What Don’t You Know About Your Own Data?

April 22, 2025

Didi Davis, VP, Informatics,
Conformance & Interoperability

eHealth Exchange™

Agenda

- Background: eHealth Exchange Content Testing Program - Data Quality Improvement Program
- Data Quality Improvement Content Testing Program
- The Sequoia Project's Data Usability
- Data Usability
  - Interoperability Matters: Data Usability Workgroup
  - Data Usability Implementation Guide V2.0
  - Data Usability Taking Root Initiative
- Hub ITP Content Testing Tooling Overview

Background: Data Quality Improvement Content Testing Program

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eHealth Exchange Testing Program Overview

eHealth Exchange Participant Testing Program: This process verifies that Systems used by Applicants and Participants comply with the Specifications and satisfy the requirements established by the DURSA.

eHealth Exchange Validated Product Program: This process verifies that the Systems developed by Vendors that may be used by Applicants and Participants, comply with the Specifications prior to being implemented in the Applicant's and / or Participant's production environment. The objective is to establish built-in conformance and interoperability into these Systems to minimize variability in System compliance in production.

eHealth Exchange Content Testing Program: documentation, testing methodology, and test data that will be required for interoperability testing to enable the exchange of clinical content between eHealth Exchange Participants.

Testing Continuum & Interoperability Testing Tooling (ITP)

- The community has developed a large body of test cases, data, and validation tools
- Designed to ensure interoperability and assure compliance and minimal implementation
- Collaboration on the development of testing tools with IHE International, IHE Catalyst, and NIST to support eHealth Exchange validation testing programs
- Battle-hardened by years of operations and productized into the new

Validated
eHealth Exchange™

IHE Integrating the Healthcare Enterprise

IHE CATALYST

NIST National Institute of Standards and Technology U.S. Department of Commerce

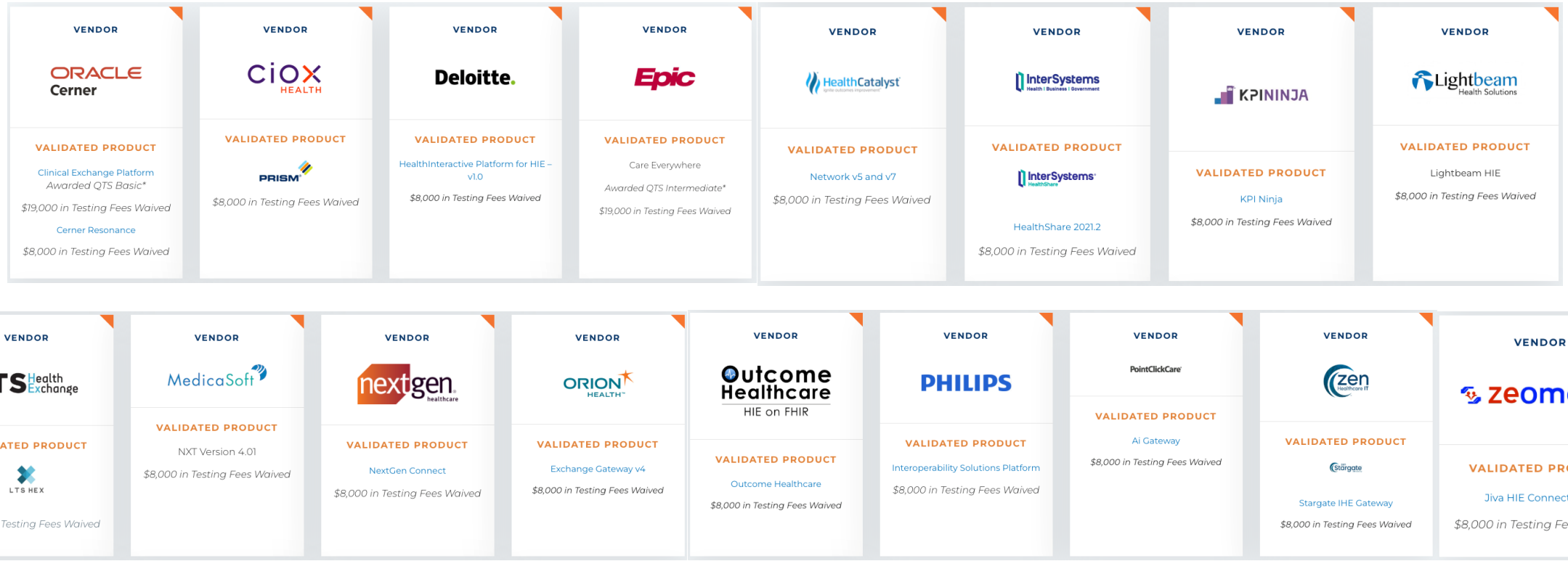
MITRE

eHealth Exchange Product Testing Program tests conformance of Transport, Security and Content

- Developed to provide a high degree of assurance that systems conform to the eHealth Exchange Performance Specifications and underlying standards and interoperate with other systems without error or further customization, while remaining conformant.
- **This will significantly reduce the level of effort and cost to any organization that onboards utilizing an eHealth Exchange Validated product.**
- Validated Products receive the eHealth Exchange Validated Products Seal

eHealth Exchange™

Validated Product Vendors:



~25 additional technologies are also widely used by the eHealth Exchange Participants

Industry-wide Content Pain Points

Optionality:
More than one way to do things and inconsistent implementations across vendors

Terminology:
Inconsistent terminology usage

Specification Ambiguity
Standards may be unclear and include multiple layers of specifications

Complexity:
The C-CDA standard is difficult to understand and consume and is lacking in clearly documented examples

Content Testing Background

- Launched Content Testing Program – February 2018
  - Testing Conformance to Meaningful Use 2011, 2014 and 2015 Edition Requirements
- CC Announced deprecation of Meaningful Use 2011 and 2014 for New Clinical Documents 12/31/23
  - MU 2011 Edition - HL7 C32
  - MU 2014 Edition – HL7 C-CDA R1.1
- Data Sources to create New Clinical Content conformant to MU 2015 Edition – HL7 C-CDA R2.1 MUST conform to the Common Clinical Data Set (CCDS)

Process for Creating Consistent & Robust HL7 C-CDAs

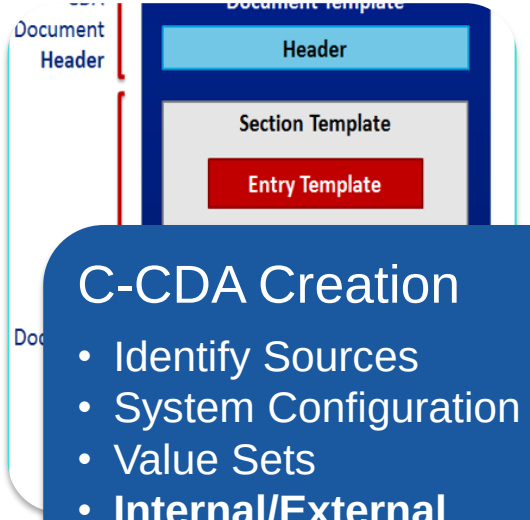
Content Priorities

- Clinicians
- Business Office
- Others

Data Mapping	SUT	HL7 C-CDA CCD	
Patient Gender	0	UN	"Administrative Gender" value
	1 (="Male")	M	
	2 (="Female")	F	
"Continuing"	1 (-"Yes")	active	"Problem Observation"
	2 (="No")	inactive	

Data Mapping

- SDO Requirements
- Vendor specific data model overlay
- Semantic Interoperability Transformation



C-CDA Creation

- Identify Sources
- System Configuration
- Value Sets
- **Internal/External transformation**

- HL7 C-CDA R2.1 represents majority of documents tested
- SME help to interpret errors is being provided to Participants and Vendor systems
- Feedback being provided to HL7 to improve the specifications & VSAC content

eHealth Exchange Market Differentiator

High Quality Data

We are the only nationwide network whose participants must pass rigorous content validation tests. This means all data exchanged is truly interoperable and usable.

97% of eHealth Exchange Participants have passed content testing requirements in the eHealth Exchange Validation Plan.

Those who have not yet passed are highlighted on the Participants page of website with the following note:

NOTES:

Content Not Validated

https://ehealthexchange.org/participants/

HL7 C-CDA R2.1 Meaningful Use to USCDI v1.0 Background

- Meaningful Use 2015 Edition – Common Clinical Data Set (CCDS) – All but 12 Participants are Compliant today
  - CCDS includes 15 of the 18 data classes identified in USCDI v1.0
  - https://www.healthit.gov/sites/default/files/ccds_reference_document_v1_1.pdf
- 21st Century Cures Act transitions from CCDS to adopt USCDI v1.0
  - [see also 85 FR 25941]
- USCDI V1.0 Added/Expanded these 3 Data Classes

Patient Demographics
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address

Clinical Notes
- Consultation Note
- Discharge Summary Note
- History & Physical
- Imaging Narrative
- Laboratory Report Narrative
- Pathology Report Narrative
- Procedure Note
- Progress Note

