Welcome

Thank you for joining the **Gravity Project** Workgroup meeting!

Due to the large number of attendees, participants are **muted upon entry**. *Please remain muted to avoid background noise.*

This call is being recorded; recording will be available on the Gravity Confluence page following.

You are encouraged to actively participate in the discussion using the Webex chat feature (bottom right of the Webex Meeting window).

**Please send chats to “Everyone.”**
Gravity Project Anti-Trust Practices

- Gravity Project participants have the responsibility to comply fully with federal and state antitrust laws.

- Individuals speaking or providing written communications shall refrain from any discussion which may provide the basis for an inference that they have agreed to take any action relating to prices, services, production and allocation of markets or any other matter having a market effect.

- Participants shall not discuss their pricing or others’ pricing or any term that might affect pricing or fees, such as costs, discounts, terms of sales or profit margins.

- Adherence to these guidelines involves not only avoidance of antitrust violations, but avoidance of behavior that might be so construed.
Gravity Project Participation

- If you have not already done so, we invite you to **officially join the project here:**
  https://confluence.hl7.org/display/GRAV/Join+the+Gravity+Project

- If you want to **check whether you have already signed up** or if others from your organization have signed up, please review the existing membership here:

- For **all other Gravity Project information**, please visit:
  https://confluence.hl7.org/display/GRAV/The+Gravity+Project
Project Founders, Grants, and In-Kind Support To-Date

Robert Wood Johnson Foundation

The University of Vermont
LARNER COLLEGE OF MEDICINE

Yale School of Nursing

sirenUCSF

BlueCross BlueShield Association

eat right. Academy of Nutrition and Dietetics

AHRQ

AAFP

UnitedHealthcare

AmeriHealth Caritas

The Office of the National Coordinator for Health Information Technology

Humana

juxly

Children's HealthWatch

CALIFORNIA HEALTH CARE FOUNDATION

HL7

https://confluence.hl7.org/display/GRAV/Gravity+Project+Sponsors
Gravity Project Sponsorship

- The Gravity Project is currently seeking additional sponsors for our 2020 operations
  - This is an opportunity to be a recognized contributor to our critical national work

- If you are interested in learning more about sponsoring opportunities, please send an email to GravityProject@emiadvisors.net or visit https://confluence.hl7.org/display/GRAV/Gravity+Project+Sponsors
Administration for Community Living Challenge Grant is Now Accepting Applications

- Registration for Phase 1 (i.e. the letter of intent) is due December 14, 2020. The challenge.gov posting will be updated with this information.
  - To learn more about the grant requirements, refer to the July 28th webinar here: https://confluence.hl7.org/pages/viewpage.action?pageId=76153059#GravityProjectEvents-PastGravityProjectEventMaterials
ONC Advancing Interoperability: Social Determinants of Health Workshop Sept. 21, 2020

- ONC hosted a one-day virtual workshop to convene healthcare and human services providers to understand their approaches to integrating SDOH data into value-based care.

- See agenda here: https://event.capconcorp.com/wp/the-advancement-of-sdoh-standards-convening/agenda/

- Gravity presented during the “Real world connections and advancements with SDOH data” session

- See for the event recording here: https://www.healthit.gov/news/events/advancing-interoperability-social-determinants-health-workshop
  - Gravity Presented during the 00:40:00 – 1:00:00 video timeframe
## Agenda

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Gravity Roadmap and Upcoming Domains</td>
<td>Evelyn</td>
</tr>
<tr>
<td>Project Schedule &amp; Terminology Build Approach</td>
<td>Sarah</td>
</tr>
<tr>
<td>Consensus Voting: Housing Instability and Homelessness</td>
<td>Sarah</td>
</tr>
<tr>
<td>Review: Inadequate Housing Concepts</td>
<td>Sarah</td>
</tr>
<tr>
<td>Identify: Transportation Insecurity Concepts</td>
<td>Sarah</td>
</tr>
<tr>
<td>Financial Strain Pre-Work</td>
<td>Sarah</td>
</tr>
<tr>
<td>Update: Gravity Technical Direction</td>
<td>Bob</td>
</tr>
<tr>
<td>Review: USCDI Submission</td>
<td>Mark</td>
</tr>
<tr>
<td>Community Homework and Next Steps</td>
<td>Sarah</td>
</tr>
</tbody>
</table>

