AIRA AMERICAN IMMUNIZATION REGISTRY ASSOCIATION
Immunization Information Systems for a New Era

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SnapShots

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

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Welcome to *SnapShots,* AIRA's newsletter about the progress, best practices, and accomplishments of immunization information systems (IIS). We invite you to share news about your registry. Email info@immregistries.org or call us at 202-527-7000 with information about a successful programmatic or technical innovation, major accomplishment, or milestone that your registry has reached.

Please share *SnapShots* with others who may benefit from a reliable source of immunization registry news and information.

SnapShots is produced quarterly by the AIRA Education Committee. **TO SUBSCRIBE,** send an email to info@immregistries.org. Your information will remain confidential and will not be sold or passed on to other parties. *SnapShots* is sent to subscribers and posted on the AIRA website at www.immregistries.org.

Editor: **Katie Reed, NY**

PRESIDENT'S REPORT

Dear Colleagues,

AIRA has long been advocating for sustainable funding of immunization information systems (IIS). In particular, we have been calling for increased funding awarded to IIS through the annual Immunization Program grant because not all IIS are able to obtain supplemental grants or spend supplemental funding within the 2-3 year timeframes required.

Hence, we welcomed the news from the Centers for Disease Control and Prevention (CDC), National Center for Immunization and Respiratory Diseases (NCIRD), of their decision to increase investment in IIS by $10 million in 317 funding for 2015. This is translating into an additional $156,000 per Immunization Program awardee in the coming year to assure interoperability of IIS with provider electronic health records (EHRs) and facilitate provider onboarding to help meet the Centers for Medicare and Medicaid Services (CMS) Meaningful Use requirements. We commend NCIRD for recognizing the growing value of IIS to providers and Immunization Programs and increasing their financial support of IIS. We also look forward to continuing to collaborate with NCIRD on further efforts to achieve financial sustainability of IIS across all grantees.

More good news came our way in the announcement of a new Community of Practice (CoP) to address barriers faced by IIS in leveraging Federal financial participation (FFP) from Medicaid, including the 90% FFP State administrative match for Medicaid Health Information Technology (HIT) activities. CDC and the Office of the National Coordinator (ONC) for HIT are collaborating to start this CoP. Therese Hoyle, former AIRA president and current treasurer, has agreed to serve on the CoP steering committee to represent the AIRA community. **Please note that all AIRA members are invited to participate in the Medicaid FFP CoP's monthly calls.** Look for announcements of call dates soon. As many of you know, few IIS have obtained Medicaid funding to date, so we are looking to this CoP to help increase our success. For those IIS who have been successful, Medicaid funds have become a crucial part of their sustainability strategy.

In closing, we urge you to read this issue of SnapShots cover to cover to learn about the many important projects underway to develop and promote best practices and standards for IIS. We hope you had a great summer and wish you a wonderful fall season!

Best regards,

Frank Caniglia, RHIA (Chief, PA-SIIS)
AIRA President
Amy Metroka, MSW, MPH, (Director, NYC Citywide Immunization Registry)
AIRA President-Electt

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MIROW works in partnership with NCIRD.

MIROW – Developing Best Practice Guidelines

The AIRA Modeling of Immunization Registry Operations Work Group (MIROW) works in partnership with the National Center for Immunization and Respiratory Diseases (NCIRD) to develop best practice guidelines for IIS functionality and to promote the implementation of best practices in the IIS community. Since 2005, MIROW has developed several best practice guidelines: Data Quality Assurance, Inventory Management, Patient Eligibility for the VFC Program and Grantee Immunization Programs, Reminder/Recall, Incoming Data Quality Assurance, and Vaccination Level Deduplication. MIROW is currently developing guidelines for management of patient active/inactive status to update and replace the Patient Status guidelines originally published in 2005.

A group of 14 subject matter experts (SMEs) began work in April 2014 to develop the topic of patient active/inactive status (PAIS). Patient status is used to define associations between patients and immunization providers, and individuals and geographic jurisdictions. Development of the PAIS guidelines at this time supports ongoing efforts to transfer Assessment, Feedback, Incentives and eXchange (AFIX) functionality from the Comprehensive Clinic Assessment Software Application (CoCASA) system to IIS. It also supports AIRA's efforts under its cooperative agreement with CDC to develop technical specifications and operational guidance needed to move CoCASA functionality to IIS. SMEs in the MIROW project represent IIS, the CDC AFIX program, CDC-grantee AFIX programs, and IIS vendors.