Provenance
- Author Time Stamp
- Author Organization

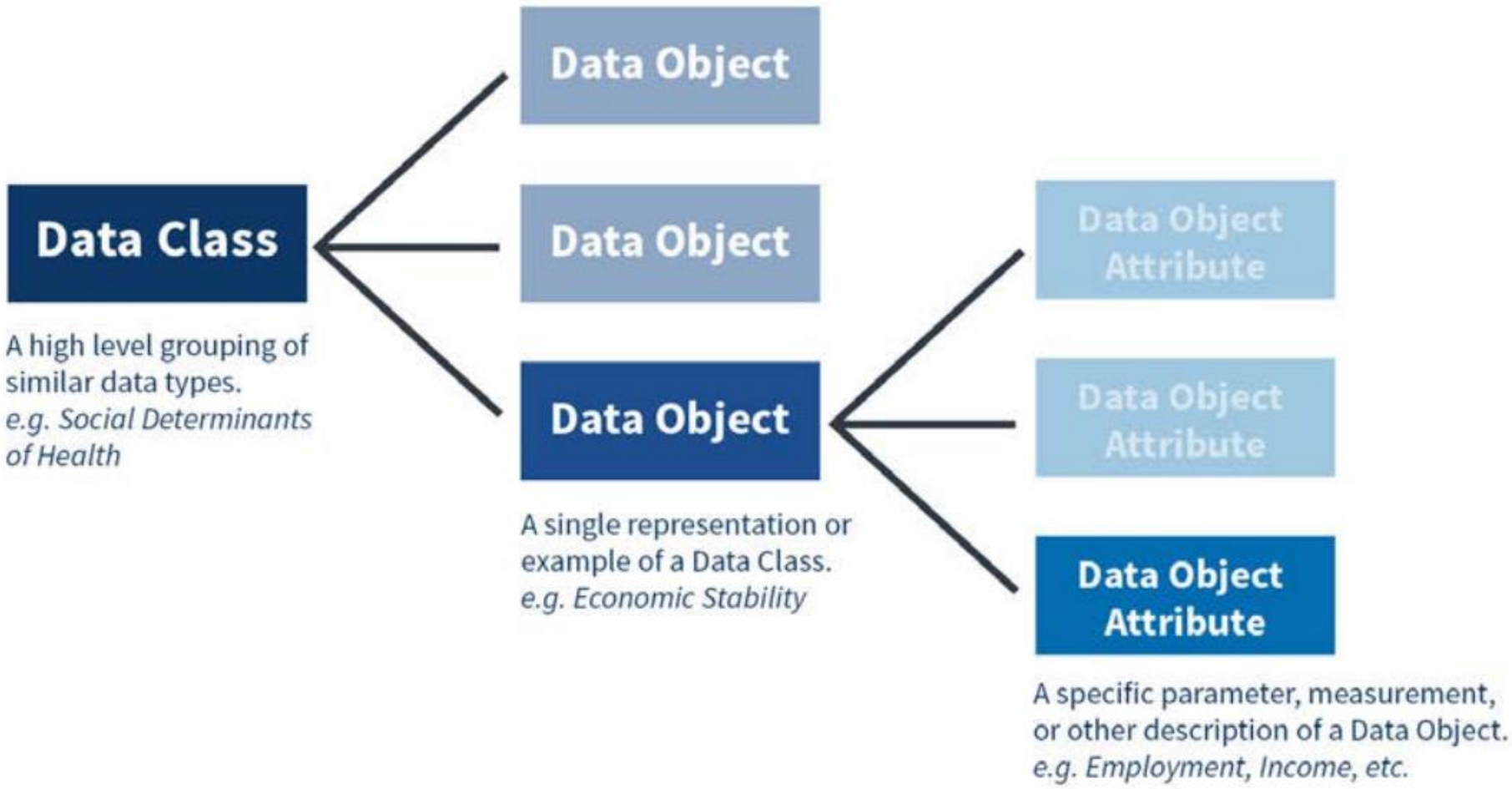
What is the USCDI

- The US Core Data for Interoperability, sets a minimal base standard for data elements that must be exchanged by compliant health information technology systems using specific, interoperable value sets.
- Allows receivers of clinical and administrative patient data to understand those data as intended by the sender of those data with no special effort.
- Not specific to a setting of care, a healthcare specialty, or a specific category of health IT user.
- Not specific to a particular content exchange standard (e.g., Health Level Seven International (HL7®) Consolidated Clinical Document Architecture (C-CDA), HL7® Fast Healthcare Interoperability Resources (FHIR®), HL7® V2, and NCPDP SCRIPT).
- Applies to the certification of health IT and certified health IT's ability to send and receive the Data Elements defined by USCDI. [see also 85 FR 25670], [see also 85 FR 25804], [see also 85 FR 25676]

USCDI Content Requirements – TEFCA Impact

- Makes USCDI V1 mandatory for organizations operating under TEFCA.
- Data created or captured and sent on or after December 31, 2024 SHOULD conform to data classes, data elements, and vocabulary requirements in USCDI V1 or later.
- Legacy data captured and sent prior to December 31, 2024 MAY conform to USCDI data classes, data elements, and vocabulary requirements in USCDI V1 or later. a.
- As of January 1st, 2026, all information sent MUST conform to USCDI V3 data classes, data elements, and vocabulary requirements.

Hierarchy of Data Class



Clinical Data Quality and Standards Feedback Loop

- eHealth Exchange drives HL7 Specification Improvements Yearly since 2017
- HL7 C-CDA R2.1 Specification
  - Testing Tools Launched in 2018 with clean published specs
  - Pushed for two 2018 Errata Publications (May, December)
  - Errata continues to be contributed to HL7 as spec issues are identified
- Value Sets 

  - HL7 published Value Sets for industry for first time in 2018
  - Yearly Cadence for Value Set Updates
- ASTP/ONC published Draft USCDI v6 on January 14, 2025, and proposes to add 6 new data elements. Please read the **Draft USCDI v6 standard document** and the **ASTP Standards Bulletin 25-1** for details. ASTP/ONC is accepting comments here through May 12, 2025, at 11:59 PM ET.

Establishing Expiration Timelines for USCDI Versions over time

- Goal is to align and leverage regulations to push adoption
- ASTP released the Health Data, Technology and Interoperability (HTI-1) Final Rule that references USCDI V3 as required by January 1, 2026
- Health IT developers with a Health IT Module certified to any revised certification criterion must update their Health IT Modules and provide such update to their customers in accordance with the dates identified for each revised criterion and/or standard included in § 170.315.
  - C-CDA Companion Guide Release 4.1
  - US Core Implementation Guide 6.1.0
  - “Minimum Standards” Code Sets Updates (SNOMED, RxNorm, LOINC, NDC, etc._

USCDI Version 3 – Required in Base EHRs

USCDI

Allergies and Intolerances
- Substance (Medication)
- Substance (Drug Class)
- Reaction

Assessment and Plan of Treatment
- Assessment and Plan of Treatment
- SDOH Assessment

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 Diagnosis
- Encounter Time
- Encounter Location
- Encounter Disposition

Goals
- Patient Goals
- SDOH Goals

Health Insurance Information ★
- Coverage Status ★
- Coverage Type ★
- Relationship to Subscriber ★
- Member Identifier ★
- Subscriber Identifier ★
- Group Number ★
- Payer Identifier ★

Health Status/ Assessments
- Health Concerns →
- Functional Status ★
- Disability Status ★
- Mental / Cognitive Status ★
- Pregnancy Status ★
- Smoking Status →

Immunizations
- Immunizations

Laboratory
- Test
- Values/Results
- Specimen Type ★
- Result Status ★

Medications
- Medications
- Dose ★
- Dose Unit of Measure ★
- Indication ★
- Fill Status ★

Patient Demographics/ Information
- First Name
- Last Name
- Middle Name (Including middle initial)
- Suffix
- Previous Name
- Date of Birth
- Date of Death ★
- Race
- Ethnicity
- Tribal Affiliation ★
- Sex
- Sexual Orientation
- Gender Identity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address
- Related Person's Name ★
- Related Person's Relationship ★
- Occupation ★
- Occupation Industry ★

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

Procedures
- Procedures
- SDOH Interventions
- Reason for Referral ★

Provenance
- Author Organization
- Author Time Stamp

Unique Device Identifier(s) for a Patient's Implantable Device(s)
- Unique Device Identifier(s) for a patient's implantable device(s)

Vital Signs
- Systolic blood pressure
- Diastolic 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)

★ New Data Classes and Elements → Data Element Reclassified

eHealth Exchange

Content Testing Frequently Asked Questions

https://ehealthexchange.org/testing-program/content-testing/

Sequoia Interoperability Testing Platform (ITP) Access

Is there a cost to access the Sequoia ITP Content Testing Validators?

- The Content Testing Tools are free for use by eHealth Exchange Participants and their vendors.
- The Content Testing Tools are free for use by Sequoia Project Member Organizations.
- If your organization does not meet either of the two criteria above, a yearly subscription can be obtained. Please send an email to testing@sequoiaproject.org for more information.

How do I get access to the Sequoia Interoperability Testing Platform (ITP)?

I have had a staff member who previously conducted our content testing leave our organization. How do I request for users to be removed from the Sequoia ITP?

I have lost my password for the Sequoia ITP, how do I reset it?

What is the URL for the Content Testing Tooling component of the ITP?

Documentation & Value Sets

How do I gain access to the eHealth Exchange Wiki to access the content testing documentation?

I have lost my record of the permanent link references my organization submitted. How can I retrieve the permanent links previously provided?

Where can we find the value sets or codes used by the content testing tooling?

Other

My organization has implemented a Meaningful Use certified product. Why does the Sequoia ITP show errors that the Edge Testing Tool (ETT) and/or the Standards Implementation & Testing Environment (SITE) does not.

I am concerned that this initiative is taking quite a bit of time from HIE and EHR vendors, why do I need to expend the resource time to remediate issues identified?

My testing report is only providing information for the first 50 errors and I have more than that according to my testing summary. How do I get information for all the errors to review?

Process

How do I submit my results once testing is completed?

The Content Testing Tooling was updated, what do I need to do to rescore my testing previously submitted?

We have completed our revalidation with the tooling update, do we need to officially resubmit our results, or does Sequoia watch for the results via the tool?

How will I know which participants have successfully passed testing?

How long will we have to remediate issues found in the content testing program?

What happens if my vendor will not be able to remediate issues by the April 30, 2021 date?

What is meant by a remediation plan?

Can I use PHI in the content testing submitted?

How do I report defects found within the tooling?

Where can I find known issues that may have already been reported for the Sequoia ITP?

What is required to be remediated? Are only Errors required? What about warnings?

I tested my content against the CDA R2 validator, why did you not accept this for formal testing?

HL7 Value Set Updates Published Annually

The National Library of Medicine announced the Value Set Authority Center (VSAC) publication and downloadable files of the HL7 Consolidated Clinical Document Architecture (C-CDA) R2.1 value sets, authored by the HL7 Terminology group

- See the FAQ section here in Documentation and Value Sets section for more information on ways to access & download the value sets

Where can we find the value sets or codes used by the content testing tooling?

- You can find all the value sets available here: https://vsac.nlm.nih.gov/. This site does require a UMLS license/account.
- To obtain a UMLS license you need to reference the screenshot below to request an account:
- Watch this video to learn how to download value sets.

