2020.05.20 Virtual IAT Event Page

Facilitators

- Lisa Nelson (MaxMD)
- Jean Duteau (Duteau Design)
- Joginder Madra (Madra Consulting)

Goal

- Improve consistency and quality of information representation in C-CDA exchange documents

Sign in: Attendee List

Executive Summary

The May 2020 C-CDA Implmentation-A-Thon (C-CDA IAT) was held as a half-day virtual event on Wednesday, May 20, 2020 from noon to 5pm ET. This was the eleventh running of the implementation-a-thon. It was well attended with 82 participants including program facilitators and topic presenters. Five EHR vendors sent representative: Allscripts, Cerner, e-Clinical Works, Epic, and NextGen. Representatives from the Sequoia Project, Carequality, eHealthConnection, and CommonWell communities attended. Representatives from the US Government participated as well. There was a strong showing from the quality and payer communities along with many integrators and innovators who utilize C-CDA in information exchange solutions.

The May 2020 C-CDA IAT covered several topics requested by the implementer community in order to remain informed of changes and updates. Gay Dolin of Namaste Consulting and Matthew Rahn from the ONC provided an update on changes coming this June for the Score Card validator. They also reviewed the new set of Rubric Rules balloted through the HL7 Community in 2019 and published on May 17, 2020. These rules are established to "raise the bar" on the quality of C-CDA documents and they are used to create the rules used in the Score Card validator. Representatives from the National Committee for Quality Assurance (NCQA) Wendy Talbot and Anne Marie Smith provided an updated about the processes developing at NCQA to audit and validate processes used to create C-CDA CCD documents which provide data used in quality measure assessment programs. These two topics led to conversations regarding the need for the industry to orchestrate and manage changing data quality expectations. The group discussed what would be a reasonable frequency for validation tools and processes to change. They also discussed the need for alignment between validation tools to reduce burden on implementers and avoid inconsistencies in the validation tools. Didi Davis from the Sequoia Project described the validation tools available through their suite of testing tools. She explained Sequoia Project presently offers free access to their validators as an additional option for implementers who want to confirm the quality of their C-CDA exchange documents.

Discussions in the afternoon covered C-CDA and FHIR. Lantana Consulting Group CTO Rick Geimer explained the challenges and possibilities for data transformation and co-use of the two standards to support a variety of information exchange needs within the community of implementers who are maximizing existing investments as well as implementers making new investments in interoperable data exchange.

Joe Lamy, representing issues being explored within the CommonWell/Carequality Community, described several technical topics this large Community of C-CDA implementers is struggling with as they progress toward the creation and consumption of C-CDA encounter summaries such as Discharge Summary and Progress Note documents. Topics ranged from questions about document creation workflows, such as "on demand" documents, to questions about versioning of information and expectations for Content Consumers.

The day closed with a presentation from C-CDA IAT facilitator Jean Duteau explaining what implementers can expect from the next C-CDA IAT to be held virtually on Wednesday, July 22, 2020. As a result of implementer feedback requesting a greater focus on specific use cases and examples stemming from production uses of C-CDA, the next C-CDA IAT will focus on topics selected and driven by implementers. The C-CDA implementer community is being supported to initiate discussion of topics relevant to use cases and challenges they or their customers are facing in production environments. The topic sign-up grid for the July 2020 C-CDA IAT is already available on Confluence. Topics need to be identified before June 15, 2020 so the July session can be confirmed and promoted. C-CDA IAT facilitators are available to help topic presenters develop and prepare their topic presentations. Ideas discussed as possibilities included focusing on consuming and comparing collections of production-level documents, looking at a variety of "clinical note" sections within C-CDA documents, and exploring specific implementer-defined use cases for C-CDA document exchange.

If you have a C-CDA implementation topic you would like to explore on July 22, 2020 with the growing C-CDA Implementer Community, sign-up (https://confluence.hl7.org/display/IAT/Sign+Up+for+2020.07.22+C-CDA+IAT) BEFORE JUNE 15, 2020.

Event Recordings

You will be asked to submit contact information to access the recordings.

- Session 1: USCDI - Rubric Rules – Scorecard Updates; C-CDA for Quality Measures
- Session 2: C-CDA on FHIR and transforming C-CDA to FHIR; Top issues from CommonWell – Carequality; Feedback, Questions, and Parting Thoughts

