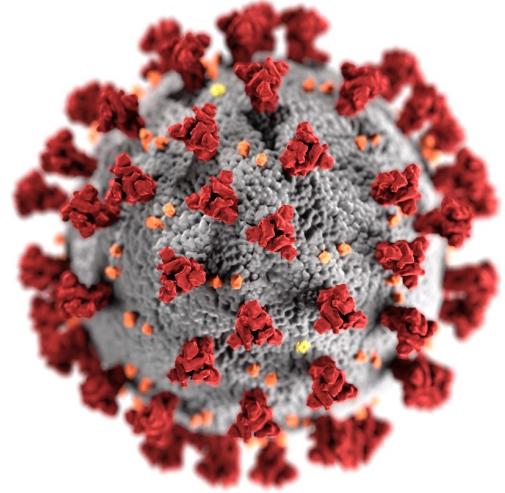


Immunization Information Systems (IIS)

Immunization Information Systems (IIS) Overview and Update

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cdc.gov/coronavirus

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Agenda

- Introduction to IIS
- Overview of Routine Reporting and Data
- Overview of COVID-19 Data Reporting and Data Flows
- Strategic Priorities
- Opportunities for Partnership Between IIS and HIEs



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Introduction to Immunization Information Systems (IIS)

IISs are designed to capture and manage data related to immunizations.

Immunization information systems (IISs) are **confidential, population-based, computerized databases** that record all vaccine doses administered by participating providers in a specific geographic area.

Their primary functions include:

- Collecting and consolidating vaccination-related data from multiple healthcare providers
- Capturing vaccination-related data on children, adolescents, and adults
- Supporting immunization programs to:
 - Identify populations at risk for vaccine-preventable diseases.
 - Analyze vaccination coverage for their population and conduct outreach.

Overview of IIS History

- Measles outbreak 1989-1991 led to discussion of the need for a national registry
 - No supporting policy
 - Concerns about “big government” and data privacy
- All Kids Count funded registry development in early 1990s
 - Varied based on jurisdiction regulations and policy
 - Commercial or homegrown
 - No common standards
- CDC developed first set of common functional standards in 2001



IIS Capabilities

IISs have various core capabilities and functionality to improve vaccination coverage (see [CDC IIS Functional Standards](#)).

What do IISs do?

- **Monitor new vaccine uptake**
- Track and evaluate **trends in coverage levels**
- Monitor **outbreaks and disease levels**
- Automatically **calculate vaccinations needed**
- **Consolidate immunization-related information**
- **Generate vaccination reminder and recall notices**
- Connect providers
- Monitor Vaccines for Children (VFC) vaccine use and provider compliance

What are core capabilities?

- **Evaluating vaccine validity and forecasting next appropriate vaccination(s)** due, specific to each patient
- **Supporting emergency preparedness and pandemic planning**
- **Integrating with other electronic health information systems**
- Supporting vaccine **management at the provider and immunization program levels**

Primary IIS Data Sources

- Birth records
- Death records
- Medicaid and insurance billing/claims
- Direct data entry by providers
- Electronic medical records



Policy Considerations

- Patients consent to:
 - Participate in the IIS
 - Share demographic data with provider and/or IIS
 - Share data beyond the IIS
- Jurisdiction:
 - May require providers to report to the IIS
 - May restrict data sharing with CDC

Adult IIS Participation Policies

IIS Participation Policy	Jurisdictions
Included in the IIS unless they request to be excluded	42
Included in the IIS with no option to be excluded	11
Must give their permission to be included in the IIS	6
Must give their permission to be included in the IIS if the vaccine is administered at a pharmacy; otherwise, adults are included in the IIS unless they request to be excluded	1
Not yet defined	1

