



Immunization Services Division Update

Georgina Peacock, MD, MPH

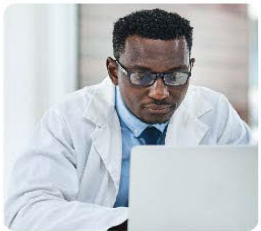
Acting Division Director

Immunization Services Division

National Center for Immunization and Respiratory Diseases

Agenda

- Evolving ISD's structure
- ISD IIS Funding
- Looking Ahead for ISD



NCIRD **ISD**
Immunization
Services Division



Protecting individuals and communities from vaccine-preventable diseases

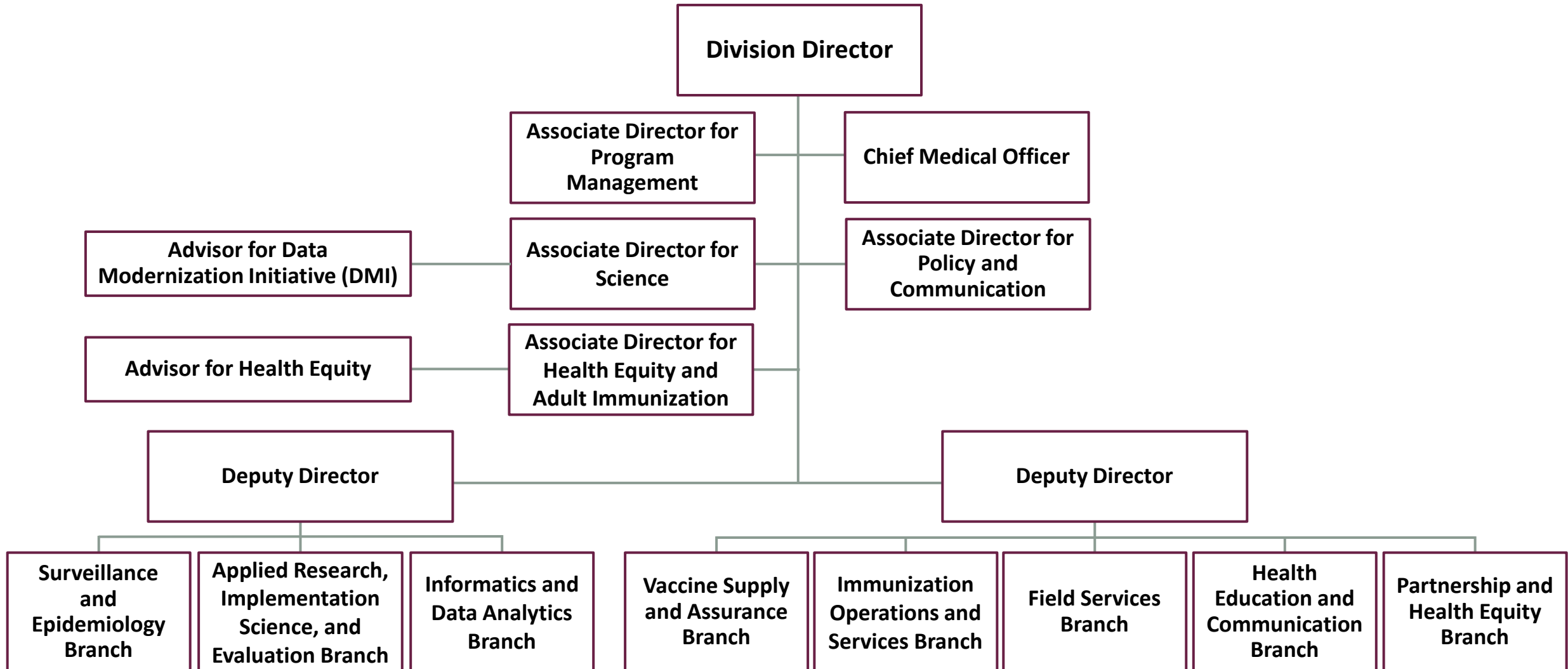
ISD Reorganization

- Addressing ISD structure
 - Absorption of COVID activities currently housed within the CDC emergency response
 - Need to accommodate anticipated growth after response transition efforts
 - Reorganization address the most pressing challenges and needs



ISD PROPOSED ORGANIZATION

ISD'S new structure adds three new branches and expands support for data modernization, vaccine equity, and vaccine confidence activities



Awardee Funding

- Provided a Dedicated, Non-Competitive Funding this Year for IISs
 - Recognize critical role
 - Need to ensure consistent, minimum capability across the U.S.
- ISD Has an Ongoing Commitment to Support IISs



Looking Ahead for ISD

- Opportunities moving forward
 - Modernizing Immunization Information Systems
 - Vaccine Confidence and Demand/ Health Equity
 - Routine Immunizations – Addressing Catch-Up
 - Expansion of Adult Immunization Work
- Recognition
 - Hard work continues!





Program Operations Branch Update and Priorities

Nathan Crawford, MPH

Chief (acting), Program Operations Branch

Immunization Services Division

April 26, 2022

AIRA 2022 National Meeting

2022 POB Priorities

- Build on COVID-19 lessons learned
- Integrate COVID-19 activities into POB
- Re-focus on non-COVID work



Build on COVID-19 Lessons Learned

POB Priorities

Build on COVID-19 Lessons Learned

Preliminary 5 Top Lessons Learned (POB-oriented)

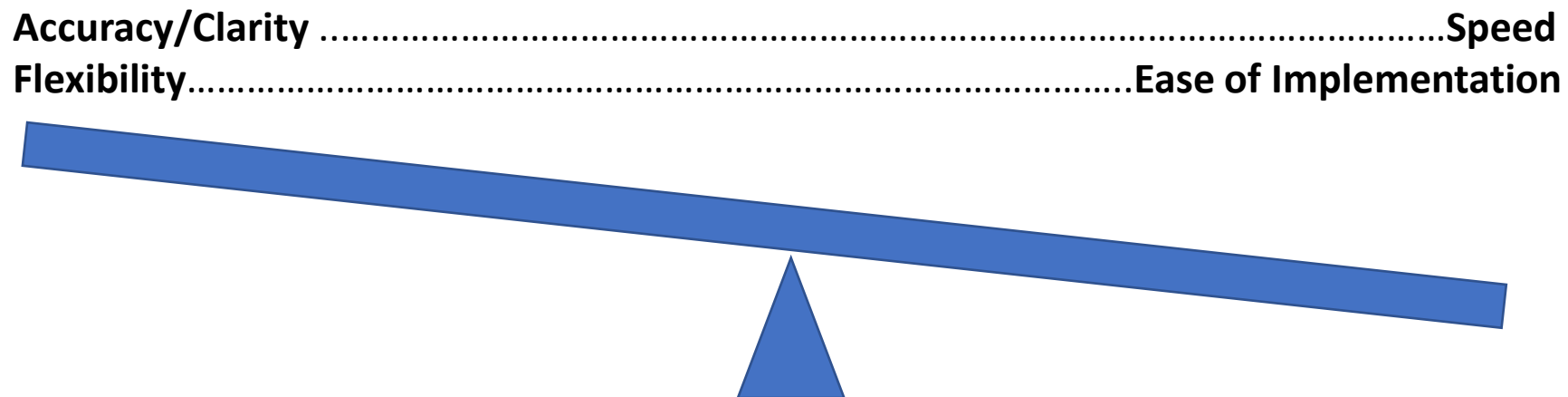
- 1) Need to strengthen and sustain immunization infrastructure, including for adults, at the awardee and POB levels
- 2) Need to be clear with our guidance
- 3) We (you and us) are not always the key decision-makers during a pandemic
- 4) Need to improve our communication channels and processes
- 5) Need to strengthen our partnerships with FEMA, ASPR, and OASH

