Multiple Chronic Conditions (MCC) eCare Plan Federal Partners Meeting

February 22, 2022

Jenna Norton
Arlene Bierman
EMI Advisors

Welcome! Please say hello **in the chat** by sending everyone your **name** and **affiliation**.

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Agenda

Topic	Time	Presenter(s)
Welcome and Introductions	5 minutes	Jenna Norton, NIDDK Arlene Bierman, AHRQ
MCC eCare Plan Project Update & Partner Feedback	50 minutes	EMI Team
Federal Projects Round Robin Update	60 minutes	Federal Partners
Concluding Thoughts and Next Steps	5 minutes	Jenna Norton, NIDDK Arlene Bierman, AHRQ

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Introductions

Evelyn Gallego, MBA, MPH, CPHIMS

Karen Bertodatti, MPH

Emma Jones, MSN, RN

Gay Dolin, MSN, RN

Dave Carlson, PhD, MBA

Savanah Mueller, MPH

Please say hello in the chat by stating your name and affiliation.

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Housekeeping

Live transcription is available.

Use the hand raising feature when you want to comment and kindly wait for a facilitator to call on you before speaking.

Use the chat to share feedback at any time.

We are recording for note-taking purposes.

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MCC eCare Plan Project Update & Partner Feedback

Overall Project Status

History of Federal Investment in Care Planning/Coordination

Over a decade of federal investment in advancing the development and use of standards for care planning and related care coordination activities:

- **ONC**: 2015 Edition Care Planning Criterion
- **ONC/CMS**: electronic Long-Term Services and Supports (eLTSS)
- **SAMSHA:** Omnibus Care Plan
- **CMS**: PACIO Project
- **NIDDK/AHRQ**: MCC eCare Plan
- **ONC/ AHRQ/ ACL/ CMS**: Gravity Project
- **ACL**: Social Referral Challenge Program
- **ONC**: LEAP Grant Program
- **CDC**: MedMorph
- **CDC**: Clinical Practice Guidelines (CPG) on FHIR
- **ACF**: Human Services Interoperability Innovations Grant
- **(NEW) CDC**: SDOH Use Case for Chronic Disease Prevention

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Comprehensive Shared Care Plan Definition

U.S. Department of Health and Human Services 2015 Stakeholder Panel

1. Gives the person direct access to health data.
2. Puts the person's goals at the center of decision-making .
3. Is holistic, including clinical and nonclinical data (e.g., home- and community-based, social determinants needs and services).
4. Follows the person through both high-need episodes (e.g., acute illness) and periods of health improvement and maintenance.
5. Allows care team coordination. Clinicians able to 1) view information relevant to their role, 2) identify which clinician is doing what, and 3) update other members of an interdisciplinary team.

Baker, et al. Making the Comprehensive Shared Care Plan a Reality. *NEJM Catalyst*. 2016: https://catalyst.nejm.org/making-the-comprehensive-shared-care-plan-a-reality/

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NIDDK/AHRQ e-Care Plan for Multiple Chronic Conditions (MCC) Project

Build capacity for pragmatic, patient-centered outcomes research (PCOR) by developing an **interoperable electronic care plan** to facilitate aggregation and **sharing of critical patient-centered data** across **home-**, **community-**, **clinic-**, and **research-**based settings for people with **multiple chronic conditions** (MCC).

https://ecareplan.ahrq.gov/collaborate/

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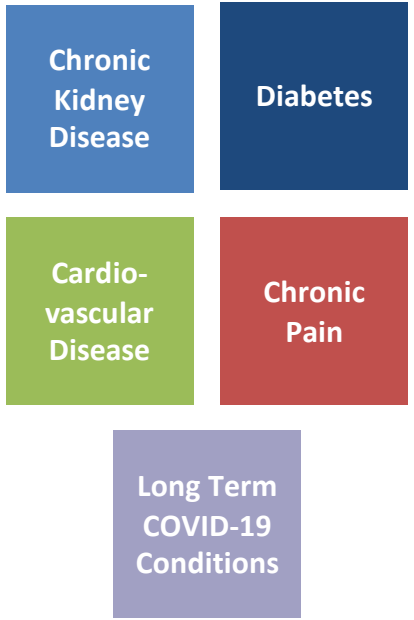
MCC eCare Project Deliverables*

1. **Data elements, value sets, clinical information models, and FHIR mappings** to enable standardized transfer of data across health and research settings for kidney disease, diabetes, cardiovascular disease, chronic pain, and long-term COVID.
2. **Pilot tested patient-, clinician-, and caregiver-facing e-care plan applications** that integrate with the EHR to pull, share, and display key patient data.
3. **HL7® Fast Health Interoperability Resource (FHIR®) Implementation Guide** based on defined use cases and standardized MCC data elements, balloted for trial use.



*All deliverables will be open-source and freely available.

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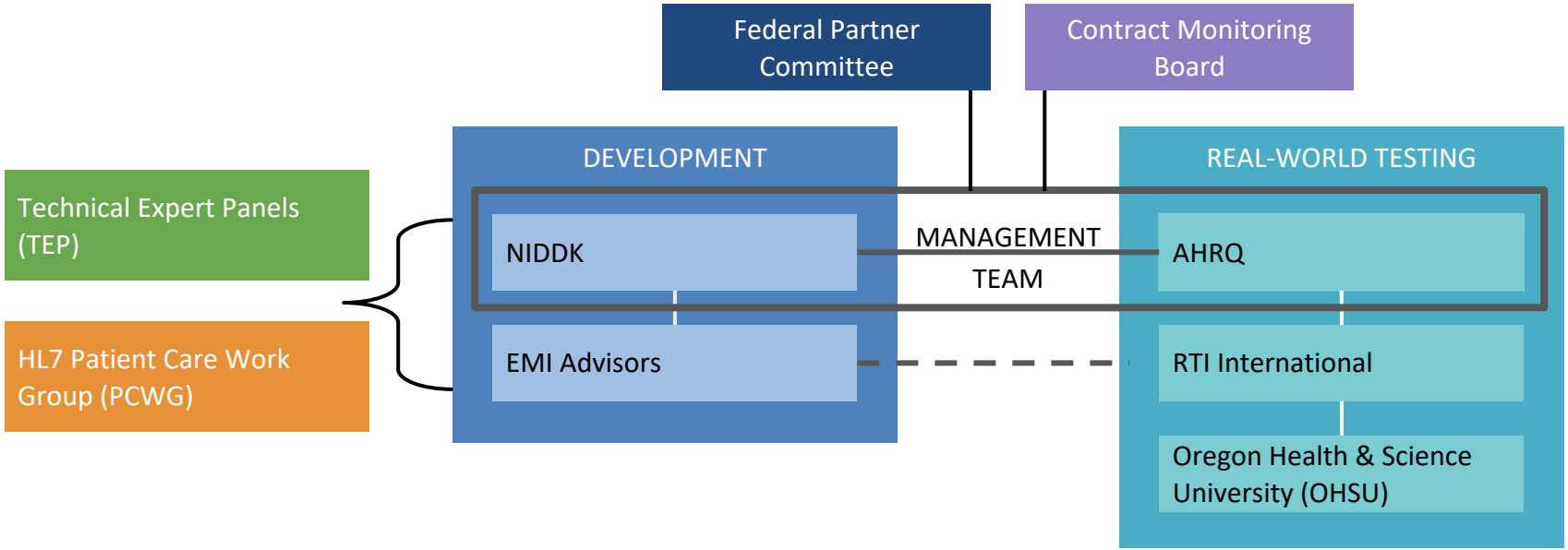
MCC eCare Project Governance Model



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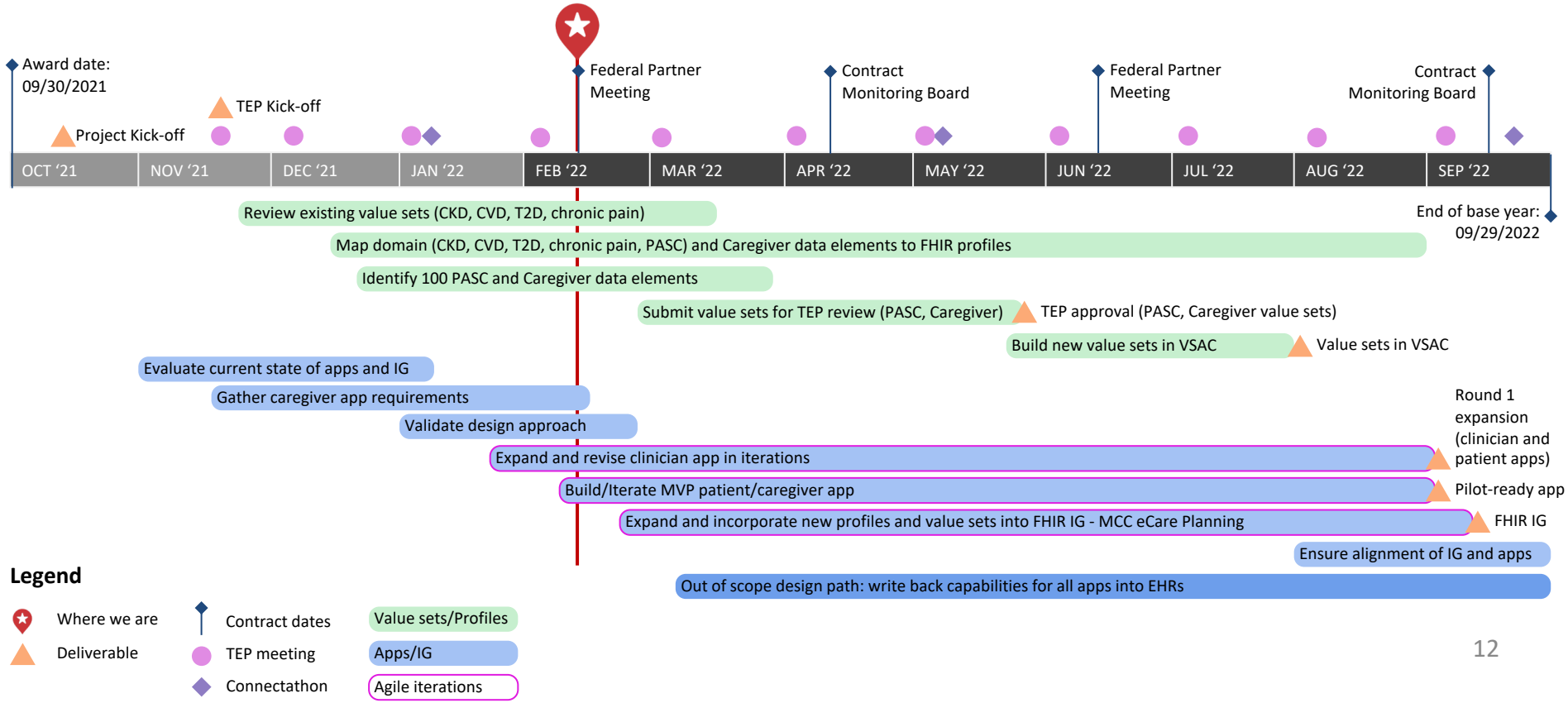
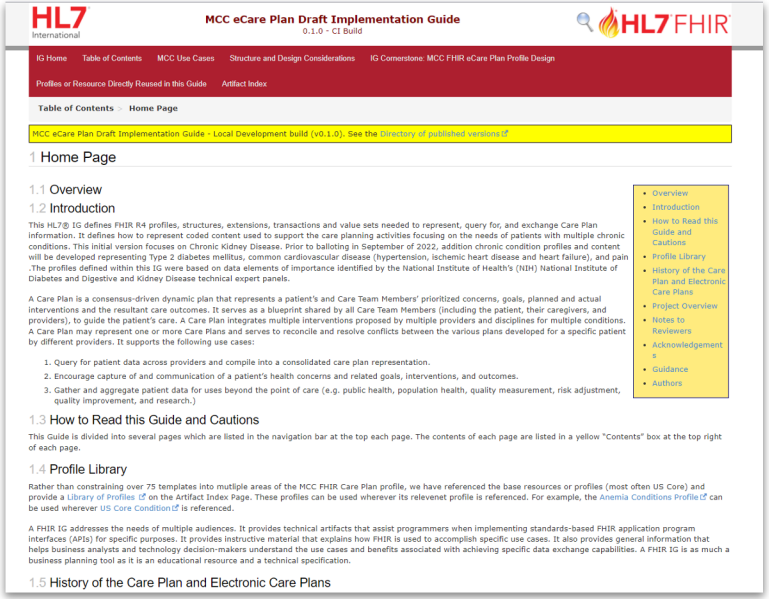
Project Year 3 Roadmap: Fall 2021 - Fall 2022



Data Element Identification, Value Sets, & Implementation Guide

Project Year 1 Work: Fall 2019 - Fall 2020

- Conceptualization and design of the MCC eCare Plan FHIR IG.
- HL7 administrative and project approval milestones.
- Use case development.
- Mapping of CKD + Elements to FHIR constructs.
- Build of CKD and other prioritized value sets in NLM VSAC.
- Build draft MCC eCare Plan FHIR IG.
- Initiated data element identification for CVD, chronic pain, and diabetes.



