# THE NACHC MISSION

## America's Voice for Community Health Care

The National Association of Community Health Centers (NACHC) was founded in 1971 to promote efficient, high quality, comprehensive health care that is accessible, culturally and linguistically competent, community directed, and patient centered for all.

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# Learning Objectives

**1** Quick Review of Standards

**2** What are Z codes?

**3** Z codes Breakdown

**4** Data and Billing

**5** Why do we care?

**6** Learning Health Systems

# Focus Bucket:
# Data Infrastructure - data collection, coding, and flow

**Learning Objectives:**

1. Review data infrastructure & terminology

2. Discuss the importance of linking data (Z-codes, FHIR Standards) to PRAPARE

3. Understand how to use the data for billing purposes

4. Demonstrate a data extraction analysis

5. Understand how data standards and structure relate to the day to day of CHC staff

# In one sentence, describe why or how you'd like to leverage PRAPARE data to respond to patient social needs?

Improve health equity and patient outcomes.

Integration of primary care and behavioral health services.

This is just a general comment, but I would like to see medical directors and administrative staff being invited to trainings about PRAPARE and/or these trainings taken to trainings they are already attending. I think it is so much easier to start at

Remove the excuse of "patient is noncompliant" as a providers excuse for inequities

I would like to hold EMR vendors accountable for making these workflows as easy as possible for our CHC staff so they can spend their time with patients and not on double entry and documentation.

I would like other clinic staff to understand the work of CHW's and the usage of the PRAPARE. I think this would provide more staff buy-in and more integrated care amongst the care team.

We want to learn more about how to use PRAPARE data to inform risk stratification models. E.g., food insecure pts by chronic conditions, so we can do things like targeted outreach

PRAPARE
Protocol for Responding to and Assessing
Patients' Assets, Risks, and Experiences

# SOCIAL DETERMINANTS OF HEALTH DATA INTEROPERABILITY

A Concept Paper from the National Alliance to
Impact the Social Determinants of Health

AUGUST 10, 2020

Unless SDOH data are captured in a consistent, structured way using standardized terminology, they cannot be easily transmitted.

Standardization is essential to ensuring that information collected from an individual in one setting is meaningful when shared with another entity and in another setting.

# KEY ISSUES & OPPORTUNITIES TO ADVANCE SDOH DATA INTEROPERABILITY

| OPPORTUNITY 1 | OPPORTUNITY 2 | OPPORTUNITY 3 | OPPORTUNITY 4 | OPPORTUNITY 5 |
|---|---|---|---|---|
| Enable consumer-directed permission of SDOH information sharing | Ease collection of data on social needs | Support efforts to verify identity | Facilitate interoperability between service providers in SDOH ecosystem | Facilitate access to eligibility and enrollment in human service programs |

Gravity Project - identifying common data elements and associated value sets,

Fast healthcare interoperability resources (FHIR) questionnaire app - an open-source tool that can be used to screen, collect, and store data gathered through questionnaires.

Supporting and understanding the role of open standards for exchanging SDOH information
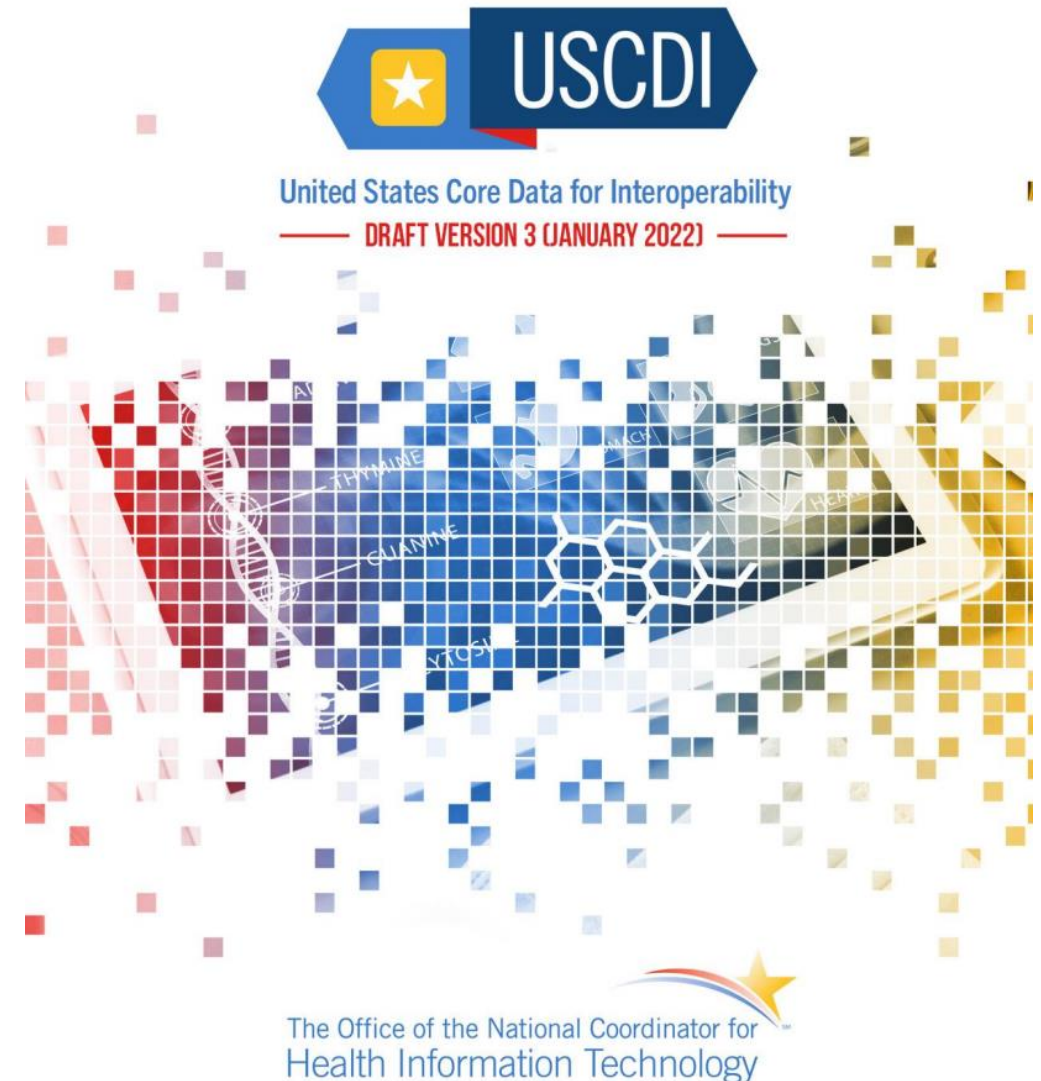
# US Core Data for Interoperability (USCDI)

Originally the (Meaningful Use) Common Clinical Dataset, required for exchange at transitions of care

Supported by the 21st Century Cures Act which also requires specialty content to be certified

USCDI creates a framework for annual updates to expand the data classes

USCDI establishes a minimum set of data classes that are **required** to be **interoperable nationwide**

# Draft USCDI v3 Summary of Data Classes and Data Elements

## Allergies and Intolerances
- Substance (Medication)
- Substance (Drug Class)
- Reaction

## Assessment and Plan of Treatment
- Assessment and Plan of Treatment
- SDOH Assessment

## Care Team Member(s)
- Care Team Member Name
- Care Team Member Identifier
- Care Team Member Role
- Care Team Member Location
- Care Team Member Telecom

## Clinical Notes
- Consultation Note
- Discharge Summary Note
- History & Physical
- Procedure Note
- Progress Note

## Clinical Tests
- Clinical Test
- Clinical Test Result/Report

## Diagnostic Imaging
- Diagnostic Imaging Test
- Diagnostic Imaging Report

## Encounter Information
- Encounter Type
- Encounter Diagnosis
- Encounter Time
- Encounter Location
- Encounter Disposition

## Goals
- Patient Goals
- SDOH Goals

## Health Insurance Information ★
- Coverage Status ★
- Coverage Type ★
- Relationship to Subscriber ★
- Member Identifier ★
- Subscriber Identifier ★
- Group Number ★
- Payer Identifier ★

## Health Status ★
- Health Concerns ➡
- Functional Status ★
- Disability Status ★
- Mental Function ★
- Pregnancy Status ★
- Smoking Status ➡

## Immunizations
- Immunizations

## Laboratory
- Tests
- Values/Results
- Specimen Type ★
- Result Status ★

## Medications
- Medications

## Patient Demographics
- First Name
- Last Name
- Middle Name (Including middle initial)
- Suffix
- Previous Name
- Date of Birth
- Date of Death ★
- Race
- Ethnicity
- Tribal Affiliation ★
- Sex (Assigned at Birth)
- Sexual Orientation
- Gender Identity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address
- Related Person's Name ★
- Related Person's Relationship ★
- Occupation ★
- Occupation Industry ★

## Problems
- Problems
- SDOH Problems/Health Concerns
- Date of Diagnosis
- Date of Resolution

## Procedures
- Procedures
- SDOH Interventions
- Reason for Referral ★

## Provenance
- Author Organization
- Author Time Stamp

## Unique Device Identifier(s) for a Patient's Implantable Device(s)
- Unique Device Identifier(s) for a patient's implantable device(s)

## Vital Signs
- Systolic blood pressure
- Diastolic blood pressure
- Heart Rate
- Respiratory rate
- Body temperature
- Body height
- Body weight
- Pulse oximetry
- Inhaled oxygen concentration
- BMI Percentile (2 - 20 years)
- Weight-for-length Percentile (Birth - 36 Months)
- Head Occipital-frontal Circumference Percentile (Birth-36 Months)

**Key:** ★ New Data Class or Element   ➡ Data Element Reclassified

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## Vocabulary/Code Set/Terminology Standards and Implementation Specifications

### A-H

- ⊞ Allergies and Intolerances
- ⊞ Clinical Notes
- ⊞ Cognitive Status
- ⊞ Demographics
- ⊞ Dietary and Nutritional Needs
- ⊞ Emergency Medical Services
- ⊞ Encounter Diagnosis, Assessment and Plan
- ⊞ Family Health History
- ⊞ Functional Status/Disability
- ⊞ Goals
- ⊞ Health Care Providers, Family Members, and Other Caregivers

### I-P

- ⊞ Imaging (Diagnostics, Interventions and Procedures)
- ⊞ Immunizations
- ⊞ Industry and Occupation
- ⊞ Laboratory
- ⊞ Medications
- ⊞ Nursing
- ⊞ Patient Clinical "Problems" (i.e., conditions)
- ⊞ Preferred Language
- ⊞ Pregnancy Status
- ⊞ Procedures
- ⊞ Provenance

### R-V

- ⊞ Race and Ethnicity
- ⊞ Research
- ⊞ Sex at Birth, Sexual Orientation and Gender Identity
- ⊟ Social, Psychological, and Behavioral Data
  - Representing Alcohol Use
  - Representing Depression
  - Representing Drug Use
  - Representing Exposure to Violence (Intimate Partner Violence)
  - Representing Financial Resource Strain
  - Representing Food Insecurity
  - Representing Housing Insecurity
  - Representing Level of Education
  - Representing Physical Activity
  - Representing Social Connection and Isolation
  - Representing Stress
  - Representing Transportation Insecurity
- ⊞ Tobacco Use
- ⊞ Units of Measure
- ⊞ Vital Signs