Data Usability

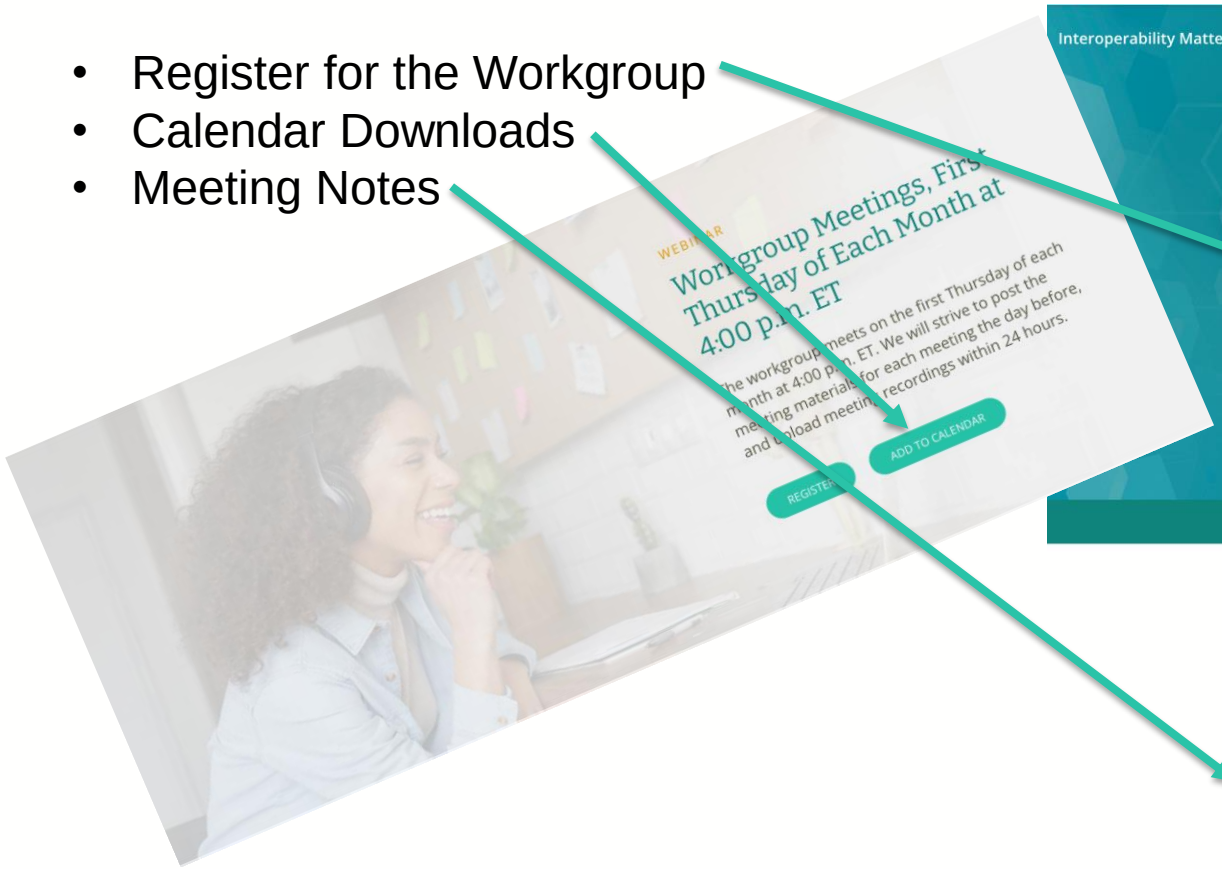
Interoperability Matters: Data Usability Workgroup

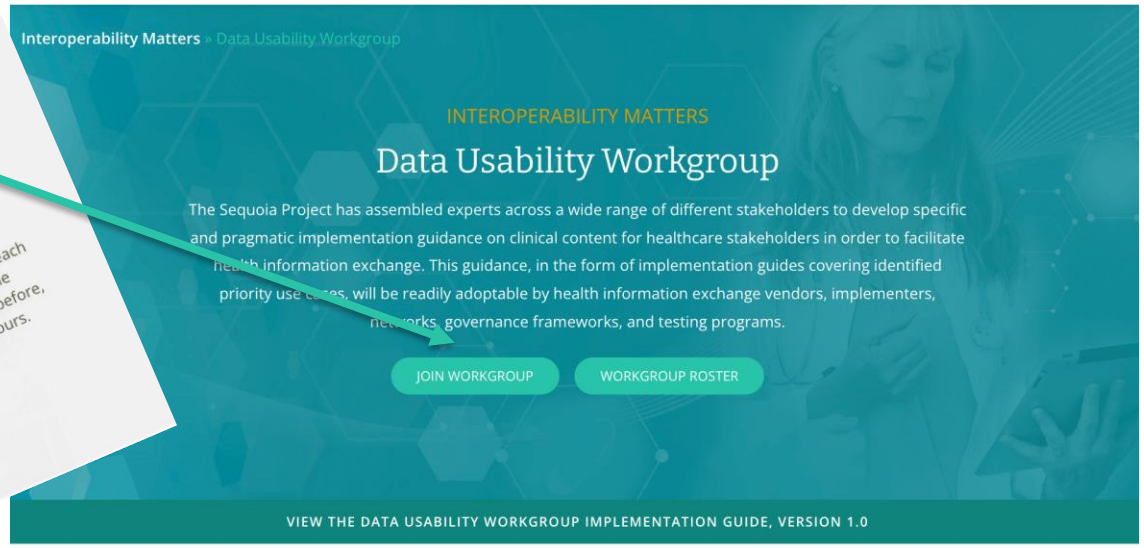
Data Usability Taking Root Initiative

eHealth Exchange™

Website, Meeting and Workgroup Logistics

- Register for the Workgroup
- Calendar Downloads
- Meeting Notes





https://sequoiaproject.org/interoperability-matters/data-usability-workgroup/
Interopmatters@sequoiaproject.org

Meeting Logistics and Timeline

- In 2025, the Data Usability Workgroup will begin a quarterly meeting cadence on the following dates:
  - ~~**February 6**~~
  - ~~**April 3**~~
  - **August 7**
  - **October 2**

- This will allow industry to familiarize themselves with the new V2.0 before we get too ahead of ourselves for the expected 18-month adoption expectations.

- Calendar invites are available here for download

Interoperability MATTERS
an initiative of The Sequoia Project

Data Usability Implementation Guide V2.0

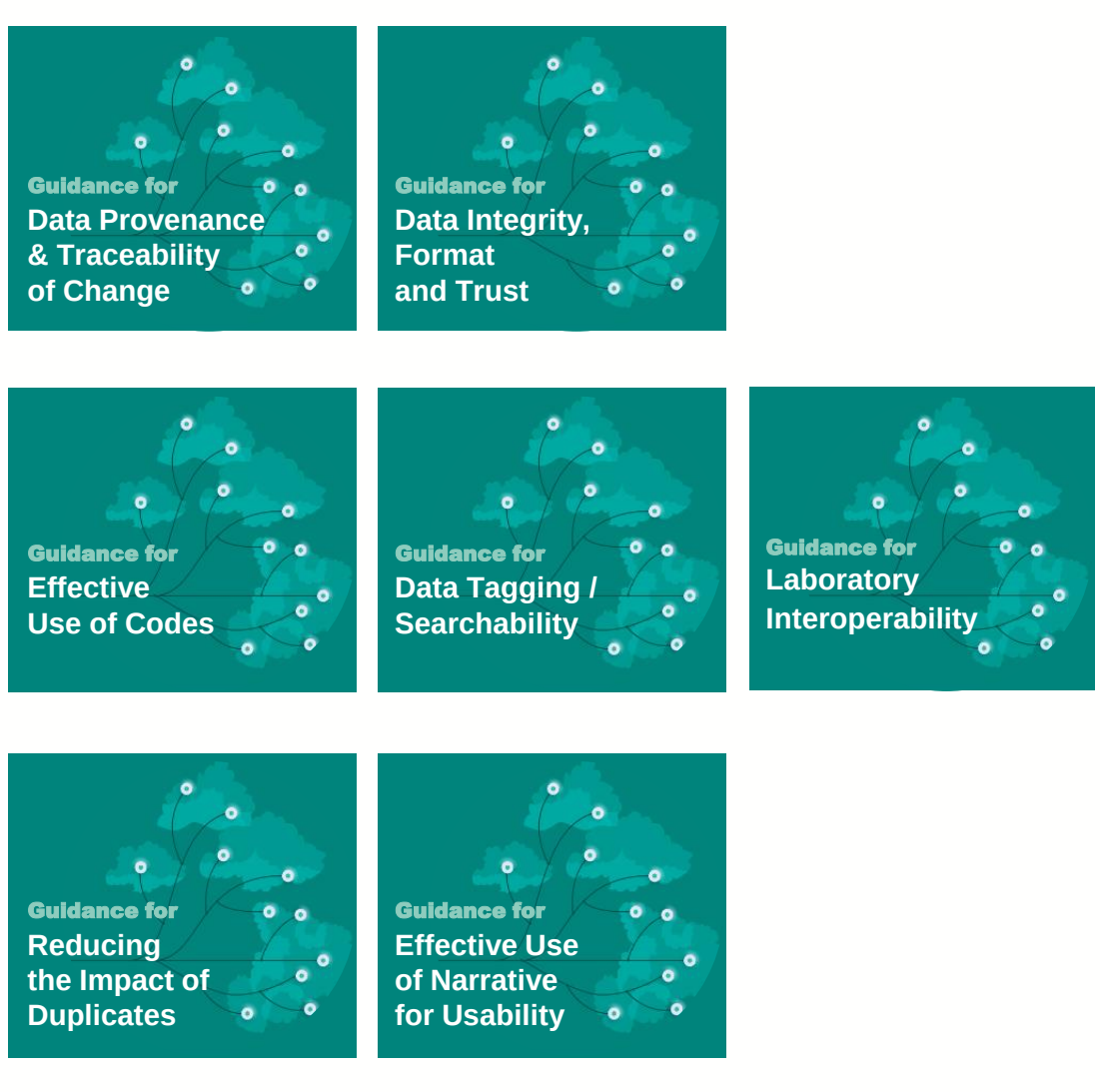
DUWG Implementation Guide Version 2.0 – Summary

Key changes in this final publication included:

- Added guidance for receiving systems in addition to sending systems
- Advancing the baseline requirements from USCDI V1 (Problem, Allergy, Medications, Immunizations ONLY) to all data classes within USCDI V3
  - ASTP/ONC has updated the USCDI standard in § 170.213 by adding USCDI Version 3 (v3) and establishing a January 1, 2026, expiration date for USCDI v1 (July 2020 Errata) for purposes of the Certification Program.
- Expanded guidance to be technology agnostic with added requirements for HL7® FHIR®, HL7 v2.x and HL7 C-CDA across the topic categories
- Added an additional topic category for laboratory

Table of Contents

- Executive Summary & Phases Timeline
  - Phase 1 - Administration & Prioritization
  - Phase 2 - IG Development
  - Phase 3 - IG Public Comment
  - Phase 4 - IG Publication
- Statement of Intent
- Sections/Chapters
  - Seven Topic Categories
  - Guidance with SHALL, SHOULD, MAY
- References
- Appendix A – High Priority Lab Results
- Appendix B – A Priority list of documents for information sharing



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the sequoia project

https://sequoiaproject.org/about-us/become-a-member/

Data Usability Work Group

For more information:
www.sequoiaproject.org/interoperability-matters/data-usability-workgroup/

(571) 327-3640

Interopmatters@sequoiaproject.org

Convene

Collaborate

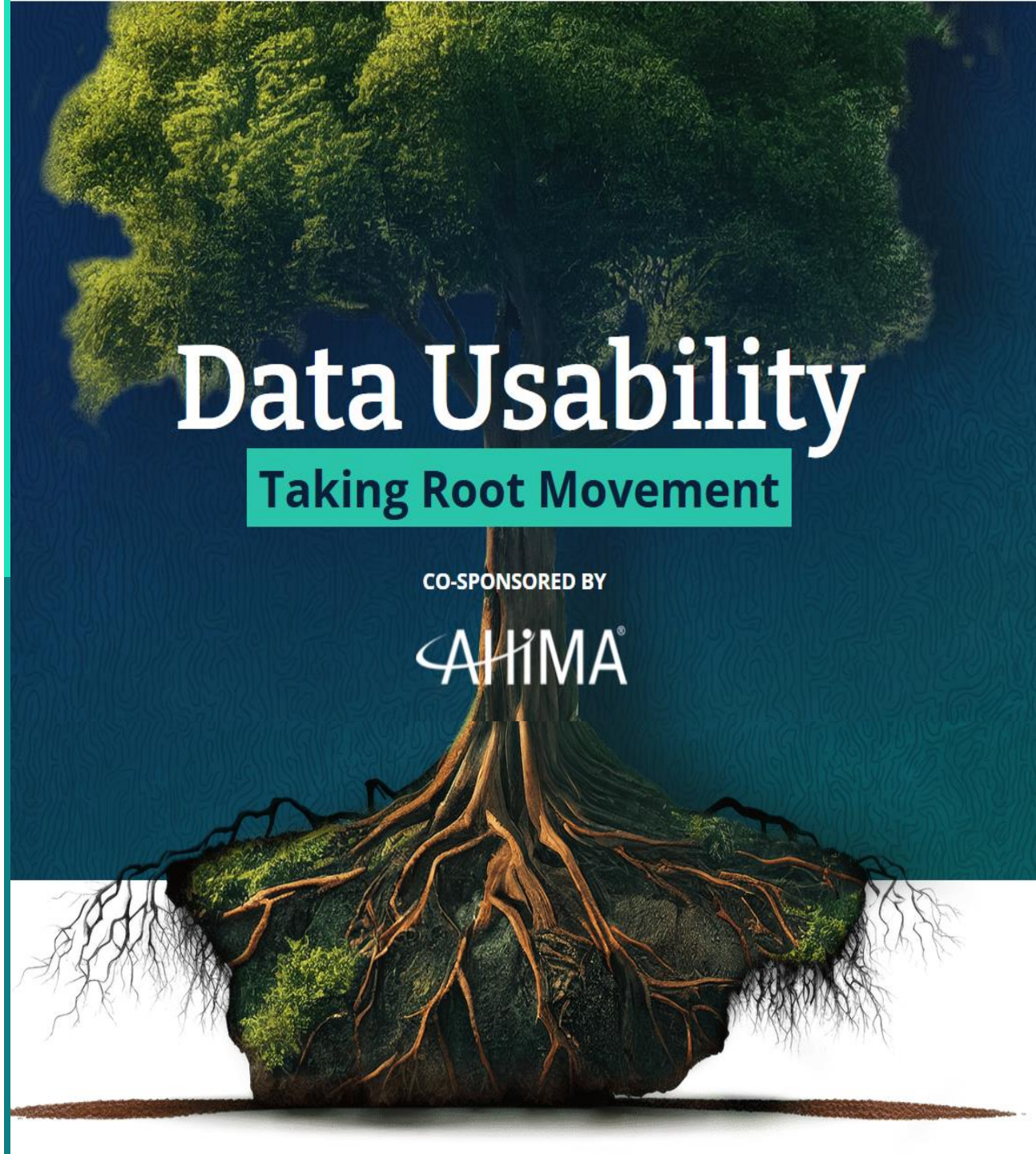
Interoperate

Thank You for your support of Interoperability Matters!

Community of Practice **Update**

Next Meeting April 23, 2025

the sequoia project



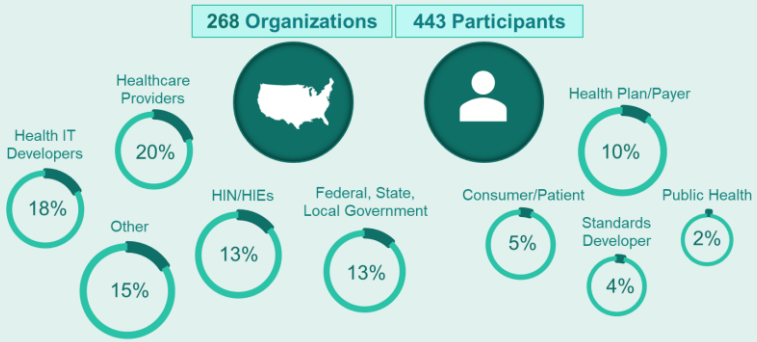
What is the difference between the **Data Usability Taking Root Movement** and the **Data Usability Workgroup**?

Data Usability
Workgroup
Develops Guidance

Deployment **Guidance**

Development **Feedback**

Taking Root
Movement
Implements Guidance
An initiative co-sponsored by AHIMA



Community of Practice

- Roundtables
- Technical Assistance
- Testing Platform
- In-person Convenings

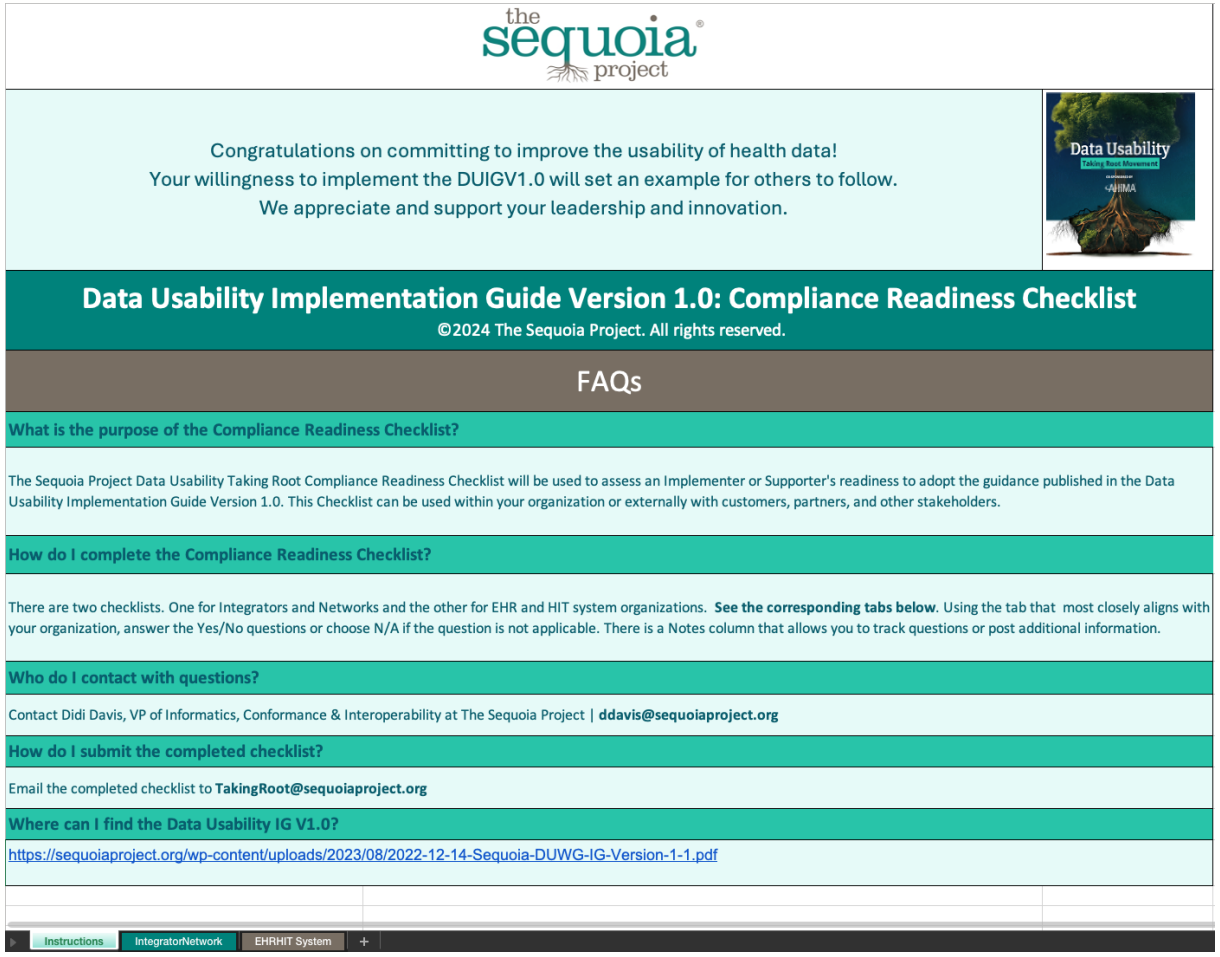
Participation Levels

IMPLEMENTER · SUPPORTER · SPONSOR

Organizations that have pledged to participate!