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Project Year 2 Work: Fall 2020 - Fall 2021

- **Completed identification of 1100+ data elements**, across person/plan details, health concerns, social concerns, goals, interventions, and health status evaluation.
  - **Use case conditions:** Hypertension, congestive heart failure, ischemic heart disease, type 2 diabetes, chronic pain (symptoms and common pain-related conditions).
  - **Cross cutting considerations:** Social determinants of health, cognitive and functional status, mental health, substance use disorders, metabolic and nutrition conditions, hormonal conditions, sleep disorders, and health behaviors.
- **Focused on understanding of MCC data elements and value sets building.**

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Project Year 3 Work: Fall 2021 - Fall 2022

- Conducting quality assurance and review of existing value sets.
- Identifying long COVID data elements, including developing a process for gathering long COVID data elements.
- Determining high-level mapping and approach to updating the MCC eCare Plan FHIR IG.
  - Recommending changes in:
    - IG structure and design approach,
    - Proposed new guidance, and
    - Library of value sets.
  - Updating and building IG in iterations.

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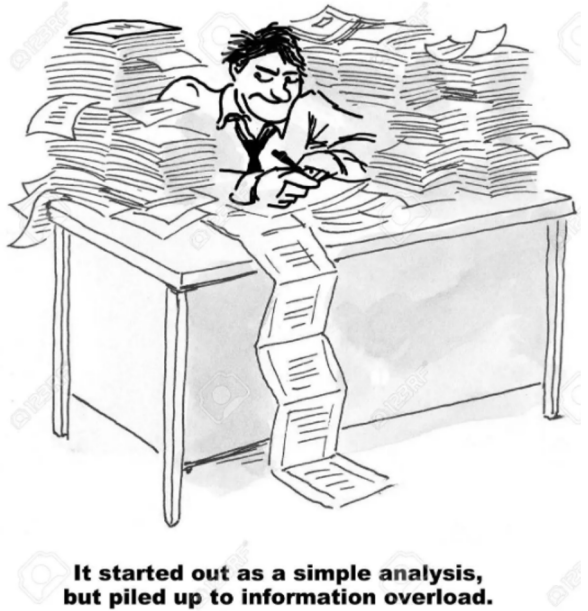
Foundation MCC eCare Plan Profiles

During Project Years 1 and 2, **1100+ data elements** were identified and most are associated with value sets. If design style #1 is used, this will add 600+ new profiles (FHIR artifacts) to the IG.



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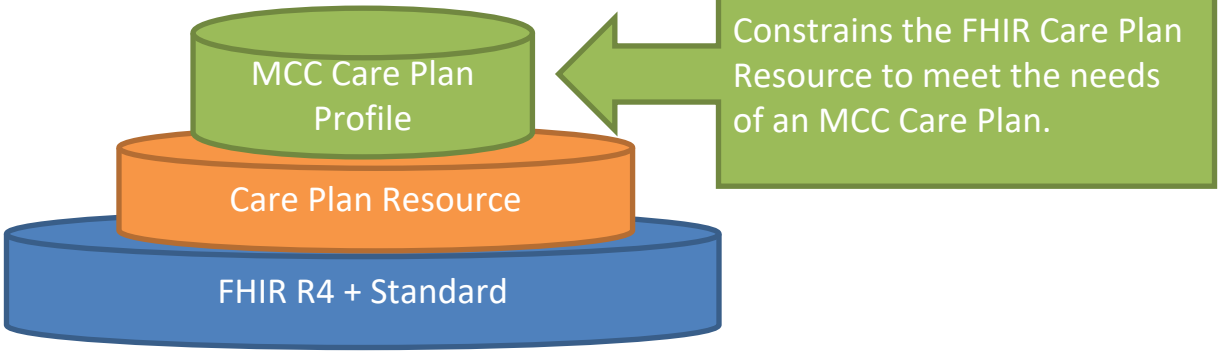
Reusing and Constraining – FHIR Care Plan

Care Plan Resource provides the framework for the IG

HL7 FHIR

Improve care coordination without increasing clinician burden



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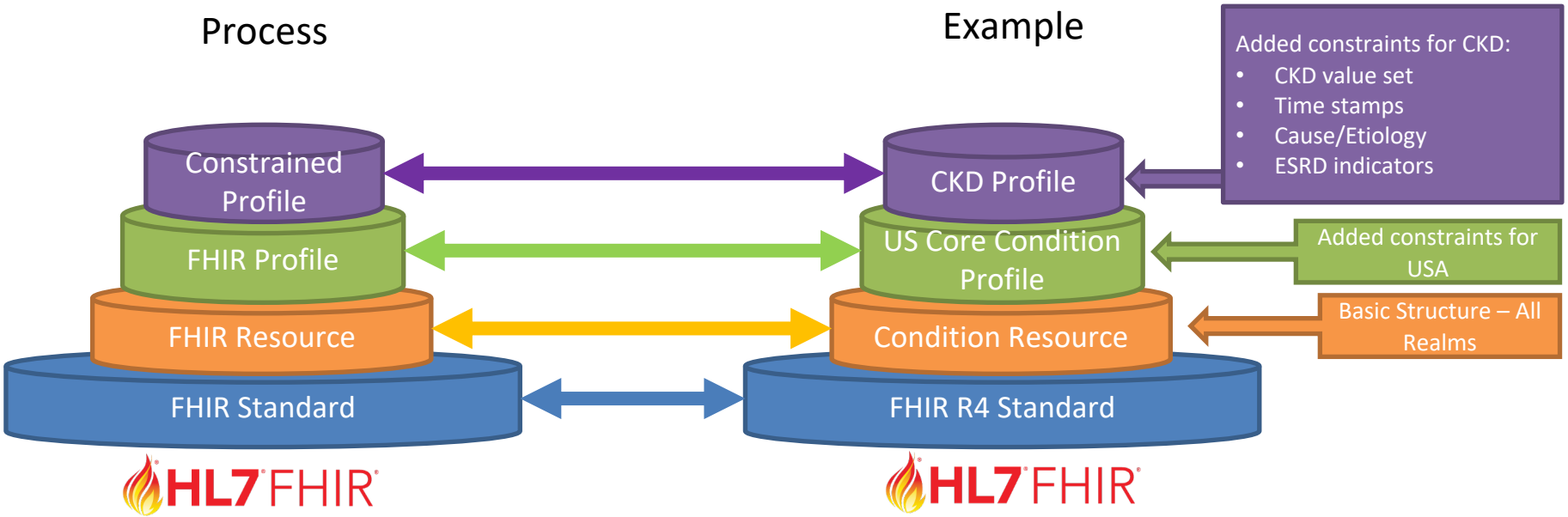
Reusing and Constraining - Two Approaches

#1 When an MCC data element requires extensive specialization or referencing:



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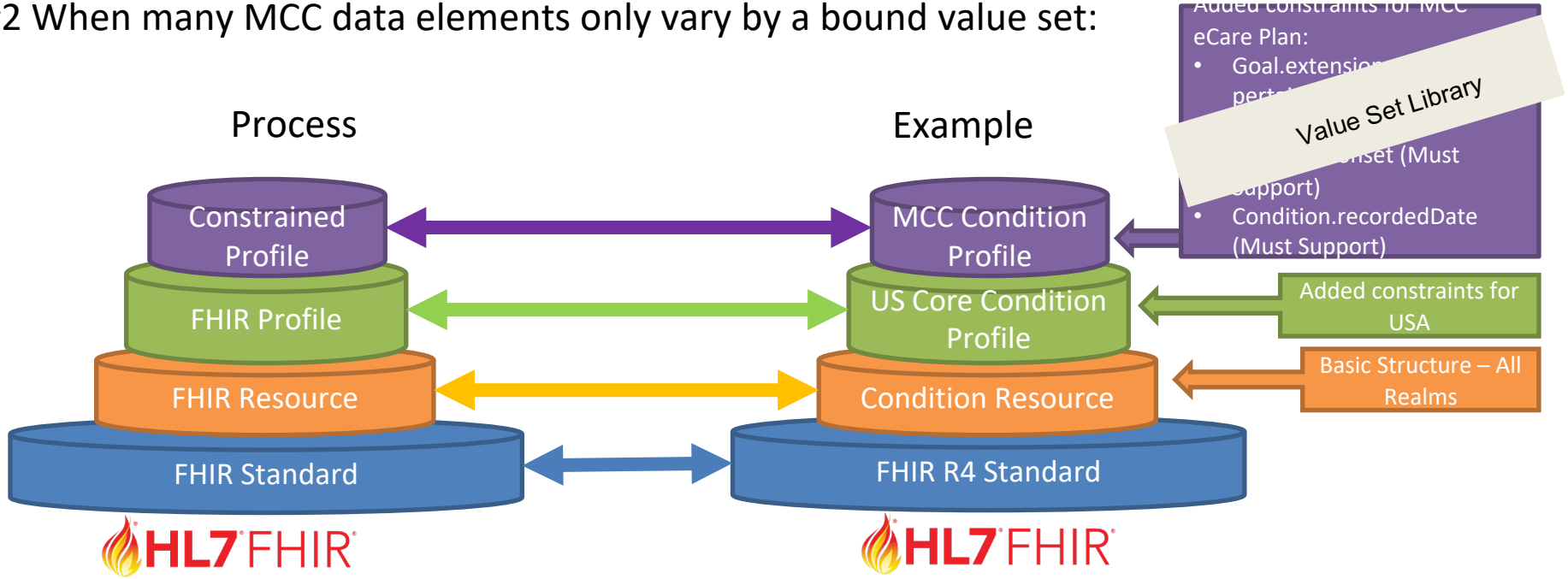
Reusing and Constraining - Two Approaches

#2 When many MCC data elements only vary by a bound value set:



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Approach to Update MCC eCare Plan Draft IG

- To avoid profile proliferation, we recommend the following tactics:
  - Create MCC “Foundation” profiles and value set “library”.
  - Revisit US Core annually after January ballots and examine corresponding USCDI updates.
  - Determine if MCC-specific FHIR operations are needed.
  - Provide guidance on MCC, including:
    - FHIR Plan Definition,
    - FHIR Clinical Guidelines, and
    - Clinical Quality Language.

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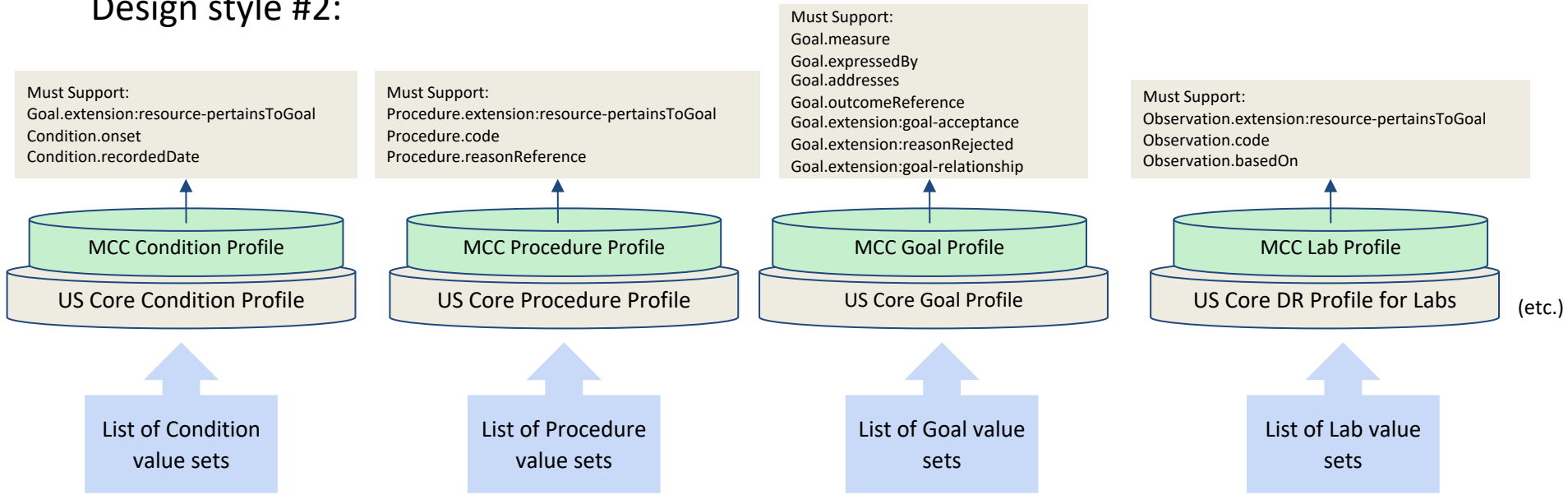
Foundation MCC eCare Plan Profiles

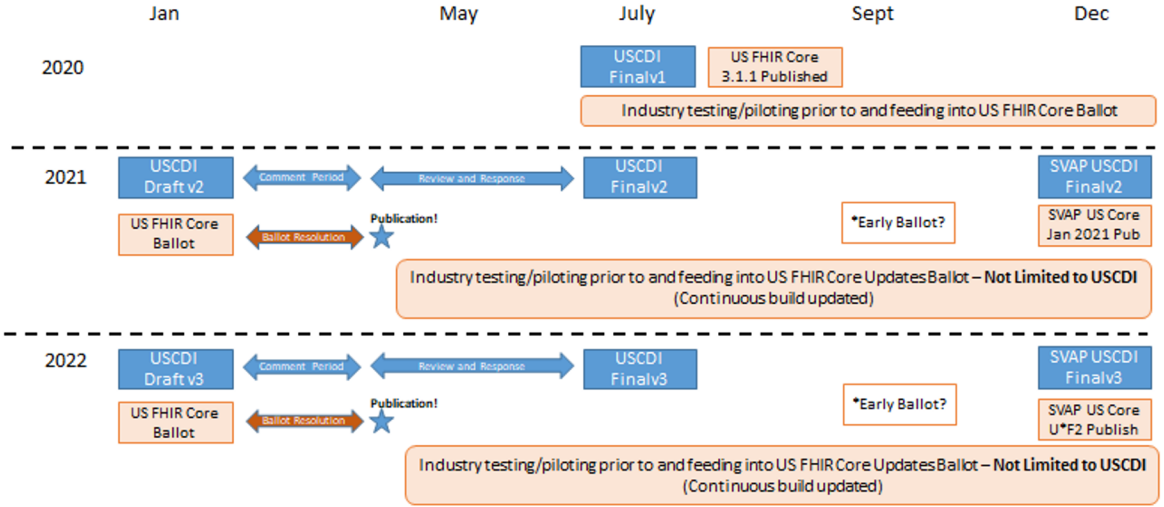
Design style #2:



The IG will contain a page with lists of VSAC-housed value sets organized by profile type.

