



Sequoia Project Content Testing Program Overview

Didi Davis

Director Testing Programs

eHealth Exchange™

An initiative of **the sequoia**
project

Important Call Reminders

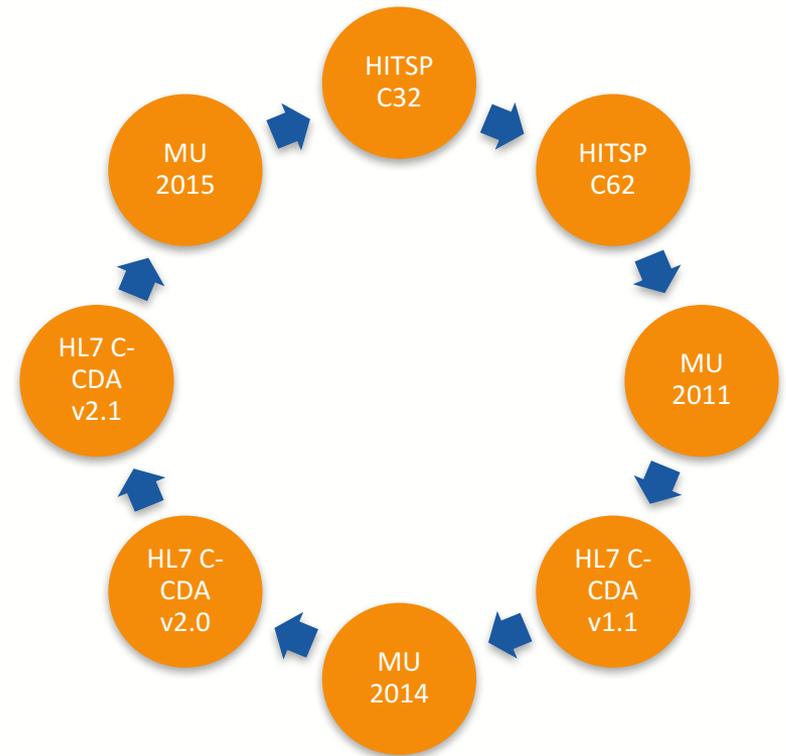
- Please use the mute button on your phone.
- If you receive a call and need to pick up, **PLEASE** disconnect from the call. Otherwise, all participants hear your hold music!
- Please use the GoToMeeting Chat to type questions throughout the presentation.
- We will leave time for Q&A at the end of the presentation.

Agenda

- Background
 - eHealth Exchange Content Testing Evolution
 - Testing Workgroup (TWG) Background & Overview
 - Industry-wide Content Pain Points
- New Content Testing Program Details
 - Enhanced Content Testing Documentation Package
 - Content Testing Process
 - Content Testing Tooling Under Consideration
 - Enhanced Content Testing – Milestones/Timeline
- Information and How to Join the Testing Workgroup
- General eHealth Exchange Updates
- Questions and Discussion

eHealth Exchange Content Testing Evolution

- No Content Testing Required: If Participant or Vendor's architecture is certified for MU 2011 edition, 2014 edition or 2015 edition
- If not MU certified: Required to test one or more of the following:
 - [The Basic C32 \(ONC 2011 Edition\)](#)
 - [The Bridge C32](#)
 - [The Consolidated CDA \(C-CDA\) \(ONC 2014 Edition\)](#)
- In June 2015, Coordinating Committee approves launch of Testing Workgroup with initial focus on Content Testing



Testing Workgroup (TWG) Background & Overview

1. Testing Workgroup approved by the eHealth Exchange Coordinating Committee (CC) on 6/16/2015
2. Testing Workgroup Launched 6/30/2015 – 2 co-chairs
3. Testing Workgroup Charter Approved 7/21/2015
4. Content Test Tooling Resources Inventory & Demonstration completed by 10/31/2015
5. Draft Enhanced Content Testing Documentation Published 11/5/2015
6. Industry Content Testing Tools Evaluation and Scoring Completed 1/5/2016
7. Public Comments resolved and Enhanced Content Testing Documentation Re-Published April 11, 2016
8. Content Testing Pilot April – July 2016
 - <https://ehealth-exchange-testing.wikispaces.com/eHealth+Exchange+Testing+Home#Home>

Industry-wide Content Pain Points



Optionality:

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



Terminology:

Inconsistent terminology usage



Specification Ambiguity

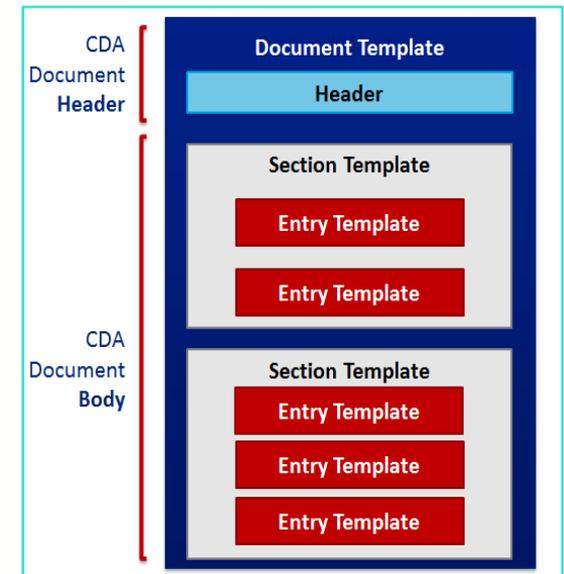


Complexity:

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

What is the Enhanced Content Testing Program?