1. Lessons Learned: Strengthen Immunization Infrastructure

- We need more 317 vaccine funding for adults
- How can we make IIS funding more sustainable? (IISB is already implementing some good ideas....)
- We need to fund awardees to staff appropriately
- What happens after June 2024 (when COVID supplemental 3 & 4 funding ends)
- In POB, we are adding an Adult Team, Division also adding adult leadership/coordination roles

2. Lessons Learned: Provide Clear (and timely) Guidance

- We need to be **clear with our guidance** (or, we need to find the right balance between clarity and speed)
 - Communications and guidance seen by many
 - “Incentives” as an example
 - There is also an important balance in policy or guidance-making between flexibility and ease of implementation.



3. Lessons Learned: Some Decisions are Made by Others

- Sometimes, especially during a pandemic or other high-consequence event, the **primary decision-makers are far above any of us.**

May 12, 2021 - Politics & Policy

Ohio offering shot at \$1M to
vaccinated people in state lottery

3 (cont). Lessons Learned: Some Decisions are Made by Others

- During a pandemic or other high-consequence event, the **primary decision-makers are far above any of us. What are the implications?**
 - Plan for this reality
 - Need to increase the clarity of our messaging
 - Need to strengthen the foundation of policies/guidance where able
 - Need to re-assess future planning and understand what will remain in/out of our control



4. Lessons Learned: Improve Communication Processes

- Awardees have many POCs now both with CDC and with other federal partners; how can we streamline and improve our communications?



CDC



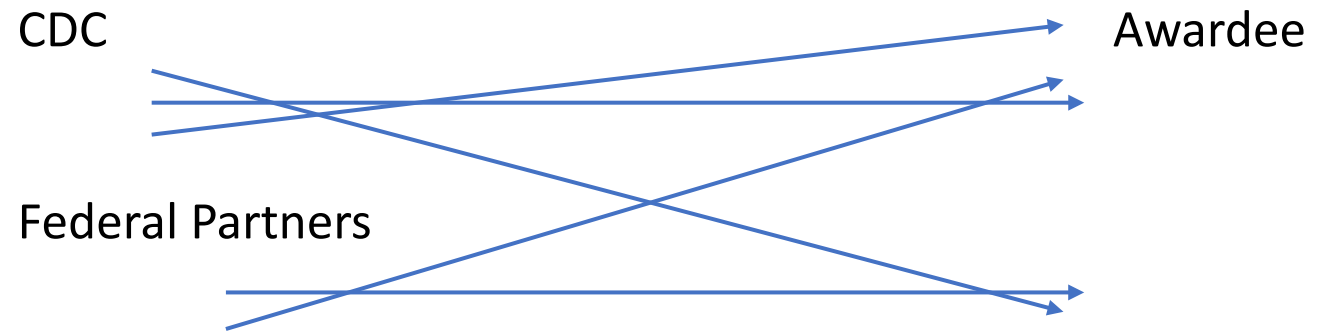
Awardee

Federal Partners



4 (cont) Lessons Learned: Improve Communication Processes

- Awardees have many POCs now both with CDC and with other federal partners; how can we streamline and improve our communications?



5. Lessons Learned: Strengthen Partnerships

- Need to **strengthen partnerships** with FEMA, ASPR, OASH (and others)
 - These partners have been invaluable these past two years



FEMA

ASPR

OASH



Integrate COVID-19 Activities into POB

POB Priorities

Integrate COVID-19 Vaccination Activities Into POB

- Ending of the Vaccine Coordination Cell
- Increasing capacity and infrastructure
- Expanding on the equity focus for non-COVID activities



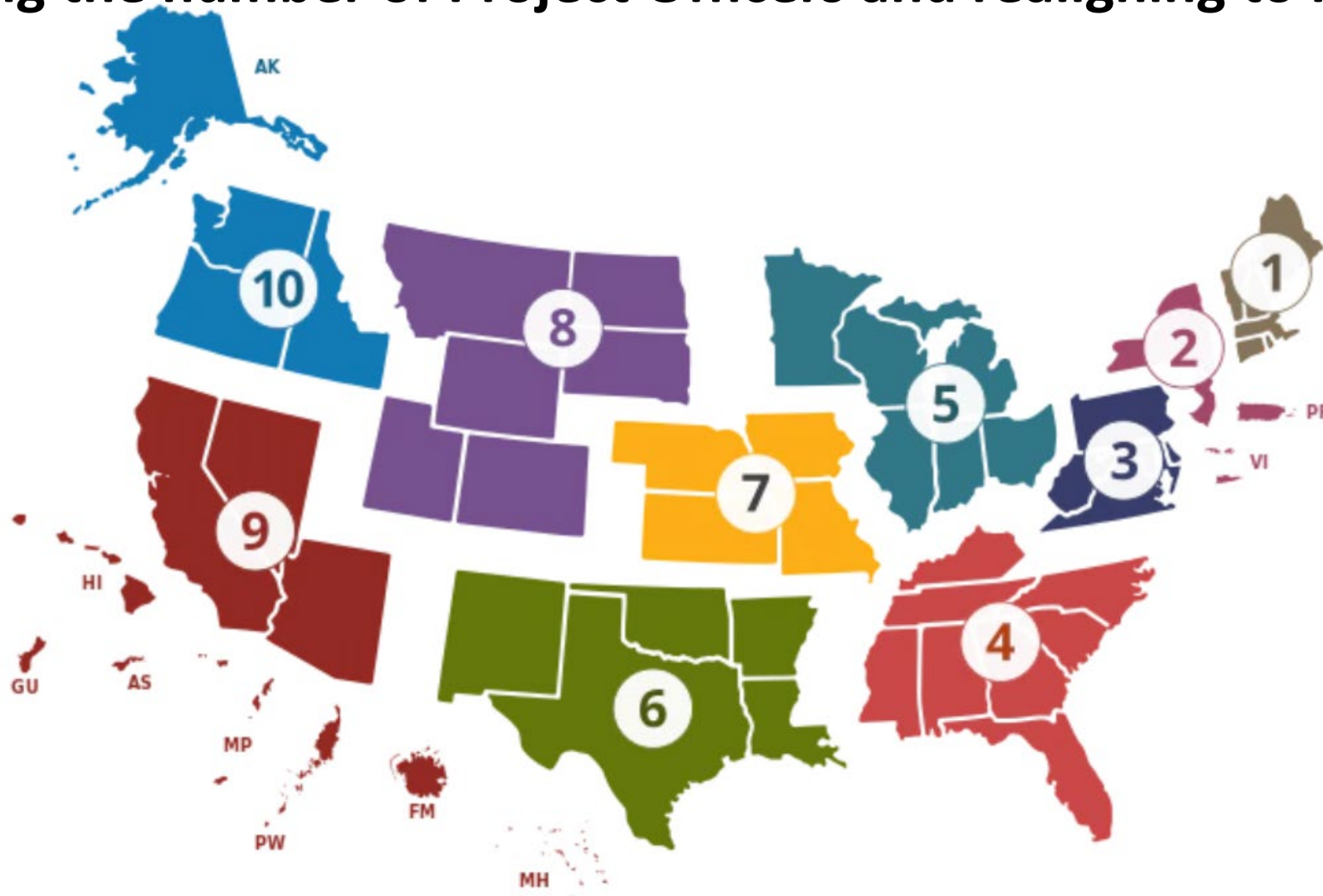
Integrate COVID-19 Into POB: Ending of the VCC