Please submit questions and comments using the Webex chat feature.
# Gravity Roadmap

<table>
<thead>
<tr>
<th>2020</th>
<th>2021</th>
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<tbody>
<tr>
<td><strong>JAN</strong></td>
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<td><strong>MAY</strong></td>
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<td><strong>JUN</strong></td>
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<td><strong>NOV</strong></td>
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<td><strong>DEC</strong></td>
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**TERMINOLOGY**

- **FOOD INSECURITY**
- **HOUSING INSTABILITY & HOMELESSNESS**
- **INADEQUATE HOUSING**
- **TRANSPORTATION**
- **FINANCIAL STRAIN**
- **INTERPERSONAL VIOLENCE**
- **DEMOGRAPHICS**
- **SOCIAL ISOLATION**
- **STRESS**
- **NEW DOMAIN TBD**
- **Multi Domain Screening & Diagnosis Development**
- **SINGLE Domain Goals & Interventions Development**

**TECHNICAL**

- **Gravity FHIR IG Development**
- **IG Ballot**
- **Final updates/ IG Publication**
- **IG Ballot Reconciliation**
- **Reference Implementation Development**
- **Reference Implementation Update**
- **HL7 FHIR Connectathons**

**PILOTS**

- **SDOH FHIR IG PILOTS**

**Key**

- ▲ ☀ LOINC Code Submissions (APR/ OCT)
- ★ SNOEMD Code Submissions (MAY/DEC)
- ⭕ ICD-10 Code Submissions (JUN/DEC)

**WE ARE HERE**
SDOH Terminology Domains

2019
- Food Insecurity

2020
- Housing Instability and Homelessness
- Inadequate Housing
- Transportation Insecurity
- Financial Strain – Screening and Diagnoses
- Education - Screening and Diagnoses
- Employment - Screening and Diagnoses
- Veteran status - Screening and Diagnoses

2021 – Established
- Financial Strain – Goals and Interventions
- Education - Goals and Interventions?
- Employment - Goals and Interventions?
- Veteran status - Goals and Interventions?

2021- New
- Social Isolation- Screening and Diagnoses
- Stress - Screening and Diagnoses
- Interpersonal Violence - Screening and Diagnoses
SDOH Terminology Domains- Defined, to be Added to Timeline

2021 and Beyond

- Racism
- Neighborhood Safety
- Food Access/Food Apartheid
- Home Accessibility/Adaptability
- Infrastructure Insecurity
- .....
<table>
<thead>
<tr>
<th>Date</th>
<th>Gravity WG Meeting Tasks</th>
<th>Homework</th>
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<tr>
<td>10/01</td>
<td><strong>Housing Phase I:</strong> Housing Instability and Homelessness Consensus Voting</td>
<td>Submit: Housing Instability and Homelessness Consensus Votes</td>
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<td></td>
<td><strong>Housing Phase II:</strong> End-to-Review Inadequate Housing Data Element Concepts</td>
<td>Review and submit comments: Inadequate Housing Master List</td>
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<tr>
<td></td>
<td><strong>Transportation:</strong> Transportation Concepts</td>
<td>Submit: Transportation Concepts</td>
</tr>
<tr>
<td></td>
<td><strong>Financial Strain Pre-Work</strong></td>
<td>Submit: Financial Strain Concepts</td>
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<tr>
<td>10/15</td>
<td><strong>Housing Phase II:</strong> End-to-End Review Inadequate Housing Data Element Concepts</td>
<td>Review and submit comments: Inadequate Housing Master List</td>
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<td><strong>Transportation:</strong> Transportation Concepts</td>
<td>Submit: Transportation Concepts</td>
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<td></td>
<td><strong>Financial Strain Kickoff</strong></td>
<td>Submit: Financial Strain Concepts</td>
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<tr>
<td>10/29</td>
<td><strong>Housing Phase II Review:</strong> End-to-End Review of Inadequate Housing</td>
<td>Review and submit comments: Inadequate Housing Master List</td>
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<td></td>
<td><strong>Transportation:</strong> Transportation Concepts</td>
<td>Submit: Transportation Concepts</td>
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<td></td>
<td><strong>Financial Strain:</strong> Financial Strain Concepts</td>
<td>Submit: Financial Strain Concepts</td>
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<tr>
<td>11/12</td>
<td><strong>Housing Phase II:</strong> Inadequate Housing Consensus Voting</td>
<td>Submit: Inadequate Housing Votes</td>
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<tr>
<td></td>
<td><strong>Transportation:</strong> Transportation Diagnoses Consensus Voting and Transportation Concepts</td>
<td>Submit: Transportation Diagnoses Votes and All Activity Concepts</td>
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<tr>
<td></td>
<td><strong>Financial Strain:</strong> Financial Strain Diagnoses Consensus Voting and Financial Strain Concepts</td>
<td>Submit: Financial Strain Diagnoses Votes and All Activity Concepts</td>
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</tbody>
</table>
Gravity Overview: Two Streams