Event Notes

Item	Notes

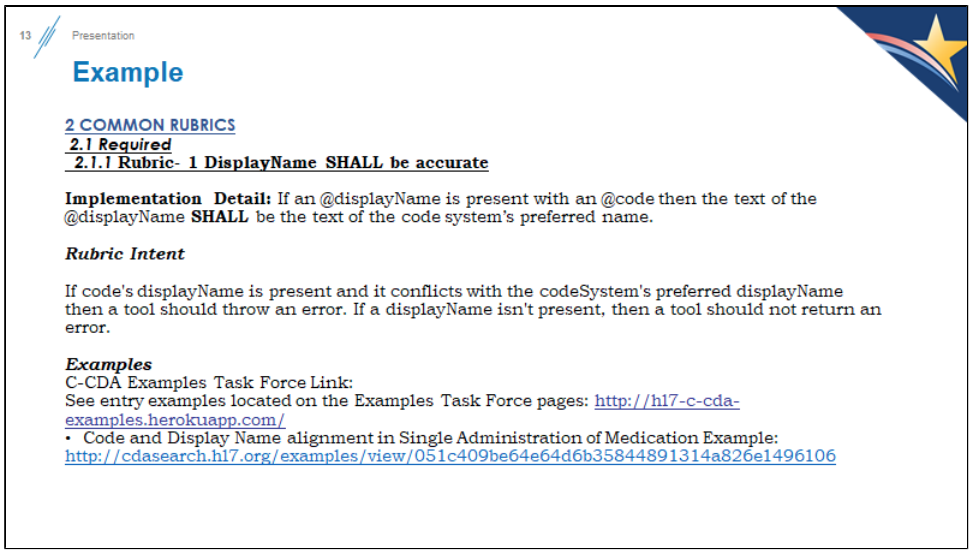
USCDI - Rubric Rules – Scorecard Updates

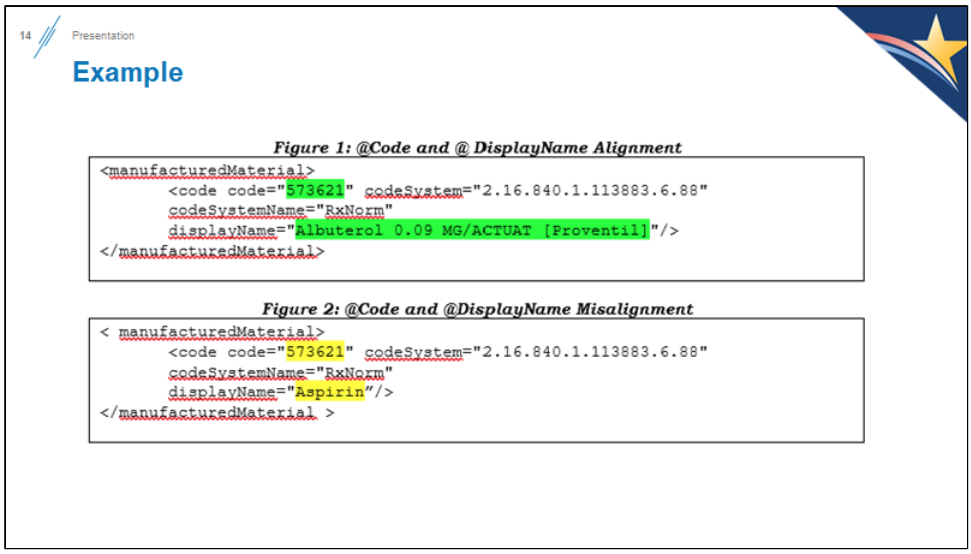
Session 1 Handout

The United States Core Data for Interoperability (USCDI) standard will replace the Common Clinical Data Set (CCDS) definition 24 months afte the final rule (May 1, 2020) - i.e. May 2, 2022. However the enforcement date has been pushed back three months to August 2, 2022.

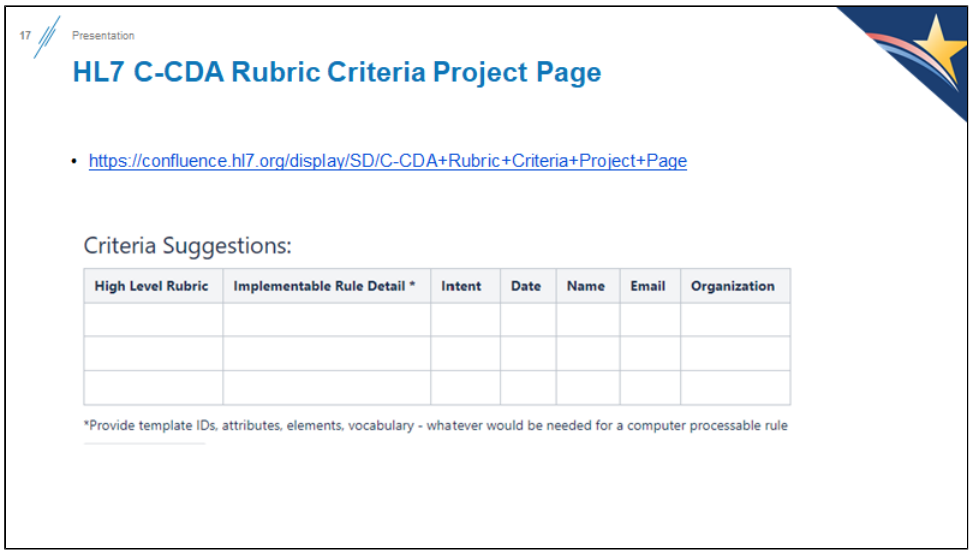
The C-CDA Rubric Guide was published on May 19, 2020 - providing guidance for required and informative rubrics and organized into three ca

- Common Rubrics
- Header Rubrics
- Section/Domain Specific Rubrics





Goal of the Rubrics Guide is to promote the development of quality assessment tools and improve interoperability and secondary use of data. I suggest rubrics on the HL7 C-CDA Rubric Criteria Project Page.