- **Ending of the Vaccine Coordination Cell**
 - Organization, timeline, & purpose of the VCC
 - The logistics of the off-ramp



Integrate COVID-19 Into POB: Increase Capacity (1)

- Increasing the number of Project Officers and realigning to HHS regions



Integrate COVID-19 Into POB: Increase Capacity (2)

- **Adding/expanding an adult team**
 - Building an Adult Team in POB
 - Will enhance the adult work and add significant new capacity
- **COVID Vaccination Provider Oversight and Quality Assurance**
 - Expand the size and capacity of this team

Integrate COVID-19 Into POB: Equity

- Integrate an equity aspect on all POB activities
- Build on COVID supplement 4
 - Racial and ethnic minority groups
 - People living in communities with high SVI
 - People living in rural communities
 - People with disabilities
 - People who are homebound
 - Immigrants and/or refugees
 - People with transportation limitations



Re-Focus on Non-COVID Activities

POB Priorities

Re-Focus on Non-COVID Work

- How and when to re-focus on other key work
- Increase access to and use of all routinely recommended vaccines
- Re-focus on the training of Immunization Program Managers and other awardee immunization staff

National Strategic Plan

for the United States | **2021–2025**

[Vaccines National Strategic Plan 2021-2025 \(hhs.gov\)](https://www.hhs.gov/vaccines/national-strategic-plan-2021-2025)

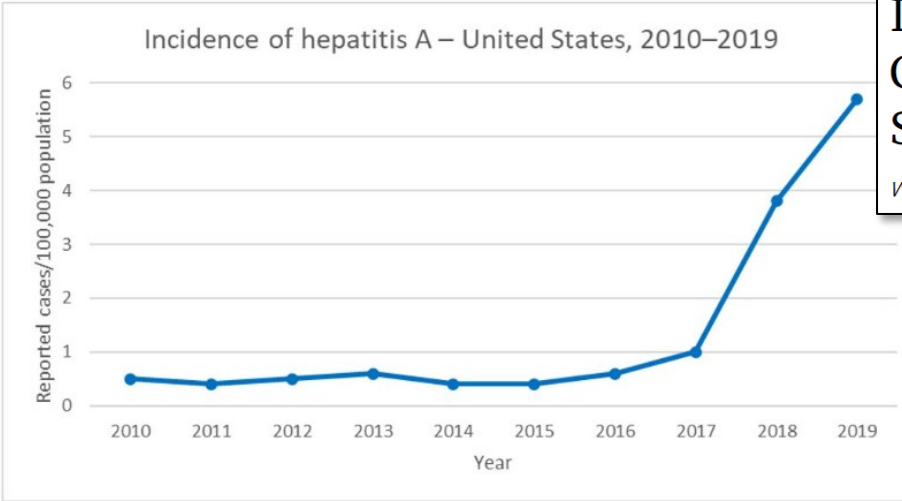
Re-Focus on Non-COVID Work

- How and when to re-focus on guidance for other key work
 - VFC and IQIP site visits
 - PAPA Annual Reports
 - SME site visits
 - Project Officer site visits



Re-Focus on Non-COVID Work

- Increase access to and use of all routinely recommended vaccines



Impact of the COVID-19 Pandemic on Administration of Selected Routine Childhood and Adolescent Vaccinations — 10 U.S. Jurisdictions, March–September 2020

Weekly / June 11, 2021 / 70(23);840–845

Summaries of health policy coverage from major news organizations





FRIDAY, APR 15 2022

FULL ISSUE

More Meningitis Vaccines Ordered For Florida Outbreak

Brief Overview for Clinicians Caring for Afghan New Arrivals

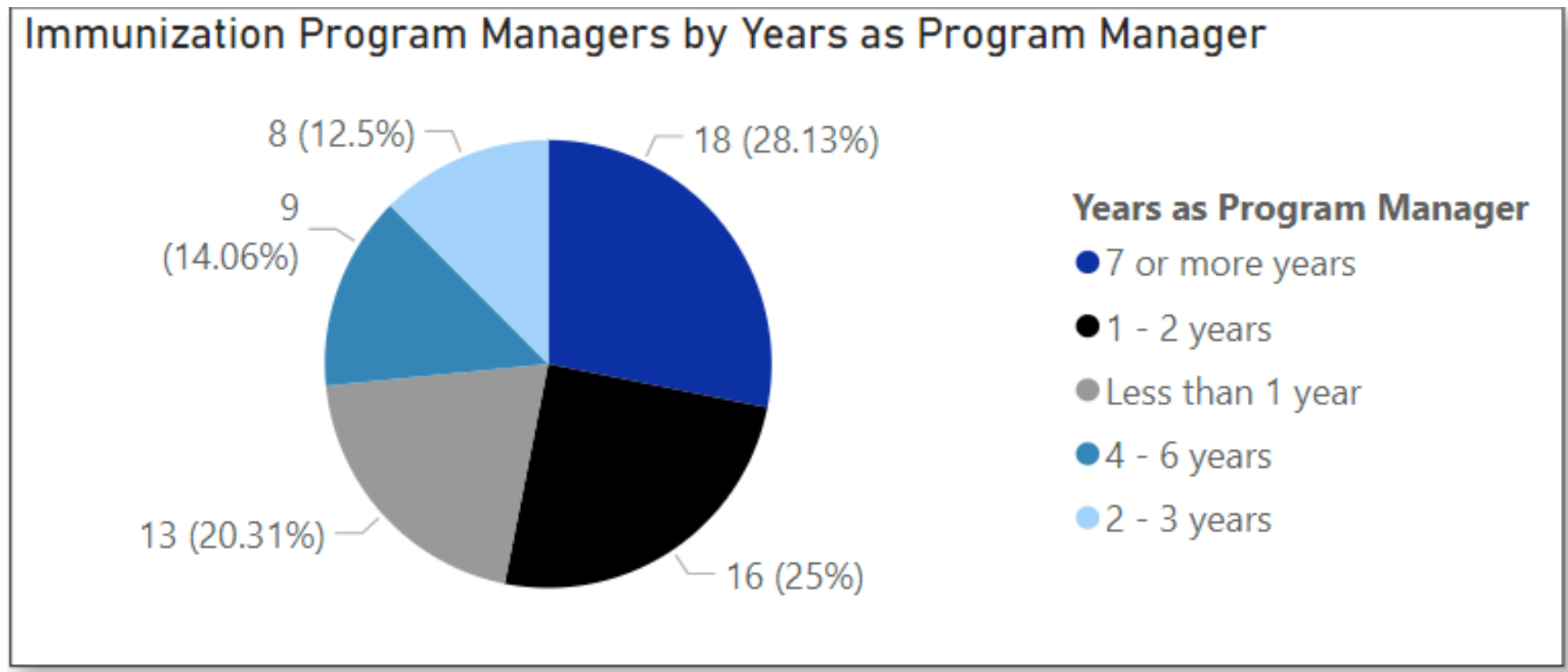
Access to vaccination for refugees from Ukraine needed to protect the most vulnerable among them from vaccine-preventable diseases

