The Gravity Project

Food Insecurity Data Set Identification

October 31, 2019

SIREN Network.ucsf.edu
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 the meeting.

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 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
## Agenda

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>Lynette</td>
</tr>
<tr>
<td>CPT Update</td>
<td>Sarah</td>
</tr>
<tr>
<td>End to End Comment Review and Recap of Food Insecurity Choice Points</td>
<td>Sarah</td>
</tr>
<tr>
<td>Next Steps</td>
<td>Lynette</td>
</tr>
</tbody>
</table>

Please submit questions and comments using the Webex chat feature.
# Gravity Project Schedule and Activities (Sept to Oct)

<table>
<thead>
<tr>
<th>Week</th>
<th>Target Date</th>
<th>Gravity WG Meeting Tasks</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>9/12</td>
<td><strong>Food Insecurity Data Sets &amp; Value Sets Gaps</strong></td>
<td>Review Food Insecurity Master List</td>
</tr>
<tr>
<td>17</td>
<td>9/26</td>
<td>CANCELED</td>
<td>Review Food Insecurity Master List</td>
</tr>
<tr>
<td>18</td>
<td>10/10</td>
<td><strong>Begin:</strong> End-to-End Review Working Session <strong>Introduce:</strong> FHIR Implementation Guide (IG) Development Process Part I</td>
<td>Review Food Insecurity Master List</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Review Food Insecurity Screening Summary List</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>10/17</td>
<td>End-to-End Review Working Session FHIR IG Development Process Part II</td>
<td>Review Food Insecurity Master List</td>
</tr>
<tr>
<td>20</td>
<td>10/24</td>
<td>End-to-End Review Working Session FHIR IG Development Process Part III</td>
<td>Review Master List and Gravity Project Food Insecurity Definitions</td>
</tr>
<tr>
<td>21</td>
<td>10/31</td>
<td>End-to-End Review Working Session FHIR IG Development Process Part IV</td>
<td>Review Master List and Gravity Project Food Insecurity Definitions</td>
</tr>
</tbody>
</table>
## Gravity Project Schedule and Activities (Nov to Dec)

<table>
<thead>
<tr>
<th>Week</th>
<th>Target Date</th>
<th>Gravity WG Meeting Tasks</th>
<th>Homework</th>
</tr>
</thead>
</table>
| 22   | 11/7        | **Review:** End-to-End Comment Dispositions To-Date  
FHIR IG Development Process Part V | Review Master List and Gravity Project Food Insecurity Definitions |
| 23   | 11/14       | **Review:** Food Insecurity Consensus Voting Process  
FHIR IG Development Process Part VI | Food Insecurity Consensus Voting (11/15 – 12/1) |
| 24   | 11/21       | FHIR IG Development Process Part VII | Food Insecurity Consensus Voting (11/15 – 12/1) |
| 25   | 11/28       | **NO MEETING**  
THANKSGIVING HOLIDAY | Happy Thanksgiving! Enjoy your holiday! |
| 26   | 12/5        | **NO MEETING**  
Internal Reconciliation of Consensus Votes and Comments | Submit: Housing Instability Data Elements |
| 27   | 12/12       | **Review:** Consensus Voting Results and Dispositions  
*Overview:* FHIR IG Review Process | Review FHIR IG and Submit Comments  
Submit: Housing Instability Data Elements |

Please note: The December 12 meeting will be the last community meeting in 2019.
CPT Update
CPT® Update

• Asked community and Steering Committee to review Case Management CPT and send comments

• Several thoughtful comments gave us pause
  • e.g., if we include case management CPT do we need to include all E/M?

• …What carries meaning in CPT?
  • Not the presence of the applicable CPT defining billable services
  • Pairing of CPT to ICD-10-CM is meaningful

• For example…ICD-10-CM + CPT

Z59.42 Food Insecurity + 99213
CPT® Update

• However, we use CPT to define screening activities in claims (e.g. developmental screening 96110)
• Question: Should we let professional CPT go and focus on CPT representing the activity of food insecurity screening?

This is in alignment with previous decisions to use only the most theoretically related concepts.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>96150</td>
<td>HEALTH AND BEHAVIOR ASSESSMENT (EG, HEALTH-FOCUSED CLINICAL INTERVIEW, BEHAVIORAL OBSERVATIONS, PSYCHOPHYSIOLOGICAL MONITORING, HEALTH-ORIENTED QUESTIONNAIRES), EACH 15 MINUTES FACE-TO-FACE WITH THE PATIENT; INITIAL ASSESSMENT</td>
</tr>
<tr>
<td>96151</td>
<td>HEALTH AND BEHAVIOR ASSESSMENT (EG, HEALTH-FOCUSED CLINICAL INTERVIEW, BEHAVIORAL OBSERVATIONS, PSYCHOPHYSIOLOGICAL MONITORING, HEALTH-ORIENTED QUESTIONNAIRES), EACH 15 MINUTES FACE-TO-FACE WITH THE PATIENT; RE-ASSESSMENT</td>
</tr>
<tr>
<td>96160</td>
<td>ADMINISTRATION OF PATIENT-FOCUSED HEALTH RISK ASSESSMENT INSTRUMENT (EG, HUNGER VITAL SIGN) WITH SCORING AND DOCUMENTATION, PER STANDARDIZED INSTRUMENT</td>
</tr>
<tr>
<td>96161</td>
<td>ADMINISTRATION OF CAREGIVER-FOCUSED HEALTH RISK ASSESSMENT INSTRUMENT (EG, HUNGER VITAL SIGN) FOR THE BENEFIT OF THE PATIENT, WITH SCORING AND DOCUMENTATION, PER STANDARDIZED INSTRUMENT</td>
</tr>
<tr>
<td>99420</td>
<td>ADMINISTRATION AND INTERPRETATION OF HEALTH RISK ASSESSMENT INSTRUMENT</td>
</tr>
</tbody>
</table>
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.
End to End Comment Review and Recap of Food Insecurity Choice Points
Revisiting Past Gleaning and Refining