ONC C-CDA Scorecard R2.0 Beta Demo. R2.0 will be pushed out to production on June 1, 2020. The downloadable scorecard on Github will updated. Updated companion guide templates will be incorporated on June 30, 2020.

Q: Will the validator the rubric is using also be updated by June 1? **A**: Yes, but it will not be in the June 1 version of the scorecard.

Q: What is the go-forward process for adding requirements as USCDI grows? For example, is there path or idea around how notes will be brou fold? **A**: With respect to the Rubrics guide, criteria suggestions can be logged on the HL7 C-CDA Rubric Criteria Project Page (link above). As artifact, there may also be opportunities to leverage the HL7 JIRA process to capture suggested changes against the guide. The ONC is comm continuing to update the scorecard (provided funds are available). As the community coalesces around best practices - i.e. above and beyond those can be added as an update.

Q: Will ONC offer tools for validation of the various clinical notes named in USCDI? **A**: Yes...but only for notes section within the CCD, Referra Summary, and optionally the Care Plan document types.

Q: Are pediatric vitals required for all EHRs or is there a % of children to require EHRs to capture this information? **A**: This is a good question f but implementers will need to meet the requirements related to vital signs as specified.

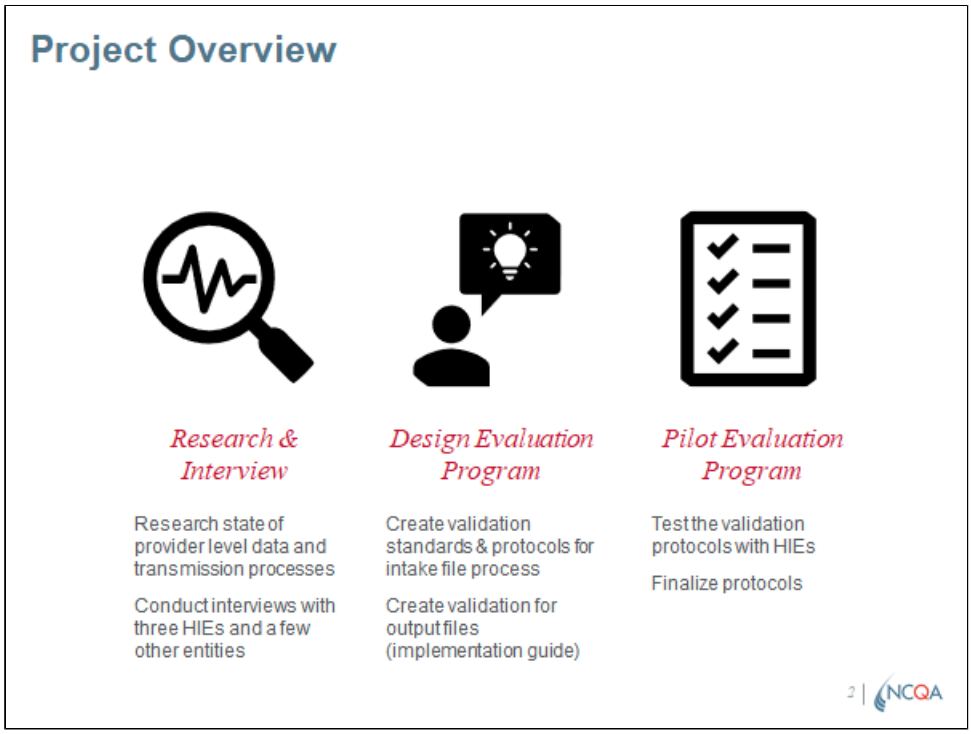
Q: Implementers are waiting on detail regarding expectations around clinical notes and pediatric vital signs. e.g. reference range related to gro Unless otherwise specified in the final rule, implementers should follow the base standard. There may be clarifications issued by June 15 as p Certification Companion Guide. Questions related to ONC Cures Act Final Rule can be submitted at https://inquiry.healthit.gov/support/service /portal/2/user/login?destination=portal%2F2.

Q: The number of issues is hard to see when you expand format. **A**: Yes. Matt will work with the team to see if there is a clearer way to preser

