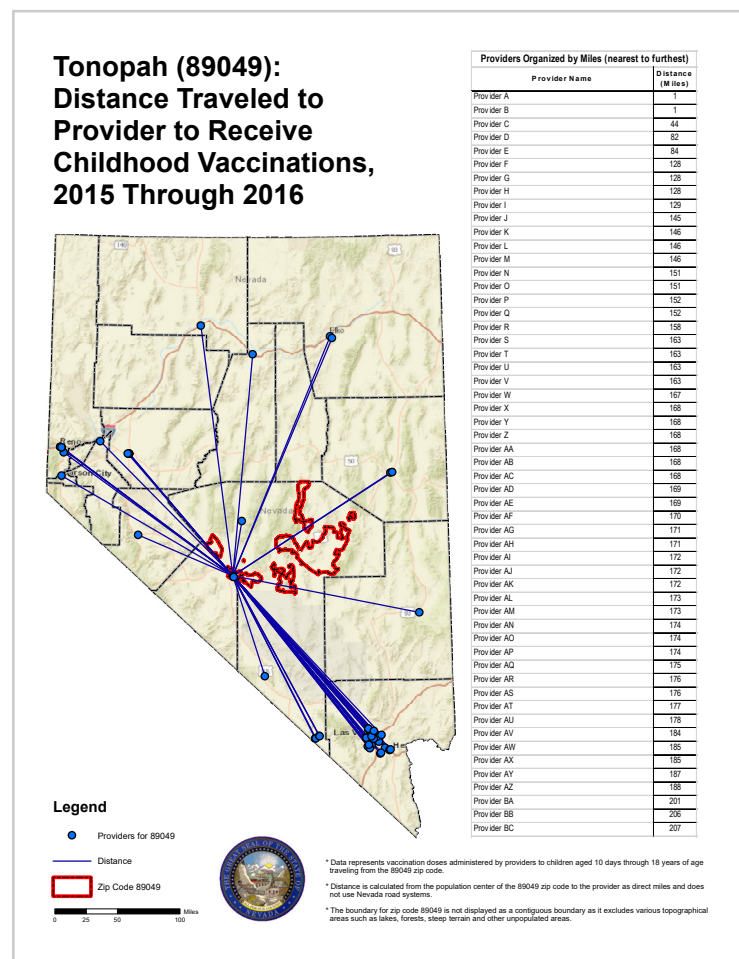## DATA DEMONSTRATED IN PICTURES IS EVEN MORE POWERFUL SINCE IT IS EASILY UNDERSTOOD.

> Nevada is primarily rural and frontier with only a few of its 17 counties having urban populations. The Nevada State Immunization Program wanted to demonstrate immunization access challenges associated with a vast, rural state to convince a large health care system recently established in a rural Nevada community to offer vaccines.

The program extracted data from Nevada WebIZ, the state's IIS, showing where children in targeted rural zip codes received their immunizations. Nevada has a state law mandating all immunizations given in the state must be reported, so it is assumed NV WebIZ data is an accurate representation. ArcGIS was then used to visualize the data.

The findings were profound, showing that families often traveled more than four hours for access to childhood immunizations. As of October 2018, the newly established clinic hired a physician to accompany the registered nurse in the rural community and decided to offer immunizations. Residents now not only have access to immunizations, they have a primary care provider within a half-hour drive! Data is powerful!

> **The findings were profound, showing that families often traveled more than four hours for access to childhood immunizations.**

- Submitted by Shannon Bennett, Nevada State Immunization Program

Tonopah (89049): Distance Traveled to Provider to Receive Childhood Vaccinations, 2015 Through 2016

