



# SNAPSHOTS

IMMUNIZATION REGISTRY NEWS *from the* AMERICAN IMMUNIZATION REGISTRY ASSOCIATION (AIRA)

## PRESIDENT'S REPORT

Dear IIS Partners,

As 2025 winds down, I'm trying to take time to reflect on the shared experiences, challenges, and progress made across the IIS community. This year has been marked by transition and transformation. The rollout of the new Immunization Cooperative Agreement introduced shifts in funding levels and expectations; rapid changes to ACIP recommendations required quick action, often without the benefit of timely communication; and the government shutdown added a layer of complexity in an already demanding environment.

Amid these challenges, there have also been milestones worth recognizing. The Public Health Infrastructure Grant (PHIG) has fueled meaningful investment in IIS modernization, helping jurisdictions strengthen systems, improve interoperability, and plan for the future. The IIS community also came together with a strong and unified voice to navigate the new Data Use Agreement Addendum, ensuring that the realities of our work were heard.

We are excited to welcome (back) three IIS directors to the AIRA Board:

- **Mary Woinarowicz**, North Dakota Health and Human Services
- **Iris Cheng**, New York City Department of Health and Mental Hygiene
- **Amanda (Mandy) Harris**, Nevada State Immunization Program

Their leadership and experience will be invaluable as we navigate the evolving landscape ahead.

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Welcome to *SnapShots*, the American Immunization Registry Association's newsletter about the progress, best practices, and accomplishments of immunization information systems (IIS) across the country. We invite you to share news about your IIS. Email us at [info@immregistries.org](mailto:info@immregistries.org) with information about a successful programmatic or technical innovation, major accomplishment, or milestone that your IIS has reached.



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## PRESIDENT'S REPORT

Despite the pace and pressure, the work of IIS continues, and so does the impact. Across the country, immunization programs and IIS remain a cornerstone of public health infrastructure, adapting to new vaccines, supporting data-driven decision making, and advancing equity in immunization access.

This edition features a spotlight on Virginia's successful modernization of its immunization information system (VIIS), which was completed on a compressed timeline and now aligns with CDC Functional Standards v4.1, improving interoperability and public health readiness. Updates to the IIS Requirements Traceability Matrix (RTM) are also covered, reflecting changes from the new Functional Standards v5.0 and offering clearer, more consistent guidance for system planning and implementation. In Tech Corner, readers will find a focused look at the OBX segment of HL7 messages, helping demystify how observation results are structured in IIS data exchange. The Education Exchange highlights a new on-demand course for pharmacies that explores the value of IIS connections.

Thank you for your continued dedication to improving IIS and public health. I hope you find time this season to rest, recharge, and celebrate with those closest to you. The year ahead will require continued collaboration, creativity, and care—for our systems, our teams, and ourselves.

Regards,

**Marie Hartel, MPH**

Program Director for the Tennessee Department of Health  
Vaccine-Preventable Disease and Immunization Program  
AIRA Board President

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# VIRGINIA'S IMMUNIZATION INFORMATION SYSTEM (VIIS) MODERNIZATION: A MODEL FOR PUBLIC HEALTH SUCCESS

## Introduction

The Virginia Department of Health (VDH) has successfully completed the modernization of its immunization information system, Virginia Immunization Information System (VIIS), delivering one of the most significant public health infrastructure upgrades in recent years.

This achievement strengthens Virginia's ability to protect residents from vaccine-preventable diseases while aligning VIIS with the national CDC Functional Standards (v4.1). The project was accomplished on a compressed timeline, with minimal downtime, and represents a major collaborative success between VDH's internal teams and its vendor partner, STCHealth.

## A critical public health infrastructure

For more than 15 years, VIIS served as the backbone for the commonwealth's immunization programs. It supported health care providers, pharmacies, schools, child care centers, and local health departments with timely immunization data to improve care delivery and prevent under- or over-vaccination. However, the legacy system had grown outdated, unable to fully align with emerging CDC standards or meet the demands of a rapidly increasing volume of vaccination data. Modernization became essential not only to maintain compliance but also to ensure readiness for future public health challenges.