SDOH Domains (Terminology)
- Data Set Identification
- Coding Gap Analysis & Recommendation
- New Code Submissions
- Publication in NLM, VSAC & ONC ISA

Technical (FHIR)
- FHIR IG Ballot & Publication
- FHIR IG Development
- Community & FHIR Coordination
- FHIR IG Testing

CODED VALUE SETS
Community Terminology Development
Questions?

You are encouraged to actively participate in the discussion using the Webex chat feature (bottom right of the Webex Meeting window).

Please send all chats to Everyone.
Consensus Voting: Housing Instability and Homelessness
Housing Data Element Submitters

United Healthcare
Washington Association for Community Health
NIH
School of Medicine
Washington State Health Care Authority
Selfhelp

Allscripts / All possible
National Institute of Nursing Research

AHIMA

HUD EXCHANGE

HUD.GOV

NCDHHS

e.g. right.

Kansas City

Academy of Nutrition and Dietetics

RIVERSTAR

Providence St. Joseph Health

IBM Watson Health PULSE® Health Polls

WellSky

HL7 International
## Housing Instability and Homelessness Consensus Voting

<table>
<thead>
<tr>
<th>Confluence Membership</th>
<th>Count</th>
<th>Current Voting Statistics</th>
<th>Count</th>
<th>%</th>
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<tbody>
<tr>
<td>Committed Members</td>
<td>290</td>
<td>Housing Domain Members (As of 09/03/20)</td>
<td>240</td>
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<tr>
<td>Other Members</td>
<td>608</td>
<td>Votes Needed for Consensus</td>
<td>120</td>
<td>50%</td>
</tr>
<tr>
<td>Total Members</td>
<td>898</td>
<td>Votes to Date (10/01/20)</td>
<td>80</td>
<td>67%</td>
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<td>Date of Data Pull</td>
<td>10/01/20</td>
<td>Outstanding Votes</td>
<td>40</td>
<td>33%</td>
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<tr>
<td></td>
<td></td>
<td>Vote Due Date / Status</td>
<td>10/3/20</td>
<td>Red</td>
</tr>
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</table>

[https://confluence.hl7.org/display/GRAV/Consensus+Voting](https://confluence.hl7.org/display/GRAV/Consensus+Voting)
Housing Instability and Homelessness Consensus Voting

VOTING PERIOD: 9/3/2020 - 10/3/2020

- All committed members vote
  - Yes: A Yes vote does not necessarily mean that the deliverable is the ideal one from the perspective of the Committed Member, but that it is better to move forward than to block the deliverable.
  - Yes with Comment: If a consensus process attracts significant comments through Yes With Comment votes, it is expected that the comments will be addressed in a future revision of the deliverable.
  - Formal Objection: This vote must include comments indicating a path to address the objection in a way that meets the known concerns of other members of the project. A Formal Objection vote without such comments will be considered an Abstain vote.
  - Abstain: A member declined to vote.

https://confluence.hl7.org/display/GRAV/Consensus+Voting
Questions?

You are encouraged to actively participate in the discussion using the Webex chat feature (bottom right of the Webex Meeting window).

