eHealth Exchange™

Enhanced Content Testing Program Launch

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An initiative of the sequoia project®

Agenda

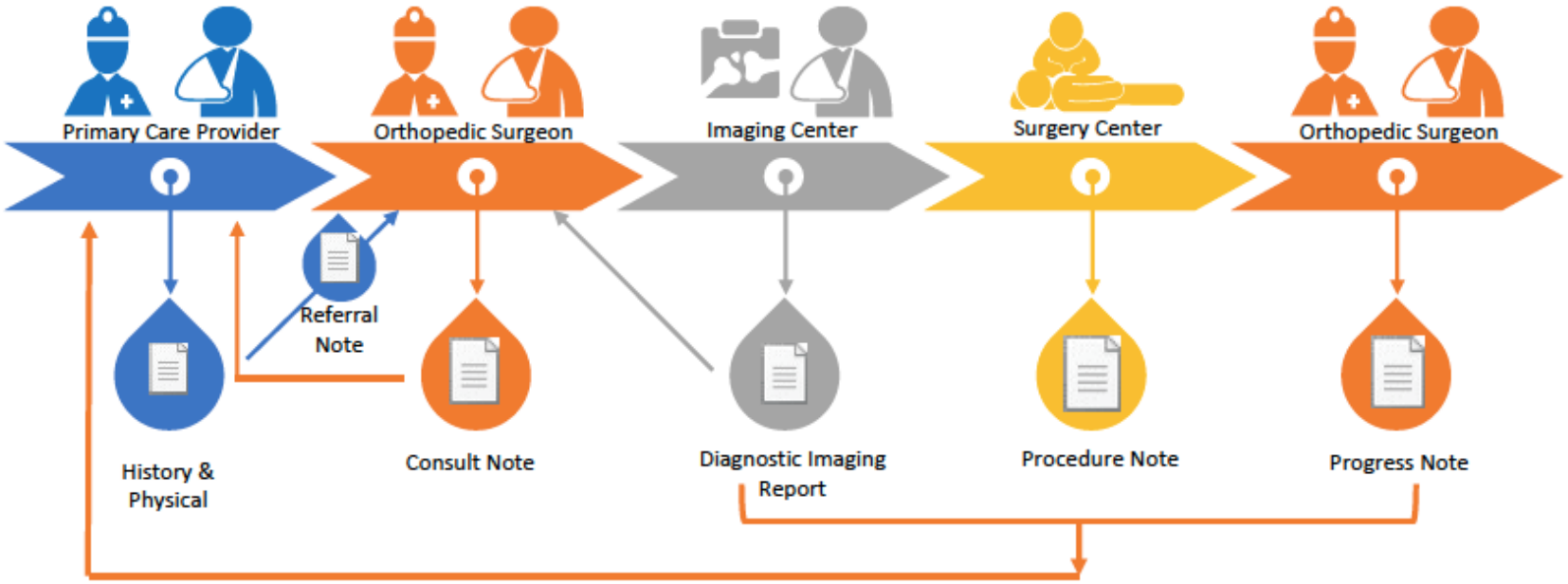
- Background
- New Content Testing Program Details
  - Enhanced Content Testing Documentation Package
  - Content Testing Process
  - Content Testing Tooling
  - Enhanced Content Testing Milestones/Timeline
- Updates for Validation Plan for Qualified Technology Solution
  - QTS to allow for Basic, Intermediate, Advanced levels
- Questions and Discussion

Enhanced Content Testing - Milestones

Milestone Descriptions	Target Date	Status
Present to CC for Review/approval	11/15/2016	Completed
Participant Input (Post draft to eHealth Exchange Wiki)	11/15/2016	Completed
Participant Input Informational Call (Review documentation)	12/02/2016	Completed
30 day notice to Participants	12/02/2016	Completed
30+ day Objection Period Ends	01/10/2017	Completed
Effective Date	01/11/2017	Completed
eHealth Exchange Enhanced Content Testing Program Launch	02/05/2018	Completed
Testing Workgroup Feedback to HL7/ONC	Ongoing	Ongoing