MIROW conducted an in-person meeting June 17-20 in Decatur, Georgia. A collaborative consensus-building methodology was used during the meeting. Discussions were facilitated by a team from Advanced Strategies, Inc. and results were captured with various business modeling instruments, such as business rules, decision tables, and state/event diagrams. Combining hearty discussions during long working sessions with evening bonding opportunities, the SMEs were able to build a solid foundation for the best practices guide on this challenging topic.

The SMEs will continue to work via teleconferences, emails, and telephone to develop best practice recommendations for review by the AIRA Board and the IIS community. In a few months a finalized guide will be published on the AIRA-MIROW web page http://www.immregistries.org/resources/aira-mirow, and a "mini-guide" will be available shortly thereafter. ■

*— Submitted by **Elaine Lowery**, MIROW Co-Chair*

As of the date of this article there are now 26 2D-barcoded vaccines, including two from Merck which has announced plans to affix 2D barcodes on the entire Merck vaccine product line.

Moving Forward with 2D Vaccine Barcodes

CDC's initial 2D Vaccine Barcode Pilot is nearing completion. The pilot started in September of 2011 with the primary objective of evaluating the impact of two-dimensional (2D) barcoded vaccines on the accuracy and completeness of vaccination data in both immunization registries and immunizer electronic records systems. Additional objectives included the application of 2D barcodes onto Vaccine Information Statement (VIS) documents, clinical work flow analyses, practitioner user perception surveys, 2D awareness promotion, and assisting vaccine community members investigating 2D capabilities.

An adjustment of the FDA linear barcoding rule in 2011 provided vaccine manufacturers the opportunity to use 2D barcodes on unit-of-use (UoU) labels. 2D barcodes expand the encoded data set from the National Drug Code (NDC), currently encoded in linear barcodes, to the NDC, expiration date, and lot number. Two vaccine manufacturers, Sanofi Pasteur and GlaxoSmithKline agreed to participate in the Pilot and began to affix 2D barcodes onto select vaccine vials and syringes using the GS1 DataMatrix 2D barcode as the 2D format standard.

With the aid of 10 participating IIS, the Pilot team enlisted 217 public and private providers to participate in the Pilot. As 2D scanning equipment was installed at provider sites, healthcare practitioners at the sites were trained on 2D scanner use specific to their process for recording vaccination encounters.

The Pilot data collection period began in August 2012 and ended in May 2013. During this period the number of vaccines available with 2D barcodes grew from two to eight. As of the date of this article there are now 26 2D barcoded vaccines, including two from Merck which has announced plans to affix 2D barcodes on the entire Merck vaccine product line.

De-identified data were collected from the participating immunizers and IIS for both 2D and linear barcoded vaccine records for a period prior to the beginning of the Pilot (before 2D vaccine barcodes) and during the data collection period (when 2D barcodes and scanners were being used to capture the product identifier, expiration date, and lot numbers). The analyses of this data indicate a positive effect on vaccine data accuracy and completeness.

A Final Report detailing Pilot methods, analysis and findings is being finalized and will be publicly available by the end 2014. The following artifacts developed in support of 2D barcoded vaccine efforts are currently available.

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- **Software 2D Functional Requirements:** A report of functional capabilities needed to enable the capture of 2D barcoded data developed with input from multiple EHR and IIS solution vendors http://www.cdc.gov/vaccines/programs/iis/2d-vaccine-barcodes/downloads/barcode-functional-capabilities.pdf
- **VIS Lookup Table:** Data needed to translate the VIS 2D barcoded numbers, GS1's Global Document Type Identifier (GDTI), into human readable text, e.g. Adenovirus VIS. http://www.cdc.gov/vaccines/programs/iis/code-sets/vis-barcode-lookup-table.html
- **CVX Mapped to VIS:** This CVX-VIS mapping table shows the relationship between the vaccine's CVX codes and the VIS codes. http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=cvxvis
- **NDC Crosswalk Tables:** In most cases, there are separate NDCs for the Unit of Use and the Unit of Sale. These tables show the relationship between the two and can help to tie together the software inventory step with vaccine administration. http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=ndc
- **2D Impact on Secondary Packaging:** This report is especially timely in light of the new Drug Supply Chain Security Act (DSCSA) which mandates the establishment of an "electronic, interoperable system to identify and trace certain prescription drugs" in the US over the next ten years. http://www.cdc.gov/vaccines/programs/iis/2d-vaccine-barcodes/downloads/secondary-packaging-evaluation.pdf

