SDOH Code Systems and Screening Tools Resource

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HEALTH EQUITY WORKGROUP

This resource is a list of social determinants of health (SDOH) code systems and screening tools used for collecting and exchanging SDOH data. The intent is to raise awareness and increase use of these code systems and screening tools to improve standardization of the data. This resource will be updated periodically.

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PURPOSE

The purpose of this resource is to raise awareness of the SDOH code systems and screening tools that are commonly used today for data collection and exchange.

OVERVIEW

The Centers for Medicare & Medicaid Services (CMS) Framework for Health Equity 2022-2032 outlines the agency's priorities for addressing health disparities and improving health equity. The first priority is to expand the collection, reporting, and analysis of standardized demographic and SDOH data. This resource will focus on SDOH data only.

To help expand SDOH data collection, a broader awareness is needed of the importance of SDOH data and the standard methods available to collect them. Using standardized data collection methods, in the form of code systems and standardized screening tools, will improve the collation and comparison of data across disparate systems.

The ability to improve equity in health care relies on the collection of various patient data, from clinical data about treatments and outcomes to social and demographic data. According to Healthy People 2030[1], SDOH are:

> "… the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."

SCOPE

This resource is focused on providing examples of commonly used SDOH code systems and screening tools. It is not a complete list of all code systems, screening tools, or other data requirements for the collection and exchange of SDOH data.

Further, it only covers SDOH data and does not include related demographic data. Such data is also important, so much so that SDOH and demographic data are often grouped together to form a more complete set of equity-related data, but we are not doing so here.

[1] "Social Determinants of Health." Healthy People 2030. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Accessed May 8, 2024. https://health.gov/healthypeople/priority-areas/social-determinants-health.

SDOH CODE SYSTEMS

Table 1 is a list of the code systems currently used by the Gravity Project for the collection and exchange of data for SDOH domains, such as housing, transportation, and food. (See the Additional Resources section below for information on the Gravity Project.) Additional information about the Gravity Project's terminology (codes) to address SDOH domains is available at: https://confluence.hl7.org/display/GRAV/Social+Risk+Terminology+Value+Sets.

Table 1: SDOH Code Systems

CODE SYSTEMS	ADDITIONAL INFORMATION
Logical Observation Identifiers Names and Codes (LOINC®)	• LOINC is used for identifying health measurements, observations, and documents. It is developed and maintained by Regenstrief Institute, Inc. • For SDOH codes used in the Gravity Project, LOINC represents screening assessments, assessment questions, and assessment answers. • Website: https://loinc.org/
SNOMED CT	• SNOMED CT is used to provide a standard representation of clinical concepts and phrases. It is developed and maintained by SNOMED International. • For SDOH codes used in the Gravity Project, SNOMED CT represents diagnoses, goals, procedures, and service requests. • Website: https://www.snomed.org/
International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM)	• ICD-10-CM is used to classify diseases and health conditions. It is maintained by the National Center for Health Statistics (NCHS). • For SDOH codes used in the Gravity Project, ICD-10-CM codes represent diagnoses. • SDOH codes are in "Chapter 21: Factors influencing health status and contact with health services." The section of codes is Z55-Z65, "Persons with potential health hazards related to socioeconomic and psychosocial circumstances." • Website: https://www.cdc.gov/nchs/icd/icd-10-cm.htm
Healthcare Common Procedure Coding System (HCPCS)	• HCPCS is comprised of two health care procedure coding systems. Level II is HCPCS. It is used primarily to identify products, supplies, and other services. It is maintained by CMS. • For SDOH codes used in the Gravity Project, HCPCS codes represent procedures and service requests. • Website: https://www.cms.gov/medicare/coding-billing/healthcare-common-procedure-system

Table 1: SDOH Code Systems (cont.)

CODE SYSTEMS	ADDITIONAL INFORMATION
Current Procedural Terminology (CPT®)	• CPT is Level I of HCPCS. It is used primarily to identify medical services and procedures furnished by physicians and other health care professionals. It is maintained by the American Medical Association (AMA). • For SDOH codes used in the Gravity Project, CPT codes represent procedures and service requests. • Website: https://www.ama-assn.org/amaone/cpt-current-procedural-terminology

SDOH SCREENING TOOLS

Table 2 is a list of some screening tools used to identify SDOH needs. This is not an inclusive list of all SDOH screening tools. A list of social risk screening assessment tools recognized by the Gravity Project is available at: https://confluence.hl7.org/display/GRAV/Gravity-Accepted+Social+Risk+Screening+Assessment+Instruments.