# HIT International Standards Landscape
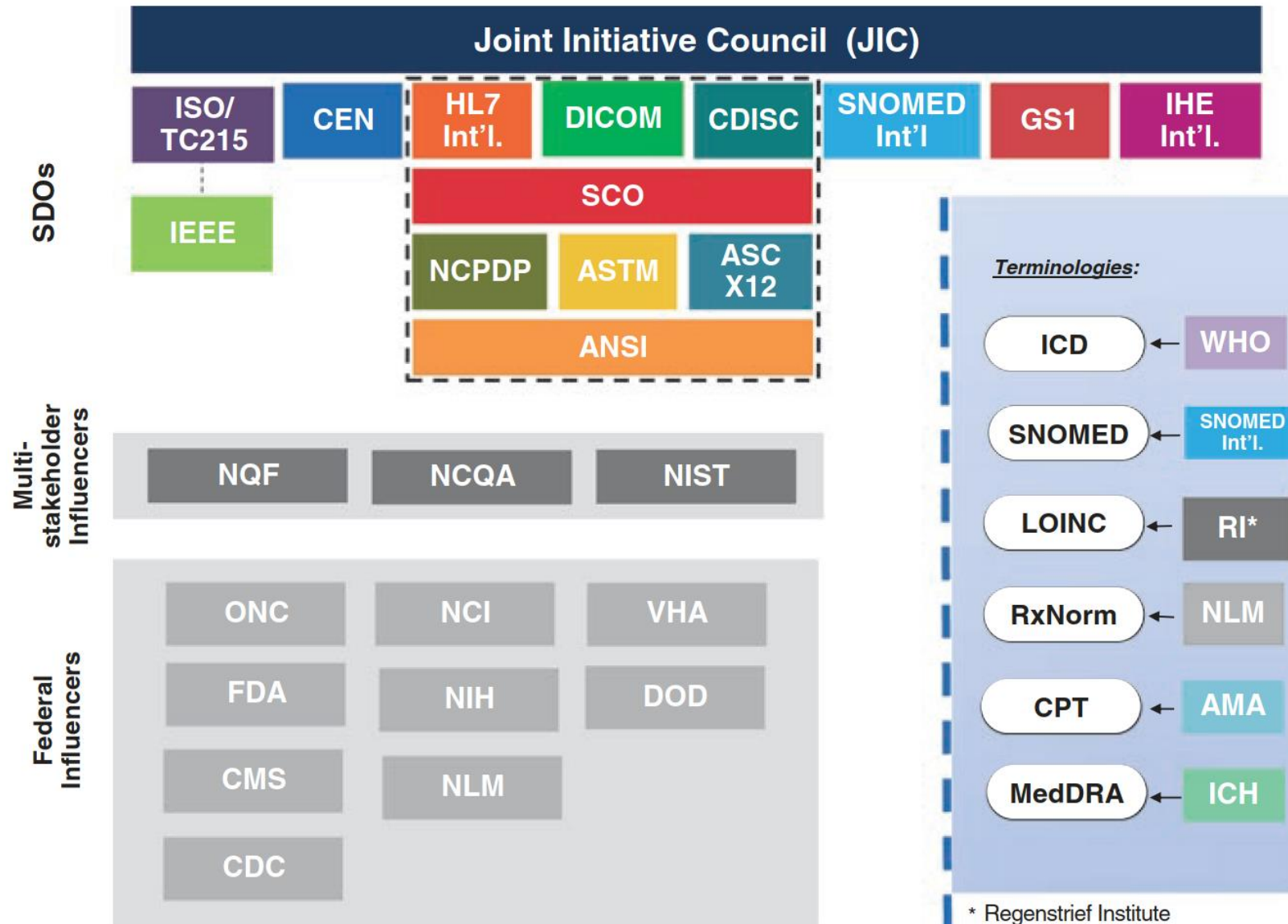
ICD-10-CM
ICD-10-PCS
HCPCS

Rx

cpt®

SNOMED CT

LOINC®
from Regenstrief

MedDRA

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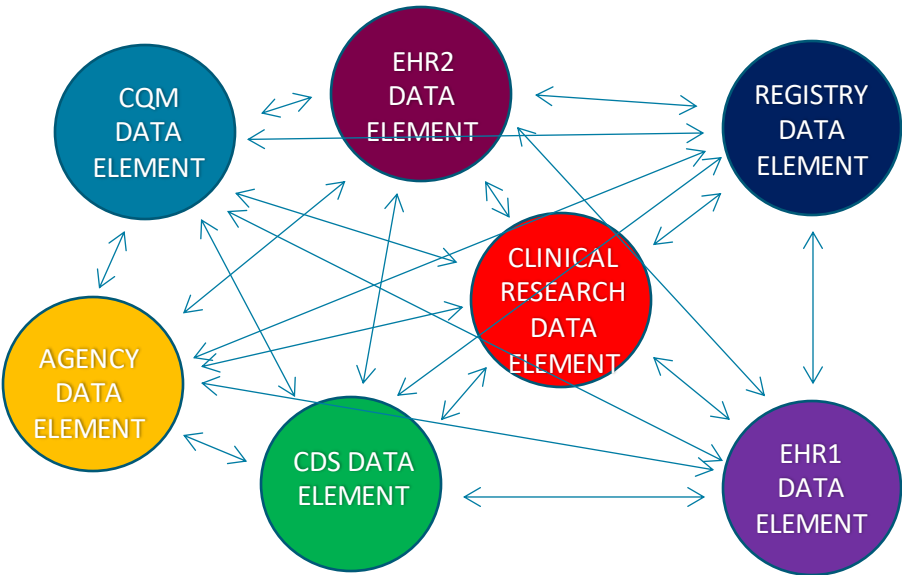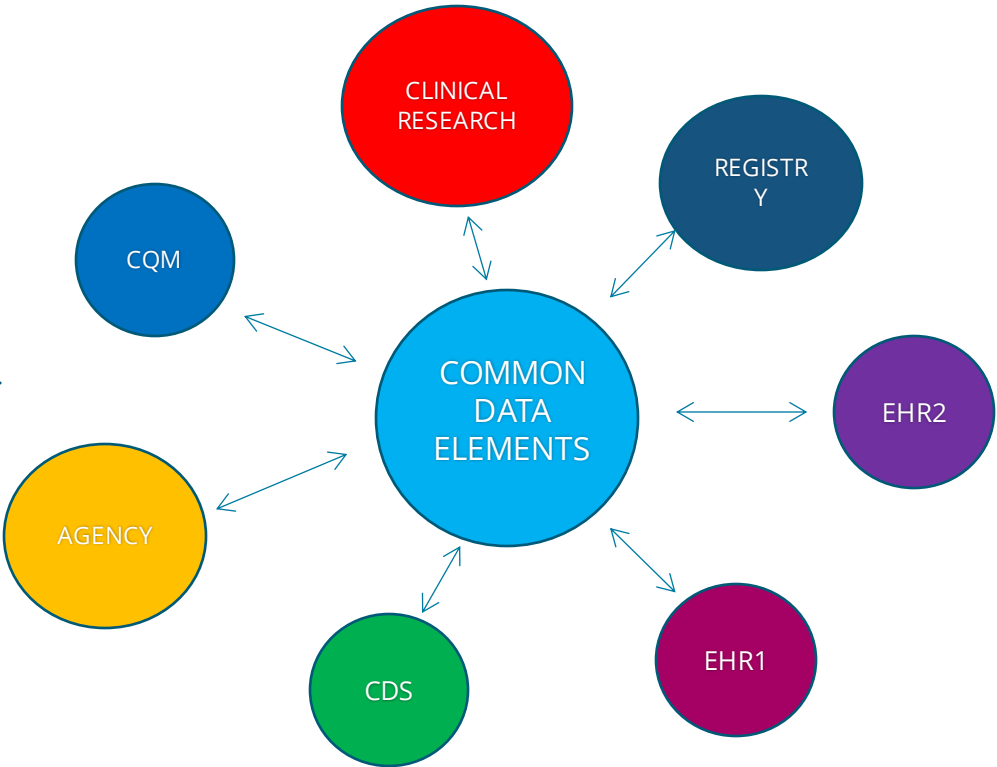
# Most Common & Important Clinical Terminologies

ICD-10-CM        (for clinical diagnoses and problem lists)

CPT         (for billing codes sent to payers for reimbursement for performed procedures)

LOINC        (for laboratory test and results, observations)

SNOMED CT      (for problem lists | reference terminology for concepts extracted from free text)

RxNorm       (for medications)

"Billing" Terminologies and Classifications

# ICD

**The International Statistical Classification of Diseases and Related Health Problems**

1592      - Began in London by *The Worshipful Company of Parish Clerks*
         - Mortality statistics *"London Bills of Mortality"*
              "griping in the guts" | "rising of the lights" (croup)
              "king's evil" (tubercular infection) | "bit with a mad dog" | "fall from the belfry."

1893      - Jacques Bertillon *"Bertillon Classification of Causes of Death"*
1898      - American Public Health Association (APHA), recommended for USA adoption
1949      - World Health Organization (WHO) endorsement and stewardship – ICD-6
1978      - ICD-9
1992      - ICD-10            (ICD-10-CM 2013 -> 2014 -> 2015)
2019      - ICD-11

**\*\* "Clinical Modification / CM" – NCHS & CMS – used for diagnoses and conditions in billing**
**\*\* "Procedure Coding System /PCS" – used to describe procedures**

# Anatomy of an ICD-10 Code

| Code Range | Description |
|---|---|
| A00-B99 | Certain infectious and parasitic diseases |
| C00-D49 | Neoplasms |
| D50-D89 | Diseases of the blood and blood-forming organs |
| E00-E89 | Endocrine, nutritional and metabolic diseases |
| F01-F99 | Mental, behavioral and neurodevelopmental disorders |
| G00-G99 | Diseases of the nervous system |
| H00-H59 | Diseases of the eye and adnexa |
| H60-H95 | Diseases of the ear and mastoid process |
| I00-I99 | Diseases of the circulatory system |
| J00-J99 | Diseases of the respiratory system |
| K00-K95 | Diseases of the digestive system |
| L00-L99 | Diseases of the skin and subcutaneous tissue |
| M00-M99 | Diseases of the musculoskeletal system and connective tissue |
| N00-N99 | Diseases of the genitourinary system |
| O00-O9A | Pregnancy, childbirth and the puerperium |
| P00-P96 | Certain conditions originating in the perinatal period |
| Q00-Q99 | Congenital malformations and chromosomal abnormalities |
| R00-R99 | Symptoms, signs and abnormal clinical and laboratory findings |
| S00-T88 | Injury, poisoning and other consequences of external causes |
| V00-Y99 | External causes of morbidity |
| Z00-Z99 | Factors influencing health status and contact with health services |

A99.XXX X

category — Anatomic site, severity — extension

| CODE | EXPLANATION |
|---|---|
| H66 | Suppurative and unspecified otitis media |
| H66.0 | Acute suppurative otitis media |
| H66.00 | Acute suppurative otitis media without spontaneous rupture of eardrum |
| H66.001 | Acute suppurative otitis media without spontaneous rupture of eardrum, right ear |

The letter H specifies diseases of the eye, ear and mastoid process. H65-H75 are disease of the middle ear and mastoid process

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| ICD-10-CM Code Category | Problems/Risk Factors Included in Category |
|---|---|
| **Z55** – Problems related to education and literacy | Illiteracy, schooling unavailable, underachievement in a school, less than a high school diploma, no general equivalence degree (GED), educational maladjustment, and discord with teachers and classmates. |
| **Z56** – Problems related to employment and unemployment | Unemployment, change of job, threat of job loss, stressful work schedule, discord with boss and workmates, uncongenial work environment, sexual harassment on the job, and military deployment status. |
| **Z57** – Occupational exposure to risk factors | Occupational exposure to noise, radiation, dust, environmental tobacco smoke, toxic agents in agriculture, toxic agents in other industries, extreme temperature, and vibration. |
| **Z58** – Problems related to physical environment | Inadequate drinking-water supply, and lack of safe drinking water. |
| **Z59** – Problems related to housing and economic circumstances | Sheltered homelessness, unsheltered homelessness, residing in street, inadequate housing, housing instability, discord with neighbors, lodgers and landlord, problems related to living in residential institutions, inadequate food, lack of adequate food, food insecurity, extreme poverty, low income, and insufficient social insurance and welfare support. |
| **Z60** – Problems related to social environment | Adjustment to life-cycle transitions, living alone, acculturation difficulty, social exclusion and rejection, target of adverse discrimination and persecution. |
| **Z62** – Problems related to upbringing | Inadequate parental supervision and control, parental overprotection, upbringing away from parents, child in welfare custody, institutional upbringing, hostility towards and scapegoating of child, inappropriate excessive parental pressure, personal history of abuse in childhood, personal history of neglect in childhood, personal history of unspecified abuse in childhood, parent-child conflict, and sibling rivalry. |
| **Z63** – Other problems related to primary support group, including family circumstances | Absence of family member, disappearance and death of family member, disruption of family by separation and divorce, dependent relative needing care at home, stressful life events affecting family and household, stress on family due to return of family member from military deployment, and alcoholism and drug addiction in family. |
| **Z64** – Problems related to certain psychosocial circumstances | Unwanted pregnancy, multiparity, and discord with counselors. |
| **Z65** – Problems related to other psychosocial circumstances | Conviction in civil and criminal proceedings without imprisonment, imprisonment and other incarceration, release from prison, other legal circumstances, victim of crime and terrorism, and exposure to disaster, war and other hostilities. |

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https://www.aha.org/system/files/2018-04/value-initiative-icd-10-code-social-determinants-of-health.pdf

# USING Z CODES:
## The **Social Determinants of Health (SDOH)** Data Journey to Better Outcomes

**What are Z codes**

SDOH-related Z codes ranging from Z55-Z65 are the ICD-10-CM encounter reason codes used to document SDOH data (e.g., housing, food insecurity, transportation, etc.).

**SDOH are** the conditions in the environments where people are born, live, learn, work, play, and age.



## Step 1 Collect SDOH Data

**Any member of a person's care team can collect SDOH data** during any encounter.

- Includes providers, social workers, community health workers, case managers, patient navigators, and nurses.
- Can be collected at intake through health risk assessments, screening tools, person-provider interaction, and individual self-reporting.

## Step 2 Document SDOH Data

**Data are recorded in a person's paper or electronic health record (EHR).**

- SDOH data may be documented in the problem or diagnosis list, patient or client history, or provider notes.
- Care teams may collect more detailed SDOH data than current Z codes allow. These data should be retained.
- Efforts are ongoing to close Z code gaps and standardize SDOH data.

## Step 3 Map SDOH Data to Z Codes

**Assistance is available from the ICD-10-CM Official Guidelines for Coding and Reporting.[1]**

- Coding, billing, and EHR systems help coders assign standardized codes (e.g., Z codes).
- Coders can assign SDOH Z codes based on self-reported data and/or information documented in an individual's health care record by any member of the care team.[2]

## Step 4 Use SDOH Z Code Data

**Data analysis can help improve quality, care coordination, and experience of care.**

- Identify individuals' social risk factors and unmet needs.
- Inform health care and services, follow-up, and discharge planning.
- Trigger referrals to social services that meet individuals' needs.
- Track referrals between providers and social service organizations.

## Step 5 Report SDOH Z Code Data Findings

**SDOH data can be added to key reports** for executive leadership and Boards of Directors to inform value-based care opportunities.

- Findings can be shared with social service organizations, providers, health plans, and consumer/patient advisory boards to identify unmet needs.
- A Disparities Impact Statement can be used to identify opportunities for advancing health equity.

**CMS** CENTERS FOR MEDICARE & MEDICAID SERVICES

**For Questions:** Contact the **CMS Health Equity Technical Assistance Program**

[1] cms.gov/medicare/icd-10/2021-icd-10-cm
[2] aha.org/system/files/2018-04/value-initiative-icd-10-code-social-determinants-of-health.pdf

# USING SDOH Z CODES
## Can Enhance Your Quality Improvement Initiatives

## Health Care Administrators

**Understand how SDOH data can be gathered and tracked using Z codes.**

- Select an SDOH screening tool.
- Identify workflows that minimize staff burden.
- Provide training to support data collection.
- Invest in EHRs that facilitate data collection and coding.
- Decide what Z code data to use and monitor.

**Develop a plan to use SDOH Z code data to:**

- Enhance patient care.
- Improve care coordination and referrals.
- Support quality measurement.
- Identify community/population needs.
- Support planning and implementation of social needs interventions.
- Monitor SDOH intervention effectiveness.

## Health Care Team

**Use a SDOH screening tool.**

- Follow best practices for collecting SDOH data in a sensitive and HIPAA-compliant manner.
- Consistently document standardized SDOH data in the EHR.
- Refer individuals to social service organizations and appropriate support services through local, state, and national resources.

## Coding Professionals

**Follow the ICD-10-CM coding guidelines.**[3]

- Use the CDC National Center for Health Statistics ICD-10-CM Browser tool to search for ICD-10-CM codes and information on code usage.[4]
- Coding team managers should review codes for consistency and quality.
- Assign all relevant SDOH Z codes to support quality improvement initiatives.

### Z code Categories

- **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

This list is subject to revisions and additions to improve alignment with SDOH data elements.