Evaluate Updates Needed for MCC Foundation Profiles Annually

- US FHIR Core ballot 2021
- US FHIR Core will ballot every January starting in 2022
- This ballot will reflect HL7 update requests (JIRA) and response to USCDI v+1
- Connect-a-thons/pilot testing precede US FHIR Core Update Ballot



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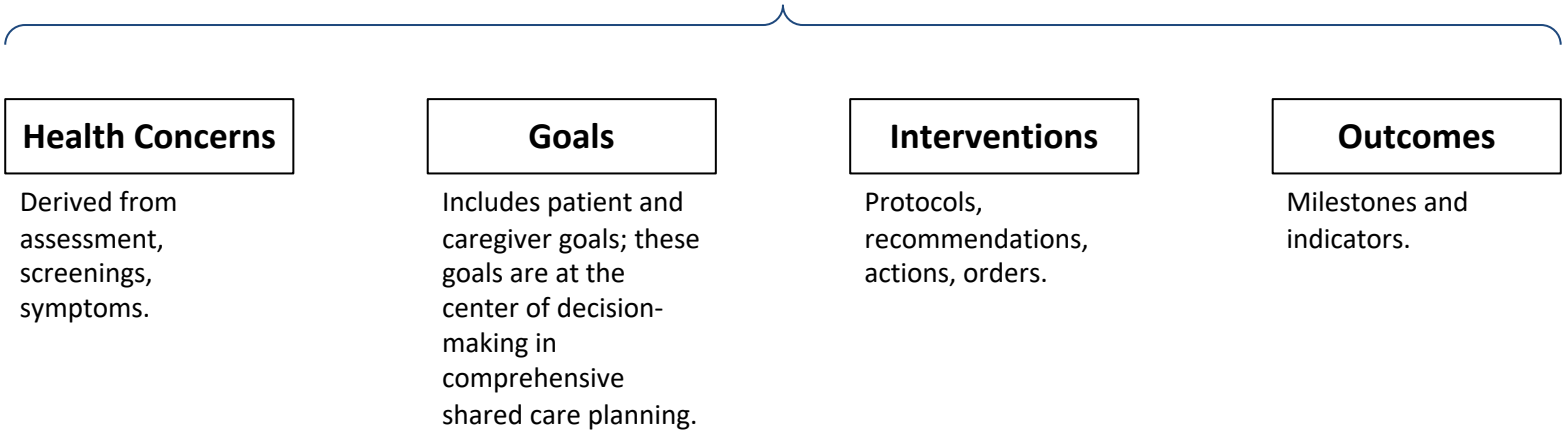
Long COVID Data Element Gathering Path

Care Planning Framework



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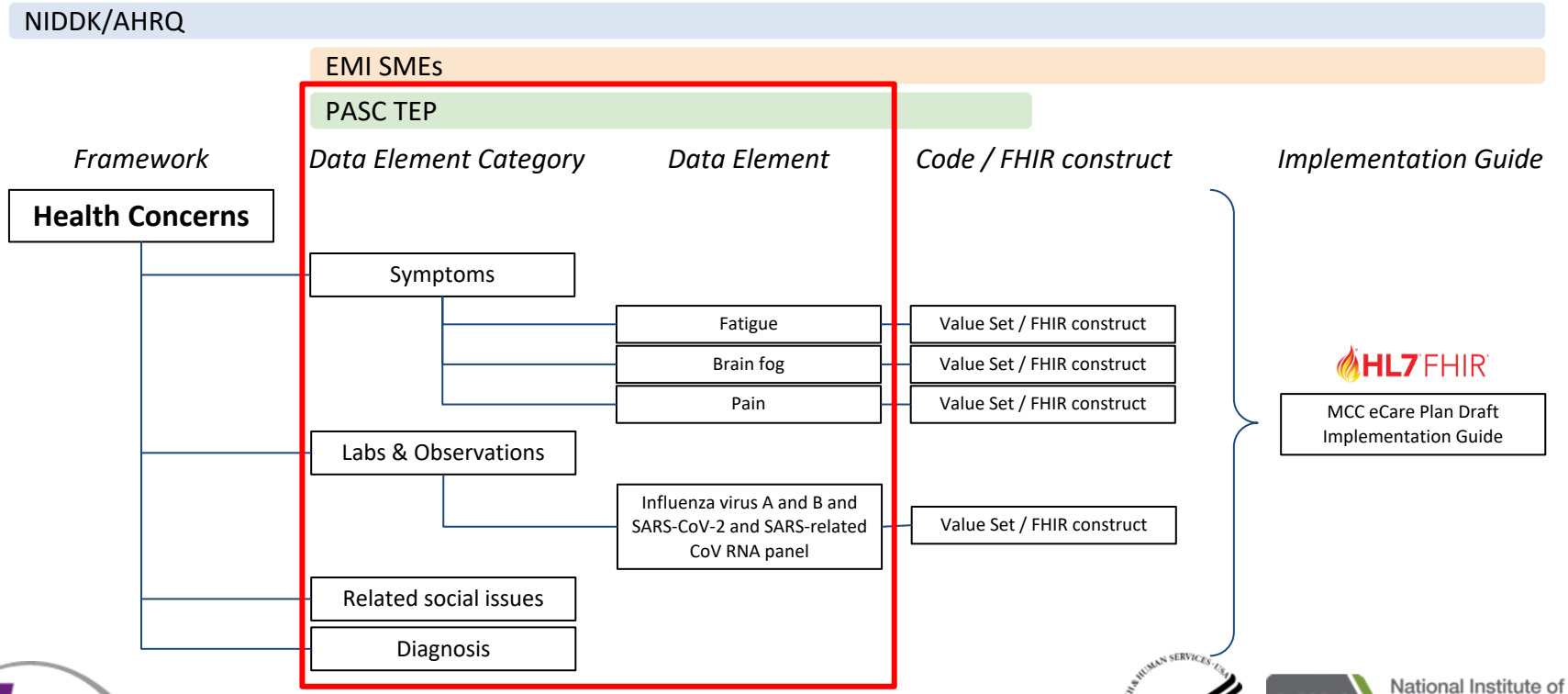
TEP vs EMI Standards/Terminology SME responsibilities



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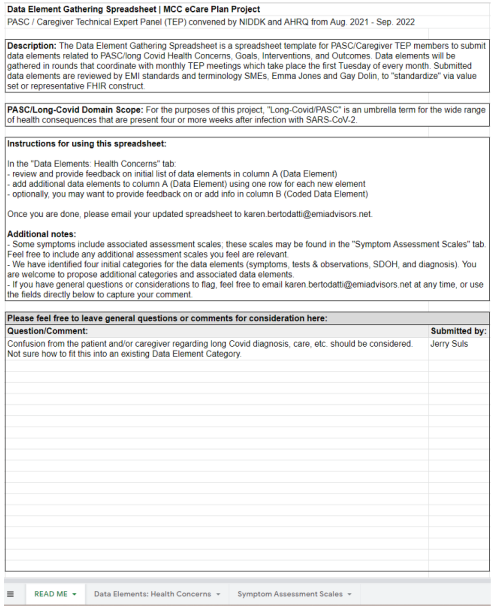
Data Element Gathering Spreadsheet

1. Read Me



Data Element Gathering Spreadsheet | MCC eCare Plan Project

PASC / Caregiver Technical Expert Panel (TEP) convened by NIDDK and AHRQ from Aug. 2021 - Sep. 2022

Description: The Data Element Gathering Spreadsheet is a spreadsheet template for PASC/Caregiver TEP members to submit data elements related to PASC/long Covid Health Concerns, Goals, Interventions, and Outcomes. Data elements will be gathered in rounds that coordinate with monthly TEP meetings which take place the first Tuesday of every month. Submitted data elements are reviewed by EMI standards and terminology SMEs, Emma Jones and Gay Dolin, to "standardize" via value set or representative FHIR construct.

PASC/Long-Covid Domain Scope: For the purposes of this project, "Long-Covid/PASC" is an umbrella term for the wide range of health consequences that are present four or more weeks after infection with SARS-CoV-2.

Instructions for using this spreadsheet:

In the "Data Elements: Health Concerns" tab:
- review and provide feedback on initial list of data elements in column A (Data Element)
- add additional data elements to column A (Data Element) using one row for each new element
- optionally, you may want to provide feedback on or add info in column B (Coded Data Element)

Once you are done, please email your updated spreadsheet to karen.bertodatti@emiadvisors.net.

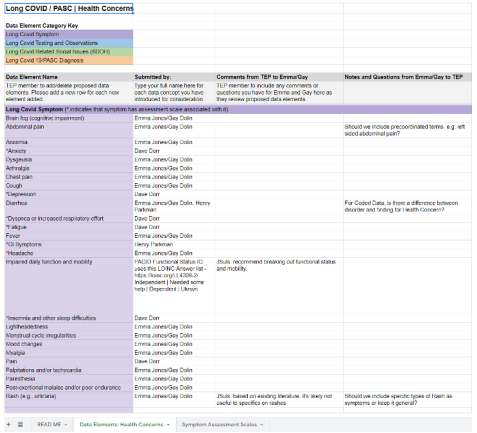
Additional notes:
- Some symptoms include associated assessment scales; these scales may be found in the "Symptom Assessment Scales" tab. Feel free to include any additional assessment scales you feel are relevant.
- We have identified four initial categories for the data elements (symptoms, tests & observations, SDOH, and diagnosis). You are welcome to propose additional categories and associated data elements.
- If you have general questions or considerations to flag, feel free to email karen.bertodatti@emiadvisors.net at any time, or use the fields directly below to capture your comment.

Please feel free to leave general questions or comments for consideration here:

Question/Comment:	Submitted by:
Confusion from the patient and/or caregiver regarding long Covid diagnosis, care, etc. should be considered. Not sure how to fit this into an existing Data Element Category.	Jerry Suls

READ ME | Data Elements: Health Concerns | Symptom Assessment Scales

2. Data Elements: Health Concerns



Long COVID / PASC | Health Concerns

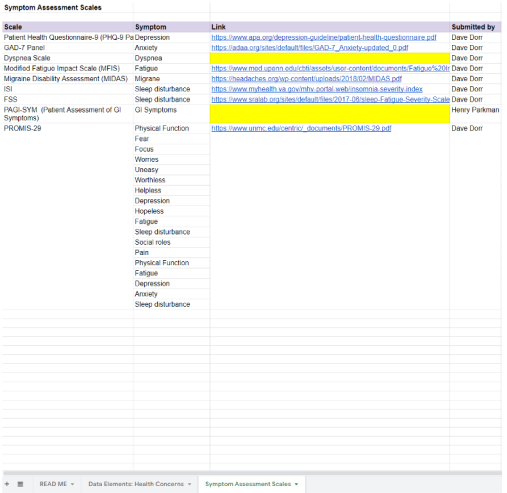
Data Element Category Key

- Long Covid Symptom
- Long Covid Testing and Observations
- Long Covid Related Social Issues (SDOH)
- Long Covid 19-PASC Diagnosis

Data Element Name	Submitted by:	Comments from TEP to Emma/Gay	Notes and Questions from Emma/Gay to TEP
TEP member to add/delete proposed data elements. Please add a new row for each new element added	Type your full name here for each data concept you have introduced for consideration.	TEP member to include any comments or questions you have for Emma and Gay here as they review proposed data elements.	
Long Covid Symptom (* indicates that symptom has assessment scale associated with it)			
Brain fog (cognitive impairment)	Emma Jones/Gay Dolin		
Abdominal pain	Emma Jones/Gay Dolin		Should we include precoordinated terms e.g. left sided abdominal pain?
Anosmia	Emma Jones/Gay Dolin		
*Anxiety	Dave Dorr		
Dysgeusia	Emma Jones/Gay Dolin		
Arthralgia	Emma Jones/Gay Dolin		
Chest pain	Emma Jones/Gay Dolin		
Cough	Emma Jones/Gay Dolin		
*Depression	Dave Dorr		
Diarrhea	Emma Jones/Gay Dolin, Henry Parkman		For Coded Data, is there a difference between disorder and finding for Health Concern?
*Dyspnea or increased respiratory effort	Dave Dorr		
*Fatigue	Dave Dorr		
Fever	Emma Jones/Gay Dolin		
*GI Symptoms	Henry Parkman		
*Headache	Emma Jones/Gay Dolin		
Impaired daily function and mobility	PACIO Functional Status IG uses this LOINC Answer list - https://loinc.org/LA4306-2/ Independent | Needed some help | Dependent | Unkn	JSuls: recommend breaking out functional status and mobility.	
*Insomnia and other sleep difficulties	Dave Dorr		
Lightheadedness	Emma Jones/Gay Dolin		
Menstrual cycle irregularities	Emma Jones/Gay Dolin		
Mood changes	Emma Jones/Gay Dolin		
Myalgia	Emma Jones/Gay Dolin		
Pain	Dave Dorr		
Palpitations and/or tachycardia	Emma Jones/Gay Dolin		
Paresthesia	Emma Jones/Gay Dolin		
Post-exertional malaise and/or poor endurance	Emma Jones/Gay Dolin		
Rash (e.g., urticaria)	Emma Jones/Gay Dolin	JSuls: based on existing literature, it's likely not useful to specifics on rashes	Should we include specific types of Rash as symptoms or keep it general?

