Social Determinants of Health (SDoH) Coding Collaborative
A Consensus-Driven Approach for SDoH Data Interoperability

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MaxMD
Agenda

• Understanding SDoH Information and Value Proposition for Using Health IT
• SDHCC Background and Overview
• SDHCC Scope and Roadmap
• SDHCC Interoperability Intersection and Glide Path
• Lessons Learned from other Data Set Standardization Efforts
• Call for Participation
Hooray! That ear is better... Anything else...?
Meet Ms. Smith
Ms. Smith Visits Dr. Cargo
What if Dr. Cargo uses her EHR to...

- Query a local Health Information Exchange (HIE) or Community Information Exchange (HIE) to retrieve past social risk screening completed by Ms. Smith
- Document a social risk assessment for housing instability and food insecurity
- Record Housing Instability as a coded health concern
- Submit an electronic referral to the Community Based Housing Support Provider
- Track the outcome associated with the housing support program intervention and the diuretic treatment in a comprehensive care plan
- Aggregate SDoH related data to inform her practice’s Quality Improvement (QI) initiatives
Determinants of Health

- Social, environmental, and behavioral health factors: 60%
- Genetics: 20%
- Health Care: 20%
Unmet social needs negatively impact health outcomes
Evidence shows addressing social and medical needs in tandem improves health outcomes and lowers costs.

Increased spending on social needs also improves chronic disease management

https://www.forbes.com/sites/brucejapsen/2018/08/14/to-keep-you-healthy-health-insurers-may-soon-pay-your-rent/#37e23be167ce
Synthesize, catalyze, and disseminate learning to inform health care sector activities related to social risk factors

https://sirenetwork.ucsf.edu

Slide adapted from original slide developed by Laura Gottlieb, MD, MPH
Social codes landscape analysis

• Four major coding systems (LOINC, SNOMED, ICD-10, CPT)
  – Screening procedure codes
  – Screening questions/answer codes
  – Assessment/diagnosis codes
  – Treatment and referral codes

…related to 19 SDoH domains

https://sirenetwork.ucsf.edu/tools-resources/mmi/compendium-medical-terminology-codes-social-risk-factors

Slide adapted from original slide developed by Laura Gottlieb, MD, MPH
Social codes landscape results

• Many “social” codes already exist (n=1095)—disproportionately assessment/diagnosis codes (62%)
• Screening codes (procedures and responses) are poorly aligned with existing screening tools
• Limited capacity to document provision of service related to specific social needs
Social Code Landscape Analysis: Food Security Example


Slide developed by Laura Gottlieb, MD, MPH
If it isn’t documented, it never happened.
If it isn’t documented, it never happened.
The health IT and interoperability opportunity

Source: https://www.healthaffairs.org/do/10.1377/hblog20171025.721263/full/
Why do we need health IT/EHRs to document SDoH using standard coding?
Barriers for SDoH data integration in EHRs

- Unstructured and non-standardized formats
- Gaps and overlaps in existing terminologies and codes
- EHRs are clinical practice management systems
- Variable Provider workflows
- Conflicting guidance and incentives
Consensus building through broad stakeholder engagement
SDoH Coding Collaborative (SDHCC)

An open and transparent community that promotes broad stakeholder engagement from diverse stakeholder groups:

- Clinical and Community-Based Providers
- Health IT vendors and implementers
- Digital technology innovators
- Health Systems
- Standards Development Organizations (SDOs)
- Public and Private Payers
- Researchers
- Consumer/ Person Advocates
**SDHCC Scope**

- Use Case
- Common data elements and associated value sets
- Coded data element capture and grouping recommendations
- HL7® FHIR® SDH Implementation Guide
SDHCC Roadmap (Phase 1)

Task 1: Collaborative Launch
- Project Charter Development

Task 2: Use Case Development & Functional Requirements
- Use Case Development & Consensus (HL7 Cross-Paradigm Storyboard)