Providers Organized by Miles (nearest to furthest)	
Provider Name	Distance (Miles)
Provider A	1
Provider B	1
Provider C	44
Provider D	82
Provider E	84
Provider F	128
Provider G	128
Provider H	128
Provider I	129
Provider J	145
Provider K	146
Provider L	146
Provider M	146
Provider N	151
Provider O	151
Provider P	152
Provider Q	152
Provider R	158
Provider S	163
Provider T	163
Provider U	163
Provider V	163
Provider W	167
Provider X	168
Provider Y	168
Provider Z	168
Provider AA	168
Provider AB	168
Provider AC	168
Provider AD	169
Provider AE	169
Provider AF	170
Provider AG	171
Provider AH	171
Provider AI	172
Provider AJ	172
Provider AK	172
Provider AL	173
Provider AM	173
Provider AN	174
Provider AO	174
Provider AP	174
Provider AQ	175
Provider AR	176
Provider AS	176
Provider AT	177
Provider AU	178
Provider AV	184
Provider AW	185
Provider AX	185
Provider AY	187
Provider AZ	188
Provider BA	201
Provider BB	206
Provider BC	207

Legend

- ● Providers for 89049
- —— Distance
- ▭ Zip Code 89049

0 25 50 100 Miles

* Data represents vaccination doses administered by providers to children aged 10 days through 18 years of age traveling from the 89049 zip code.

* Distance is calculated from the population center of the 89049 zip code to the provider as direct miles and does not use Nevada road systems.

* The boundary for zip code 89049 is not displayed as a contiguous boundary as it excludes various topographical areas such as lakes, forests, steep terrain and other unpopulated areas.

A MIGRAINE-FREE MIGRATION:
MYTH OR REALITY?

> When the Connecticut Department of Public Health (CT DPH) embarked on a migration from our statewide immunization information system (IIS) to a new platform in October 2017, you could hear the collective groan across the program.

Having gone through two prior migrations, the program staff fully understood the time and resources this effort actually takes. It was essential to modernize our state's IIS platform and achieve the CDC IIS 2018–2022 functional standards, but how would we also manage to juggle our day-to-day operations? There is so much to consider and plan for: convening a project team, data migration, data mapping, testing and training, and updating standard operating procedures. Yes, it is a daunting task that can bring about migraines.

The first step in preventing a "migraine-free" migration was to stay hydrated…just kidding. Although water is important, so is applying an industry standard IT deployment lifecycle methodology. After selecting the WebIZ platform from Envision Technology Partners, the Connecticut and Envision teams got right down to business documenting requirements for the configuration of the new Connecticut IIS WebIZ, which we renamed CT WiZ. Selecting our new name and logo was the first milestone we celebrated!

With technical assistance from the collaborative, consisting of the Centers for Disease Control and Prevention (CDC), the American Immunization Registry Association (AIRA) and Public Health Informatics Institute (PHII), the CT DPH brought together the critical success factors of encompassing both project management and change management disciplines to successfully complete the migration. Project management included regularly scheduled meetings and tracking to completion assigned activities and tasks documented within a project schedule. "Change management" was a new concept to many on our team, so first we Googled it, then we openly talked about what it meant at staff meetings and regularly discussed how we could move forward from being resisters to becoming champions of this migration.

Selecting our new name and logo was the first milestone we celebrated.

With a big transition, repetition was our friend. CT DPH learned to over-communicate with stakeholders early and often. In February 2018, CT DPH started executing the communication plan that we developed to build awareness, provide education and training on the new system, request input on the IIS strategic

A MIGRAINE-FREE MIGRATION:
MYTH OR REALITY? *Continued from page 3*

direction, and provide updates on the migration progress. When you are still in the development of new procedures, it can be hard to prepare communication messages. We learned the first step was to listen. Listen to what they want to know. Then we shared information, even when the answer was just that we heard their question and are working on that answer or process.

With so many new procedures to develop, from our previous experiences, CT DPH learned to start with the data migration strategy first by defining the rules, conditions, mapping, validation, and data cleansing. CT DPH incorporated three rounds of migration testing into our project schedule before the final migration. Our first round, in late February, took one month to review. The next rounds, in May and August, each took three weeks. We scheduled quick daily touch point meetings with the vendor during both migration testing and user acceptance testing.

Testing and validation became a crucial part of nearly everyone's job. This was essential to validate the integrity of the data and to verify the format, mapping, exceptions, accuracy, and completeness of the data. We like to compare moving to a new system to moving in general. Have you ever moved to a new home or office? It's the perfect time to clean up and move over only what you need. We deduplicated patients and shots and cleaned clinic names, addresses, and contacts. How did we find these, you ask? By testing three rounds of migrations, we were able to identify issues with mappings, cleanse our data, move beyond stabilizing our system, and seek to

build upon and even innovate our new platform (as our partners have encouraged us to do). To improve our standard operating procedures, we defined new requirements in areas such as Patient-Active-Inactive-Status (PAIS) mapping and the Vital Records interface.