10-03-2022

Re-Focus on Non-COVID Work

- Re-focus on the training of Immunization Program Managers and other awardee immunization staff





Updates from CDC: Evolving Landscape for IIS

Lynn Gibbs Scharf, MPH

Chief, Immunization Information Systems Support Branch

Immunization Services Division

April 27, 2022

AIRA 2022 National Meeting

Agenda

- Overview of Current State
- CDC's Vision and Priorities
- CDC Support



Current State

2020 Goal Areas

We have been working toward our shared goal with the IIS community – *to improve immunization outcomes*



Goal Area 1: Deploy clear model for IIS, with performance measures, incentives, and individualized roadmaps for improvement



Goal Area 2: Foster IIS cost reduction through increased transparency, economies of scale, and optimized use of resources



Goal Area 3: Advance IIS through strong leadership, communication, coordination, and innovation

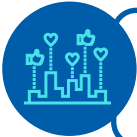
Progress Updates



IIS Data Quality Blueprint



Alignment of IPOM, IISAR, and Cooperative Agreement guidance with Blueprint



New communication products and events



Data quality reports



IIS technology partner engagement and funding

IIS Data Quality Improvements

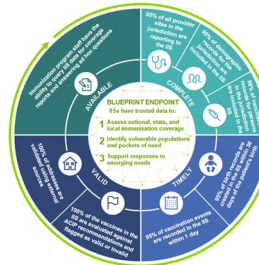
AVAILABLE

IIS data used to generate disseminated coverage reports

- **96% share population-based coverage assessment reports** with stakeholders in jurisdiction
- **98% generated population-based coverage assessments for a public facing website**

IIS staff can and do run ad-hoc reports of IIS data.

- 93% of IIS produced provider level coverage assessments **based on user criteria**



COMPLETE

Between 2020 and 2021, there were improvements in all categories of providers (VFC, non-VFC, all providers) reporting to IIS.

- **79%** of all VFC providers report data (2021)
- **60%** of all non-VFC providers report data (2021)
- **64%** of all providers report data (2021)

VALID

There was an increase in use of an external entity to validate addresses from 2020 to 2021

- In 2021, **52%** of IIS used residential addresses standardized and validated as USPS addresses, compared to 38% in 2020

TIMELY

Small increase in timely posting of vaccines administered

- From 2020 to 2021, the percent of vaccine administration posted to production within 1 day increased from **70% to 73%**

High percentage of birth records established in a timely fashion

- **90%** of birth records established within 30 days of birth (Q.29)

COVID-19 Response Accelerated IIS Advancements

IISs played a key role in the **dissemination and tracking of vaccines** across the U.S. and **provided critical data** on the current state of the COVID-19 response.



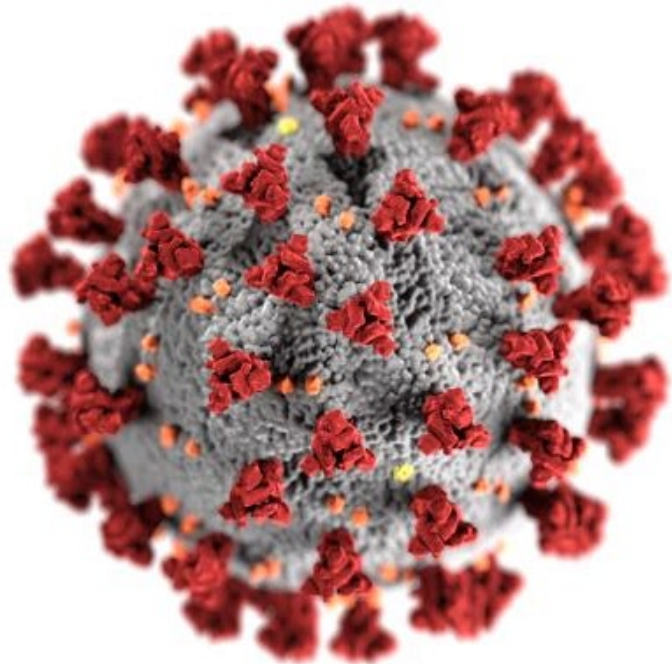
Throughout the COVID-19 pandemic, IISs enabled:

- ✓ **Rapid distribution** of large quantities of **vaccines** across the U.S.
- ✓ End-to-end **tracking of vaccines** from orders to inventory to shots in arms
- ✓ **Expanded partnerships** with pharmacies and other commercial partners
- ✓ Access to **large quantities of data** to support public health decision-making

Over the course of the COVID-19 response, IISs **improved performance** and implemented **new functionality**, such as mass vaccination tools, and **enhanced infrastructure**, like the increased use of cloud hosting and storage.

IIS in the COVID-19 Response

IIS came into the response with strong systems and processes. The pandemic demands put the systems and processes to the test and identified areas for improvement.



COVID-19 response needs challenged the IIS

- Rapidly evolving needs required enhancements, modifications, and business process changes to be implemented quickly
- Expanded requirements such as appointment scheduling and mass vaccination clinic support expanded the scope of IISs
- Scalability and performance due to transmission of high volumes of data, new provider onboarding, pace and volume of de-duplication and matching, and increased data storage
- Increased activities and data require an expanded workforce and 'big data' skills