Revision Date: February 2021

go.cms.gov/omh

< All Topics

Main > Data Documentation and Clinical Integration Resources > PRAPARE Data Documentation and Codification File

Print 🖨

# PRAPARE Data Documentation and Codification File

📅 Posted 10.03.2021  ✎ Updated 02.23.2022

To view the spreadsheet click here.

# ICD-10

| | |
|---|---|
| A00-B99 | Certain infectious and parasitic diseases |
| C00-D49 | Neoplasms |
| D50-D89 | Diseases of the blood and blood-forming organs |
| E00-E89 | Endocrine, nutritional and metabolic diseases |
| F01-F99 | Mental, behavioral and neurodevelopmental disorders |
| G00-G99 | Diseases of the nervous system |
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| H60-H95 | Diseases of the ear and mastoid process |
| I00-I99 | Diseases of the circulatory system |
| J00-J99 | Diseases of the respiratory system |
| K00-K95 | Diseases of the digestive system |
| L00-L99 | Diseases of the skin and subcutaneous tissue |
| M00-M99 | Diseases of the musculoskeletal system and connective tissue |
| N00-N99 | Diseases of the genitourinary system |
| O00-O9A | Pregnancy, childbirth and the puerperium |
| P00-P96 | Certain conditions originating in the perinatal period |
| Q00-Q99 | Congenital malformations and chromosomal abnormalities |
| R00-R99 | Symptoms, signs and abnormal clinical and laboratory findings |
| S00-T88 | Injury, poisoning and other consequences of external causes |
| V00-Y99 | External causes of morbidity |
| Z00-Z99 | Factors influencing health status and contact with health services |

ICD-11
icd.who.int

| Chapter | Title |
|---|---|
| 01 | Certain infectious or parasitic diseases |
| 02 | Neoplasms |
| 03 | Diseases of the blood or blood-forming organs |
| 04 | Diseases of the immune system |
| 05 | Endocrine, nutritional or metabolic diseases |
| 06 | Mental, behavioural or neurodevelopmental disorders |
| 07 | Sleep-wake disorders |
| 08 | Diseases of the nervous system |
| 09 | Diseases of the visual system |
| 10 | Diseases of the ear or mastoid process |
| 11 | Diseases of the circulatory system |
| 12 | Diseases of the respiratory system |
| 13 | Diseases of the digestive system |
| 14 | Diseases of the skin |
| 15 | Diseases of the musculoskeletal system or connective tissue |
| 16 | Diseases of the genitourinary system |
| 17 | Conditions related to sexual health |
| 18 | Pregnancy, childbirth or the puerperium |
| 19 | Certain conditions originating in the perinatal period |
| 20 | Developmental anomalies |
| 21 | Symptoms, signs or clinical findings, not elsewhere classified |
| 22 | Injury, poisoning or certain other consequences of external causes |
| 23 | External causes of morbidity or mortality |
| 24 | Factors influencing health status or contact with health services |
| 25 | Codes for special purposes |
| 26 | Supplementary Chapter Traditional Medicine Conditions - Module I |
| V | Supplementary section for functioning assessment |
| X | Extension Codes |

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# SNOMED CT

**Systematized Nomenclature Of Medicine** *(previously)* | Now a '<u>brand name</u>', not an acronym

## SNOMED Clinical Terms – SNOMED CT®

"Concept-oriented terminology" -> Allows for machine read-ability (e.g. 104817019 "left cusp of aortic valve").

Larger concept towards more specific concepts

"anatomical or acquired body structure" -> "anatomical structure" -> "body organ structure"
-> "organ part" -> "cardiovascular organ part" -> "heart part" -> "cardiac internal structure"
-> "cardiac valve structure" -> "aortic valve structure" -> "structure of cusp of aortic valve"
-> "structure of left cusp of aortic valve"

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# Ontological Relationships in SNOMED
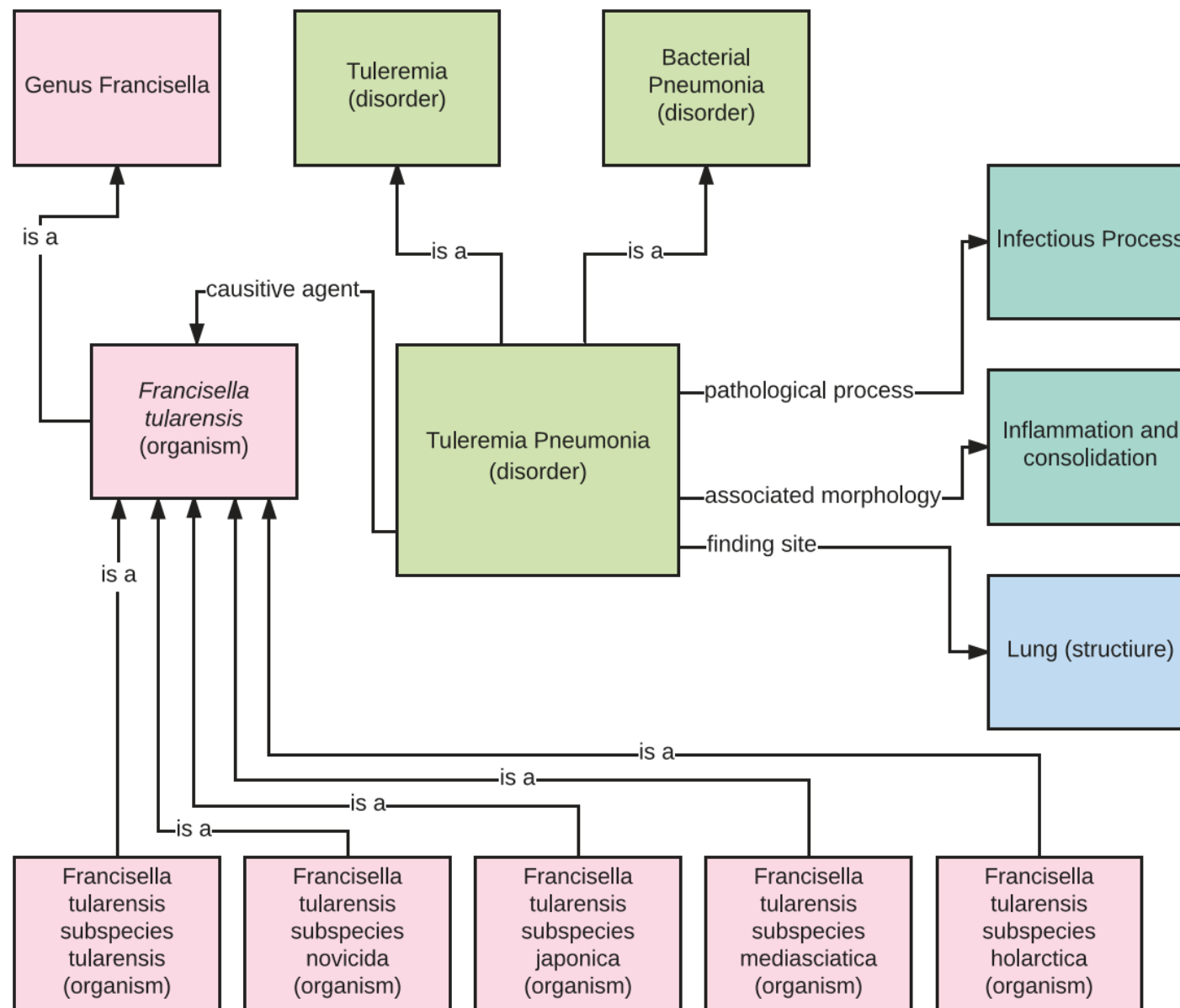
# Free Text / Unstructured Note -> SNOMED Concepts

| | |
|---|---|
| 44 year old man complains of moderate, constant pain in the bilateral lower back for the past 3 weeks | Age more than 40 years (699716008); Male (24153007); Constant pain (426206001); Lower back (37822005); Moderate Severity (6736007); 3 weeks (4831000175101) |
| Past medical history: pulmonary embolism | History of pulmonary embolus (161512007) |
| Medications: Xanax 1 mg bid | Administration of substance via oral route (434589000); Alprazolam 1 mg tablet (371281008); Twice a day(229799001) |
| Lab results: Hgb 15 mg/dL | Hemoglobin normal (165399006) |
| CT scan of head: negative | Computerized axial tomography of brain without radiopaque contrast (396205005); Has interpretation (363713009); Negative (260385009) |
| Plan: follow up with Dr. Hinds 1 week | Referral to doctor (306253008); Private doctor (310174000); 1 week (4791000175109) |

# Logical Observation Identifiers Names and Codes

Standard for laboratory and clinical observations in the USA and internationally

80,000+ defined entries for laboratory (2/3) and clinical observations (1/3)

- Laboratory (chemistry, microbiology, etc.)
- Imaging tests
- Clinical measurements (e.g. vital signs, EKG, physical exam, patient reported outcomes, etc.).
- Names for document titles (discharge summary, radiation oncology consult note, etc.), radiology reports and section headings (social history, objective, etc.).
- Used to encode observations like survey questions and clinical assessments

# LOINC®
from Regenstrief

## **L**ogical **O**bservation **I**dentifiers **N**ames and **C**odes

FREE for use

1994    - Created and maintained by the Regenstrief Institute | Indiana University
        Non-profit biomedical informatics and healthcare research organization

Meaningful Use program requires LOINC in:
- messages reporting laboratory test results
- exchanging medical summaries
- sending data to cancer registries and public health agencies.

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# Some of the most commonly used codes in LOINC

| ID | NAME | CLASS |
|---|---|---|
| 02160-0 | Creatinine [mass/volume] in serum or plasma | CHEM |
| 00718-7 | Hemoglobin [mass/volume] in blood | Hem/BC |
| 02823-3 | Potassium [moles/volume] in serum or plasma | CHEM |
| 02345-7 | Glucose [mass/volume] in serum or plasma | CHEM |
| 02951-2 | Sodium [moles/volume] in serum or plasma | CHEM |
| 03094-0 | Urea nitrogen [mass/volume] in serum or plasma | CHEM |
| 02028-9 | Carbon dioxide, total [moles/volume] in serum or plasma | CHEM |
| 02075-0 | Chloride [moles/volume] in serum or plasma | CHEM |
| 00789-8 | Erythrocytes [#/volume] in blood by automated count | HEM/BC |
| 00786-4 | Erythrocyte mean corpuscular hemoglobin concentration [mass/volume] by automated count | HEM/BC |

| LOINC CODE | LONG COMMON NAME | LOINC STATUS |
|---|---|---|
| 93025-5 | Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences [PRAPARE] | Active |

## Panel Hierarchy

[Details for each LOINC in Panel] [LHC-Forms]

| LOINC | Name | R/O/C | Cardinality | Example UCUM Units |
|---|---|---|---|---|
| 93025-5 | Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences [PRAPARE] | | | |
| 93043-8 | Personal Characteristics | | | |
| 56051-6 | Are you Hispanic or Latino? | | | |
| 32624-9 | Which race(s) are you? | | 1..7 | |
| 93035-4 | At any point in the past 2 years, has season or migrant farm work been your or your family's main source of income? | | | |
| 93034-7 | Have you been discharged from the armed forces of the United States? | | | |
| 54899-0 | What language are you most comfortable speaking? | | | |
| 93042-0 | Family & Home | | | |
| 63512-8 | How many family members, including yourself, do you currently live with? | | | {#} |
| 71802-3 | What is your housing situation today? | | | |
| 93033-9 | Are you worried about losing your housing? | | | |
| 56799-0 | What address do you live at? | | | |
| 93041-2 | Money & Resources | | | |
| 82589-3 | What is the highest level of school that you have finished? | | | |
| 67875-5 | What is your current work situation? | | | |
| 76437-3 | What is your main insurance? | | | |
| 63586-2 | During the past year, what was the total combined income for you and the family members you live with? This information will help us determine if you are eligible for any benefits. | | | /a |
| 93031-3 | In the past year, have you or any family members you live with been unable to get any of the following when it was really needed? | | 1..7 | |
| 93030-5 | Has lack of transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living | | 1..3 | |
| 93040-4 | Social & Emotional Health | | | |
| 93029-7 | How often do you see or talk to people that you care about and feel close to (For example: talking to friends on the phone, visiting friends or family, going to church or club meetings)? | | | |
| 93038-8 | Stress is when someone feels tense, nervous, anxious or can't sleep at night because their mind is troubled - how stressed are you? | | | |
| 93039-6 | Optional Additional Questions | | | |
| 93028-9 | In the past year, have you spent more than 2 nights in a row in a jail, prison, detention center, or juvenile correctional facility? | | | |
| 93027-1 | Are you a refugee? | | | |
| 93026-3 | Do you feel physically and emotionally safe where you currently live? | | | |
| 76501-6 | In the past year, have you been afraid of your partner or ex-partner? | | | |

## The 4 cornerstones of a care plan

**Care plan concept – introduced in 1980s**

Care plans in the 1980s:

- Static structure
  - Problem(s)
  - Interventions
  - Variances
- Care coordination (if done)
  - Completely manual
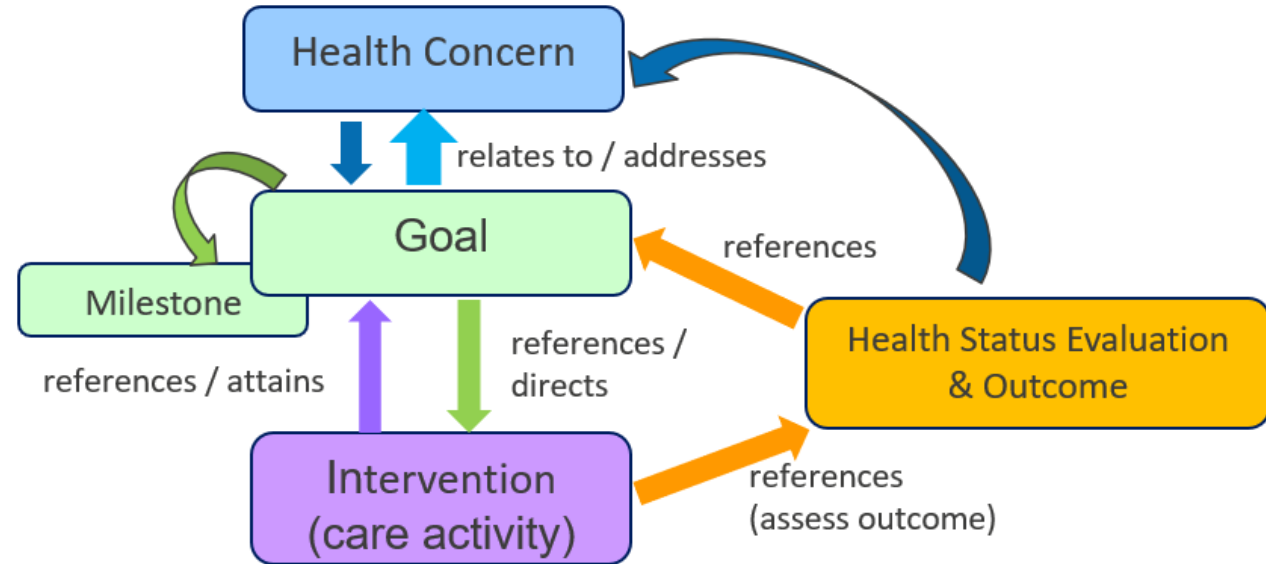


**Content:**

- Health concern(s)
- Health goal(s)
- Activity/intervention
- Progress/outcome

and more ...

