



Immunization Information System (IIS) Leadership Workshop

June 10-12, 2025
Public Health Informatics Institute
Decatur, GA





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Introduction

Welcome to the 2025 IIS Leadership Workshop! As a leader in your immunization program, you are in a position to advance and leverage your IIS to support federal, state, local and territorial immunization goals. During this three-day learning experience, you will increase your competencies and confidence in facing the challenges of IIS and leadership positions.

Faculty from the Centers for Disease Control and Prevention's (CDC) Informatics and Data Analytics Branch (IDAB), the American Immunization Registry Association (AIRA), and the Public Health Informatics Institute (PHII) will lead you through a series of modules and activities to bolster your technical, policy and operational knowledge of IIS. You will be challenged to apply this learning to your program and identify priorities for action.

Objectives and Goals

The overall purpose of this workshop is to build leadership capabilities to coordinate and leverage the interrelated components of IIS—people, policies, processes and technology—in support of immunization program goals.

This workshop aims to:

- Build foundational leadership skills
- Develop content knowledge
- Encourage and sustain an environment of sharing/learning
- Prepare leaders for change

The event will do so by:

- Sharing IIS information from various perspectives
- Encouraging a space for open and candid dialogue between IIS community faculty and participants
- Clarifying the core responsibilities of an IIS leader
- Identifying strategies for (re)prioritizing and delegating

Instructions

This workbook is designed to give you everything you need to follow along during the workshop, take notes, participate in activities and pick up where you left off when you return to work after the workshop.

Agenda

Day 1: Tuesday, June 10, 2025

8:30 AM - 9:00 AM	Welcome and Workshop Overview
9:00 AM - 9:45 AM	Icebreaker
9:45 AM - 10:30 AM	Role of an IIS Leader
10:30 AM - 11:15 AM	Communication
11:15 AM - 11:25 AM	Break
11:25 AM - 12:25 PM	CDC Vision and the IIS Community
12:25 PM - 1:15 PM	Lunch
1:15 PM - 2:15 PM	IIS Strategic Vision Panel
2:15 PM - 3:00 PM	Laws, Policies, and Procedures
3:00 PM - 3:10 PM	Break
3:10 PM - 3:55 PM	Strategic Sustainability and IIS Budget
3:55 PM - 4:15 PM	Leadership Action Plan
4:15 PM - 4:35 PM	Day 1 Wrap-up

Eastern Daylight Time

Join your colleagues and workshop facilitators at Parker's on Ponce for an AIRA-hosted networking reception at 5:00 PM!

Day 2: Wednesday, June 11, 2025

8:30 AM - 8:50 AM	Day 2 Welcome and Recap
8:50 AM - 9:30 AM	World Café
9:30 AM - 9:45 AM	Group Photo
9:45 AM - 10:25 AM	Data Quality I
10:25 AM - 10:35 AM	Break
10:35 AM - 11:35 AM	The “IIS View”
11:35 AM - 12:25 PM	Lunch
12:25 PM - 1:05 PM	Data Quality II
1:05 PM - 1:50 PM	Effective IIS Data Use
1:50 PM - 2:20 PM	AIRA Overview
2:20 PM - 2:40 PM	Break
2:40 PM - 3:25 PM	Lightning Round
3:25 PM - 3:45 PM	Leadership Action Plan
3:45 PM - 4:10 PM	Day 2 Wrap-up
4:10 PM - 5:00 PM	Ping Pong Tournament

Eastern Daylight Time

Join your colleagues and other workshop participants for a Ping Pong Tournament following the day's activities. Prizes will be given to the champion and runner-up teams!

Day 3: Thursday, June 12, 2025

Participants should check out of the hotel in the morning and bring their luggage to the last workshop day. A shuttle to the airport will be provided.

8:30 AM - 8:40 AM	Day 3 Welcome and Recap
8:40 AM - 9:15 AM	PHII Overview
9:15 AM - 10:00 AM	Change Management, Project Management, and the SDLC
10:00 AM - 10:20 AM	Networking Event: IIS Trivia
10:20 AM - 10:30 AM	Break
10:30 AM - 11:10 AM	Assessment, Planning, and Prioritization
11:10 AM - 11:30 AM	Leadership Action Plan
11:30 AM - 12:00 PM	Workshop Wrap-up
12:00 PM - 12:30 PM	Lunch

Eastern Daylight Time

Faculty, Panelists, Presenters, and Staff

Workshop Faculty and Presenters



Beth Cox

Outreach and Technical Assistance Team Lead, CDC/IDAB

Beth Cox is the Outreach and Technical Assistance Team Lead in CDC's Informatics and Data Analytics Branch (IDAB), which assists vaccination program awardees with their IIS implementations and utilization to support jurisdictional immunization programs and initiatives. She previously served in Florida's Immunization Program as the Vaccines for Children (VFC) Manager, the Field Operations Manager and the IIS Training Consultant. Prior to her job in Florida, she worked in the EXPO Division of Home Depot as a Human Resources Manager and a Systems Instructional Designer. Beth earned a B.A. from Davidson College in NC, and a Masters in Human Resources Development from Georgia State University.

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Janet Fath, PhD

IIS Operations Team Lead, CDC/IDAB

Janet Fath is a member of the Informatics Team in CDC's Immunization and Data Analytics Branch (IDAB). When she joined the CDC in 2010, she served the IIS community as subject matter expert for VTrckS, CDC's national vaccine ordering and inventory management system for publicly purchased vaccine. Her current projects include privacy preserving data linkage and IIS data quality certification.



LaTrece Harris

Lead Health Scientist, CDC/IDAB

LaTrece Harris currently serves as the Lead Health Scientist and Team Lead for the Evaluation and Applied Analytics Team within the Immunization Services Division at CDC. For 20 months, she served as the Deputy Lead and Section co-lead of the Data Monitoring and Reporting Section within the CDC COVID-19 Vaccine Taskforce. She is also closely involved in the Data Modernization Initiative at CDC. LaTrece brings 18 years of experience at CDC to her role in the task force, with 10 of those spent in the Immunization Services Division.

LaTrece earned her undergraduate degree in biology from Clark Atlanta University. She completed her Master of Public Health in epidemiology from the Rollins School of Public Health at Emory University.



Chantel Hartman, MPH, CPH

Public Health Analyst, CDC/IDAB

Chantel Hartman is a Public Health Analyst on the Outreach and Technical Assistance Team in CDC's Informatics and Data Analytics Branch (IDAB), where she assists vaccination program awardees with their IIS implementations and utilization efforts. She has also served as a Project Officer supporting Drug-Free Communities (DFC) Support Program and Substance Use Prevention, Treatment, and Recovery Services Block Grant recipients. Prior to joining HHS, Chantel spent several years leading state efforts to resolve tobacco point-of-sale policy and data challenges, modernize the tobacco licensure systems and enforcement structures, and promote comprehensive tobacco cessation benefits and services. Chantel holds a Master of Public Administration from Troy University and Bachelor of Science in Biology from Auburn University Montgomery. She is also certified in nonprofit management and leadership and actively working towards certification in project management.

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Jan Hicks-Thomson

Outreach and Technical Assistance Team Lead, CDC/IDAB

Jan has been with the CDC for 7 ½ years and is currently a team lead for the Outreach and Assistance Team in CDC's Informatics and Data Analytics Branch. She was previously an IIS subject matter expert for the Branch and supported multiple states IIS and CDC Cooperative Agreement efforts. She has led CDC work with federal agencies, IIS Functional Standards, provider IIS participation, IIS sustainability, and Cooperative Agreement components. Prior to coming to CDC, she held positions within state and local public health agencies and was instrumental in integrating provider and program business practices into the IIS. She earned her MSW and MPA from Eastern Washington University and her bachelor's degree from Montana State University.