Child IIS Participation Policies

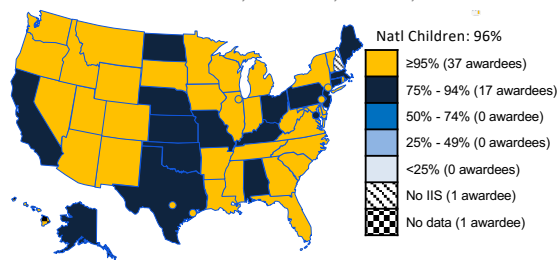
IIS Participation Policy	Jurisdictions
Included in the IIS unless they request to be excluded	45
Included in the IIS with no option to be excluded	11
Included in the IIS unless they request to be excluded; VFC and 317 recipients may not opt out	1
Included in the IIS; the only option to be excluded is with a certificate of religious exemption	1
Included in the IIS with explicit parent/guardian permission	2



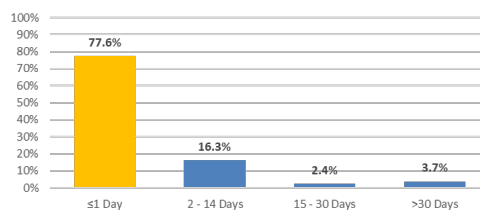
Routine Immunization Reporting to CDC Through IISs

- CDC receives deidentified, record level data from 13 awardees participating in the Vaccine Coverage Assessment Project, a component of the Vaccines for Children Immunization Program Cooperative Agreement.
- Funding is competitive, and certain data quality components (e.g., completeness, timeliness) must be met to participate.
- States must submit data to CDC:
 - Quarterly for children aged 0-18
 - Bi-annual (twice per year) for all ages
- IIS data quality improvement is monitored annually using the IIS Annual Report (IISAR). The IISAR assesses key data quality metrics, including:
 - Timeliness and completeness of data
 - Provider and patient participation

Percentage of children aged < 6 years, participating in an IIS -- United States, five cities⁵, and D.C., 2019



Timeliness of vaccine records among all individuals aged 0 - 18 years in the US, 2019



The Blueprint Defines Goals for IISs and Guides Awardee Activities for Data Quality Improvement

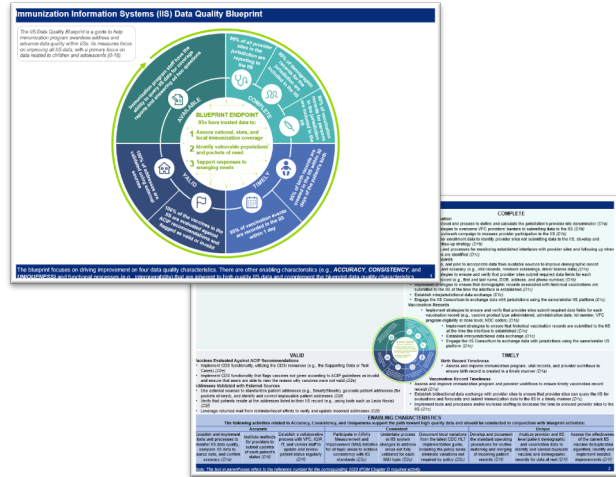
Blueprint Guiding Principles

The Blueprint:

- 1 Focuses on **improved IIS data quality**, which will support improved immunization outcomes by supplying **credible immunization data**
- 2 Prioritizes a **small set of meaningful, quantifiable IIS measures**
- 3 Informs **technical assistance approach** to address shared challenges
- 4 Adapts to **national, state, and local emerging priorities and needs**

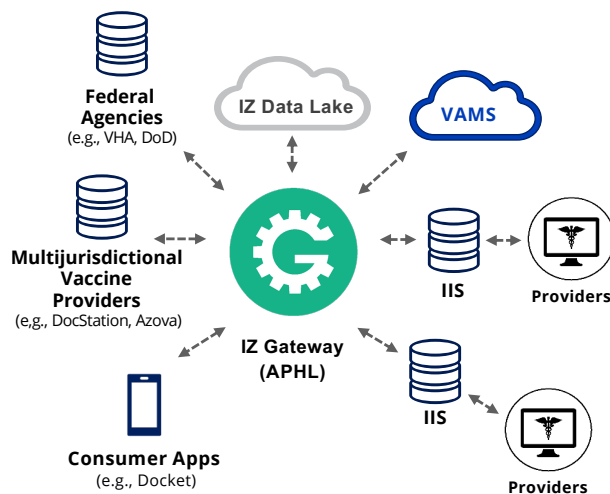


Blueprint At-A-Glance



Immunization (IZ) Gateway

A cloud-based message routing service that enables data exchange among participating jurisdiction IISs and multi-state provider organizations.