**Dynamic behavior:**

- Machine assisted care coordination

**Vision Today**
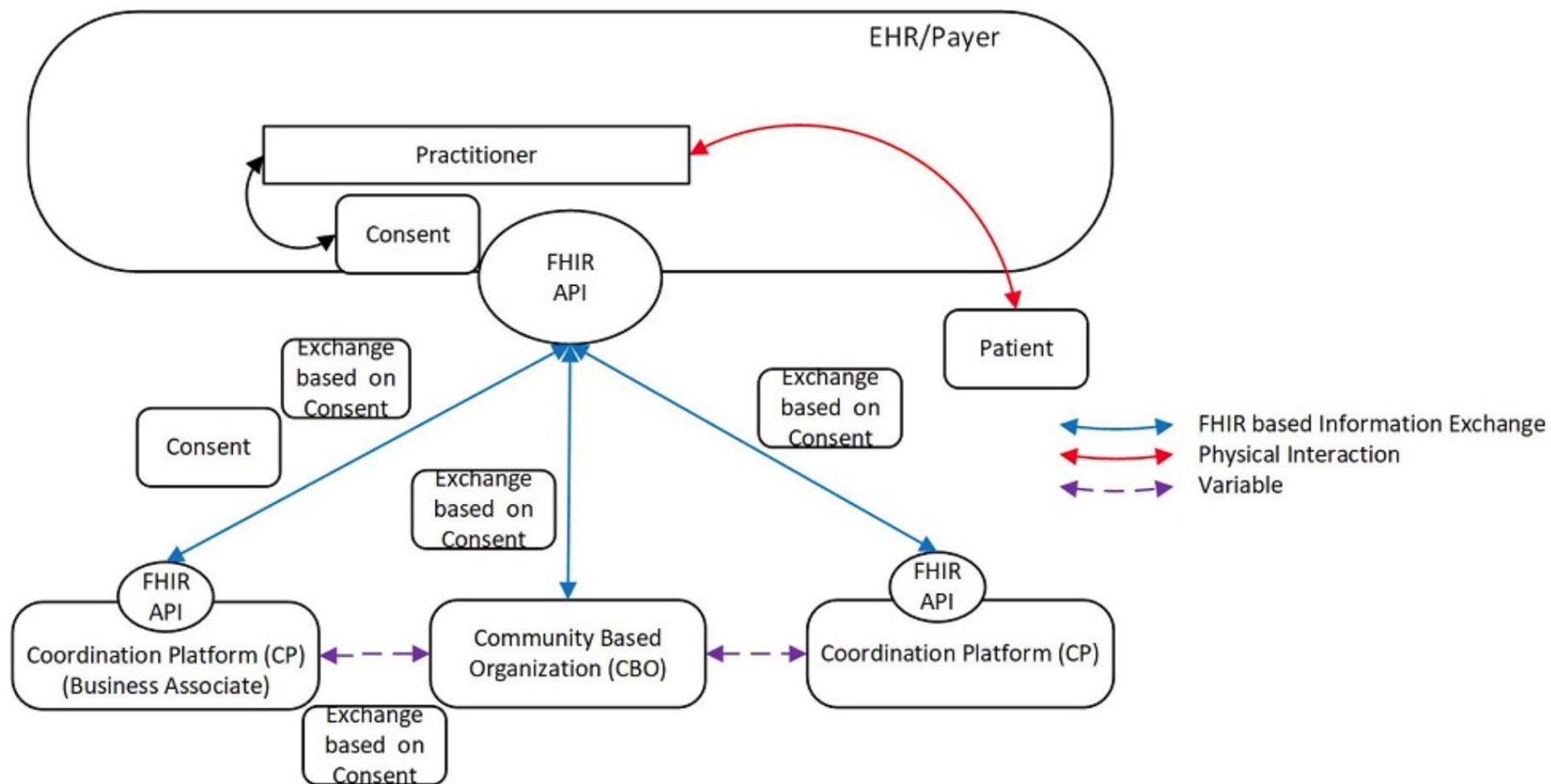
# Closed Loop Referral Process
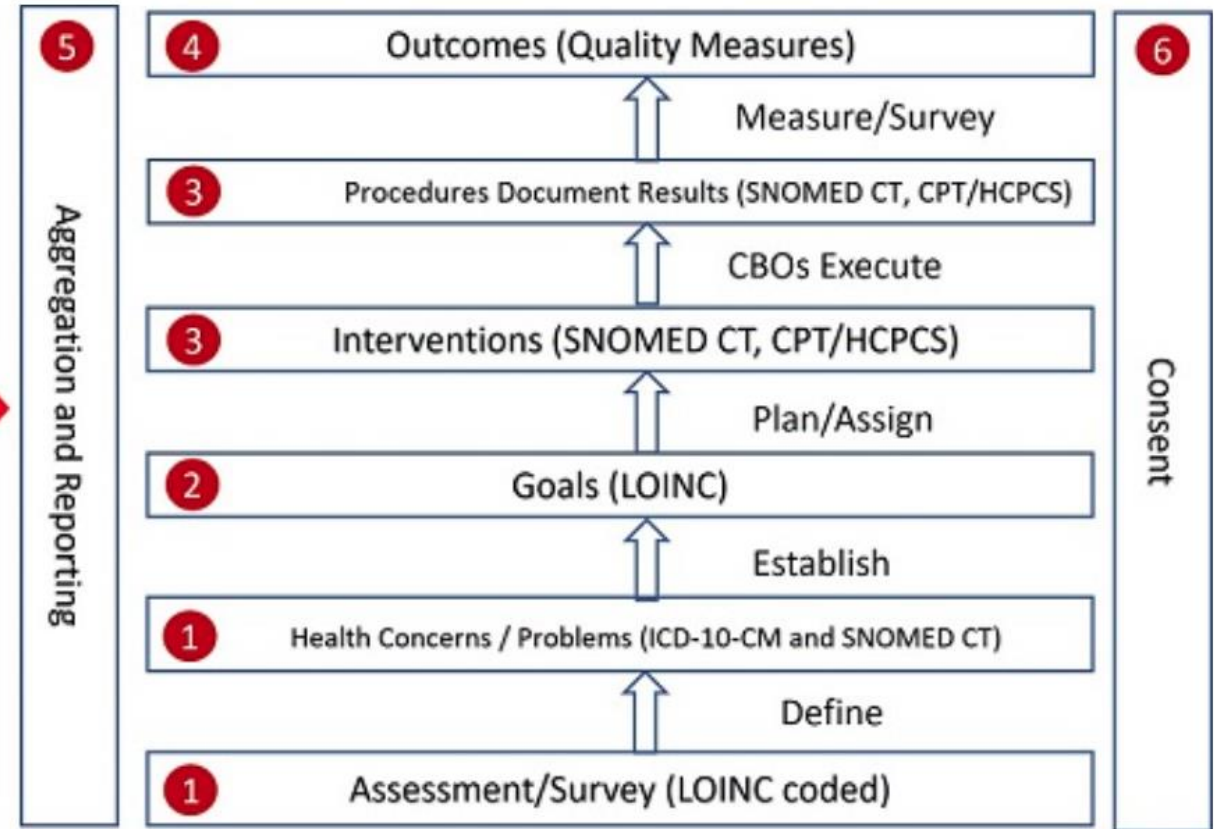


http://build.fhir.org/ig/HL7/fhir-sdoh-clinicalcare/sdoh_clinical_care_scope.html

# Closed Loop Referral Process



http://build.fhir.org/ig/HL7/fhir-sdoh-clinicalcare/exchange_workflow.html

# FHIR® Terminology Service for VSAC Resources

The FHIR Terminology Service for VSAC Resources is a RESTful API service for accessing the VSAC value sets and supported code systems.

## VSAC SVS API

The VSAC SVS API is based on the IHE SVS Technical Framework, section 2.2.21 Sharing Value Set Integration Profile (SVS), and the IHE SVS XML Schema

Base URLs

Authentication

Endpoint Calls and Related Utility Calls

Parameter Descriptions

HTTP Binding

# Where to Start: The VSAC Support Center

Go to the VSAC Support Center: https://www.nlm.nih.gov/vsac/support/index.html



https://tinyurl.com/NLMVSAC

# US Core Data for Interoperability (USCDI)



Originally the (Meaningful Use) Common Clinical Dataset, required for exchange at transitions of care

Supported by the 21st Century Cures Act which also requires specialty content to be certified

USCDI creates a framework for annual updates to expand the data classes

In reality, USCDI is a combination of data elements and data class requirements with variable levels of granularity

# Why USCDI Matters: EHI and Information Blocking



**Certification**

**4/5/2021**
USCDI v1, Other Cures Update Criteria Now Available for Certification

**12/31/2022**
USCDI v1, Other Cures Update Criteria Must Be Made Available

**2020  2021  2022  2023**

**4/5/2021**
Applicability Date for Information Blocking Provisions

**4/5/2021 through 10/5/2022**
EHI (for Information Blocking) limited to USCDI v1

**10/6/2022**
EHI (for Information Blocking) no longer limited to USCDI v1

**Information Blocking** — EHI = Electronic Health Information   USCDI = United States Core Data for Interoperability

# USCDI Version 1

**Allergies and Intolerances**
- Substance (Medication)
- Substance (Drug Class)
- Reaction

**Assessment and Plan of Treatment**
- Assessment and Plan of Treatment

**Care Team Members**
- Care Team Members

**Clinical Notes**
- Consultation Note
- Discharge Summary Note
- History & Physical
- Imaging Narrative
- Laboratory Report Narrative
- Pathology Report Narrative
- Procedure Note
- Progress Note

**Goals**
- Patient Goals

**Health Concerns**
- Health Concerns

**Immunizations**
- Immunizations

**Laboratory**
- Tests
- Values/Results

**Medications**
- Medications

**Patient Demographics**
- First Name
- Last Name
- Previous Name
- Middle Name (including Middle Initial)
- Suffix
- Birth Sex
- Date of Birth
- Race
- Ethnicity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address

**Problems**
- Problems

**Procedures**
- Procedures

**Provenance**
- Author Time Stamp
- Author Organization

**Smoking Status**
- Smoking Status

**Unique Device Identifier(s) for a Patient's Implantable Device(s)**
- Unique Device Identifier(s) for a Patient's Implantable Device(s)

**Vital Signs**
- Diastolic Blood Pressure
- Systolic Blood Pressure
- Body Height
- Body Weight
- Heart Rate
- Respiratory Rate
- Body Temperature
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 Years)
- Weight-for-length Percentile (Birth - 36 Months)
- Head Occipital-frontal Circumference Percentile (Birth - 36 Months)

# USCDI Version 2

**Allergies and Intolerances**
- Substance (Medication)
- Substance (Drug Class)
- Reaction

**Assessment and Plan of Treatment**
- Assessment and Plan of Treatment
- SDOH Assessment

**Care Team Member(s)**
- Care Team Member Name
- Care Team Member Identifier
- Care Team Member Role
- Care Team Member Location
- Care Team Member Telecom

**Clinical Notes**
- Consultation Note
- Discharge Summary Note
- History & Physical
- Procedure Note
- Progress Note

**Clinical Tests**
- Clinical Test
- Clinical Test Result/Report

**Diagnostic Imaging**
- Diagnostic Imaging Test
- Diagnostic Imaging Report

**Encounter Information**
- Encounter Type
- Encounter Diagnosis
- Encounter Time
- Encounter Location
- Encounter Disposition

**Goals**
- Patient Goals
- SDOH Goals

**Health Concerns**
- Health Concerns

**Immunizations**
- Immunizations

**Laboratory**
- Tests
- Values/Results

**Medications**
- Medications

**Patient Demographics**
- First Name
- Last Name
- Previous Name
- Middle Name (including Middle Initial)
- Suffix
- Sex (Assigned at Birth)
- Sexual Orientation
- Gender Identity
- Date of Birth
- Race
- Ethnicity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address

**Problems**
- Problems
- SDOH Problems/Health Concerns
- Date of Diagnosis
- Date of Resolution

**Procedures**
- Procedures
- SDOH Interventions

**Provenance**
- Author Time Stamp
- Author Organization

**Smoking Status**
- Smoking Status

**Unique Device Identifier(s) for a Patient's Implantable Device(s)**
- Unique Device Identifier(s) for a Patient's Implantable Device(s)

**Vital Signs**
- Diastolic Blood Pressure
- Systolic Blood Pressure
- Body Height
- Body Weight
- Heart Rate
- Respiratory Rate
- Body Temperature
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 Years)
- Weight-for-length Percentile (Birth – 36 Months)
- Head Occipital-frontal Circumference Percentile (Birth - 36 Months)

# Common Data Elements



## USCDI v1 Summary of Data Classes and Data Elements

**Allergies and Intolerances**
- Substance (Medication)
- Substance (Drug Class)
- Reaction

**Assessment and Plan of Treatment**
- Assessment and Plan of Treatment

**Care Team Members**
- Care Team Members

**Clinical Notes**
- Consultation Note
- Discharge Summary Note
- History & Physical
- Imaging Narrative
- Laboratory Report Narrative
- Pathology Report Narrative
- Procedure Note
- Progress Note