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Mary Beth Kurilo

Senior Director of Health Informatics, AIRA

Mary Beth Kurilo currently fulfills two roles, working as a Public Health Consultant and Trainer with PHII, and as a Senior Director of Health Informatics at AIRA. Prior to 2014, she worked as the Director of the Oregon ALERT IIS for eight years. She has been immersed in the IIS community for over 20 years and has served as a past AIRA President and as a Co-Chair or Lead for AIRA's Education Steering Committee, Standards and Interoperability Steering Committee, and Executive Committee. Mary Beth holds master's degrees in Public Health and Social Work from the University of Washington.

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Amy Metroka

Former Director, Citywide Immunization Registry, NYC Dept of Health & Mental Hygiene

Amy Metroka has been in the IIS world since the early 1990s, when IIS were mostly in the planning stages. She was fortunate to have been one of the pioneers of IIS development and the formation of AIRA. Amy served as AIRA president twice, and was a long-time member of AIRA's IIS Measurement for Assessment and Certification Advisory Workgroup (MACAW) and Modeling of Immunization Registry Operations Workgroup (MIROW) Steering Committee. She started her career as a social work administrator and moved into public health in the 1990s when the Robert Wood Johnson Foundation awarded a planning grant to NYC to explore the idea of developing an IIS. During this time, she got an MPH and a DrPH while working full-time as NYC's IIS manager. She retired from the NYC Department of Health & Mental Hygiene in January 2022 and is now happy to be working as a part-time consultant for PHII.

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Marcey Propp

Immunization Domain Lead / Sr. Project Manager, HLN Consulting

Marcey Propp brings vast management consulting expertise to support State and Federal public health agencies in strategic planning and improving productivity and efficiency. Marcey provides technical assistance to jurisdictions across the country and applies industry-standard project and change management methodologies and tools to operationalize, optimize, and modernize public health information systems. Marcey guides the delivery of proven and practical solutions in areas related to health, information exchange planning and execution, data migration and validation, requirements collection, testing, process re-engineering, and training. Marcey holds a bachelor's degree from Rutgers University, a Master of Business Administration from Northeastern University, and she is an active member of AIRA and a Certified Professional in Health Information & Management Systems through HIMSS.

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**Jennifer Austin Ratliff**

Jennifer Austin Ratliff is a Public Health Analyst and IIS Subject Matter Expert from CDC. Prior to her role as IIS SME, Ms. Ratliff supported the agency as the IZ Gateway Lead. She has a 30 year background in IT project management and strategic communications, with 15 years of her experience dedicated to public health.

Jennifer Austin Ratliff

**Ashley Treharne**

Ashley is a Health Scientist on the Evaluation and Applied Analytics Team in CDC's Informatics and Data Analytics Branch within the Immunization Services Division, where she provides subject matter expertise on data quality improvement and analyses using IIS data. She has nine years of global and domestic experience improving disease surveillance systems and building capacity to use data for public health decision making. Ashley has a BS in Biology from St. Francis College and a MSc in Control of Infectious Diseases from the London School of Hygiene & Tropical Medicine.

Ashley Treharne

Workshop Panelists



Jeffrey Cooper, MD

Pediatrician

Dr. Jeffrey Cooper is a native of Georgia and has lived in Atlanta since 1980. He received a Bachelor of Arts degree in piano performance in 1984 and his Doctor of Medicine in 1988 from Emory University. After a pediatric residency at Emory, he entered private practice, establishing Cooper Pediatrics in 1992. Dr. Cooper is board certified by the ABP and is a Fellow of the AAP and ACOP. Cooper Pediatrics began using their first EMR in 2000 and Dr. Cooper won the Davies Award from HIMSS for primary care in 2003. He has been with OP (Pediatric specific EMR) since 2016. He lives in Berkeley Lake, GA with his wife Lisa and has three adult children.



Rebecca Coyle

Executive Director, AIRA

Rebecca Coyle is the Executive Director of the American Immunization Registry Association (AIRA), where she oversees the development and promotion of tools and best practices to support the implementation of immunization information systems as an essential tool in preventing and controlling vaccine-preventable diseases. Ms. Coyle has a master's degree in education with an emphasis in public health.

Rebecca began her work in the immunization community in 2002 as the School & Childcare Coordinator for the Idaho Immunization Program. She worked in the Minnesota Department of Health as a CDC Public Health Advisor before returning to Idaho as the Immunization Program Manager. Ms. Coyle joined AIRA in 2010 as the Executive Director.



Claire Hannan

Executive Director, AIM

Claire Hannan joined the Association of Immunization Managers as its first Executive Director in 2004 and has spent her career working to support immunization policies and practices. She is responsible for the overall administration and management of AIM, as well as representing AIM at conferences, meetings, on committees, and in workgroups. She also represents AIM, communicates with the CDC, and facilitates coordination among AIM members in addition to preparing AIM positions, policy papers, reports, letters, and presentations.

Claire holds a Bachelor of Arts degree in Political Science from Wagner College and a Master of Public Health in health policy from the Johns Hopkins University Bloomberg School of Public Health. Before joining AIM, she worked on Capitol Hill, lobbied for children's health issues, and was the Director of Immunization Policy for the Association of State and Territorial Health Officials.



Marie Hartel

Program Director, Tennessee Department of Health

Marie Hartel is the Program Director for the Tennessee Department of Health Vaccine-Preventable Diseases and Immunization Program, overseeing the administrative, IIS, and data management operations of the program. She joined the immunization community in May 2020, previously serving as the IIS Manager and IIS Deputy Manager. Marie has a Master of Public Health degree and more than a decade of experience supporting the design, implementation, and management of state data systems. She resides in Nashville, Tennessee with her family.



Tara C. Jatlaoui

DAB Acting Branch Chief, CDC/IDAB

Tara C. Jatlaoui, MD MPH, CDR USPHS is the Acting Chief of the Informatics and Data Analytics Branch (IDAB) in the Immunization Services Division at CDC. In this role, she oversees efforts to advance IIS, advance technical and functional standards, establish the first national IIS surveillance system, and provide technical assistance to the awardees of the Immunization and Vaccines for Children cooperative agreement. Tara has also been continuing her role as chief of the Applied Research, Implementation Science and Evaluation Branch (ARISE) in ISD which she started in early 2023. Since moving to NCIRD and ISD in 2020, Tara has served in multiple roles initially in the COVID-19 emergency response in the Vaccine Task Force, including building out the Partnering for Vaccine Equity Program, deputy Chief Medical Officer and co-lead for the Long Term Care team overseeing initial booster rollouts in LTC settings. Tara is also a board-certified OB/GYN and adjunct associate professor at Emory University School of Medicine.

PHII Staff



Tonny Bogere, MS

Senior Informatics Analyst, PHII

Tonny Bogere is a senior informatics analyst at the Public Health Informatics Institute's Practice Support Unit. With over 10 years of experience, he has developed and managed systems to improve public health outcomes. Previously, he worked as an informatics specialist at the CDC, focusing on heart disease and stroke prevention. Tonny completed a Public Health Informatics Fellowship at the CDC, providing technical assistance to global immunization programs and supporting the COVID-19 Emergency Response Team. He also spent nine years at the CDC Uganda office, enhancing health data systems for HIV and TB programs. He holds a Master of Science in Public Health Informatics from the University of Sheffield.

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Treonda Chapman, MPH

Informatics Analyst, PHII

Treonda Chapman is an Informatics Analyst in the Practice Support Unit at the Public Health Informatics Institute (PHII). She collaborates with project teams to develop and design public health informatics solutions, tools, and resources. Prior to joining PHII, Treonda made significant contributions at the DeKalb County Board of Health, where she conducted epidemiological investigations to reduce the spread and increase treatment of HIV and STIs in collaboration with the Georgia Department of Public Health. She also served as a contractor at the CDC, supporting communications development. Treonda holds a Master of Public Health from Walden University and a Bachelor of Science in Biology from Alabama State University.

