SnapShots

Immunization Information System News From the American Immunization Registry Association

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 aira@immregistries.org or call us at (212) 676-2325 with information about a successful programmatic or technical innovation, major accomplishment, or milestone that your registry has reached. SnapShots is sent to subscribers quarterly and posted on AIRA's web site: www.immregistries.org.

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PRESIDENT'S REPORT

My first order of business as the new President of AIRA is to thank Therese Hoyle for her years of service on AIRA's Board, from 2003 to the present, including serving as President for the past two years, and now as Past-President. Thank you, Therese, for all your hard work and dedication to this fine organization! It's an honor and a pleasure to follow in your footsteps.

I spent two days in January with the AIRA staff - Cindy, Ina, and Angie - and with long-time Board Member, former President and current Secretary, Amy Metroka (New York Citywide Immunization Registry). My orientation was intense and fascinating. Although I have been involved with AIRA in various roles since its inception, I was extremely impressed at the quantity and quality of work that AIRA has produced over the past several years. We all should be proud and grateful to our three staff members and the many volunteers who contribute countless hours of time and expertise to the benefit of the entire IIS community.

The most important thing I learned during my AIRA orientation was that AIRA has grown up! No longer a fledgling organization, we are at a crossroads in our organizational development. The time is right to reflect on what we have accomplished (a lot!) and to plan for the future by examining the needs of our membership and how AIRA can best meet those needs in the coming years. Our new Strategic Planning Committee, chaired by President-Elect Anne Cordon (San Diego), will lead the charge on this process.

An ad hoc session at the National Immunization Conference will kick off our strategic planning process. This session will take place on Tuesday, March 18, from 12:00 to 2: 00 PM, in the Jefferson Room of the Hilton Atlanta. We invite you to join us and give us your input on how AIRA can help

you and where you think AIRA should be moving in the future. If you are unable to attend, don't worry, this is just the beginning and we will seek feedback from our membership in various ways in the coming months.

This special issue of SnapShots will focus on using your immunization information system for the many facets of vaccine management. As centralized ordering and distribution become a reality, many jurisdictions are already positioning their IIS into key roles in support of these functions. It makes sense! Read on to learn about IIS and vaccine management… vaccine accountability, vaccine ordering, the vaccine management *standards of excellence*, and an update from CDC on VMBIP are just some of the subjects covered in this issue.

I hope to see many of you at the National Immunization Conference and look forward to hearing your ideas about how AIRA can best meet your needs. And thanks to all of you who participate in AIRA workgroups and committees. Your active participation is essential to the organization's success. Don't hesitate to contact me or Cindy Sutliff, AIRA Executive Director, if you are interested in getting more involved in any of our activities.

Sherry Riddick (WA), AIRA President

STANDARDS OF EXCELLENCE IN SUPPORT OF VACCINE MANAGEMENT

Did you know that there are over a dozen *Standards of Excellence* that focus on IIS activities to support vaccine management at the provider and state level?

Monitoring and assessing vaccine management at the provider level using IIS data is a priority for many immunization programs. In support of that priority, vaccine management functionality, particularly in regards to VFC provided vaccine, is at the top of the list for implementation by many IIS. Producing annual eligibility reports for providers, such as the VFC Profile, can be done with a couple of mouse clicks. Monitoring vaccine accountability in terms of vaccines entered into patient records in the IIS and the tracking of vaccines ordered and used to calculate future orders are several more ways that immunization programs use IIS data.

Currently, a number of IIS are involved in a pilot project to identify particularly useful *standards of excellence*, some of which focus on vaccine management at the regional or state level. Immunization programs are using their IIS data to track the uptake of new vaccines by geographic area and pockets of need, looking at the completeness of series and the projected need of the vaccine. Others are examining the impact of new recommendations for existing vaccines, such as the 2nd dose of Hep A and varicella. With new and revised guidelines, IIS help immunization programs track provider use and demand for vaccine. In all, the *standards of excellence* around vaccine management are critical pieces of an immunization program's ability to evaluate progress as well as identify issues.

Some of the *standards of excellence* in support of vaccine management include the following:

- Generating doses administered or other reports to support vaccine accountability activities.
- Improve the accuracy of VFC eligibility reports by age group.
- Use provider/clinic information in the registry as the basis for a provider alert/broadcast messaging capability.

The entire Standards of Excellence document is available on the AIRA web site at: http://www.immregistries.org/pdf/PROWstandardscomp1.pdf.