C-CDA for Quality Measures

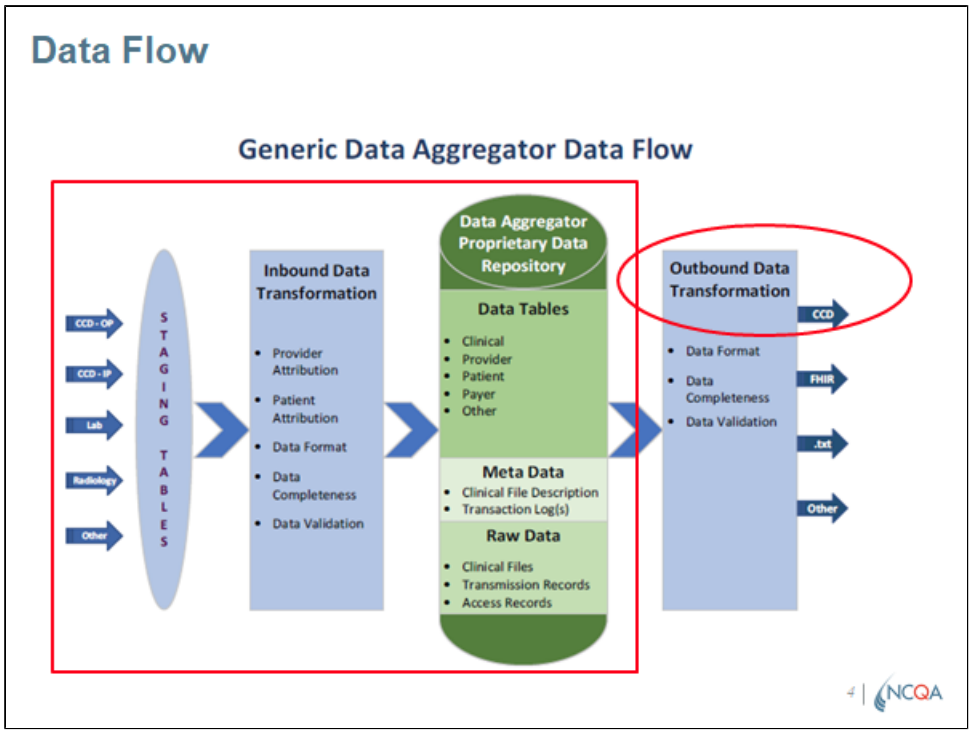
Session 2 Handout

Data Aggregator Validation: Pilot Program



Goals of the program are to:

- Ensure integrity of data is maintained from source through to end-user
- Ensure Aggregator adheres to NCQA Implementation Guide (IG)
- Minimize audit burden on vendors and health plans who receive data



Aggregators MUST pass both the input data validation and the output file validation in order to be considered validated.

Anticipated timelines- June 2020 for pilot completion, soft launch in the fall and 2021 for the official program launch.

Q: How can we learn from your project putting into consideration we are outside of the US and we rely only on HL7 CDA? **A**: Best way would l Wendy via email or to visit the NCQA DAV webpage. It is believed that many of the learnings coming out of this process will have applicability

Q: What falls into the category of "aggregator"? **A**: Pilot is working with HIEs, but it really includes anyone who aggregates data and passes it a - e.g. health plans, EMR vendors, etc. but there is not a hard definition.

Q: How does this process/validator work in conjunction or relate to the ONC validator/scorecard? **A**: Right now, the validators are different. Hc is to align. This will be a discussion for for team to see how it can leverage and feed back to the ONC tools.

Q: Focus seems to be on CCD. What about other document types? **A**: The CCD is what is tested as the output. There are no limits in what th takes in. NCQA checks after ingestion are related to manual primary source verification processes such as policies, procedures, data capture r repository sampling and auditing, etc.

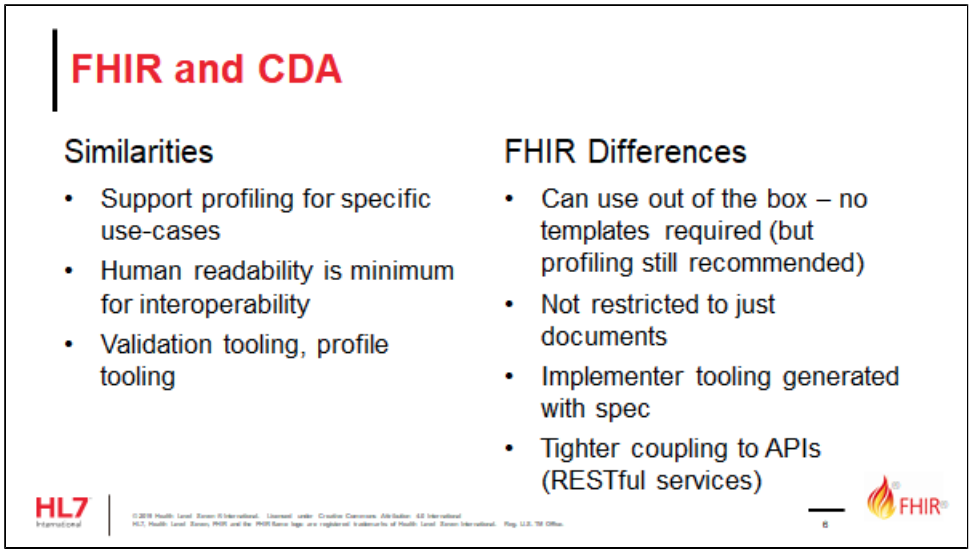
Q: Is there going to be a mapping document between C-CDA elements and Quality Measure elements? When an element is required by QM b supported by the CDA IG, will the IG be updated accordingly? **A**: Volume 1 in QRDA includes an appendix where the QRDA templates are ma CDA templates.