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Senior Informatics Analyst, PHII

Candace Garcia is a Senior Informatics Analyst with the Practice Support Unit in the Public Health Informatics Institute (PHII). Candace has 16 years of experience in healthcare management, including over a decade of experience in public health, specifically. Passionate about disease-prevention and the importance of immunizations for population health, Candace previously managed the City of Houston's Health Department (HHD) Immunization Registry as well as the Vaccines for Children Program (VFC). Additionally, while at the HHD, Candace supported the Department's implementation and use of the Epic electronic health record, later serving as the HHD's Administration Manager of Epic. Candace holds an MBA in Management Information Systems as well as two Epic certifications.

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Senior Project Manager, PHII

Judith Kerr serves as project manager for PHII's data modernization portfolio. Judith brings to this role nearly a decade of experience in public health program management within state and nonprofit programs. Prior to joining PHII, Judith oversaw child health screening programs, including newborn screening and early hearing detection and intervention programs at the Georgia Department of Public Health. In this role, she conducted strategic planning, coordinated activities of grant-funded projects, managed a special project to strengthen the early childhood system and provided technical assistance to state and local partners. Judith earned her Master of Public Health and her Bachelor of Arts in psychology from Georgia State University.

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Judith Kerr, MPH



Project Team Lead, Informatics, PHII

Tony Winters serves as a project team lead for PHII where he leads the PHII's immunization portfolio. He originally joined PHII as a senior informatics analyst; prior to this role, he was a fellow in the Centers for Disease Control and Prevention (CDC)'s Public Health Informatics Fellowship Program. He worked in Allentown, Penn., with the Lehigh Valley Health Network's (LVHN) Pool Center for Health Analytics, LVHN's Leonard Parker Pool Institute for Health and the Allentown Health Bureau. Tony helped these organizations develop cross-sector partnerships and infrastructure to create a new analytical platform to improve the health of the local community. Tony has also worked with CDC as an ORISE Fellow and contractor under the National Notifiable Disease Surveillance System Modernization Initiative.

Tony Winters, DRPH, MSPH

Tony holds a doctorate in public health leadership from Georgia Southern University. He also holds a Master of Science in Public Health in applied epidemiology from the University of Alabama at Birmingham, where he earned his undergraduate degree, a Bachelor of Science in chemistry.

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Participant List

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Day 1 – Tuesday, June 10, 2025

Welcome and Workshop Overview

Facilitators: Chantel Hartman, Vivian Singletary, Tony Winters

Notes

Role of an IIS Leader

Facilitator: Amy Metroka

Learning Objectives and Key Resources

Learning Objectives:

- Understand the key responsibilities and skills of an IIS leader, including strengthening partnerships to promote the IIS and public health broadly
- Recognize the IIS leader's critical responsibility for building a strong and effective team
 - Identify staff roles needed to successfully operate an IIS
 - Learn about IIS community resources to assess staffing and fill gaps

Key Resources:

- **IIS Core Competency Model** - defines 11 core competencies for the IIS team
 - <https://phii.org/resources/iis-core-competency-model/>
- **Sample IIS Staffing Model** - helps visualize coverage for key IIS staff roles and gaps
 - <https://phii.org/wp-content/uploads/2021/07/MT-Sample-IIS-Staffing-Model.pptx>
- **IIS Workforce Classifications** - guides identification of staffing needs and recruitment
 - <https://phii.org/resources/iis-workforce-classifications/>
- **Staff Allocation Matrix** - helps assess current and planned staff allocations and capacity
 - <https://phii.org/wp-content/uploads/2021/07/MT-Staff-Allocation-Matrix.xlsx>
- **IIS Staff Roles Matrix** - helps identify staffing responsibilities for key IIS roles
 - <https://phii.org/wp-content/uploads/2021/07/MT-IIS-Staff-Roles-Matrix.xlsx>
- **CDC IIS Data Quality Blueprint** - guide to address and advance IIS data quality characteristics
 - <https://www.cdc.gov/vaccines/programs/iis/downloads/Data-Quality-Blueprint-508.pdf>
- **CDC IIS Dashboard** - identifies jurisdiction-specific data quality strengths and challenges

- **AIRA Aggregate Analysis Reporting Tool (AART) Tool** - an application developed to visualize and compile results and information on community-driven measures and tests related to IIS Functional Standards
 - <https://repository.immregistries.org/resource/introduction-to-aart/>
- **CDC Functional Standards and Operational Statements** - describes the operations, data quality, and technology needed by IISs to support immunization programs and partners
 - <https://www.cdc.gov/iis/functional-standards/introduction.html>
- **Data Modernization for IIS One-Pager Guide** - steps for immunization information system (IIS) staff to learn more about the Data Modernization Initiative
 - https://phii.org/wp-content/uploads/2023/04/DMI-IIS-one-pager_Final.pdf
- **Immunization Program Operations Manual (IPOM)** - provides VFC/317 immunization programs with the requirements to meet objectives (on CDC Sharepoint site)

Notes

Activity: What Does Leadership Mean To You?

Instructions:

Using the sticky notes provided, write down statements or words that describe what leadership means to you. Once you have written your thoughts, place your sticky note on the activity paper located on the back wall. Feel free to use multiple sticky notes if you have more than one idea to share.

Activity: IIS Staffing Model

Instructions:

1. Read the IIS Staffing Model in your folder and think about how your current IIS team compares to the model - *5 minutes*
2. Go to the IIS Staffing Model posted on the back wall and attach dots indicating which roles are covered (green), partially covered (yellow), and not covered (red) among your current IIS team - *5 minutes*
3. Return to your table to participate in a group discussion about your findings and how to fill staffing gaps - *5 minutes*

Activity: Discussion

Discussion Questions:

- Where are you strongest as an IIS leader?

- Where are you interested in growth?

Communication

Facilitator: Marcey Propp

Learning Objectives and Key Resources

Learning Objectives:

- Understand the critical role of communication in building support of the IIS
- Learn the building blocks in developing a robust communication plan
- Identify key internal and external partners for IIS communication
- Draft communication plan strategies and key messages tailored to sample partners or groups

Key Resources:

Tools and resources that can be used to inform and complement your Communications Plan are available in the **IIS Operations Toolkit** at <https://phii.org/what-we-do/iis-hub/iis-operations/>. These include:

- **Communications Plan Template** - instructions and samples to complete a comprehensive communication plan
- **Partner Analysis Workbook**
 - **Partner Analysis Worksheet** - to identify various partners to communicate with
 - **Partner Analysis Matrix** - a 2x2 matrix to determine the level of interest and influence a partner may have
- **Change Management Workbook** - to map out/complete communication activities

Notes

Activity: Partner Analysis Matrix

Instructions:

As a table, identify 2-3 key partners and indicate within the Partner Analysis Matrix (on next page) their:

- Level of interest in the IIS
- Power to influence the IIS/projects

Based on your small group discussions, identify in the larger group:

- Who might be strong advocates/partners of your IIS (high/high)?
- What partnerships might be strengthened through communication?

