Using Social Determinants of Health Data: The Evolution of Social Determinants of Health Diagnosis Coding

Virtual Learning Event – April 21, 2022, 12pm-1pm PST

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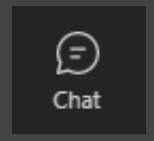
Welcome

Please mute when not speaking.

Cameras are encouraged.

Interact and raise your hand with reactions.



Participate in discussion in the chat.

This meeting is being recorded.
Slides and a recording will be made available.

OBJECTIVES

After attending the session, participants will be able to:

- Identify the new, revised and upcoming Z codes for social determinants of health (SDOH)
- Understand the importance of determining how SDOH terms are documented
- Discuss the relationship of ICD-10-CM Z codes and SNOMED CT and their different uses

The Evolution of Social Determinants of Health Diagnosis Coding

Washington Association for Community Health| April 21, 2022

Linda Hyde, RHIA, Lead Terminologist, The Gravity Project

Agenda

- Brief review of the Gravity Project
- Identify the new, revised and upcoming Z codes for social determinants of health
- Discuss the relationship of ICD-10-CM Z codes and SNOMED CT and their different uses
- Understand the importance of determining how SDOH terms are documented

Gravity Project

A collaborative public-private initiative launched in May 2019 with the goal to develop consensus-driven data standards to support the collection, use, and exchange of social determinants of health (SDOH) data.