Please send all chats to Everyone.
Review: Inadequate Housing Concepts
## Inadequate Housing Data Element Submissions Summary

### Total Submissions Received = 5

<table>
<thead>
<tr>
<th>Screening Tool/ Questions</th>
<th>Diagnosis</th>
<th>Goal</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 Tools / 48 Questions</td>
<td>15</td>
<td>4</td>
<td>48</td>
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### Submissions Reviewed = 4

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<td>Duplicates – 1 Tool/1 Question</td>
<td>Duplicates –</td>
<td>Duplicate –0</td>
<td>Duplicates – 2</td>
</tr>
<tr>
<td>Do Not Add –</td>
<td>Do Not Add – 1</td>
<td>Do Not Add –</td>
<td>Do Not Add – 8</td>
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<tr>
<td>Park – 5 Tools/35 Questions</td>
<td>Park – 3</td>
<td>Park – 1</td>
<td>Park – 1</td>
</tr>
<tr>
<td>Hold –</td>
<td>Hold – 2</td>
<td>Hold</td>
<td>Hold – 1</td>
</tr>
</tbody>
</table>

### Total Submissions Returned* =

* Adjudication completed and file returned to submitter with dispositions

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* HL7 International

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24
Inadequate Housing End to End Review

- We have spent months adding and winnowing the collective set together
- End to end review is a time to step back and consider the whole set and ask questions
  - Are there missing concepts?
  - Are there incorrect concepts that need to be changed?
  - Are there concepts that are unnecessary and should be removed?
How to Submit End to End Review Comments

- On Monday 10/5 download latest Inadequate Housing Master List:
  - [https://confluence.hl7.org/display/GRAV/Inadequate+Housing+Domain](https://confluence.hl7.org/display/GRAV/Inadequate+Housing+Domain)
- Email all comments regarding data elements to gravityproject@emiadvisors.net
- For data elements currently ON the Master List
  - Include data element ID # and reason(s) you do not feel the element is appropriate for Housing Instability and Homelessness
- For data elements NOT ON the Master List
  - Submit the data element type (Screening, Diagnosis, Goal, Intervention)
  - Include a description for the data element you propose
  - For screening elements, attach a copy or link to the tool
- **Comments regarding Screening and Diagnoses submissions due: 10/30**
## Inadequate Housing Screening Summary

<table>
<thead>
<tr>
<th>ID</th>
<th>Relevant Screening Tool</th>
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<tbody>
<tr>
<td>S1</td>
<td>AAFP Social Needs Screening Tool</td>
</tr>
<tr>
<td>S2</td>
<td>American Housing Survey</td>
</tr>
<tr>
<td>S3</td>
<td>Accountable Health Communities HRSN</td>
</tr>
<tr>
<td>S4</td>
<td>Medical-Legal Partnership Screening</td>
</tr>
<tr>
<td>S5</td>
<td>Upstream Risks Screening Tool</td>
</tr>
<tr>
<td>S6</td>
<td>Medicare THA</td>
</tr>
<tr>
<td>S7</td>
<td>SDOH Tool Community Health Central Washington (CHCW) (Internally developed screening tool)</td>
</tr>
<tr>
<td>S8</td>
<td>CHFC SDH All Domains</td>
</tr>
</tbody>
</table>
Inadequate Housing Diagnoses

Substandard housing
Housing does not meet jurisdiction habitability standards
(Z59.1 Inadequate housing)
- Substandard housing due to pests
- Substandard housing due to mold
- Substandard housing due to lead
- Substandard housing due to temperature control
- Substandard housing due to inability to store or prepare food
- Substandard housing due to lack of smoke detectors
- Substandard housing due to lack of potable water
- Substandard housing due to overcrowding
- ....
Questions?

You are encouraged to actively participate in the discussion using the Webex chat feature (bottom right of the Webex Meeting window).

Please send all chats to Everyone.
Identify: Transportation Insecurity Concepts
## Transportation Data Element Submissions Summary

**Total Submissions Received = 5**

<table>
<thead>
<tr>
<th>Screening Tool/ Questions</th>
<th>Diagnosis</th>
<th>Goal</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Tools/ 36 Questions</td>
<td>7</td>
<td>0</td>
<td>44</td>
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**Submissions Reviewed =**

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<tbody>
<tr>
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<tr>
<td>Duplicates – 1 Tool/1 Question</td>
<td>Duplicates</td>
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<tr>
<td>Do Not Add – 2 Tools/4 Questions</td>
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</tr>
<tr>
<td>Park – 1 Tool/1 Question</td>
<td>Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold – 8 Tools/9 Questions</td>
<td>Hold</td>
<td></td>
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</tbody>
</table>

**Total Submissions Returned* =**

* Adjudication completed and file returned to submitter with dispositions
Screening Approaches

- PRAPARE
  - “Has lack of transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living?”