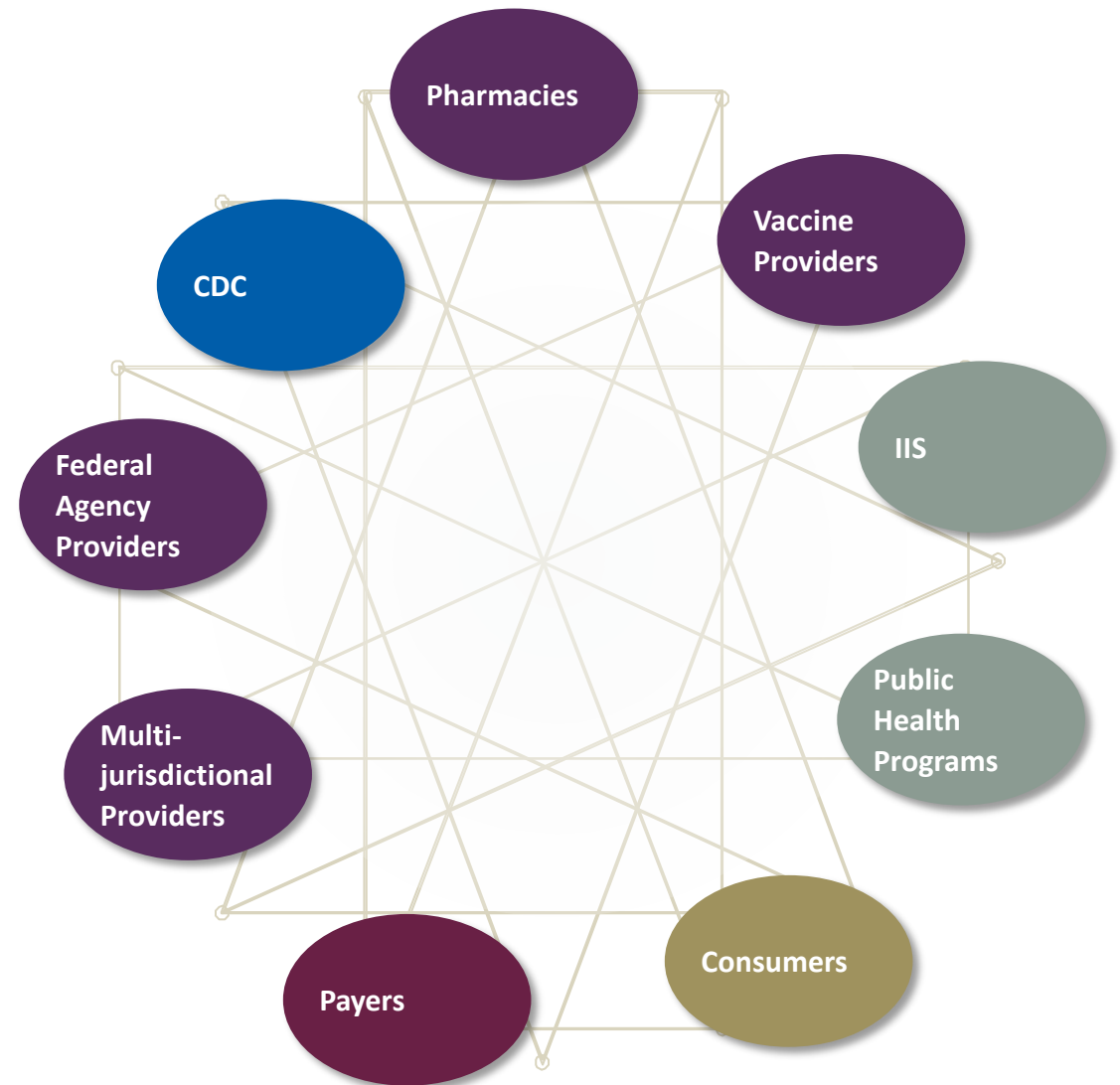
Vision and Priorities

Vision for IIS

IISs support the **standardized capture, exchange, and use of high-quality, individual-level** immunization data for all doses of ACIP*-recommended vaccines.

These data are **linked** across jurisdictions, providers, and partners, and to other individual-level data sources to **inform public health action**.

* ACIP: Advisory Committee on Immunization Practices



A Network of Systems

Moving the Needle toward Data Modernization

1. Data Collection & Management

Develop governance, policy and strategy, and data and quality standards in support of collecting, managing, and sharing national IIS data

2. Data Use

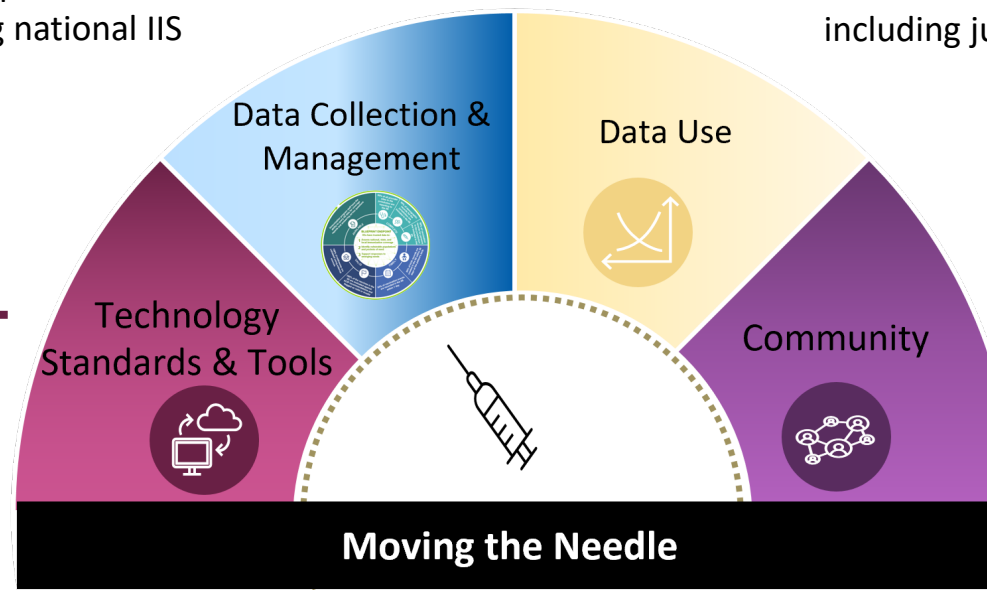
Assess, analyze, and use data to drive public health action across the IIS community, including jurisdictions, providers, and partners

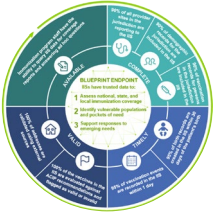
3. Technology Tools & Standards

Identify and develop new systems, tools, and standards, and support and modernize existing systems to improve performance, ensure consistency, and achieve mission goals

4. Community

Accelerate the enhancement and performance of IIS by convening key stakeholders to develop guidance, identify best practices, and collaboratively solve problems

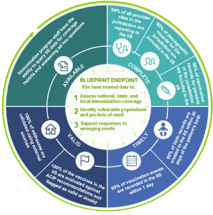




Focus 1 | Data Collection & Management

Develop governance, policy and strategy, and data and quality standards in support of collecting, managing, and sharing national IIS data

Priorities for Moving the Needle	Description
1.1 Establish a CDC Immunization Surveillance System	Develop a plan to collect and manage vaccine administration surveillance data through a network of systems (e.g., IIS) approach to provide timely high-quality data to determine national coverage
1.2 Set Governance, Standards, Policies, and Best Practices	Develop a data strategy, governance, and standards based on stakeholder/partner input and CDC programmatic needs
1.3 Create Policy and Legal Agreements	Create and implement policies and legal agreements that enable data collection, socialize and support jurisdictions on executing legal agreements
1.4 Manage Data Collection Processes for Immunization Surveillance	Ensure timely and comprehensive collection of all necessary surveillance data, as defined by the core objectives of the CDC immunization surveillance program