## Alignment with national standards

The modernized VIIS is built to meet CDC's Immunization Information System (IIS) Functional Standards v4.1, which provide uniformity across jurisdictions in how immunization data are captured, exchanged, and applied. By achieving compliance, Virginia ensures that its IIS is interoperable with national systems and better equipped to respond to large-scale events such as disease outbreaks, pandemics, or vaccine recalls. This forward-looking design also allows for scalability, ensuring VIIS can accommodate both current needs and future public health demands.



# VIRGINIA'S IMMUNIZATION INFORMATION SYSTEM (VIIS) MODERNIZATION: A MODEL FOR PUBLIC HEALTH SUCCESS

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## The power of collaboration

A cornerstone of the project's success was the strong collaboration between VDH's Office of Epidemiology (OEpi), Office of Information Management (OIM), Division of Immunization (DOI), and the vendor, STCHealth. Each partner brought unique expertise.

- OEpi ensured alignment with policy and public health standards.
- OIM provided technical oversight, data security, and project governance.
- DOI supported providers with training, communication, and onboarding.
- STCHealth contributed vendor expertise, system enhancements, and implementation guidance.

This coordinated effort fostered a problem-solving environment where challenges were addressed rapidly and decisions were made with both technical precision and public health impact in mind.

## Implementation achievements

Despite the complexity of the undertaking, Virginia completed the system transition on a compressed schedule, with minimal downtime for users. More than 162 million immunization records and 13.6 million patient records were successfully migrated into the new system, ensuring continuity of care and accuracy of data. Over 11,000 active users—spanning health care providers, schools, and pharmacies—now have access to a modernized, streamlined system.

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A deliberate decision was made to go live early in the week, which allowed the project team to identify and resolve potential issues promptly while minimizing provider disruption. The result was a smooth rollout that demonstrated careful planning, strong vendor coordination, and disciplined execution.

## Benefits to public health

The benefits of the new VIIS extend far beyond compliance:

- **Improved interoperability, significant accelerated connectivity with other IIS:** By the end of 2025, Virginia will establish connections with 13 additional jurisdictions, including neighboring partners such as the District of Columbia, West Virginia, and Tennessee. These new connections will immediately enhance the accuracy and completeness of patient records, ensuring that providers across state borders have timely and reliable access to immunization data.



# VIRGINIA'S IMMUNIZATION INFORMATION SYSTEM (VIIS) MODERNIZATION: A MODEL FOR PUBLIC HEALTH SUCCESS

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- **Better provider support:** Enhanced tools streamline provider onboarding, ordering, and reporting processes, saving time for clinical staff.
- **Equity and outreach:** Improved access to population-level immunization data strengthens the commonwealth's ability to address gaps in coverage and support equitable vaccine distribution.
- **Preparedness and responsiveness:** A modernized infrastructure allows for rapid system adaptation during outbreaks, ensuring Virginia is ready for emerging public health needs.

## Lessons in efficiency

Completing such a large-scale transition in under a year underscores Virginia's ability to mobilize quickly and effectively. The project demonstrates that, with clear goals, strong governance, and deep collaboration between public health programs, IT, and vendor partners, significant modernization can be achieved on time and within available resources.

## Looking forward

The modernization of VIIS is not an endpoint but a foundation for future innovation. With this upgrade, Virginia is positioned to add enhancements such as expanded analytics, improved reporting for schools and child care programs, and advanced features for providers. These investments will ensure that the commonwealth continues to protect residents and remain a leader in public health informatics.

## Conclusion

Virginia's successful VIIS modernization reflects what is possible when strong partnerships, clear goals, and a commitment to public health converge. By modernizing its immunization infrastructure, VDH has ensured that providers, schools, and public health officials can rely on accurate, comprehensive, and timely immunization data to improve care and protect communities. The short implementation timeline and seamless transition underscore the dedication of the VDH team and its collaboration with STCHealth.

This achievement not only benefits the residents of Virginia today but also sets the stage for a stronger, more resilient public health system prepared to meet the challenges of tomorrow.