READ ME | Data Elements: Health Concerns | Symptom Assessment Scales

3. Symptom Assessment Scales



Symptom Assessment Scales

Scale	Symptom	Link	Submitted by
Patient Health Questionnaire-9 (PHQ-9 Pa	Depression	https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf	Dave Dorr
GAD-7 Panel	Anxiety	https://adaa.org/sites/default/files/GAD-7_Anxiety-updated_0.pdf	Dave Dorr
Dyspnea Scale	Dyspnea		Dave Dorr
Modified Fatigue Impact Scale (MFIS)	Fatigue	https://www.med.upenn.edu/ctbl/assets/user-content/documents/Fatigue%20Ir	Dave Dorr
Migraine Disability Assessment (MIDAS)	Migraine	https://headaches.org/wp-content/uploads/2018/02/MIDAS.pdf	Dave Dorr
ISI	Sleep disturbance	https://www.myhealth.va.gov/mhv-portal-web/insomnia-severity-index	Dave Dorr
FSS	Sleep disturbance	https://www.sralab.org/sites/default/files/2017-06/sleep-Fatigue-Severity-Scale	Dave Dorr
PAGI-SYM (Patient Assessment of GI Symptoms)	GI Symptoms		Henry Parkman
PROMIS-29	Physical Function	https://www.unmc.edu/centric/_documents/PROMIS-29.pdf	Dave Dorr
	Fear		
	Focus		
	Worries		
	Uneasy		
	Worthless		
	Helpless		
	Depression		
	Hopeless		
	Fatigue		
	Sleep disturbance		
	Social roles		
	Pain		
	Physical Function		
	Fatigue		
	Depression		
	Anxiety		
	Sleep disturbance		

READ ME | Data Elements: Health Concerns | Symptom Assessment Scales

Data Element Gathering Spreadsheet Template: https://docs.google.com/spreadsheets/d/1jv_N4N-tvOMbYHfJmwjSWpeyqYPXnzCvksMdSOYZHk4/edit?usp=sharing

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Long COVID Symptoms Data Element Gathering

Goal: Develop an inclusive, broad, detailed list of long COVID data elements (concepts).

The long COVID symptom data elements gathering work is in progress.

Brain fog (cognitive impairment)
Abdominal pain
Anosmia
*Anxiety
Dysgeusia
Arthralgia
Chest pain
Cough
*Depression
Diarrhea
*Dyspnea or increased respiratory effort
*Fatigue
Fever
*GI Symptoms
*Headache
Impaired daily function and mobility
*Insomnia and other sleep difficulties
Lightheadedness
Menstrual cycle irregularities
Mood changes
Myalgia
Pain
Palpitations and/or tachycardia
Paresthesia
Post-exertional malaise and/or poor endurance
Rash (e.g., urticaria)

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SMART on FHIR eCare Plan Application & Interoperability Infrastructure

Summary

Updates:

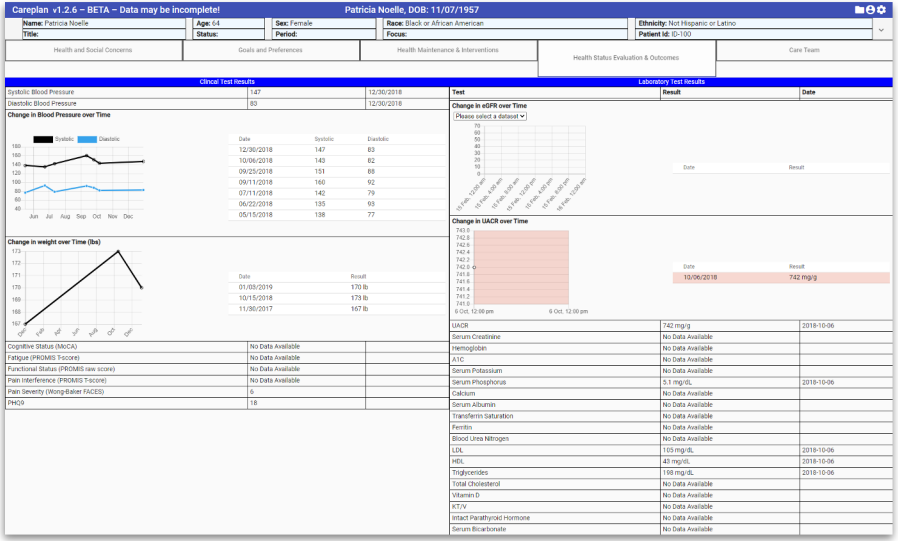
- Work accomplished in Year 3 to date include:
  - Evaluating inherited interoperability infrastructure and app design,
  - Developing infrastructure architecture strawman,
  - Building prototype for patient/caregiver app v2.0,
  - Setting up the sandbox environment on Azure cloud for demonstration and testing, and
  - Forming an agile development team with RTI/OHSU.
- Provider application update.
- Patient/Caregiver application update.
- Interoperability infrastructure findings and plan.

SMART on FHIR application deliverables: Pilot-tested patient-, clinician-, and caregiver-facing e-care plan applications that integrate with the EHR to pull, share, and display key patient data.

Provider Application Update

Provider app revision and expansion.

- Undergoing usability testing from providers including primary care, nephrology, and skilled nursing (rehab).
- Incorporating initial feedback from OHSU providers in iterations including user experience improvements.



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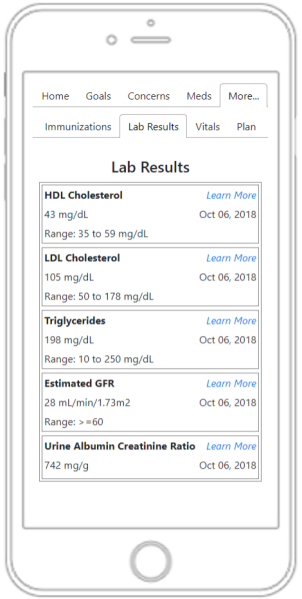
Patient/Caregiver Application Update

Patient/Caregiver app v2.0 prototype

- One common app with additional behavior depending on role.
- No dependency on any application server middleware.
- Communicates directly with any FHIR endpoint.
- Can be quickly configured to be pilot-tested with any patient or caregiver at any health system with a patient portal login, based on Cures Act access requirements, including Epic, Cerner, Allscripts, VA, and others.



What's next

- Using value sets to classify and present data.
- Authoring patient goals.
- MVP features for caregiver perspective e.g., patient face sheet.

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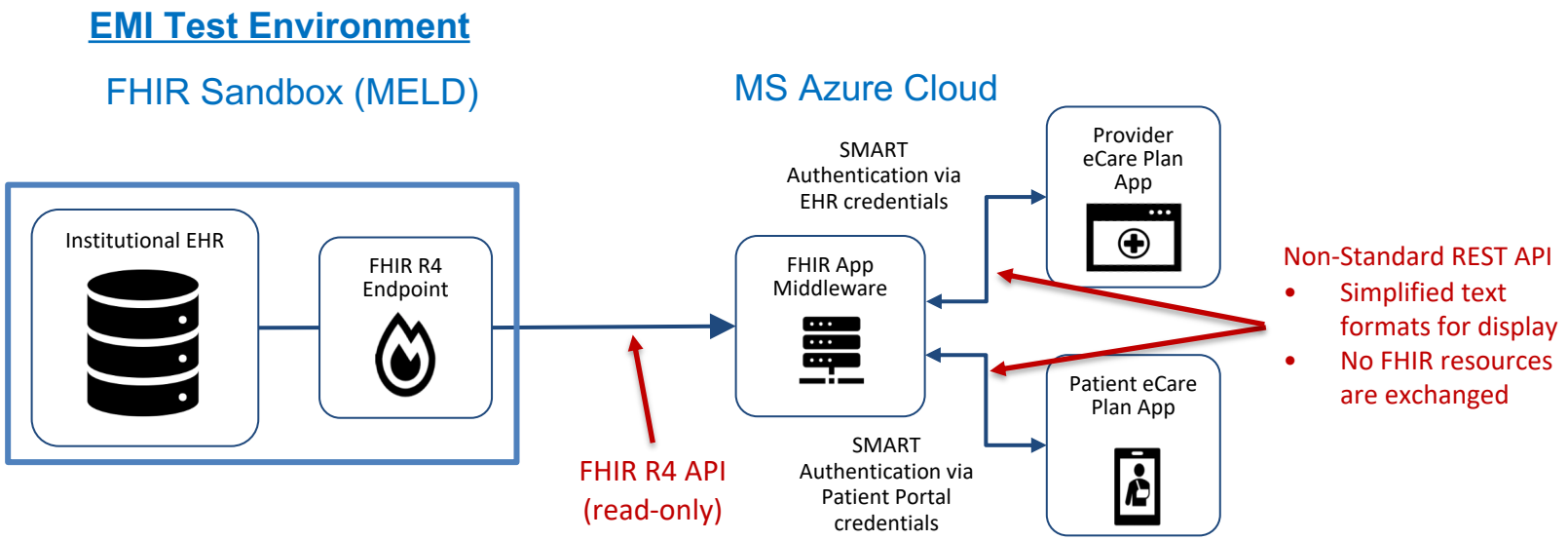
Inherited Interoperability Architecture



Takeaway Finding: Inherited architecture does not yet support aggregating data across multiple provider organizations.

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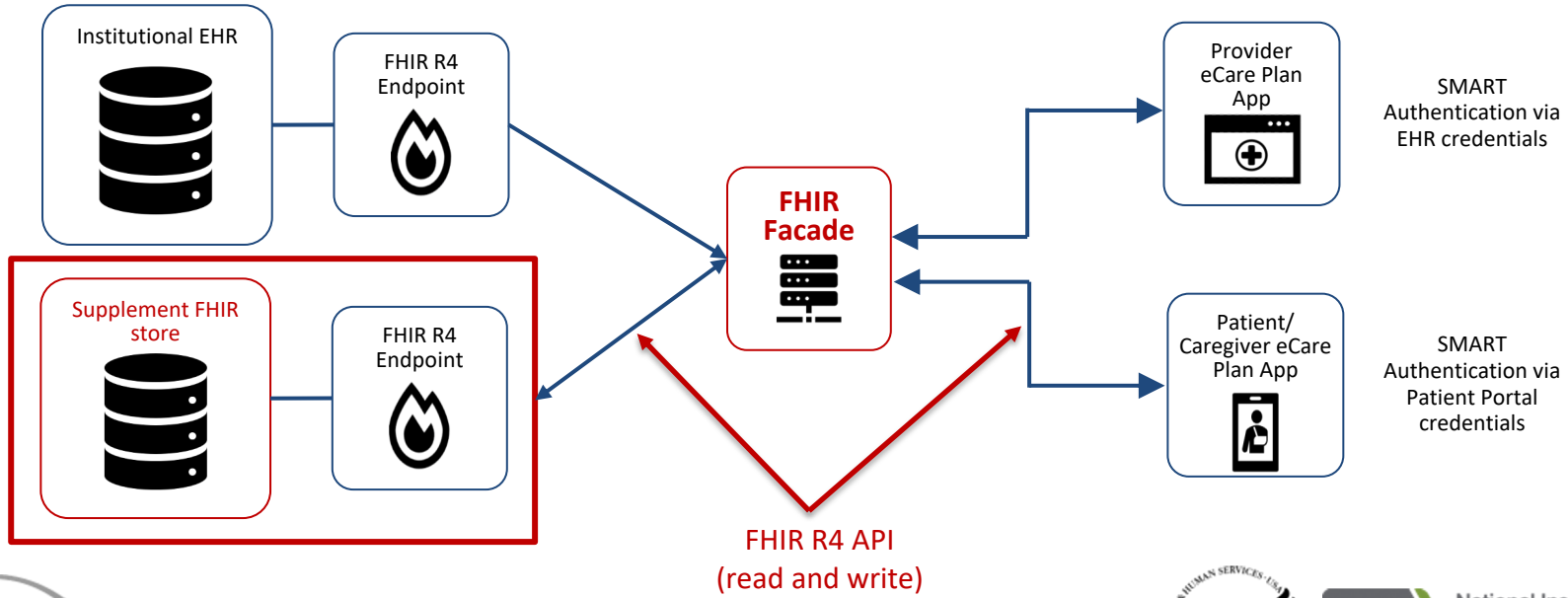
Proposed eCare Plan Architecture

Plan: Expand application scope to include authoring and saving new content, including content that the EHR doesn't support natively.



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Scope Questions

Interpreting and prioritizing requirements for “patient engagement in care plan participation and decisions.”

In Scope for this MCC eCare Project

- Shared goal management between patients and care team making use of a supplementary FHIR data store that is secure and compliant.
- Relationship of goals to interventions and outcome measures.
- Goals expressed by patients *and* caregivers as well as providers.
- Monitoring progress toward goals.

