SnapShots

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

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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 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. SnapShots is sent to subscribers three times a year and posted on AIRA's web site: www.immregistries.org.

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PRESIDENT'S REPORT

Dear Colleagues,

As we prepare for the 2015 AIRA National Meeting, it is deeply gratifying to see the transformation of predominantly individual, state-based immunization registries into an emerging national network of interoperable immunization information systems (IIS). We are making steady progress toward the Centers for Disease Control and Prevention's (CDC) vision: "real-time, consolidated immunization data and services for all ages are available for authorized clinical, administrative, and public health users and consumers, anytime and anywhere."

Key to our progress has been the IIS community's articulation and promotion of standards for HL7 messaging, transport, and immunization program functions. This issue of SnapShots highlights the IIS Interoperability Testing Project getting underway now. This project will assist you in assessing your IIS's alignment with national standards and in the creation of a local implementation guide that aligns with the CDC-AIRA National HL7 Implementation Guide. For more information, contact Nichole Lambrecht at nlambrecht@immregistries.org.

Please be sure to read this issue's article about IIS Assessment/Certification. AIRA has begun an evaluation of the financial and strategic benefits of assessment/certification, as well as challenges related to measurement and governance. AIRA will soon release a report entitled "Summary and Environmental Scan of Assessment and Certification Models." The AIRA National Meeting will be offering opportunities for IIS community members to ask questions about assessment/certification and engage in discussions about benefits and barriers. We urge you to express your views to help guide the IIS community's decisions about this important process.

This issue also has updates on other critical standards development projects — including CDSi and MIROW — as well as reports of impressive work by Washington State to improve vaccination rates. Not to be missed!

In closing, I wish all those attending the national meeting an inspiring time with your IIS community colleagues!

Sincerely,

Amy Metroka, MSW, MPH
AIRA President, Director, NYC Citywide Immunization Registry

IIS Assessment/Certification Exploration

AIRA's Strategic Plan (2013-2016) includes an objective related to the exploration of IIS assessment/certification, including the evaluation of financial and strategic benefits, the necessary considerations for establishing metrics to measure alignment with standards and considerations for establishing a governance structure.

The first step of this initiative was to conduct a review of current models, to be published in the *Summary and Environmental Scan of Assessment and Certification Models*. This document provides an exploration of various assessment and certification processes used by other organizations in the public health/medical market space and outlines the potential benefits of creating an assessment and/or certification program for IIS. The next step is the exploration of these concepts through the community, collaboratively testing and developing metrics that could be used for this assessment/certification.

Now is the time to make sure you are aware of the initiative, understand what it is, what it isn't, and help form the direction that our community will take. There will be a plenary presentation and roundtable discussions at the upcoming AIRA 2015 National Meeting in New Orleans, and we encourage everyone to attend, learn, and become involved. If you can't make it to the National Meeting but would like to learn more about this initiative, please contact Mary Beth Kurilo at mbkurilo@immregistries.org. ■

– Submitted by Katie Reed, SnapShots Editor

AIRA IIS Interoperability Testing Project

AIRA is creating an interoperability testing process for IIS in order to determine the level of alignment with HL7 interoperability standards. The project will consist of two phases. Phase I will repeat the 2012-2013 IIS Interoperability Status Check project in which nearly two-thirds of IIS participated. The 2012-2013 project was designed to connect with IIS across the US, submit sample Meaningful Use Stage 2 HL7 2.5.1 messages, and verify that the messages could be accepted by the IIS. Repeating this testing will provide an updated assessment of current IIS interoperability and will measure what changes have been made since the initial project was completed.

During Phase II, AIRA will implement an IIS-EHR Interface Testing Pilot which will be a collaboration between AIRA and the National Institute of Standards and Technology (NIST) and involve a much more in depth level of testing. NIST will gather important feedback to improve their testing software that can later be used by IIS and EHRs for interoperability testing. Combining efforts between AIRA and NIST will allow for comprehensive engagement from IIS into the testing software development and standards development process. It will likewise assist IIS in creating local implementation guides that align with the CDC-AIRA National Implementation Guide and give IIS programs access to more testing tools that support IIS-EHR interfaces.

The AIRA Interoperability Testing Project ties into the IIS Assessment/Certification Exploration also described in this issue of *SnapShots*. From these two projects we hope to gain a better understanding of where IIS are in alignment with HL7 Interoperability Standards and where we need to go from here. Full details about the Interoperability Testing Project can be found on the AIRA website. For additional inquiries about this project, please contact Nichole Lambrecht at nlambrecht@immregistries.org. ■

– Submitted by Katie Reed, SnapShots Editor

CDSi Project Update

The Immunization Information Systems Support Branch (IISSB) at the Centers for Disease Control and Prevention (CDC) is currently engaged in the second phase of its **Clinical Decision Support for Immunizations (CDSi) Project**.

In the first phase of the project, the Advisory Committee on Immunization Practices (ACIP) recommendations for vaccine groups routinely recommended for healthy children from birth to 18 years of age were converted into computable logic for a Clinical Decision Support (CDS) engine. The goal in the second phase is to create similar resources for ACIP recommendations for adults and people with underlying risk conditions.