In terms of next steps, the CDC has initiated a new project, 2D Adoption Pilot, to assess the effect of scanning 2D barcodes at the UoU level on health information systems with a focus on a more diverse set of immunization provider types than observed in the initial pilot. The Pilot data collection period will be the 2014 – 2015 flu season. In addition to the analyses of data from the pilot sites, user experience surveys and workflow analyses will be conducted. ■

— Submitted by ***Submitted by Ken Gerlach,*** *CDC/NCIRD*

CDSi Phase II Update

In May 2014, a panel of stakeholders met to discuss Phase II of the Clinical Decision Support for Immunizations (CDSi) project. The intent of the meeting was to work towards incorporating both adult vaccines and special immunization considerations for groups with at-risk health conditions such as asthma, diabetes and heart disease into the CDSi Logic Specification for ACIP Recommendations and supporting resources. The team of 20 panelists discussed the scope and focus of the additional work, engaged in requirements gathering via analysis of current ACIP recommendations, and developed foundational materials for the CDSi Adult and increased risk project. The group agreed on public health priorities and made decisions about where to focus initial efforts in the Phase II development process.

As part of this process, the panel looked at and identified unique indications to vaccinate and their recommended schedules, and translated ACIP recommendations across 18 vaccine groups into a single common format with traceability back to 63 online publications. Key terms and relationships in and around risk factors were identified, and the group specified code-mapping responsibility between health information systems and clinical decision support (CDS) engines.

The panel discussed the impact of various scenarios on health information systems, such as when adjuvants are mixed with vaccines at the point of administration. The group also brainstormed how to construct and implement input/output formats for risk-based guidance using several different risk-factor case history stories.

Panel membership included a mix of professionals from 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.

The CDSi project team will reach out to users in the coming year to evaluate the effectiveness of the Phase I CDSi resources. By incorporating information on adult immunization and at-risk groups into the Logic Specification, Phase II of CDSi hopes to increase the accuracy and consistency of immunization evaluation and forecasting for these two groups, to ultimately ensure these patients receive "the right immunization at the right time." The updated CDSi Logic Specification and supporting resources will be available to the immunization community by summer 2015. ■

■ **The panel looked at and identified unique indications to vaccinate and their recommended schedules, and translated ACIP recommendations across 18 vaccine groups into a single common format with traceability back to 63 online publications.**

— Submitted by ***Jennifer Austin,*** *Northrup Grumman*

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An update on the latest activities of the CDC/NCIRD is now available.

NCIRD IIS Executive Board

An update on the latest activities of the Center for Disease Control and Prevention (CDC) National Center for Immunization and Respiratory Diseases (NCIRD) IIS Executive Board was presented on July 10, 2014 at the Association of Immunization Managers (AIM) Program Manager's Meeting.

The presentation was given by Anjella Johnson-Hooker (CDC/NCIRD), along with IIS Executive Board members Amy Metroka (NYC IIS), Mary Beth Kurilo (OR IIS), and James Daniel (Office of the National Coordinator for Health Information Technology). The presentation is available at https://aim.site-ym.com/?page=PMM2014 *(see Plenary V)*.

Summary of Standards and Interoperability Steering Committee Work

The SISC has three active issues in play currently:

- Comments have been gathered on the latest published version (version 1.5) of the HL7 2.5.1 Implementation Guide. The latest version should be finalized and published in early Fall 2014. The HL7 2.5.1 Implementation Guide will have a companion document that clarifies and codifies provider entities and relationships, to better account for the diverse scenarios that cloud and hub configurations are presenting across the health information exchange landscape.
- The SISC is working on clarifying RXA9 values for administered vs. historical doses to better account for doses that may have been administered by a source, but are not necessarily being submitted in a timely way (e.g., legacy data from an EHR system). This issue will continue to be discussed at future meetings, and will likely be another companion document for the HL7 Implementation Guide.
- Finally, the SISC recently released a survey on IIS use of dose-level eligibility and funding source. Currently, only dose-level eligibility is listed as a core data element for IIS; however, some systems use funding source as an additional element to support inventory deduction. The results of the survey will assist in developing a best-practice recommendation for universal adoption across the IIS community.

The SISC meets again on September 10, 2014, at 1:00pm EST.

*— **Submitted by: Mary Beth Kurilo and Rob Savage** – Co-Chairs SISC*

Comments, problems, or questions?

We value your feedback! Contact us at:

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