- WA Association Community Health –
  - “Are you worried about getting to work, school, groceries or appointments because you don't have a way to get there?”

- Health Leads-
  - “In the last six months, have you ever had to go without health care because you didn't have a way to get there?”

- WellRx-
  - “Do you have trouble finding or paying for transportation”
What kinds of data does the provider need to care for their patients?

the hospital need to study the effects of provider interventions?

the community-based org or service provider need to address the need of their clients?

the state need to plan for population health needs?

And what are the principles we need to consider to keep patients at the center?
Submit: Transportation Concepts

- Please begin to submit transportation concepts so we can start with a robust set!
  - https://confluence.hl7.org/display/GRAV/Transportation+Domain
Questions?

You are encouraged to actively participate in the discussion using the Webex chat feature (bottom right of the Webex Meeting window).

Please send all chats to Everyone.
Financial Strain Pre-Work
Financial Strain Pre-Work

- **SAVE THE DATE FOR KICK-OFF OCT. 15, 2020**

- Prior to starting the financial domain, please begin to submit transportation concepts so we can start with a robust set!
  - [https://confluence.hl7.org/display/GRAV/Financial+Domain](https://confluence.hl7.org/display/GRAV/Financial+Domain)

- Contact your financial colleagues and bring them into the fold!
Questions?

You are encouraged to actively participate in the discussion using the Webex chat feature (bottom right of the Webex Meeting window).

Please send all chats to Everyone.
Update: Gravity Technical Direction
Technical Stream – FHIR IG Focus

1. Redesigning the FHIR IG to support multiple domains
   Working on new FHIR methods to allow value sets to “flex” based on the domain requirements

2. Support for exchange of information related to SDOH primary clinical activities related to SDOH

3. Plan to ballot STU1 version of the FHIR IG in the January ballot cycle
   It is important to remember that the IG is a definition of how to represent SDOH information for exchange. (e.g. via a FHIR based API – conformant to the ONC 21st Century Cures Act final rule)

4. Planning for January HL7 Connectathon 26
Gravity FHIR SDOH Clinical Care IG Scope

1. Document SDOH data in conjunction with the patient encounter
2. Set SDOH related goals.
3. Establish and related interventions to completion.
4. Measure outcomes.
5. Gather and aggregate SDOH data or uses beyond the point of care (e.g. population health management, quality reporting, and risk adjustment/ risk stratification).
6. Manage patient consent

http://build.fhir.org/ig/HL7/fhir-sdoh-clinicalcare/
Enabling Survey Instruments

Survey → LOINC Panel (Survey Instruments)
Include Health Concern Algorithm

Conversion to FHIR Questionnaire
(enhanced NLM LHC-Forms Widget)

Establish complete survey as LOINC Components with LOINC Answer Lists
Add calculation logic for Questionnaire
Build executable FHIR Questionnaire with logic to create LOINC-LOINC Observations and SNOMED-CT/ICD10-CM Health Concerns

Execute FHIR Questionnaire
(enhanced NLM SDC Questionnaire App)

Condition
Problem
Provider Evaluation
Condition Diagnosis
Goals Interventions

Observation (survey question-answer pair)
Condition Health Concern

QuestionnaireResponse

Dynamic Value Sets – based on LOINC Panel Definitions

Need to be able to express in the health concern any “hidden” computational logic

Note: all Survey instruments SHALL produce Health Concerns with Gravity defined value sets
Reference Implementation

- Using the FHIR SDOH ClinicalCare IG
- Create a “reference implementation” that demonstrates all of the concepts in the IG
  - Survey based on FHIR Questionnaire including creation of a QuestionnaireResponse
    - Ability to exchange coded results of the survey using FHIR observations
  - Ability to create Condition resources from the observations to demonstrate coding of Health Concerns
  - Ability to create and exchange Goals and ServiceRequests
  - Ability to aggregate Observations, Goals, Conditions and ServiceRequest exchange them with responsible organizations
  - Support for patient consent where appropriate
## Gravity Technology Roadmap