Table 2: SDOH Screening Tools

SCREENING TOOLS	INFORMATION
Accountable Health Communities (AHC) Health-Related Social Needs (HRSN) Screening Tool	• The AHC HRSN Screening Tool Supplemental Questions was developed for use in the CMS Innovation Center's AHC Model. It is being used to test if identifying and addressing health-related social needs will improve health outcomes. • Website: https://www.cms.gov/priorities/innovation/files/worksheets/ahcm-screeningtool.pdf
American Academy of Family Physicians (AAFP) Social Needs Screening Tool	• AAFP Social Needs Screening Tool is available from The EveryONE Project™, which is administered through the AAFP's Center for Diversity and Equity. Also available are action plan development tools and the Neighborhood Navigator, which is an online tool for connecting patients with local social support services. • Website: https://www.aafp.org/family-physician/patient-care/the-everyone-project.html
Health Leads Social Needs Screening Toolkit	• Health Leads Social Needs Screening Toolkit is used to screen for and identify social needs. It is developed and maintained by Health Leads. • Website: https://healthleadsusa.org/news-resources/the-health-leads-screening-toolkit/

Table 2: SDOH Screening Tools (Cont.)

SCREENING TOOLS	INFORMATION
Humiliation, Afraid, Rape, Kick (HARK)	• HARK screening questions are available from the National Library of Medicine at: https://www.ncbi.nlm.nih.gov/books/NBK533715/table/appf.tab1/
Hunger Vital Sign™	• Hunger Vital Sign is used to identify potential food insecurity. It is developed and maintained by Children's HealthWatch. • Website: https://childrenshealthwatch.org/public-policy/hunger-vital-sign/
Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE®)	• The PRAPARE Team is a collaboration between the National Association of Community Health Centers, Inc. (NACHC), Association of Asian Pacific Community Health Organizations (AAPCHO), and Oregon Primary Care Association (OPCA). Their work resulted in the PRAPARE screening tool and Implementation and Action Toolkit. • Website: https://prapare.org/
Safe Environment for Every Kid (SEEK™) Parent Questionnaire-Re (PQ-Re)	• SEEK PQ-Re is developed and maintained by SEEK. • Website: https://seekwellbeing.org/seek-materials/
WellRx Questionnaire	• WellRx Questionnaire was developed and piloted by researchers at the University of New Mexico. • Citation: Page-Reeves, Janet, Will Kaufman, Molly Bleecker, Jeff Norris, Kate McCalmont, Veneta Ianakieva, Dessislava Ianakieva, & Arthur Kaufman (2016). Addressing Social Determinants of Health in a Clinic Setting: The WellRx Pilot in Albuquerque, New Mexico. Journal of the American Board of Family Medicine 29(3): 414-418. Special themed issue on Social Determinants of Health. jabfm.org/content/29/3/414
Well Childcare visit, Evaluation, Community Resources, Advocacy, Referral, Education (WE CARE)	• WE CARE is developed and maintained by Child Health Equity Center. • Website: https://childhealthequitycenter.org/we-care/

ADDITIONAL RESOURCES

The following are additional resources for SDOH code systems and screening tools. This is a sample from a few public and private organizations and initiatives that are working on SDOH and health equity. It is not an all-inclusive list.

Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database provides access to linkable SDOH variables across various domains. The database is available at: https://www.ahrq.gov/sdoh/data-analytics/sdoh-data.html.

Centers for Disease Control and Prevention's (CDC) Public Health Information Network Vocabulary Access and Distribution System (PHIN VADS) provides standard vocabularies for use in public health and clinical care and promotes their use to support the exchange of consistent information among health care entities. Learn more about PHIN VADS at: https://phinvads.cdc.gov/vads/SearchVocab.action.

Centers for Medicare & Medicaid Services (CMS) (https://www.cms.gov)

- **CMS Innovation Center's** "**A Guide to Using the Accountable Health Communities Health-Related Social Needs Screening Tool: Promising Practices and Key Insights"** is available at: https://www.cms.gov/priorities/innovation/media/document/ahcm-screeningtool-companion.

- **"Improving the Collection of Social Determinants of Health (SDOH) Data with ICD-10-CM Z Codes"** infographic is available at: https://www.cms.gov/files/document/cms-2023-omh-z-code-resource.pdf.