The basic steps to achieve this goal will be to:

- Translate ACIP recommendations into a list of discrete conditions that can be evaluated. Where possible, conditions will be mapped to existing code sets, such as SNOMED-CT.

- Use these conditions to construct a set of rules for each vaccine that will be used to forecast patient need.

- Incorporate each list of rules into the existing CDSi data sets.

- Develop a strategy for maintaining and expanding the conditions and rules as the recommendations evolve.

In December 2014, the project's expert panel (consisting of 15 professionals from the IIS programs and vendors, EHR-focused organizations, the Indian Health Service, the Veterans Administration, the American College of Physicians, and the American Academy of Family Practitioners) conducted its second in-person session in Atlanta. At the three-day meeting, the group collaborated in the development of 153 test cases across 17 vaccine groups and 135 ACIP-defined conditions. By creating test cases and using real-world examples, the panelists helped in the development of final deliverables that will be even more useful to implementers across the nation.

The updated CDSi Logic Specification and supporting resources will be released to the immunization community in two publications. In May 2015, the resources will be published with the routine adult recommendations; in the fall of 2015, they will be augmented to include risk-based recommendations.

Concurrent with the resource development, the project team is also conducting an evaluation of the original CDSi resources using a mixed methods approach. The goal of this evaluation is to assess whether CDSi resources are being used by immunization-related health information systems (HIS) and what impact the CDSi resources have had on the accuracy and consistency of immunization evaluation and forecasting engines.

For further information about the CDSi initiative, please visit:
http://www.cdc.gov/vaccines/programs/iis/interop-proj/cds.html. ■

– Submitted by Jennifer Austin, NG/CDC

MIROW Evaluation

The Modeling of Immunization Registry Operations Work Group (MIROW), a partnership between AIRA and CDC, created a series of eight best practice operational guidelines for IIS (www.immregistries.org/resources/aira-mirow). AIRA contracted with the University of Michigan to evaluate the impact of the first three MIROW guidelines on IIS operations. The guides included in the evaluation were:

- *Management of Moved or Gone Elsewhere (MOGE) Status and Other Patient Designations in IIS* (2005) (which will be replaced in 2015 by updated guidelines on patient status)

- *Vaccination Level Deduplication in Immunization Information Systems* (2006)

- *Data Quality Assurance in IIS: Incoming Data* (2008)

The evaluation was conducted in two phases.

A **broad evaluation assessed** use across a wide range of MIROW recommendations targeting 50 states and 4 metropolitan areas. IIS vendors representing the majority of IIS systems were also interviewed. An **in-depth evaluation** was employed to assess the impact of guide use and key MIROW guideline recommendations in greater detail. The in-depth evaluation was completed with a subset of IIS using an online survey and in-depth interviews.

The main focus was on "*direct use*"— defined as demonstrated applications of a MIROW guide, and classified into several categories, such as implementing changes to an existing IIS and planning for a new IIS. Where possible, "*indirect use*" by IIS programs was captured. Indirect use was attributed to an IIS if the IIS program indicated that the IIS has features consistent with MIROW guide recommendations that pre-date the guide, or at least their review of the guide. In addition, indirect use was attributed to an IIS if an IIS vendor indicated that their system has features consistent with MIROW guide recommendations and that these features are integrated into their product such that all of their clients use those features.

Most IIS reported responding to the broad evaluation were familiar with each of the three MIROW guides (78% to 87%). 71% reported direct use of one or more of the three guides, with 13 programs reporting no direct use of any of the three guides or not knowing whether the guides had been directly used due to a recent IIS manager transition.

Most guide use has occurred in the past few years, which may be partly a function of IIS maturity, as many programs have transitioned to new systems in recent years, and partly due to a growing awareness of the MIROW guides. Many programs have a general idea of the extent to which their IIS is consistent with the guides, but few have formally assessed the extent of guide implementation.

Looking at overall use (i.e., direct and indirect use combined) for the programs responding to the broad evaluation, 73% used the Patient Status Guide (n=33), 82% used the Vaccination-Level Deduplication Guide (n=37), and 76% used the Incoming Data Quality Guide (n=34).

Among direct users, the guides were widely considered to be helpful. Guide use was reported to have a range of positive impacts, from positive impacts on implementation of guide-specific concepts (e.g. capturing patient status, developing an algorithm for deduplicating vaccine events) to positive impacts on data quality. Users of the MIROW guides also reported clear advantages to not "reinventing the wheel." MIROW business processes could be directly adopted or modified as needed, which resulted in reduced IIS staff time. The evaluation noted that use of the guidelines could also result in efficiencies across IIS programs.

The influences of the Meaningful Use incentives to encourage the wide adoption of electronic health record (EHR) systems were evident among many IIS programs. The potential benefits and challenges of EHR/IIS interoperability were widely reported as a driver behind data quality and business process concerns that were addressed by MIROW guide use. Although data quality was a key theme, the reported uses influenced by interoperability considerations involved each of the guides. Absent an impending need to modify or replace an IIS system, programs frequently referred to the MIROW guides as a best practices reference to measure their own IIS.