Opportunities for Project Collaboration

- Patient corrections e.g., medicine reconciliation, problem list.
- Preventive care recommendations.
- Shared design for FHIR facade server, including AHRQ pain manager project.
- Potential collaboration with a TEFCA pilot to support data sharing and coordination between providers.

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HL7 Connectathon 29 Care Planning Track Report Out

Connectathon 29 – Care Planning Track

- **48** track participants
- **22** participants attended both days

- Clients/Servers:
  - Servers: FHIR sandboxes on MELD and Logica.
  - Clients: Patient App(s), MCC SMART on FHIR Provider App

PROJECTS

PACIO Project

the sequoia project

gravity PROJECT

HL7 FHIR ARGONAUT PROJECT

GOVERNMENT

The Office of the National Coordinator for Health Information Technology

ADMINISTRATION FOR CHILDREN & FAMILIES

VA | U.S. Department of Veterans Affairs

FEDERAL ELECTRONIC HEALTH RECORD MODERNIZATION

EHR VENDOR

Epic

PatientCentricSolutions

HEALTH SYSTEM/ PAYER

Kansas City

CVS Health

umcg

HIGHMARK

HEALTH IT VENDOR

MITRE

GREEN ROOM TECHNOLOGIES

RTI INTERNATIONAL

BYLIGHT

Juniper CDS

newwave

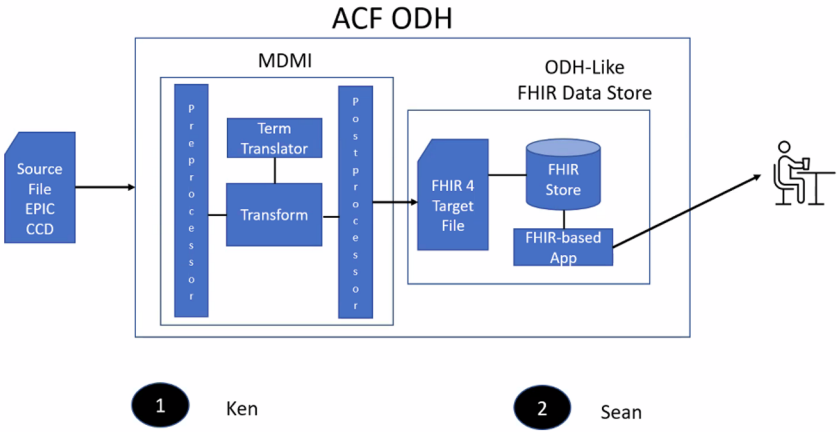
For more information, visit the Care Planning Track Page: https://confluence.hl7.org/display/FHIR/2022-01+Care+Planning

Track Objectives

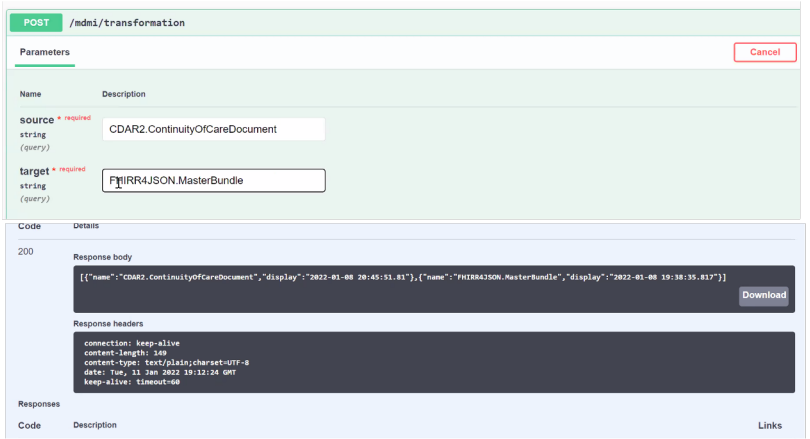
- **Demonstrate** the purpose of using goals in care planning, where goals may be created by any member of the care team, including patients and caregivers.
- **Explore**:
  - How care goals in practice can be both clinically useful and interoperable.
  - The relationships between a goal, the conditions and/or assessment observations that it addresses, and outcome observations that document goal progress.
  - The clinical workflow feasibility for creating FHIR Goal.description using coded terminology vs free text.
  - Examine the clinical workflow and challenges with creating measurable goals that reference specific codes, e.g., lab or vital sign LOINC code.
- **Evaluate**:
  - The use of FHIR Goal to capture and track SMART goals, i.e., Specific, Measurable, Achievable, Relevant, and Time-Bound.
  - Evaluate and recommend updates to existing US Core Goal Search Parameters.

Notable Achievements

What will be shown



Completed demo of C-CDA to FHIR transformation tool with the MCC eCare provider application.



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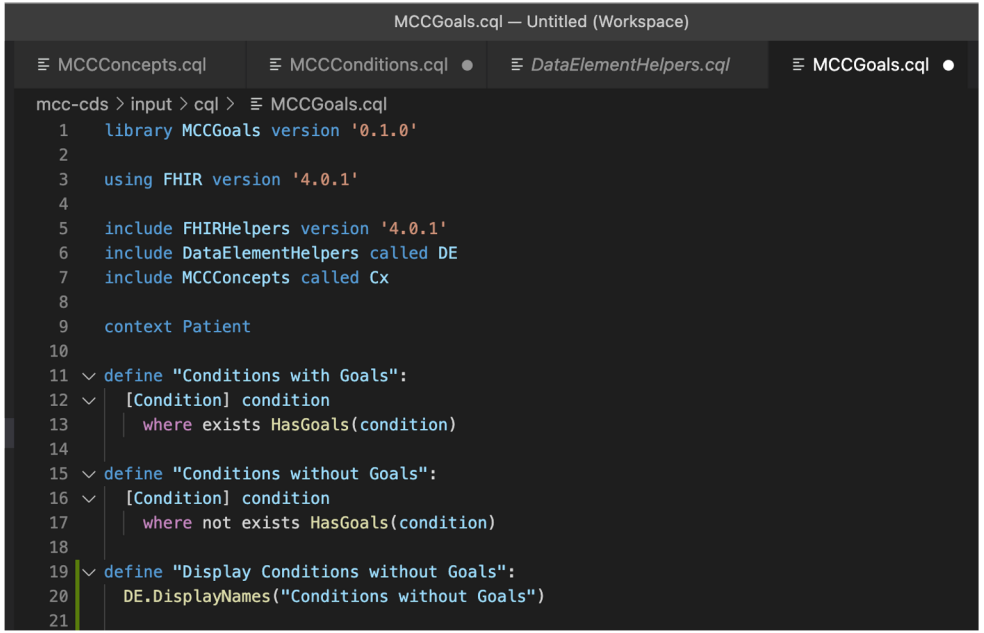
HL7 FHIR

National Institute of Diabetes and Digestive and Kidney Diseases

Notable Achievements



Discussed shared interest in developing CQL logic that uses IG value sets to classify data elements and provide decision support for patient-centered goal management.

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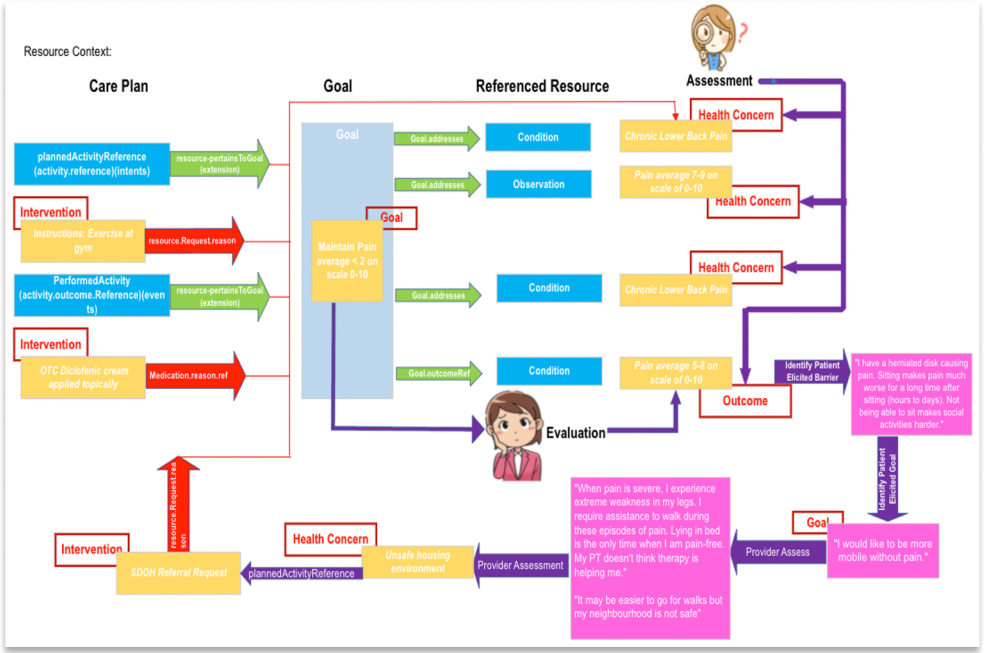
HL7 FHIR

NIH National Institute of Diabetes and Digestive and Kidney Diseases

Notable Achievements



- Had robust discussion around Goals from multiple tracks: Care Planning, Gravity, PACIO, US Core.
- Established intention to align approaches across IGs regarding number of profiles vs. value sets, including MCC eCare Plan, Gravity, and PACIO.

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Discovered Issues and Questions

- No guidance for capturing and sharing a patient's barriers/risks that block progress on a goal. Similarly, there is no guidance for capturing and sharing a patient's strengths/protective factors.
  - Use an Observation with 'focus' on a Goal?
  - Barriers for other care plan elements, e.g., medication adherence?
  - Generalize use of existing RiskAssessment resource?
- Requirement to capture and share prioritization ordering of goals in terms of the specific sequence, and not only high/medium/low.
  - Goal prioritization sequence may be different for patient, caregiver, PCP, or specialists on a care team.

Connectathon 30 Plans (May 3-4, 2022) Virtual Testing

Agency feedback and request for participation with respect to:

- Opportunities to discuss and test goals and relationships with goals, including interventions and outcomes, and
- Opportunities to co-host sessions with other tracks.

Care Planning Track Page (In progress):
https://confluence.hl7.org/display/FHIR/2022-05+Care+Planning

AHRQ HL7 FHIR NIH National Institute of Diabetes and Digestive and Kidney Diseases

Agency Questions & Feedback

Agenda

Topic	Time	Presenter(s)
Welcome and Introductions	5 minutes	Jenna Norton, NIDDK Arlene Bierman, AHRQ
MCC eCare Plan Project Update & Partner Feedback	50 minutes	EMI Team
Federal Projects Round Robin Update	60 minutes	Federal Partners
Concluding Thoughts and Next Steps	5 minutes	Jenna Norton, NIDDK Arlene Bierman, AHRQ

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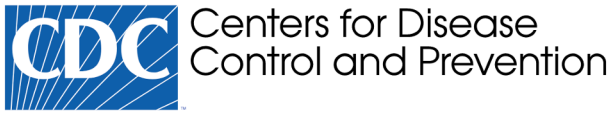
ADMINISTRATION FOR CHILDREN & FAMILIES

The Administration for Children and Families

Case Management/HL7 Human and Social Services Work Group

Administration for Community Living

Social Care Referral Challenge Program



Centers for Disease Control and Prevention

Social Determinants of Health Data Exchange for Chronic Disease Prevention Initiative

Building a Healthier America:
Improving Population Health by Addressing the Social Determinants of Health
CDC and EMI Advisors: Social Determinants of Health Data Exchange for Chronic Disease Prevention Initiative Overview
MCC eCare Plan Federal Partners Meeting [NIDDK/AHRQ]

Timothy Jay Carney, PHD, MPH, MBA
Associate Director of Informatics
National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)
Centers for Disease Control and Prevention (CDC)
February 22, 2022




Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

TEAM ACKNOWLEDGEMENTS

- CDC Team
  - Dr. Jennifer Wiltz*
  - Dr. Adi Gundlapalli*
  - Dr. Jennifer Fuld*
  - Dr. Kailah Davis**
  - Dr. Pradeep Podila**
  - Dr. Pamela Pagano
  - Dr. Timothy Jay Carney*
- CDC Leadership
  - Dr. Karen Hacker
  - Dr. Peter Briss
  - NCCDPHP Workgroups on Equity and SDOH
- CDC Foundational Gravity Efforts
  - Dr. Arun Srinivasan
  - Dr. Ray King - (Nutrition and Food Insecurity)
  - Heart Disease Team – (hypertension and cardiovascular health)
- EMI Advisors
- ONC Colleagues
- Community and STLT Partners
- Federal Partners

* Gravity Advisory Committee Member

** Gravity Technical Advisory Committee Member

Paving the Way to Better Meeting Population Health Challenges

https://www.cdc.gov/surveillance/surveillance-data-strategies/data-IT-transformation.html

NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

Our mission is to help people and communities **prevent chronic diseases and promote health and wellness for all.**

We work to make our vision of **healthy people living in healthy communities** a reality.

Addressing **social determinants of health to achieve health equity is a strategic priority**.

