

The background of the slide features a group of diverse hands reaching towards the center and interlocking in a circle. Overlaid on this image is a semi-transparent blue filter and a digital graphic consisting of a network of yellow and white dots connected by thin lines, resembling a molecular or data structure. The text is positioned on the right side of the image.

**The Download
August 2025**

**Immunizations
Awareness Month:
Protecting Communities,
Strengthening Public Health**



Michigan Health Information Network Shared Services (MiHIN)

MiHIN is Michigan's state-designated entity to continuously improve healthcare quality, efficiency, and patient safety by promoting secure, electronic exchange of health information. MiHIN represents a growing network of public and private organizations working to overcome data sharing barriers, reduce costs, and ultimately advance the health of Michigan's population.



Goals of Health Information Exchange

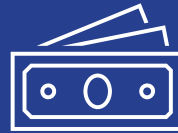
Reduced inefficiencies



Improved healthcare
access



Lower healthcare costs



Better quality of care &
health outcomes



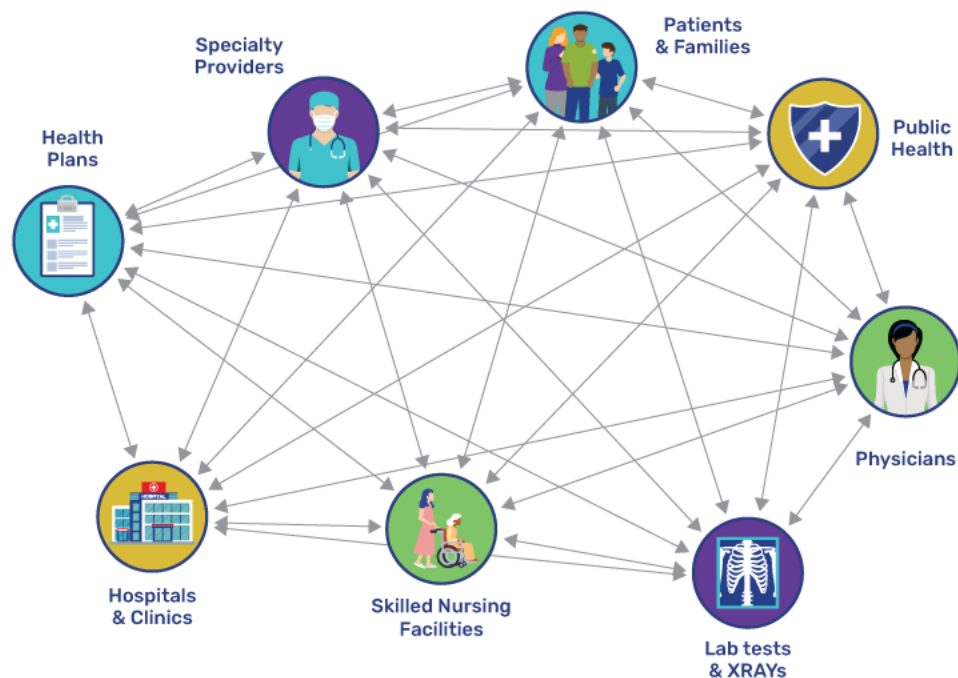
Personalized medicine
for patients



Statewide Health Information Exchange Creates Efficiency

BEFORE:

Duplication of effort, waste and expense

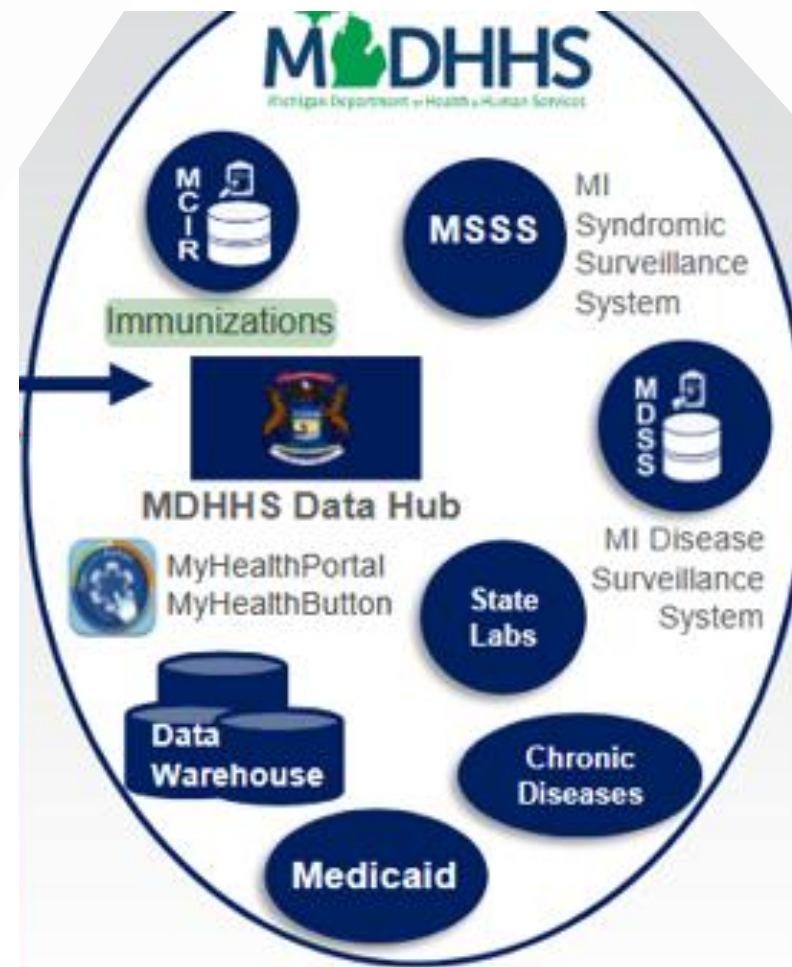
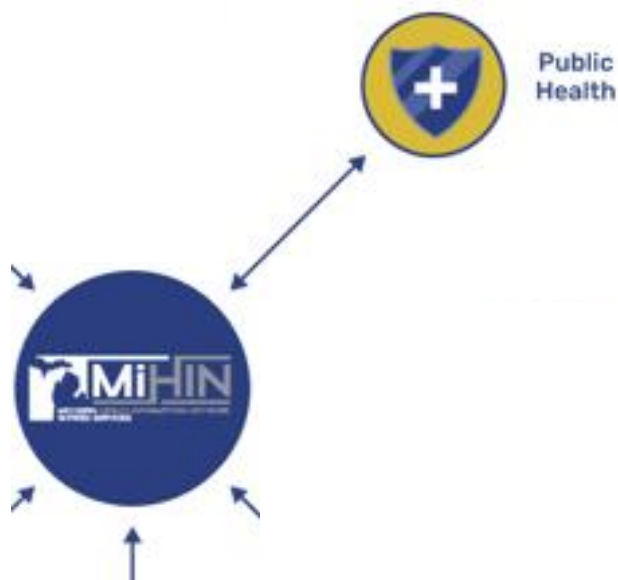


NOW:

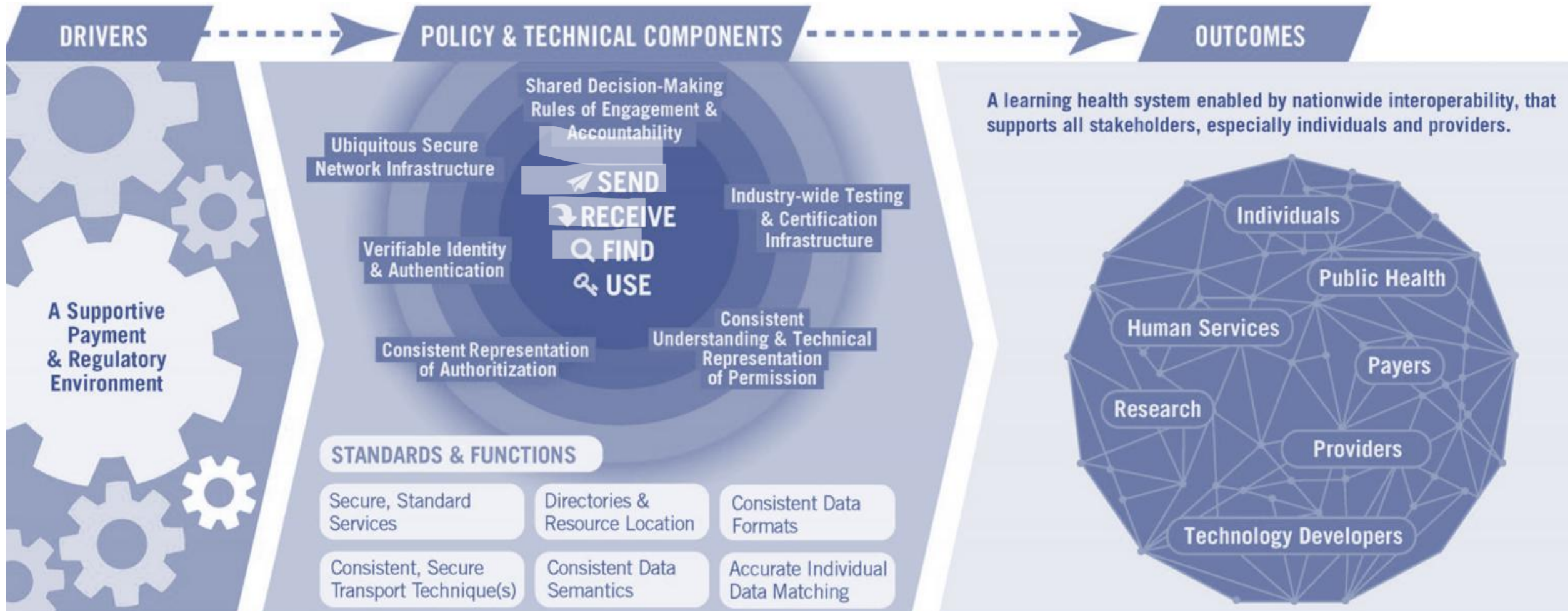
Connect once to access shared services



MiHIN serves as the trusted point of entry for data flowing to MDHHS



Enabling a Learning Statewide Healthcare Ecosystem



“Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap.” The Office of the National Coordinator for Health Information Technology.” Final Version 1.0.



Michigan Care Improvement Registry (MCIR)

- The Michigan Childhood Immunization Registry (MCIR) was created in 1998 as Michigan's **Immunization Information System (IIS)**
- IISs, also known as immunization registries, are “**confidential, population-based, computerized databases that record all immunization doses** administered by participating providers to persons residing within a given geopolitical area.”
- In 2006, the passage of Public Act 9112006 of Michigan Public Health Code expanded MCIR to all ages and renamed the IIS the Michigan Care Improvement Registry.
- Before electronic medical records and MCIR, a green booklet served as an immunization record.
- **Healthcare providers (including pharmacies) in Michigan are required to report immunizations to MCIR within 72 hours of administration.**

MCIR Benefits

- **Improves Vaccination Rates & Prevents Outbreaks**

- Identifies populations with low coverage for targeted outreach

- Supports public health campaigns to reduce vaccine-preventable diseases

- **Provides a Complete, Accurate Immunization Record**

- Consolidates data from multiple providers into a single source of truth

- Ensures timely, correct vaccination scheduling and avoids duplicate doses

- **Supports Clinical & Public Health Decision-Making**

- Supplies real-time data to guide patient care and immunization strategies

- Monitors vaccine effectiveness and emerging trends

- **Streamlines Compliance with Requirements**

- Generates official records for school, employment, and other mandates

- Simplifies documentation and reporting processes

- **Enables Rapid Public Health Response**

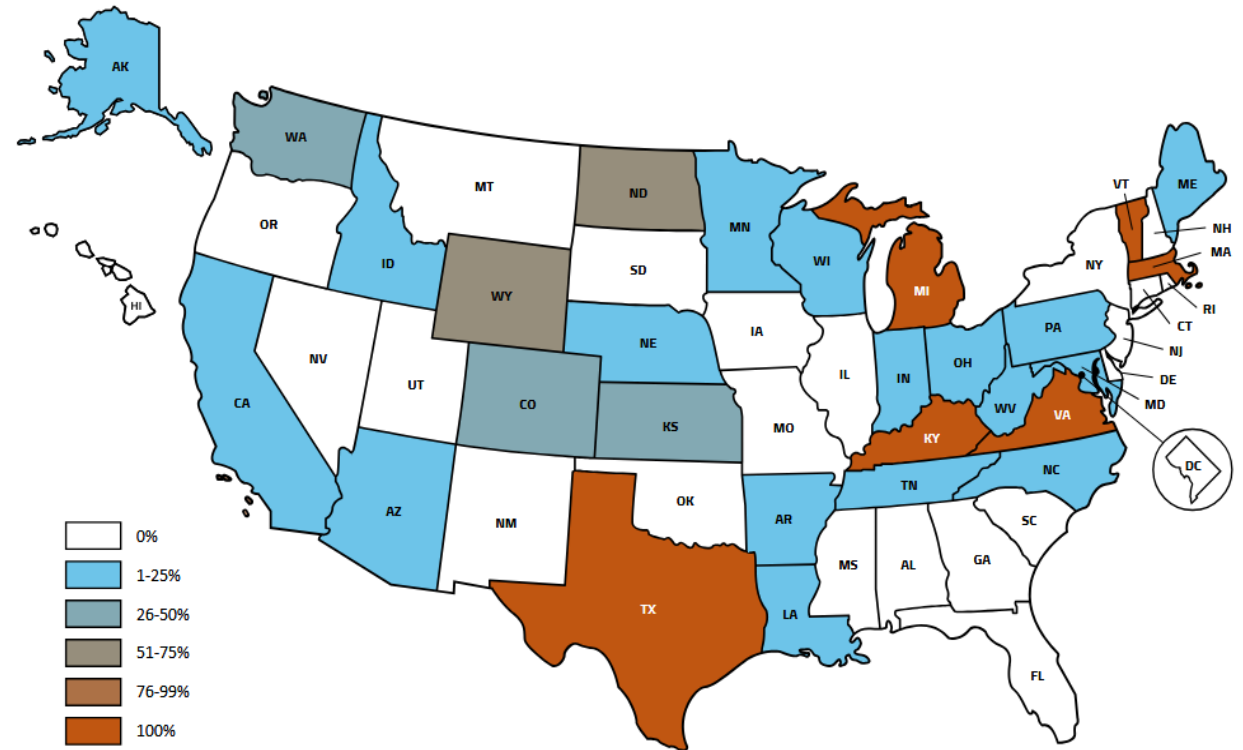
- Offers population-level data for surveillance and program operations