Barriers and a few negative impacts of use of the guides were rooted in the pressures of competing IIS program priorities, the reality of resource and staff limitations, and impact of laws and policies that affect the ability of the IIS to implement components of the guide. Several IIS felt that the guides had no direct financial impact on their program other than reduction in staff time.

The level of IIS vendor involvement varies across IIS programs and also may affect guide use.

For in-house systems, IIS development and maintenance is done by internal staff, and any use of the guides must be self-initiated. On the other end of the spectrum, an IIS vendor that provides a standardized product across its clients takes on much of the responsibility to align its product with best practices. Individual programs using IIS products such as these should still be encouraged to familiarize themselves with the guides, as some of the best practices pertain to business processes that are not under the IIS vendor's control (e.g., provider use of patient status fields).

Overall, most IIS programs were familiar with the first three MIROW guides published and the majority have been able to directly use one or more of these guides with positive impact on the IIS.

You can find the MIROW guidelines at http://www.immregistries.org/resources/aira-mirow.

MIROW will present two sessions at the 2015 AIRA National Conference in New Orleans: The '101' of MIROW which will focus on an overview of the materials in MIROW guidelines and user experiences with implementation of the guidelines. The '411' of MIROW which will focus on how the guidelines are developed with an opportunity for you to give input into the development of the next MIROW topic— Decrementing Inventory via Electronic Data Exchange. ■

*– **Submitted by N. Elaine Lowery,** MIROW Co-Chair*

Immunize Washington!

Washington State is launching a new initiative to increase immunization rates for adolescents and children. This initiative was developed through a partnership between Health Plans, the Washington State Department of Health (DOH), Medicaid, and the Immunization Action Coalition of Washington. Key thought leaders from these organizations along with consultants from STC met to review the past challenges to increasing immunization rates in this target population and establish a new collaboration with the mission to address these challenges. The first noticeable challenge the team identified came from evaluating immunization promotion messages over the last two years. Immunization messages reaching providers throughout the state contained the general message of improving vaccination rates, however they were not consistent in theme and expectations for the providers. As such, the team rose to the challenge and defined a single message that would be delivered through collaboration from all stakeholders — "Immunize Washington."

To improve rates in the target population, the team next identified the capabilities of the partners and joint assets that could be combined to deliver the new messaging to the state's provider community, while monitoring the progress towards the goal. These assets included the information available in Washington's Immunization Information System, DOH's long standing and successful Child Profile Health Promotion system, and key commitments from the health plans and the immunization coalition to align messaging.

The "Immunize Washington" leadership team continues to collaborate on activities to increase vaccine coverage rates and measure progress toward meeting the Health People 2020 goals. The group implemented a three phased approach to meet these goals:

- Jointly promote use of the Washington State Immunization Information System's provider practice rate profiles (coverage rate report) to allow health care practices to monitor and improve their immunization rates.

- Jointly sponsor a statewide provider recognition program to recognize providers who meet specific immunization coverage rates for their practices.

- Develop a system to allow for enhanced data sharing between the health plans and the Washington State Immunization Information System.

The recognition program will support clinics in meeting the Healthy People 2020 goals. The HEDIS Combo three (4:3:1:3:3:1:4) series for two-year-olds, and the adolescent series used for AFIX assessments will be used as the provider recognition program metrics. Providers achieving 70% (Silver Status) or 80% (Gold Status) up-to-date rates for their two-year-old and/or 13-17 year old patients will receive recognition. To encourage use of the IIS Coverage Rate tools available to providers, they must self-nominate by filling out a short questionnaire and submitting their IIS coverage rate report for the specified series. The team felt it was important to rapidly establish the new "Immunize Washington" theme and encourage providers to join. As such, early adopters and providers that are achieving the target rates will receive recognition from the Washington State Health Plan Partnership in April. This will also help the team establish a baseline that allows them to measure the effectiveness of health promotion messages delivered to providers throughout the state.

As the program continues, the Immunize Washington! team expects to provide AIRA Snapshot readers with an update on progress, the effectiveness of new messages, and the powerful impact of this new collaboration. ∎

*– **Submitted by Rhonda Hirst and Kristina Crane,** Scientific Technologies Corporation,*
***Nicole Pender,** Washington Department of Health*

Upcoming AIRA Webinars

AIRA's Education Steering Committee is tasked with developing and implementing training activities that meet the prioritized needs of the IIS community by conducting educational webinars related to the planning, implementation, and ongoing management of immunization information systems. To fulfill this responsibility, the ESC offers a series of webinars open to all members and partners. The next webinar is scheduled for May 5th from 4–5 pm ET. This webinar will focus on the soon to be released AFIX-IIS Integration Operational and Technical Guidance for Implementing IIS-Based Coverage Assessment — Phase 1. The following webinar, scheduled for June 2nd from 4–5 pm ET, will explore IIS integration into an immunization program. Jurisdictions will discuss how data from their IIS are used for other immunization program functions.

For webinar and conference line information visit http://www.immregistries.org/events/webinars.