Partner Matrix

		Power to Influence	
		High	Low
Level of Interest	High		
	Low		

Activity: Communication Strategies and Key Messages

Instructions:

Using the Strategies and Key Messages table (below), consider one of the partners listed in the previous activity and determine:

- Strategy(ies) needed to communicate with this partner
- Key messages tailored to their use/need of the IIS

Strategies and Key Messages Table

Partner / Group	Communication Strategy <ul style="list-style-type: none"> - Raise awareness - Educate / train - Seek input - Update / inform 	Key Messages

CDC Vision and the IIS Community

Facilitator: Chantel Hartman and Tara C. Jatlaoui

Learning Objectives and Key Resources

Learning Objectives:

- Understand the purpose of an Immunization Information System (IIS)
- Understand how the IIS supports the Immunization Program through 317/VFC CoAg activities
- Touch on CDC tools to improve IIS data quality:
 - IIS Blueprint
 - Routine Vaccination Submission Data Quality Report
 - PPRL Data Quality Report
 - IIS Functional Standards
- Understand the CDC's Immunization Services Division (ISD) structure
- Understand how the CDC's ISD communicates and engages with jurisdictions

Key Resources:

- PHII's Email Crash Course for All Things IIS - <https://phii.org/welcome-to-iis/>
- IIS Information Brief - (IISInfo@cdc.gov)



Notes

IIS Strategic Vision Panel

Panelists: Rebecca Coyle, Candace Garcia, Claire Hannan, Tara C. Jatlaoui

Facilitator: Beth Cox

Notes

Laws, Policies and Procedures

Facilitators: Beth Cox and Mary Beth Kurilo

Learning Objectives and Key Resources

Learning Objectives:

- Increase understanding about how your jurisdiction's laws, policies, and procedures can impact IIS and Immunization Program goals
- Explore important benefits and risks of modifying laws, policies, and procedures
- Discuss how federal initiatives and related policy requirements affect state and local IIS implementation and IIS data
- Expand understanding for how Standard Operating Procedures (SOPs) can ensure your team aligns with policy and law

Key Resources:

- **Awardee Sharepoint Site Policy Document Folder**
 - APHL DUA (Association of PH Labs Data Use Agreement)
 - Interjurisdictional MOU (Memorandum of Understanding)
 - Share Task Order, Appendix A of APHL DUA
 - IIS-CDC Task Order, Appendix B of APHL DUA (see above)
 - IZ Gateway Multi-Jurisdiction Vaccine Provider Jurisdiction Data Exchange Agreement (JPA)
 - CDC COVID-19 DUA (current)
 - CDC Routine and Seasonal Flu Immunization DUA
 - Business Associate Agreement (BAA)
- AIRA Repository
 - **AIRA Confidentiality and Privacy Considerations for IIS** - assists IIS as they develop policies and procedures to meet legal requirements for protecting the privacy of individuals and the confidentiality of information in IIS
 - <https://repository.immregistries.org/resource/aira-confidentiality-and-privacy-considerations-for-iis/>
 - **Public Health Inter-jurisdictional IIS MOU Template** - provides a fillable form for a MOU for secure, electronic exchange of immunization information among governmental entities that operate a population-based IIS
 - <https://repository.immregistries.org/resource/public-health-iis-interjurisdictional-memorandum-of-understanding-mou/>
 - **IIS Policies to Support Pandemic and Routine Vaccination One-Sheet** - highlights areas to focus on strengthening policy related to data exchange, vaccine reporting and consent to achieve more uniform, consistent policies
 - <https://repository.immregistries.org/resource/iis-policies-to-support-pandemic-and-routine-vaccination-one-sheet/from/major-iis-topics/policy/>
 - **Immunization Program Policy Toolkit** - designed to equip members of the Association of Immunization Managers (AIM) and their staff with the tools and information necessary to appropriately and effectively engage with elected officials
 - <https://www.immunizationmanagers.org/page/Policytoolkit>
 - **SOP Tracking Tool and Template** - PHII tools to support documentation on business processes
 - <https://phii.org/what-we-do/iis-hub/iis-operations/business-process-analysis/>

Notes

Activity: Discussion

Discussion Questions:

Are there areas of your current legislation that your program or others within your jurisdiction would like to consider changing in the future? If so, what are they? Who are likely to be allies and opponents of the change?

Consider:

- Jurisdiction trends focused on privacy
- Impact on what a jurisdiction shares and what it receives
- Managing expectations and gatekeeping on data needs

Activity: Discussion Questions

Instructions:

Via the MentiMeter, provide your responses to the following questions.

On a scale of 1-5, where would you place your jurisdiction in timely, complete documentation of needed standard operating procedures?

- 1 = no procedures documented
- 3 = some procedures documented, but not necessarily complete or current
- 5 = all procedures are fully documented and updated

What are your most high-priority SOPs to document in the next three months?



Strategic Sustainability and IIS Budget

Facilitator: Jennifer Austin Ratliff

Learning Objectives and Key Resources

Learning Objectives:

At the end of this segment, you will be able to:

- Define Strategic Sustainability
- Understand possible funding opportunities
- Explore ways to diversify funding
- Consider cost-sharing and cost-lowering approaches
- Identify how to best make decisions in the context of long-term sustainability
- Understand the components of an IIS budget
- Consider your workforce and how to support and maintain the IIS core functions

Notes

Activity: Discussion

Discussion Questions:

1. What IIS strategic sustainability topics are you interested in learning more about?
2. What kind of assistance would help you find what you need?

Activity: IIS Sustainability SWOT

Instructions:

Within your group, discuss each area of the matrix as it relates to your system now. Then, share your group's collective input with the larger group.

Each group should:

1. Identify 1-2 **Strengths**
2. Identify 1-2 **Opportunities**
3. Identify 1-2 **Weaknesses**
4. Identify 1-2 **Threats**

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Matrix

IIS Strengths	IIS Weaknesses
IIS Opportunities	IIS Threats



Activity: Assess Your Workforce

Instructions:

Scenario – Use the current CoAg staffing submitted in your application to compare with the roles in the PHII Workforce Role Descriptions.

Questions:

- How does your organization's current staff map to the IIS Workforce Role Descriptions?
- What roles, if any, don't map to available role descriptions?

Leadership Action Plan

Facilitator: Amy Metroka

Activity: Leadership Action Plan

Think about the modules discussed today, and write down on the **Leadership Action Plan worksheet** goal(s) that you would like to accomplish as an IIS/immunization leader as well as the details necessary to help accomplish those goals.

Day 1 Wrap-Up

Facilitator: Candace Garcia

Notes



Day 2 – Wednesday, June 11, 2025

Day 2 Welcome and Recap

Facilitator: Tony Winters

Notes

Notes

World Cafe

Facilitators: Marcey Propp and Tony Winters

Notes

Notes

Data Quality I and II

Facilitators:

Data Quality I - LaTreace Harris and Mary Beth Kurilo, **Data Quality II** - Janet Fath and Ashley Treharne

Learning Objectives and Key Resources

Learning Objectives:

- Develop an understanding of core data quality concepts and themes
- Apply foundational documents in considering aspects of your system's data quality (e.g., CDC Blueprint and Dashboard, AIRA Measurement and Improvement Content Areas, Data Quality Reports, etc.)
- Understand and be able to identify multiple points of intervention for improving your system's data quality

Key Resources:

- **CDC IIS Data Quality Blueprint** - guide to address and advance IIS data quality characteristics
 - <https://www.cdc.gov/vaccines/programs/iis/downloads/Data-Quality-Blueprint-508.pdf>
- **Data Validation Guide for the IIS Onboarding Process** - provides recommendations on the data validation process within onboarding
 - <https://repository.immregistries.org/resource/data-validation-guide-for-the-iis-onboarding-process/>
- **IIS Data Quality Practices: Monitoring and Evaluating Data Submissions** - focuses on the ongoing data monitoring and evaluation process for incoming data submissions
 - <https://repository.immregistries.org/resource/iis-data-quality-practices-monitoring-and-evaluating-data-submissions/>
- **IIS Data Quality Practices: To Monitor and Evaluate Data at Rest** - provides practical guidance on techniques, methodologies, and processes for IIS to use in assessing the quality of data at rest
 - <https://repository.immregistries.org/resource/iis-data-quality-practices-to-monitor-and-evaluate-data-at-rest/>
- **Data Quality Assurance in Immunization Information Systems** - provides best practice recommendations that support and sustain high-quality data in IIS
 - <https://repository.immregistries.org/resource/data-quality-assurance-in-immunization-information-systems/>
- **AIRA Aggregate Analysis Reporting Tool (AART) Tool** - an application developed to visualize and compile results and information on community-driven measures and tests related to IIS Functional Standards
 - <https://app.immregistries.org/aart/home/aart-info>
- **Onboarding Consensus-Based Recommendations** - guidance to promote best practices for provider onboarding to IIS
 - <https://repository.immregistries.org/resource/onboarding-consensus-based-recommendations/>

Notes

Activity: Your System's Data Quality - A Brief Assessment

Instructions:

Via the MentiMeter, assess your system's data quality by answering the following questions.