<table>
<thead>
<tr>
<th>Year</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
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<th>July</th>
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<th>September</th>
<th>October</th>
<th>November</th>
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<tbody>
<tr>
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<td>Gravity FHIR IG Development</td>
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<td>Final updates /IG Publication</td>
<td>IG Ballot Reconciliation</td>
<td>Reference Implementation Development</td>
<td>Reference Implementation Update</td>
<td>HL7 FHIR Connectathons</td>
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<td>2021</td>
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<td>SDOH FHIR IG PILOTS</td>
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**TECHNICAL**

**PILOTS**

WE ARE HERE
Connectathon 25 Gravity Track

- The **HL7® FHIR Virtual Connectathon** occurred from September 9th to 11th
- The Gravity team lead the Gravity Project SDOH-CC Connectathon Track
  - View the connectathon track recordings and presentations: [https://confluence.hl7.org/display/FHIR/2020-09+Gravity+SDOH-CC+Track](https://confluence.hl7.org/display/FHIR/2020-09+Gravity+SDOH-CC+Track)

- Objectives
  - Provide an overview of Gravity Project, use cases, and "multi-domain" approach to SDOH
  - Demonstrate use of LOINC panels and NLM's LHC tools to auto-generate, SDC Questionnaire and QuestionnaireResponses
  - Demonstrate use of FHIR Mapping Language, StructureMap, and FHIR validator to auto-generate a bundle containing screening response observations as well as calculated health concerns (conditions)

- Track Leads
  - Bob Dieterle (Tech Lead) rdieterle@enablecare.us
  - Corey Smith corey.smith@ama-assn.org
  - Monique Van Berkum Monique.VanBerkum@ama-assn.org
Gravity Connectathon Summary

- **Participants** – 24 individuals from 18 organizations

- **Notable Achievements**
  
  - Introduced the approach of a limited set of "multi-domain" SDOH profiles supported by externally maintained, dynamic value sets.
  
  - Received initial positive feedback on FHIR Mapping/StructureMap approach to auto-generating screening response observations as well as calculated health concerns (conditions).
  
  - NLM LHC and LOINC representatives participated and were in discussions about potential enhancements to LHC form tooling to better support SDOH-CC IG multi-domain approach.
  
  - Successful demonstration of re-use of SDC IG for SDOH screening.
What’s Next?

• Engage with NLM, Regenstrief to advance tooling to better support multi-domain/dynamic value set approach
• Continue to engage the community to establish the clinical content required for multiple SDOH domains
• Start reference implementation development
• Working toward submission for ballot
• Please join us - https://www.hl7.org/gravity/
Questions?

You are encouraged to actively participate in the discussion using the Webex chat feature (bottom right of the Webex Meeting window).

Please send all chats to Everyone.
Review: Gravity USCDI Submission
ONC USCDI Submissions

- ONC announced that the United States Core Data for Interoperability (USCDI) is open for submissions through **October 9, 2020**.

- The Gravity Project will make a formal submission of our collective work, and has drafted a letter on behalf of the Gravity Project to include with the data element submission.
  - Members of the Gravity Community are invited to join the letter! If you want to be added to this letter, please send your interest to: gravityproject@emiadvisors.net

- Since August, the Gravity Project has also invited the Gravity Community to make submissions to ONC’s USCDI Draft v2 building on the work completed through the Gravity Project.
## ONC’s U.S. Core Data for Interoperability (2018-2020)

### Common Clinical Data Set (2015 Edition CEHRT)
- Individual name
- Sex (birth sex)
- Date of birth
- Race
- Ethnicity
- Preferred language
- Smoking status
- Problems
- Medications
- Medication allergies
- Laboratory test(s)
- Laboratory value(s)/result(s)
- Vital signs
- Procedures
- Care team members
- Immunizations
- Unique device identifier(s) for implantable device(s)
- Assessment and plan of treatment
- Patient goals
- Health concerns

### 2020 USCDI v1
- Address (current, historical)
- Phone number (current, historical)
- Pediatric vital signs
- Provenance
- Clinical notes

### + 1 year Candidate Status
- Cognitive status
- Encounter
- Discharge instructions
- Family health history
- Functional status
- Gender identity
- Pregnancy status
- Reason for hospitalization