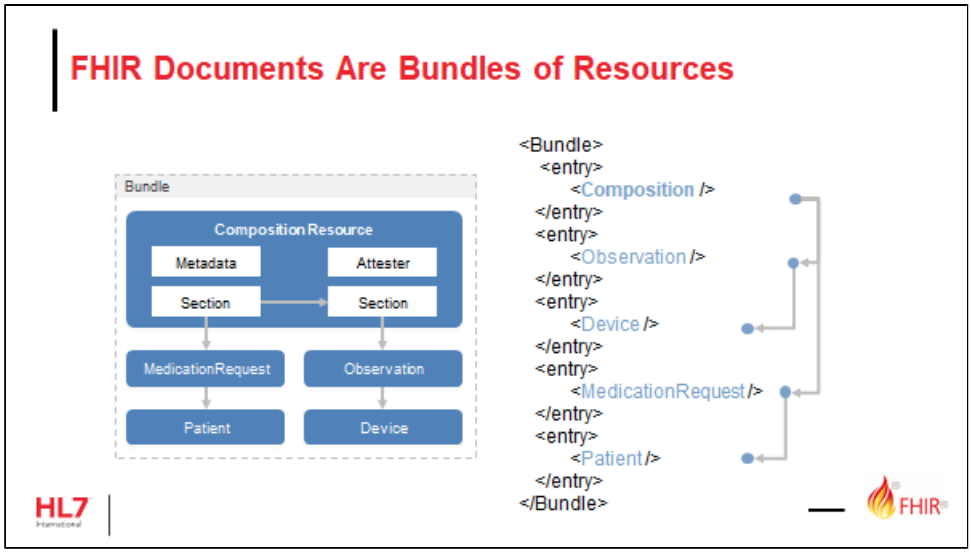
C-CDA on FHIR and transforming C-CDA to FHIR

Session 3 Handout

Session objectives:

- Key characteristics of clinical documents
- The FHIR document paradigm
- How to find and navigate the C-CDA on FHIR specification
- Challenges mapping between CDA and FHIR documents



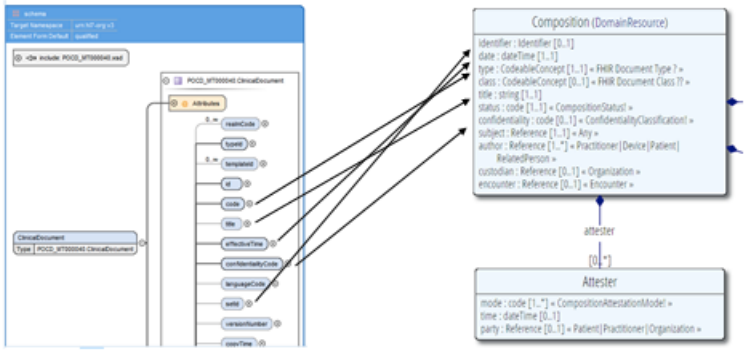


Link to FHIR Documents, FHIR Composition Resource and C-CDA on FHIR Implementation Guide.

Converting between C-CDA and C-CDA on FHIR

- Why?
  - Quick way to get a critical mass of FHIR documents
  - Continuity with existing practice, using better syntax and APIs
  - Creating FHIR documents and converting to CDA may be an easier way for developers to comply with today's regulations

CDA Header to Composition



Sections

- Section mapping is fairly straightforward.
  - Not much to do here but minor renaming (section.code to section.type, etc.)
- Both CDA and FHIR documents allow recursive sections.
  - But section nesting is pretty rare in practice (at least in US Realm CDA documents)

Converting CDA Narrative Content

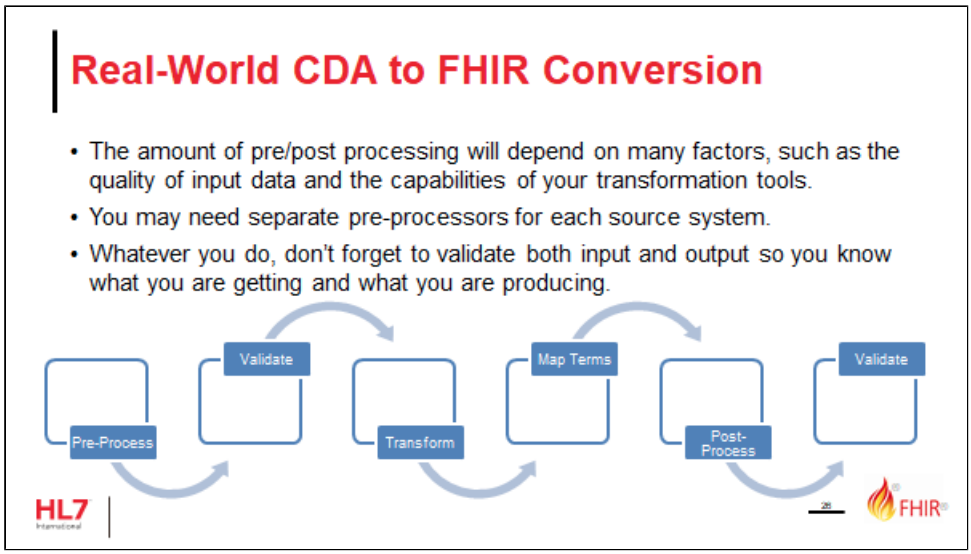
- CDA markup is not XHTML
- However, the CDA.xsl contains the basic mappings from CDA narrative to XHTML
- Decide how much styling you want to add
  - The FHIR rendering stylesheet currently displays only the XHTML of any given resource
  - You may need more formatting in your narrative than you would in CDA for good looking documents

Converting Coded Entries

- Templates map to resources
- Nested entryRelationships become references to discrete resources or just get merged into a single resource
- Need to explicitly define context for each resource

Bundling It All Up

- Do it yourself.
  - Conversion code creates the Bundle resource.
  - Need to make sure that type=document, Bundle.identifier is globally unique, all references are contained in the Bundle, etc.
- Let a FHIR server do it for you.
  - POST the Composition and other resources to a FHIR server as you are converting, then just call $document at the end.
  - Side benefit: incremental validation
  - Downside: may not contain all the resources you want



Q: Is there use of the list resource in this work? If not, why? **A**: It was considered but was deemed unnecessary as much of what is covered in found in section. Use of list is not prohibited though.

