Aligning with FHIR:
Mapping C-CDA to and from US Core.

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PROJECT OVERVIEW
AND DEMONSTRATION

Value-Based Care
Telehealth
Interoperability
Patient Engagement
CDC Reporting

C-CDA to and from FHIR Structural Mapping

Problem:
• How to transform structured data in one form into actionable content in a different structured form?
• How to provide guidance for accurate transformations?

Abundance of data from different sources
Redundant data with difference in interpretation
Fragmented data being populated in different formats
Mismatch in vocabulary and structure
Many different siloed efforts could be complicating the problem
**HL7 Project: C-CDA to and from FHIR Structural Mapping**

**Project: PSS-1811**

This project will establish definitive HL7 mapping guidance for C-CDA to FHIR and FHIR to C-CDA using the document types in C-CDA R2.1 plus C-CDA Companion Guide R2, referenced/implied in the 2015 Certification Edition-Cures Update and USCDI v1 Clinical Notes data class: CCD, Discharge Summary, Referral Note, Consultation Note, Procedure Note, History and Physical, and Progress Note document types.

Reference Link: https://confluence.hl7.org/display/CGP/Mapping+C-CDA+to+and+from+FHIR

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**PSS-1811 Scope**

- Produce mappings for C-CDA section templates and C-CDA entry templates to and from FHIR resource/US Core profiles.
- Propose additional FHIR attributes, extensions and/or FHIR Core additions through the respective FHIR resource stewards as identified and appropriate.
- Propose additional CDA extensions through SDWG as appropriate
- Collaborate with the then current annual value set harmonization process (currently PSS 1696) when alignment of code system/value sets are identified.
- Establish a publication format, informed by the v2-to-FHIR and other mapping efforts, to ballot and publish the proposed definitive mappings, that also enables FHIR standard/IGs and C-CDA IG to reference applicable mappings in context.

Reference Link: https://jira.hl7.org/browse/PSS-1811

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**Project Process and Use Cases**

- **Project Process**
  - Roadmap
  - Subject Matter Expert Review
  - Acceptance (SME Sign-off and Test Messages)
- **Use Cases**
  - CDAonFHIR (Composition, USCore)
  - CDA/IPS-FHIR (IPS Composition, USCore)
  - FHIRtoCCDA (eCR)
RoadMap -
https://confluence.hl7.org/display/CGP/Project+Progress+Dashboard

Scope / Priority

Reports for Ballot

"Gold Standard" for implementers

Review - Subject Matter Experts and Developers
https://confluence.hl7.org/display/CGP/Mapping+C- CDA+to+and+from+FHIR

Use Cases - MDIX

Demonstration:
- Runtime Use Cases
- SME Use Cases

MDMI Map:
- Captures knowledge in a computable way for any exchange format on how to produce or consume a document, file, or message.
- Any MDMI Map works with any other MDMI Map.

MDMI Runtime:
- Takes MDMI Maps and executes transformations to produce consumable file.
For More information

MDIX
  • For more information about MDMI, go to www.mdixinc.com

Open Standard for Interoperability: MDMI
  • For information on the MDMI Standard, go to www.omg.org/mdmi

MDMI Open-Source Software and Content
  • For information on Open Source, go to www.github.com/mdmi

Demonstration

Reporting Use-Case: FHIR to CCDA (eCR)
Electronic Case Reporting (eCR) Value

The automated generation and transmission of case reports from electronic health records (EHRs) to public health agencies for review and action.

- Reporting diseases and conditions of interest to public health by healthcare providers is required by law in all US states and territories.
- Requirements of this reporting vary by disease/condition (100+ reportable conditions) and public health jurisdiction.
- Historically, healthcare providers must identify that their patient has a disease/condition of interest to public health, create a reportable condition case report using time-intensive manual processes (e.g., written reports, fax, or mail), and submit the report to the appropriate PHA.
- Manual reporting has led to significant underreporting and, therefore, delayed identification of events, such as dangerous disease outbreaks, that require public health intervention.

Reporting Use - Case: FHIR to CCDA (eCR)

- Nationwide eCR
- Provisioning, Routing
- DSS, Infrastructure
- APP supports COVID and the rest of the Reportable conditions
- Any Healthcare Delivery System
- Deterministic Mappings and E-Case Reporting

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