Focus 1 | Data Collection & Management (continued)

Develop governance, policy and strategy, and data and quality standards in support of collecting, managing, and sharing national IIS data

Priorities for Moving the Needle	Description
1.5 Manage Data Preparation, Storage, and Quality Assurance	Process, manage and improve the quality of surveillance data, including providing data quality feedback to jurisdictions to improve data
1.6 Link Data	Link deidentified data sources (immunization and other public health data sets) to provide a comprehensive view of public health within the jurisdiction and at the national level
1.7 Support Data Sharing	Support data sharing and use with partners (CDC, IIS, community of practice), including data use agreements, exchange infrastructure, and technical assistance. Ensure insights about data are shared with jurisdictions
1.8 Establish and Maintain Data Quality Certification Programs	Develop and manage certification programs for IISs to ensure high data quality



Focus 2 | Data Use

Assess, analyze, and use data to drive public health action across the IIS community, including jurisdictions, providers, and partners

Priorities for Moving the Needle	Description
2.1 Establish Data Use Strategies, Methodologies, and Plans	Consider and evaluate strategies and analyses that must be conducted to support public health decision making and develop a plan for data use. Investigate, develop, and implement innovative analytic methods to examine IIS data
2.2 Govern Data Use	Establish a governance model to ensure appropriate data use by users and to ensure that data use parameters and procedures are represented in legal agreements
2.3 Assess Coverage	Develop and implement methodologies for population-based coverage assessments to deepen the understanding of vaccination status in the US
2.4 Ensure Trust in Data	Validate data quality to enable use of data for analytics and public health decision-making
2.5 Broaden Data Use	Characterize and identify broader analyses and uses of immunization data, including linking with other public health data sets, to support public health decision-making
2.6 Develop Analytics Tools, Dashboards, and Visualizations	Use analytics tools, dashboards, and visualization tools to depict a more complete view of public health



Focus 3 | Technology & Technical Standards

Identify and develop new systems, tools, and standards, and support and modernize existing systems to improve performance, ensure consistency, and achieve mission goals

Priorities for Moving the Needle	Description
3.1 Develop Roadmap	Review existing IIS and related CDC systems to establish a roadmap for the future and define standards for IIS systems and interoperability with EHRs, providers, and other data partners
3.2 Support Operation and Maintenance of Current Environment	Maintain CDC systems and support services and standards for existing IISs and interoperability with EHRs, providers, and other data partners
3.3 Establish and Maintain Technology Certification Programs	Develop and manage certification programs for IISs and EHRs to ensure consistent functionality, security, adherence to standards, and performance
3.4 Support Modernization of Existing Systems	Support modernization of current systems based on evolving needs, technology advancements and identified gaps, and to realize standards, consistent functionality and robust performance. Ensure consistent usage of existing systems
3.5 Develop New Systems and Services	Develop robust new systems, tools, and other shared services to interoperate with existing systems, based on evolving needs, identified gaps, and defined standards
3.6 Maintain and Develop Standards	Maintain and refine existing standards; develop guidance and resources based on new standards (e.g., FHIR) to address gaps and meet evolving needs; and provide assistance to jurisdictions and other stakeholders to meet standards



Focus 4 | Community

Accelerate the enhancement and performance of IIS by convening key stakeholders to develop guidance, identify best practices, and collaboratively solve problems

Priorities for Moving the Needle	Description
4.1 Establish a Model for Enhanced Partnership Collaboration	Develop and implement approaches for collaboration across communities of practice and traditional and non-traditional partners in the IIS community
4.2 Build Awareness of IIS Value	Build and launch a communications campaign to raise awareness of the value and importance of IIS
4.3 Engage Consortia Across Communities	Set up and leverage communities of practice (e.g., centered around IIS platforms, EHRs, providers) to jointly define modernization needs, priorities for enhancements, and expectations for performance and collaboratively solve problems
4.4 Lead Development of Health IT Standards and Guidance	Represent public health, immunization programs, and communities of practice in efforts to define health IT standards and policy-making activities
4.5 Assess Gaps in the IIS Workforce	Assess gaps in the existing IIS workforce within and outside of CDC and develop a plan to address them
4.6 Create IIS Funding Model	Create a funding strategy for jurisdictions and technology and national partners that supports CDC priorities, advances immunization systems, and ensures the availability of high-quality immunization data

CDC Support

CDC Supports IIS by



Providing **funding and guidance** to achieve priorities



Offering **direct support** to awardees through technical assistance, engagement, and communications



Engaging **technical** and national **partners** to strengthen the IIS community

Funding | IIS Community

Jurisdictions

CDC provides dedicated cooperative agreement funding to awardees to operationalize and maintain IIS functionality and data quality best practices because IIS are a critical component of Immunization Programs, supporting a variety of functions

CDC has limited visibility into IIS costs and funding sources. Additional insights are needed to better inform CDC.

Technology Partners

CDC contracts with IIS technology partners directly to ensure that awardees’ IIS are built on strong infrastructure and support core and new functions.

National Partners

CDC has cooperative agreements with partner organizations (AIRA, PHII) to support workforce development activities, promote high data quality, measure IIS performance objectively against standards, and other activities

Jurisdiction Funding in the Past	Jurisdiction Funding Today
Core funding used for IIS activities	Core funding used for IIS activities
Competitive component funding for specific activities	Dedicated, non-competitive IIS funding in addition to core award (base + population formula)
	Separate funding to IIS technology partners to support IISs infrastructure and activities

Technical Assistance | IIS SMEs

The IIS subject matter experts of the Operations Team provide direct support to awardees

IIS SME Contact Information (2022)				
Beth Cox NHY7@cdc.gov 404-718-5698	Jan Hicks-Thomson HBV8@cdc.gov 404-718-1555	Paul Klintworth OAX3@cdc.gov 404-498-5270	Michelle Ruslavage QBC5@cdc.gov 404-718-3981	Bobbie Strickland GQC9@cdc.gov 404-639-8427
District of Columbia Delaware Maryland New Hampshire New Jersey New York New York City Pennsylvania Philadelphia Puerto Rico US Virgin Islands Virginia West Virginia	California Colorado Iowa Kansas Missouri Montana Nebraska New Mexico North Dakota South Dakota Utah Wyoming	Arkansas Chicago Houston Illinois Indiana Louisiana Michigan Minnesota Ohio Oklahoma San Antonio Texas Wisconsin	Alaska American Samoa Arizona CNMI FSM Guam Hawaii Idaho Marshall Islands Nevada Oregon Palau Washington	Alabama Connecticut Florida Georgia Kentucky Maine Massachusetts Mississippi North Carolina Rhode Island South Carolina Tennessee Vermont
HHS Regions 1, 2, 3	HHS Regions 6, 7, 8, 9	HHS Regions 5, 6	HHS Regions 9, 10	HHS Regions 1, 4

Note: Trenetria Steele assists with cooperative agreement and data quality efforts for multiple jurisdictions.

