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: https://confluence.hl7.org/pages/viewpage.action?pageId=46892669#JointheGravityProject-GravityProjectMembershipList

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

Robert Wood Johnson Foundation

The University of Vermont
LARNER COLLEGE OF MEDICINE

Yale School of Nursing

siren

UCSF

eat right.

Academy of Nutrition and Dietetics

AAFP

BlueCross BlueShield Association

AMA

AmeriHealth Caritas

UnitedHealthcare

HIGHMARK

The Office of the National Coordinator for Health Information Technology

Humana

Juxly

newwave

Children’s HealthWatch

lyft

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
# Agenda

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announcements</td>
<td>Lynette</td>
</tr>
<tr>
<td>Project Roadmap and Upcoming Schedule</td>
<td>Lynette</td>
</tr>
<tr>
<td>Overview: Gravity Terminology Development Process</td>
<td>Sarah</td>
</tr>
<tr>
<td>Housing Instability and Homelessness Data Concepts</td>
<td>Linda</td>
</tr>
<tr>
<td>Submission Status Update</td>
<td>Linda</td>
</tr>
<tr>
<td>End to End Review: Screening Submissions</td>
<td>Linda</td>
</tr>
<tr>
<td>Kickoff: Inadequate Housing</td>
<td>Sarah</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.
HL7 May Virtual Connectathon Results

- The May HL7 Virtual Connectathon 24 report-outs for the Gravity Project are available here:
  - [https://confluence.hl7.org/display/FHIR/2020-05+Gravity+SDOH-CC+Track](https://confluence.hl7.org/display/FHIR/2020-05+Gravity+SDOH-CC+Track)
Gravity Project MiHIN Interoperation Results

Gravity SDOH InterOpathon Track

- TEAM: United Together
- Team Members
  - Jessica Hauflair
  - Jim Kamp
  - Nick Lyon
  - Hayden Minor
  - Lisa Nelson
  - Shannon Sakesewski
  - Khalid Shaded
  - Forrest White
  - Matt Wilkinson
  - Karen Zapata

Cambia Grove
Altarum
Velatura
Netsmart
MaxMD
Hidden Thread Consulting
BCBSM
Altarum
Netsmart
Diameter Health

United Together — Social Determinants of Health
Points Received – 85.8125/100

Copyright 2020
CONFIDENTIAL – PROPRIETARY – RESTRICTED

Gravity and COVID-19 Collaboration Site

- Visit and contribute to the new Gravity Project SDOH COVID-19 Response page: https://confluence.hl7.org/display/GRAV(Gravity+SDOH+C OVID-19+Response+page
  - No login is required to view or download the blog
  - An HL7 Confluence login is required to post on the blog
    - Instructions for requesting a login: https://jira.hl7.org/secure/CreateIssue.jspa?pid=11 200&issuetype=11300
## Gravity Project Schedule and Activities (June through July)

<table>
<thead>
<tr>
<th>Date</th>
<th>Gravity WG Meeting Tasks</th>
<th>Homework</th>
</tr>
</thead>
</table>
| 06/11 | *Phase I Review:* End-to-End Review of Housing Instability and Homelessness Data Elements  
*Phase II: Inadequate Housing Kickoff*  | Review and submit comments: Housing Instability and Homelessness Master List  
Submit: Inadequate Housing Concepts |
| 06/25 | *Phase I Review:* End-to-End Review of Housing Instability and Homelessness Data Elements  
*Phase II: Inadequate Housing Data Element Concepts*  | Review and submit comments: Housing Instability and Homelessness Master List  
Submit: Inadequate Housing Concepts |
| 07/02 | *Phase I Review:* End-to-End Review of Housing Instability and Homelessness Data Elements  
*Phase II: Inadequate Housing Data Element Concepts*  | Review and submit comments: Housing Instability and Homelessness Master List  
Submit: Inadequate Housing Concepts |
| 07/16 | *Phase I Review:* End-to-End Review of Housing Instability and Homelessness Data Elements  
*Phase II: Inadequate Housing Data Element Concepts*  | Review and submit comments: Housing Instability and Homelessness Master List  
Submit: Inadequate Housing Concepts |
| 07/30 | *Phase I Review:* End-to-End Review of Housing Instability and Homelessness Data Elements  
*Phase II: Inadequate Housing Data Element Concepts*  | Review and submit comments: Housing Instability and Homelessness Master List  
Submit: Inadequate Housing Concepts |
Gravity Timeline (tier 1 with code submissions)

