

Multiple Chronic Conditions Dynamic Electronic Care Plan FHIR IG Proposal

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Committee Approval Date:

Patient Care Work Group approved August 5, 2020

Publishing Lead:

Gay Dolin

Contributing or Reviewing Work Groups:

Primary Sponsor: Patient Care

Co-Sponsor: Clinical decision Support (CDS)

Co-Sponsor: Learning Health System

FHIR Development Project Insight ID:

1618

Scope of coverage:

The scope boundaries of this implementation guide are: The primary goal of the MCC IG is to support the querying for patient-centered care planning and care coordination data elements (Health and Social concerns, Goals, Interventions and Health Status/Outcomes) from all the clinical and home /community based settings where a person receives care. Ultimately, this project will enable leveraging SMART on FHIR apps to dynamically aggregate and relate all the elements of care planning and care coordination relevant to an individual. The implementation guide is focused on 4 common chronic conditions: 1) chronic kidney disease (CKD), 2) type 2 diabetes mellitus (T2DM), 3) cardiovascular diseases (specifically, hypertension, ischemic heart disease and heart failure), and 4) pain. It defines the representation of the chronic condition clinical data elements through minimal additional constraints on US Core profiles. The IG will be tested repeatedly to define the structures, transactions and directions for using the FHIR Care Plan resource as a FHIR resource that can support patient focused care planning and management in the real world.

How is it different from other IGs in it's core space: There are currently no comprehensive HL7 FHIR Care Plan Implementation Guides based on the FHIR Care Plan profile. Work in this space currently includes: 1) a C-CDA on FHIR Document-based Care Plan (Pharmacy) implementation guide, and 2) the US Core Care Plan profile, and 3) a balloted, but not yet published, FHIR IG (Da Vinci Payer Data Exchange (PDex)) that is payer focused and points to the US Core Care Plan Profile, but does not constrain it. 4) the eLTSS FHIR Care Plan IG is focused only on long term care services and support and patients in nursing homes and home care and is not designed to follow patients throughout all care settings.

Who is it targeted at: iverse clinical, home & community-based care settings, and research settings.

What is the stretch goal ("What will it eventually be - not necessarily whats covered in the current project"): The current project is envisioned as a proof-of-concept and first step toward an IG that will ultimately support widespread implementation of a truly comprehensive shared care plan that would follow a person longitudinally from conception to death and include key data elements for all major diseases and conditions.

Content location:

We were not given an HL7 GitHub repository location yet. It is my understanding that FHIR IG Proposal had to be done first.

The IG is currently being built in Trifolia: https://trifolia-fhir.lantanagroup.com/lantana_hapi_r4/MCC-IG/home

Proposed IG realm and code:

Realm: US

Code: us/mcc

Package ID: [hl7.fhir.us.mcc](#)

Maintenance Plan:

Content will be maintained under HL7 PCWG sponsorship, updated at least as often as required to keep the IG from expiring

The National Institute of Health's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the Agency for Healthcare Research and Quality (AHRQ) will drive, coordinate and advocate for the long term maintenance of this project.

Short Description:

Provides representation of clinical and social data elements in the FHIR Care Plan format. Focuses on 4 common chronic conditions: 1) chronic kidney disease (CKD), 2) type 2 diabetes mellitus (T2DM), 3) cardiovascular diseases (specifically, hypertension, ischemic heart disease and heart failure), and 4) pain.

Long Description:

The implementation guide provides representation of clinical and social data elements in the FHIR format and defines where these elements should be represented within the FHIR Care Plan Resource. It describes the necessary operations and transactions needed to generate, aggregate and exchange care plans. The primary audience for this specification is EHR independent application developers and EHR developers of Care Plan modules and IT departments at implementation sites. A secondary target audience are consumers of structured Care Plan data such as researchers and payers. It provides the rules and methods to achieve this aggregated view within a Care Plan structure pulling data from all systems where patients receive care, including patient provided data. Interoperability is often hamstrung by policy, technical, business and cultural challenges among EHRs to write back or pull data into their EHRs which is needed to provide a holistic picture of patients.

Involved parties:

This work is supported by The National Institute of Health's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the Agency for Healthcare Research and Quality (AHRQ) and the Assistant Secretary for Planning and Evaluation's (ASPE) Patient-Centered Outcomes Research (PCOR) Trust Fund.

Expected implementations:

- Oregon Health & Science University (OHSU) (Epic)
- Select OHSU associated independent ambulatory clinics using other EHRs
- RTI will coordinate several additional implementation community sites, looking for dialysis sites in particular
- VHA and IHS have also expressed interest in implementing
- We anticipate testing through 6 Connectathons

This is the list of potential sites as of July 2020:

Sites	Type	System
Oregon Health and Science University (OHSU)	<ul style="list-style-type: none"> ▪ Acute care ▪ 11 primary care clinics ▪ 90 specialty clinics 	Epic
Fresenius	Dialysis center	Acumen
DaVita	Dialysis provider: inpatient and transfer	Falcon
Holladay Park	Long-term and post-acute care (LTPAC)	Set of LTPAC systems
Mirabella	LTPAC	Set of LTPAC systems
Northwest Primary Care	5 primary care clinics	Greenway
211	Community resource specialist organization	Non-health IT system

Content sources:

The [National Institute of Diabetes and Digestive and Kidney Diseases \(NIDDK\)](#) expert panels have converged on a core set of data elements of importance to an initial set of common chronic diseases. Specification of interest external to HL7 is the [IHE Dynamic Care Plan Profile](#)

Example Scenarios:

1. Generate comprehensive eCare Plan in clinical setting
2. Expose (share) eCare Plan to clinical care team and patient/caregiver
3. Receive and incorporate eCare Plan data updates (e.g. completed interventions)
4. Attribute Care Team Members
5. Consent to share eCare Plan information for research (e.g. S4S)
6. Consent to share eCare Plan sensitive information with specific team members

7. Expose (share) eCare Plan to community-based (non-clinical provider)

IG Relationships:

The MCC IG depends on the US Core Implementation Guide

The MCC IG will be using profiles from the BSeR: Bidirectional Services_eReferral IG

The MCC IG may use profiles from the developing Gravity SDoH after its ballot and publication

Timelines:

We anticipate balloting in September of 2022

FMG Notes