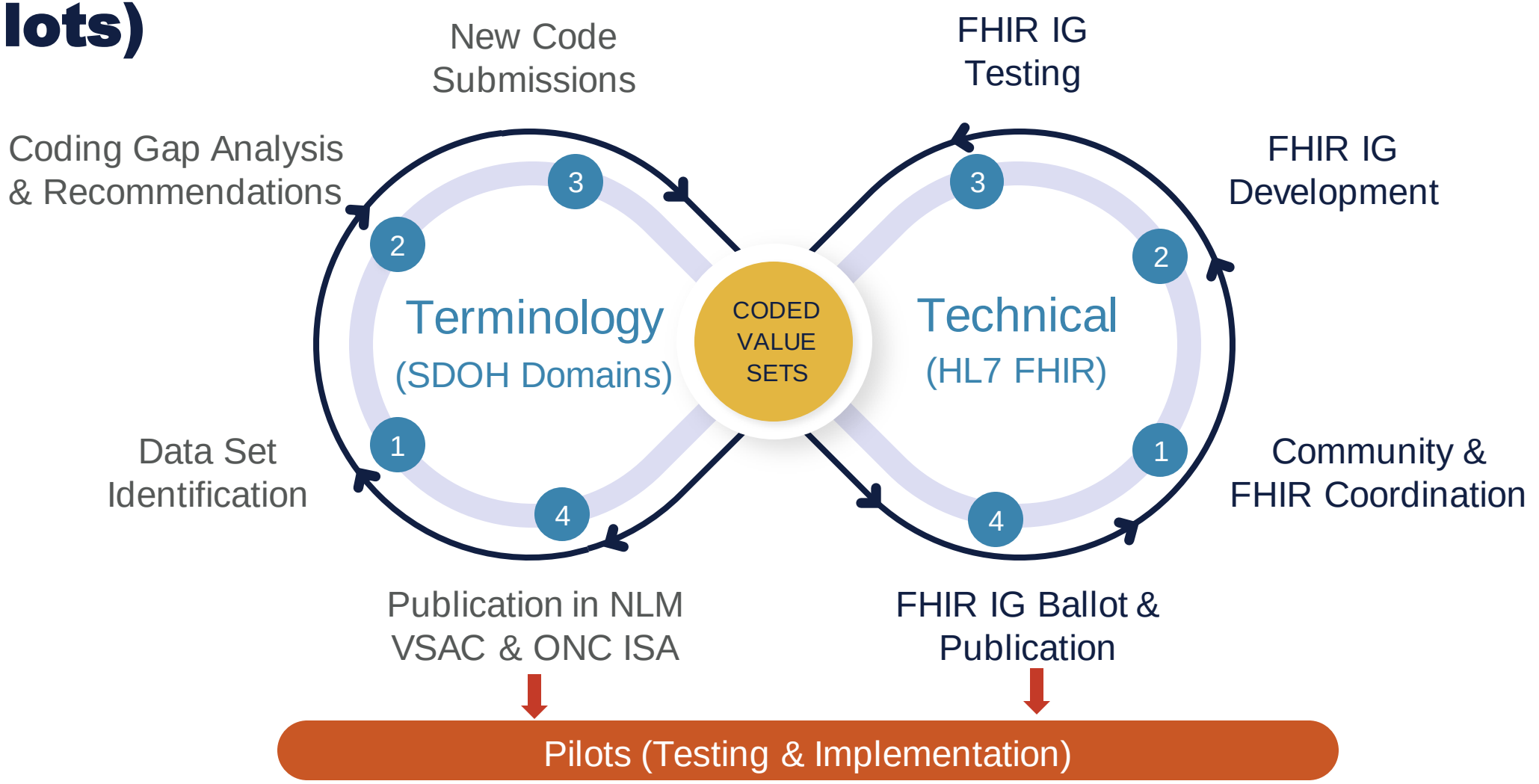
Project Scope

- Develop data standards to represent and exchange patient level SDOH data documented across four clinical activities:
  - Screening
  - Assessment/diagnosis
  - Goal setting
  - Treatment/interventions.
- Test and validate standardized SDOH data for use in patient care, care coordination between health and human services sectors, population health management, public health, value-based payment, and clinical research.

SDOH Domains

Domains grounded by those listed in the NASEM "Capturing Social and Behavioral Domains in Electronic Health Records" 2014

Project Execution: Three Workstreams (Terminology, Technical, Pilots)



Public Collaboration

Gravity has convened over **2,000+** participants from across the health and human services ecosystem:

- Clinical Provider Groups
- Community-based Organizations
- Standards Development Organizations
- Federal And State Government
- Payers
- Technology Vendors

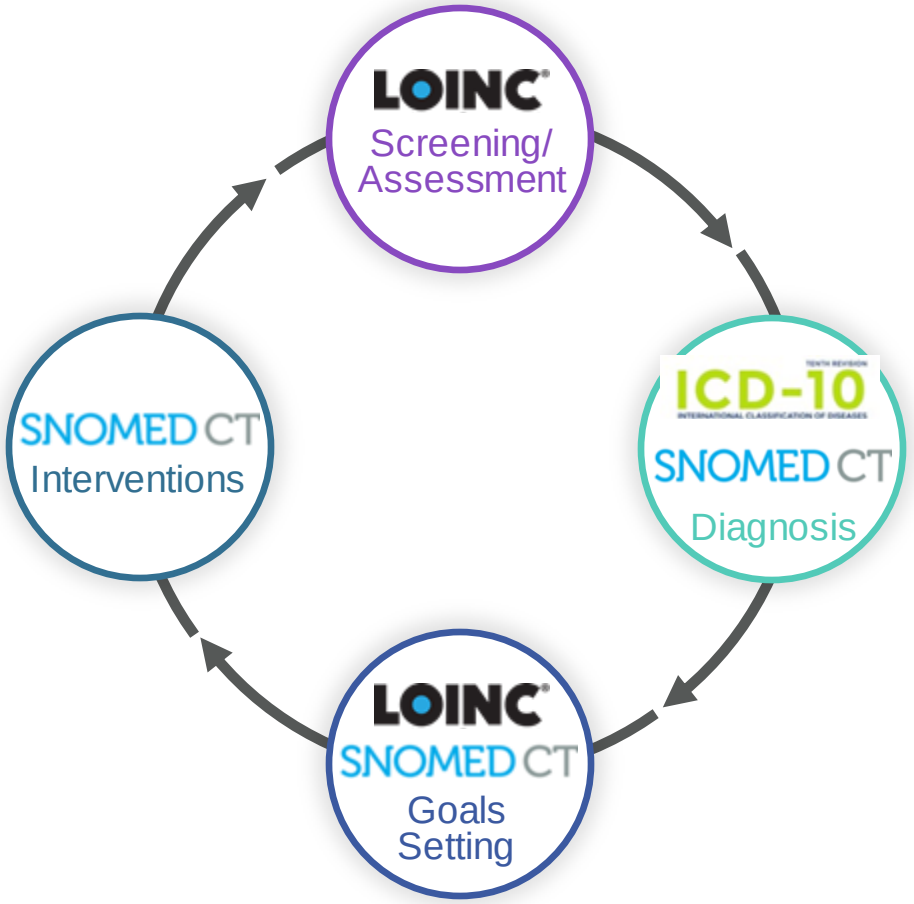
Public Calls 4-5:30 EST every other Thursday