Our IIS vendor and CT DPH Information Technology (IT) staff prepared the final migration plan to identify all the support people involved, provide a checklist of activities to bring down the legacy system and create the backup, inactivate users from the legacy system, and activate and notify new users. CT DPH IT also prepared a post-migration plan to decommission the legacy system, databases, and interfaces.

On the final migration day, it was a sunny Saturday morning. Our designated CT DPH verification team and our project manager, on a team webinar call, verified the migration with preassigned roles and tasks. Our IIS vendor was on standby responding to emails on minor questions from us. Finally, we had our group call with our vendor and gave our go-live decision. We did it! The team executed data cleansing of its code tables and four data migrations to successfully migrate 873,111 patient records, 14,400,475 doses, and almost 700 Connecticut Vaccine Program (CVP) clinics over 11 months. Go-live of CT WiZ on September 17, 2018, was a testament to the hard work and dedication of both teams and many others who assisted throughout this endeavor. Of course, we celebrated this milestone with pizza, cake, and water...to stay hydrated!

A MIGRAINE-FREE MIGRATION:
MYTH OR REALITY? *Continued from page 4*

Using a phased approach, CT DPH began rolling out CT WiZ to users. As of November 2018, over 450 users (DPH staff, outreach field staff, and school nurses) have already successfully transitioned to CT WiZ. There are 80 clinics in queue at various points in the EHR onboarding process. CT DPH developed an online application and step-by-step instructions for the HL7 onboarding registration process following the Connecticut Local Implementation Guide patterned on the national HL7 v2.5.1 Release 1.5 specifications. CT DPH developed a training plan, and CT DPH trainers with expertise in vaccine ordering, AFIX (assessment, feedback, incentives, and exchange), and data quality and interoperability will conduct in-person training at CVP clinics. In addition, webinars, reference sheets, and online help are available on demand to CT WiZ users.

To provide users with easier access and navigation to information at their fingertips, an online help desk process was implemented via an updated immunization program website, as well as an online fillable form to submit for automated tracking and resolution of issues and requests. CT DPH closely monitors the online intake forms to ensure timely response and resolution and identify potential training topics.

This brings me back to the question of a migraine-free migration…is it possible? I was often asked what was keeping me up at night, and my answer was "all that needed to be done." Our advice is to (1) leverage an industry standard IT methodology, (2) establish project management and change management disciplines with a project governance structure consisting of dedicated core and extended project team members who are consistently supported by executive leadership to address any project risks, actions, or issues, and (3) celebrate milestones along the way. These milestone acknowledgements will help make the transitions memorable and show progress when you feel swamped in day-to-day tasks. However, ultimately, it's the people who are invaluable. People in public health have so much passion for what we do! Look to each other, to your internal, external, and national partners. Collaboratively, you will get through your migration…without a migraine.

- Submitted by Nancy Sharova,
MPH, Connecticut Department of Public Health

CALIFORNIA EXPLORES THE MQE TOOL

> Data quality is an issue for everyone, and California is no different. We are constantly looking for ways to improve our messages and communicate those results to our providers.

Both the California Immunization Registry (CAIR2) in-house staff and our providers lack comprehensive data quality (DQ) tools. Given the volume of messages California processes—up to 400,000 messages a day during flu season—we need an efficient tool to monitor data. The tools we use now require a lot of manual intervention and analysis, which takes up a lot of staff time. We've been looking for a DQ tool that can be easily managed in-house—one that can help streamline the entire data exchange process from onboarding to production data evaluation. We think the MQE Tool, which had its initial release on October 1, 2018, can be that missing link.

California plans to use the MQE Tool's comprehensive reports and scorecards to assist our providers to submit clean messages. Since MQE is community-developed and standards-based, the needs of both the IIS and data submitters are taken into account and reflect the expertise of the entire community. Plus, having web-based reports ensures access for those who need the data.