Use Cases - C-CDA: Exchanging the Patient's Story

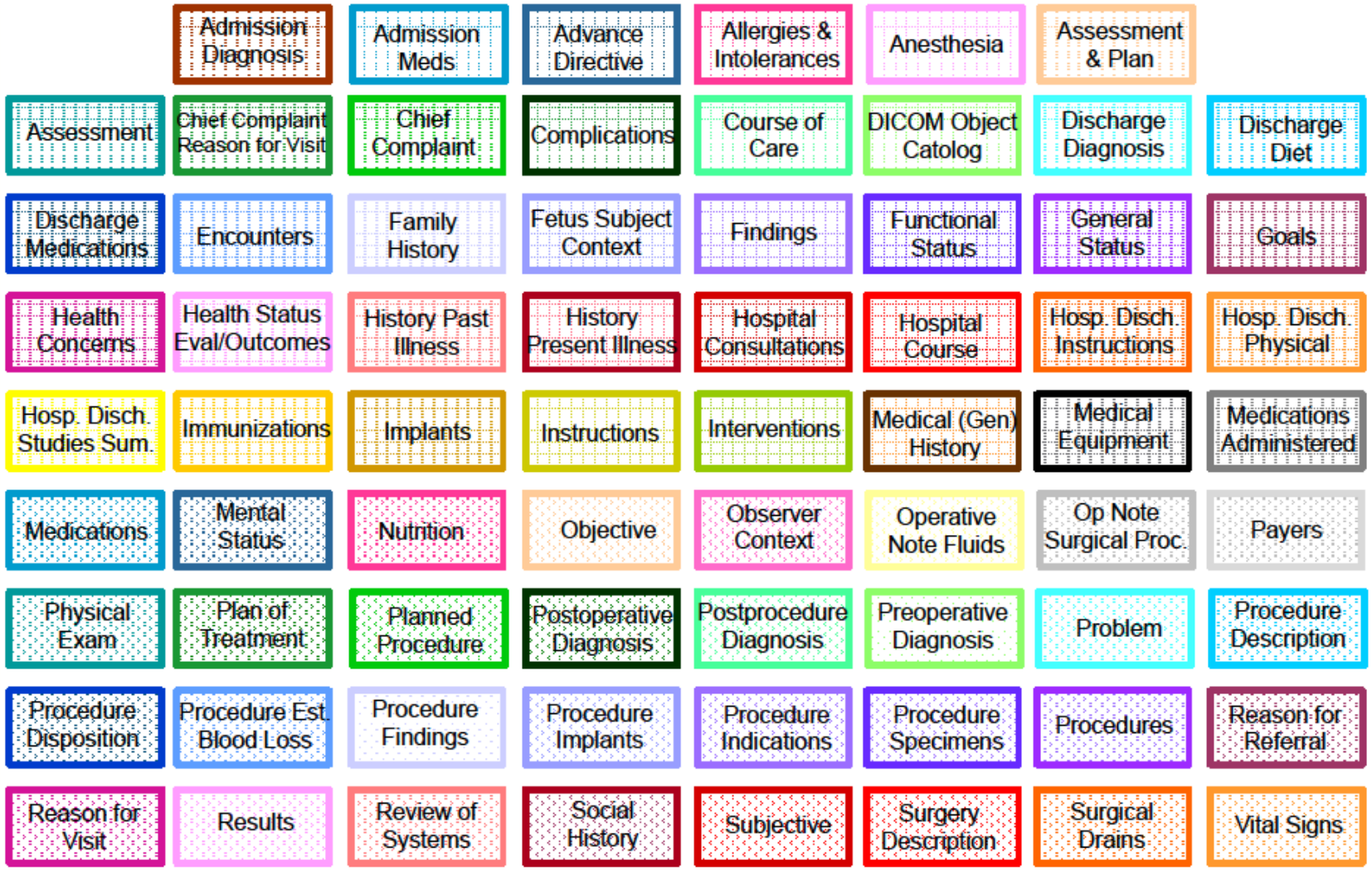
- **Today, most of the clinical data exchanged by systems leverages ONLY the CCD**
- **Many documents are not created by a human but by a machine on demand when queried. Data should be exchanged using appropriate document types.**



http://www.himss.org/library/c-cda-documents-building-blocks-meaningful-exchange

Why is using the right type of document important?

