



Immunization Registry Design Group

A Design Group of the Connecticut Health IT Advisory Council

July 20, 2017 | 11:30 am – 1:00 pm

Session 3

Facilitated by CedarBridge Group



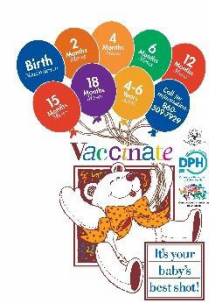
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GROUP

Agenda

Welcoming Remarks	Christina Coughlin	11:30 AM
Review Agenda		
Approve Session 2 Meeting Summary	Design Group Members	11:32 AM
Review Best and Innovative Practices	Nancy Sharova/Christina Coughlin	11:35 AM
Discuss Stakeholders and Value Propositions <ul style="list-style-type: none">• <i>Identify additional stakeholders</i>• <i>Refine stakeholder value propositions</i>	Design Group Members	11:45 AM
Review High-Level Implementation Roadmap	Nancy Sharova/Christina Coughlin	12:15 PM
Discuss Identified Issues, Emerging Recommendations, and Possible Prioritization	Design Group Members and Support Staff	12:25 PM
Meeting Wrap-up and Next Steps	Christina Coughlin	12:55 PM

Approve Session 2 Meeting Summary

Review Best and Innovative Practices



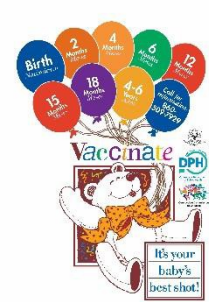
IIS Best Practices & Resources



- All states strive to meet the national functional standards.
- The way that one state achieves this versus another is dependent on: state statutes and regulations, non-federal funds to support activities, VFC policies (VFC-only, VFC-select, universal select, universal, etc.), IT support models, HIEs, etc.
- CT participates in national meetings and webinars that are relevant to specific aspects of IIS functionality for ideas and attempt to apply ideas here that may be helpful.

For IIS Resources, visit:

- CDC Immunization Information Systems (IIS) “Popular IIS Topics” at: <https://www.cdc.gov/vaccines/programs/iis/index.html>
- MIROW: Modeling of Immunization Registry Operations Workgroup at: <https://www.cdc.gov/vaccines/programs/iis/activities/mirow.html>
- American Immunization Registry Association (AIRA) at: <http://www.immregistries.org/>



IIS Best Practices & Resources





Best practice recommendations include the following information:

- An overview of the topic being reviewed
- Principles, business rules, and general recommendations associated with the topic
- Various models, such as business process models, state transition models, and others
- Agreed upon terms and definitions
- Challenges to and solutions for implementing the best practice recommendations
- Select references for peer-reviewed literature
- Examples of implementation




Modeling of Immunization Registry Operations Workgroup (**MIROW**) has **developed five best practice guidelines** of these recommendations. Each guideline may be downloaded from the AIRA web site at:

www.immregistries.org/pubs/mirow.phtml

Examples of Approaches in Other States

Approach/Area of Interest	State
<ul style="list-style-type: none">• Works closely with informatics/data use/disease prevention	 <p>Minnesota</p>
<ul style="list-style-type: none">• Developed a whole health promotion component that links IIS to their coalition and outreach efforts to 0-6 kids in need of immunizations• Pilot with pharmacies to improve adult immunization rates	 <p>Washington</p>

Examples of Approaches in Other States

Approach/Area of Interest	State
<ul style="list-style-type: none">• IIS is aligned heavily with statewide and sub-state HIE networks• Linked closely with their Medicaid/payer programs across the state	 <p>Michigan</p>
<ul style="list-style-type: none">• Affiliated with lead program• Flu surveillance	 <p>New York</p>
<ul style="list-style-type: none">• Integrated deeply with Child Health programs• HPV vaccine campaign	 <p>Rhode Island</p>

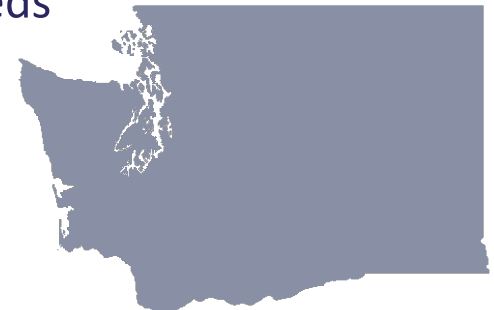
NYC: Using an IIS to Build Customized Recommendations for Ordering Flu Vaccines