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

Terminology Workstream Accomplishments

- Data definitions and code submissions for **14** SDOH Domains
- **LOINC** screener codes available for **13** domains
- **ICD-10** z-codes and/or SNOMED CT codes available for **9** domains
- **SNOMED-CT** intervention codes available for **5** domains
- Published **71** value sets in National Library of Medicine (NLM)
- Data class included in ONC USCDI v2

https://confluence.hl7.org/display/GRAV/SDOH+Data+Elements+And+Status



SDOH Domain Code Dashboard

FOOD INSECURITY	Screeners (LOINC)		x	Food Insecurity Screeners with Currently Available Codes 1/12/2022
	Diagnoses (SNOMED CT, ICD-10)		x	
	Goals (LOINC, SNOMED CT)		x	
	Interventions (SNOMED CT)		x	
HOUSING INSTABILITY	Screeners (LOINC)	x		Housing Instability Screeners with Currently Available Codes 1/12/2022
	Diagnoses (SNOMED CT, ICD-10)		x	
	Goals (LOINC, SNOMED CT)			
	Interventions (SNOMED CT)		x	
HOMELESSNESS	Screeners (LOINC)	x		Homelessness Screeners with Currently Available Codes posted 1/12/2022
	Diagnoses (SNOMED CT, ICD-10)		x	
	Goals (LOINC, SNOMED CT)			
	Interventions (SNOMED CT)		x	
INADEQUATE HOUSING	Screeners (LOINC)	x		Inadequate Housing Screeners with Currently Available Codes posted 1/12/2022
	Diagnoses (SNOMED CT, ICD-10)	x		
	Goals (LOINC, SNOMED CT)		x	
	Interventions (SNOMED CT)		x	
TRANSPORTATION INSECURITY	Screeners (LOINC)	x		Transportation Insecurity Screener with Currently Available Codes 2/03/2022
	Diagnoses (SNOMED CT, ICD-10)	x		
	Goals (LOINC, SNOMED)			

https://confluence.hl7.org/display/GRAV/SDOH+Data+Elements+And+Status

New, revised and upcoming Z codes for SDOH

Identifying SDOH Conditions

- SDOH Screeners are an important tool in identifying social risk issues
- Screeners can be comprehensive covering multiple domains or focused on a single domain
  - PRAPARE – covers multiple domains including food insecurity, housing, education, employment
  - Hunger Vital Signs – two question screener focusing on food insecurity

ICD-10-CM Z Codes

- Factors influencing health status and contact with health services (Z00-Z99)
  - a) When a person who may or may not be sick encounters the health services for some specific purpose, such as to receive limited care or service for a current condition, to donate an organ or tissue, to receive prophylactic vaccination (immunization), or to discuss a problem which is in itself not a disease or injury.
  - (b) When some circumstance or problem is present which influences the person's health status but is not in itself a current illness or injury.

SDOH conditions are included in the second category of Z codes

Persons with potential health hazards related to socioeconomic and psychosocial circumstances (Z55-Z65)

- Z55 Problems related to education and literacy
- Z56 Problems related to employment and unemployment
- Z57 Occupational exposure to risk factors
- Z59 Problems related to housing and economic circumstances
- Z60 Problems related to social environment
- Z62 Problems related to upbringing
- Z63 Other problems related to primary support group, including family circumstances
- Z64 Problems related to certain psychosocial circumstances
- Z65 Problems related to other psychosocial circumstances

Examples of Existing SDOH Z Codes

What is your current work situation?*

- Unemployed
- Part-time or Temporary Work
- Full-time work
- Otherwise unemployed but not seeking work
- I choose not to answer the question

* PRAPARE

Z56.0 Unemployment, unspecified

Stress means a situation in which a person feels tense, restless, nervous, or anxious, or is unable to sleep at night because his/her mind is troubled all the time. Do you feel this kind of stress these days?**

- Not at all
- A little bit
- Somewhat
- Quite a bit
- Very much
- I choose not to answer this question

** Accountable Health Communities Screening Tool

Z73.3 Stress, not elsewhere classified

Examples of Existing SDOH Z Codes cont.

