

ATTACHMENT - E: BRP Summary



Immunization Information Management Blue Ribbon Panel

Executive Meeting Summary

May 16-17, 2013

Background

The Centers for Disease Control and Prevention (CDC), National Center for Immunization and Respiratory Diseases (NCIRD), understands the critical role of effective immunization information management in reducing the burden of vaccine-preventable diseases and providing insight into vaccine usage and need. This includes further developing and strengthening Immunization Information Systems (IIS) throughout the nation. In Fall 2012, the NCIRD engaged the consulting firms of Intellix and Gartner to launch an NCIRD IIS Strategic Initiative. That initiative will, in part, create a roadmap to guide future investments in immunization information management, including enhanced interoperability between IIS and Electronic Health Record Systems (EHR-S) and enabling IIS to capture vaccine usage information from EHR-S. As part of the Initiative, CDC convened a Blue Ribbon Panel of twelve experts in immunizations, IIS, health informatics and health information exchange (see Appendix A). The Panel was charged with providing input on the future of immunization information management and IIS.

Meeting Overview

The two-day meeting was held May 16-17, 2013, at the Task Force for Global Health in Decatur, Georgia. The meeting objectives were to:

- Review, discuss, and provide input on future state capabilities for immunization information management in the context of the changing health care and health IT environment
- Discuss and provide input for milestones to achieve those future state capabilities
- Identify initiatives for executing the strategy, including dependencies and priority order

This meeting also served as one of many inputs to the IIS Strategic Initiative mentioned above.

Meeting attendees included Panelists, Participants who served as expert resources to the Panelists, and staff from the CDC, the Public Health Informatics Institute (who hosted the meeting), Intellix, and Gartner. Appendix A contains a list of all attendees.

Between October 1, 2012 and May 1, 2013, over two dozen interviews were conducted with the Panelists and others by the Intellix/Gartner team. The synthesis of these interviews (see next page) provided a framework for reviewing interview results to date, highlighting major topic areas and frequently-cited issues in the areas of Service, Sustainment and Policy. This matrix also served to help frame small group working sessions to identify:

- Future capabilities needed to increase the ability to meet the national IIS vision
- Current challenges to achieving those future state capabilities
- Possible future initiatives NCIRD could implement to address the challenges and achieve the future capabilities

Synthesis of Interviews: Frequently Cited Topics and Issues

Topic Area	Service	Sustainment	Policy
Interoperability & Integration	<ul style="list-style-type: none"> • Interstate exchange • Intrastate exchange • EHR / EMR Integration 	<ul style="list-style-type: none"> • Immunization Information Stakeholders 	<ul style="list-style-type: none"> • Interstate exchange
Process Management	<ul style="list-style-type: none"> • Clinical Decision Support • IIS Standards • Vaccine Inventory Management 	<ul style="list-style-type: none"> • Conflicting Priorities • Certification • Financial Resources • People Resources 	<ul style="list-style-type: none"> • Regulatory Environment
Data Management	<ul style="list-style-type: none"> • Data Quality • Data Sharing Architecture 	<ul style="list-style-type: none"> • Scalability 	<ul style="list-style-type: none"> • Security • Patient Identity

In addition, Dr. Chesley Richards, Director of the immunization Services Division within NCIRD, provided an introductory presentation on the current status and recent accomplishments of IIS: [“Achieving a Healthier Population through Immunization: The Critical Role of Immunization Information and Systems.”](#) In his overview, he presented the following vision:

A world in which real time, consolidated immunization data and services for all ages are available for authorized clinical, administrative, public health and consumers anytime or anywhere.

He emphasized the value of the Panelists’ input to NCIRD in considering the following questions:

- What are the best strategies to achieve the future state?
- What investments ought NCIRD to be making?
- What new opportunities to pay most attention to?

The Blue Ribbon Panelists then met in plenary session to define IIS future state capabilities. Next, three break-out groups of four panelists each identified current state challenges and milestones, presenting their findings in a subsequent plenary session. On the second day, each break-out group defined candidate initiatives which were then collectively reviewed, revised, and prioritized in a final plenary session, each Panelist being given ten “votes” to assign as they saw fit.