1. Public Collaborative (Ongoing)
   - Launch MAY 2, 2019

2. Use Case Development & Functional Requirements
   - Personas, Patient Story, Use Cases (X3)

   a) Data Set Identification
   - Food Insecurity
   - Housing Instability
   - Transportation Access

   b) Coding Recommendations
   - Coding Gap Analysis & Recommendations for Coding Systems
   - New Code Submissions & Publication in VSAC & ISA

SDOH Domain Projects (3)

FHIR IG Development & Testing (5)

5.2a FHIR Implementation Guide Development V.1.0
5.2b FHIR IG Ballot Reconciliation & Publication
5.2c Reference Implementation Development
5.3 Connectathon Testing

Q1 > Q2 > Q3 > Q4 > Q1 > Q2 > Q3 > Q4 > Q1 > Q2
Overview: Gravity Terminology
Development Process
Gravity Terminology Development Process

A. Community Terminology Development
B. Publication of ONC Gap Analysis and Recommendations Manuscript
C. New Code Submissions (LOINC, SNOMED, ICD-10-CM)
D. Development of Coded Value Sets
E. Value Set Publication
Community Terminology Development

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
- Publication in NLM VSAC & ONC ISA
- New Code Submissions

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

CODED VALUE SETS
Housing Instability and Homelessness Data Concepts Submission Status Update
Data Element Submitters

Allscripts® / All possible

Washington Association for Community Health
Community Health Centers • Advancing Quality Care for All

National Institute of Nursing Research

School of Medicine
UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

HUD EXCHANGE

Providence St. Joseph Health

IBM Watson Health
PULSE® Health Polls

HL7 International
# Data Element Submissions Summary

## Total Submissions Received = 14

<table>
<thead>
<tr>
<th>Screening Tool/Q Questions</th>
<th>Diagnosis</th>
<th>Goal</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 Tools / 360 Questions</td>
<td>15</td>
<td>14</td>
<td>74</td>
</tr>
</tbody>
</table>

## Submissions Reviewed = 13

<table>
<thead>
<tr>
<th>Disposition</th>
<th>Disposition</th>
<th>Disposition</th>
<th>Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplicates –5 Tools/7 Questions</td>
<td>Duplicates – 1</td>
<td>Duplicate – 0</td>
<td>Duplicates – 0 Synonymous – 0</td>
</tr>
<tr>
<td>Do Not Add – 7 Tools/164 Questions</td>
<td>Do Not Add – 11</td>
<td>Do Not Add – 0</td>
<td>Do Not Add – 9</td>
</tr>
<tr>
<td>Hold – 3 Tools/4 Questions</td>
<td>Hold – 0</td>
<td>Hold – 4</td>
<td>Hold – 4</td>
</tr>
</tbody>
</table>

## Total Submissions Returned* = 10

* Adjudication completed and file returned to submitter with dispositions
## Adjudication Dispositions

<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 to 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>
End-to-End Review: Screening Submissions
Methodology

- Screeners and questions were only included if the answer created a clear match with the concept of housing instability or homelessness and could serve as a primary assessment of the concern
  - Housing instability or homelessness – yes
  Or
  - Housing instability or homelessness – no

- This was done to 1) stay within in scope, and 2) allow any answer to speak to an eventual value set

- Examples of concepts not included (though important!)
  - Inadequate housing
  - Neighborhood features
Data Presentation

- The full Master List is expanded to correspond with eventual LOINC submission requirements

- We have crafted a condensed version for End-to-End Review
  - To allow for easier grasp of proposed terms
  - To clarify when questions presented were part of comprehensive panels
## Screening Questions and Panels – Simplified