Contributed by Anne Cordon, San Diego

HAWAII PUTS VACCINE MANAGEMENT ON THEIR "MUST HAVE" LIST FOR NEW IIS

Many mature immunization information systems are now working to implement vaccine management functionality. The Hawaii Immunization Registry, having recently acquired their system contractor via the Request for Proposal process, will be working with this contractor to ensure that vaccine management functionality is built into their new system from the start.

Vaccine management and accountability are considered two of the highest priorities of the Hawaii Vaccines for Children (VFC) program. Policies and procedures have been established to monitor these activities and the development of the Hawaii Immunization Registry will only enhance

Hawaii's ability to assist providers and to track/prevent issues of fraud and abuse.

The Hawaii Immunization Registry will capture childhood and adult immunization records, but will also have functional capabilities to monitor vaccine ordering and inventory. These features will allow more visibility to the Hawaii VFC program with respect to provider vaccine usage and storage. The Hawaii Immunization Registry will allow Hawaii to better manage:

- Vaccine recalls
- Provider vaccine inventory management
- Provider vaccine usage (i.e. verify VFC vaccines are administered to VFC-eligible children)
- Providing updates to providers

For accountability purposes, the Hawaii VFC Program currently can only capture VFC funded vaccines that were administered to eligible children via a manual hardcopy process. With the assistance of their contractor, Hawaii will implement a system that will be easy to use and have the ability to capture the information needed to ensure a successful vaccine management component.

Contributed by James Wasa, Hawaii

MAINE – ZEN AND THE ART OF VACCINE MANAGEMENT

The State of Maine has provided vaccine distribution services for the greater part of the last three decades. In that time, the program has experiences the highs and lows that come with managing the process by which a majority of Maine's pediatric population receives their vaccine. Through the last ten years, the program has moved from having its own Vaccine Depot, through third party distribution, and into now having nationalized vaccine distribution.

One may wonder how a program can move through changes of such magnitude while still providing timely and necessary vaccine distribution, handling, and accountability. The answer in Maine has to been to succeed at the delicate task of maintaining "Vision" and "Balance."

"Vision" is the ability to take in the needs of all the various parties (CDC, providers, Program, staff,

etc.) and to see a method to satisfying each in some manner. It also means having long-term goals and not losing sight of them. Listening to the successes and challenges of other programs has inspired and forewarned the Maine Immunization Program in their trek towards their current successes. Compiling ideas, concepts, and business examples over time provided the staff at MIP with the foundation of knowledge employed to implement change when funds and an opportunity became available.

"Balance" means that in some manner everyone must share in the benefits to compensate for the additional requirements that come with enhanced vaccine management accountability. In a way, this is more difficult than "Vision." One might be able to see the benefits of Cold Chain Monitoring from one perspective, while another might see the requirement as a drain on their resources. Knowing the real world effect of proposed change on each of the stakeholders allows the planners and implementers to work in processes and technical solutions that can justify that Cold Chain requirement by providing back a service. Let us take a minute to highlight some of the Vision and their associated Balanced items.

Monthly Vaccine Accountability = Vaccine Forecasting

Maine has collected monthly vaccine usage data for over a decade within its IIS. This requirement provided a benefit to the Program in that it allowed us to accurately manage our Depot to maximize our physical resources. This requirement had no direct benefit to the provider, other than as a condition of their ability to order vaccine. However, in 2008 the Maine IIS was able to implement a vaccine forecasting tool that uses that historical data to extrapolate a provider's past usage and provide an estimate for the upcoming month. At first glance, this may seem a trivial addition to the IIS. But for the provider, who may experience a high rate of staff turn over, this functionality means that incoming vaccine managers can follow the recommendation of the IIS and be on target for vaccine ordering based on the provider's past administrations. This reduces wastage, preserves fridge and freezer capacity, and improves efficiency overall.

Monthly Cold Chain Monitoring = Ease of Reminder/Recall on CC Failure.

Maine has been collecting monthly fridge/freezer temperature logs from providers, who have a requirement to monitor and record temperatures twice daily. This has allowed providers the capacity to trend their fridge and freezer temperatures. Many providers understand this as best practice, but are judgmental about the resource requirements to maintain this process.

In 2008, the Maine IIS will hook cold chain failure directly to ordering, lot invalidation, and reminder/recall. This capacity to link Cold Chain submissions allows the Program and the provider to invalidate doses that are found to be in violation of Cold Chain (and recall notices) by lot number in their entirety, by lot number within a date range, or at the individual dose administration level (for single dose needle presentations). The Program and/or the provider can then perform a recall function by those dates and/or lot numbers to quickly target their clientele for a return visit. This saves the provider time and resources polling their paper records and/or EMR. It resets the client recommendations, and informs them of their need to return for a vaccination. That reminder/recall can be done in either full letter form or in postcard form with label generating capacity directly from the IIS.