- Each CDA Document is designed to address a specific purpose
  - Use Cases should be reviewed to determine appropriate documents for use to support optimal patient care
  - Documents need to fit the situation
  - Share information that is relevant and pertinent
- Establish the right context for the information being shared
  - Information about multiple encounters
  - Information about a single encounter
  - Information about a service(s) within an encounter
  - Information that is related to a specific order
  - Patient generated information vs. Clinician or System generated data



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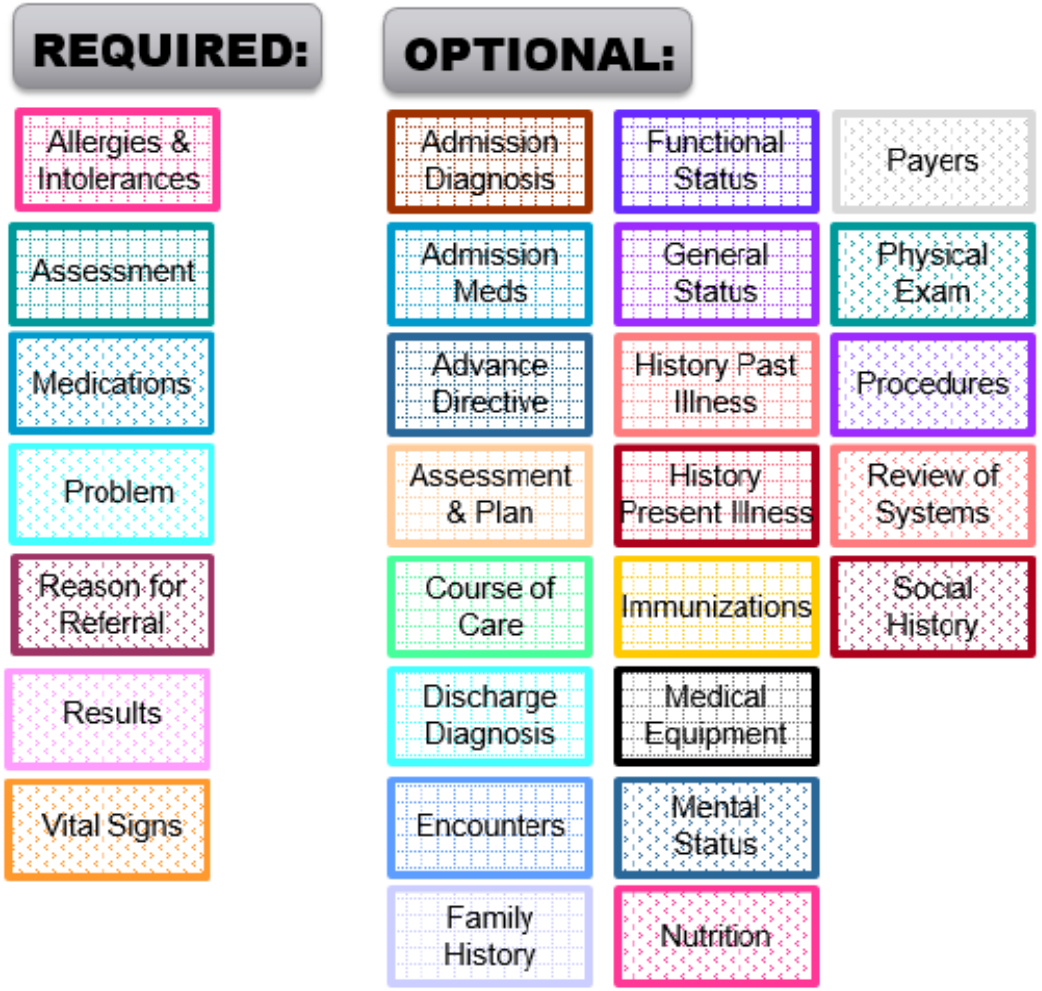
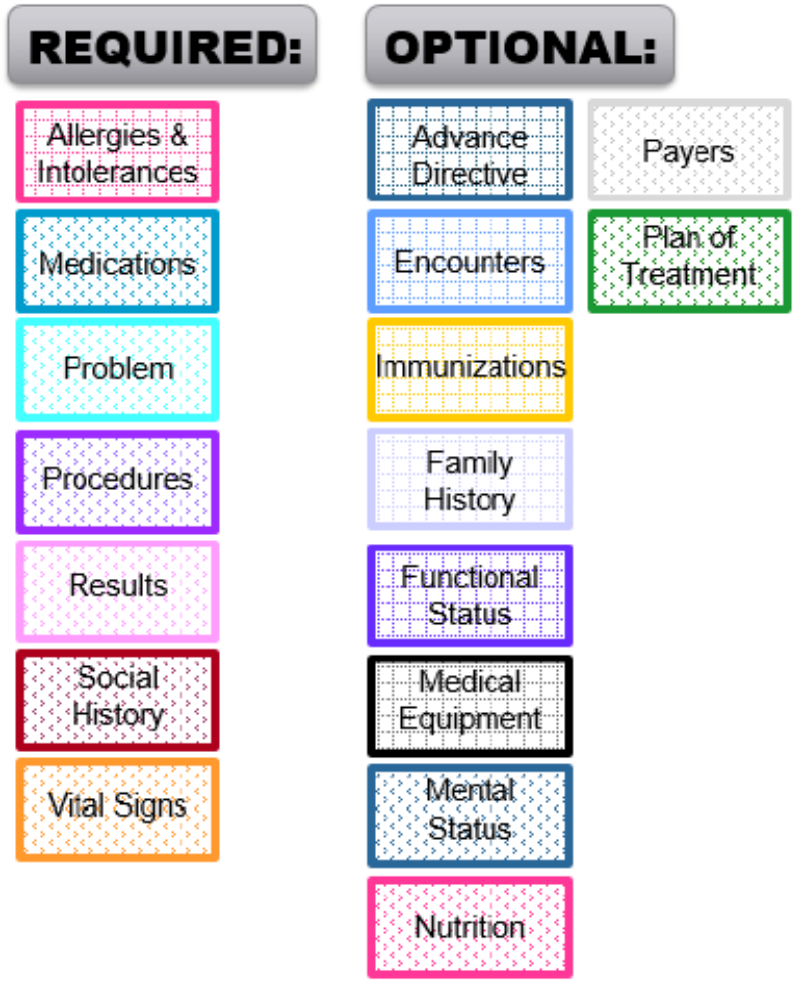
Transfer Summary



CCD



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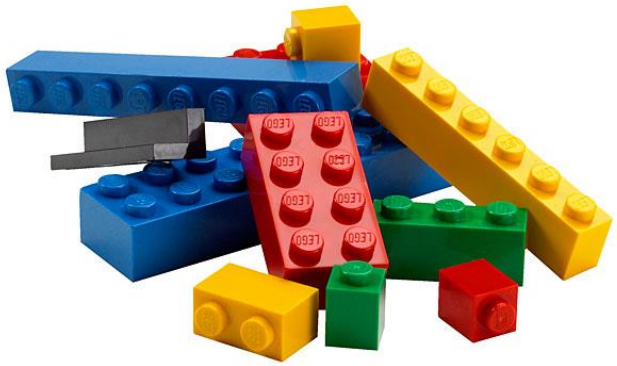
C-CDA R1.1 (9 Types) and R2.1 Document Types (12 Total)