<table>
<thead>
<tr>
<th>id</th>
<th>Relevant Screening Tool</th>
<th>Comp?</th>
<th>LOINC Panel Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>PRAPARE</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>VA Homelessness Screening Clinical Reminder (HSCR)</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>NC Healthy Opportunities Screening</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>Accountable Health Communities (AHC) Health related social needs screening tool</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S5</td>
<td>CHW Housing Instability Vital Sign</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S6</td>
<td>We Care</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S7</td>
<td>Health Leads</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S8</td>
<td>KP Your Current Life Situation</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S9</td>
<td>Well Rx</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S10</td>
<td>AAFP Social Needs Screening Tool</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S11</td>
<td>American Housing Survey</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>S12</td>
<td>Childrens Healthwatch</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S13</td>
<td>Foundational Community Supports: Supported Housing Assessment</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>S14</td>
<td>Pulse Outcome Survey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S15</td>
<td>Homeless Management Information System (HMIS)</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>S16</td>
<td>SDOH Tool CHCW Internally developed)</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S17</td>
<td>CHSCNO Quick Check</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S18</td>
<td>CHFC SDH All Domains</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>S19</td>
<td>Wellness and life experiences survey YVFWC</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>
### Screening Questions and Panels – Simplified II*

<table>
<thead>
<tr>
<th>Relevant Screening Tool</th>
<th>Question Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>VA Homelessness Screening Clinical Reminder (HSCR)</td>
<td>1. In the past two months, have you been living in stable housing that you own, rent, or stay in as part of a household?</td>
</tr>
<tr>
<td>VA Homelessness Screening Clinical Reminder (HSCR)</td>
<td>2. Are you worried or concerned that in the next two months you may NOT have stable housing that you own, rent, or stay in as a part of a household?</td>
</tr>
<tr>
<td>VA Homelessness Screening Clinical Reminder (HSCR)</td>
<td>3. Where have you lived for MOST of the past 2 months?</td>
</tr>
<tr>
<td>VA Homelessness Screening Clinical Reminder (HSCR)</td>
<td>4. Would you like to be referred to talk more about your housing situation</td>
</tr>
<tr>
<td>CHW Housing Instability Vital Sign</td>
<td>Since (current month of last year) Was there a time when you were not able to pay the mortgage or rent on time?</td>
</tr>
<tr>
<td>CHW Housing Instability Vital Sign</td>
<td>Since (current) month of last year, How many places have you lived?</td>
</tr>
<tr>
<td>CHW Housing Instability Vital Sign</td>
<td>Since (current) month last year, Was there a time when you did not have a steady place to sleep or slept in a shelter (including now)?</td>
</tr>
<tr>
<td>AAFP Social Needs Screening Tool</td>
<td>Are you worried or concerned that in the next two months you may NOT have stable housing that you own, rent, or stay in as a part of a household?</td>
</tr>
<tr>
<td>American Housing Survey</td>
<td>Overall, [in the last 12 months / since you’ve lived here] how difficult was it for you to afford your [rent/mortgage] payments?</td>
</tr>
<tr>
<td>American Housing Survey</td>
<td>How often [in the last 12 months / since you’ve lived here] was it difficult to afford your [rent/mortgage]?</td>
</tr>
<tr>
<td>American Housing Survey</td>
<td>Was this difficulty a result of unsteady income?</td>
</tr>
<tr>
<td>American Housing Survey</td>
<td>How often [in the last 12 months / since you’ve lived here] would you say you were worried or stressed about having enough money to pay your [rent/mortgage]?</td>
</tr>
<tr>
<td>American Housing Survey</td>
<td>How worried are you right now about not being able to pay your [rent/mortgage] payment? Are you ...</td>
</tr>
<tr>
<td>American Housing Survey</td>
<td>In a typical month, is the [rent/mortgage] payment more than half of [your / your household’s] monthly income? [Prompt for nonrelative households: Please consider the total amount paid by the household.]</td>
</tr>
</tbody>
</table>

* Subset of questions full list available in the screening summary document or master list
### Screening Questions and Panels – Simplified II*, cont’d...