Eric Dansby, California's Data Exchange unit chief, says, "The MQE Tool will provide our Data Exchange (DX) team a faster, more efficient way to evaluate test data during onboarding. The report card-like feature will allow DX staff to review thousands of production messages and will provide an easy-to-read analysis that we can share with the clinics or vendors that we are working with, helping to improve our overall data quality."

If you are interested in the MQE Tool, the team is always in need of developers, product testers, and those who would like to be part of the project team. If you would like to get involved or would just like more information on implementing the MQE Tool in your own jurisdiction, please contact Michael Powell (michael.powell@cdph.ca.gov), Erin Maurer (erin.maurer@tn.gov), or Maureen Neary (mneary@immregistries.org).

- Submitted by Michael Powell,
California Department of Public Health

WYOMING RETHINKS DATA QUALITY FROM THE USER'S PERSPECTIVE

As we all know, the IIS community is a rich medley of clinical professionals, programmatic experts, and technical minds. We do our best work when we come together and express those individual talents as a combined effort. On occasion, however, the nature of an issue begs us to see things through the eyes of the other. I've personally found that data quality is one of these opportunities.

From the comfort of my office chair, hand cramped around a mouse eight hours a day, fully focused on our IIS, my view on data quality could easily be "well, just DO better!" I can easily become frustrated while bolstering data cleanup efforts from the IIS side. We can joke around the office about the silly, repetitive "human error" problem. But what have I actually done to improve data entry? Why DO these same typos happen every day? Do users realize this can prevent patients from finding their records? Why DON'T my providers care about naming conventions? Have we ever even talked to them about it?

Last year, I began a complete overhaul of the IIS training materials. The current materials were a few years old, and while they were complete click-for-click instructions, they weren't covering all of our bases. For example, the "Adding a Patient" guide consisted of step-by-step instructions to add someone to the IIS and resulted in just that, a newly added patient. But there were no details about patient demographics at all. Our instructions included wording about required fields but never mentioned the value of that data or any of the non-required fields. We instructed the user to add the patient's name but never talked about using their full legal name instead of a truncated version or a nickname. How could I expect users to give me complete data if we never told them what that looks like? It seemed that we discussed data quality with users only after it was already a problem. So I "taught them to fish" by integrating those details and explanations such as "failure to provide a birth order number for twins can result in them being merged into a single record" or "data entry errors can make it difficult or impossible for a patient to obtain their record."

The time and effort spent revising materials has been well worth the positive impact. There has been a reduction in IIS staff time spent on help desk inquiries, bad merges, locating records, etc. We've also seen a positive response from providers, who now better understand how to care for their patients' records in the IIS. The Immunization Unit hopes to continue this progress by facilitating user groups and stakeholder committees to review all necessary materials in the coming years. I highly suggest taking a second glance at user guidance from the perspective of data quality and taking a second glance at data quality through the eyes of a user.

WYOMING RETHINKS DATA QUALITY FROM THE USER'S PERSPECTIVE

A snippet from *WyIR Reference Guide: Patients*

Editing Guide:

Completing a patient's record with accurate information is vital. Careful attention should be paid to spelling and numerical entry. Data errors can make it difficult or impossible for a patient to otain their vaccine history.

- **Required Fields:** If a user wishes to edit a patient record, the system will not allow submission of changes unless data for all the required fields has been provided.

- **Non-Required Fields:** The more information provided about each patient, the better. Each field, regardless of requirement, can be used as an identifier for that patient. Many times, the WyIR team relies on those to verify identity. Information such as insurance status can also help identify health disparities in our state which is important for providing resources.

- **Birth Order:** If the patient is a twin, triplet, etc., it is very important to enther in a birth order number. This prevents the siblings from being automatically merged into a single record later. If you suspect twins have been merged, please contact the WyIR team with details.

- **First Name/Last Name:** This patient's legal first, middle, and last name should be the only name used. Nicknames or shortened names should NEVER be used. For example: Use Michael not Mike, Robert not Rob.