An initiative co-sponsored by AHIMA

Draft Readiness Checklist Discussion



Congratulations on committing to improve the usability of health data!
Your willingness to implement the DUIGV1.0 will set an example for others to follow.
We appreciate and support your leadership and innovation.

Data Usability Implementation Guide Version 1.0: Compliance Readiness Checklist

FAQs

What is the purpose of the Compliance Readiness Checklist?

The Sequoia Project Data Usability Taking Root Compliance Readiness Checklist will be used to assess an Implementer or Supporter's readiness to adopt the guidance published in the Data Usability Implementation Guide Version 1.0. This Checklist can be used within your organization or externally with customers, partners, and other stakeholders.

How do I complete the Compliance Readiness Checklist?

There are two checklists. One for Integrators and Networks and the other for EHR and HIT system organizations. **See the corresponding tabs below**. Using the tab that most closely aligns with your organization, answer the Yes/No questions or choose N/A if the question is not applicable. There is a Notes column that allows you to track questions or post additional information.

Who do I contact with questions?

Contact Didi Davis, VP of Informatics, Conformance & Interoperability at The Sequoia Project | **ddavis@sequoiaproject.org**

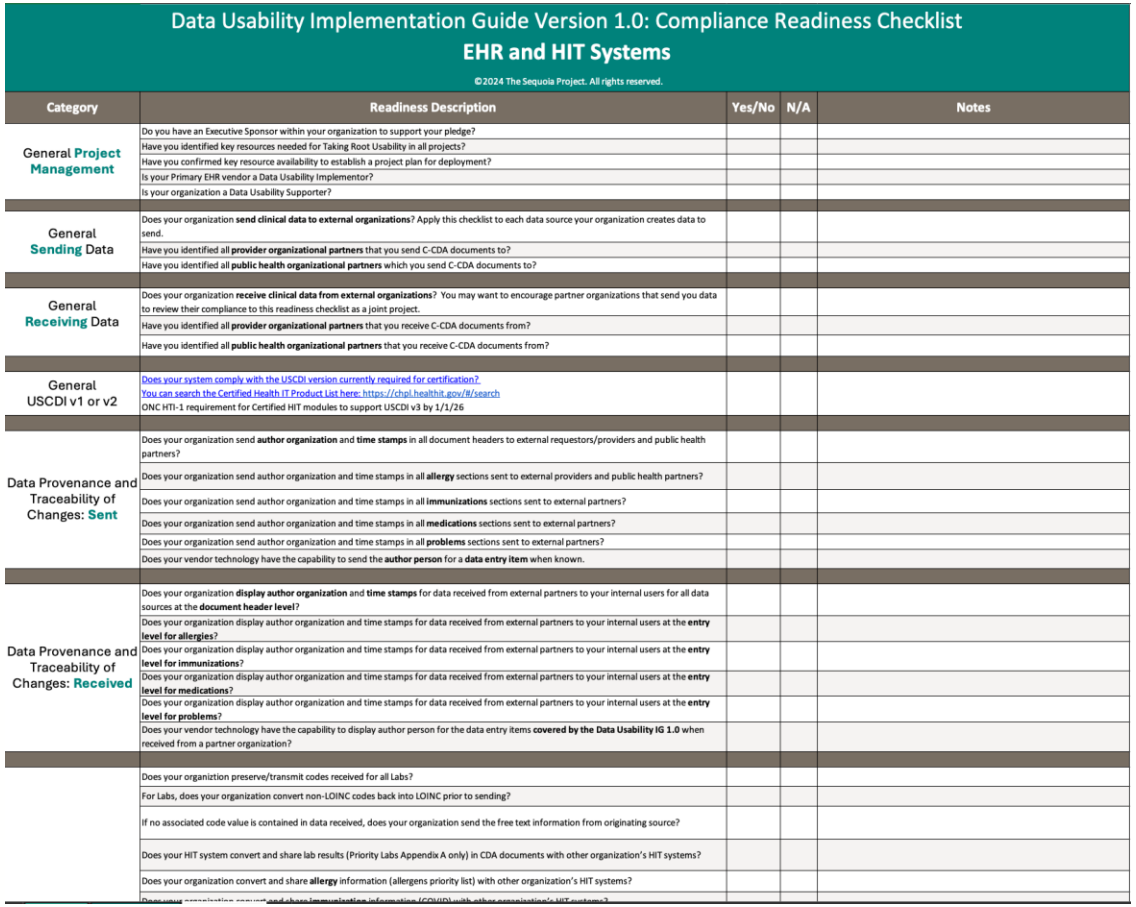
How do I submit the completed checklist?

Email the completed checklist to **TakingRoot@sequoiaproject.org**

Where can I find the Data Usability IG V1.0?

https://sequoiaproject.org/wp-content/uploads/2023/08/2022-12-14-Sequoia-DUWG-IG-Version-1-1.pdf

Instructions | IntegratorNetwork | EHRHIT System | +



Data Usability Implementation Guide Version 1.0: Compliance Readiness Checklist
EHR and HIT Systems

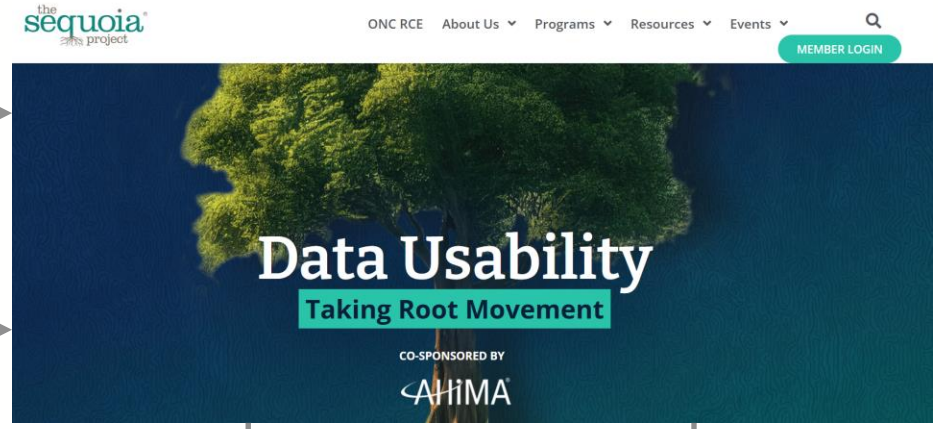
Category	Readiness Description	Yes/No	N/A	Notes
General Project Management	Do you have an Executive Sponsor within your organization to support your pledge?			
	Have you identified key resources needed for Taking Root Usability in all projects?			
	Have you confirmed key resource availability to establish a project plan for deployment?			
	Is your Primary EHR vendor a Data Usability Implementor?			
	Is your organization a Data Usability Supporter?			
General Sending Data	Does your organization **send clinical data to external organizations**? Apply this checklist to each data source your organization creates data to send.			
	Have you identified all **provider organizational partners** that you send C-CDA documents to?			
	Have you identified all **public health organizational partners** which you send C-CDA documents to?			
General Receiving Data	Does your organization **receive clinical data from external organizations**? You may want to encourage partner organizations that send you data to review their compliance to this readiness checklist as a joint project.			
	Have you identified all **provider organizational partners** that you receive C-CDA documents from?			
	Have you identified all **public health organizational partners** that you receive C-CDA documents from?			
General USCDI v1 or v2	Does your system comply with the USCDI version currently required for certification? You can search the Certified Health IT Product List here: https://chpl.healthit.gov/#/search ONC HTI-1 requirement for Certified HIT modules to support USCDI v3 by 1/1/26			
Data Provenance and Traceability of Changes: Sent	Does your organization send **author organization** and **time stamps** in all document headers to external requestors/providers and public health partners?			
	Does your organization send author organization and time stamps in all **allergy** sections sent to external providers and public health partners?			
	Does your organization send author organization and time stamps in all **immunizations** sections sent to external partners?			
	Does your organization send author organization and time stamps in all **medications** sections sent to external partners?			
	Does your organization send author organization and time stamps in all **problems** sections sent to external partners?			
	Does your vendor technology have the capability to send the **author person** for a **data entry item** when known.			
Data Provenance and Traceability of Changes: Received	Does your organization **display author organization** and **time stamps** for data received from external partners to your internal users for all data sources at the **document header level**?			
	Does your organization display author organization and time stamps for data received from external partners to your internal users at the **entry level for allergies**?			
	Does your organization display author organization and time stamps for data received from external partners to your internal users at the **entry level for immunizations**?			
	Does your organization display author organization and time stamps for data received from external partners to your internal users at the **entry level for medications**?			
	Does your organization display author organization and time stamps for data received from external partners to your internal users at the **entry level for problems**?			
	Does your vendor technology have the capability to display author person for the data entry items **covered by the Data Usability IG 1.0** when received from a partner organization?			
	Does your organiztion preserve/transmit codes received for all Labs?			
	For Labs, does your organization convert non-LOINC codes back into LOINC prior to sending?			
	If no associated code value is contained in data received, does your organization send the free text information from originating source?			
	Does your HIT system convert and share lab results (Priority Labs Appendix A only) in CDA documents with other organization's HIT systems?			
	Does your organization convert and share **allergy** information (allergens priority list) with other organization's HIT systems?			

https://sequoiaproject.org/wp-content/uploads/2024/12/Sequoia-Data-Usability-IG-v1.0-Readiness-Checklist.xlsx

Pledge Process – Open NOW!

Implementer

Supporter



Sign Implementer Pledge

Sign Supporter Pledge

Email confirmation and copy of pledge

Those who have pledged will have password-protected access to Data Usability Taking Root Resources on the Sequoia website

https://sequoiaproject.org/data-usability-taking-root-movement/

Interoperability MATTERS
an initiative of The Sequoia Project

the sequoia project

CALL to ACTION:

- Consider Pledging to be a Supporter or Implementer of the Data Usability Taking Root Initiative
- Share/Socialize this information internally to our organization or with your partners/peers

Contact Us

Thank you for your interest in The Sequoia Project's new **Data Usability Taking Root** Initiative.