What are the future state capabilities that will realize the national IIS vision?

The following ideas on future state capabilities for immunization information management and IIS were provided by the Panelists. The purpose of identifying such future state capabilities is to stimulate discussions and planning; how they will be interpreted and acted on will undoubtedly evolve over time as conditions in the broader environment change. The ideas are presented as stated by the Panelists.

In the future, there are broader, more primary uses of the data, easily available to support program needs.

- Effective use beyond just management (e.g., population health). This may make IISs more attractive to use

In the future, the registry has to be placed in a political and organizational position that supports the IIS vision.

In the future, all IISs have to have the capabilities to support the vision.

- Important to think about reaching out to the smaller or less mature registries to engage / support them

In the future, analytics capabilities not only support immunization [program level], but also support evolving, robust operational needs and goals with real-time, uniformly high-quality data, efficiency in management, monitoring, and validation.

In the future, all the data and services (e.g., CDS) are commonly accessible by the user (provider, schools, patients, etc. as defined in the vision) in a timely manner.

- Registry data available through EMR; don't want to have to log in to another system

In the future, all the data and services (e.g., CDS) are commonly shared with and / or by EMR vendors in a timely manner.

- National Hub Model for Data Exchange. Can resolve vendor challenges (e.g., transport methods -route, not read)
- Having a more uniform way for registries to talk to each other makes sense
- Includes Patient Identification

In the future, there is the ability for registries to share across jurisdictional lines.

- Will have the policy and legal framework to support this

In the future, systems will support submissions and queries (bi-directional) for decision support, in a reasonable, "real-time" fashion.

- For example, the forecast for vaccination—patient / parent can access forecast on iPhone

In the future, there are efficient standards for CDS, data quality, de-duplication, inventory management, interfaces, transport mechanisms, messaging mechanisms, etc.

- Certification of those capabilities?
- Provide a CDS web service?
- CDS, and its connection to IIS, may be evolving. Don't have to hit an IIS to get clinical decision support; we should think about this connection relative to the use cases for the data
- Precise business rules and a consolidated records are key to accurate forecasts
- Some vendors are interested in building the CDS themselves versus plugging into a web service
- More worried about pharmacy portals that give rudimentary forecasts
- No matter what these programs talk about with standardization, they don't practice it; for the foreseeable future, every IIS will have to sanction a set of rules

In the future there is a national, single-point CDS (i.e., "Standard CDS")

- Sustainability is a challenge when no one wants to fund it; how do you raise the value?

In the future, IIS are sufficiently valued such that stakeholders are willing to invest in sustaining the system

- We are inefficient now. Why? Turf issues, absence of vision for a common infrastructure
- CDC needs to consider whether CDS is about the immunization alone, or is it more than one use case (e.g., chronic disease CDS)?

In the future, there are standardized technologies/approaches (e.g., MIROW) that result in cost savings / improved sustainability

Meeting Results

The final prioritization represents the Panel’s input to NCIRD on near-term initiatives for investment.

Final Prioritized Initiatives

Initiative Name	Initiative Description	Votes
IIS architecture is scalable, modular and shared	Define candidate IIS services for modularizing; i.e., define an architecture and establish a consortium for jointly developing, sharing software modules.	16
Common approach to resources/investments across CDC and IIS community	Establish a common approach to resources and investments across CDC and the IIS community, including a more harmonized approach to Meaningful Use, greater cross-program collaboration within CDC, and a defined scope of “common approach.”	15
Validate and refine the value of IIS for stakeholders	Secure funding/proper resourcing for continued maintenance and enhancement of IIS.	13
Assessment of current and aspiring models for interstate data exchange	Conduct a best practice study for interstate exchange to inform policy recommendations.	13
IIS informatics fellows (part of a cross-cutting workforce category)	Hire three informatics fellows focused on and working in IIS programs; support “InfoAid” ¹ projects using informatics fellows; provide IIS training to (and/or by) fellows.	11
Data quality (part of a cross-cutting data exchange/data quality category)	Identify data enhancements to improve data quality at different stages of interoperability.	10

¹ InfoAids are CDC informatics Fellows who can be detailed to a local and state health department to assist them a short-term informatics challenge.