C-CDA R1.0/R1.1

- Consultation Note
- Continuity of Care Document (CCD)
- Diagnostic Imaging Report
- Discharge Summary
- History and Physical
- Operative Note
- Procedure Note
- Progress Note
- Unstructured Document

New as of C-CDA R2.0/R2.1

- Care Plan
- Referral Note
- Transfer Summary



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

Process for Creating Consistent & Robust HL7 C-CDAs

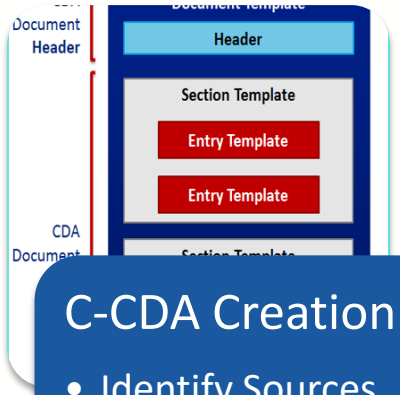
Content Priorities

- 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

Enhanced Content Testing Documentation Package

- **Website Page for New Program:**
  - http://sequoiaproject.org/ehealth-exchange/testing-overview/content-testing/
- **Wiki Page for Current Documentation**
  - http://ehealth-exchange-testing.wikispaces.com/Documentation+for+Content+Testing+Program
  - 2018-02-05-Content-Testing-Package.zip
    - eHealth Exchange Content Testing Guide 2018 Version 1.0
    - Content Testing Tools User Guide 2018 Version 1.0
    - RECEIVE Test Files – **VENDORS ONLY – not required for Participants**
      - 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

Validated Product Vendors – Required Testing

- All current Validated vendors will be required to test in 12 months from February 5, 2018
  - Create Test Cases (Using Vendor Supplied Test Data – No PHI please)
  - Receive Test Cases (HITSP C32, R1.1 and R2.1 Documents)
- New Vendors seeking Product Validation will be required to provide one or more content samples as follows:
  - All Vendors will be required to provide samples for testing for each version of HL7 specification they support (HITSP C32, HL7 C-CDA R1.1 or R2.1
  - All Vendors will be required to provide samples of each document type they support for their customers on an ongoing basis as new documents are added (CCD, Discharge Summary, Progress Note, etc.)

