Welcome to the **Gravity Project Track**!

We are taking a break right now, starting back up at 2:00 PM ET.
Track Team Members

Track Lead
Aaron Seib
Gravity Executive Committee Co-Chair

Track Lead
Greg Harris
Gravity Acting Technical Director

Track Support
Jillian Annunziata,
MPH, PMP
Gravity Program Manager

Track Support
Jillian Annunziata,
MPH, PMP
Gravity Technical Project Coordinator
WELCOME
Welcome

• Please take a moment to introduce yourself in the chat.
  – Name
  – Affiliation
  – Are you a first time Connectathon attendee?
  – Are you testing?

  • What are you testing and challenges?
  – What are your goals in attending Connectathon?
## Wednesday Agenda

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravity SDOH Scenario Overview</td>
<td>July 20</td>
<td>9:00 – 10:00 AM ET</td>
</tr>
<tr>
<td>Gravity SDOH Closed Loop Referral Demo Session: Open City Labs, Zane Networks, OCL, Goldbelt</td>
<td>July 20</td>
<td>10:00 – 10:30 AM ET</td>
</tr>
<tr>
<td>Gravity SDOH Closed Loop Referral Demo Session: Saffron Labs, Elimu, Health LX, MaxMD</td>
<td>July 20</td>
<td>10:30 – 11:00 AM ET</td>
</tr>
<tr>
<td>Gravity SDOH Office Hours</td>
<td>July 20</td>
<td>11:00 AM – 12:00 PM ET</td>
</tr>
<tr>
<td>Gravity SDOH Implementor Huddle</td>
<td>July 20</td>
<td>12:00 – 12:30 PM ET</td>
</tr>
<tr>
<td>Ad Hoc Gravity IG Testing Session</td>
<td>CMS Connectathon (con't)</td>
<td>July 20</td>
</tr>
</tbody>
</table>

## Thursday Agenda

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track Highlight: Gravity SDOH Exchange</td>
<td>July 21</td>
<td>2:20 - 2:400 ET PM</td>
</tr>
</tbody>
</table>
RECOGNIZING MAJOR CONTRIBUTORS TO THE IMPLEMENTATION GUIDE
18.1 Acknowledgements

The following individuals and organizations deserve credit for their significant effort in the creation of the implementation guide.

We would like to thank CynicHealth®, the Agency for Healthcare Research and Quality (AHRQ)®, BSRN UCiS® and Lander College of Medicine at the University of Vermont for their support in developing this IG and all Gravity Project sponsors® for their contributions to make rapid progress on the standardization of social determinants of health data.

Name | Organization
--- | ---
Robert Dietelje | EnableCare LLC
Corey Smith | JMA
Monique van Berkum | JMA
James Shelley | Elinu
Lloyd McKenzie | Gevity/Accenture
Jonas Garcia | Gevity/Accenture
Lisa Nelson | MaxMD
Matt Etrol | MaxMD
Matt Mennis | JMA
Becky Gadid | Academy of Nutrition and Dietetics
Sarah DeLellis | Lander College of Medicine at the University of Vermont
Donna Perl | Academy of Nutrition and Dietetics
Evelyn Gallego | EMI Advisors, LLC
Linda Hyde | EMI Advisors, LLC
Lynnette Elliott | EMI Advisors, LLC
Rubbi Hasami | Hasami Consulting LLC
Ching Liu | MaxMD
Natasha Kovaleva | MaxMD

Our thanks to these and to the many others not explicitly listed who contributed their time, enthusiasm and expertise to this work.

This implementation guide was created under the supervision and review of the HL7 Patient Care Workgroup.
Demonstrations

Session 1 features

Session 2 features
SESSION 1: FEATURING MAYJUUN, OPEN CITY LABS & ZANE NETWORKS
Session 1

Journey and Personas

• 70yo Mark Daniels is a patient with Diabetes Mellitus Type 2 (SNOMED 44054006) and Coronary Artery Disease (SNOMED 53741008) problems.

• Primary Care Physician, Dr Payton, is concerned that Mr. Daniels poor financial circumstances are leading to other social determinants of health (SDOH) that could be remediated with appropriate socialcare interventions.

• Care Coordinator Michelle Zancan has been asked by Dr. Payton to create a Task for 70yo patient Mark Daniels to take a PRAPARE survey on his smartphone.

• Referral Coordinator, Matt Bishop is ready to search for needed services in the National Directory and create referrals to services.

• Reza Shaw, is a Case Manager at Monmouth County Office on Aging, who will receive a referral for Home Delivered Meals, accept it, provide the service, and close the service request by setting the status on the referral to complete.