Benefits

- A policy and technology framework that enables uniform application of **data quality assurance, messaging, and security industry standards** and best practices for all participants
- A legal framework that ensures compliance with each **jurisdiction's data sharing laws and policies**
- When used broadly, ensures every patient has a **consolidated vaccination record**

Acronyms

APHL	Association of Public Health Laboratories
DoD	Department of Defense
IIS	Immunization Information System
VAMS	Vaccine Administration Management System
VHA	Veterans Health Administration

IZ Gateway Onboarding Status

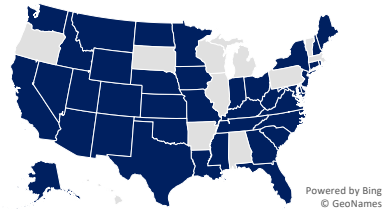
Federal Agencies and Other Provider Organizations

- **4 multi-state provider organization** systems actively exchange data with IISs through the IZ Gateway:
 - Docket
 - VAMS
 - DocStation
 - AZOVA EHR
- Providers who are currently onboarding:
 - Veterans Administration (VA)
 - AZOVA
- Providers who are preparing to onboard:
 - Bureau of Prisons (BoP)
 - Department of Defense (DoD)
 - Electronic Disease Notification (EDN)



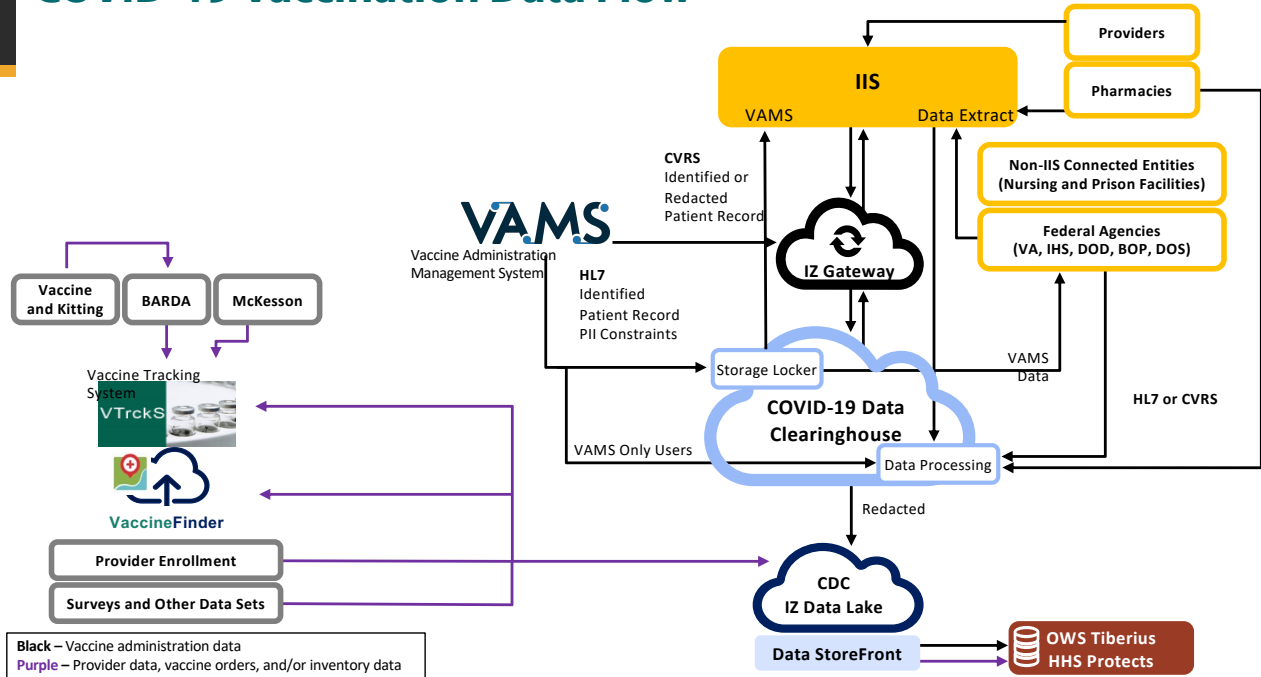
Jurisdiction IIS Onboarding

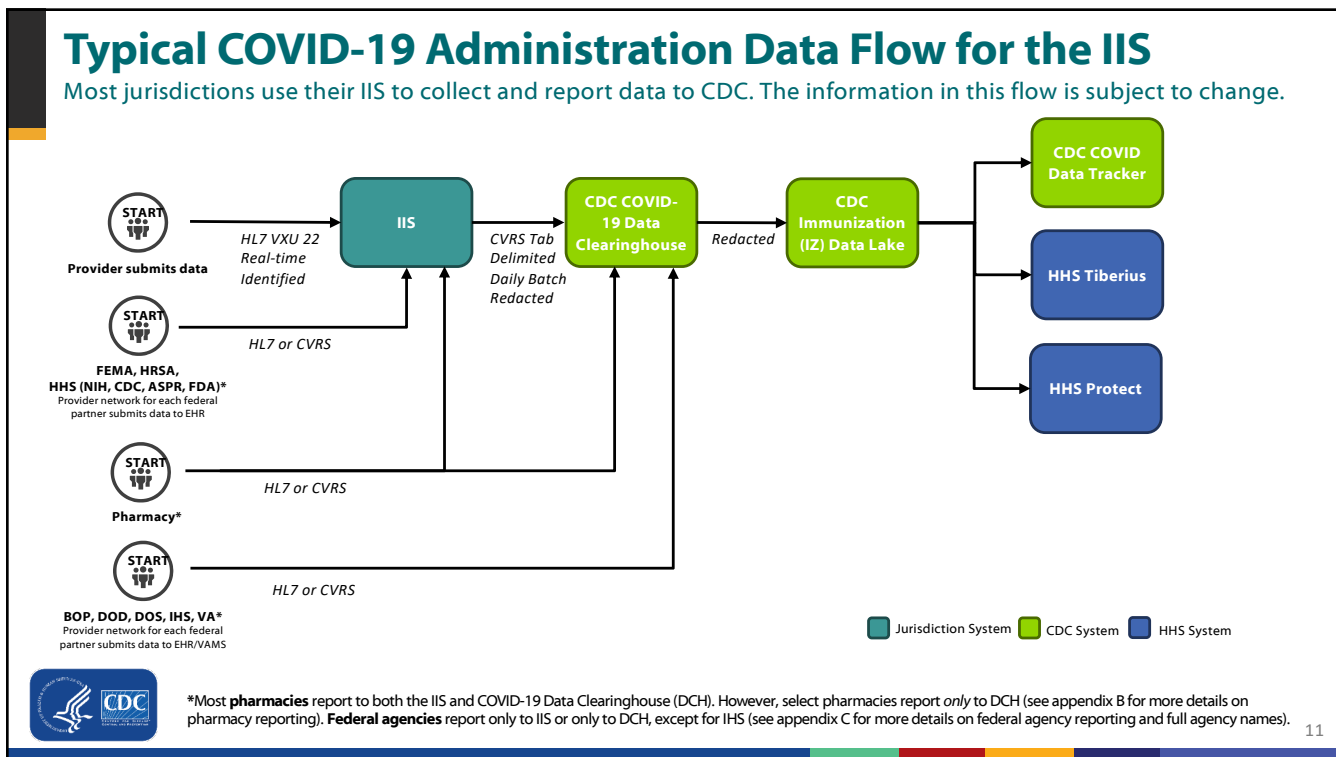
- **53** jurisdictions onboarded to IZ Gateway
 - Executed Association of Public Health Laboratories Data Use Agreement and completed integration testing
 - Onboarded for receipt of VXUs/QBPs from Electronic Health Records.
- **46** jurisdictions have signed the Interjurisdictional Memorandum of Understanding (MOU)
- **44** jurisdictions have signed the Share Task Order