- Submitted by Rachael Miles,
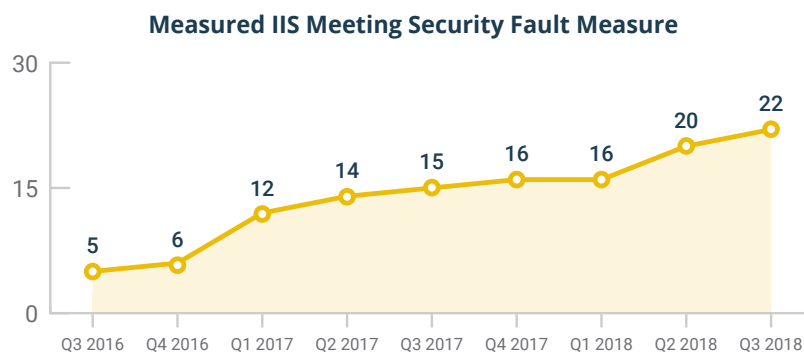*IIS Interoperability Specialist, Wyoming Department of Health Immunization Unit*

TIME FLIES…WHEN YOU ARE WORKING TO ALIGN WITH NATIONAL STANDARDS

As 2018 comes to end, we look back at the amazing work, dedication, and progress our community has made toward standards alignment. The Measurement and Improvement Initiative was started in 2015 with the goal of providing IIS with information and guidance to more fully align with IIS Functional Standards.

Through a gradual process, Transport, Submission/Acknowledgement, and Query/Response content areas have all moved through the stages of Testing and Discovery, Assessment, and Validation showing astounding improvements toward standards alignment. Using the Aggregate Analysis Reporting Tool (AART), IIS can see their progress toward, or achievement of, alignment with standards for all content areas as each content area is rolled out to the IIS community.

Transport

The content area of Transport has now been measured quarterly since third quarter 2016, with the most significant gains seen in IIS meeting the security fault measure.

Measured IIS Meeting Security Fault Measure

Quarter	Value
Q3 2016	5
Q4 2016	6
Q1 2017	12
Q2 2017	14
Q3 2017	15
Q4 2017	16
Q1 2018	16
Q2 2018	20
Q3 2018	22

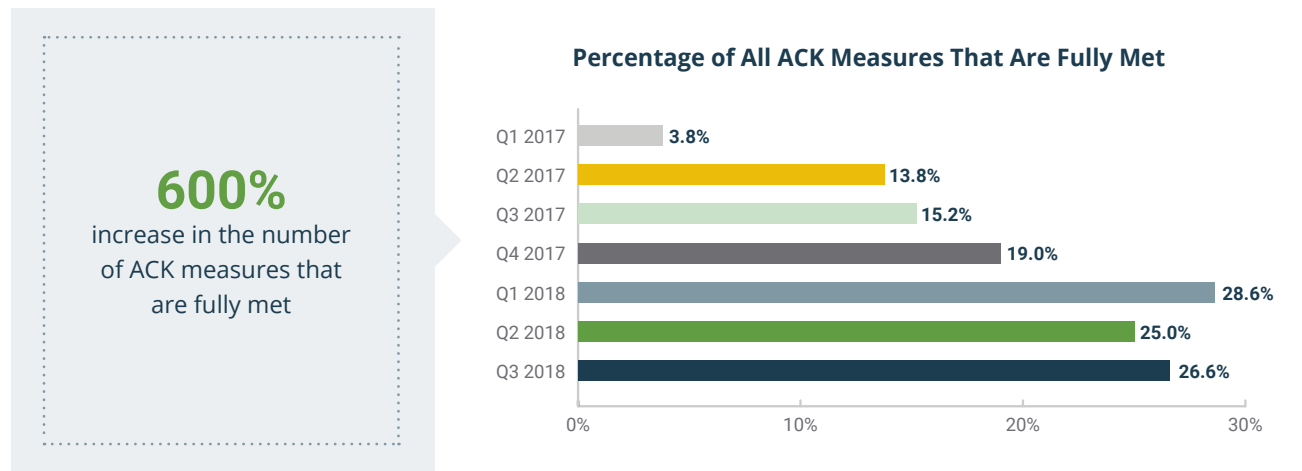**340%** increase in the number of IIS passing the Security Fault Measure

TIME FLIES…WHEN YOU ARE WORKING TO ALIGN WITH NATIONAL STANDARDS *Continued from page 9*

Submission/Acknowledgement

The Submission/Acknowledgement content area has now been measured quarterly since first quarter 2017, with some of the most significant gains seen in meeting ACK (acknowledgement) measures.