**Goals**
- Patient Goals

**Health Concerns**
- Health Concerns

**Immunizations**
- Immunizations

**Laboratory**
- Tests
- Values/Results

**Medications**
- Medications

**Patient Demographics**
- First Name
- Last Name
- Previous Name
- Middle Name (incl Middle Initial)
- Suffix
- Birth Sex
- Date of Birth
- Race
- Ethnicity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address

**Problems**
- Problems

**Procedures**
- Procedures

**Provenance**
- Author Time Stamp
- Author Organization

**Smoking Status**
- Smoking Status

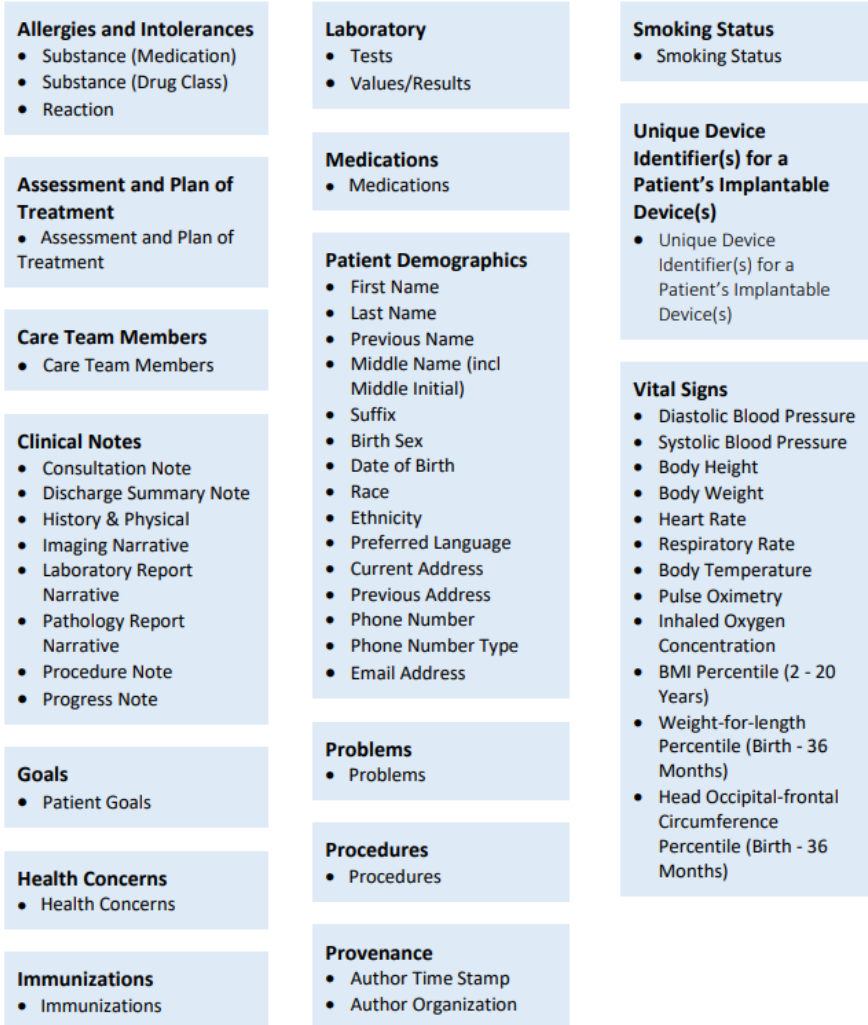**Unique Device Identifier(s) for a Patient's Implantable Device(s)**
- Unique Device Identifier(s) for a Patient's Implantable Device(s)

**Vital Signs**
- Diastolic Blood Pressure
- Systolic Blood Pressure
- Body Height
- Body Weight
- Heart Rate
- Respiratory Rate
- Body Temperature
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 Years)
- Weight-for-length Percentile (Birth - 36 Months)
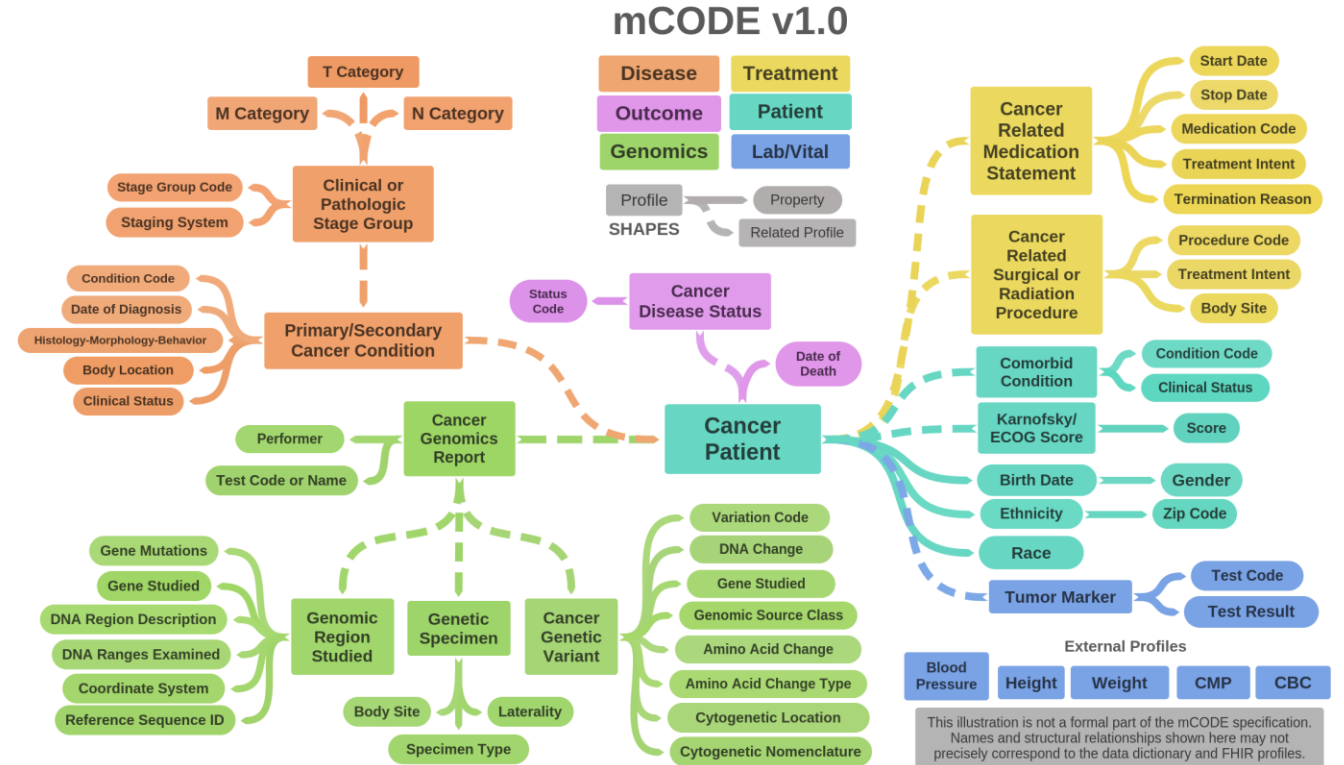- Head Occipital-frontal Circumference Percentile (Birth - 36 Months)

# Condition-Specific Elements



mCODE v1.0

| SDOH Profile | Element | Base Value Set | VSAC Group Value Set |
|===|===|===|===|
| SDOHCCCondition | Condition.code | US Core Condition Code | Social Determinants of Health Conditions Value Set |
| SDOHCCGoal | Goal.description | SDOHCC Goal Codes | Social Determinants of Health Goals Value Set |
| SDOHCCServiceRequest | ServiceRequest.code | US Core Procedure Codes | Social Determinants of Health Service Requests Value Set |
| SDOHCCProcedure | Procedure.code | US Core Procedure Codes | Social Determinants of Health Procedures Value Set |
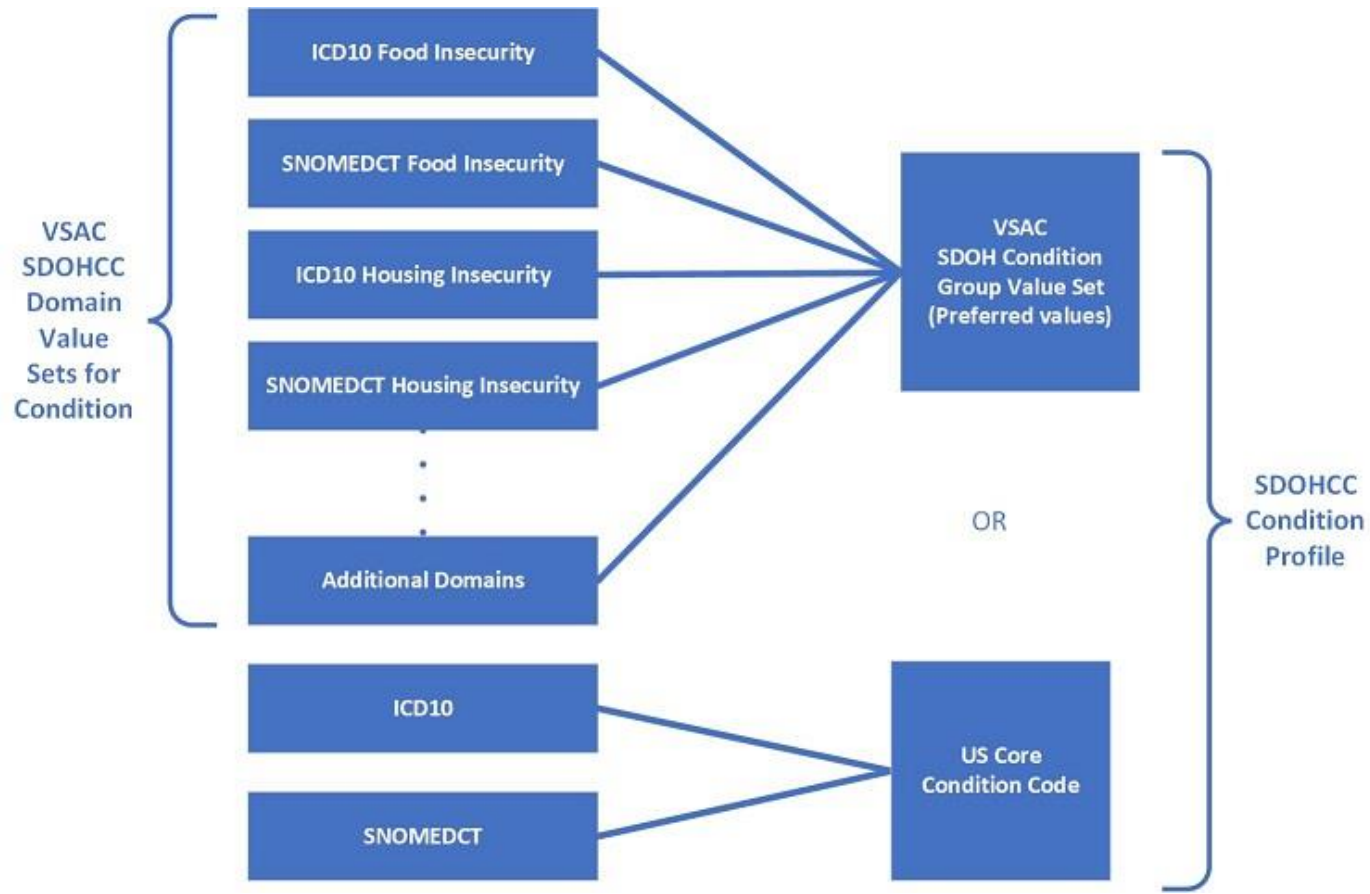
**Name:**
Social Determinants of Health Goals

**Code System:**

**OID:**
2.16.840.1.113762.1.4.1247.71

**Steward:** ✉ Contact
The Gravity Project

### Value Set Definition

**Definition Type:**
Grouping

**Definition Version:** ⑦
20220106

## Value Set Members

### Expanded Code List

📄 View  📌 Toggle  🔄 Clear          ◄ ◄◄ Page 1 of 1 ►► ►| 60 ▾ View 1 - 22 of 22

| Code ⬍ | Descriptor | Code System | Version | Code System OID |
|---|---|---|---|---|
| 1078229009 | Food security (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 160906004 | Self-employed (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 161036002 | Housing adequate (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 185960001 | Housing problem solved (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 224165005 | Financially secure (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 224363007 | Employed (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 406156006 | In paid employment (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 440586004 | Received vocational training (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 445091000124106 | Receives as much social support as wanted (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 449892005 | Feeling safe (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 452101000124107 | Self-employed paid work (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 452111000124105 | Self-employed unpaid work (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 452121000124102 | Paid work in United States armed forces (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 452131000124104 | Paid work in United States federal government (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 452141000124109 | Paid work not self-employed (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 452151000124106 | Unpaid work not self-employed (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 452491000124108 | Paid work in local government (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 452501000124100 | Paid work in state government (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 473461003 | Educated to high school level (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 5251000175109 | Received certificate of high school equivalency (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 715045000 | Able to obtain medication (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 716421004 | Able to manage stress (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |

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## Metadata

**Name:**
Social Determinants of Health Conditions

**Code System:**
ICD10CM, SNOMEDCT

**OID:**
2.16.840.1.113762.1.4.1196.788

**Steward:** ✉ Contact
The Gravity Project

### Value Set Definition

**Definition Type:**
Grouping

**Definition Version:** ⑦
20220106

### Expansion Details

**Expansion Profile**
Most Recent Code System Versions in VSAC   View

***This update was generated by VSAC to align with code changes published by the code system of one or more member value sets.***

| | | | | |
|---|---|---|---|---|
| 32911000 | Homeless (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| Z59.00 | Homelessness unspecified | ICD10CM | 2022 | 2.16.840.1.113883.6.90 |
| 1156191002 | Housing instability (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1156195006 | Housing instability due to being behind on payments for place of residence (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1156193004 | Housing instability due to frequent change in place of residence (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1156192009 | Housing instability due to imminent risk of homelessness (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1156196007 | Housing instability due to threat of eviction (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1156194005 | Housing instability following recent homelessness (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| Z59.819 | Housing instability, housed unspecified | ICD10CM | 2022 | 2.16.840.1.113883.6.90 |
| Z59.812 | Housing instability, housed, homelessness in past 12 months | ICD10CM | 2022 | 2.16.840.1.113883.6.90 |
| Z59.811 | Housing instability, housed, with risk of homelessness | ICD10CM | 2022 | 2.16.840.1.113883.6.90 |
| 105531004 | Housing unsatisfactory (finding) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |

| | | |
|---|---|---|
| **Name:** | **OID:** | |
| Social Determinants of Health Service Requests | 2.16.840.1.113762.1.4.1196.790 | |
| **Code System:** | **Steward:** ✉ Contact | |
| | The Gravity Project | |