- Decisions made about what is included and excluded from the data set
- Decisions made about how the data should be named, defined, and structured
- New members have posed many good questions in the past few weeks
- The following slide summarizes previous decision points while referencing current end to end review comments
  - Content in response to comments is referenced by a ⭐
Gravity Working Definition

Food Insecurity –
Uncertain, limited, or unstable access to food that is: sufficient in quantity; adequate in nutritional quality; culturally acceptable; safe and acquired in socially acceptable ways
Food Insecurity vs Food Desert

Community (B) Food Security

Individual Food Insecurity

Household Food Insecurity

Community (A) Food Insecurity

NOTE: Lower Level Resources (Financial/Transportation) have the capacity to adjust risk of lower level FI within higher level FI

Note: In environments of poor access, households and individuals are food insecure when they do not have the means to overcome the environmental limitations. This can be secondary to lack of transportation, physical or mental constraints, etc.
Review of Screening Choice Points

• How do we decide if a screener is in the set?
  • Must be standardized; validated is difficult and not required
  • Must be a conceptual match
    • i.e. must screen for food insecurity- not food deserts- not malnutrition.
  • Primary question must allow differentiation of food insecurity yes/no
    • e.g., questions of financial strain were not included
      • CARDIA: “How hard is it for you to pay for the very basics like food, housing, medical care, and heating?”
Review of Screening Choice Points

- Acceptable to include tools from other countries
- Acceptable to include facets of comprehensive screeners relevant to food insecurity with the understanding that the whole tool will need to be built
  - e.g. the “Unable to get… food.” question of PRAPARE ⭐
- Duplication? We included every whole panel that applied. ⭐
  - This means questions may be repeated across panels. However, they are not duplicated within the panel itself.
Review of Goal Choice Points

• How do we decide if a goal is in the set?
  • Must be relevant to the domain
  • Must be measurable
    • e.g., Severity decrease as measured by the US and Canadian Food Security Modules, HFIAS, or FIES

(more on this later in the presentation)
Review of Diagnoses Choice Points

- How do we decide if a diagnosis is in the set?
  1. Must be relevant to the domain
  2. Must be conceptually related to food insecurity
     - i.e. if not “food insecurity” then a concept that is close enough you cannot have it present without being food insecure as well
     - Nutrition impaired due to limited access to healthful foods (finding)
     - Patient’s noncompliance with dietary regimen due to financial hardship

- Initially we did not include severity and temporal features…
  (more on this later in the presentation)
## End to End Review: Diagnoses

<table>
<thead>
<tr>
<th>ID</th>
<th>Organizations</th>
<th>Diagnosis/Assessed Need</th>
<th>Diagnosis Type</th>
<th>SNOMED CT Code</th>
<th>SNOMED CT Fully Specified Name</th>
<th>ICD-10-CM</th>
<th>ICD-10-CM Description</th>
<th>Proposed</th>
<th>Proposed ICD-10-CM Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-1</td>
<td>6</td>
<td>Food Insecurity</td>
<td>Primary</td>
<td>73342303</td>
<td>Food insecurity (finding)</td>
<td>259.4</td>
<td>Lack of adequate food and safe drinking</td>
<td>259.4</td>
<td>Food insecurity</td>
</tr>
<tr>
<td>D-2</td>
<td>6</td>
<td>Food Insecurity</td>
<td>Primary</td>
<td>706875005</td>
<td>Insufficient food supply (finding)</td>
<td>259.4</td>
<td>Lack of adequate food and safe drinking</td>
<td>259.4</td>
<td>Lack of adequate food</td>
</tr>
<tr>
<td>D-3</td>
<td>1</td>
<td>Food Insecurity</td>
<td>Primary</td>
<td>445281001241401</td>
<td>Nutrition impaired due to limited access to healthful foods (finding)</td>
<td>259.4</td>
<td>Lack of adequate food and safe drinking</td>
<td>259.4</td>
<td>Lack of adequate food</td>
</tr>
<tr>
<td>D-4</td>
<td>1</td>
<td>Food Insecurity</td>
<td>Primary</td>
<td>445271001241404</td>
<td>Nutrition impaired due to limited access to nutrition related supplies (finding)</td>
<td>259.4</td>
<td>Lack of adequate food and safe drinking</td>
<td>259.4</td>
<td>Lack of adequate food</td>
</tr>
<tr>
<td>D-5</td>
<td>4</td>
<td>Food Insecurity</td>
<td>Primary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>291.110</td>
<td>Patient’s non-compliance with dietary regimen due to financial hardship</td>
</tr>
</tbody>
</table>