600%
increase in the number of ACK measures that are fully met

Percentage of All ACK Measures That Are Fully Met

Quarter	Value
Q1 2017	3.8%
Q2 2017	13.8%
Q3 2017	15.2%
Q4 2017	19.0%
Q1 2018	28.6%
Q2 2018	25.0%
Q3 2018	26.6%

Query/Response

Query/Response (QBP/RSP) has also been measured quarterly since first quarter 2017, with some of the most significant gains seen in meeting the single-patient-found conformance measure. Due to starting in first quarter 2017 without any IIS meeting this measure, the percent increase is infinity!

Percentage of IIS Measured Meeting the Single Patient Found Conformance Measure

Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018
0%	7.4%	12.9%	17.9%	23.1%	20.9%	22.7%
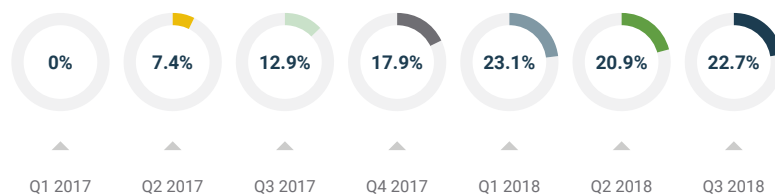
This Measure requires the IIS to meet all of the HL7 IG requirements for when a patient is found and returned to the EHR. The RSP provided by the IIS cannot have any technical conformance errors.

Infinity%
increase in the percentage of IIS meeting this measure

WONDERING HOW TO BETTER ALIGN YOUR IIS WITH NATIONAL STANDARDS?
HERE IS GEORGIA'S STORY AND PATH FORWARD.

There are so many amazing stories of IIS and how they continue to diligently work to improve their IIS functionality and move toward standards. One recent example is the work between AIRA, Georgia and DXC Technology. The need to better align with standards became apparent when Georgia IIS and immunization staff recognized that an unfavorable AART report was unacceptable given their high volume of data exchange records (2,855,949 total as of October 1, 2018). In order to serve their users well, they felt the needed to rectify as many of the inconsistencies as possible. Georgia IIS staff and DXC Technology met with AIRA staff to review their AART reports so they could prioritize work for upcoming development cycles. They will be working to improve their ACK conformance and setting proper error levels. This improvement will inform EHRs (electronic health records) and health care providers about what data was (or was not) accepted by the Georgia IIS. In the event the data was not accepted, the improved ACK messages will provide the necessary details so the data in the EHR can be corrected and resubmitted by the health care provider. Next in priority, Georgia is looking into improvements in its CDC WSDL alignment and RSP messaging. Georgia's goal is to use the next two months to better align its IIS ACK and RSP messaging standards in order to increase data quality and improve communication between the IIS and health care providers and their EHR vendors.

Need Help? – Contact Us
AIRA's technical assistance team is ready to assist you in understanding your AART results, helping prioritize work, and supporting your movement toward alignment with standards. Do not hesitate to contact us for technical assistance. We can quickly answer a question or dive into deeper topics such as assisting you and your IIS technical development team to better understand issues and make plans to more fully align with standards. Fill out a Technical Assistance Request or contact Kristi Siahaya at ksiahaya@immregistries.org for more information.

- Submitted by Nikki Griffin,
Georgia Registry of Immunizations Transactions and Services (GRITS)
*and **Kristi Siahaya,** AIRA*

EARLY YEARS OF IIS DEVELOPMENT COME TO LIFE:
A COMMEMORATIVE HISTORY OF IIS

> IIS programs today have inherited the legacy of scrappy and pioneering individuals who, in the 1990s, innovated their way into defining what an IIS actually was—proving in the process that these new systems worked. Those pioneers faced challenges as daunting as today's yet persevered and continually adapted to provide ever greater value to more and more users of immunization data.

To mark the first 25 years of IIS history, 1992-2017, the CDC commissioned a commemorative IIS history project to capture and archive the pioneering work of these individuals. Through many hours of interviews with the early pioneers and through historical research, this history is now available in a set of five IIS History Spotlights, each focused on a different topic.