Participant Content Testing Requirements

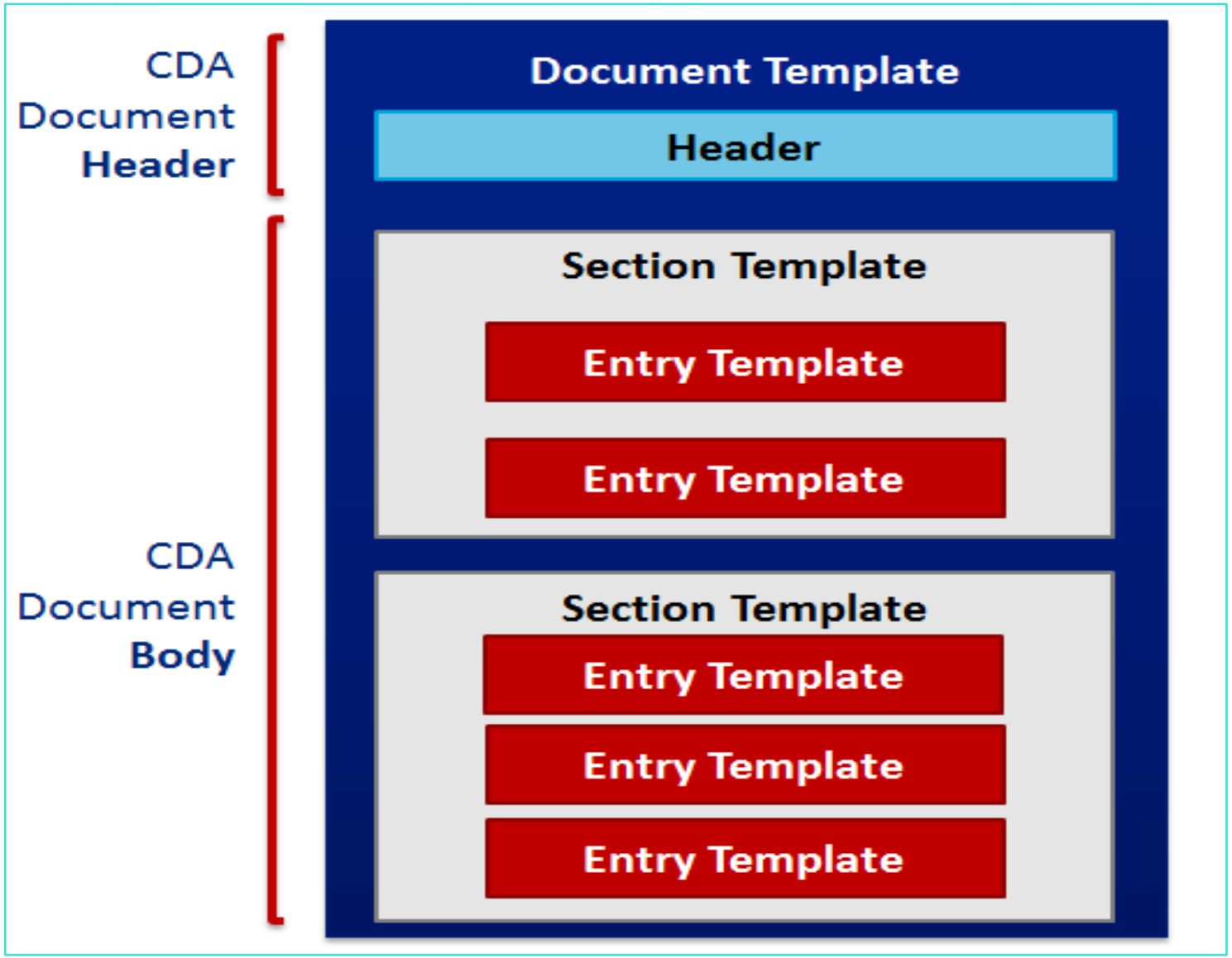
- All current Participants will be required to test within 12 months from February 5, 2018
  - Create Test Cases (Using Participant specified Test Data – no PHI)
- New Participants seeking to onboard will be required to provide one or more content samples from each Document Source in their community:
  - All Document Sources will be required to provide samples for testing for each version of HL7 specification they support (HITSP C32, C-CDA R1.1 or HL7 C-CDA R2.1
  - All Document Sources will be required to provide samples of each document type they support in production on an ongoing basis resulting in continuous testing (CCD, Discharge Summary, Progress Note, etc.)

Content Testing Tooling

IHE | GAZELLE eHealth test framework for interoperability

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 (https://gazelle.ihe.net/cda/cda-basic-req.pdf)
- More information on the tooling can be found in Appendix B of the eHealth Exchange Content Testing Guide 2018 v1.0