- Focused on HITSP C32/CCD, HL7 Consolidated CDA (C-CDA) R1.1 and R2.1
 - Chapters 1-4 provide informative excerpts for conformance
- Enhanced Testable Assertions (Chapter 5)
- Meaningful Use (MU) requirements/Transitions of Care (Chapters 6 & 7)
- Enhanced test cases and procedures (Chapter 8)
- Designed to enable interoperability and assure specification compliance
- Implementation-hardened by years of operations and documented pain points that continue to be coordinated with HL7 for inclusion in future documentation:
 - HL7 Implementation Guides/Companion Guides
 - Chapter 3
 - [Improved Scorecard Rubrics](#)
 - (Quantitative Scoring Criteria)
 - [HL7 C-CDA Companion Guide for MU Guidance for R2.1](#)
 - [Relevant & Pertinent Documentation Publication](#)
 - [Examples Task Force Library](#)



Enhanced Content Testing Documentation Package

- <https://ehealth-exchange-testing.wikispaces.com/Documentation+for+Comment>
- 2016_11_15_Sequoia_C-CDA_Content_Test_Cases.pdf
 1. eHealth_Exchange_Content_Testing_Survey_Submission_Form_V2.0.pdf
 2. 2017_eHEX_Content_Test_Data_CREATE.pdf
 3. RECEIVE Test Files
 - MU_HITSP_C32C83_4Sections_RobustEntries_NoErrors.xml
 - 170.315_b5_ccds_amb_ccd_r11_sample2_v1.xml
 - 170.315_b5_ccds_amb_ccd_r21_sample1_v1.xml



Process for Creating Consistent & Robust HL7 C-CDAs



Content Priorities

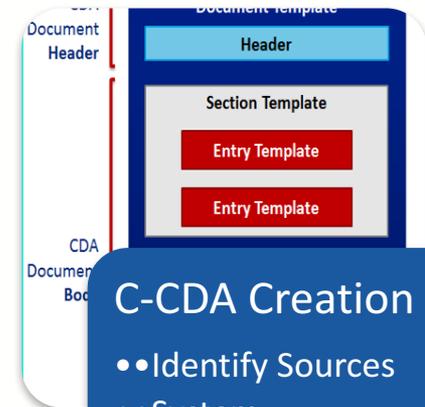
- Clinicians
- Business Office
- Others



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

Data Mapping

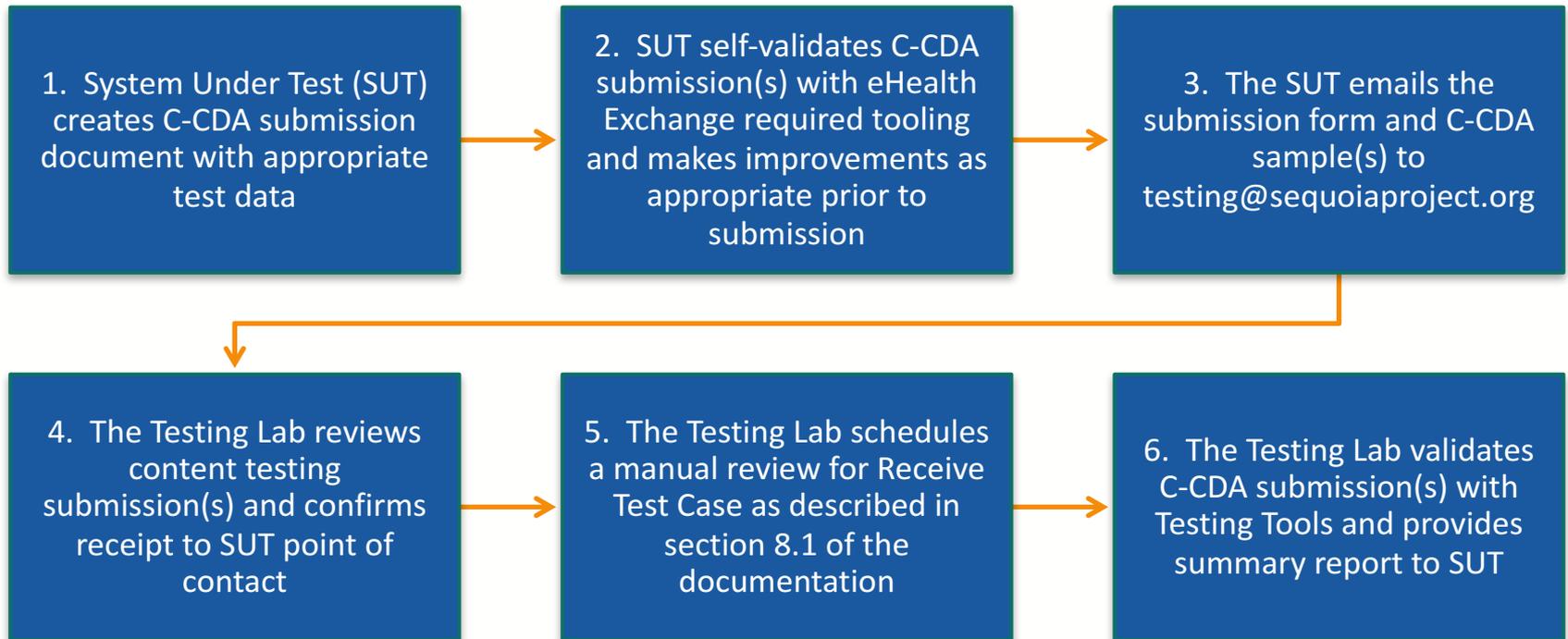
- SDO Requirements
- Vendor specific data model overlay
- Semantic Interoperability Transformation