If you would like to get in touch you can reach us at:

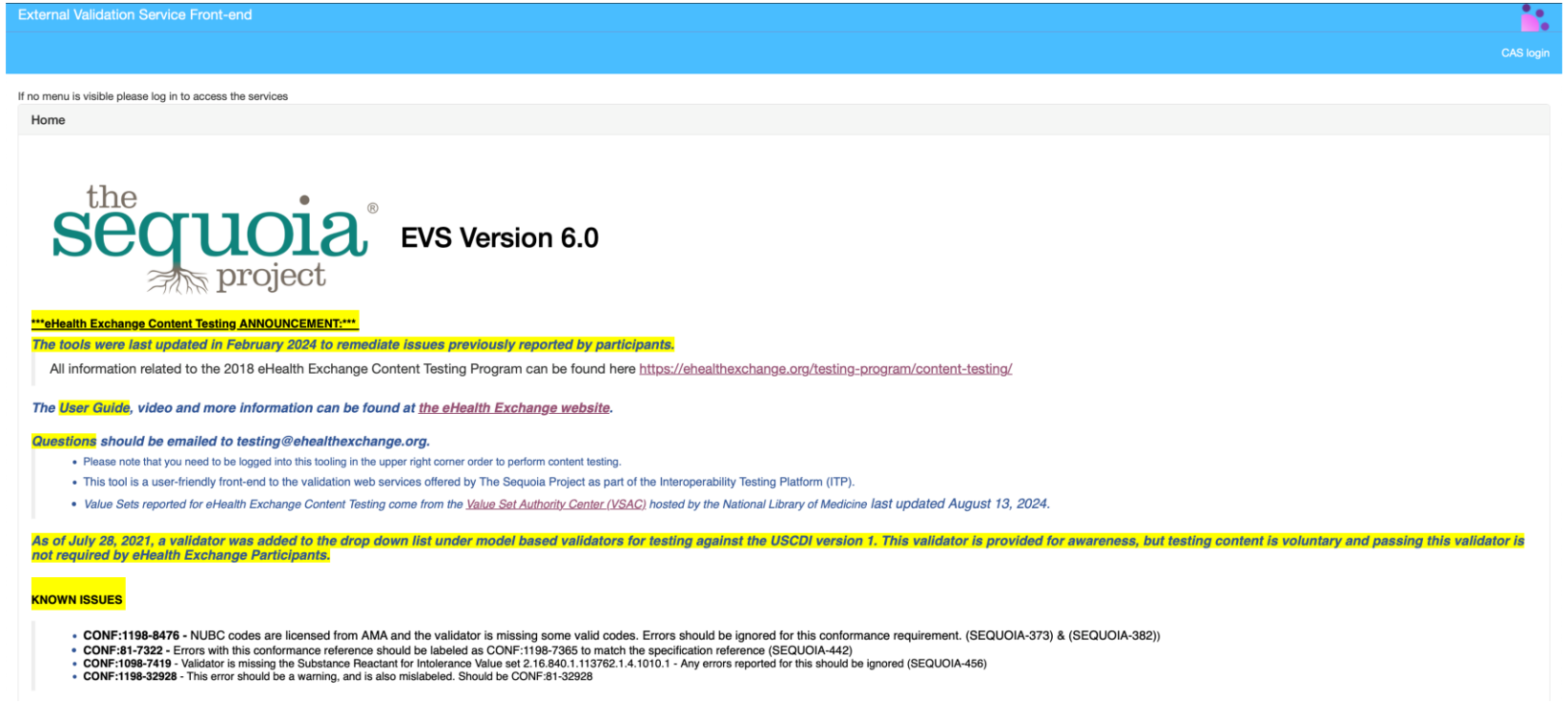
takingroot@sequoiaproject.org

To join the Community of Practice Roundtables, please sign up as a Supporter, Implementer or Sponsor here:
https://sequoiaproject.org/data-usability-taking-root-movement/

Hub ITP Content Testing Tooling Overview

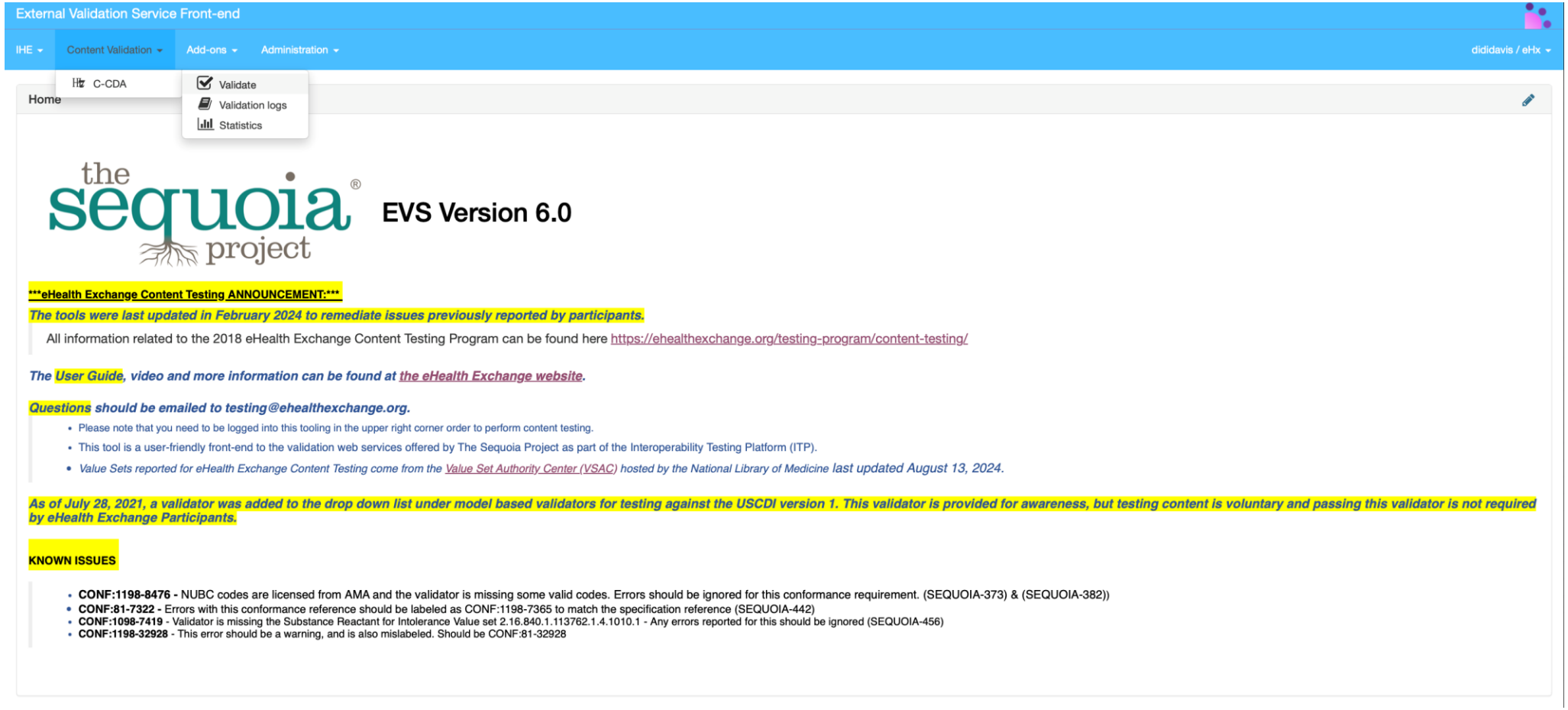
eHealth Exchange™

Sequoia Interoperability Testing Platform (ITP)
HL7 CDA/C-CDA Testing for CCDS/USCDI – Home Screen

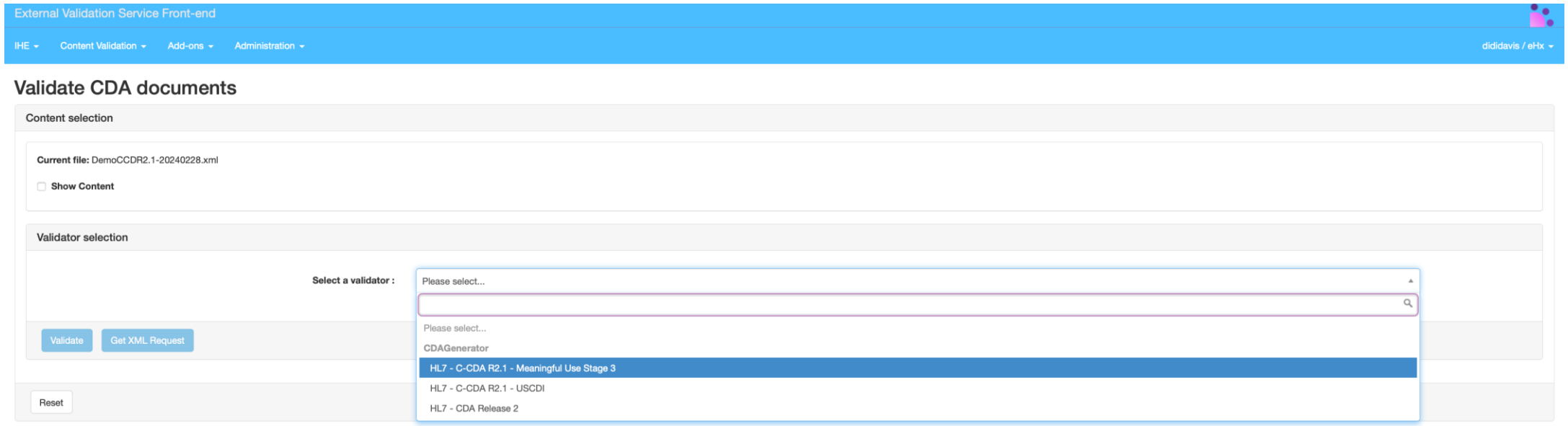


To request user access please email testing@ehealthexchange.org
https://hub-itp-val.ehealthexchange.org/evs/home.seam