There are many other examples of our commitment to taking business needs, understanding the "Vision" of the program staff and stakeholders, and then applying technical and process solutions to find the "Balance" of effort and reward. We hope that our recent successes, built from the experiences of many people (including many of you), can be leveraged in other environments to provide a positive and rewarding vaccine management and accountability experience.

Contributed by Shawn Box, Maine

USING THE OREGON ALERT IIS FOR VACCINE ACCOUNTABILITY

Oregon Immunization ALERT has had a longstanding close relationship with the Vaccines for Children (VFC) program. As a voluntary registry, ALERT saw early on that it could benefit through a strong partnership with VFC as a way to increase provider participation. Programmatically, we took the step to engage our stellar staff of VFC health educators to market the IIS and to train providers on its use. Since those early days, the health educator role has broadened from a focus on VFC to a more holistic role as Immunization Provider Liaisons. Health educators address everything from temperature logs and VAERS (Vaccine Adverse Reporting System) reports to IIS forecasting algorithms and technical assistance questions. Health educators encourage participating VFC clinics to use the registry as a tool to track vaccine accountability, thus decreasing the clinics' burden of tracking vaccine eligibility status through other means.

The Oregon Immunization Program took a big step forward this past spring when it used the ALERT IIS to generate pre-filled VFC Provider Profiles directly out of the IIS. CDC requires all enrolled providers to reenroll every year, providing data about ages and eligibility status of their anticipated client base. Recognizing that ALERT has 90% participation from public and private clinics, VFC staff worked together with IIS staff to develop an online template that replicated the VFC Provider Profile forms. This template was then autofilled with current IIS data for clients seen in the past year. Clinics only had to make any needed adjustments in the numbers (potentially for patient population growth, non-reporting, etc.), before signing and resubmitting the profile reports to the VFC program.

Using these IIS data to create VFC Provider Profiles reports not only provided a valuable service for clinics, but offered another opportunity to resolve undetected data issues with clinic submission to the registry. For example, if a clinic's numbers were lower than anticipated, that suggested some issues with consistency of reporting. It also allowed the VFC program to more directly audit accountability categories. For example, a review of the reports allowed health educators to find that some clients age 19+ were being coded as VFC eligible. Finally, the reports also exposed some potential data quality issues, where data crosswalks or coding tables were not accurately transmitting data from one system to another, providing data for technical contacts on

either the IIS or the clinic side to follow up for resolution.

As the adage goes, the more we use the data, the better it gets. Using IIS data for vaccine accountability provides clinics, and Immunization Program Staff, with an aggregate view into data submission practices. Most importantly, this use of data also lowers the burden on clinic staff who no longer need to generate their own data for VFC profiles and vaccine accountability, while also promoting accurate and complete submission to the IIS.

Contributed by Mary Beth Kurilo, Oregon

IIS VACCINE ORDERING IN WASHINGTON: IT'S ELECTRIFYING!

On November 5, 2007, Washington processed its first provider vaccine order from beginning to end, using the CHILD Profile Immunization Registry Immunization Information System (IIS). The order marked the exciting roll out of the vaccine ordering module to two local health departments (LHD) placing orders on behalf of about 110 providers. Each step of the process, provider order placement, LHD review and approval, state processing and submission to the CDC and McKesson was accomplished electronically. We plan to add three more LHDs by mid March 2008, expanding electronic vaccine ordering to 260 providers. Our goal is to roll out the module to the 30 remaining LHDs by December 2008. The IIS will then be the vaccine ordering portal for over 1200 Washington providers. If all goes well, we will begin allowing a limited number of providers to order their vaccine using the module by the end of 2008. Providers using the full functionality of the IIS will then be able to accomplish inventory management, accountability reporting and vaccine ordering through one on-line system.

Initiating rollout was a significant milestone for us, representing many hours of work by our immunization program and registry staff, local health partners, and our vendor, Scientific Technologies Corporation. Three key areas of achievement made it possible.

➢ Addressing interface issues between the registry and VACMAN:

• VACMAN was altered to accept orders with a minimum order size based on product packaging, not bulk order minimums. CDC worked with us to resolve this issue.

• Registry programming to create two separate order files for transmission (1) for manufacturer direct ship vaccines and (2) for McKesson shipped vaccines.

• Technical requirements in the IIS for provider demographics matched with VACMAN requirements (e.g., days and times of delivery in the same format as required by VACMAN).