Menti Scaling Questions (scale of 1-5, with 5 being most important)

- In general, how engaged are your partners in using your IIS's data?
- How engaged are your partners in improving your IIS's data?

Menti Qualitative Question (free text):

- Are there activities your jurisdiction is doing to actively enhance your partners' engagement with your IIS's data?



Activity: Upstream, Downstream, Where to Fish

Instructions:

The work to influence data quality (DQ) within an IIS can take many forms. This exercise is meant to stimulate thinking and conversation about what DQ approaches can be leveraged to improve IIS data quality, and where interventions might be possible. There is no one right answer, but rather multiple opportunities, to achieve high quality data. Considering the upstream and downstream aspects of DQ, where and how might you intervene?

- Each table will get one data quality scenario (see handout)
- Participants will answer these four questions, writing high-level notes on the flip charts:
 - What problem are we addressing (i.e., what fish are we looking for?)
 - Where is the root cause (i.e., where are the big fish)?
 - What can I do about it (i.e., how do I catch them)?
 - What resources could help me (i.e., what's the best bait)?
- When groups are finished, they will rotate to another group's responses, reviewing and adding to them with a "Yes, and..." or "But wait, what about..." approach with the speech bubble sticky notes
- Share highlights with the larger group

The "IIS View"

Panelists: Dr. Jeffrey Cooper, Marie Hartel

Facilitator: Mary Beth Kurilo

Notes



Effective IIS Data Use

Facilitator: Amy Metroka

Learning Objectives and Key Resources

Learning Objectives:

- Understand the connection between data quality and data use
- Apply the SIPOC tool to identify the key **S**uppliers, **I**nputs, **P**rocesses, **O**utputs and **C**onsumers of IIS data
- Identify the internal and external partners who can use IIS data to increase up-to-date immunization of individuals and populations
- Recognize the potential impact of data visualization on increasing IIS data access, use, and awareness by the public and partners

Key Resources:

- **CDC Core Data Elements for IIS Functional Standards** - list of CDC-endorsed data elements
 - <https://www.cdc.gov/iis/core-data-elements/index.html>
- **CDC IIS HL7 Version 2.5.1 Implementation Guide (IG) and Addendum** - guide for EHR vendors, immunization providers, and other partners to implement standards-based data exchange with an IIS
 - <https://www.cdc.gov/vaccines/programs/iis/technical-guidance/downloads/hl7guide-1-5-2014-11.pdf>
- **AIRA Onboarding Guidance and Shared Services** - supports awardee jurisdictions with onboarding providers to their local IIS
 - <https://www.immregistries.org/onboarding-shared-services>
- **AIRA Aggregate Analysis Reporting Tool (AART)** - an application developed to visualize and compile results and information on community-driven measures and tests related to IIS Functional Standards
 - <https://repository.immregistries.org/resource/introduction-to-aart/>

Notes

Activity: Small Group Discussion

Instructions:

Discuss the questions below with your table, and designate one person to report out for your group.

- What data use challenges are you facing now?
- How can you work to overcome them?
- What partnerships and skills can you strengthen to increase effective data use?

After 10 minutes, each group will report out, and everyone will engage in a large group discussion.

AIRA Overview

Facilitator: *Rebecca Coyle*

Learning Objectives and Key Resources

Learning Objectives:

- **Grow** your understanding of AIRA as a member organization
- **Expand** your knowledge of AIRA resources to support technical, operational and policy program areas
- **Discuss and determine** where key program staff can engage with workgroups, committees, user groups, and peers to further develop skills

Key Resources:

- **AIRA Repository** - section of the AIRA website where resources (previous webinar slides, meeting presentations, articles) can be found
 - <https://repository.immregistries.org/>
- **AIRA Events Calendar** - online calendar detailing upcoming events and activities across the IIS community
 - <https://www.immregistries.org/calendar>
- **AIRA Aggregate Analysis Reporting Tool (AART) Tool** - an application developed to visualize and compile results and information on community-driven measures and tests related to IIS Functional Standards
 - <https://app.immregistries.org/aart/home/aart-info>
- **TA Request Form** - an online form for submitting requests for technical assistance for any IIS-related topics
 - <https://www.immregistries.org/request-technical-assistance>

Notes

Activity: AIRA Opportunities for You and Staff

Instructions:

- Review the AIRA Opportunities Worksheet. Events are also found at:
<https://www.immregistries.org/calendar>
- See if you can find one or two committees, workgroups, etc., that might be especially useful for you and/or your teammates to be engaged in
- Capture your thoughts in the worksheet within your workbook, discuss with others at your table
- Share your key ideas/thoughts in a large group discussion
- Review the worksheet and discuss with your peers. How might you prioritize involvement for you and your staff?
- Share your group's collective input with the larger group
- Fill out an interest card or two to let AIRA know to follow up with you or your team members

Lightning Round

Facilitator: Candace Garcia

Discussion

- What are your top three goals for the coming year?
- What are some challenges you anticipate encountering while working to achieve these goals?
- Which partners or partnerships can be developed and/or strengthened to achieve your goals?
- Where is your team strongest overall? Where do your team's strengths need to be increased or supplemented?

Leadership Action Plan

Facilitator: Mary Beth Kurilo

Activity: Leadership Action Plan

Think about the modules discussed today, and write down on the **Leadership Action Plan worksheet** goal(s) that you would like to accomplish as an IIS/immunization leader as well as the details necessary to help accomplish those goals.

Day 2 Wrap-Up

Facilitator: Candace Garcia

Notes



Day 3 – Thursday, June 12, 2025

Day 3 Welcome and Recap

Facilitator: Tony Winters

Notes

PHII Overview

Facilitator: Tony Winters

Learning Objectives and Key Resources

Learning Objectives:

- Build your understanding of PHII as a public health program
- Expand your knowledge of PHII resources to support workforce development and technical assistance of IIS teams
- Determine opportunities to engage for your IIS and your team

Key Resources:

- **IIS Learning Hub** - one-stop shop for all PHII IIS resources
 - <https://phii.org/what-we-do/iis-hub/>
- **PHII LMS Portal** - PHII learning management system of IIS and other public health topic eLearning courses (free of cost)
 - <https://catalog.informaticsacademy.org/>
- **IIS Workforce Classifications** - 12 IIS-specific job descriptions
 - <https://phii.org/resources/iis-workforce-classifications/>
- **IIS Operations Toolkit** - tools to help with day to day IIS operations
 - <https://phii.org/what-we-do/iis-hub/iis-operations/>
- **IIS Procurement Toolkit** - guide to navigating procurement of IT services
 - <https://phii.org/course/iis-procurement-toolkit/>
- **IIS Baseline Requirements Traceability Matrix (RTM)** - draft baseline functional and non-functional requirements for an immunization information system (IIS) to clarify minimum expectations for what IIS technology must do and how it must operate to support IIS Functional Standards and programmatic and immunization stakeholder needs
 - <https://phii.org/download/requirements-traceability-matrix/?wpdmdl=12184&masterkey=6115821124c2a>

- **IIS Migration Toolkit** - tools to help successfully migrate to a new IIS platform
 - <https://phii.org/course/iis-migration-toolkit/>

Notes

Activity: Can You Identify These PHII Resources

Instructions:

Via the MentiMeter, test your knowledge and identify useful PHII resources.