**Value Set Definition**

**Definition Type:**
Grouping

**Definition Version:** ❓
20220106

| | | |
|---|---|---|
| **Name:** | **OID:** | |
| Social Determinants of Health Procedures | 2.16.840.1.113762.1.4.1196.789 | |
| **Code System:** | **Steward:** ✉ Contact | |
| | The Gravity Project | |

**Value Set Definition**

**Definition Type:**
Grouping

**Definition Version:** ❓
20220106

**Value Set Members**

**Expanded Code List**

📄 View  📌 Toggle  🔄 Clear    ⏮ ◀ Page 1 of 4 ▶▶ ⏭  60 ▾  View 1 - 60 of 234

| Code | Descriptor | Code System ⇕ | Version | Code System OID |
|---|---|---|---|---|
| 96156 | Health behavior assessment, or re-assessment (ie, health-focused clinical interview, behavioral observations, clinical decision making) | CPT | 2021 | 2.16.840.1.113883.6.12 |
| 97804 | Medical nutrition therapy; group (2 or more individual(s)), each 30 minutes | CPT | 2021 | 2.16.840.1.113883.6.12 |
| 97803 | Medical nutrition therapy; re-assessment and intervention, individual, face-to-face with the patient, each 15 minutes | CPT | 2021 | 2.16.840.1.113883.6.12 |
| 97802 | Medical nutrition therapy; initial assessment and intervention, individual, face-to-face with the patient, each 15 minutes | CPT | 2021 | 2.16.840.1.113883.6.12 |
| 96161 | Administration of caregiver-focused health risk assessment instrument (eg, depression inventory) for the benefit of the patient, with scoring and documentation, per standardized instrument | CPT | 2021 | 2.16.840.1.113883.6.12 |
| 96160 | Administration of patient-focused health risk assessment instrument (eg, health hazard appraisal) with scoring and documentation, per standardized instrument | CPT | 2021 | 2.16.840.1.113883.6.12 |
| S5170 | Home delivered meals, including preparation; per meal | HCPCS Level II | 2022 | 2.16.840.1.113883.6.285 |
| S9470 | Nutritional counseling, dietitian visit | HCPCS Level II | 2022 | 2.16.840.1.113883.6.285 |

| | | | | |
|---|---|---|---|---|
| 1002223009 | Assessment of progress toward goals to achieve food security (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1148813002 | Assessment of barriers in inadequate housing care plan (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1148814008 | Assessment of goals to achieve housing security (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1148815009 | Assessment of goals to achieve adequate housing (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1148817001 | Assessment of barriers in housing insecurity care plan (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1148818006 | Coordination of services to assist with maintaining housing security (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1148823006 | Assessment of progress toward goals to achieve adequate housing (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 171002009 | Vocational counseling (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 1759002 | Assessment of nutritional status (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 183524004 | Referral to psychiatry service (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 183583007 | Refer to mental health worker (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 183851006 | Referral to clinic (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 183866009 | Referral to emergency clinic (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 18781004 | Referral to vocational rehabilitation service (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 306136006 | Referral to liaison psychiatry service (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 306137002 | Referral to mental handicap psychiatry service (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 306226009 | Referral to mental health counseling service (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 306227000 | Referral for mental health counseling (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 306252003 | Referral to mental health counselor (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 306291008 | Referral to child and adolescent psychiatrist (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 308440001 | Referral to social worker (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 308459004 | Referral to psychologist (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 308477009 | Referral to psychiatrist (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 309627007 | Child referral - clinical psychologist (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 313082002 | Employment education (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 313083007 | Unemployment counseling (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |
| 385767005 | Meals on wheels provision education (procedure) | SNOMEDCT | 2021-09 | 2.16.840.1.113883.6.96 |

NATIONAL ASSOCIATION OF Community Health Centers®

# Typical approach

**Provider Documents Issue**

**Patient Report Problem**

**Provider Prescribes**
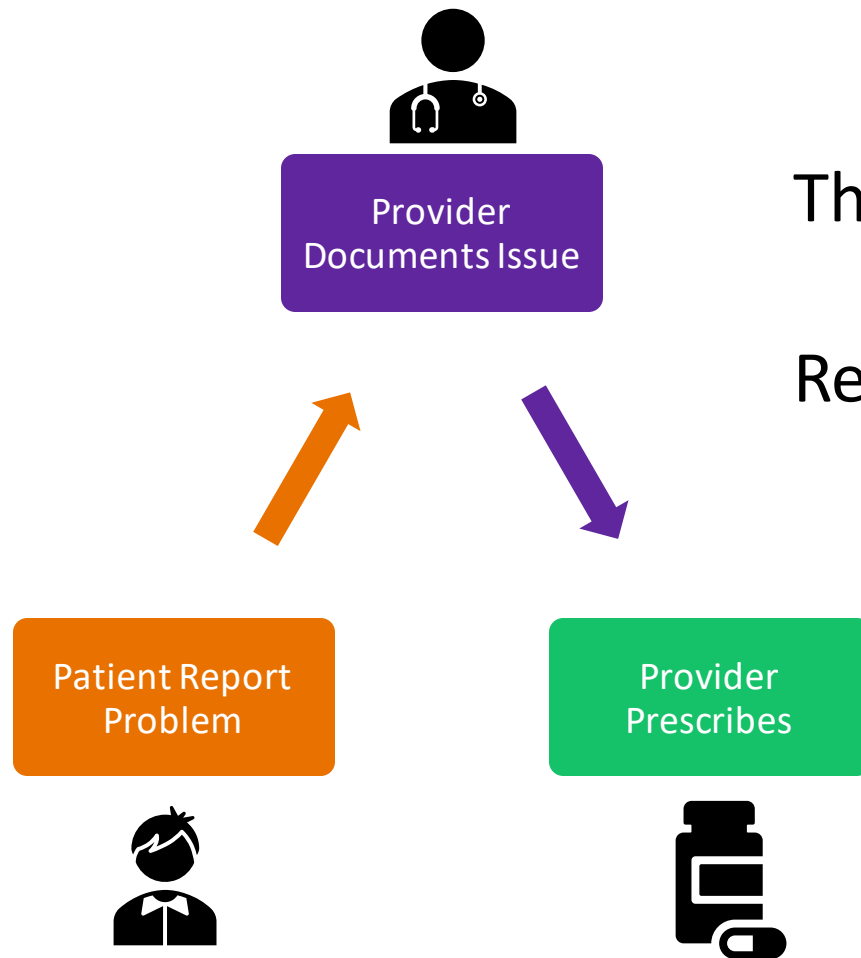
The provider is the keeper of the problem list

Responsible for updating and maintaining it

NATIONAL ASSOCIATION OF Community Health Centers®
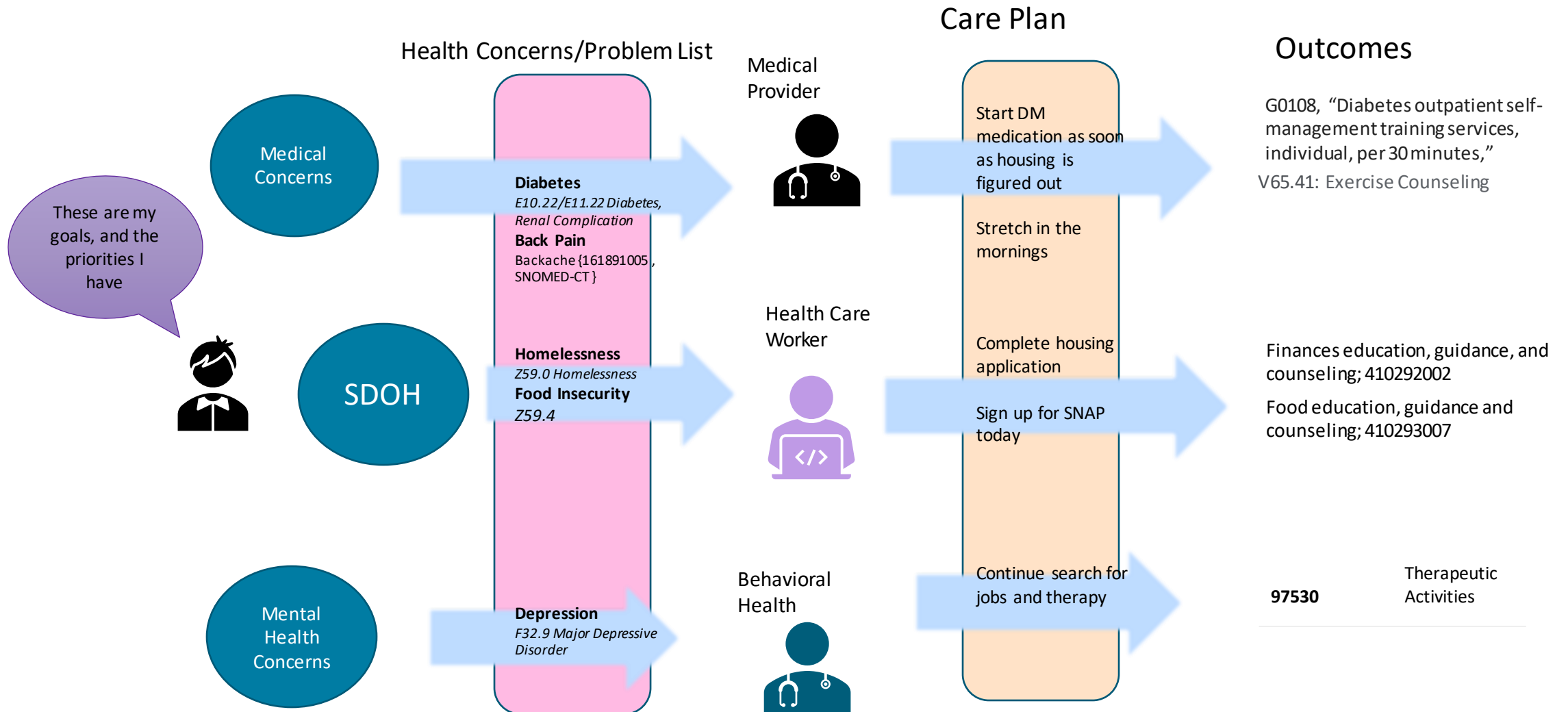
# Why bother and why do we care?

And although increasing the quantity, granularity, and utilization of Z codes for SDOH will not ultimately fix a healthcare system rife with inequity, it is a critical first step toward acknowledging the enormous impact that social factors have on health and toward monitoring our progress in addressing these disparities.

Although Z codes are not generally reimbursable, including these codes in the medical record can help with population health, panel management, and quality improvement initiatives.

Data collected may also eventually factor into value-based payment systems that will reimburse family physicians for this critical work to improve health.

NATIONAL ASSOCIATION OF
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# Why bother and why do we care?

**Figure 1. Change in Total Number of Z Code Claims, 2016 to 2019.**
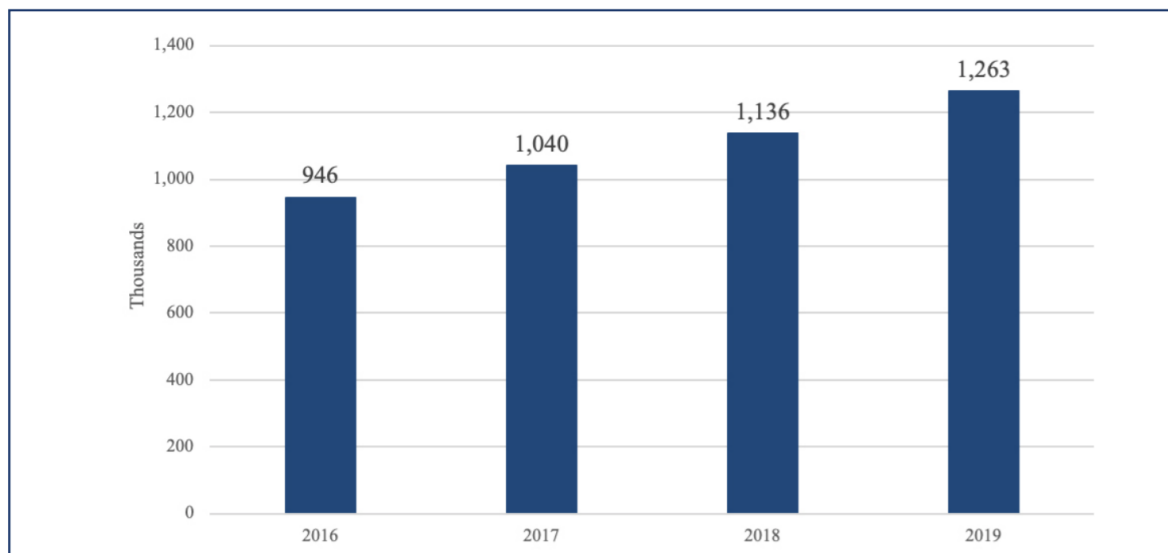


The total number of Z code claims was 945,755 in 2016, 1,039,790 in 2017, and 1,135,642 in 2018.

In 2019, there were 1,262,563 Z code claims, representing 0.11% of all FFS claims that year (N=1,124,319,144) and an increase of 95,852 (9.2%) from 2018 and an increase of 189,887 (20.1%) from 2016.