CDC National Center for Chronic Disease Divisions

Division of Cancer Prevention and Control

Division of Diabetes Translation

Division of Heart Disease and Stroke Prevention

Division of Nutrition, Physical Activity, and Obesity

Division of Oral Health

Division of Population Health

Division of Reproductive Health

Office on Smoking and Health

TARGETED SOCIAL DETERMINANTS OF HEALTH

Food Insecurity

Social Connectedness

Community-Clinical Linkages

Tobacco-Free Policy

Built Environment

Three Core SDOH Data Challenge(s)

1. To arrive at a common understanding of the critical data elements essential in addressing SDOH needs throughout the population/public health continuum.
2. To achieve data coordination and harmonization of efforts across multiple stakeholders, organizations, initiatives all trying to address health equity and SDOH.
3. To help inform a future state diagram of the public health response to health equity and SDOH.

HIGH-LEVEL SDOH MEASUREMENT ROADMAP

COALITION CHARACTERISTICS

Includes:

- Maturity
- **Knowledge and awareness of issues**
- Problem identification
- Common goals
- **Community representation**
- Leadership
- Trust

COMMUNITY CAPACITY & READINESS

- **Expanded networks** of leaders and organizations
- Identification of **assets** (e.g., expertise, data, $)
- Broad **community engagement champions**
- Willingness to change organizational practices and policies
- Changes in allocation of resources
- Identification of targeted strategies (policies, practices, initiatives)

COMMUNITY CHARACTERISTICS

- Changes in individual, group, and organizational behaviors and norms
- **Adoption of new strategies, policies, and practices**
- Changes in availability of health care and community services
- **Changes in community conditions, infrastructure**
- Sustainable funding sources

COMMUNITY OUTCOMES

- Changes in health care **utilization**
- Changes in community service utilization
- Changes in health **behaviors**
- Changes in health **outcomes**

INCREASED EQUITY

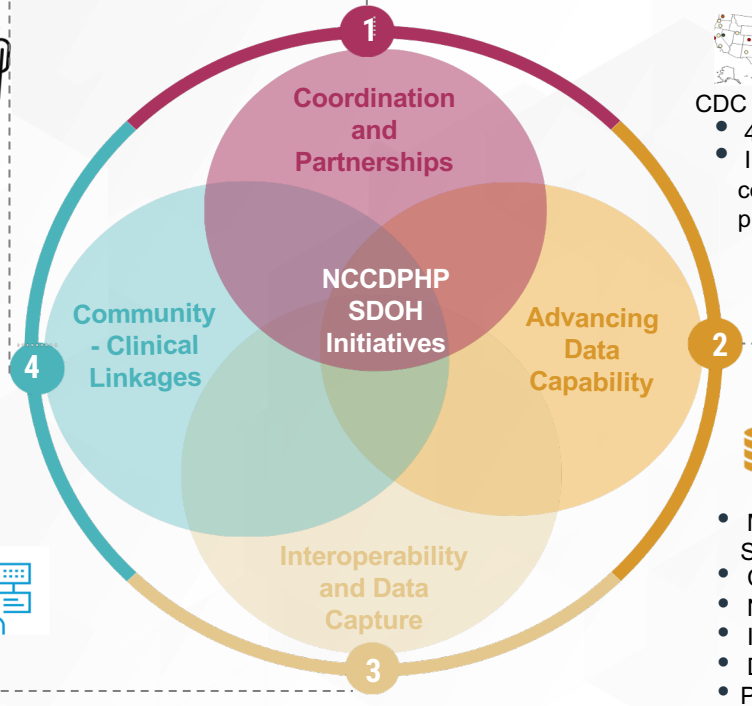
Increased equity across age, income, race, ethnicity, education, gender, and other characteristics

PROCESS MEASURES

OUTCOME MEASURES

NCCDPHP SDOH Efforts: Advancing SDOH Initiatives through Data Modernization

- Bidirectional Services e-Referral (BSeR)
- Clinical and Community Data Initiative (CODI 2.0)



CDC is Funding SDOH Community Pilots

- 42 Community Sites
- Initiate programs and policies within communities to address chronic disease prevention in one of five areas of SDOH

- Multi-State EHR-Based Networks for Disease Surveillance (MENDS)
- Childhood Obesity Data Initiative (CODI 1.0)
- Non-Infectious Disease Integrated Data Platforms
- IQVIA/Ambulatory EMR
- Data harmonization
- PLACES

- Scale relevant standards-based and SDOH data sharing initiatives for public health agency adoption
- Serve on national committees focusing on standards for capturing and sharing SDOH data
- SDOH Modules for PRAMS and BRFSS

NCCDPHP Efforts to Build a National Public Health Use-Case for SDOH Data in Partnership with The Gravity Initiative

Advance Ten Essential Public Health Services by including and addressing Social Determinants of Health Inequities

Accelerate efforts through new Social Determinants of Health Pilot Programs

Expand the collection, sharing, and use of standardized data

Align Social Determinants of Health programs across sectors

Why Is This Work Important?

1. Builds Public Health SDOH Case

Articulates the 'pain points' and the 'why' for incorporating SDOH data in public health agencies' activities.

2. Public Health Acceleration

Identifies glide path for accelerating **public health agencies'** abilities to address SDOH using health IT. Can readily incorporate in NCCDPHP SDOH Pilot Program activities.

3. CDC Partners Awareness

Informs CDC partners about critical milestones and synergies across **federal and national SDOH and standards-based initiatives.**

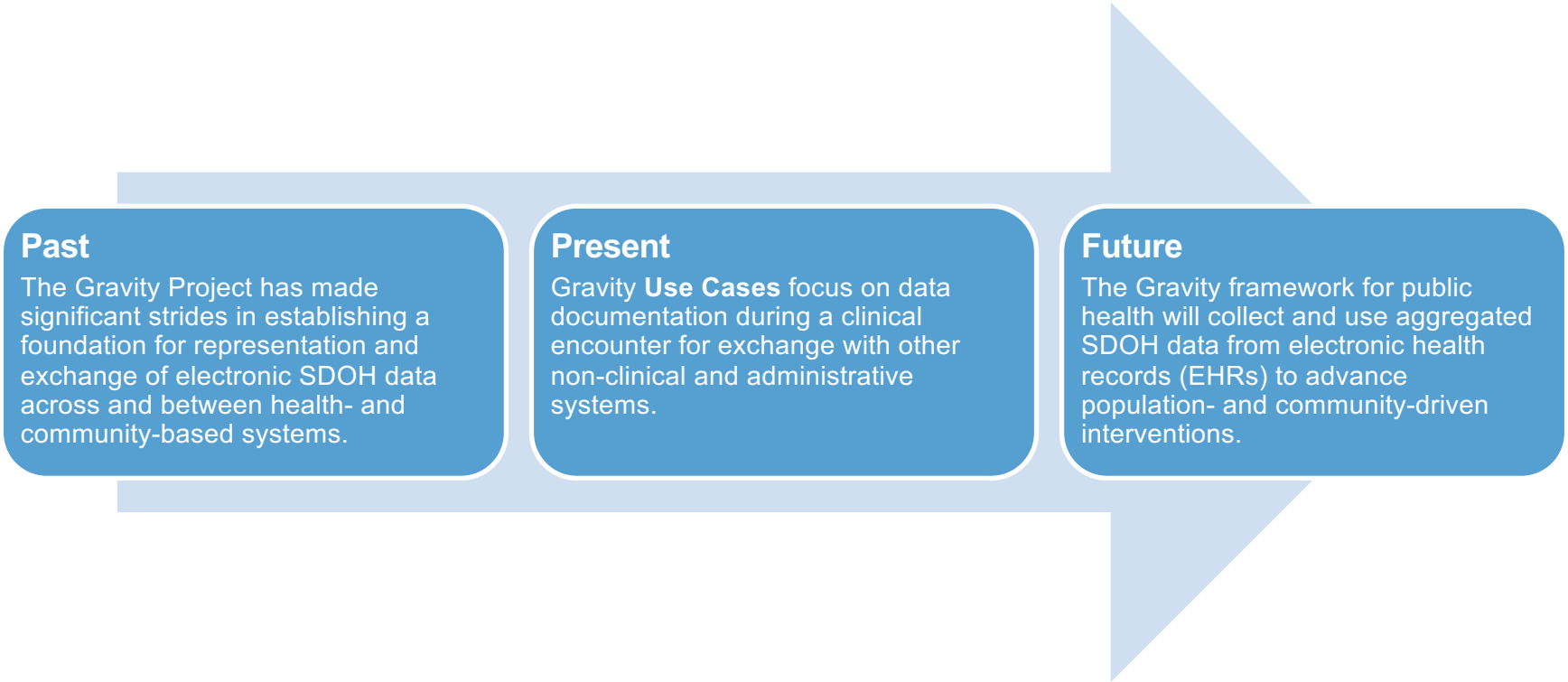
4. Supports CDC Priorities

Supports CDC commitments for the strengthening of SDOH into **CDC's 10 Essential Public Health Services** and aligning with **Healthy People 2030** and **Public Health 3.0.**

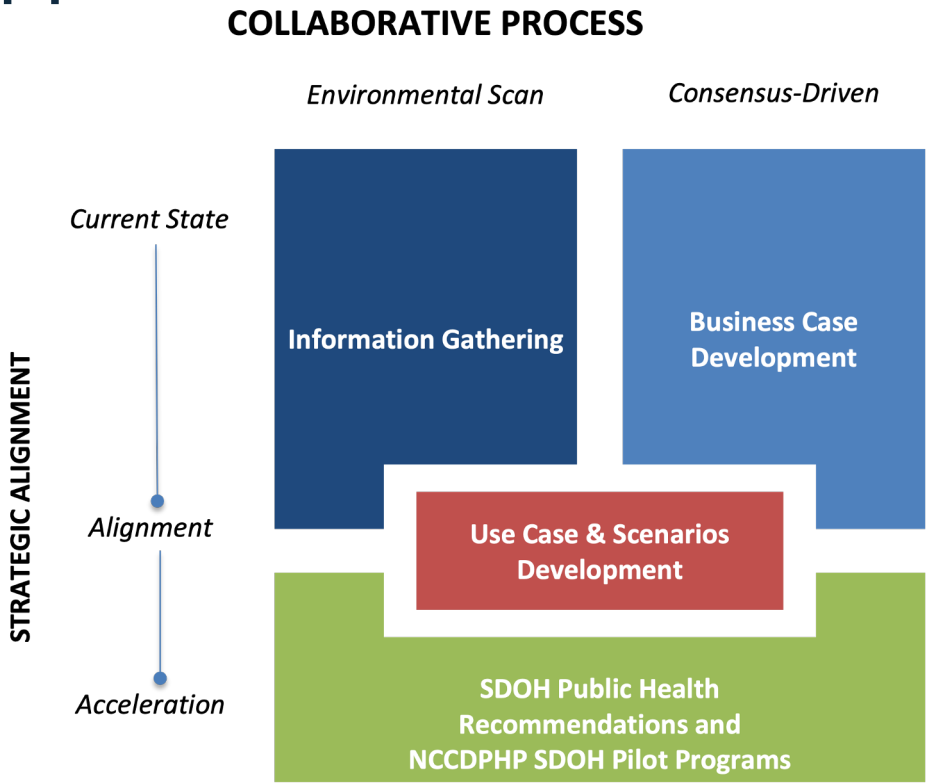
5. Supports Federal HIT Priorities

Supports **2020-2025 Federal Health IT Strategic Plan** Goals.

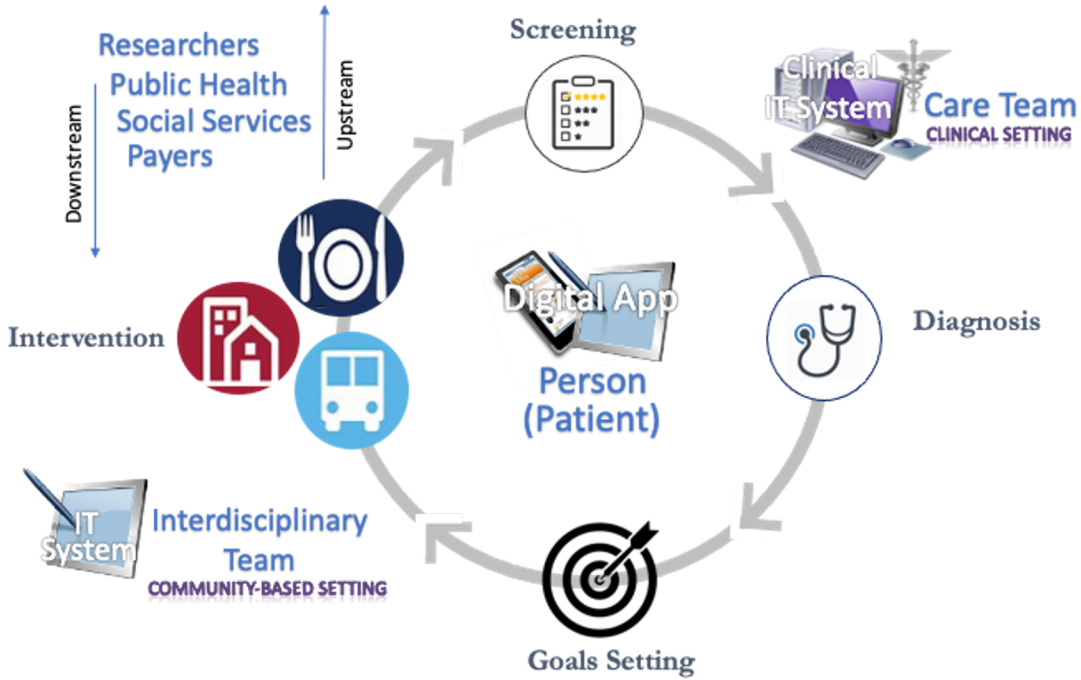
SDOH Data Exchange for Chronic Disease Prevention Initiative Overview



Initiative Approach



Gravity Project Conceptual Framework



GOAL: **data-level interoperability** by enabling electronic documentation and exchange of SDOH data among all relevant users of data.