- Presented at 2017 AIRA Conference by Arianne Ramautar, MPH
- Vaccine for Children vaccine distribution is linked to IIS reporting (incentivizes providers to report accurately)
- 2015 analysis using IIS data and vaccine orders showed sites weren't ordering enough to cover eligible population
- 2016-2017 established new methods for pre-booking of vaccines to increase orders with integrated recommendations
- Most providers followed or exceeded ordering recommendations but flu coverage decreased
 - Change in preschool mandate
 - Parental hesitation
 - FluMist not recommended that year
- Will continue to track



Washington State: Project IMPACT Immunizations

- Presented at 2016 AIRA Conference by American Pharmacists Association Foundation
- Test practice model that could help pharmacists increase adult vaccination rates
 - Interoperable access to IIS allows pharmacist to see patient's vaccination history at point-of-care
 - Generate ACIP patient vaccination forecast for pharmacist
 - Pharmacist educates patient about vaccination needs
 - Patient decides whether or not to get vaccine
 - Pharmacist documents information in IIS



Discuss Stakeholders and Value Propositions

Value Proposition Overview

- A value proposition is the assumed benefit to be provided to stakeholders.
- Individual stakeholder groups often have their own lens with which they define value. While there may be some overlap between groups, it is important to identify value propositions by stakeholder groups.
- Value can refer to financial incentives and/or cost savings, improved quality, administrative efficiencies, benefit to society, and more.

Stakeholder List

Stakeholder (see Value Proposition worksheet)

1. Consumers

2. Clinicians

3. Clinic Staff

4. Provider Organizations

5. Walk-in Clinics (Expansion of Care and Use of EHRs)

6. Federally Qualified Health Centers (FQHCs)

7. Public Health

8. Local Health Departments

9. Regulatory Agencies (Federal and State)

10. Schools

Stakeholder List, cont.

Stakeholder (see Value Proposition worksheet)