### + 2 years Candidate Status
- Care provider demographics
- Care team members—contact info
- Care team members—roles/relationships
- Diagnostic image reports

### + 3 years Candidate Status
- Individual goals, priorities
- Practitioner responsible for care
- Provider goals, priorities
- Reason for referral
- Referring or transitioning providers—name & contact info

### Not scheduled Emerging Status
- Advance care planning
- Advance directive
- Power of attorney
- POLST
- Alive status/date of death
- Communication facilitators
- Minor consent
- Disability status
- Durable medical equipment
- Health insurance info
- Minor status
- Personal representative
- Social, psychological & behavioral data
- Education
- Overall financial resource strain
- Social support & isolation
- Domestic violence
- Employment status
- Depression
- Stress
- Physical activity
- Alcohol use
- Military history
- Reconciled medication list
- Travel status/history
- Weight-based dosing
Gravity Project’s submission for USCDI version 2

**Domains / Data Elements**

<table>
<thead>
<tr>
<th>PHASE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Food insecurity</td>
</tr>
<tr>
<td>• Housing instability &amp; Homelessness</td>
</tr>
<tr>
<td>• Housing inadequacy</td>
</tr>
<tr>
<td>• Transportation insecurity</td>
</tr>
<tr>
<td>• Financial stress</td>
</tr>
<tr>
<td>• Employment status</td>
</tr>
<tr>
<td>• Educational status</td>
</tr>
<tr>
<td>• Veteran status</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHASE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Social isolation</td>
</tr>
<tr>
<td>• Stress</td>
</tr>
<tr>
<td>• Environmental safety</td>
</tr>
<tr>
<td>• Intimate partner violence</td>
</tr>
</tbody>
</table>

**Activities**

- Assessments
- Health concerns
- Goals
- Interventions
- Outcomes
- Consent

**Code Systems / Value Sets**

- LOINC
  - Assessments
  - Goals
  - Outcomes (e.g., quality measures)
- SNOMED-CT
  - Health concerns (clinical)
  - Interventions (clinical)
- ICD-10-CM
  - Health concerns (billing)
- CPT/HCPCS
  - Interventions (billing, where available)
Gravity Project’s letter

- National Coordinator Don Rucker
- Background
- USCDI Submission
  - Submission 1—domains
  - Submission 2—activities
- Need and Maturity
- The Gravity Project
- Stakeholder Concurrence
- Conclusion

DRAFT
9/28/2020
October 9, 2020

By electronic submission

The Honorable Donald Rucker, M.D.
National Coordinator for Health Information Technology
U.S. Department of Health and Human Services
330 C Street SW, 7th Floor
Washington, D.C. 20201

Re: The Gravity Project's Submission To Include Social Determinants of Health in the U.S. Core Data for Interoperability, Version 2, for Better Care and Better Health NATIONWIDE

Dear National Coordinator Rucker:

The Gravity Project, joined by [number] organizations and individuals, submits two alternative approaches to include key social determinants of health in the U.S. Core Data for Interoperability, version 2, for better care and better health nationwide.

The Gravity Project began out of recognition by a broad group of stakeholders that a concerted strategy for achieving consensus-based comprehensive coding standards for SDOH capture in EHR systems was urgently needed. Since creation, the Gravity Project has provided critical leadership in convening appropriate stakeholders and coordinating a structured, efficient, and comprehensive approach to:

- Understand the value and use of SDOH data for clinical care and population management
- Analyze gaps in existing terminology and codes used to represent SDOH-related activities in clinical delivery settings
- Develop standard terminology, vocabulary, and codes to refer to and implement SDOH concepts in the EHR context

Experts have long known that social and environmental determinants of health explain most of a person's and population's health status. For the past nine months, the COVID-19 pandemic has highlighted this reality daily across the nation. The Gravity Project's submissions would add critical domains such as food insecurity, housing instability, transportation insecurity, social isolation, and stress to the USCDI, integrated with core clinical activities such as assessments, diagnoses, interventions, and outcomes. This letter summarizes the submission, to accompany the Office of the National Coordinator's template for submitting data classes and data elements to version 2 of the USCDI.