Gravity Project Use Cases

1. Gather SDOH data in conjunction with a patient encounter.
2. Document and track SDOH related interventions to completion.
3. Gather and aggregate SDOH data for uses beyond point of care.

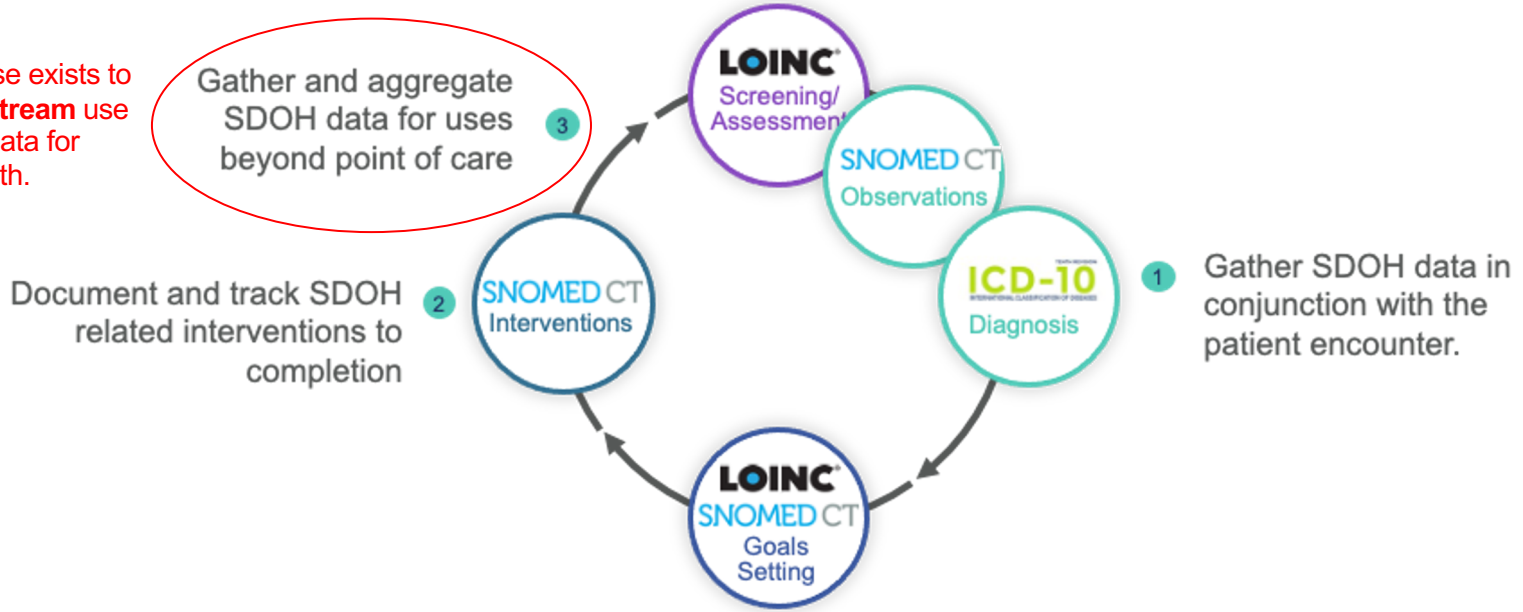
Gravity Use Case Package is available here.

gravity PROJECT®

Consensus-driven standards on social determinants of health

Gravity Project Use Cases: Upstream Public Health Gap

No use case exists to define **upstream** use of SDOH data for public health.



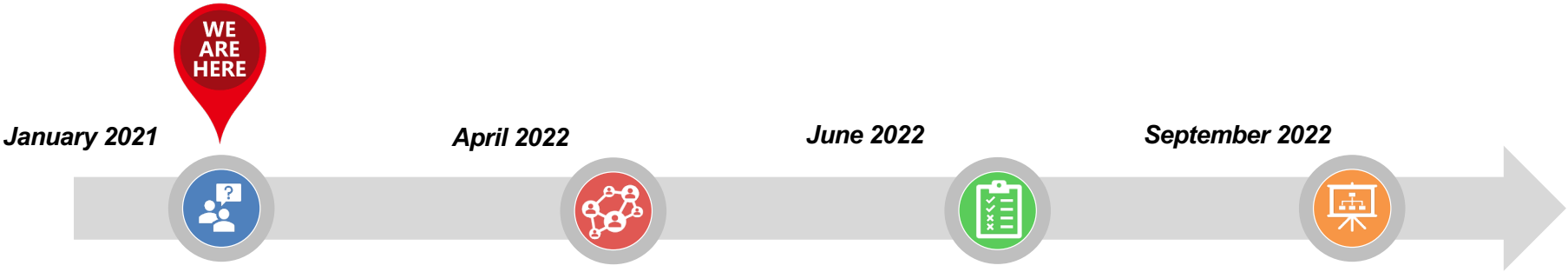
SDOH Data Exchange for Chronic Disease Prevention Initiative Activities

CDC will launch a multi-partner engagement effort to support the NCCDPHP SDOH objectives through the following efforts:

- Establishing an open CDC SDOH Public Health Use Case Workgroup for Chronic Disease Prevention.
- Developing a consensus-based SDOH business case and use case informing the NCCDPHP SDOH pilot programs and relevant federal standards-based initiatives. (e.g., Gravity Project, ONC USCDI), MCC eCare Plan Project).
- Participating in Gravity Project's Governance Committees.

If you're interested in learning more about the workgroup, please contact Gabriela Gonzalez at gabriela.gonzalez@emiadvisors.net and Savanah Mueller at savanah.mueller@emiadvisors.net

Initiative Timeline



KEY PARTNER INTERVIEWS & INFORMATION GATHERING

Incorporate research and partner feedback to develop the initial business need statement and invite partners to the forthcoming Workgroup.

SDOH PUBLIC HEALTH USE CASE DEVELOPMENT WORKGROUP LAUNCH

Introduce multi-partner engagement effort to build a Public Health SDOH Business Case, Use Cases, and Scenarios.

PUBLIC HEALTH SDOH BUSINESS & USE CASE

Publish a consensus-based SDOH business case, use case, and scenarios to inform the SDOH pilot programs and relevant federal standards-based initiatives.

KEY FINDINGS & SDOH ACCELERATION RECOMMENDATION REPORT

Highlight policy, technical, and operational opportunities over a five-to 10-year timeline.

Call for Participation: Join the CDC SDOH Public Health Use Case Workgroup for Chronic Disease Prevention

Objectives:

- Define the most impactful SDOH data sharing scenarios across clinical and public health systems by May 2022.
- Obtain consensus on SDOH Public Health Use Cases for Chronic Diseases by June 2022.

CDC SDOH Public Health Use Case Workgroup for Chronic Disease Prevention

The Workgroup will be managed using the Gravity Project open multi-stakeholder engagement approach:

- Uses **HL7 Sponsored Confluence Platform** to support real-time dissemination of project information:
  - Communicates how to join the initiative, sign up for the distribution list, view the meeting schedule, and learn more about the Workgroup.
  - Publishes all meeting materials and meeting recordings.
- Uses Zoom for virtual meeting facilitation.

Team Roles

EMI	
Name	Role
Evelyn Gallego	Program Director
Kristina Celentano	Program Manager
Gabriela Gonzalez	Project Manager
Savanah Mueller	Project Analyst
Kate Ricker-Kiefert	Subject Matter Expert
Sheetal Shah	Subject Matter Expert
Amy Zimmerman	Subject Matter Expert

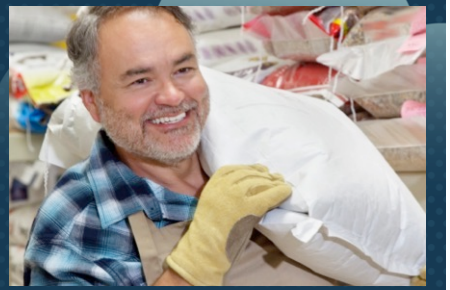
CDC	
Name	Role
Timothy Carney	OIIRM Associate Director of Informatics
Kailah Davis	Team Lead, Informatics, Science, Research, and Evaluation
Pamela Pagano	Contracting Officer's Representative (COR)/ OIIRM Deputy Director
Pradeep Podila	Health Scientist (Informatics)
Jennifer Wiltz	Deputy Medical Director, NCCDPHP
Cindy Allen	Information System Security Officer (ISSO) for NCCDPHP & National Center on Birth Defects and Developmental Disabilities (NCBDDD) Capital Planning Coordinator for NCCDPHP
Aaron Harris	CDC Center for Surveillance, Epidemiology, and Laboratory Services (CSELS) Partner
Kristie Clarke	CSELS Partner
Reagan Tuff	Public Health Analyst at OIIRM
Jina Dcruz	Senior Service Fellow
Rasaan Jones	Health Communication Specialist

Thank You

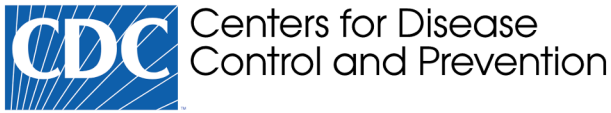
www.cdc.gov/chronicdisease

Contact:
Timothy Jay Carney, PHD, MPH, MBA
CDC-NCCDPHP-OIIRM, Associate Director of Informatics
thc8@cdc.gov



THE NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION



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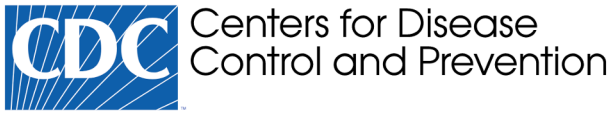
MedMorph



Centers for Disease Control and Prevention

Clinical Practice Guidelines (CPG) on FHIR

Centers for Medicare and Medicaid Services

PACIO Project

Office of the National Coordinator for Health Information Technology

Gravity Project Pilots

Office of the National Coordinator for Health Information Technology

Long-Term and Post-Acute Care

Other Relevant Projects

Agenda

Topic	Time	Presenter(s)
Welcome and Introductions	5 minutes	Jenna Norton, NIDDK Arlene Bierman, AHRQ
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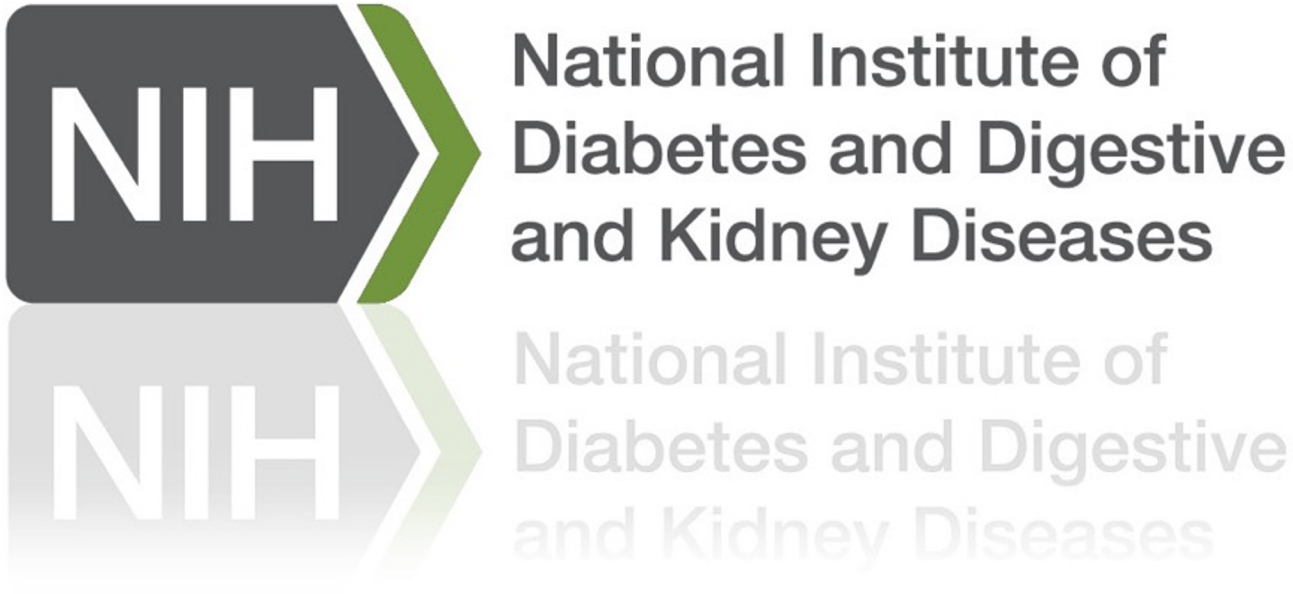
Thank You!