11. Childcare/Preschools

12. Foster Care

13. Employers

14. Payers

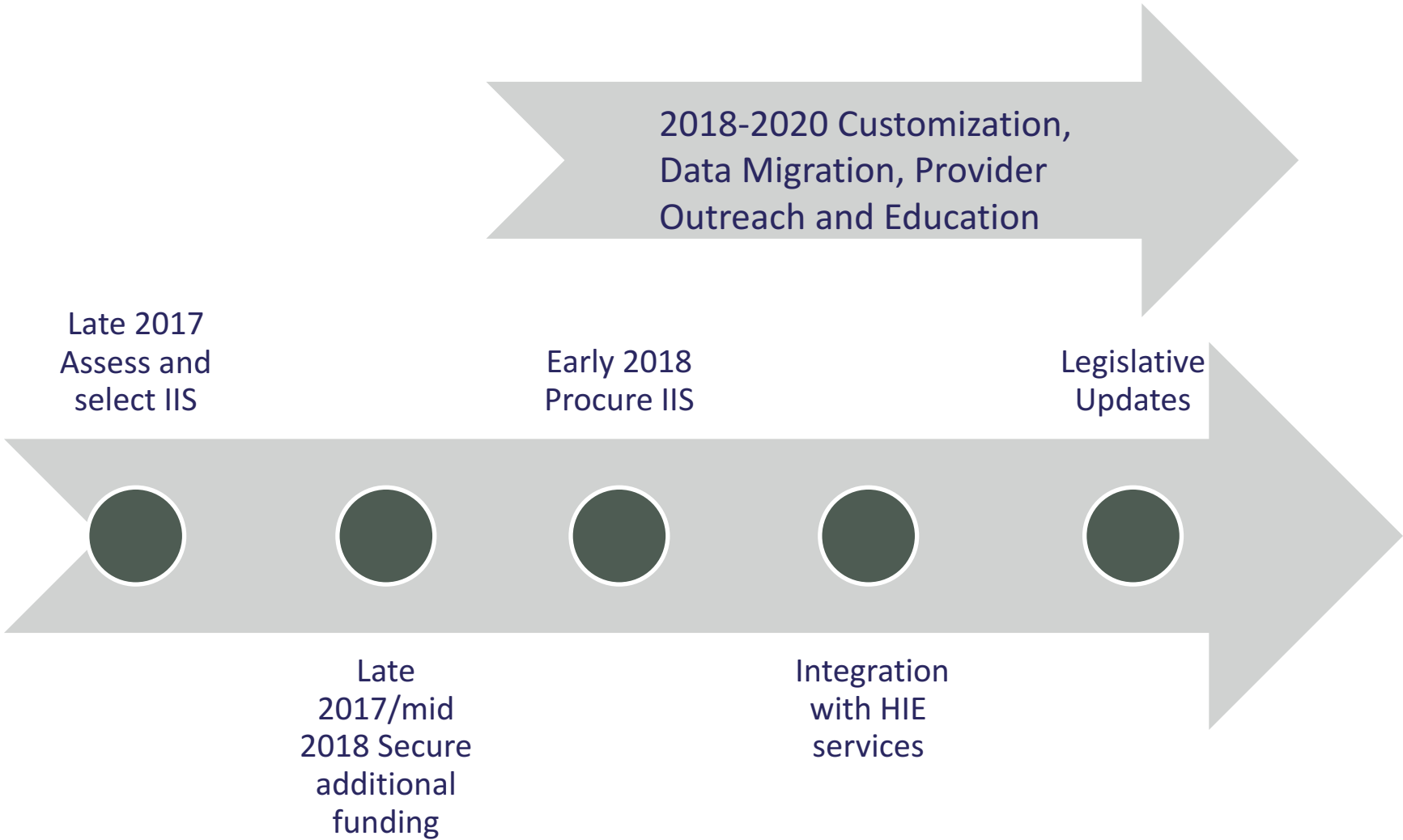
15. Medicaid

16. Pharmacies

17. Pharmaceutical Companies

Review High-Level Implementation Roadmap

Draft High-Level Implementation Roadmap



Discuss Identified Issues,
Emerging Recommendations, and
Possible Prioritization

Issues and Recommendations

Issue/Gap	Recommendation
Current CIRTS doesn't meet CDC standards	Support DPH's decision to purchase new IIS platform and participate in existing consortium
Current inability of DAS-BEST to support SOAP	Flag issue, and encourage coordination/alignment with HIE planning
Provider onboarding / education and technical assistance	Identify a few interesting and high value use cases to build outreach and education around; draft technical assistance plan

Issues and Recommendations

Issue/Gap	Recommendation
Sustainable funding	Maximize IAPD funds and alignment with HIE activities
Parallel systems (CIRTS and new IIS platform)	Create implementation roadmap
Legislative updates	Identify priority topics
Other	
Other	

Proposed Timeline

Milestones/Deliverables	Planned Dates
Session 1: Kickoff Meeting (Validate charter, roles and responsibilities, and timeline of Design Group; receive update on current status of IIS system; identify value propositions)	7/7/17
Session 2: Discuss value propositions, high level review of CDC IIS functional standards and overall services; identify issues, obstacles, gaps	7/13/17
Session 3: Determine stakeholder needs and prioritization, identify additional stakeholders and their roles; review high-level implementation roadmap	7/20/17
Present update to Health IT Advisory Council	7/20/17
Session 4: Complete roadmap and draft action plan; review role of the HIE entity in supporting IIS interoperability	7/27/17
Session 5: Considerations for financial sustainability models and future Design Group needs, if necessary; draft recommendations	8/3/17
Present Report and Recommendations to Health IT Advisory Council	8/17/17

Next Steps

- Consider recommendations for final report
- Next meeting: Thursday July 27, 11:30am EDT



Christina Coughlin

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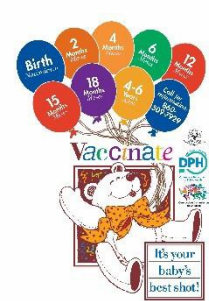
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Appendix

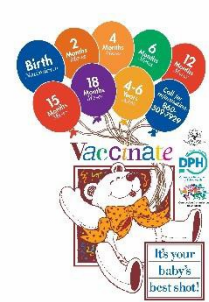


2013 – 2017 IIS Functional Standard #1



1. Support the delivery of clinical immunization services at the point of immunization administration, regardless of setting. This standard includes:

- “Real-time” access to immunization records by authorized users. Internal IIS function.
- Vaccine forecasting – automated function to show user if vaccines are due, past due, or coming due. Internal IIS function.
- Reminder/Recall – production of a reminder (due for a vaccine) or a recall (past due for a vaccine) for individuals. Internal IIS function to trigger reminder/recall, but actual notice can be sent from another system (e.g., provider’s EHRs).
- Automatic response to electronic queries from other health information systems based on interoperability standards. External function that requires a intermediary application to validate and transform incoming message to a valid output message.
- IIS can receive electronic submissions based on interoperability standards. Internal function – the IIS can receive the valid output message.



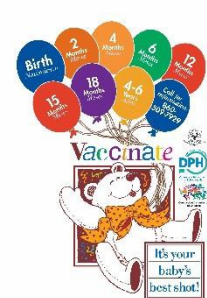
2013 – 2017 IIS Functional Standard #2



2. Support the activities and requirements for publicly-purchased vaccine, including the Vaccines for Children (VFC) and state purchase programs.

These are all required internal IIS functionality.

- Inventory function that automatically adds newly acquired vaccines and subtracts (i.e., decrements) vaccines as they are administered or otherwise “used”.
- Vaccines are tagged based on purchase with public or private funds.
- Individual vaccine records include if the vaccine was a public or private vaccine to ensure public vaccine eligible doses are given properly.
- Vaccine inventory can be automated or accessed manually and allows record keeping for expired or borrowed vaccines.
- The IIS interfaces with the national vaccine ordering, inventory, and distribution system.
- The IIS can provide data and/or produce management reports for VFC and other public vaccine programs.



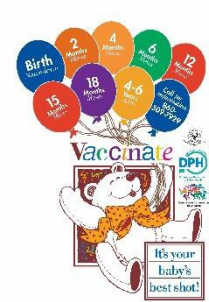
2013 – 2017 IIS Functional Standard #3



3. Maintain data quality (accurate, complete, timely data) on all immunization and demographic information in the IIS.

These are all required internal IIS functionality.

- Consolidated demographic and immunization records for all patients (in Connecticut, all patients eligible for enrollment into CIRT).
 - This demographic/immunization information is available to authorized users.
 - An individual patient's active (enrolled) and inactive (opted out) status is known.
- IIS provides ability to identify, de-duplicate and resolve incomplete patient records as well as vaccination events.
- The IIS can store all IIS Core Data Elements ([see Appendix B](#)).
- IIS can establish a record for newborns upon upload of birth record data.

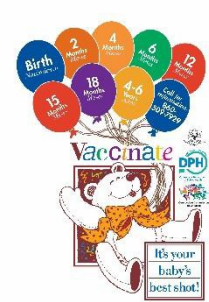


2013 – 2017 IIS Functional Standard #4



4. Preserve the integrity, security, availability and privacy of all personally-identifiable health and demographic data in the IIS.

- The DPH Immunization program has written confidentiality and privacy practices and policies based on applicable law or regulation that protect all individuals whose data are contained in the system.
- The IIS has user access controls and logging, including distinct credentials for each user, least-privilege access, and routine maintenance of access privileges.
- The IIS is operated or hosted on secure hardware and software in accordance with industry standards for protected health information, including standards for security/encryption, uptime and disaster recovery. In Connecticut, the IIS is hosted at the Bureau of Enterprise Systems and Technology (BEST) in the state data center.

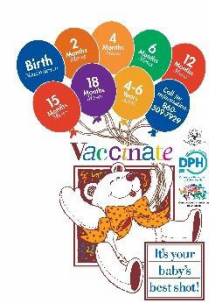


2013 – 2017 IIS Functional Standard #5



5. Provide immunization information to all authorized stakeholders.

- IIS can provide immunization data access to healthcare providers, public health, and other authorized stakeholders (e.g., schools, public programs, payers) according to law, regulation or policy.
- Reports can be generated (e.g., immunization coverage, vaccine usage, and other important indicators by geographic, demographic, provider, or provider groups) for authorized users without assistance from DPH Immunization Program personnel.
 - These include the AFIX report:
- IIS can provide copies of immunization records to individuals or parents/guardians with custodial rights (with appropriate levels of authentication).
- The IIS can produce an immunization record acceptable for official purposes (e.g., school, child care, camp).