Q: What are the use case differences between documentReference vs. composition? **A**: documentReference is used for unstructured FHIR content. Composition is used when you have structured FHIR content.

Q: Will FHIR document replace C-CDA at some point? **A**: Hope to move away from "data dump" scenarios such as full CCD exchange betweer using FHIR. FHIR lends itself well to exchanges scenarios involving "human-generated" document types. That said, it is unlikely C-CDA will go soon.

Q: We'd like there to be some discussion on how a system should incrementally move towards FHIR. i.e. start with basic context-free queries tc CCDs, while keeping encounter summaries in a document form, incrementally moving from C-CDA to FHIR documents or maintaining both. **A**: use cases. However, it is likely there will be duplicative information for point-in-time documents that are generated from dynamic data. More wc done in the areas of data de-duplication and normalization.

Q: What is the best community to engage with regarding C-CDA to FHIR conversion? **A**: C-CDA/FHIR mapping stream on chat.fhir.org. There source projects out there as well - e.g. PHCP public transforms repository in Github (note...this project uses STU3).

Q: Are there any suggestions for addressing negation in CDAFHIR? **A**: This will vary by resource.

Top issues from Common Well – Carequality

Session 4 Handout

What is the Joint Document Content Work Group?

- Carequality and CommonWell launched in 2018
- Solve common problems
  - Too large C-CDA documents
  - Absence of clinical notes
  - Need for encounter summaries
  - Need for version management
- Output is best practices document
  - Each exchange incorporates into its governance process

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What is the group's "lane"?

- Top level operational spec for exchanges
- Participation from clinicians, vendors, standards SMEs
- Can address problems crossing multiple standards lanes
  - Content: HL7 CDA, C-CDA documents
  - Query and retrieval: IHE Document Sharing
  - Relationships between EHR state, queries, and generated content
- Can feed back issues to standards bodies
  - E.g. consider for C-CDA Companion Guide

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Link to Concise Consolidated CDA:Deploying Encounter Summary CDA Documents with Clinical Notes white paper.

Sharing instances of documents

- Some vendors are generating new documents every time someone asks
  - New document ID, new creation time – metadata immediately deprecated so others won't see in queries
  - Difficult to detect duplicative data
- When does it make sense to share the same document instance?
  - Same encounter, nothing has changed = share same instance
  - Encounter goes through revisions = share same versions
  - Patient summary (CCD) newly generated = share same or new?

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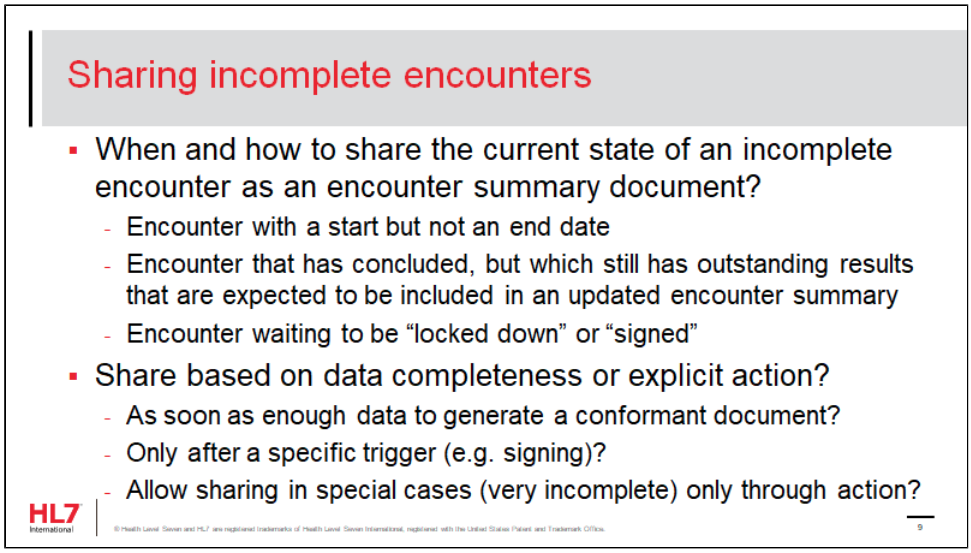
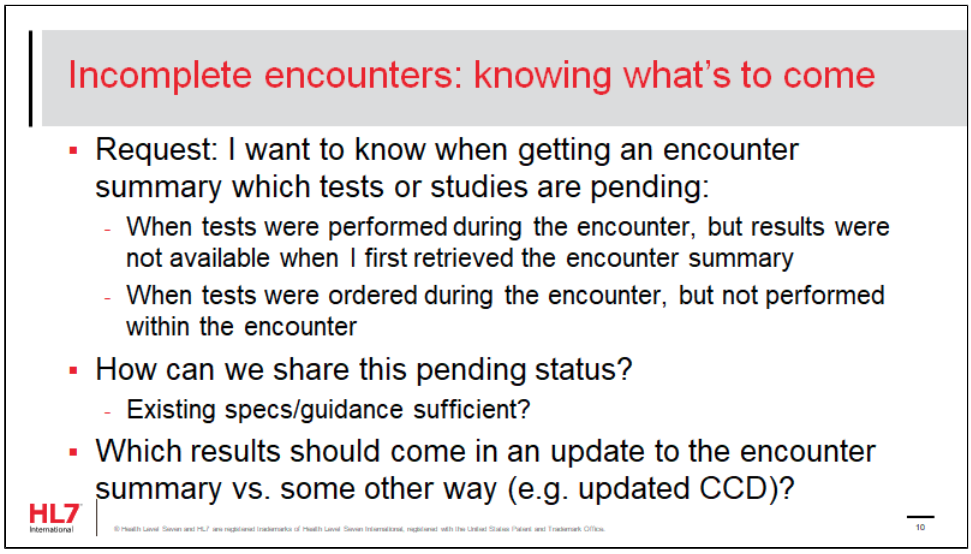
Discussion: One possible approach for the Patient Summary (CCD) newly generated scenario: create a new document ID, and then create a pa
sort that you need to look at to find the link back to find out that it's the same. However the intent is not to drive to consensus here - instead it is
issues uncovered.