C-CDA Creation

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

Content Testing Process



Submit HL7 C-CDA CCD sample(s) and [submission form](mailto:testing@sequoiaproject.org) to testing@sequoiaproject.org

Content Testing Tooling Under Consideration



ART DÉCOR/GAZELLE OBJECTS CHECKER

- Hosted by IHE Services as part of the IHE International Scheme Testing
- Tooling was piloted in April 2015 and is ISO 17025 Compliant for Conformity Assessment
- Covers only the HITSP C32/CCD, HL7 C-CDA CCD R1.1 and R2.1 versions
- Found to report on warnings and errors not found by other testing tooling

DIAMETER HEALTH

- Focused on using C-CDA documents
- CCD Analyzer tool has 280+ rules that score C-CDA for semantic and clinical completeness and syntax
- Emphasis beyond simple schema/schematron rules available in in the NIST ETT tool
- This tool is proprietary and ONC has an open source Scorecard option available

SITE: STANDARDS IMPLEMENTATION & TESTING ENVIRONMENT – C-CDA SANDBOX

- A centralized collection of tools and resources
- Assists the developers and implementers of Health Information Technology standards to achieve interoperability
- Consolidated CDA (C-CDA) Sandbox will be evaluated
- C-CDA Scorecard



Enhanced Content Testing - Milestones

Milestone Descriptions	Target Date	Status
Present to CC for Review/approval	11/15/16	Completed
Participant Input (Post draft to eHealth Exchange Wiki)	11/15/16	Completed
Participant Input Informational Call (Review documentation)	12/02/16	In Process
30 day notice to Participants	12/02/16	In Process
30+ day Objection Period Ends	01/09/17	Not Started
Target Effective Date	01/10/2017	Not Started
eHealth Exchange Tooling Implementation/Training	January 2017	Not Started
Testing Workgroup Feedback to HL7/ONC	Ongoing	Ongoing

Content Testing Future Timeline

- Public Comment of Updated Documentation through December 2016
- Testing Tooling to be chosen for Production Content Testing by January 2017
- Production Content Testing to begin January 2017
 - All New participants will be required to test Content
 - Existing Production Participants will have 12 months to test content
 - Errors Encountered with Initial testing will have to be corrected within 18 months of initial testing report



Information and How to Join the Testing Workgroup



Sequoia Project Testing Workgroup

Call for Participation



Develop

testing requirements to test and validate Health IT Modules



Create

review and approve testing documentation, checklists and Use Cases



Determine

interoperability testing requirements to enable robust testing of information exchange among participants

Join Now:

<https://ehealth-exchange-testing.wikispaces.com/Communications+%26+Calendar>

General eHealth Exchange Updates

- The General Performance and Service Specifications Addendum went into effect on 11/19/16.
- The HL7® FHIR-based provider directory is now live and ready for 'pre-alpha' testing by eHealth Exchange Participants and / or their Vendors.
 - If you are interested in helping test the new directory, please send an e-mail to: administrator@ehealthexchange.com
- Stay tuned for upcoming webinars to review the updated eHealth Exchange Validation Plan and new use cases

Survey



Please respond to the survey questions.

1. What Use case does your organization currently support for the exchange of clinical content?
 - a. Treatment/Care Coordination
 - b. Military/Veteran Health
 - c. SSA/Disability Determination
 - d. CMS/Quality Reporting for End Stage Renal Disease Program
 - e. Other
 - f. Unknown

2. Which version of HL7 Content does your organization currently support?
 - a. HITSP C32
 - b. HL7 C-CDA Release 1.1
 - c. HL7 C-CDA Release 2.1
 - d. Unknown

Questions?
testing@sequoiaproject.org