Change Management, Project Management, and the Systems Development Life Cycle

Facilitator: Marcey Propp

Learning Objectives and Key Resources

Learning Objectives:

- Understand how change management differs from project management
- Recognize how they complement each other and why they are crucial to a successful systems transition/IT project
- Leverage the PHII project management framework and tools as foundational resources in managing program systems initiatives

Key Resources:

- **Change Management Tools** - guidance on change management activities that assist internal staff and external partners through transition
 - <https://phii.org/module-unassigned/plan-phase-overview-2/>

- **Project Management Framework** - guidance to initiate, plan, execute, monitor and control, and close an IIS project
 - <https://phii.org/wp-content/uploads/2021/06/MT-Migration-Project-Management-Framework.pdf>
- **IIS Functional Model** - a framework and terminology for conveying and communicating the core functions, capabilities and attributes of an Immunization Information System (IIS)
 - https://phii.org/wp-content/uploads/2021/08/PHII_IISFunctionalModel_simple_FINAL.pdf
- **IIS Baseline Requirements Traceability Matrix (RTM)** - draft baseline functional and non-functional requirements for an immunization information system (IIS) to clarify minimum expectations for what IIS technology must do and how it must operate to support IIS Functional Standards and programmatic and immunization stakeholder needs
 - <https://phii.org/download/requirements-traceability-matrix/?wpdmdl=12184&masterkey=6115821124c2a>
- **RAID Log** - a centralized source of Risks (R), Actions (A), Issues (I) and Decisions (D) identified and tracked throughout a project and a convenient means of distributing it to project team members and stakeholders. Reviews and edits to the RAID log contents are commonly facilitated by the project manager during weekly project team meetings.
 - https://phii.org/wp-content/uploads/2021/07/MT-RAID-Log_TEMPLATE_0.xlsx
- **DMI Toolkit** - a guide to build leadership and partner buy-in for data modernization work and to assist health departments in developing plans that prioritize data modernization activities.
 - <https://phii.org/course/dmitoolkit/>

Notes

Activity: Word Cloud

Instructions:

Via the MentiMeter, identify the skills you are developing/honing as a new IIS leader

For Example..

- Public Speaking
- Connecting with staff/others
- Delegation
- Others?



Activity: Organization Change Readiness Assessment

Instructions:

Via the MentiMeter, consider the following:

1. Thinking about your organization, answer the following Yes/No questions:
 - a. Most changes in my organization in the past have been implemented successfully
 - b. Leadership in my organization are visible and active change leaders and sponsors
 - c. My organization encourages and rewards staff who promote change and introduce new ideas
 - d. My management team is receptive to feedback and alternative ideas and encourages open communication
2. Discuss your responses with the larger group.



Activity: Revisiting the IIS SWOT

Instructions:

Within your group, use the matrix to:

1. Consider IIS **Strengths**
2. Consider IIS **Opportunities**
3. Consider IIS **Weaknesses**
4. Consider IIS **Threats**
5. Identify a spokesperson to read out your group's answers to the broader group

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Matrix

IIS Strengths	IIS Weaknesses
IIS Opportunities	IIS Threats



Networking Event: IIS Trivia

Facilitator: Tony Winters

Notes

Notes

IIS Assessment, Planning and Prioritization

Facilitator: Mary Beth Kurilo

Learning Objectives and Key Resources

Learning Objectives:

- Revisit and broaden knowledge of available data sources and resources to assess the capabilities of an IIS
- Consider the short- and long-term planning and prioritization needed to meet programmatic goals and make sustainable investments (with consideration to current resources)
- Explore the benefits and opportunity costs inherent in programmatic decisions and actions

Key Resources:

- **CDC Data Quality Reports** - identifies jurisdiction-specific data quality strengths and challenges
- **AIRA Aggregate Analysis Reporting Tool (AART)** - an application developed to visualize and compile results and information on community-driven measures and tests related to IIS Functional Standards
 - <https://repository.immregistries.org/resource/introduction-to-aart/>
- **IIS Functional Model** - a framework and terminology for conveying and communicating the core functions, capabilities and attributes of an Immunization Information System (IIS)
 - https://phii.org/wp-content/uploads/2021/08/PHII_IISFunctionalModel_simple_FINAL.pdf
- **IIS Learning Hub** - one-stop shop for all PHII IIS resources
 - <https://phii.org/what-we-do/iis-hub/>
- **IIS Project Governance Worksheet** - defines roles among the project team to help identify who

is ultimately responsible for managing specific project tasks and establishes a common set of expectations around project accountabilities

- <https://phii.org/wp-content/uploads/2021/07/MT-Project-Governance-Roles-and-Responsibilities-Worksheet.docx>
- **IIS Staff Roles Matrix** - helps identify staffing responsibilities for key IIS roles and responsibilities
 - <https://phii.org/wp-content/uploads/2021/07/MT-IIS-Staff-Roles-Matrix.xlsx>

Notes

Activity: Prioritization Strategies

Instructions:

Discuss the following with your table:

- Think about the opportunities we generated in the SWOT Exercise earlier:
 - What were your top opportunities for your program?
 - What are the next steps to put this high priority opportunity into action?
- Select a spokesperson for your group
- Spend ~5 minutes discussing opportunities, deciding on the highest priority for your IIS, and determining how you might take action to advocate for it
- When we come back together, each group presents a 1-2 minute elevator pitch for leadership on why their priority is critical and should be given resources (time, funding, etc.)



Activity: High Priorities Moving Forward

Instructions:

- Come back to your high priority areas you shared at the start of this session
 - Share your high priorities with the rest of your table
 - Are there any commonalities/overlapping priorities?
 - Makes notes on note paper
 - Share highlights with the larger group

Leadership Action Plan

Facilitator: Marcey Propp

Activity: Leadership Action Plan

Think about the modules discussed today, and write down on the **Leadership Action Plan worksheet** goal(s) that you would like to accomplish as an IIS/immunization leader as well as the details necessary to help accomplish those goals.

Day 3 Wrap-Up

Facilitator: Candace Garcia

Notes



Notes



Appendix A: Common IIS Acronyms

Below are some acronyms you might encounter during the workshop or in public health overall. For newcomers to the world of IIS, these terms can be confusing. For the initiated and seasoned staffer, many of the acronyms relating to the IIS are so common that often people recognize the concept without knowing what all of the letters stand for. Please use this list during the workshop to support your understanding.

AAP American Academy of Pediatrics

ACIP Advisory Committee on Immunization Practices

AHIP America's Health Insurance Plans

AIM Association of Immunization Managers

AIRA American Immunization Registry Association

APHL Association of Public Health Laboratories

ASPR Administration for Strategic Preparedness and Response

ASTHO Association for State and Territorial Health Officials

AVAC Adult Vaccine Access Coalition

CDC Centers for Disease Control and Prevention

CDSi Clinical Decision Support for immunization

CMS Centers for Medicare and Medicaid Services

CoAg Cooperative Agreement

CSTE Council of State and Territorial Epidemiologists

DQ Data Quality

DMI Data Modernization Initiative

DSA Data Sharing Agreement

DUA Data Use Agreement

EDI Electronic Data Exchange

EHR Electronic Health Record

EHRA Electronic Health Record Association

EMR Electronic Medical Record

FAQ Frequently Asked Questions

FHIR Fast Healthcare Interoperability Resources

FM Functional Model



FQHC Federally Qualified Health Center

FS Functional Standards

HEDIS Health Plan Employer Data and Information Set

HHS Department of Health and Human Services

HIMSS Health Information and Management Systems Society

HIPAA Health Insurance Portability and Accountability Act

HL7 Health Level Seven

IDAB Informatics Data and Analytics Branch (formerly referred to as IISSB)