Discussion: There can be sharing of incomplete encounters - e.g. sharing of anticipated orders prior to a patient being discharged.

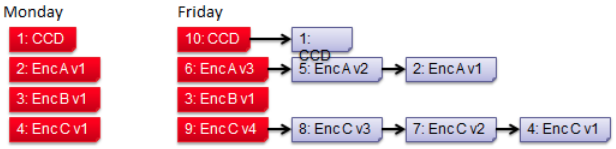


Sharing versions of documents

- Examples
  - Unexpected corrections
  - Expected updates (e.g. labs come in after discharge)
- Versioning scenario
  - Monday, you get four documents for a patient: one patient summary (CCD) and three encounter summaries.
  - During the week, two encounters get updated in the EHR, some multiple times, and others have requested those versions, causing them to be saved and earlier versions to be deprecated.

Versioning scenario continued

Red = approved for clinical use
Gray = deprecated
Newer versions refer to their predecessor (this is what the arrows show)



Friday, you see the patient again. Assuming you want the latest info, how do you want to see it?

- Just want to get the latest (i.e. 10, 6, 3, 9)
- Want to know without reading the document which of the encounters each update is for (i.e. 6 is an update to 2).
- Want to see the entire chain of revisions before retrieving and decide if I want to retrieve any intermediate versions.

Other work items in backlog

Additions/revisions to v1.1 guide

Best practices for rendering documents

Guidance for Data Provenance

Guidance for documents vs. clinical scenarios

Guidance for longitudinal view

Guidance for patient summaries

Guidance for populating meaningful narratives

Guidance for Referral Notes and Consultation Notes

Guidance for sharing entries within/across documents

Guidance for meaningful codes

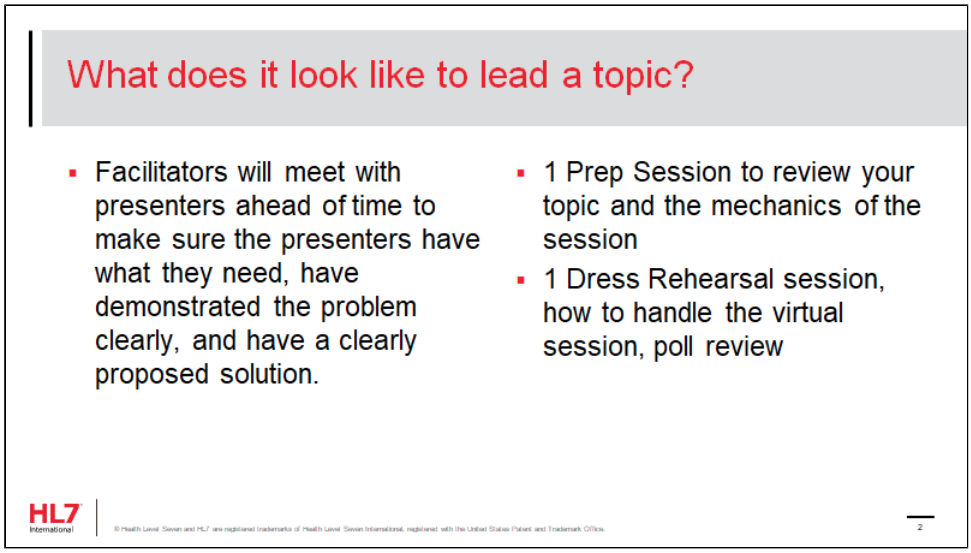
Problems with name formats between XDS/CDA