- Facilitates quick action during disease outbreaks or emergencies

Historical and National Context

- Immunizations were MiHIN's first use case (2012)
- COVID-19 exposed data gaps, strained public health data systems, and siloed, aging infrastructure, as well as manual, time-intensive processes and legal/policy barriers to sharing
- 2020: ~15% of IIS-connected providers linked via HIEs
- IIS were pushed to the forefront; critical for tracking COVID-19 vaccination status

FIGURE 2: Percent of Provider Site Connections to IISs Mediated by an HIE, by Jurisdiction, 2020



Source: Map created with data from CDC "2020 IIS Annual Report (IISAR)" (2020). Map includes data from state and Washington, D.C. IISs (excludes other city IISs).

<https://www.astho.org/globalassets/report/immunization-information-systems-and-health-information-exchanges.pdf>

How to Submit Required Information to MCIR

1. Meet Eligibility & Legal Requirements

Be an authorized organization under Michigan's Public Health Code (e.g., provider, clinic, pharmacy, hospital, local health department).

Ensure your organization has appropriate data use agreements and meets HIPAA requirements.

2. Choose a Reporting Method

Manual Entry: Log in to the MCIR web portal and enter immunizations directly.

Electronic Data Exchange: Use an EHR/EMR system capable of sending HL7 immunization messages to MCIR and *connect via the Michigan Health Information Network (MiHIN)* for automated, bi-directional exchange between your EHR and MCIR.

Automated Immunization Submission to MCIR through MiHIN

Connecting through MiHIN to MCIR ensures accurate, timely vaccination administration, supports complete patient immunization records, and meets Meaningful Use requirements for electronic reporting to public health agencies.



Figure 1. Immunizations Data Flow

In this data exchange solution, MiHIN brokers the transport of messages to and from trusted data sharing organizations (TDSOs), called participating organizations in the diagram below.

Automated Query of MCIR through MiHIN

Through MiHIN, an organization is able **to query MCIR** to retrieve electronic information containing a patient's immunization records, including an up-to-date list of immunizations received by the patient (history), as well as a list and schedule of vaccinations that the patient should receive in the future (forecast).



Figure 1. Data Flow of Immunization Query (QBP)

1. The participating sending organization sends MiHIN a HL7 QBP (Query by Parameter) message.
2. MiHIN routes the QBP to the State of Michigan Data Hub.
3. The Data Hub forwards to the Michigan Care Improvement Registry (MCIR) department.
4. MCIR will return a QBP message to MiHIN.
5. MiHIN will route the message back to the sending source.

MCIR Modernization

Transition to a Modern IIS Platform

MCIR is undergoing a platform upgrade, aiming to deliver a more modern, reliable, scalable, and user-friendly IIS for providers and partners.