IHS Indian Health Service

IG Implementation Guide

IIP Immunization Integration Program

IIS Immunization Information Systems

IISAR Immunization Information Systems Annual Report

IISQR IIS Quarterly Report (or IISQR – pronounced EYE-SQRARE)

IPOM Immunization Program Operations Manual

IQIP Immunization Quality Improvement for Providers

ISD Immunization Services Division

IT Information Technology

IV&V Independent Verification and Validation

IZ Gateway Immunization Gateway

JPHIT Joint Public Health Informatics Taskforce

MACAW Measurement for Assessment and Certification Advisory Workgroup

MIROW Modeling of Immunization Registry Operations Workgroup

MOU Memorandum of Understanding

NACCHO National Association of County and City Health Officials

NCIRD National Center for Immunization and Respiratory Diseases

NCQA National Committee for Quality Assurance

NIST National Institute of Standards and Technology

NPHL Network for Public Health Law

NSA North Star Architecture

NVAC National Vaccine Advisory Committee

NPRM Notice of Proposed Rule Making

OGS Operational Guidance Statements

ONC Office of the National Coordinator for Health Information Technology

P4VE Partners for Vaccine Equity

PAHO Pan American Health Organization

PHII Public Health Informatics Institute

PPRL Privacy-Preserving Record Linkage

PWS Performance Work Statement

RFA Request for Applications

RFI Request for Information

RFP Request for Proposal

RFQ Request for Quotation

RTM Requirements Traceability Matrix

SDLC Software Development Life Cycle

SLA Service Level Agreement

SISC Standards and Interoperability Steering Committee

SME Subject Matter Expert

SOAP Simple Object Access Protocol

SOO Statement of Objectives

SOP Standard Operating Procedure

SOW Statement of Work

TA Technical Assistance

TEFCA Trusted Exchange Framework and Common Agreement

TFGH The Task Force for Global Health

TUG Tableau User Group

TWG Technical Working Group

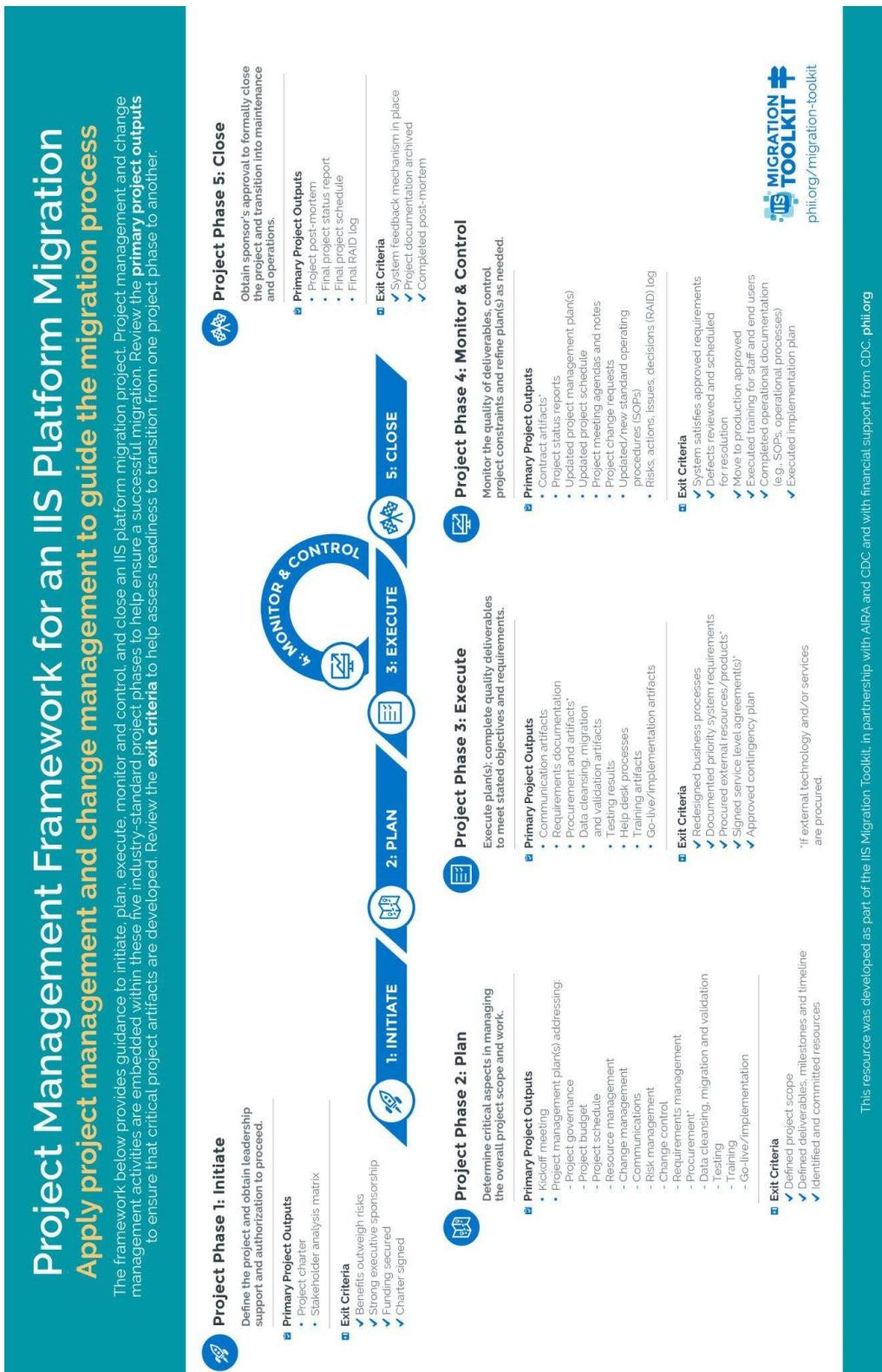
USCDI United States Core Data for Interoperability

VAERS Vaccine Adverse Event Reporting System

VFC Vaccines for Children

VTrckS Vaccine Tracking System

Appendix B: Project Management Framework



Appendix C: IIS Functional Model



Immunization Information System (IIS) Functional Model

The IIS Functional Model presents a framework and terminology for conveying and communicating the core functions, capabilities and attributes of IIS. These systems, whether as a single integrated IIS or as a set of interoperable modules, support public health immunization programs in achieving the **CDC IIS Functional Standards*** and in providing trusted data and information to improve clinical immunization practice, increase vaccination and reduce vaccine-preventable disease.

The model also serves as a companion and Index to the **IIS Baseline Requirements Traceability Matrix (RTM)**, which provides detailed requirements across IIS functions, capabilities and attributes. The RTM and other requirements tools can be found at phi.org/iis-requirements.

IIS Core Functions and Capabilities

These functions and capabilities represent core functionality of IIS. Refer to the **IIS Baseline RTM** for descriptions and functional requirements associated with each.

Administer System	Manage Organizations & Facilities	Manage Users		
<ul style="list-style-type: none"> Hierarchy configuration System configuration 	<ul style="list-style-type: none"> User roles & permissions System alerts 	<ul style="list-style-type: none"> Organization/facility search Add, edit, inactivate organization/facility 	<ul style="list-style-type: none"> VFC/vaccine program enrollment Organization/facility outreach 	<ul style="list-style-type: none"> User search Add, edit, inactivate user
Support Interoperability		Ensure Data Quality	Evaluate & Forecast	
<ul style="list-style-type: none"> Onboarding Interfaces 	<ul style="list-style-type: none"> Data exchange 	<ul style="list-style-type: none"> Patient matching & deduplication 	<ul style="list-style-type: none"> Vaccination event matching & deduplication 	<ul style="list-style-type: none"> Clinical decision support Reminder/recall
Manage Patient & Immunization Records		Manage Vaccine Inventory	Provide Data Access	
<ul style="list-style-type: none"> Patient search Add, edit patient demographics Patient status Patient consent 	<ul style="list-style-type: none"> Add, edit patient immunization Print/export record Mass vaccination 	<ul style="list-style-type: none"> Vaccine inventory search Add, edit vaccine inventory Vaccine ordering Review/approve order Vaccine decrementing 	<ul style="list-style-type: none"> Vaccine inventory reconciliation Vaccine transfer Vaccine wastage Vaccine expiration 	<ul style="list-style-type: none"> Standard reports Print/export reports
				<ul style="list-style-type: none"> Ad hoc queries & reports Consumer access

IIS Attributes

These attributes represent the technical characteristics of an IIS necessary to support immunization programs and stakeholders. Refer to the **IIS Baseline RTM** for descriptions and non-functional requirements associated with each.