➢ Creating a user friendly interface that met minimum functionality criteria:

• Alphabetical display of the vaccines in the state order set to decrease data entry errors by LHD staff and providers.

• Data entry screens formatted based on current forms, and following current business flows for ordering.

➢ Establishing the infrastructure to support the use of the IIS for vaccine management activities at the state, local and provider level:

• Developing user friendly training materials and reference guides.

• Planning a rollout strategy that included a training plan and in-person as well as on-line options for state and local staff and providers.

• Defining roles and responsibilities for state staff for testing and training, daily use for accomplishing their work, and customer service for end users.

As with most information system development processes, we continue to refine the module to meet customer and business needs. Three key pieces we want in place prior to allowing direct provider access are:

• Full integration of vaccine shipping data from McKesson and VACMAN to provider level inventory management in the IIS;

• The ability to edit demographic information for providers in the registry and automatically update VACMAN; and

- The ability to attach a fund source code to direct ship vaccines at the point of order.

The strong partnership, hard work and leadership of the CHILD Profile Immunization Registry and Immunization Program CHILD Profile staff are making this effort come to fruition. We are excited about the launch and continuing our roll-out in 2008.

Contributed by Jan Hicks-Thomson, Washington

USE OF IIS FOR VACCINE MANAGEMENT, IIS ANNUAL REPORT FINDINGS 2003 AND 2006

As part of its annual grantee progress report, CDC's National Center for Immunization and Respiratory Diseases (NCIRD) asked 56 grantees to report whether or not they use their IIS for certain vaccine management functions: tracking vaccine inventory at the provider level and use of the IIS as part of the vaccine ordering process. The results are shown in the table below. As universal implementation of the Vaccine Management Business Improvement Process (VMBIP) and associated CDC-developed ordering applications draws to completion, CDC hopes to see further increase in grantee use of IIS in the vaccine management and ordering process.

IISAR Question	CY 2003		CY 2006		% Increase
	#	%	#	%	
Use IIS to track inventory at provider level	31	55%	34	61%	5%
Use IIS as part of vaccine ordering process	16	29%	19	34%	5%

Source: CDC, National Center for Immunization and Respiratory Diseases, Immunization Information Systems Annual Report (IISAR), calendar years 2003 and 2006.

Submitted by Amanda Bryant,
CDC/NCIRD/ISD/IISSB

MICR AND VFC PROGRAM COLLABORATION: A WIN-WIN FOR EVERYONE

The Michigan Department of Community Health Division of Immunizations Vaccine For Children (VFC) program is working very closely with the Michigan Care Improvement Registry (MCIR) staff to develop and implement a new vaccine management system in preparation for Michigan's launch of centralized ordering and distribution. The new inventory module will allow providers to manage their VFC and private vaccine inventories, offer e-ordering capabilities for VFC vaccine, and provide electronic supporting documentation.

The new design of the vaccine inventory module mandates VFC providers to use MCIR to manage their VFC vaccine with an optional feature to manage private stock. The inventory module will document all vaccine transactions including lost and wasted and reconciliations. The e-ordering will assist in ordering VFC vaccine. The support documentation feature includes scan temperature logs, ending inventory balances and a doses administered report.

Eighty-four local health departments (LHDs) in Michigan have a large role in the VFC program. Currently each LHD has a vaccine depot and distributes vaccine to all their VFC providers within their jurisdiction. In the new process, soon to be released, the VFC providers will place orders through MCIR and the order will first go to the LHD for approval. The LHD will be responsible for approving the orders and verifying supporting documentation. Once the order is approved the by the LHD, the order will be sent to VACMAN and then to McKesson. Once the order is packed and shipped from McKesson, the state will receive an electronic file and preload the required product information and dose amounts into individual MCIR inventories. The providers will activate the pre-populated product information when their order is received.

The State VFC program will have the responsibility of approving the clinic orders from the LHD. Any priority order in MCIR will be approved and managed by the state VFC program.

There will be several different reports available at the provider level, county level, regional level and state level for managing all vaccines in Michigan. One of a new report for the VFC program is the State of Michigan's Ending Balance Report. This report is a "point in time" report. The report will

provide a summary of how many doses of vaccine are available in Michigan. The user has the ability to choose a vaccine product and the report will generate the number of doses available by each provider VFC pin number. In addition to its routine inventory management functions, this report will be very useful during shortages.

In the fall of 2008, MCIR will include the functionality for online VFC provider enrollment. The provider will populate their "Annual Need" from registry data at the press of a button. Other means of estimating annual need are provided and this information can be entered manually. Provider offices will store information on their emergency response plans, alternate storage locations, business hours, shipping hours, and vaccine storage capacity at their site.