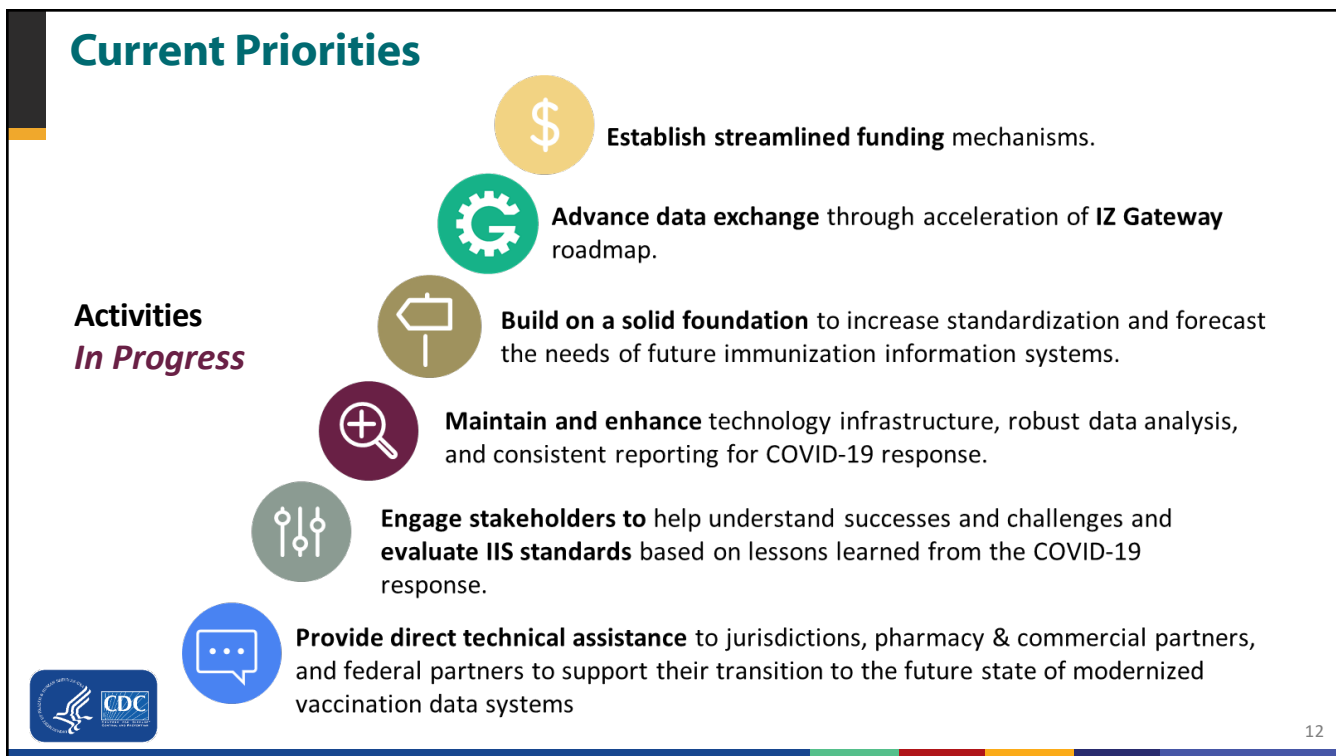
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COVID-19 Vaccination Data Flow

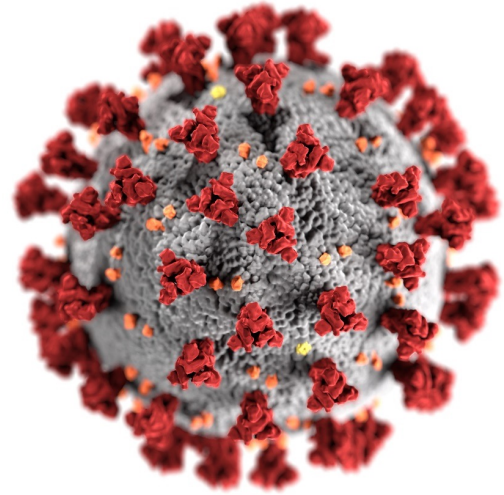




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For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

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.