Content Testing Survey/Application

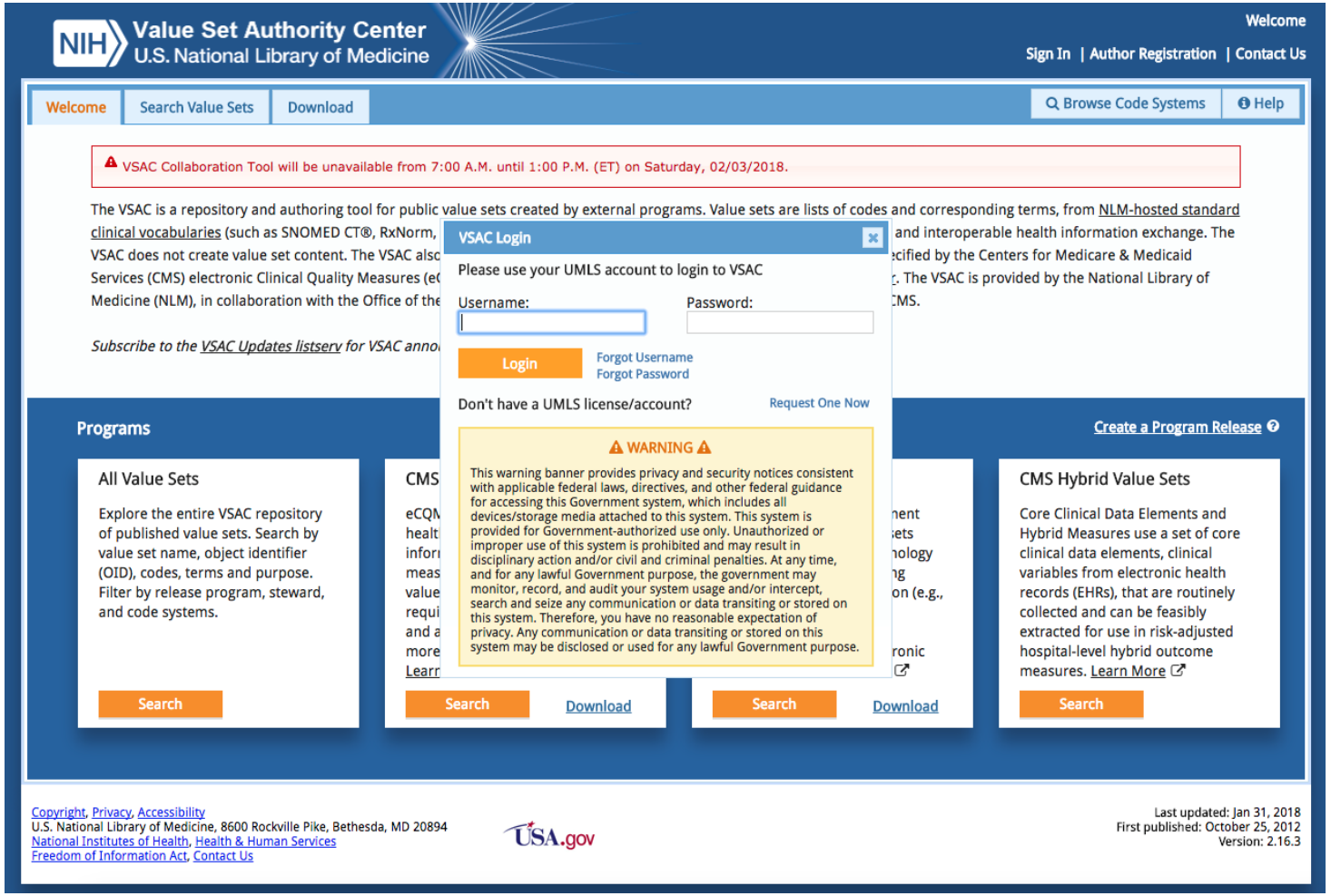
- eHealth Exchange Content Testing Survey / Application form
- **Required** to gain access to tooling
- One form per organization identifying all users to be added for testing
  - Name, email, phone
- Asks for all source systems expected to be tested
- Asks for additional details useful for trading partners to know
  - Some details may be published in the eHealth Exchange Directory in the future

Process to Report Questions, Issue, Defects

- Email one question/issue/defect per email to
  - testing@sequoiaproject.org
  - Provide as much information as possible including:
    - Screenshots
    - Testing Permanent Link with Issue
    - Reference details for specification questions/issues

Value Sets
https://vsac.nlm.nih.gov/

Requires UMLS license/account



Questions? testing@sequoiaproject.org