Think about the place you live. Do you have problems with any of the following? (check all that apply)*

- Bug infestation
- Mold
- Lead paint or pipes
- Inadequate heat
- Oven or stove not working
- No or not working smoke detectors
- Water leaks
- None of the above

*American Academy of Family Physicians Social Needs Screening Tool

Z59.1 Inadequate housing

- Lack of heating
- Restriction of space
- Technical defects in home preventing adequate care
- Unsatisfactory surroundings

Revised SDOH Z Codes

Please tell me what type of housing [the child/NAME] lives in*

- An apartment
- A house/townhouse/condo
- A shelter/transitional living situation (skip to Q6)
- Residential treatment/supervised housing (skip to Q6)
- Government housing (Military, etc.)
- Mobile home/trailer
- Room/rented room (skip to Q6)
- Car (skip to Q6)
- No steady place to sleep at night (skip to Q6)
- Hotel/motel (skip to Q4)
- Other (skip to Q4)
- DK/Refused

* Children's Healthwatch

Z59.00 Homelessness unspecified

Z59.01 Sheltered homelessness

Doubled up

Living in a shelter such as: motel, scattered site housing, temporary or transitional living situation

Z59.02 Unsheltered homelessness

Residing in place not meant for human habitation such as: abandoned buildings, cars, parks, sidewalk

Residing on the street

Revised SDOH Z Codes cont.

Original Code

Z59.4 Lack of adequate food and safe drinking water

Inadequate drinking water supply

- Located in 'Problems associated with housing and economic circumstances'
- Combines two separate problems
- Does not indicate reason for situation (economic or environment).

Revision

Z58 Problems related to physical environment

Excludes:2: occupational exposure (Z57.-)

Z58.6 Inadequate drinking-water supply

Lack of safe drinking water

Z59.4 Lack of adequate food

- Added ICD-10 International category Z58 to identify environmental conditions
- Renamed existing code

New SDOH Z Codes

Within the past 12 months we worried whether our food would run out before we got money to buy more [U.S. FSS

Within the past 12 months the food we bought just didn't last and we didn't have money to get more [U.S. FSS]*

- Often true
- Sometimes true
- Never true
- Don't know/refused

Z59.41 Food insecurity

Do you have a high school degree?**

- Yes
- No

Z55.5 Less than a high school diploma

No general equivalence degree (GED)

* Hunger Vital Signs

** AAFP

New SDOH Codes cont.

At any time in the past 12 months, were you homeless or living in shelter [including now]?

Do you think you are at risk of becoming homeless?*

- Yes
- No

Z59.81 Housing instability, housed

- Foreclosure on home loan
- Past due on rent or mortgage
- Unwanted multiple moves in the last 12 month

Z59.811 Housing instability, housed, with risk of homelessness

- Imminent risk of homelessness

Z59.812 Housing instability, housed, homelessness in past 12 months

Z59.819 Housing instability, housed unspecified

* Children's Healthwatch

Proposed SDOH Codes

Have you been discharged from the armed forces of the United States*

Yes
No
I choose not to answer this question

Z91.85 Personal history of military service

In the last six months, have you ever had to go without health care

because you didn't have a way to get there?**

Yes

No

Z59.82 Transportation insecurity

How hard is it for you to pay for the very basics like food, housing, medical care and heating?***

Very hard
Somewhat hard
Not hard at all

Z59.86 Financial insecurity, not elsewhere classified

* PRAPARE

** AAFP

*** Accountable Health Communities

Proposed SDOH Codes cont.

How often does this describe you? I don't have enough money to pay my bills*

- Rarely
- Never
- Sometimes
- Often
- Always

Z59.87 Material hardship, due to limited financial resources, NEC

Z58.81 Material hardship, inadequate physical environment, NEC

* AAFP

Proposed SDOH Codes cont.

Has your partner ever physically hurt you in the past 12 months?

Has your partner ever insulted you in the past 12 months?*

1. Never
2. Rarely
3. Sometimes
4. Often
5. Frequently

* E-HITS Screening Tool

Is there someone who helps you take care of your finances, or is there someone other than yourself who makes decisions about your money and your property, either with or without your approval?**

Has that person ever forged your signature without your permission in order to sell your property or to get money from your accounts