*– Submitted by Christy Gray, MPH, CHES, CHTS-CP, Director, Division of Immunization, Office of Epidemiology, Virginia Department of Health*



## UPDATES TO THE IIS REQUIREMENTS TRACEABILITY MATRIX

Earlier this year, PHII refreshed the Requirements Traceability Matrix (RTM) in response to the most recent update to the [IIS Functional Standards](#) (FS).

PHII led a workgroup, including community input, to comprehensively review the updated FS version 5.0, assessing its impact on the RTM and ensuring accurate categorization, completeness, and logical flow.

**PHII led a workgroup, including community input, to comprehensively review the updated FS version 5.0.**

The updated RTM continues to reflect the IIS requirements within the function tabs, along with their various capabilities. Similarly, the non-functional requirements continue to convey technical requirements along with their attributes and sub-characteristics. Updates to the requirements primarily focused on clarifications to improve understanding and to ensure consistency of language across the RTM and FS in describing IIS needs. The requirements updated or added within each tab of the RTM are noted in the status column.

In revising the RTM, the crosswalk tab was also significantly updated. In addition to mapping the FS guidance statements to the RTM, FS guidance statements were also mapped to the RTM functional and non-functional tabs, as applicable, to provide even more benefits to users.

The updated RTM can be accessed on the [PHII IIS Learning Hub](#) in the IIS Operations Tools section.

Any questions or comments on IIS topics can be directed to [iis@phii.org](mailto:iis@phii.org).

*- Submitted by Lisa Jones, Communications Manager, Public Health Informatics Institute*



**TECH CORNER**

PROVIDING PUBLIC HEALTH EXPERTS WITH PRAGMATIC EXPLANATIONS OF TECHNICAL CONCEPTS

# HL7 DECODED: WHAT OBX SEGMENTS DO IN IMMUNIZATION MESSAGING

## Background

Behind every immunization record shared between systems is an HL7 message, a standardized format that helps different technologies exchange data accurately. Each part of an HL7 message, called a segment, has its own role. For example, one segment includes patient information, and another lists vaccination details.

The Observation Result (OBX) segment in HL7 messages can be used for different purposes, depending on the context of the HL7 message. It can carry extra details about a vaccine, like how the vaccine was funded, whether the patient was eligible for a specific program, whether a dose was valid, or what vaccines are due next.

Both types of messages used in immunization data exchange, VXU (vaccination update) and RSP (response), rely on OBX segments to share this kind of information between electronic health systems and immunization information systems (IIS). Using Logical Observation Identifiers Names and Codes (LOINC) — a national standard for labeling types of information — within OBX segments ensures that systems interpret the data in the same way, so that vaccination history and recommendations are accurately reflected, no matter where they originate.

## Key Points

- OBX segments help fill in important details that make immunization records more complete and consistent.
- Standard LOINC codes help systems “speak the same language” across systems.
- Following national standards for how OBX segments are used supports better two-way data exchange and more accurate vaccine forecasting.

### TECHNICAL RESOURCES

[HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5](#)

[Guidance on Detailed Message Structure and the Use of Specific LOINC Codes](#)

[CDS in RSP Alignment Technical Advisory Bulletin](#)

[HL7 Immunization User Group](#)

[Interoperability Course Series](#)

**OBX segments help fill in important details that make immunization records more complete and consistent.**

– Submitted by **Shelby Sandstrom**, Technical Analyst, American Immunization Registry Association (AIRA)



# EDUCATION EXCHANGE

Welcome to the Education Exchange, where we highlight valuable educational offerings and resources to support learning and professional development within our community.

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## PHARMACIES AND IIS: MAKING THE CONNECTION

In October, AIRA launched a new on-demand course for pharmacies. This course, made possible by an education grant from Pfizer, introduces pharmacies to the importance of immunization information systems (IIS) and explores how data exchange supports patient care, public health, and pharmacy operations. Learners will gain insight into why connecting to the IIS matters, what the connection process involves, and how to make the most of IIS functionality once connected.

[▶ LEARN MORE](#)