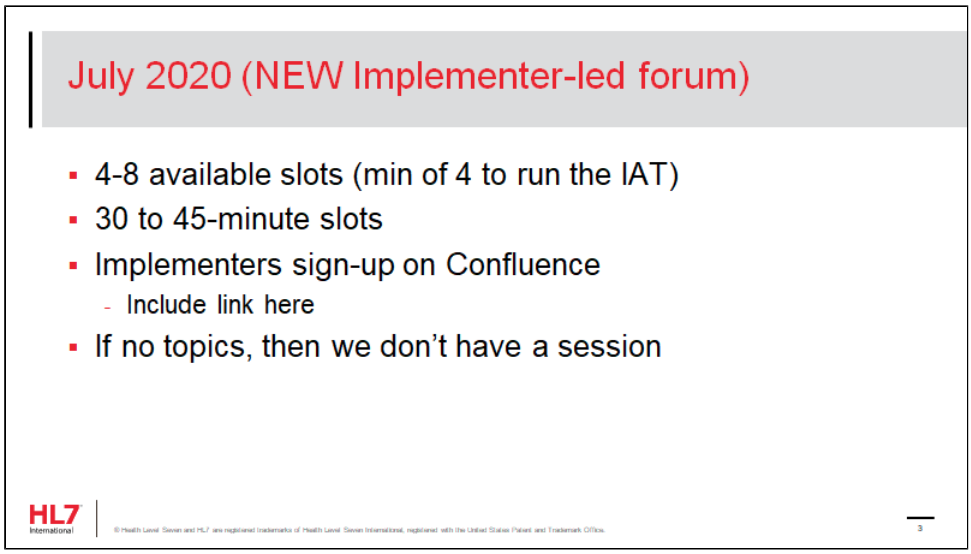
These are examples of pain points and issues discovered through the workgroup. If you want to contribute to driving towards consensus appro issues, Carequality has many committees and workgroups that can be joined. In the spirit of transparency and community, non-members are in of our workgroups as well. We encourage anyone who would like to participate to contact us at admin@carequality.org to let us know of your in the link to the website listing all workgroups convened by Carequality. https://carequality.org/get-involved/

New format for Implementer Led IATs

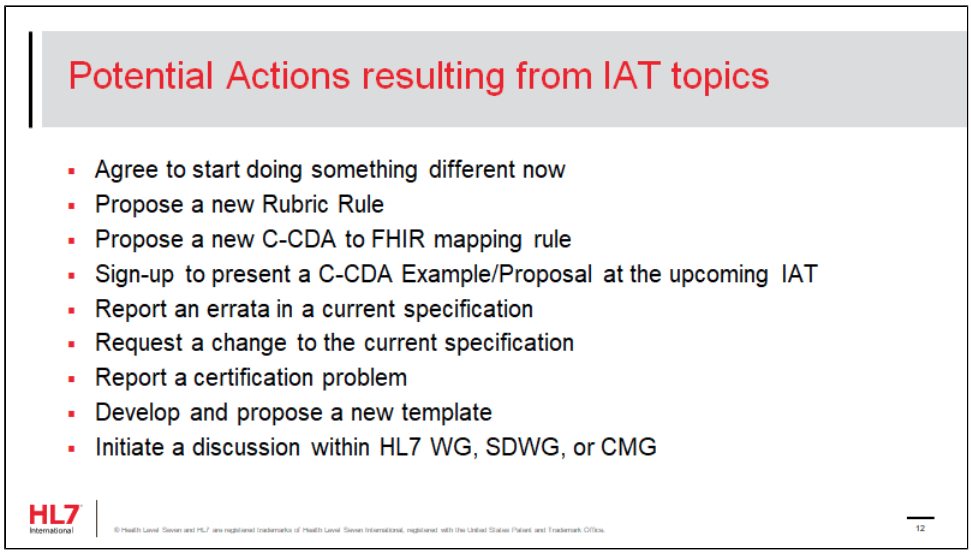
Session 5 Handout

Goal is for topics for the July 22 IAT to be implementer-led. Confluence page to sign up for topics.





See attached handouts page for examples of deep-dive topics.



Feedback, Questions, and Parting Thoughts

Discussion:

- Could July IAT be focused on sharing documents - i.e. connecting and sharing with each other? May be easier as everyone will have acc systems.
- Are there any Implementation Guides specifically for ophthalmology for structured documents? Yes. https://www.ihe.net/ihe_domains/eye
- Questions about Sequoia tools
  - Sequoia Interoperability Testing Platform (ITP)/Content Testing Tooling: https://gazellecontent.sequoiaproject.org/EVSClient/home.se
  - https://ehealthexchange.org/wp-content/uploads/2020/04/eHealthExchange_2018_Content_Testing_FAQs_v5.pdf
  - testing@sequoiaproject.org for any other testing related questions
- Suggestion to focus on clinical notes for a topic in July
- Deadline for submitting topics for the July 22 IAT would be about mid-June

Action/Followup Items

Grouping	Item	Responsible for Follow-up
USCDI / Scorecard	Follow up with program area to determine if there is a threshold of pediatric patients before EMRs are required to support pediatric vital signs	Matt Rahn
USCDI / Scorecard	The number of issues is hard to see when you expand format.	Matt Rahn
C-CDA for Quality Measures	Discuss with the project/pilot team to see how it can leverage and feed back to the ONC tools (e.g. validators)	Wendy Talbot