• Michelle Zancan will be notified that a referral Task has been completed, checks on the referral’s Task and ServiceRequest.
Scenario Systems

Patient Care Coordination
  Zane Networks Operational Data HUB (ODH)

Patient Survey App
  MayJuun Cuestionario

CBRO & CBO Referral Management
  Open City Labs Navigator360

CBO Directory
  National Directory, 211

1) QuestionnaireResponse and MeasureReport Created
2) SMART-on-FHIR Launch - Patient Context Patient, Condition, Goal
3) Queries for Home Delivered Meals and Endpoints
4) Task and ServiceRequest referral for Food Pantry services
5) Task, ServiceRequest statuses updated
MayJuun, OPEN CITY LABS & Zane Networks Agenda

• Use Case 1 – Assessment
  • Care Coordinator using Zane Networks ODH will assign a Task to a Patient to take an Assessment
  • MayJuun will deliver a smartphone assessment survey supported by Questionnaire and QuestionnaireResponse
  • Based on the responses, MayJuun will generate of Observation and Condition – Health Concern FoodInsecurity

• Use Case 2 – Referral Initiation
  • The Practitioner, using ODH, sets a CarePlan SDOH Goal and creates a “needs referral” Task for the Referral Manager
  • Referral Manager using ODH will check Patient record and launch Open City Labs Navigator360 using SMART-on-FHIR
  • Navigator360 will use the National Directory to search for a HealthcareService for FoodInsecurity
  • Navigator360 will create ServiceRequest, Task resources for a referral to an NUCC-coded Home Delivered Meals

• Use Case 3 – Closed Loop Referral
  • Navigator360 will be used by a Community-based HealthcareService provider to accept the referral Task and ServiceRequest
  • The HealthcareService provider will then use Navigator360 to update the ServiceRequest status

• Use Case 4 – Provider Reviews Closed Loop Referral
  • Care Coordinator uses ODH to verify the Task and ServiceRequest status have been updated to Close the Loop
Use Case 1 – Assessment Phase

1. Care Coordinator Michelle, uses Operational Data HUB (ODH) to create a Task for 70yo Patient, Mark Daniels, to fill out PRAPARE SDOH survey;

2. Notification email for Task is sent to patient with URL link to MayJuun PRAPARE survey;

3. Patient clicks through URL to launch Mayjuun's Needs Assessment App & takes survey;

4. FHIR Questionnaire and QuestionnaireResponses capture the patient’s answers;

5. Based on those answers, MayJuun automatically creates an Observation and Condition-Health Concern that the patient may be food insecure;

6. Care Coordinator Michelle is notified through ODH that the patient completed the survey and that there is a Condition-Health Concern that the patient is food insecure;

7. Care Coordinator sets a Goal in a Care Plan for the Patient to achieve Food Security and creates a “needs referral” Task for a Referral Coordinator.
Use Case 2 – Referral Initiation Phase

8. Referral Coordinator, Carla Sanchez, receives an email notification for a “needs referral” Task and logs into ODH to review the patient information;

9. With the context of the patient, the Referral Coordinator launches OCL Navigator360, a Referral Management and Federated Directory App, using SMART-on-FHIR;

10. The Referral Coordinator searches for services appropriate to meet the patient’s Goal in the National Directory;

11. The Referral Coordinator refers the patient to a "Home Delivered Meals" service, for which Navigator360 automatically generates a Task and ServiceRequest for the provider Monmouth County Office on Aging.
Use Case 3 & 4 – Closed Loop Referral Phase

12. The Home Delivered Meals Case Manager, Reza Shah, reviews the referral using OCL Navigator360, accepts it, and adds procedures associated with performing the Home Delivered Meals service, and finally changes status of the referral to “complete”, which is captured in statuses for ServiceRequest and Task.

13. Navigator360 ensures that changes in ServiceRequests and Tasks are reflected across the various systems to indicate the closing of the referral loop, which can be seen in both ODH and Navigator360 systems.
Gravity SDOH Exchange Demonstrations

Session 2 Featuring Saffron Labs, Elimu and HealthLX

Errol Blake, Saffron Labs
Aziz Boxwala, Elimu
Yuriy Fluyd, HealthLX
SESSION 2: FEATURING SAFFRON LABS, Elimu AND HealthLX
In this session we are featuring the following