Initiative Name	Initiative Description	Votes
Partner collaboration	Increase collaboration among CDC, AIM, AIRA to evaluate needs and improve data sharing between IIS and CDC systems; e.g., IIS / VTrcks, AFIX.	9
IIS Functional Standards	Link existing requirements documents; create new MIROW chapters; harmonize existing data quality and message validation tools.	8
Consumer-mediated exchange (part of a cross-cutting data exchange/data quality category)	Assess current and aspiring models for consumer-mediated exchange ² .	8
Joint development frameworks	Identify joint development frameworks, including governance models, open source IIS module library, and create an IIS certification criteria and process.	6
Transport and messaging (part of a cross-cutting data exchange/data quality category)	Examine ways to improve and/or sustain national transport and messaging services.	4
Message validation tool	Utilize HL7 Implementation Guide Gap Analysis of IISs to develop National Message Validation Tool to certify acceptable HL7 Formats.	4
Standardized tests	Develop standardized tests to help providers optimally use their EHR-S for immunization reporting.	1
Provider on-boarding	Define guidance for on-boarding ³ of reporting users.	1
Informatics-savvy IIS workforce/ecosystem (part of a cross-cutting workforce category)	Define IIS manager orientation and sponsor training for existing staff.	1
IIS informatics competencies (part of a cross-cutting workforce category).	Define IIS informatics-specific competencies for workforce development.	0

Next Steps

The leadership team within NCIRD will be working with the Intellix/Gartner team to analyze how the Panel's input on prioritized initiatives can optimally inform the broader IIS Strategic Initiative. The input will be particularly helpful to NICRD in weighing where to best make financial, technical or policy

² Consumer-mediated exchange refers to individuals having access to their health information, to support them in taking recommended preventive actions and in managing their health care online.

³ On-boarding refers to the testing and validation process that health care providers and IISs collaboratively engage in to ensure that only complete and accurate electronic immunization data feeds are being imported into the IIS.

investments in the near- and middle-term. NCIRD leadership is committed to regularly engaging IIS stakeholders on the status, content and implementation of the IIS Strategic Initiative. •

Appendix A

Immunization Information Management Blue Ribbon Panel Meeting Attendees

May 16-17, 2013

Panelists

Noam Arzt, HLN Consulting, LLC

Laura Conn, CDC/OSELS/HITSS

James Daniel, Office of the National Coordinator for Health Information Technology

Art Davidson, Denver Health

Shaun Grannis, Regenstrief Institute

Molly Howell, North Dakota Department of Health Immunization Program

Mary Beth Kurilo, Oregon ALERT Immunization Information System

Martin LaVenture, Minnesota Department of Health, Office of Health Information Technology

Amy Metroka, New York Citywide Immunization Registry

Jim Pearsol, Association of State and Territorial Health Officials

Pejman Talebian, Massachusetts Department of Public Health Immunization Program

Stuart Weinberg, Vanderbilt School of Medicine

Participants (as expert resources to the Panel)

Rebecca Coyle, American Immunization Registry Association

Therese Hoyle, Every Child by Two

Terri Ann Murphy, Veterans Administration

Chesley Richards, CDC/NCIRD/ISD

Gary Urquhart, CDC/NCIRD/ISD/ISSB

Warren Williams, CDC/NCIRD/ISD/ISSB

CDC Participants and Observers

Kafayat Adeniyi, CDC/OID/NCIRD

Hanan Awwad, CDC/OID/NCIRD

Danny Coviello, CDC/OID/NCIRD

David Farkas, CDC/OID/NCIRD

Nedra Garrett, CDC/OSELS/PHSIPO

Anjella Johnson-Hooker, CDC/OID/NCIRD

Agha Khan, CDC/OID/NCIRD

Melissa Moore, CDC/OID/NCIRD

Jessie Wing, CDC/OID, NCIRD