



Office of the National Coordinator  
for Health Information Technology

# Office of Technology – Updates to the HITAC

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# Agenda

1. Introduction to Office of Technology (OTECH)
2. Certification
3. Standards
4. Coordination





# Office of Technology - Immediate Office

Avinash Shanbhag

## Technical Strategy and Analysis

Mera Choi

### Strategic Initiatives

Anastasia Perchem

### Data Analysis

Wesley Barker

## Standards

Matthew Rahn

### Terminology, Content and Delivery

Carmela Couderc

### Care Coordination & Content

Elizabeth Turi

## Certification & Testing

Robert Anthony

### Program Administration

Anthony Myers

### Tools and Testing

Ashley Hain

## Networks and Scalability

Chris Muir

### Infrastructure

Brett Andriesen

### Alignment

Stephanie Garcia

# EHR Certification And Adoption

- 900+ active certified EHR products
- 97% of hospitals and 90% of ambulatory providers now use EHRs
- Over 97% of hospital patients have electronic access to their medical records



## FY23 ONC Health IT Certification Activities

- Successfully managed implementation of Cures Update criteria, including the update of **98%** of all eligible Health IT Modules to the standardized API criterion, with minimal conformance disruption
- Completed first cycle of Real-World Testing with results reporting in March 2023, maintaining **100%** compliance rate
- Continued program support of SVAP with **45** developers taking advantage of the policy





# Support for Test Platform used by Health IT Developers



Inferno Framework is a rigorous and extensible testing development framework for HL7<sup>®</sup> FHIR<sup>®</sup> and beyond.

This is an instance of Inferno hosted by ONC for purposes of testing for the ONC Health IT Certification Program and to support community-driven health IT standards development projects. You can build your own tests using Inferno Framework and host your own local instance of Inferno by following the instructions in "Inferno Development Framework" below.

**ANNOUNCEMENTS**

9/13/2023 - Join us at the Inferno tech talk on the second Wednesday of every month at 1pm ET [here!](#)

## Edge Testing Tool

The Edge Testing Tool is a collection of testing utilities created to validate the requirements of the 2015 Edition and the 2015 Edition Cures Update Health IT Certification Program. The Edge Testing Tool was originally designed to test only network "Edge" capabilities, but over time assumed HISP and other transport testing abilities, along with C-CDA and content validation utilities. The Edge Testing Tool software is open source and available for download. Note: 2014 Edition tools removed from ETT on the Effective Date of the ONC Cures Act Final Rule (June 30th).

|                                      |                                  |                      |
|--------------------------------------|----------------------------------|----------------------|
| Direct Testing                       | Message Validators               | Edge Testing         |
| HISP Testing & Delivery Notification | 2015 Edition Testing by Criteria | Surveillance Testing |

Welcome to the NIST HL7 V2 Resource Portal!

NIST provides a number of tools and utilities in support of the HL7 v2 supports testing activities such as automated message generation an incorporated into 3rd party applications and testing environments. Add profiles). This site provides access to the NIST HL7 v2 Toolkit.

**TOOLS**

Explore NIST HL7 V2 Tools here:

- ▶ Testing Tools
- ▶ Profile Generation
- ▶ Test Case Generation
- ▶ Web Services

## HIMSS Immunization Integration Test Suite 1.9.12

powered by NIST

Home 1 SOAP Envelope 2 SOAP Connectivity 3 HL7 Context-free 4 HL7 Context-based Documentati

Welcome to the HIMSS Immunization Integration Test Suite!

**Supporting**

The NIST Immunization Test Suite supports a broad range of testing in support of the Immunization Community, including transport, messaging (content), and functional.

- CDC SOAP Validation
- HL7 V2.5.1 Immunization Message Implementation Guide Release 1.5
- EHR and IIS Functional Capabilities (2016)
- 2015 ONC Health IT Certification
- HIMSS Immunization Integration Certification

**2015 ONC Health IT Certification ▶ Start ONC Testing**

The NIST Immunization Test Suite is a test tool used for certifying ONC 2015 Edition Health IT Modules. The NIST capability used for ONC Certification can be accessed by navigating to the ONC 2015 Test Plan via the HL7 Context-based option. The ONC 2015 Test Plan is used to certify Modules for the 170.315(f)(1) Transmission to Immunization Registries ONC criterion.