- We use the Gravity Projects Reference Implementation as the central FHIR Server to demonstrate the closed loop referral process enabled by the Gravity SDOH Exchange IG
- Using the open-standard APIs & Gravity Terminology we illustrate one scenario, involving multiple vendors.
  - SAFFRON Labs will demonstrate the assessment functionality enabled by the IG Featuring two MVPs – one for use by the practice and the other for use by the patient/client.
  - Elimu will demonstrate how an EMR Launched application would be able to leverage the assessment to start the referral process.
  - HealthLX, who developed the RI on Gravity’s behalf, will participate in the role of the CBO that is acting on the Elimu referral.
  - MaxMD, also working against the RI, will demonstrate how the underlying standards can be used by different vendors to perform an assessment, here leveraging the Personal Characteristics survey that is a Survey instrument bening fostered by Gravity to collect self reported REL+SOGI data.
As described in the prior slide our team will be demonstrating use of the Gravity IG’s open standards with multiple vendors interoperating against a common FHIR-server.
Closed Loop Referral

Scenario:
1. Dr. Casey Payton assesses patient Dan Mars for the potential problem of food insecurity.
2. Dr. Payton coordinates with a known and trusted CBO to request services than can help address Dan’s food insecurity.
3. The case manager at the CBO, Susan Stars, accepts the referral and further assesses Mr. Mars’ needs and matches him the services that best fit his needs.
4. Dr. Payton sees ongoing status updates from Susan on services being provided to Dan by the CBO.
5. Susan does a final status update that indicates that Dan has successfully enrolled for the services that help meet Dan’s needs.

Key Activities Being Demonstrated:
1. **Assessment** using Hunger Vital Signs questionnaire (FHIR QuestionnaireResponse)
2. **Referral** being made to a CBO (FHIR ServiceRequest, Task)
3. **Task status updates** are provided back to the provider (FHIR Task )
4. Details of which **services** were **provided** by the CBO accompany the status updates back to the provider (FHIR Procedure)
Demonstration of the FHIR questionnaire being assigned to the patient and the collection of patient responses using Saffron Pulse and Clarity.
Session 2

Assessment

Scenario:
Dr. Casey Payton sees patient Dan Mars and suspects that he may have SDOH concerns (Food Insecurity) so interviews Mr. Mars by sending him a HVS questionnaire. Looking at his responses Dr Payton assess that he currently does not have sufficient access to food and is at high risk for not being able to afford food over the next 3 months.

Key Activities Being Demonstrated:
1. Assessment Instrument: Hunger Vital Signs Questionnaire via Pulse and Clarity sent to patient Dan Mars
2. Provider access to questionnaire responses (FHIR QuestionnaireResponse transformed to screening response Observations and/or Conditions
Referral Initiation Phase

Demonstration of the Elimu Sapphire SMART on FHIR provider app enabling:

1. Provider access to relevant information needed to make an assessment
2. Sending a FHIR ServiceRequest to the CBO
Referral Initiation

Scenario:
Dr Payton coordinates with a known and trusted CBO to request services than can help address Dan’s food insecurity

Key Activities Being Demonstrated:
1. **Service Request**: FHIR ServiceRequest
2. **Task used to updated the status of the service being provided**: FHIR Task
3. **Supporting information from the patient’s chart (observations, conditions, HVS responses)**: FHIR Condition, Observation, QuestionnaireResponse
Demonstration of the Elimu Sapphire SMART on FHIR provider app enabling:

1. Provider access to the status of tasks related to the requested services (including acceptance of the referral and status of CBO provided services)

2. Details from the CBO regarding the referral.
Session 2

Closed Loop Referral

Scenario:
The case manager at the CBO, Susan Stars, accept the referral and further assesses Mr. Mars’ needs and matches him the services that best fit his needs.

Dr Payton sees ongoing status updates from Susan on services being provided to Dan by the CBO.

Susan does a final status update that indicates that Dan has successfully enrolled for eligible services that can meet his needs.

Key Activities Being Demonstrated:

1. **CBO updates the task status addressing the requested service**: FHIR Task status

2. **Supporting information from the CBO**: FHIR Procedure
Demonstrate various options for vendors to leverage draft work from the Gravity project to capture source and method for Race Ethnicity, Sex and Gender data and ensures understanding how results may change over time.
Scenario:
Alice Newman, a new patient, will be seen by Dr Payton. The practice needs Alice to complete a personal characteristic survey. The details collected will be self-identified information about Alice’s race, ethnicity, gender and sex. The office manager starts the process of gathering the information by asking a vendor to initiate a task to complete a personal characteristics survey.

The vendor initiates the task and informs the provider of the Task ID. This allows the provider’s EHR to poll the vendor to see when the patient has completed the survey and the task is marked as complete. Once the survey is completed, the details are shared with the provider.

Dr. Payton understands how Alice self-identifies and uses the information to provide more personalized care.

Key Activities Being Demonstrated:
1. Vendor updates task status for checking task status: FHIR Task status
2. Supporting collection of Personal Characteristics that may change over time to inform care: FHIR Observation