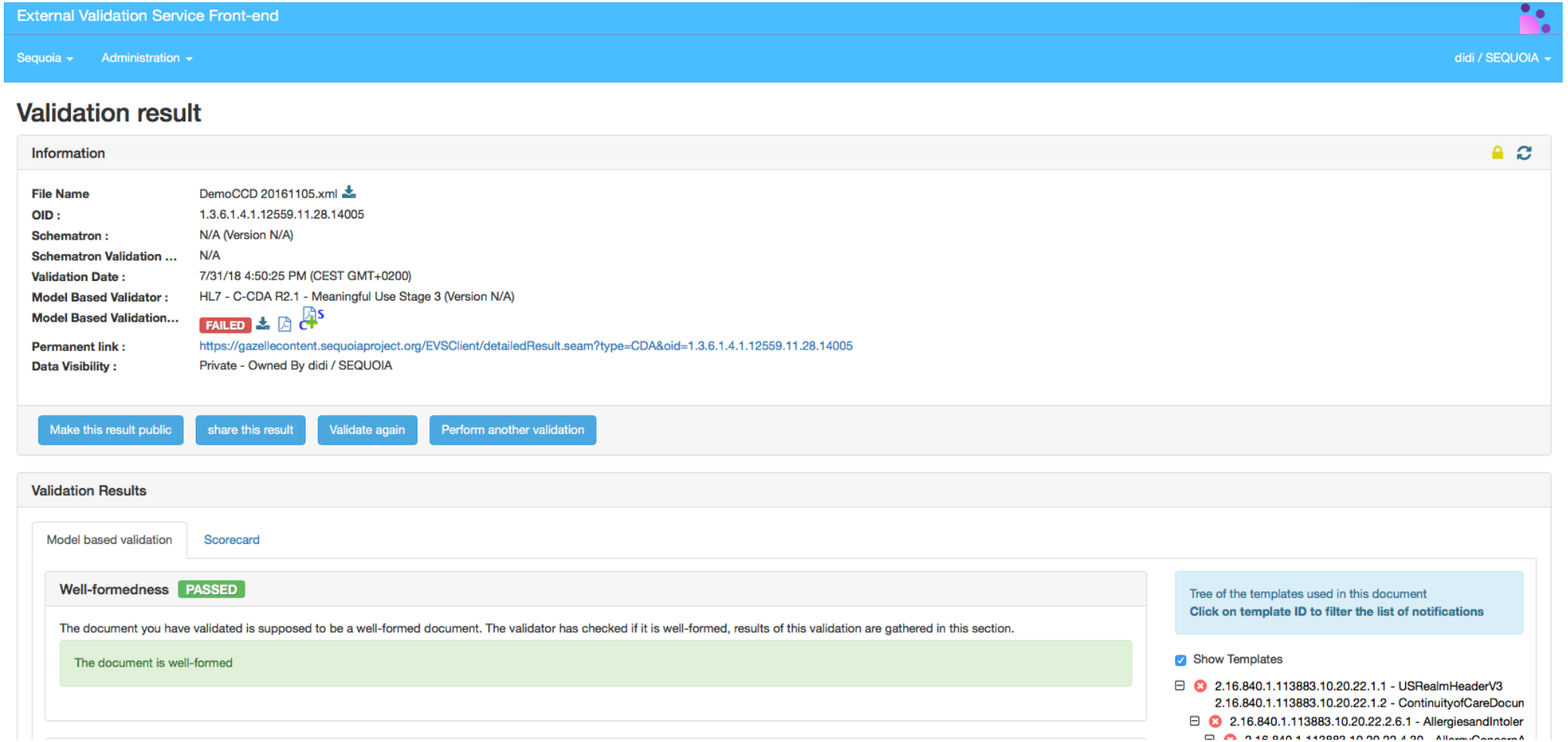
Content Validator Tools Available after Login



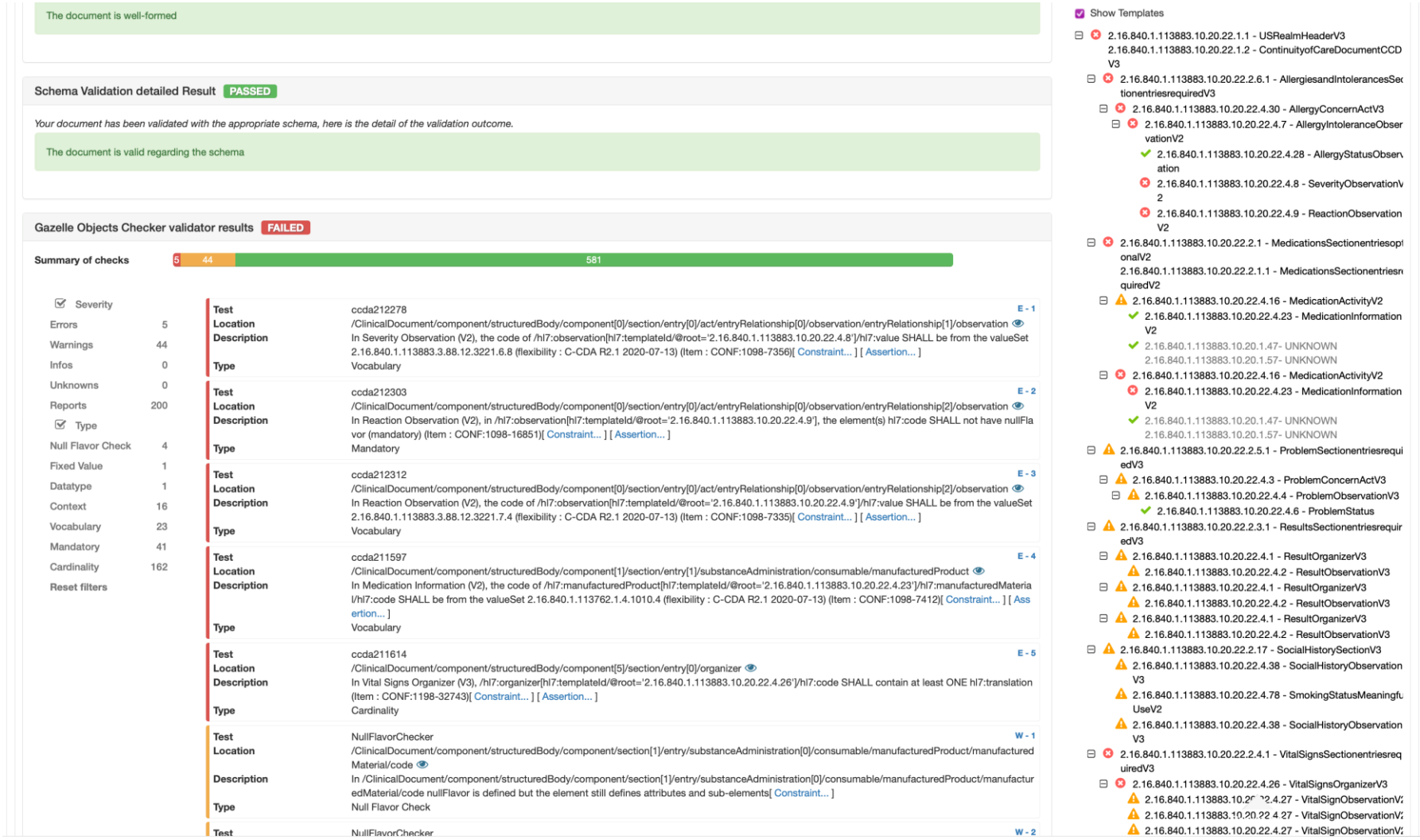
Validate CDA Documents



Validation Result



Section/Entry Template Navigation



Issue in Context within XML

Prettify content View lines numbers

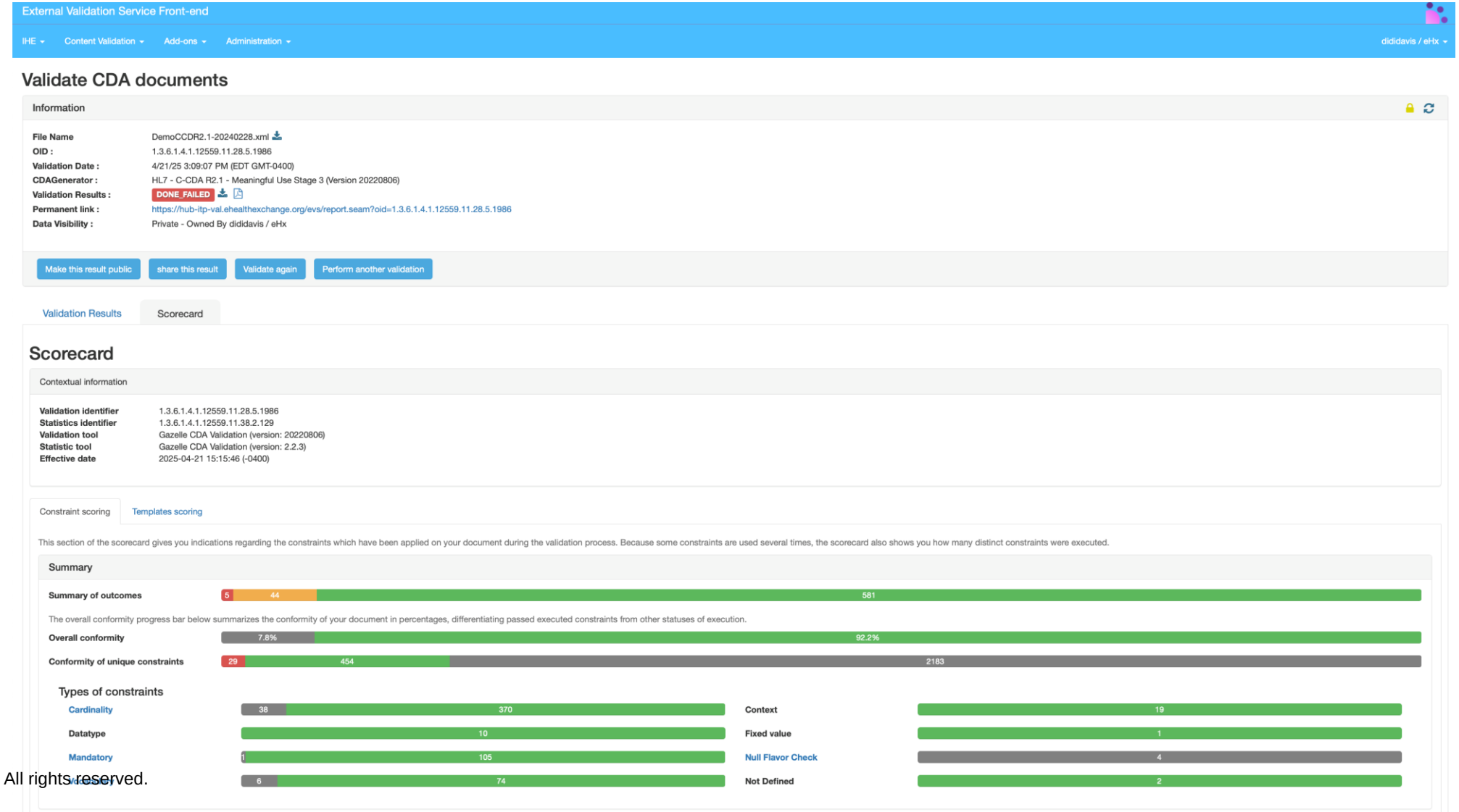
```
403      </text>
404      <statusCode code="active"/>
405      <effectiveTime xsi:type="IVL_TS">
406       <low value="20090109215300.000-0600"/>
407       <high nullFlavor="NI"/>
408      </effectiveTime>
409      <routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus">
410       <originalText>Oral</originalText>
411      </routeCode>
412      <doseQuantity unit="{tablet}" value="1"/>
413      <consumable typeCode="CSM">
414       <manufacturedProduct classCode="MANU">
```