Yes
No
Don't know
Refused

** Behavioral Approach to Screening for Elder Mistreatment

T74.13 Intimate partner physical abuse, confirmed

T74.23 Intimate partner sexual abuse, confirmed

T74.33 Intimate partner psychological abuse, confirmed

T76.13 Intimate partner physical abuse, suspected

T76.23 Intimate partner sexual abuse, suspected

T76.33 Intimate partner psychological abuse, suspected

T74.81 Adult financial abuse, confirmed

T76.81 Adult financial abuse, suspected

Z91.41 Personal history of adult financial abuse

The Relationship between ICD-10-CM and SNOMED CT

ICD-10-CM

- Facilitates payment for health services, evaluate of utilization patterns and study appropriateness of healthcare costs.
- Used to indicate medical necessity for a patient encounter when submitting healthcare claims regardless of the provider setting (inpatient, physician office, home health etc.)
- Important component of many quality measures to identify patient population or specific diagnoses or conditions. (ex. Include patients with diagnosis of acute myocardial infarction, exclude patients with a current cancer diagnosis)

SNOMED CT

- Owned and maintained by SNOMED International
- Managed in the United States through the National Library of Medicine (NLM)
- Available to US users free of charge
- Required to be included in EHRs as part of Meaningful Use starting in 2003
- One of the recommended vocabulary standards in the CMS Measures Management System Blueprint for a number of data elements used in quality measures

SNOMED CT cont.

- Can be mapped to other coding systems to facilitate semantic interoperability
- Clinical Finding – result of clinical observation, assessment or judgement
  - Includes normal and abnormal status
  - This hierarchy includes diagnosis concept

Contrasting ICD-10-CM and SNOMED CT Diagnoses

- SNOMED CT will generally contain more specificity and granularity than ICD-10-CM
- SNOMED CT will include normal states (no murmur)
- SNOMED CT does include a mapping to ICD-10-CM

Food Insecurity

ICD-10-CM

Z59.41 Food insecurity

SNOMED CT

733423003 Food insecurity (finding)

470911000124109 Mild food insecurity on United States household food security survey module (finding)

470941000124108 Moderate food insecurity on United States household food security survey module (finding)

470951000124105 Severe food insecurity on United States household food security survey module (finding)

Housing Instability

ICD-10-CM

Z59.811 Housing instability, housed, with risk of homelessness

Imminent risk of homelessness

Z59.812 Housing instability, housed, homelessness in past 12 months

Z59.819 Housing instability, housed unspecified

SNOMED CT

1156192009 Housing instability due to imminent risk of homelessness (finding)

1156194005 Housing instability following recent homelessness (finding)

1156191002 Housing instability (finding)

1156195006 Housing instability due to being behind on payments for place of residence (finding)

1156193004 Housing instability due to frequent change in place of residence (finding)

1156196007 Housing instability due to threat of eviction (finding)

Inadequate Housing

ICD-10-CM

Z59.1 Inadequate Housing

SNOMED CT

105531004 Housing Unsatisfactory (Inadequate Housing)

1162585007 Infestation of place of residence (finding)

471981000124106 Substandard housing caused by structural insufficiency (finding)

471991000124109 Residence does not meet functional needs (finding)

472001000124106 At risk of housing code violation (finding)

105532006 Overcrowded in house (finding)

Transportation Insecurity

ICD-10-CM Proposed

Z59.82 Transportation insecurity

SNOMED CT

551691000124106 Transportation insecurity (finding)

551751000124105 Inability to access community resources due to transportation insecurity

551731000124103 Inability to access health care due to transportation insecurity (finding)

551761000124107 Transportation insecurity due to unaffordable transportation (finding)

551711000124109 Transportation insecurity due to excessive travel time to destination (finding)

551721000124101 Transportation insecurity due to no driver's license (finding)

551741000124108 Transportation insecurity due to no access to vehicle (finding)

551701000124106 Transportation insecurity due to unsafe transportation environment (finding)

Social Connection

ICD-10-CM (proposed inclusion terms)

R45.89 Other symptoms and signs involving emotional state

- Loneliness

Z60.4 Social Exclusion and Rejection

Z60.8 Other problems related to social environment

- Inadequate social support
- Lack of emotional support

Z63.8 Other specified problems related to primary support group

Z91.89 Other specified personal risk factors, not elsewhere classified

- Increased risk for social isolation

SNOMED CT

267076002 Feeling lonely

422650009 Social Isolation

425022003 Inadequate social support

1184686008 Emotional support absent (finding)

1184687004 Family support absent (finding)

2276100175104 At increased risk for social isolation (finding)

SDOH Documentation

Importance of SDOH Documentation

- Address health disparities, the support of research necessary to assess the effects of SDoH on overall health
- Facilities should consider applications and processes to capture consistent SDoH information and evaluate how this information in turn may provide a catalyst to initiate community outreach resources to promote
  - improved patient care
  - outcomes, and
  - mitigation of health inequities.