Guidance | IIS Data Quality Blueprint

The blueprint guides awardee activities to improve data quality by prioritizing a **small set of meaningful, quantifiable** measures.

IIS Data Quality Endpoint

- IISs will be **the trusted source** for reliable immunization data
- IISs will produce data to support:
 - Immunization coverage assessments
 - Identification of pockets of need
 - Responses to emerging needs



7 Data Quality Characteristics

Available | Complete | Timely | Valid | Accurate | Consistent | Unique

Guidance | IIS Dashboard

The IIS Dashboard provides a comprehensive view of **data quality**, including the associated policies, IIS infrastructure, auxiliary projects, and measures

Dashboard content is available to help Program Managers and IIS Managers to:

- Consider how their system and its data meet targets from the Data Quality Blueprint
- Gauge progress over time
- Compare the jurisdiction's IIS performance with other jurisdictions
- Determine opportunities and formulate plans for improvement

[Link: The IIS Dashboard](#)

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Immunization Information Systems (IIS) Dashboard

Virginia Data Quality Report

This summary depicts the current state of data quality for the jurisdiction's IIS based on information from the 2020 [Immunization Information Systems Annual Report](#) (self-reported), the [AIRA Measurement and Improvement Initiative](#), and other sources. Data from all sources is current as of December 31, 2020. AIRA's IIS Measurement and Improvement (M&I) Initiative provides IIS with information and guidance to align with the IIS Functional Standards. AIRA conducts evaluations as a third-party objective reviewer as a service to the IIS community. Awardees should work toward achieving "Validated" or "Validated with Minor Differences" outcomes for all capabilities. When a city awardee uses the state's IIS platform, the state's values are displayed.

Each Data Quality Blueprint Indicator is followed by a series of numbers in brackets (e.g., {1.1.1}). The first number refers to an IIS Functional Standard. The second number refers to an Operational Guidance Statement and the last number is a reference number to the Indicator. Please see this [weblink](#) for the [Data Quality Blueprint](#).

Following the [Background](#) section...

Available

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Blueprint Milestone: Immunization program staff have the ability to query IIS data for coverage reports and answering ad hoc questions

Indicator	Year: 2018	Year: 2019	Year: 2020	2020 Target Achieved	Target	% Awardees Meeting Target in 2020
In the last calendar year, the IIS was used to generate provider-level coverage assessments that met current published CDC operational and technical guidelines for provider-level quality improvement. {18.1.1}	No Data	Yes	Yes	★	Yes	93.8%
In the last calendar year, IIS staff produced IIS-generated provider-level coverage assessments based on user-selected criteria. {18.1.2}	No Data	Yes	Yes	★	Yes	87.5%
In the last calendar year, non-IIS immunization program staff produced IIS generated provider level coverage assessments based on user-selected criteria. {18.1.3}	No Data	Yes	Yes	★	Yes	82.8%
In the last calendar year, providers were able to produce IIS-generated coverage assessments based on user-selected criteria. {18.1.4}	No Data	Yes	No	✗	Yes	84.4%

Dashboard Screen Shots

Guidance | Technical and Operational

CDC maintains and supports the core standards for data exchange, as well as testing tools.

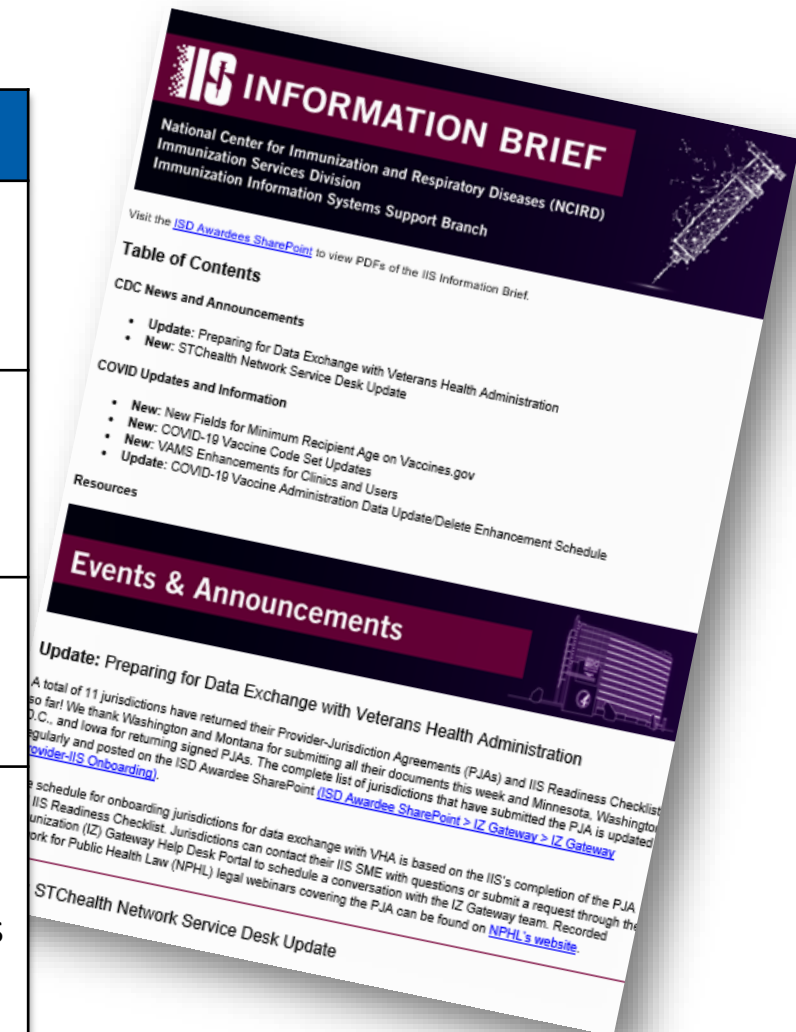
Initiatives include:

- Functional Standards and Operational Guidance Statements (OGS)
- HL7 Standards & Implementation Guides
- Clinical Decision Support for Immunizations (CDSi)
- Vocabulary & Code Set Management and Support (VCSMS)
- 2-D Barcode Project
- NIST Testing Tools
- VTrckS/ExIS Support
- Best Practices & Business Rules Maintenance & Support



Engagement | IIS-Specific Communications

Resource	Audiences	Notes
IIS Information Brief <i>weekly email</i>	Jurisdiction, Technology, and National Partners	Provides updates and announcements for the IIS community
IIS All-Awardee Forum <i>monthly call</i>	IIS Managers and Program Managers	Offers opportunity for in-depth look at priority activities and hear from jurisdictional partners
IIS Technology Partners Calls <i>monthly call</i>	Technology Vendors and Partners	Engage IIS technology partners/IIS vendors in discussion about priorities and key technical updates
SharePoint Site <i>document repository</i>	Jurisdiction, Technology, and National Partners	Allows CDC to manage and provide partners access to useful documents



Partners | National Organizations

CDC partners with national organizations to support and advance the IIS.



American Immunization Registry Association (AIRA) supports and promotes the development, implementation, and interoperability of immunization information systems through partnerships, peer and professional education/training, and resource development.