NIH
National Institute of
Diabetes and Digestive
and Kidney Diseases

MCC eCare Team Project Contacts

Name	Role	Contact Info
Evelyn Gallego	EMI Advisors, Program Director	evelyn.gallego@emiadvisors.net
Karen Bertodatti	EMI Advisors, Project Manager	karen.bertodatti@emiadvisors.net
Savanah Mueller	EMI Advisors, Project Analyst	savanah.mueller@emiadvisors.net
Emma Jones	EMI Advisors, SME	emma.jones@emiadvisors.net
Gay Dolin	Namaste Informatics, SME	gdolin@namasteinformatics.com
Dave Carlson	Clinical Cloud Solutions, Solutions Architect	dcarlson@clinicalcloud.solutions
Sean Muir	JKM Software, App Developer	sean.muir@emiadvisors.net
Kevin Abbott	NIDDK, COR	kevin.abbott@nih.gov
Jenna Norton	NIDDK, Program Lead	jenna.norton@nih.gov
Neha Shah	NIDDK, Scientific Program Analyst	neha.shah2@nih.gov
Arlene Bierman	AHRQ, eCare Plan Lead	arlene.bierman@ahrq.hhs.gov
Djibril Camara	AHRQ Fellow, SME	djibril.camara@ahrq.hhs.gov
Janey Hsiao	AHRQ, Digital Healthcare Research and Quality, COR for RTI	janey.hsiao@ahrq.hhs.gov

Additional MCC eCare Plan Project Links

- AHRQ and NIDDK Confluence Page for MCC eCare: https://ecareplan.ahrq.gov/collaborate/display/EC/eCare+Plan+Home

- HL7 Patient Care Work Group – MCC eCare Project Page: https://confluence.hl7.org/display/PC/Multiple+Chronic+Conditions+%28MCC%29+eCare+Plan

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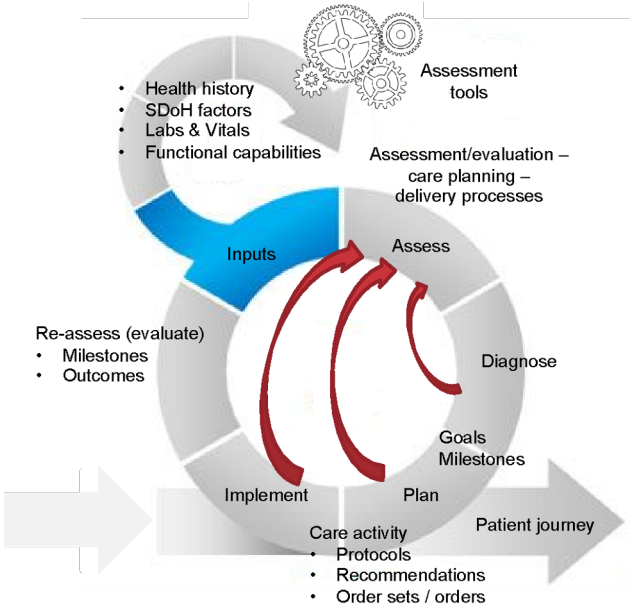
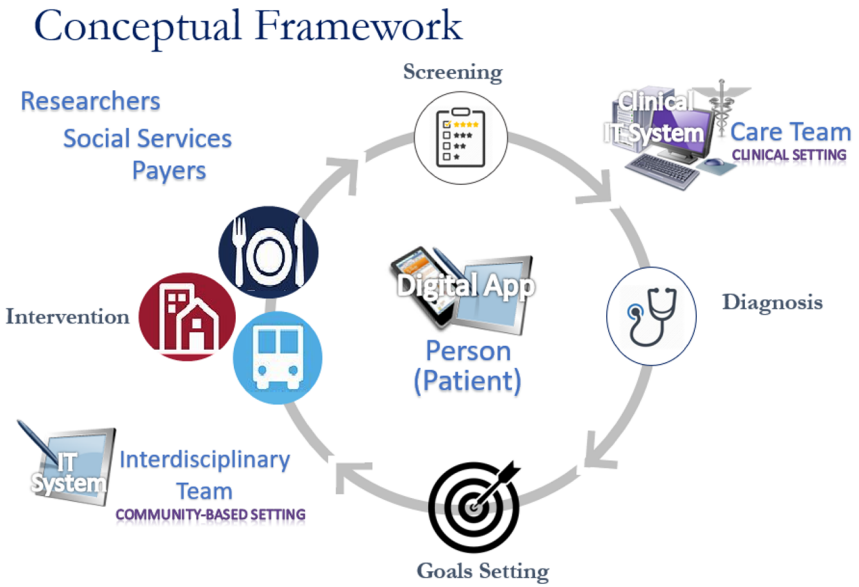
Care Planning Framework



Source: HL7 Patient Care Work Group "Care Plan Domain Analysis Model 2.0", September 2019



Source: Gravity Project Conceptual Framework

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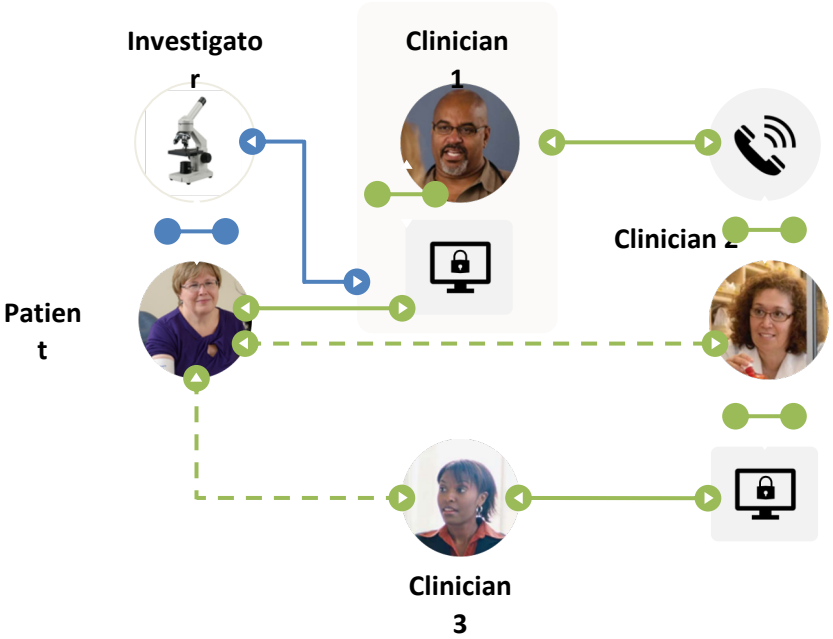
Comprehensive Standards Based eCare Plan



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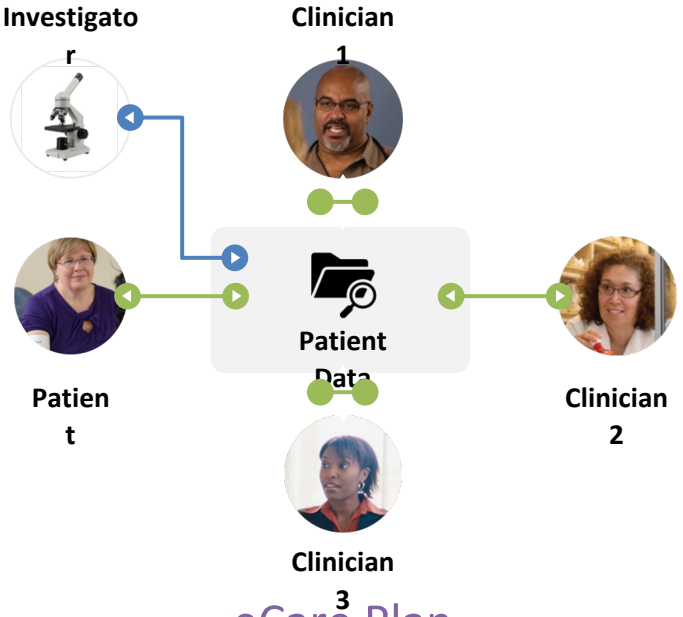
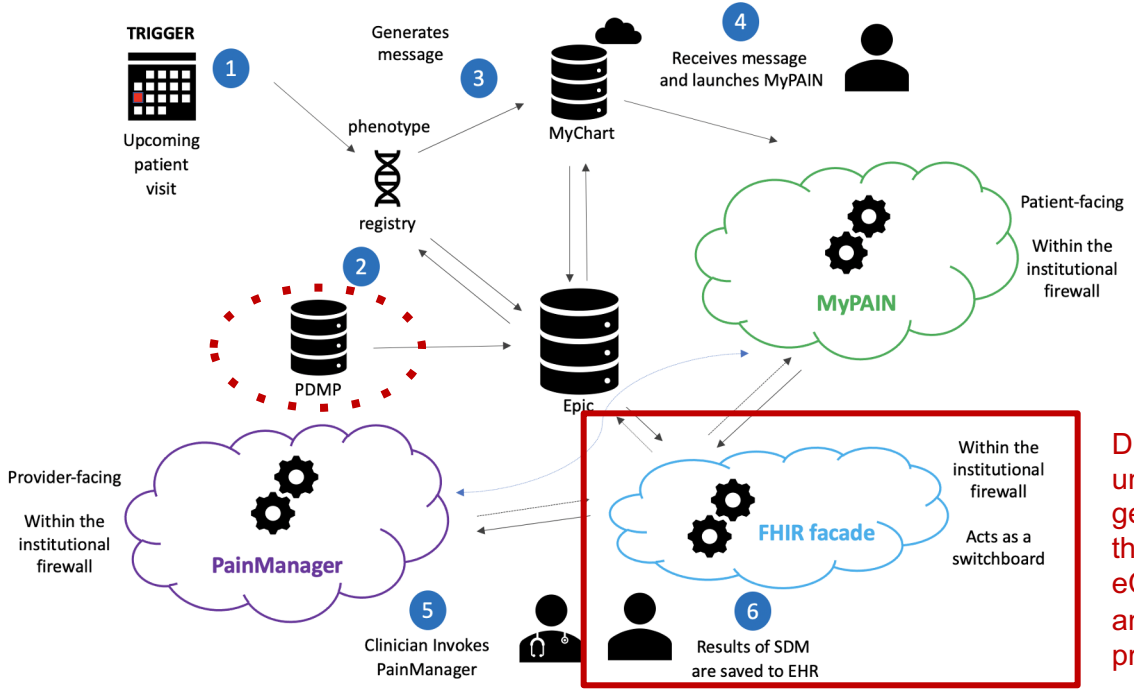


eCare Plan

National Institute of Diabetes and Digestive and Kidney Diseases

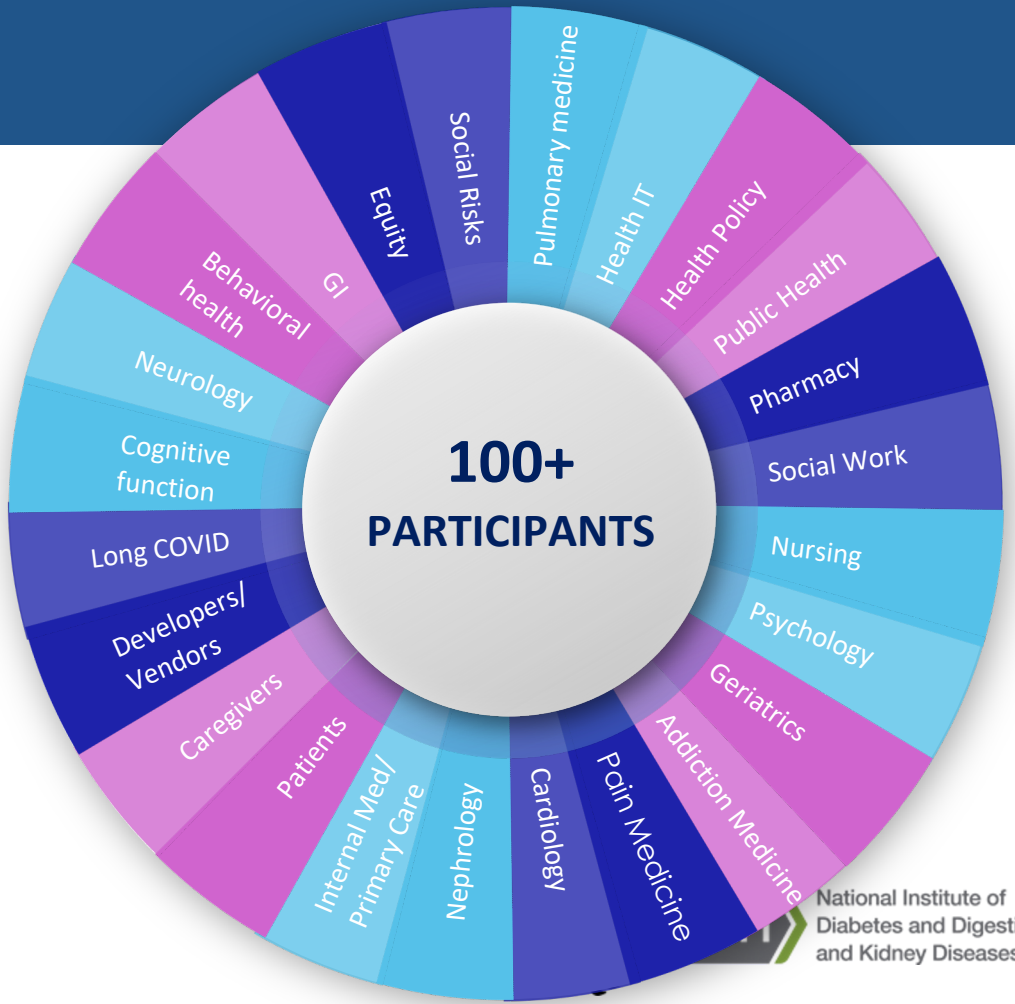
Lessons Learned: AHRQ PainManager System Architecture



Discussions underway to generalize this for use by eCarePlan and other projects.

National Institute of Diabetes and Digestive and Kidney Diseases

Technical Expert Panels (TEPs)



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