Task 3: Data Set Identification By Domain
- Food Insecurity Data Set Identification
- Housing Instability & Quality Data Set Identification
- Transportation Barriers Data Set Identification

Task 4: Coding Recommendations
- Terminology & Code Harmonization Report Development

Task 5: HL7 FHIR Integration
- HL7 FHIR SDH Implementation Guide Development
Accelerate standards development and uptake

SDoH Data Sets
- Food Insecurity
- Housing Instability & Quality
- Transportation Barriers

Develop and test HL7® FHIR® coded value sets

Clinical Interoperability Council

USCDI (draft)
The Office of the National Coordinator for Health Information Technology

HL7® FHIR®
Argonaut Project
DA VINCI Project HL7 FHIR
carin
HSPC
CIIC

#HIMSS19
SDHCC Glide Path

SDoH Data Sets

- Food Insecurity
- Housing Instability & Quality
- Transportation Barriers

Develop and test HL7® FHIR® coded value sets

USCDI SDoH Data Class

Payment models for non-clinical interventions

Technology innovations
Apply lessons learned

**Smoking Status:** Tobacco smoking status (72166-2)

<table>
<thead>
<tr>
<th>Current everyday smoker</th>
<th>Unknown if ever smoked</th>
<th>Heavy tobacco smoker</th>
<th>Light tobacco smoker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current someday smoker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Former smoker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never smoker</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tobacco Use:** History of tobacco use (11367-0)

<table>
<thead>
<tr>
<th>Tobacco Use</th>
<th>History of tobacco use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette</td>
<td>62 possible answers, no guidance on when or how to record usage rates.</td>
</tr>
<tr>
<td>Cigar</td>
<td></td>
</tr>
<tr>
<td>Pipe</td>
<td></td>
</tr>
<tr>
<td>Smokeless</td>
<td></td>
</tr>
<tr>
<td>E-Cigarette</td>
<td></td>
</tr>
<tr>
<td>Chewing tobacco</td>
<td></td>
</tr>
<tr>
<td>Snuff</td>
<td></td>
</tr>
</tbody>
</table>

**Tobacco Use Status:** Tobacco use status (11367-0)

<table>
<thead>
<tr>
<th>Current everyday</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current not everyday</td>
<td></td>
</tr>
<tr>
<td>Former</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td></td>
</tr>
</tbody>
</table>

**Tobacco Type:** Tobacco product (81228-9)

<table>
<thead>
<tr>
<th>Tobacco Type</th>
<th>Tobacco product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette</td>
<td>7 possible answers, with guidance on when or how to record usage rates.</td>
</tr>
<tr>
<td>Cigar</td>
<td></td>
</tr>
<tr>
<td>Pipe</td>
<td></td>
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<td>Snuff</td>
<td></td>
</tr>
</tbody>
</table>

**Change Reason:** Removed "History of" from Component, changed Property from "Find" to "Hx", and removed "Reported" Method per 8/2015 Clinical LOINC Committee decision; Changed Component from "Tobacco use" to clarify meaning as the status of tobacco use, not the type of tobacco used.
Apply lessons learned

Challenge: Incompatible Profiles and Terminologies

ONC US-Core

CMS Blue Button 2.0
Complement proposed ONC USCDI process

Graphic 1: USCDI Expansion Process

Some Candidates will be Accepted to USCDI
Some Candidates Require Further Work
Some Emerging Elements Become Candidates
Some Emerging Require Further Work

Supported Data Elements
Candidate Data Elements
Emerging Data Elements

Iterative, Incremental Process
Effective Uptake And Adoption
Using health IT to integrate social determinants of health and medical care
Join the SDHCC!!

• Send your request to be added to the ‘Call For Participation’ to:
  
  Evelyn Gallego  evelyn.gallego@emiadvisors.net

  Lynette Elliott  lynette.elliott@emiadvisors.net

• Stay tune for launch announcement (target March 2019)
  
  – Details information about virtual kick-off and how to join the listserv

• Share with colleagues!
Thank You!

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