# United States Core Data for Interoperability (USCDI) : the “minimum dataset” of the health care delivery system

- USCDI v1 is required by Cures Act Final Rule
- USCDI v2 added SOGI and SDOH
- USCDI v3 focused on factors promoting equity, reducing disparities and supporting public health data interoperability.
- USCDI v4 added Alcohol and Substance Use Assessments, Physical Activity, Treatment Intervention and Care Experience Preferences, and Medication Adherence data elements

## USCDI v4 Summary of Data Classes and Data Elements

### Allergies and Intolerances

- Substance (Medication)
- Substance (Drug Class)
- Substance (Non-Medication)
- Reaction

### Care Team Member(s)

- Care Team Member Name
- Care Team Member Identifier
- Care Team Member Role
- Care Team Member Location
- Care Team Member Telecom

### Clinical Notes

- Consultation Note
- Discharge Summary Note
- History & Physical
- Procedure Note
- Progress Note

### Clinical Tests

- Clinical Test
- Clinical Test Result/Report

### Diagnostic Imaging

- Diagnostic Imaging Test
- Diagnostic Imaging Report

### Encounter Information

- Encounter Type
- Encounter Identifier
- Encounter Diagnosis
- Encounter Time
- Encounter Location
- Encounter Disposition

### Facility Information

- Facility Identifier
- Facility Type
- Facility Name

### Goals and Preferences

- Patient Goals
- SDOH Goals
- Treatment Intervention Preference
- Care Experience Preference

### Health Insurance Information

- Coverage Status
- Coverage Type
- Relationship to Subscriber
- Member Identifier
- Subscriber Identifier
- Group Identifier
- Payer Identifier

### Health Status Assessment

- Health Concerns
- Functional Status
- Disability Status
- Mental/Cognitive Status
- Pregnancy Status
- Alcohol Use
- Substance Use
- Physical Activity
- SDOH Assessment
- Smoking Status

### Immunizations

- Immunizations

### Laboratory

- Tests
- Values/Results
- Specimen Type
- Result Status
- Result Unit of Measure
- Result Reference Range
- Result Interpretation
- Specimen Source Site
- Specimen Identifier
- Specimen Condition Acceptability

### Medical Devices

- Unique Device Identifier - Implantable

### Medications

- Medications
- Dose
- Dose Unit of Measure
- Indication
- Fill Status
- Medication Instructions
- Medication Adherence

### Patient Demographics/ Information

- First Name
- Last Name
- Middle Name (Including middle initial)
- Name Suffix
- Previous Name
- Date of Birth
- Date of Death
- Race
- Ethnicity
- Tribal Affiliation

### Patient Demographics (cont.)

- Sex
- Sexual Orientation
- Gender Identity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address
- Related Person's Name
- Relationship Type
- Occupation
- Occupation Industry

### Patient Summary and Plan

- Assessment and Plan of Treatment

### Problems

- Problems
- SDOH Problems/Health Concerns
- Date of Diagnosis
- Date of Resolution

### Procedures

- Procedures
- Performance Time
- SDOH Interventions
- Reason for Referral

### Provenance

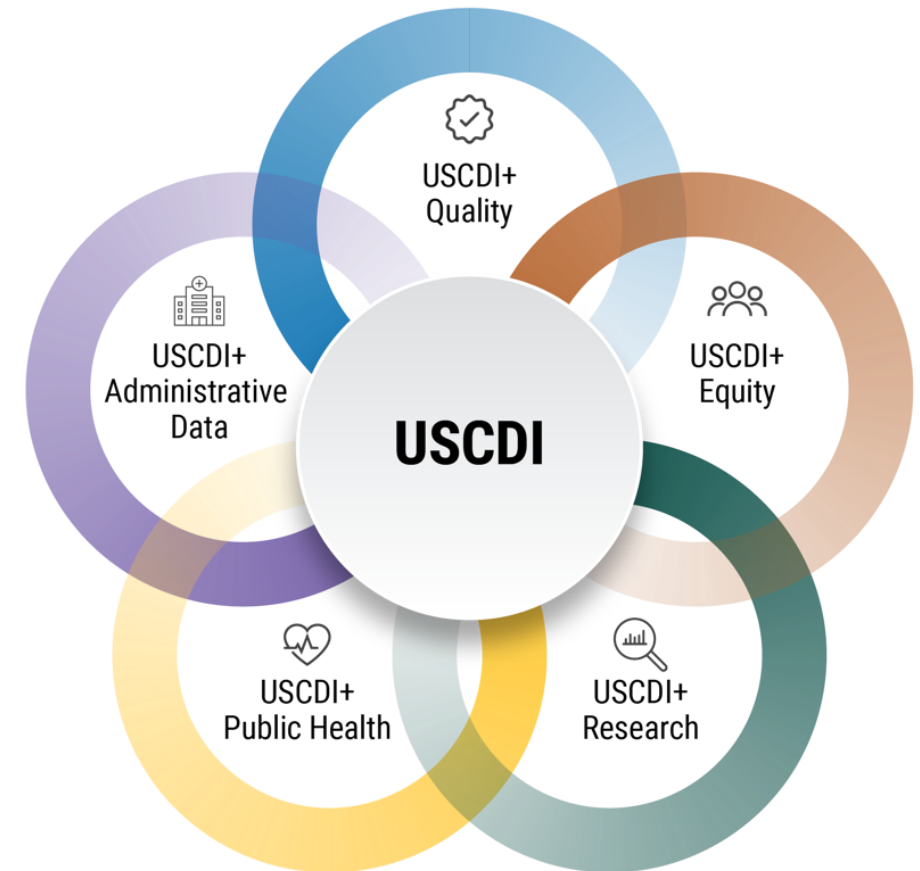
- Author Time Stamp
- Author Organization