<table>
<thead>
<tr>
<th>Foundational Community Supports: Supported Housing Assessment</th>
<th>Housing type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundational Community Supports: Supported Housing Assessment</td>
<td>*If homeless, choose type:</td>
</tr>
<tr>
<td>Foundational Community Supports: Supported Housing Assessment</td>
<td>Does the client have any rental history?</td>
</tr>
<tr>
<td>Foundational Community Supports: Supported Housing Assessment</td>
<td>Has the client ever received subsidized housing from a public housing authority?</td>
</tr>
<tr>
<td>Pulse Outcome Survey</td>
<td>I might not be able to keep a roof over my head?</td>
</tr>
<tr>
<td>Homeless Management Information System (HMIS)</td>
<td>2. What is your current Living Situation?</td>
</tr>
<tr>
<td>Homeless Management Information System (HMIS)</td>
<td>3a. Is client going to have to leave their current living situation within 14 days?</td>
</tr>
<tr>
<td>Homeless Management Information System (HMIS)</td>
<td>3e. Has the client moved 2 or more times in the last 60 days?</td>
</tr>
<tr>
<td>Homeless Management Information System (HMIS)</td>
<td>Where were you living just before now?</td>
</tr>
<tr>
<td>SDOH Tool CHCW (Internally developed)</td>
<td>What is your housing situation today?</td>
</tr>
<tr>
<td>SDOH Tool CHCW (Internally developed)</td>
<td>Are you worried about losing housing in the future?</td>
</tr>
<tr>
<td>CHCSNO Quick Check</td>
<td>Are you living without stable housing, currently homeless, or worried about loosing your housing?</td>
</tr>
<tr>
<td>CHFC SDH All Domains</td>
<td>What is your living situation today?</td>
</tr>
<tr>
<td>Wellness and life experiences survey YVFWC</td>
<td>What is your housing situation today?</td>
</tr>
<tr>
<td>Wellness and life experiences survey YVFWC</td>
<td>Are you worried about loosing your housing?</td>
</tr>
<tr>
<td>Wellness and life experiences survey YVFWC</td>
<td>In the past year, have you or any of your family members you live with, been unable to get any of the following when it was really needed? (Please mark all that apply.)</td>
</tr>
</tbody>
</table>

* Subset of questions full list available in the screening summary document or master list
How to Submit End-to-End Review Comments

- Download latest Housing Instability Master List: https://confluence.hl7.org/display/GRAV/Housing+Instability+and+Homelessness+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 a screening element, attach a copy or link to the screening tool

  - Comments regarding Screening submissions due: July 9, 2020
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.
Kickoff: Inadequate Housing
Kickoff: Inadequate Housing/Housing Quality

Inadequate housing – an occupied housing unit that has moderate or severe physical problems (e.g., deficiencies in plumbing, heating, electricity, hallways, and upkeep) (HUD, 2010)

- Core Screeners
  - HUD American Housing Survey and the housing quality elements of the Housing Insecurity Research Module
  - Children’s HealthWatch Survey
  - Naruzzaman et al. – the elements of the AHC tool
We are again focusing, for now, on the household, not the neighborhood, though we do understand the effects of environment on health
Kickoff: Inadequate Housing/Housing Quality

- Hot and cold running water
- Place to bathe
- Flushing toilets
- Shared plumbing
- Non-reliable heating/cooling
- No electricity
- Exposed wiring
- Water leaks
- Peeling paint

- Broken Stairs
- Holes and cracks
- Rats or rodents
- Mold
- Lead paint/pipes
- No place to cook
- No or non-working smoke detectors

- Overcrowding
- Housing Disarray
Kickoff: Inadequate Housing/Housing Quality

- Literature – Housing and Public Health (Shaw, 2004), Children’s HealthWatch (many)
  - Respiratory diseases – cold, damp, mold, allergens, pests
  - Toxicity – lead pipes and paint
  - Infection – lack of sanitation, pests
  - Injuries – Safety concerns (hazards and lack of alarms)
  - Mental health/Distress – overcrowding
  - And more...
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**
  - Review the Master and Screening Summary
    - [https://confluence.hl7.org/pages/viewpage.action?pageId=76157877#HousingInstabilityandHomelessnessDomain-CommunityHomework](https://confluence.hl7.org/pages/viewpage.action?pageId=76157877#HousingInstabilityandHomelessnessDomain-CommunityHomework)
    - Send comments

- **Inadequate Housing**
  - Submit new concepts
    - Online tool
    - Excel
    - Email
    - [https://confluence.hl7.org/pages/viewpage.action?pageId=76157877#HousingInstabilityandHomelessnessDomain-CommunityHomework](https://confluence.hl7.org/pages/viewpage.action?pageId=76157877#HousingInstabilityandHomelessnessDomain-CommunityHomework)
Next Steps

- **Sign up to join the 2020 September Connectathon**: [https://confluence.hl7.org/display/GRAV/Connectathon+Participation+Sign-Up](https://confluence.hl7.org/display/GRAV/Connectathon+Participation+Sign-Up)
  - Looking for implementers across the health ecosystem—EHRs, HIEs, PHRs, digital health platforms, community-based services and referral platforms, system integrators
  - Ideal to have both clinical and non-clinical participants

- **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