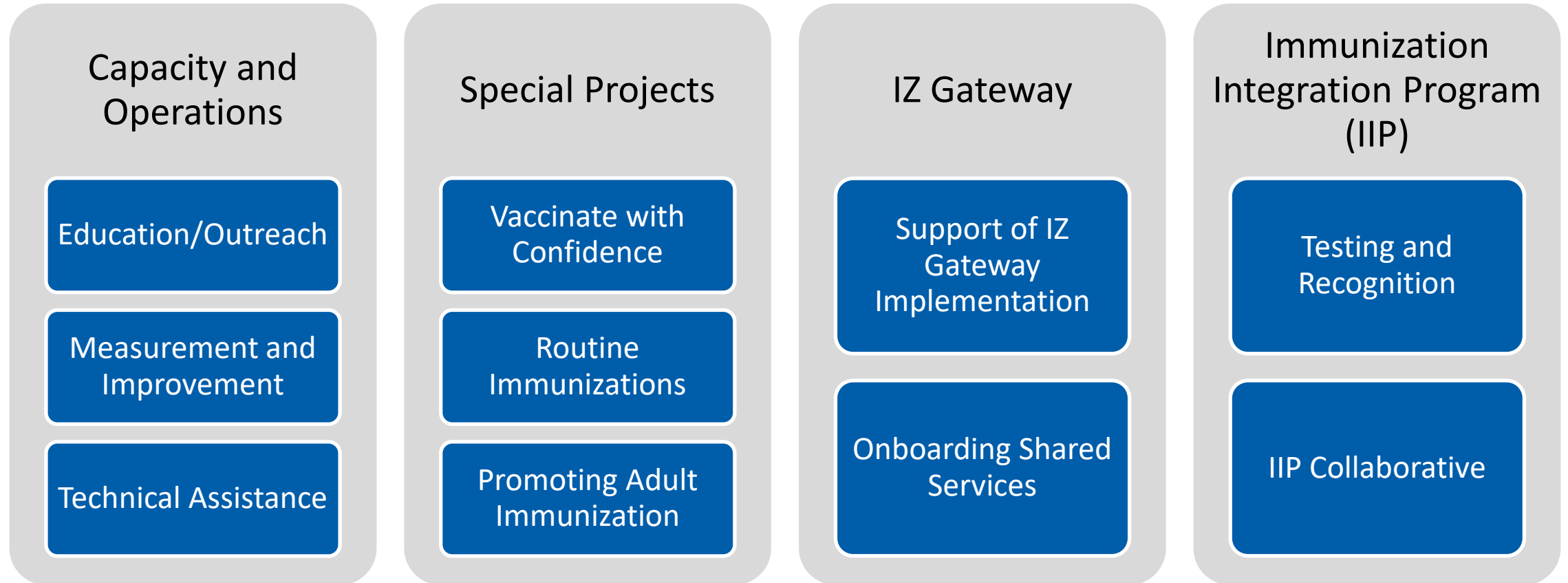


Association of Immunization Managers (AIM) Through national leadership, advocacy, and collaboration, AIM represents and supports immunization programs in the development and implementation of effective immunization policies, programs, and practices at the state, local and territorial level.



Public Health Informatics Institute (PHII) makes public health informatics real, understandable and actionable by making available concrete resources, guidance and training to the public health practitioners who plan and shape the future of childhood immunizations.

Summary of CDC-Sponsored AIRA Projects



Guidance and Best Practices

Public Health Informatics Institute

PHII, in partnership with CDC, developed resources, toolkits, and models to inform staffing an IIS and support the development of high-performing teams.

Key Staffing Resources

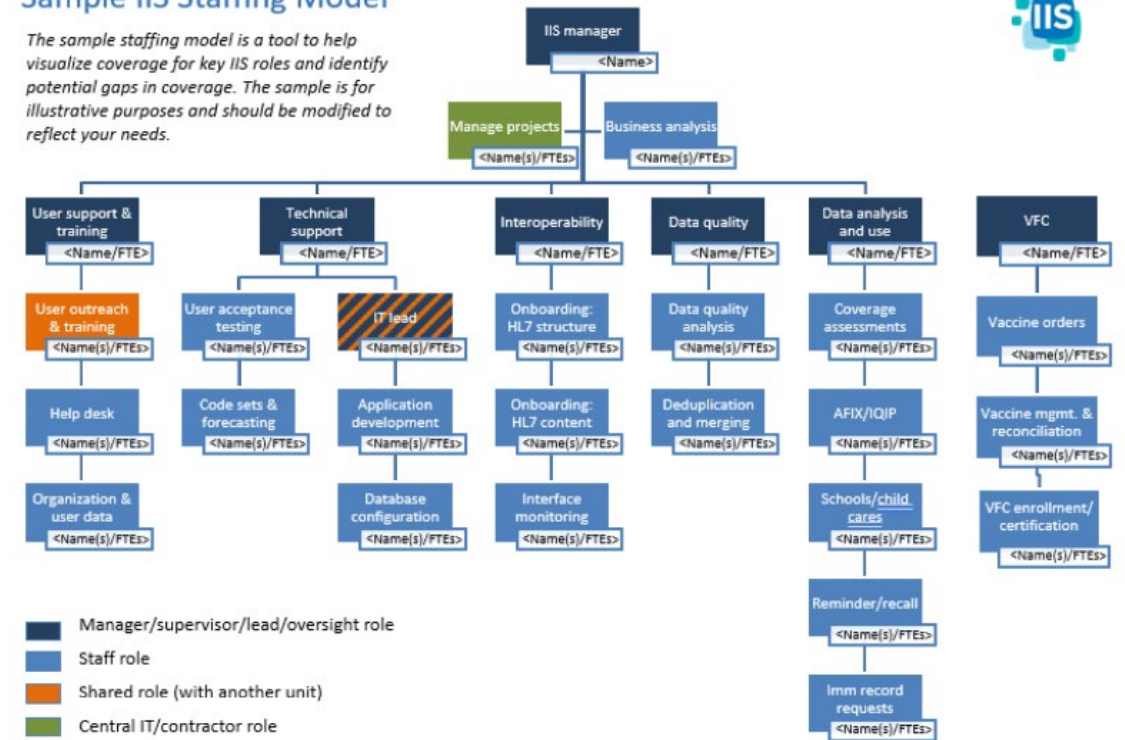
- Core Competency Model
- Role Descriptions
- IIS Staffing Model (sample)
- IIS Staff Roles Matrix Template
- IIS Migration Toolkit

Requirements Traceability Matrix

- Clarify what IIS technology must do and how it must operate to align with the CDC IIS Functional Standards and programmatic and immunization stakeholder needs

Sample IIS Staffing Model

The sample staffing model is a tool to help visualize coverage for key IIS roles and identify potential gaps in coverage. The sample is for illustrative purposes and should be modified to reflect your needs.



This resource was developed as part of the Immunization Information System (IIS) Migration Toolkit by PHII in partnership with AIRA and CDC and with financial support from CDC. Last updated May 21, 2019. Questions, comments and suggestions are welcomed at phii.org/iiscontact.

Questions?

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