How Social Determinants of Health Documentation Impacts Health Equity, Meg Tully ICD10 Monitor August 26, 2021

Coding Guidelines for SDOH Data

14. Documentation by Clinicians Other than the Patient's Provider

Code assignment is based on the documentation by the patient's provider (i.e., physician or other qualified healthcare practitioner legally accountable for establishing the patient's diagnosis). There are a few exceptions when code assignment may be based on medical record documentation from clinicians who are not the patient's provider (i.e., physician or other qualified healthcare practitioner legally accountable for establishing the patient's diagnosis). In this context, "clinicians" other than the patient's provider refer to healthcare professionals permitted, based on regulatory or accreditation requirements or internal hospital policies, to document in a patient's official medical record.

These exceptions include codes for:

- Body Mass Index (BMI)
- Depth of non-pressure chronic ulcers
- Pressure ulcer stage
- Coma scale
- NIH stroke scale (NIHSS)
- Social determinants of health (SDOH)
- Laterality
- Blood alcohol level

Coding Guidelines for SDOH Data cont.

17) Social Determinants of Health
Codes describing social determinants of health (SDOH) should be assigned when this information is documented. For social determinants of health, such as information found in categories Z55-Z65, Persons with potential health hazards related to socioeconomic and psychosocial circumstances, code assignment may be based on medical record documentation from clinicians involved in the care of the patient who are not the patient's provider since this information represents social information, rather than medical diagnoses. For example, coding professionals may utilize documentation of social information from social workers, community health workers, case managers, or nurses, if their documentation is included in the official medical record.

Patient self-reported documentation may be used to assign codes for social determinants of health, as long as the patient self-reported information is signed-off by and incorporated into the medical record by either a clinician or provider.

Potential Sources of SDOH Data

- Social History
  - Includes a patient's occupational, personal (i.e., lifestyle), social, and environmental history and health risk factors, as well as administrative data such as marital status, race, ethnicity, and religious affiliation. Social history can have significant influence on a patient's physical, psychological, and emotional health and well being, so it should be considered in the development of a complete record.
- Assessment/Plan
- Consultations
- Others???

The integrity of patient data hinges on the proper documentation practices from our clinicians, who are the stewards and the storytellers for each patient's encounter. Simply put,

"if it was not documented, it never took place."
Wilbur Lo, MD, CDIP, CCA

If it isn't coded, it never happened.

Questions?

Join the Gravity Project!

Learn More

https://confluence.hl7.org/display/GRAV/Join+the+Gravity+Project

- Workgroup meets bi-weekly on Thursdays' 4:00 to 5:30 pm ET
- SDOH FHIR IG Workgroup s. 3:00 to 4:00 pm ET

Help us find new sponsors and partners

Partner with us on development of blogs, manuscripts, dissemination materials

- **Submit SDOH domain data elements (especially for Interventions):** https://confluence.hl7.org/display/GRAV/Data+Element+Submission

Help us with Gravity Education & Outreach

Use Social Media handles to share or tag us to relevant information

@thegravityproj

https://www.linkedin.com/company/gravity-project

GRAVITY PROJECT WORK GROUP

The Association hosts a Gravity Project Workgroup to coordinate submissions to the Gravity Project and to generate data concepts for the terminology stream.

The work group can also support health centers in preparing for Connectathons or pilot projects.

If interested in joining, contact Karie Nicholas (knicholas@wacommunityhealth.org)

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Join Association's SDoH Workgroup

The Association hosts a monthly SDoH Workgroup to support health centers' efforts to screen for social needs.

Objectives:

- Enable peer discussion
- Share best practices and challenges
- Training on helpful topics

Meets 3rd Tuesday of the month from 1pm-2pm

Participants are health centers' staff involved in screening social needs of clients

If interested in joining, contact Patricia Gepert (pgepert@wacommunityhealth.org)

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

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- **Event Evaluation:**
  - Please complete our short evaluation - https://www.surveymonkey.com/r/L2ZRPYP
- **Event Materials:**
  - Link to slides & recording will be emailed
- **Questions/Comments:**
  - Contact Patricia Gepert (pgepert@wacommunityhealth.org)

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