### Vital Signs

- Systolic Blood Pressure
- Diastolic Blood Pressure
- Average Blood Pressure
- Heart Rate
- Respiratory Rate
- Body Temperature
- Body Height
- Body Weight
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 years)
- Weight-for-length Percentile (Birth - 24 Months)
- Head Occipital-frontal Circumference Percentile (Birth- 36 Months)

## USCDI+: Extending Beyond the USCDI

- ONC's USCDI+ initiative helps government and industry partners build on USCDI to support specific program needs.
- Seeks to leverage programs and authorities across HHS to drive adoption.
- USCDI+ for Quality Measurement and Public Health kicked off with CDC, CMS & HRSA.





## HRSA UDS+

- Establish USCDI+ Quality dataset to support UDS reporting and align with CMS requirements
- Design, Test, Pilot, and Deploy HRSA's FHIR infrastructure for UDS+ Reporting
- Collaborate with HRSA to reduce reporting burden, improve data quality and outcomes for health centers



# Networks

## Trusted Exchange Framework and Common Agreement (TEFCA)

- Publish Final Common Agreement (CA) v2 and the Qualified Health Information Network (QHIN) Technical Framework (QTF) v2 to include a TEFCA Facilitated FHIR® Implementation Guide
- Continue to support QHIN applications, onboarding process, and transition to become fully operational / go-live
- Continue to support the expansion of exchange mechanisms to include FHIR® within TEFCA

# Health IT Standards Coordination



- **HHS Health IT Alignment policy**
  - Provide technical assistance to inform the coordinated procurement and use of health IT within the Department of Health and Human Services
- **Cancer Moonshot**
  - Coordinating the use of health IT standard, including Childhood Cancer – Data Integration for Research, Education, Care and Clinical Trials (CC-DIRECT) public-private partnership
- **Patient-Centered Outcomes Research Trust Fund (PCOR TF)**
  - Contribute to the department's plan of developing data capacity and infrastructure that is used by PCOR researchers
- **Federal FHIR Roadmap**
  - Coordination and alignment of FHIR standards activities across federal agencies

# Leading Edge Acceleration Project (LEAP) - 2023



## Area of Interest 1

Goal: Exploring the use of advanced FHIR capabilities

- Lead: HEALTHeLink
- Project Dates: Planned completion in 2025
- Outcomes:
  - This project will leverage FHIR for advance care planning use cases to improve patient care.

## Area of Interest 2

- Goal: Identifying data quality improvements for USCDI data elements
- Lead: Boston Children's Hospital
- Project Dates: Planned completion in 2025
- Outcomes:
  - This project will develop an open-source platform that enables easy access to high-quality, standardized healthcare data with a focus on USCDI in FHIR format.

# Summary



- **ONC Certification Program**

- Successfully managed implementation of Cures Update criteria for 98% of eligible Health IT modules and completed first cycle of Real-World Testing with 100% compliance.

- **Data and Network Standards**

- Released USCDI v4 in July 2023, and published Approved Standards for 2023 as part of Standards Version Advancement Process (SVAP). Over 45 developers have already taken advantage of the SVAP policy.
- Currently working on publishing the Qualified Health Information Network (QHIN) Technical Framework (QTF) v2 to include FHIR

- **Coordination**

- USCDI+ program has been established for several domains including Quality, Public Health, Cancer, Behavioral Health, and Maternal Health.

Three thick, parallel blue lines slanting upwards from the bottom left towards the top right, positioned to the left of the yellow box.

# Discussion



Office of the National Coordinator  
for Health Information Technology

# Contact ONC



**Phone:** 202-690-7151



**Health IT Feedback Form:**

<https://www.healthit.gov/form/healthit-feedback-form>



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