Performance Efficiency	Usability	Reliability	Security	Maintainability	Portability
<ul style="list-style-type: none"> Time behavior Resource utilization Capacity 	<ul style="list-style-type: none"> Operability User error protection Accessibility 	<ul style="list-style-type: none"> Availability Fault tolerance Recoverability 	<ul style="list-style-type: none"> Confidentiality Non-repudiation Accountability Authenticity 	<ul style="list-style-type: none"> Analyzability 	<ul style="list-style-type: none"> Adaptability Installability

* <https://www.cdc.gov/vaccines/programs/iis/func-stds.html>

This resource was developed by the Public Health Informatics Institute in 2020, in collaboration with AIRA and CDC, with financial support from CDC under Cooperative Agreement number 6-NU380T000316. Questions, comments and suggestions are welcomed at phi.org/iis-contact.

IIS Attributes

		Performance Efficiency
		Performance efficiency relative to the amount of resources used under stated conditions
	Time behavior: Degree to which the response and processing times and throughput rates of a product or system, when performing its functions, meet requirements	
	Resource utilization: Degree to which the amounts and types of resources used by a product or system, when performing its functions, meet requirements	
	Capacity: Degree to which the maximum limits of a product or system parameter meet requirements	
	Usability: Degree to which a product or system has attributes that make it easy to operate and control	System can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use
	Operability: Degree to which a product or system can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use	
	User error protection: Degree to which a system protects users against making errors	
	Accessibility: Degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use	
	Reliability:	Degree to which a system, product or component performs specified functions under specified conditions for a specified period of time
	Availability: Degree to which a system, product or component is operational and accessible when required for use	
	Fault tolerance: Degree to which a system, product or component operates as intended despite the presence of hardware or software faults	
	Recoverability: Degree to which, in the event of an interruption or a failure, a product or system can recover the data directly affected and re-establish the desired state of the system	
	Security:	Degree to which a product or system protects information and data so that persons or other products or systems have the degree of data access appropriate to their types and levels of authorization
	Confidentiality: Degree to which a product or system ensures that data are accessible only to those authorized to have access	
	Non-repudiation: Degree to which actions or events can be proven to have taken place so that the events or actions cannot be repudiated later	
	Integrity: Degree to which a product or system maintains a firewall for protecting the environment	
	Authenticity: Degree to which the identity of a subject or resource can be proved to be the one claimed	
	Maintainability:	Degree of effectiveness and efficiency with which a product or system can be modified to improve it, correct it or adapt it to changes in environment, and in requirements
	Analyzability: Degree of effectiveness and efficiency with which it is possible to assess the impact on a product or system of an intended change to one or more of its parts, or to diagnose a product for deficiencies or causes of failures, or to identify parts to be modified	
	Portability:	Degree of effectiveness and efficiency with which a system, product or component can be transferred from one hardware, software or other operational or usage environment to another
	Adaptability: Degree to which a product or system can effectively and efficiently be adapted for different or evolving hardware, software or other operational or usage environments	
	Installability: Degree of effectiveness and efficiency with which a product or system can be successfully installed and/or uninstalled in a specified environment	

IIS Core Functions and Capabilities

Administrator System	Manage Organizations & Facilities	Manage Users
Management of global system settings and alerts, including set up or user roles and permissions	Management of organizations and facility accounts	Management of user accounts
Organization/facility search: Ability to create and retrieve an organization or facility account	User search: Ability to define parameters to look up and retrieve a user account	
Add, edit, deactivate user: Ability to add, edit or deactivate an organization/facility;	Add, edit, deactivate user: Ability to add, edit or deactivate a user account	
Authentication and authorization:	Ability to validate a user's identity, entity and system permissions	
VFC/vaccine program enrollment: Ability to enroll and re-enroll a provider organization in VFC and/or other vaccine programs	Password management: Ability to administer, change and reset user passwords	
Organization/facility outreach: Ability to communicate with organization/facility representatives		
Ensure Data Quality	Evaluate & Forecast	
Deduplication and consolidation of records	Determine the validity of past immunizations administered as a basis for determining immunizations due	
Patient matching and deduplication	Clinical decision support	
Ability to identify and manage user roles and user role permissions to perform a function, activity or task	Ability to evaluate and forecast immunizations for a patient per ACP guidelines and in alignment with CDS specifications	
System alerts: Ability to broadcast communication to IIS users viewable upon logging into the system	Reminder/recall: Ability to identify and notify patients who are due for upcoming immunizations (remind and/or are past due recall)	
	Coverage reports: Ability to create reports to support immunization coverage assessment at the provider and geographic levels including reports for the CDC's IFC provider-level immunization quality improvement program (IQIP)	
Support Interoperability	Vaccination event matching and deduplication:	
Manage interfaces to exchange data between the IIS and other systems	Ability to identify and manage duplicate and potential duplicate vaccination entries	
Onboarding: Ability to establish/re-establish/modify an interface with another information system for the electronic exchange of demographic and/or immunization data		
Interfaces: Ability to facilitate electronic data exchange with other information systems, including EHRs, VTrcks, jurisdictional data exchange and the IZ Gateway		
Data exchange: Ability to exchange data electronically and monitor and troubleshoot data exchange		
Manage Patient & Immunization Records	Manage Vaccine Inventory	
Manage patient demographics and patient immunization records	Vaccine inventory search: Ability to look up and retrieve vaccine doses in inventory	
	Add, edit vaccine inventory: Ability to manage vaccine inventory, including ordering, storing and handling, and reconciliation of vaccine doses	
	Vaccine ordering: Ability to order publicly funded vaccines as authorized	
	Review/approve order: Ability to review, edit and authorize an organization's vaccine order for approval, submission and fulfillment	
	Vaccine dose decrementing: Ability to automatically decrement vaccine doses from inventory when matched vaccine doses are reported as administered	
	Vaccine inventory reconciliation: Ability to maintain an accurate count of vaccine doses available based on doses administered, wasted, transferred and expired	
	Vaccine transfer: Ability to transfer vaccine from one IFC provider organization to another in certain situations	
	Vaccine wastage: Ability to manage nonviable vaccine reporting	
	Vaccine expiration: Ability for notification and management of vaccine inventory expired and due to expire	
Patient search:	Provide Data Access	
Ability to look up and retrieve a patient record	Standard reports: Ability to generate pre-configured reports available and accessible in the IIS	
Add, edit patient demographics: Ability to add, edit or deactivate a patient record	Ad hoc queries and reports: Ability to create, save and schedule data queries and customized reports on demand	
Patient status: Ability to manage the assignment of a specific patient to a provider organization or jurisdiction	Print/export report: Ability to generate data to print or use in other systems	
Patient consent: Ability to manage patient agreement to participate in the IIS in accordance with jurisdictional policy	Consumer access: Ability for authorized consumers to directly access IIS data for which they are authorized	
Add, edit patient immunization: Ability to add, edit an immunization record		
	Print/export report: Ability to print or export either a patient or immunization record	
	Mass vaccination: Ability to capture a large volume of demographic and immunization	