- **Existing SNOMED CT**
  - Insufficient food supply
  - Food insecurity
  - Nutrition impaired due to limited access to healthful foods
  - * Nutrition impaired due to limited access to nutrition related supplies

- **Existing ICD-10-CM**
  - Lack of adequate food and safe drinking water

- **Proposed ICD-10-CM**
  - Lack of adequate food
  - Food insecurity
  - * Patient’s non-compliance with dietary regimen secondary to financial hardship

* = concepts that are not primary, but conceptually related enough that they passed initial adjudication
Diagnoses: SNOMED CT and ICD
Current and Desired State

ICD-10

- Inadequate drinking water supply (Z58.6)
- Lack of adequate food (Z59.4)

SNOMED CT

- Insufficient food supply
- Food Insecurity

ICD-10-CM

- Lack of adequate food and safe drinking water (Z59.4)
- Inadequate drinking water supply
- Lack of adequate food

Food Desert?

Food Insecurity
Food Insecurity – Continuum

Food insecurity experience continuum (Radimer, Olson, Campbell, 1990)

1. Worry about not having enough food
2. Decrease in quality of food
3. Reductions in portion sizes
4. Skipping meals
5. Not eating for one or more days
Food Insecurity Severity - USDA vs WHO/FAO

⭐

Food Security (USDA)  Food Insecurity (USDA)

- marginal food security
- low food security
- very low food security

Food Insecurity Based on the FIES: What Does It Mean?

Uncertainty regarding ability to obtain food.
Compromising on food quality and variety.
Reducing food quantity, skipping meals.
No food for a day or more.

Food Security to Mild Food Insecurity
Moderate Food Insecurity
Severe Food Insecurity

Gregory, Coleman-Jensen, 2017
Food Insecurity – Temporal Factors

• **Chronic**
  - Long term and persistent
  - Not able to meet minimum food requirements over an extended period of time

• **Seasonal (or recurrent transitory)**
  - Predictable
  - Cyclical pattern of inadequate availability and access to food.
  - Associated with seasonal fluctuations in the climate, cropping patterns, work opportunities (labor demand) and disease

• **Transitory**
  - Short-term and temporary
  - A sudden drop in the ability to produce or access enough food to maintain a good nutritional status.
Diagnoses Choice Points

• However, we received comments asking for ways to differentiate food insecurity risk
• To answer this and stay aligned with the literature and measurement, we have to consider the prior slides

• Although there is lack of consistency on the mild side of the spectrum, there is greater consensus on
  • Moderate food insecurity
  and
  • Severe food insecurity

• Our question to the community is this, are the codes needed enough to proceed with building at this time?
Review of Intervention Choice Points

• How do we decide if an intervention is in the set?
  1. Must be relevant to the domain
  2. All concepts were reduced to the most general term possible to create a parent code
  3. If there was enough community consensus to have a child code, this was added
     • E.g., initially FDIPR was not included – too narrow > food pantry.
     • Three separate submissions requested it, so it was entered as a child.
  4. Intervention framework formed the core structure of the build and each concept was tested against each program or role name for fit.
     • Example: Evaluation of eligibility only for programs that require it
Screening Feedback
Screening Feedback

• Sara Armson from Regenstrief did a preliminary review of the Screening summary report to identify the current status of these tools related to inclusion in LOINC. This included:

  • Identifying which tools may be proprietary and would require author permission for inclusion

  • Noting that the SEEK tool is scheduled for the December LOINC release
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.
Introduction to FHIR IG Development
Part IV
A data element is a concept that has been defined specifically. When it is a coded concept, the definition uses a value set to describe the range of concepts relevant to the definition.

A value set contains a set of coded concepts that are a subset of codes from a Code System.

A code system is a set of concepts that are organized in a way that encompasses essential aspects of the concepts and assigned a code to represent that meaning.
Next Steps
Next Steps (Homework)

- Review summary files (screening, diagnosis, goal, intervention and submit comments to gravityproject@emiadvisors.net by
  - Screening data elements by October 24 – still accepting
  - Diagnosis and Goals data elements by October 31 – still accepting
  - Intervention data elements by November 7

- Join our Connectathon Event (Q2 2020)
  - Sign up here: https://confluence.hl7.org/display/GRAV/Connectathon+Testing
  - Looking for implementers across the health ecosystem—EHRs, HIEs, PHRs, digital health, community-based services, system integrators
  - Ideal to have both clinical and non-clinical participants
Thank you for participating in this national consensus-building process.

Additional questions? Contact: gravityproject@emiadvisors.net