Background

The need for inclusion of Social Determinants of Health (SDOH) as a new data class in USCDI arises from an uncontroverted collaborative effort focused on prioritizing use cases with a high impact on the triple aim, the widely accepted policy objective of HHS that refers to improving the experience of care, improving the health of populations, and reducing per capita cost of healthcare. The well understood
Questions?

You are encouraged to actively participate in the discussion using the Webex chat feature (bottom right of the Webex Meeting window).

Please send all chats to Everyone.
Community Homework and Next Steps
Homework

- **General**
  - Catch up as needed on materials and recordings on Gravity Project Materials Confluence page

- **Housing Instability and Homelessness**
  - Vote (committed members only)
    - [https://confluence.hl7.org/display/GRAV/Consensus+Process](https://confluence.hl7.org/display/GRAV/Consensus+Process)

- **Inadequate Housing**
  - Submit new concepts: via excel and email
    - [https://confluence.hl7.org/display/GRAV/Inadequate+Housing+Domain](https://confluence.hl7.org/display/GRAV/Inadequate+Housing+Domain)

- **Transportation Insecurity**
  - Submit new concepts: via excel and email
    - [https://confluence.hl7.org/display/GRAV/Transportation+Domain](https://confluence.hl7.org/display/GRAV/Transportation+Domain)

- **Financial Strain**
  - Submit new concepts: via excel and email
    - [https://confluence.hl7.org/display/GRAV/Financial+Domain](https://confluence.hl7.org/display/GRAV/Financial+Domain)
Next Steps

- Join the Gravity Project as a Committed Member or Other Interested Party
  - [https://confluence.hl7.org/display/GRAV/Join+the+Gravity+Project](https://confluence.hl7.org/display/GRAV/Join+the+Gravity+Project)
Thank you for participating in this national consensus-building process.

Additional questions? Contact: gravityproject@emiadvisors.net

.linkedin : Gravity Project
.twitter : @thegavityproj
Back-Up
Overview: Gravity Terminology
Development Process
Gravity Terminology Development Process

1. Data Set Identification
2. Coding Gap Analysis & Recommendations
3. New Code Submissions (LOINC, SNOMED, ICD-10-CM)
4. Development of Coded Value Sets
5. Value Set Publication
A. Community Terminology Development

1. The anchor of every domain is the SIREN compendium of existing SDOH terminology – a study of what exists

2. Domain relevant terms are gleaned from the compendium and adjudicated against the literature

3. A collective brainstorming enriches the Master List
   1. Always published on Confluence

4. Concepts are added, refined, *and defined*, until we’ve a representative set aligned with literature and practice

5. Consensus Review and Voting
Gravity Overview: Two Streams

- SDOH Domains (Terminology)
  - Coding Gap Analysis & Recommendation
  - Data Set Identification
  - New Code Submissions
  - Publication in NLM VSAC & ONC ISA

- Technical (FHIR)
  - FHIR IG Ballot & Publication
  - FHIR IG Development
  - Community & FHIR Coordination
  - FHIR IG Testing

- CODED VALUE SETS
# Adjudication Dispositions - Review

<table>
<thead>
<tr>
<th>Adjudication Status</th>
<th>Definition</th>
<th>Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplicate Data Element</td>
<td>Conceptually similar, same code(s), same answers for questions</td>
<td>Submitter will be added as contributor for the data element in the Master file</td>
</tr>
<tr>
<td>Add Data Element</td>
<td>In scope, fit for purpose, not too broad and not too narrow</td>
<td>Data element will be added to the Master file</td>
</tr>
<tr>
<td>Do Not Add - Park</td>
<td>Not in scope for this domain but may be useful for another Gravity Domain (housing insecurity, transportation)</td>
<td>Will be added to a Parking File for future review</td>
</tr>
<tr>
<td>Do Not Add</td>
<td>Not in scope for this domain or another Gravity domain, not well formed, not fit for purpose</td>
<td>Will be noted on adjudication file with reason</td>
</tr>
<tr>
<td>On-Hold (Info Needed)</td>
<td>Need additional clarification from submitter</td>
<td>Will be noted on adjudication file with additional information needed</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>After discussion between submitter and SMEs, concept was withdrawn by submitter</td>
<td>Will be noted on adjudication file with reason</td>
</tr>
</tbody>
</table>