Multi-Tier Hierarchy for Complex Organizations

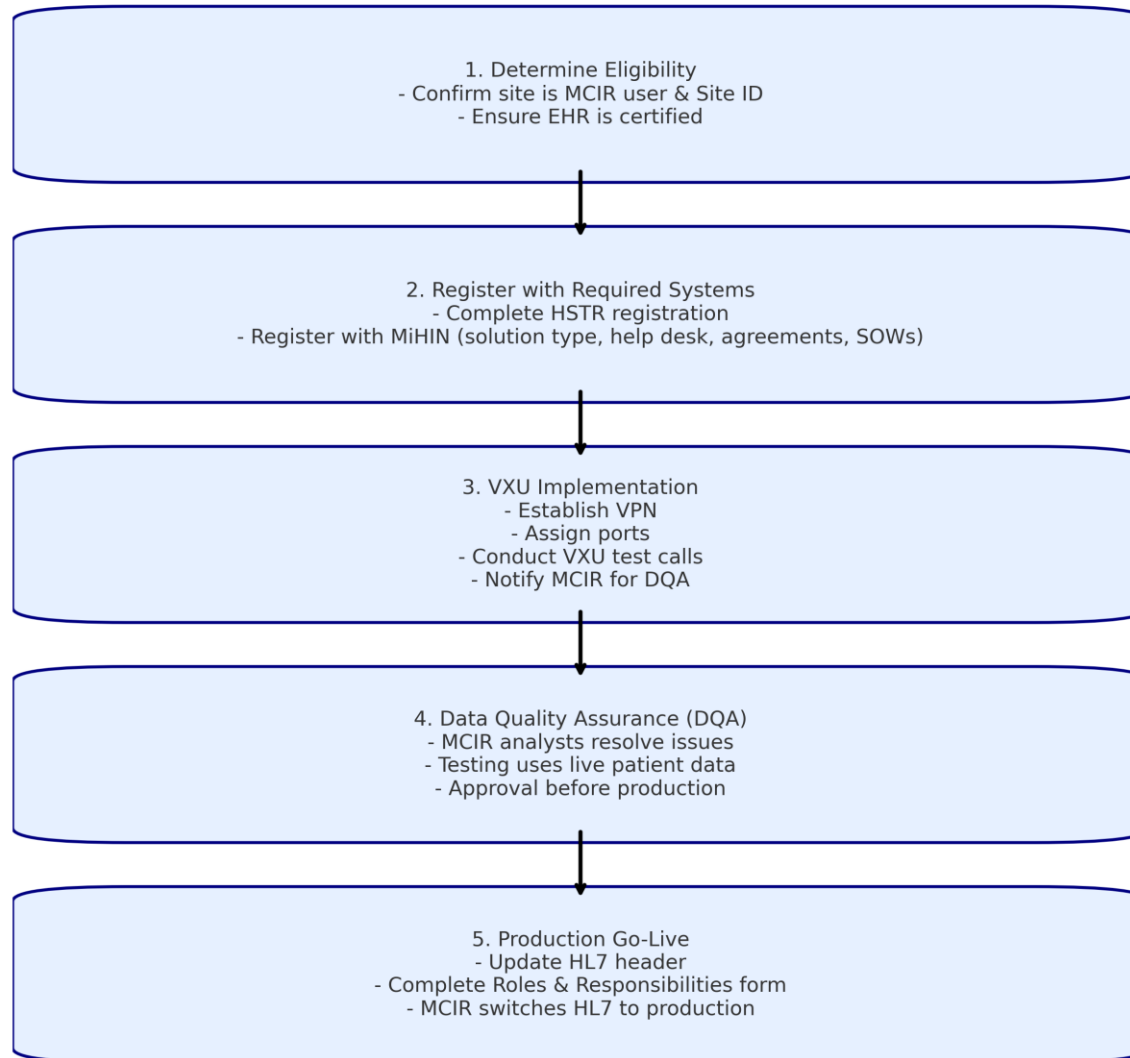
Providers operating within large health systems, pharmacies, or school districts will benefit from a multi-tier structure—enhancing site management, improving data integrity, simplifying user access, and facilitating accurate reporting across organizational tiers.

Built-In Vaccine Forecasting (Clinical Decision Support)

The new system offers native forecasting capabilities, automatically calculating due, overdue, and invalid vaccines per ACIP guidelines. This enables providers to make timely and precise immunization decisions at the point of care.

Focus Area	Key Impact
System Usability	Enhanced navigation, structure, and reporting across provider sites
Clinical Support	Automated vaccine forecasting enhances point-of-care decision-making
Transition Clarity	Clear phases and timeline reduce uncertainty around system changes
Engagement & Training	Ongoing support ensures providers are informed and prepared

MiHIN/MCIR: Steps to Connect



Resources

MCIR's Homepage

<https://mcir.org>

MiHIN's Immunizations Use Case Resources

<https://mihin.org/immunizations/>

<https://mihin.org/immunization-history-forecast-use-case/>

IIS and HIEs: An Environmental Scan of Factors Influencing Data Sharing and Opportunities to Advance Population Health

<https://www.astho.org/globalassets/report/immunization-information-systems-and-health-information-exchanges.pdf>



Questions?



THANK YOU

LET'S CONNECT



mihin.org



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