(4/250)

Test	ccda211597	E - 4
Location	/ClinicalDocument/component/structuredBody/component[1]/section/entry[1]/substanceAdministration/consumable/manufacturedProduct	
Description	In Medication Information (V2), the code of /hl7:manufacturedProduct[hl7:templateId/@root='2.16.840.1.113883.10.20.22.4.23']/hl7:manufacturedMaterial/hl7:code SHALL be from the valueSet 2.16.840.1.113762.1.4.1010.4 (flexibility : C-CDA R2.1 2020-07-13) (Item : CONF:1098-7412)[Constraint...] [Assertion...]	
Type	Vocabulary	

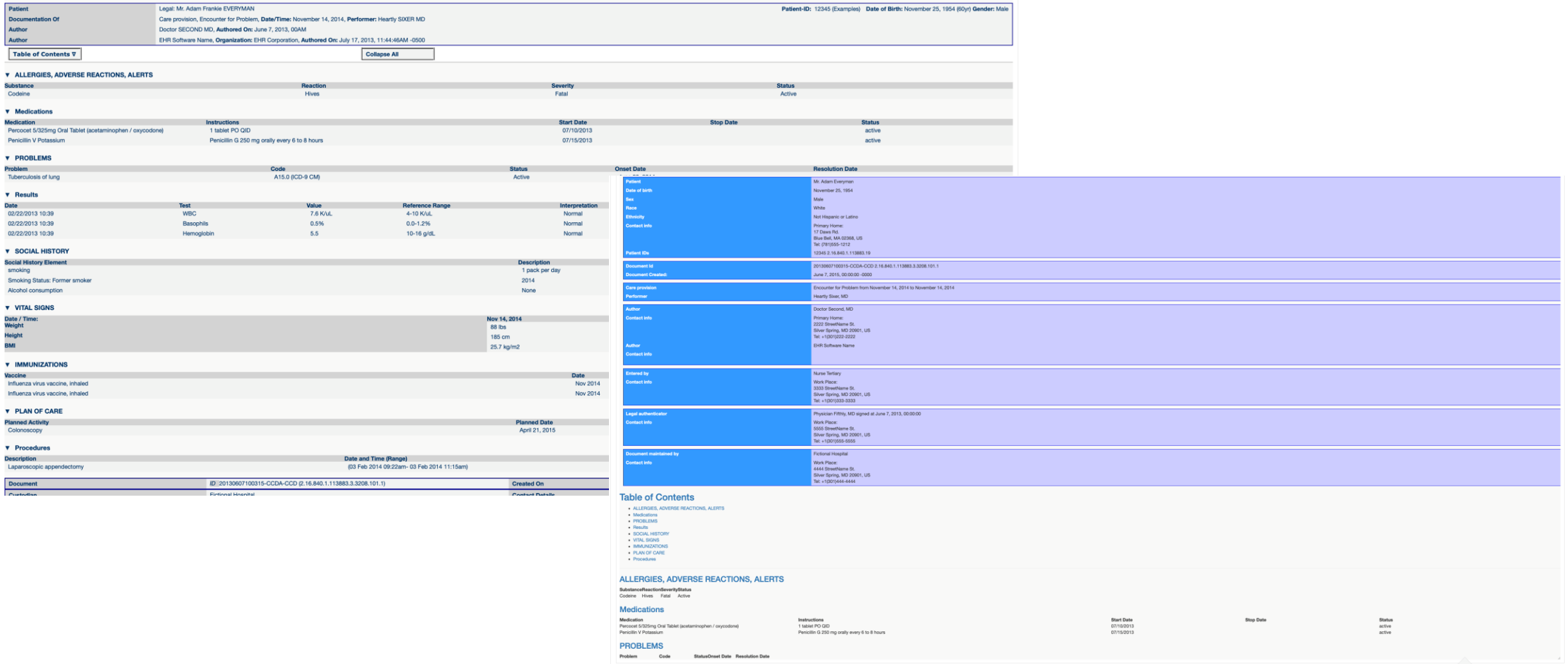
```
415        <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
416        <manufacturedMaterial classCode="MMAT" determinerCode="KIND">
417         <code code="203195" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" displayName="Penicillin V Potassium">
418          <originalText>
419           <reference value="#MEDPROD48586274"/>
420          </originalText>
421         </code>
422        </manufacturedMaterial>
423       </manufacturedProduct>
424      </consumable>
425      <author>
426       <time value="20130710215810.000-0500"/>
427       <assignedAuthor classCode="ASSIGNED">
428        <id nullFlavor="NI"/>
429        <addr nullFlavor="UNK"/>
430        <assignedPerson>
431         <name>
432          <given nullFlavor="NA"/>
433          <family nullFlavor="NA"/>
434         </name>
435        </assignedPerson>
436       </assignedAuthor>
437      </author>
438      <entryRelationship typeCode="REFR">
439       <observation classCode="OBS" moodCode="EVN">
440        <templateId root="2.16.840.1.113883.10.20.1.47"/>
441        <templateId root="2.16.840.1.113883.10.20.1.57"/>
442        <code code="33999-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Status"/>
443        <statusCode code="active"/>
444        <value nullFlavor="UNK" xsi:type="CD">
445         <originalText>active</originalText>
```

Scorecard Summary Review



eHealth Exchange™

HTML View of Content



Patient | Legal: Mr. Adam Frankie EVERYMAN | Patient-ID: 12345 (Examples) Date of Birth: November 25, 1954 (60yr) Gender: Male
Documentation Of | Care provision, Encounter for Problem, Date/Time: November 14, 2014, Performer: Heartly SIXER MD
Author | Doctor SECOND MD, Authored On: June 7, 2013, 00AM
Author | EHR Software Name, Organization: EHR Corporation, Authored On: July 17, 2013, 11:44:46AM -0500

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▼ ALLERGIES, ADVERSE REACTIONS, ALERTS

Substance	Reaction	Severity	Status
Codeine	Hives	Fatal	Active

▼ Medications

Medication	Instructions	Start Date	Stop Date	Status
Percocet 5/325mg Oral Tablet (acetaminophen / oxycodone)	1 tablet PO QID	07/10/2013		active
Penicillin V Potassium	Penicillin G 250 mg orally every 6 to 8 hours	07/15/2013		active

▼ PROBLEMS

Problem	Code	Status	Onset Date	Resolution Date
Tuberculosis of lung	A15.0 (ICD-9 CM)	Active		

▼ Results

Date	Test	Value	Reference Range	Interpretation
02/22/2013 10:39	WBC	7.6 K/uL	4-10 K/uL	Normal
02/22/2013 10:39	Basophils	0.5%	0.0-1.2%	Normal
02/22/2013 10:39	Hemoglobin	5.5	10-16 g/dL	Normal

▼ SOCIAL HISTORY

Social History Element	Description
smoking	1 pack per day
Smoking Status: Former smoker	2014
Alcohol consumption	None

▼ VITAL SIGNS

Date / Time:	Nov 14, 2014
Weight	88 lbs
Height	185 cm
BMI	25.7 kg/m2

▼ IMMUNIZATIONS

Vaccine	Date
Influenza virus vaccine, inhaled	Nov 2014
Influenza virus vaccine, inhaled	Nov 2014

▼ PLAN OF CARE

Planned Activity	Planned Date
Colonoscopy	April 21, 2015

▼ Procedures

Description	Date and Time (Range)
Laparoscopic appendectomy	(03 Feb 2014 09:22am- 03 Feb 2014 11:15am)

Document	ID 2013060710315-CCDA-CCD (2.16.840.1.113883.3.3208.101.1)	Created On
Custodian	Fictional Hospital	Contact Details

Patient	Mr. Adam Everyman
Date of birth	November 25, 1954
Sex	Male
Race	White
Ethnicity	Not Hispanic or Latino
Contact info	Primary Home: 17 Daws Rd. Blue Bell, MA 02368, US Tel: (781)555-1212
Patient IDs	12345 2.16.840.1.113883.19
Document Id	2013060710315-CCDA-CCD 2.16.840.1.113883.3.3208.101.1
Document Created:	June 7, 2015, 00:00:00 -0000
Care provision	Encounter for Problem from November 14, 2014 to November 14, 2014
Performer	Heartly Sixer, MD
Author	Doctor Second, MD
Contact info	Primary Home: 2222 StreetName St. Silver Spring, MD 20901, US Tel: +1(301)222-2222
Author	EHR Software Name
Contact info	
Entered by	Nurse Tertiary
Contact info	Work Place: 3333 StreetName St. Silver Spring, MD 20901, US Tel: +1(301)333-3333
Legal authenticator	Physician Fifthly, MD signed at June 7, 2013, 00:00:00
Contact info	Work Place: 5555 StreetName St. Silver Spring, MD 20901, US Tel: +1(301)555-5555
Document maintained by	Fictional Hospital
Contact info	Work Place: 4444 StreetName St. Silver Spring, MD 20901, US Tel: +1(301)444-4444

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ALLERGIES, ADVERSE REACTIONS, ALERTS

Substance	Reaction	Severity	Status
Codeine	Hives	Fatal	Active

Medications

Medication	Instructions	Start Date	Stop Date	Status
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Penicillin V Potassium	Penicillin G 250 mg orally every 6 to 8 hours	07/15/2013		active

PROBLEMS

Problem	Code	Status	Onset Date	Resolution Date