2013 – 2017 IIS Functional Standard #6



6. Promote vaccine safety in public and private provider settings

- Provide the necessary reports and/or functionality to facilitate vaccine recalls when necessary, including the identification of recipients by vaccine lot, manufacturer, provider, and/or time frame.
- Facilitate reporting and/or investigation of adverse events following immunization.



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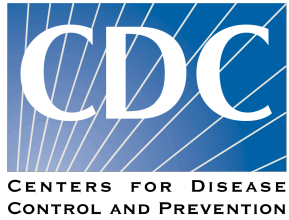
Essential Infrastructure Standards

- 1.0 Contain **complete and timely demographic and immunization data for children, adolescents and adults** residing or immunized within its jurisdiction.
- 2.0 Implement **written and approved confidentiality policies** that protect the privacy of individuals whose data are contained in the system.
- 3.0 Implement **comprehensive written and approved security policies** consistent with industry standards.
- 4.0 The IIS is **physically and digitally secured in accordance with industry standards** for protected health information, security, encryption, uptime, and disaster recovery.
- 5.0 **Support IIS users who access and use the IIS functions, submit or access IIS data.**



DRAFT Goal One: Support clinicians in delivering age-appropriate immunizations

- 6.0 **Receive submissions and returns responses in accordance with interoperability standards** endorsed by the CDC for message content, format and transport.
- 7.0 **Ensure appropriate user access** to immunization records for clinical decision making at the time immunization services are delivered.
- 8.0 **Identify, prevent and resolve duplicated and fragmented patient records** using an automated process.
- 9.0 **Identify, prevent and resolve duplicate vaccination events** using an automated process.
- 10.0 **Forecast pediatric and adult immunizations** in a manner consistent with Advisory Committee on Immunization Program (ACIP) recommendations.



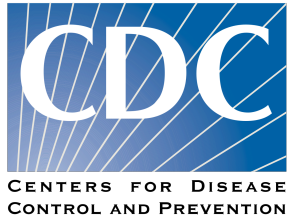
DRAFT Goal One: Support clinicians in delivering age-appropriate immunizations (cont.)

11.0 Manage patient status at the provider organization and jurisdiction levels.

12.0 Track Vaccines for Children (VFC) vaccine eligibility at the dose level for every dose of publicly purchased vaccine that is administered.

13.0 Support vaccine product recall activities.

14.0 Support reporting and investigation of vaccine adverse events.

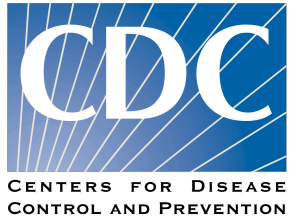


DRAFT Goal Two: Support the control and management of vaccine preventable disease outbreaks

15.0 Support public health response during disease outbreaks.

16.0 Support immunization related efforts in school and childcare settings.

17.0 Support immunization program activities during a public health emergency according to the jurisdictions public health emergency plan.



DRAFT Goal Three: Support and inform stakeholder efforts to improve immunization rates.

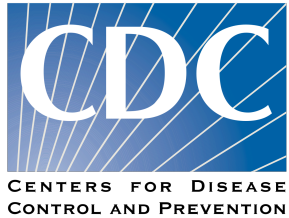
18.0 Provide predefined and ad hoc assessment and coverage reports that users can generate without assistance from IIS personnel.

19.0 Support reminder and recall activities.

20.0 Provide immunization records to individuals with appropriate authentication.

21.0 Ensure appropriate access to the data in the IIS to all stakeholders **for public and population health purposes.**

22.0 Reliably exchange information electronically with IIS in other jurisdictions.



DRAFT Goal Four: Support providers in meeting the requirements of the Vaccines for Children Program and state and local immunization programs.

23.0 Support vaccine management and quality assurance functions for the Vaccines for Children (VFC), state and local immunization programs.

24.0 Support data exchange with the national Vaccine Tracking System (VTrckS).

25.0 Support provider site level vaccine inventory management and reconciliation according to VFC, state and local immunization program requirements.

26.0 Decrement administered doses from inventory maintained in the IIS.

27.0 Provide data or produces reports for VFC, state and local immunization programs.