The first in the series is Origin Story: Creating a Culture of Collaboration, which explores the origins of IIS and how this community came to embody close collaboration and shared lessons, a culture that remains today.

To learn more about how the past has shaped how IIS operate today and can help inform its future, find these resources and more by checking out the new IIS History topic in the AIRA Repository. Other historical artifacts are available as well, including the 1998 Community Immunization Registry Manual and the first HL7 Implementation Guide for immunization messaging. And click on the What's New quick link on the AIRA website often to learn more about the past, present, and future of IIS.

- Submitted by Bill Brand,
Public Health Informatics Institute (PHII)

EVALUATING GRENADA'S IIS WITH DATA QUALITY SELF-ASSESSMENT PLUS

Grenada is a small Caribbean country composed of three islands—Grenada, Carriacou, and Petite Martinique—with a population of just over 100,000. The two smaller islands, Carriacou and Petite Martinique, are islands of the Grenadines and have the status of dependency. The country is divided into seven parishes or districts: Saint George's, Saint Patrick, Saint Mark, Saint John, Saint David, Saint Andrew, and Carriacou/ Petite Martinique.

The Ministry of Health (MOH) manages the health sector across Grenada and is divided into three primary focus areas: Administration, Hospital Services, and Community Health Services. The Grenada Ministry of Health started the process of electronically recording immunization data in 2015. The national electronic immunization registry (EIR) was introduced to help improve immunization data quality and use applying grants from the Centers for Disease Control and Prevention (CDC) and the Pan American Health Organization (PAHO).

In 2017, the Grenada Expanded Program on Immunization (EPI), with technical assistance from PAHO/World Health Organization (WHO) and the CDC, began planning for an assessment in Grenada with the intention of introducing improvements to have more accurate, reliable, and timely data and strengthen the information system. The methodology combined data quality assessments (DQA) from WHO, DQS-plus used previously by PAHO, IIS assessment procedures used by CDC, and a newly developed user acceptability component.

Map of Grenada

From May 22 to June 1, 2018, 19 participants representing the Cayman Islands, Grenada, St. Kitts and Nevis, CDC, WHO's Western Pacific Region, and PAHO/WHO came together.

EVALUATING GRENADA'S IIS WITH DATA QUALITY SELF-ASSESSMENT PLUS *Continued from page 13*

The purpose was to:

- Evaluate the EPI IIS and provide recommendations for improvement
- Promote data analysis and use at different levels (i.e., local, subnational, national)
- Evaluate aspects of data quality, including integrity, timeliness of reporting, and accuracy
- Identify challenges and obstacles in transitioning from a paper-based reporting system to an electronic immunization registry
- Evaluate the user acceptability of the EIR system through the completion of surveys and interviews that document several aspects, including user satisfaction, training, and trust in the EIR system and the data recorded

National and international participants attended a two-day training before splitting into smaller teams to conduct fieldwork. After data collection, field teams analyzed and presented their preliminary results to the larger group for discussion and refinement. The overall conclusions and recommendations were presented to the Grenada Ministry of Health and included in an official report.

Grenada is pioneering the implementation of the electronic immunization registry in the Caribbean sub-region and represents an excellent example within the Americas and beyond. Grenada presents a favorable environment to put into practice innovations that allow the Expanded Program on Immunization to face future challenges. The report of this evaluation will be an important tool that will support Grenada in achieving immunization goals.

The government of Grenada must be congratulated for the commitment to implementing the electronic immunization registry and high staff acceptability of the registry. The willingness to use the tool routinely at all levels is commendable. While electronic immunization registry implementation is being strengthened, sustaining the paper-based reporting system remains essential, and Grenada would benefit from a dedicated working group or committee to develop and monitor a mid- to long-term plan for the electronic immunization registry to guide progressive transition from paper-based reporting to the registry.

- Submitted by Robin Mowson, Marcela Contreras, Martha Velandia, Karen Lewis-Bell, Darlene Omeir-Taylor, PAHO, Anita Samuels, Victor Eboh, Colleen Scott, CDC, and Carol Telesford-Charles and Hayden Hopkin, Ministry of Health of Grenada