**Figure 2. Change in Proportion of Medicare FFS Beneficiaries with Z Code Claims, 2016 to 2019.**
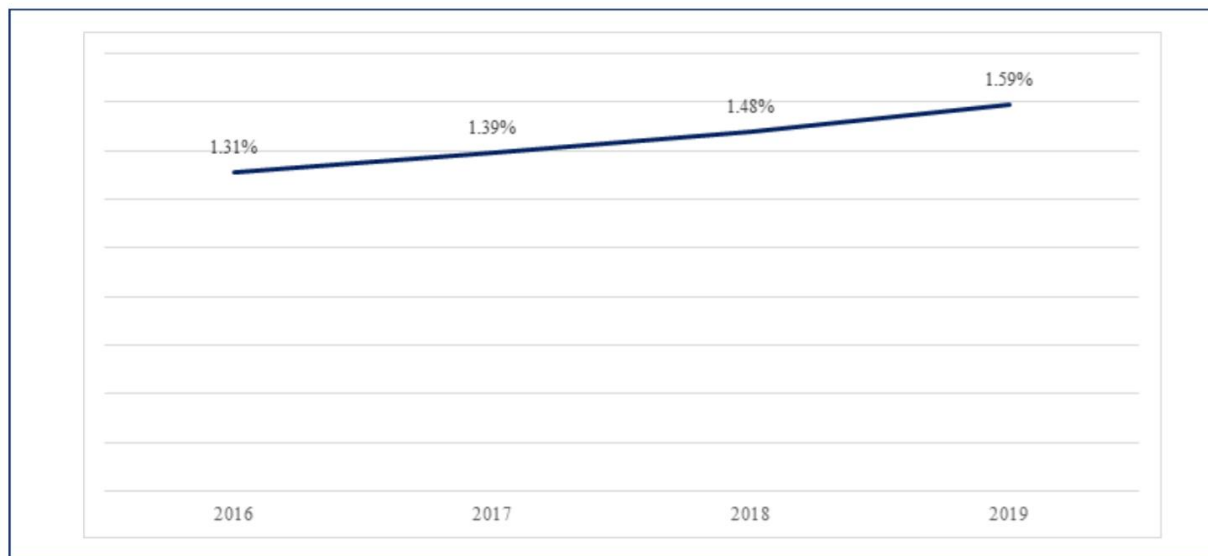


The number of beneficiaries with Z code claims was 446,171 in 2016, 467,136 in 2017, 495,472 in 2018, and 525,987 in 2019.

There was an increase of 30,515 (6.2%) from 2018 to 2019 and an increase of 79,816 (17.9%) from 2016 to 2019.

https://www.cms.gov/files/document/z-codes-data-highlight.pdf

**Figure 3. The Top Five Z Codes Representing the Largest Shares of All Z Code Claims, 2019.**
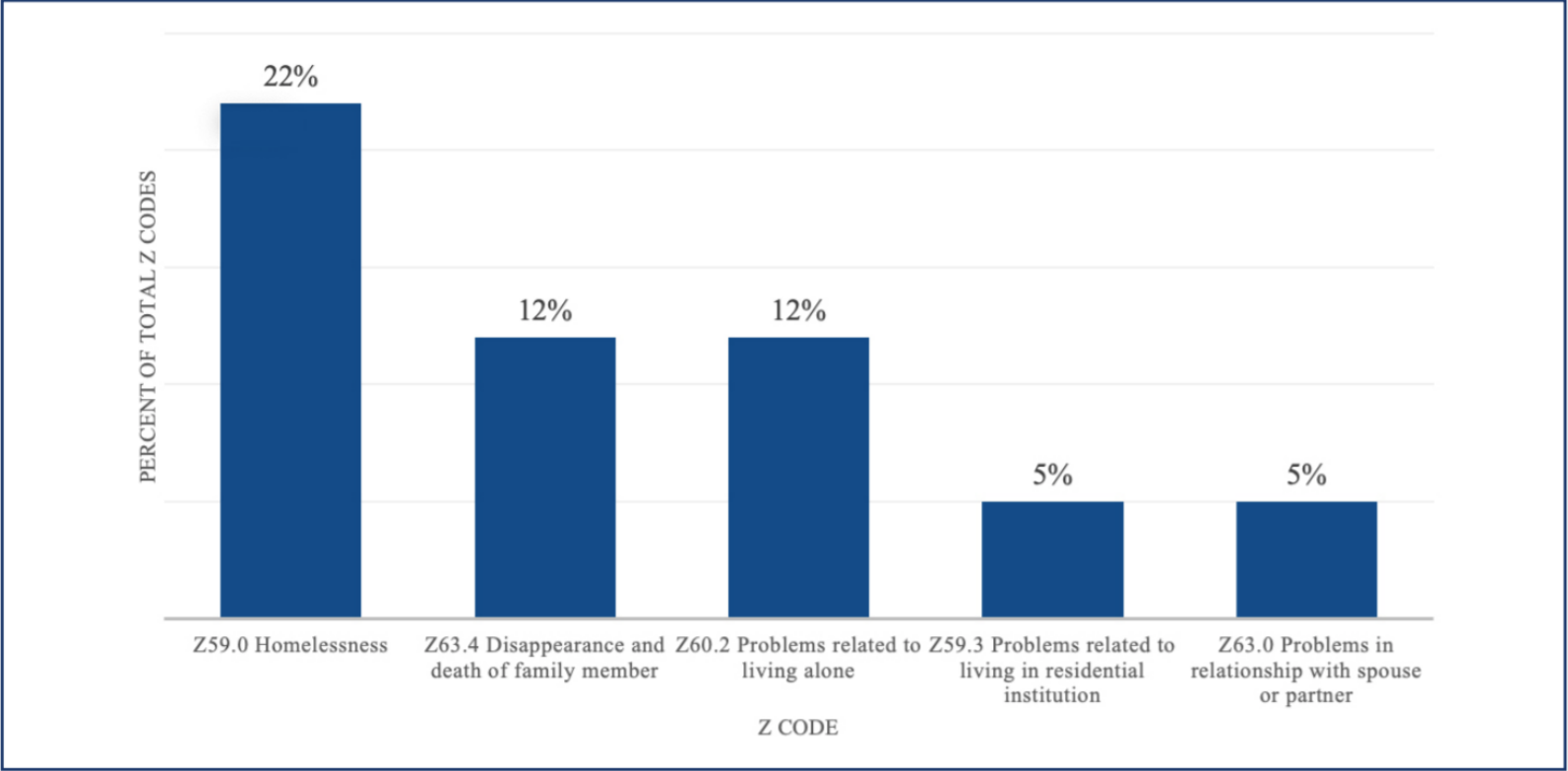


The five Z codes that represented the largest shares of all Z code claims (N=1,262,563) in 2019 were:

| Z code | Description | n | Proportion of all Z code claims |
|--------|-------------|---|--------------------------------|
| Z59.0 | Homelessness | 310,089 | 22% |
| Z63.4 | Disappearance and death of family member | 164,829 | 12% |
| Z60.2 | Problems related to living alone | 163,259 | 12% |
| Z59.3 | Problems related to living in a residential institution | 66,842 | 5% |
| Z63.0 | Problems in relationship with spouse or partner | 62,572 | 5% |

https://www.cms.gov/files/document/z-codes-data-highlight.pdf

**Figure 10. Proportion of Medicare FFS Z Code Claims by State, 2019.**



Percent of Total Frequency
☐ 0.01% - 0.62%   ☐ 0.64% - 1.27%
■ 1.29% - 2.11%   ■ 2.34% - 11.37%

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
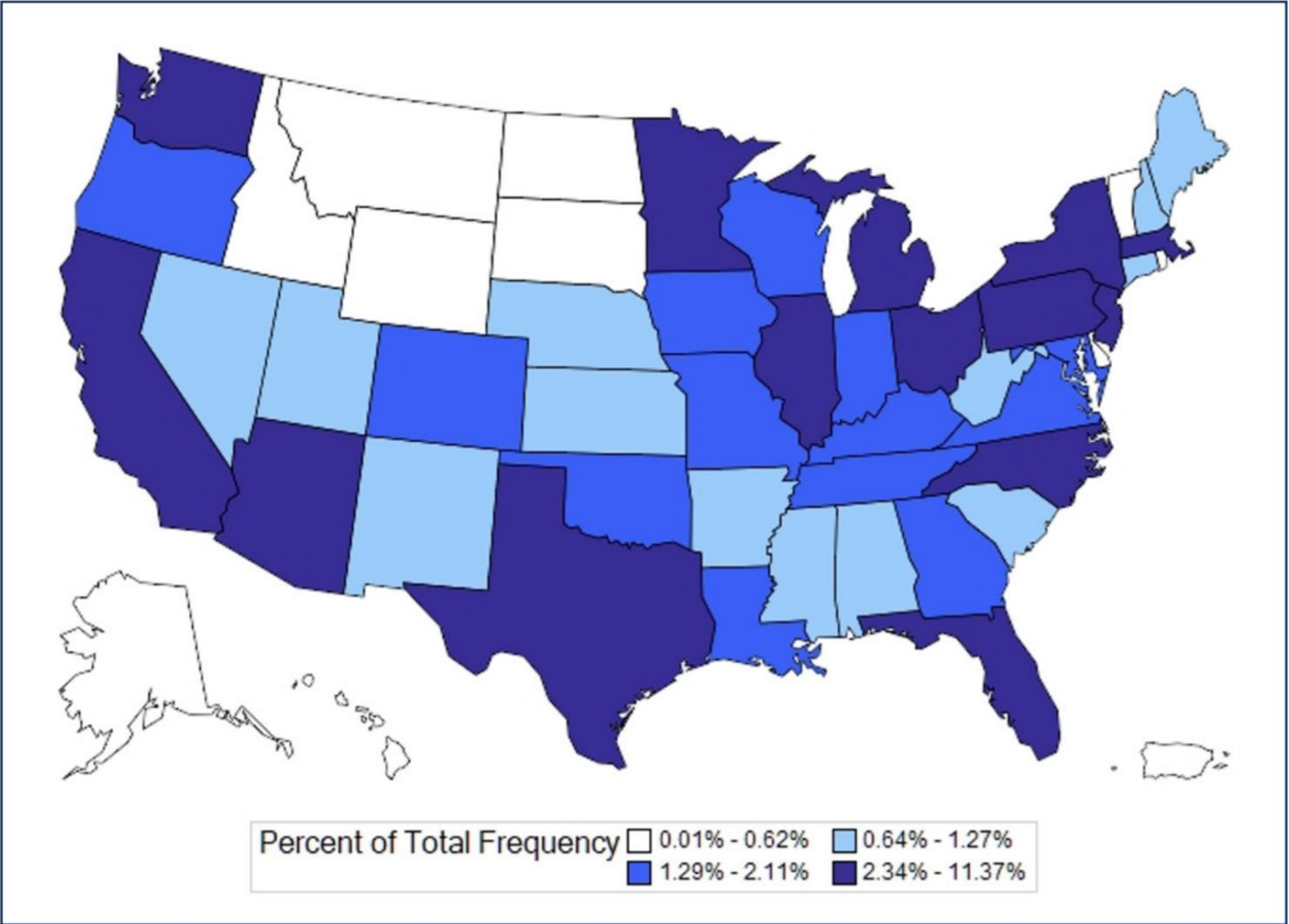
| State | n | Proportion of all Z code claims |
|---|---|---|
| California (CA) | 143,429 | 11% |
| Texas (TX) | 74,764 | 6% |
| Massachusetts (MA) | 68,734 | 5% |
| New York (NY) | 67,744 | 5% |
| Pennsylvania (PA) | 50,593 | 4% |

https://www.cms.gov/files/document/z-codes-data-highlight.pdf

**Figure 13. Top Five Medicare Specialty Codes and Medicare Provider/Supplier Types for Medicare Part B Non-institutional Providers Billing Z Code Claims, 2019.**
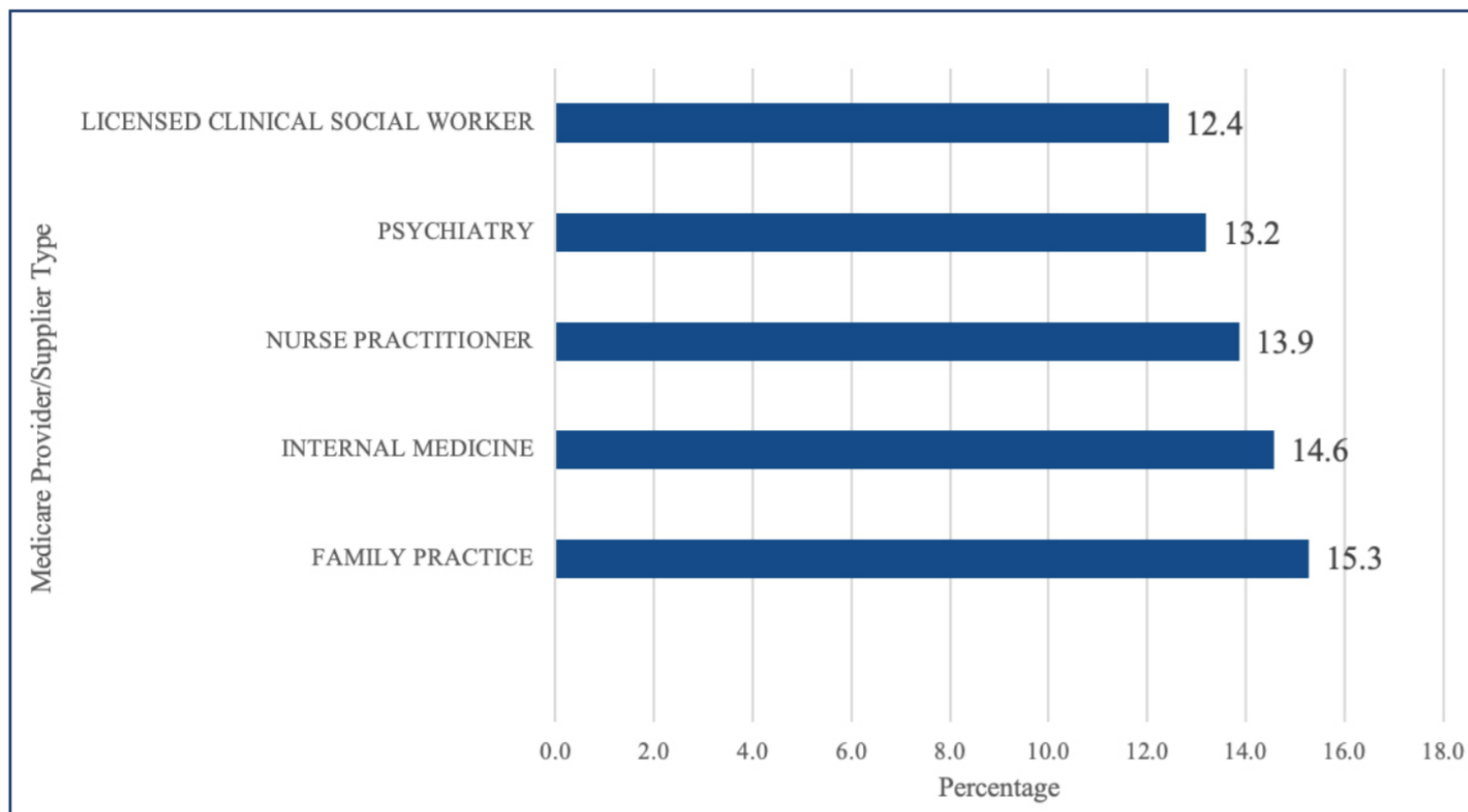


The Medicare Specialty Codes and corresponding Provider/Supplier Types representing the largest shares of all Z code claims in 2019 (N=528,506), in order, were:

| Specialty Code | Medicare Provider/Supplier Type Description | Proportion of all Z code claims |
|---|---|---|
| 08 | Physician/Family practice | 15% |
| 11 | Physician/Internal medicine | 14% |
| 50 | Nurse practitioner | 14% |
| 26 | Physician/Psychiatry | 13% |
| 80 | Licensed clinical social worker | 12% |

# Why bother and why do we care?

1 in 4 adults with advanced chronic kidney disease (CKD) are food insecure
• food insecure without hunger
• food insecure with moderate hunger
• food insecure with severe hunger

ICD-10-CM coding options include Z59.4, lack of adequate food and safe drinking water for reporting food insecurities.