The goal of the new VFC module is to have a paperless VFC reporting mechanism for the 1500 VFC provider offices in Michigan. MCIR will provide the state and local VFC programs with a quality assurance tool that will generate "point in time" reporting and population based assessment information to assist with daily operations.

Contributed by Therese Hoyle, Michigan

ROLLING ON… VACMAN 4.0 UPDATE

The Vaccine Management (VacMan) system is the vaccine ordering software application developed by CDC to support the federal Vaccines for Children Program (VFC). It has been used by state, city, and territorial government immunization programs to place orders for vaccines and optionally to track and record information relating to VFC, 317 Grant, and state/other vaccines. Vaccine management and accountability needs have grown dramatically since the inception of the VFC program, and CDC has recently implemented the Vaccine Management Business Improvement Project (VMBIP) in order to improve current vaccine management processes at the federal, state and local levels. These improvements entail a transition to centralized vaccine distribution, which directly affects grantees' vaccine ordering processes, and therefore VacMan. The VacMan application has been updated in order to support centralized vaccine distribution processes now being implemented at immunization programs as part of the VMBIP

initiative. VacMan 4.x is the vaccine ordering software application used by grantees that have transitioned to centralized distribution, and VacMan 3.x is used by grantees that have not yet implemented centralized vaccine distribution. The current status of the VacMan upgrade is key for Immunization Information Systems (IIS) that capture vaccine information from immunization providers and use this data for vaccine ordering and management purposes.

VacMan 4.x is currently in its third release with a fourth release in the planning phase. As of December 31, 2007, 37 grantees have rolled on to VacMan 4.x. At the end of December, the roll-on to centralized distribution was suspended so the distributor could open a second distribution facility on the west coast. With the addition of the second distribution facility in February, vaccines will be shipped from either Memphis, TN or Sacramento, CA. The grantee roll-on to centralized distribution will resume mid-February.

Prior to grantee roll-on to centralized distribution, a conference call is held with each grantee and the VacMan development staff to go over the procedures that will be followed for the installation of VacMan 4.x, and to provide pointers that will ensure a smooth transition.

Grantees that use IISs to order vaccines should use the Import function in VacMan 4.x to load orders for transmitting to CDC. Use of the Import function will ensure the vaccine orders are checked against the NDC numbers in the VacMan contracts table (Vaccbulk file updates sent to grantees), thus reducing the number of rejected orders due to NDC numbers that do not match. A specification for the VacMan 4.x Import/Export function is available upon request to the VacMan Help Desk, (404) 639-8303, via email CCIDInformatics@cdc.gov, or from the CDC website at http://www.cdc.gov/vaccines/programs/vacman.

Submitted by Karron Singleton,
CDC/CCID/SSPU/IO,
and Amanda Bryant, CDC/NCIRD/ISD/IISSB

IMMUNIZATION INFORMATION SYSTEMS TO BE HIGHLIGHTED AT VACCINE UNIVERSITY

For the first year ever, Immunization Information Systems (IIS) will be highlighted at CDC's Vaccine University. The 2008 Vaccine University will feature one plenary and two breakout sessions on "the role and use of IIS for VFC and AFIX assessments." IIS consultants and CDC project officers identified key IIS programs to invite for presentations and panelists at the conference.

This year's Vaccine University will take place in Baltimore, Maryland, May 28-30, 2008. The annual event focuses on the Vaccines for Children program, Vaccine Management, and AFIX Training. More information on the 2008 Vaccine University can be found at http://www2.cdc.gov/nip/isd/vacu.

DR. MARK SAWYER, AIRA BOARD MEMBER, APPOINTED TO ACIP

Dr. Mark Sawyer, AIRA Board member and Co-Chair of the AIRA Provider Participation Steering Committee, has been appointed to serve on the Advisory Committee on Immunization Practices (ACIP) starting in June 2008.

Dr. Sawyer is currently the Principal Investigator and Executive Medical Director for the San Diego Immunization Partnership, a collaboration between the Immunization Program of San Diego County and the University of California, Division of Community Pediatrics. He is Professor of Clinical Pediatrics at the University of California San Diego Medical School and Pediatric Infectious Disease Consultant for Kaiser Permanente San Diego.

Dr. Sawyer is a strong advocate for the role of immunization information systems in public health. He is very involved in AIRA's efforts to increase the data exchange capacity between IIS and electronic medical record (EMR) systems, believing that this is the surest way to increase provider and child participation in IIS.