Raising awareness of food insecurities, asking, documenting, coding and reporting may help to target interventions to improve the health of people with CKD.

# Gravity Overview: Integration of Two Streams



Terminology: SDOH Domains

- Coding Gap Analysis & Recommendations
- New Code Submissions
- 3
- 2
- Data Set Identification
- 1
- 4
- Publication in NLM VSAC & ONC ISA

CODED VALUE SETS

Technical (FHIR)

- FHIR IG Testing
- FHIR IG Development
- 3
- 2
- 1
- 4
- Community & FHIR Coordination
- FHIR IG Ballot & Publication
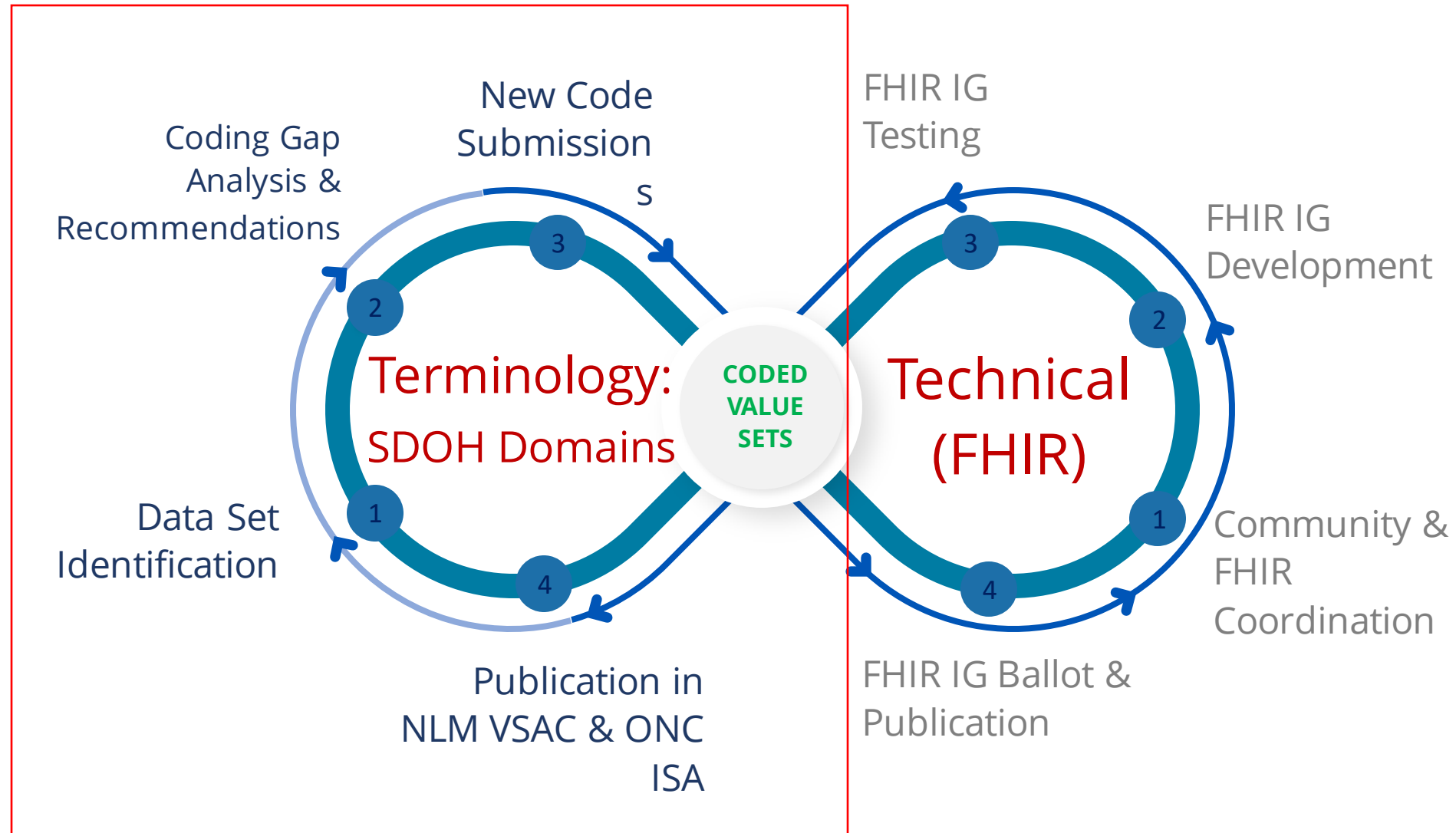
# Community Data Set Identification
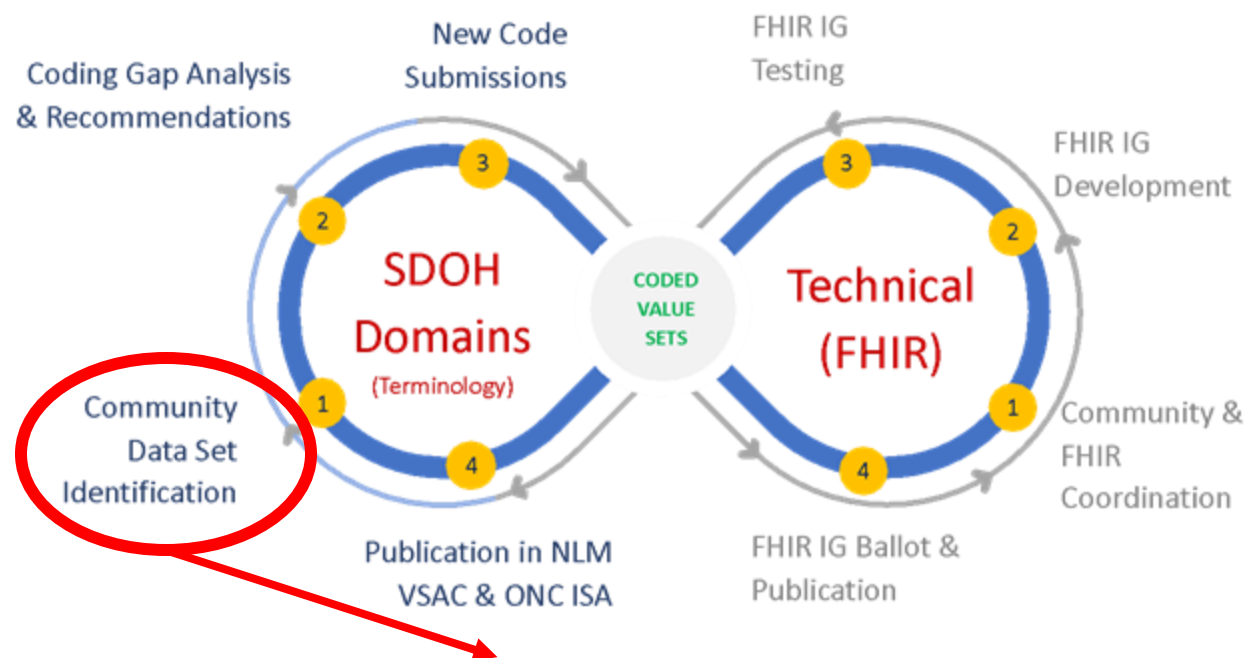


**Community Data Set Identification**
- A collaborative consensus process leveraging peer-reviewed literature, subject matter expertise, terminology and informatics insight, and the brainstorming of the collective to develop a comprehensive data set for each domain

# Accelerating Adoption Using Nationally Recognized Standards

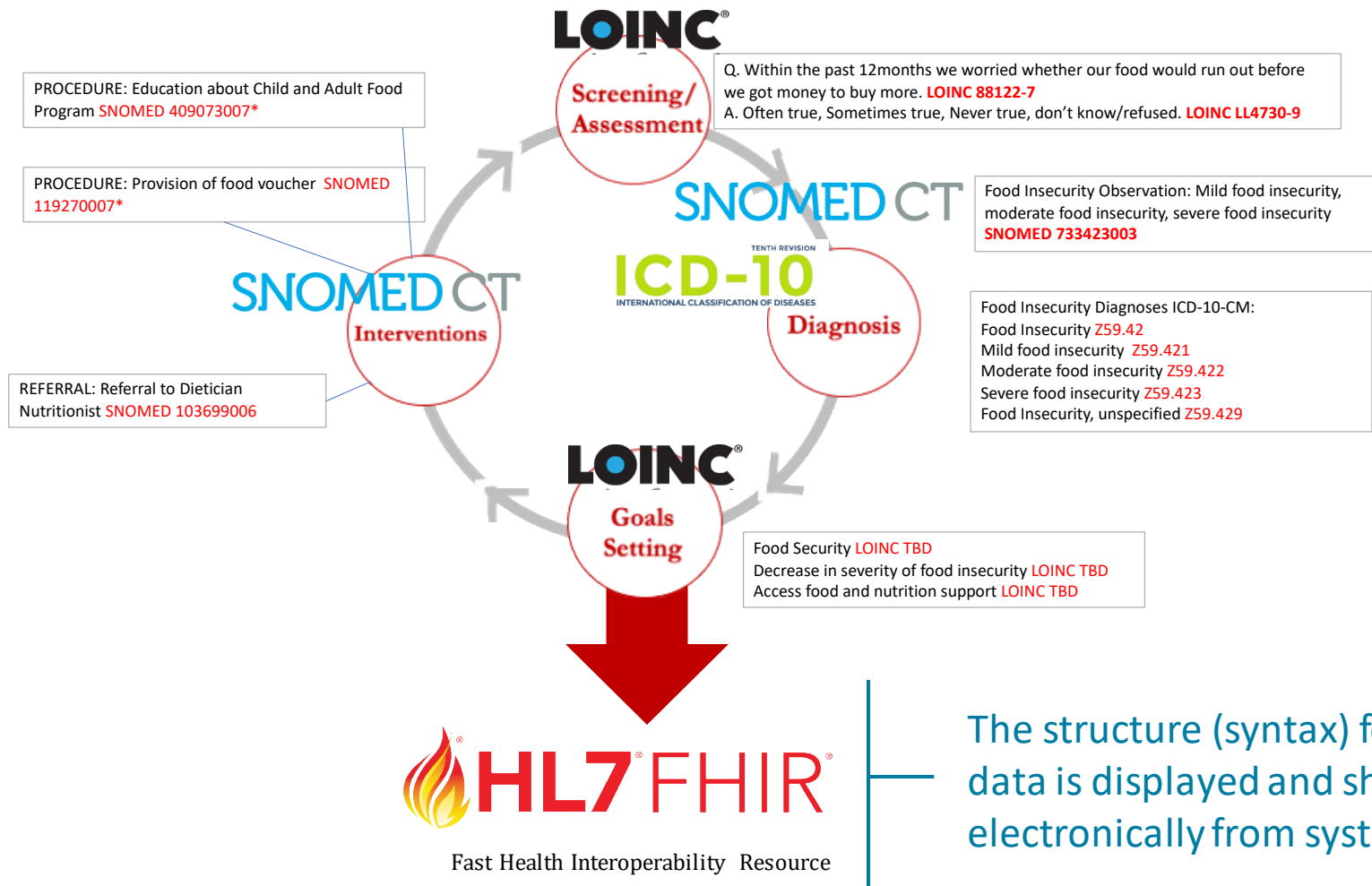The universal language attributed to the concepts, so they are understood across users and systems (semantics)

**LOINC**
Screening/ Assessment

PROCEDURE: Education about Child and Adult Food Program SNOMED 409073007*

PROCEDURE: Provision of food voucher SNOMED 119270007*

Q. Within the past 12months we worried whether our food would run out before we got money to buy more. **LOINC 88122-7**
A. Often true, Sometimes true, Never true, don't know/refused. **LOINC LL4730-9**

**SNOMED CT**

Food Insecurity Observation: Mild food insecurity, moderate food insecurity, severe food insecurity **SNOMED 733423003**

**ICD-10**
TENTH REVISION
INTERNATIONAL CLASSIFICATION OF DISEASES
Diagnosis

**SNOMED CT**
Interventions

REFERRAL: Referral to Dietician Nutritionist SNOMED 103699006

Food Insecurity Diagnoses ICD-10-CM:
Food Insecurity Z59.42
Mild food insecurity  Z59.421
Moderate food insecurity Z59.422
Severe food insecurity Z59.423
Food Insecurity, unspecified Z59.429

**LOINC**
Goals Setting

Food Security LOINC TBD
Decrease in severity of food insecurity LOINC TBD
Access food and nutrition support LOINC TBD

**HL7 FHIR**
Fast Health Interoperability  Resource

The structure (syntax) for how the data is displayed and shared electronically from system to system.

NATIONAL ASSOCIATION OF
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< All Topics

Main > Data Documentation and Clinical Integration Resources > PRAPARE Data Documentation and Codification File

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# PRAPARE Data Documentation and Codification File

📅 Posted 10.03.2021  ✐ Updated 02.23.2022

To view the spreadsheet click here.