- **Office of Minority Health (OMH)** (https://www.cms.gov/priorities/health-equity/minority-health)

    - **Health Care Resource Center** at: https://www.cms.gov/priorities/health-equity/minority-health/resource-center.

    - **Research and Data** at: https://www.cms.gov/priorities/health-equity/minority-health/research-data.

Gravity Project is a Health Level 7 International (HL7) Fast Healthcare Interoperability Resources (FHIR) Accelerator. As an open, public collaborative, it develops data standards to improve the capture and exchange of SDOH and health equity data. The data standards allow for consistent use of SDOH data across digital platforms and organizations in support of care coordination, referrals, and other health care services. Learn more about Gravity Project at: https://thegravityproject.net/.

- **National Library of Medicine's (NLM) Value Set Authority Center (VSAC)** maintains the Gravity Project's value sets for screening assessments, screening assessment questions and answers, diagnoses, procedures, and service requests. VSAC is available at: https://vsac.nlm.nih.gov/welcome.

- **Gravity Project Resource for the Documentation of Social Risks Related to the Accountable Health Communities (AHC) Health-Related Social Needs (HRSN) Screening Tool©** provides recommendations for ICD-10-CM and SNOMED CT codes for the screening tool. It is available at: https://confluence.hl7.org/display/GRAV/Resources+for+Social+Risk+Coding+in+Care+Settings?preview=/193661411/193661657/Gravity_AHC_HRSN_Documentation_Resource_V1.1.pdf.

HL7 is an international, American National Standards Institute (ANSI) accredited standards development organization. Standards developed by HL7 focus on the exchange of electronic health information and support the interoperability of clinical data. HL7's SDOH Clinical Care STU2.1 Implementation Guide is specific for exchanging data related to screening, diagnosing, planning, and delivering services to meet SDOH needs. Learn more about HL7 at: (https://www.hl7.org/).

Kaiser Permanente Washington Health Research Institute and Social Interventions Research and Evaluation Network (SIREN) collaborated on a systematic review of social risk screening tools. Learn more and search the reviews on Kaiser Permanente's website at: https://sdh-tools-review.kpwashingtonresearch.org/ and SIREN's website at: https://sirenetwork.ucsf.edu/tools-resources/resources/screening-tools-comparison.

Office of the National Coordinator for Health Information Technology (ONC) (https://www.healthit.gov/)

- **Interoperability Standards Advisory (ISA)** identifies, assesses, and raises public awareness of interoperability standards and implementation specifications that can be used to address specific interoperability needs. It is available at: https://www.healthit.gov/isa/.

- **U.S. Core Data for Interoperability (USCDI)** is a standardized set of health data classes and data elements that support health data exchange. It is available at: https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi.

- **USCDI+** are domain or program-specific data elements that are extensions to the existing USCDI. Learn more about it at: https://www.healthit.gov/topic/interoperability/uscdi-plus.

- **Social Determinants of Health Information Exchange Toolkit: Foundational Elements for Communities (SDOH Toolkit)** is intended to support communities in their work to address health equity. It is available at: https://www.healthit.gov/sites/default/files/2023-02/Social%20Determinants%20of%20Health%20Information%20Exchange%20Toolkit%202023_508.pdf.

PhenX Toolkit is a collaboration between the National Institutes of Health (NIH) and RTI International. It is a collection of standard data protocols for collecting data and tools for incorporating the protocols into research studies. The work on SDOH includes a core SDOH collection and specialty collections for individual and structural SDOH. Learn more about the PhenX Toolkit at: https://www.phenxtoolkit.org/.

The U.S. Playbook to Address Social Determinants of Health was published in November 2023 by the Domestic Policy Council of the White House Office of Science and Technology Policy. It is available at: https://www.whitehouse.gov/wp-content/uploads/2023/11/SDOH-Playbook-4.pdf.

U.S. Preventive Services Task Force (USPSTF) provides information and tools on intimate partner violence, elder abuse, and abuse of vulnerable adults at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/intimate-partner-violence-and-abuse-of-elderly-and-vulnerable-adults-screening#fullrecommendationstart.

SUMMARY

Many public and private organizations and initiatives are working to improve health equity. The ability to collate and compare larger, standardized data sets will improve identification of factors related to health outcomes and where health disparities are occurring. This resource was created to raise awareness of the commonly used SDOH code systems and screening tools to encourage standardization for the collection and exchange of SDOH data. Using standardized data will facilitate analysis and lead to actions that will deliver on improving health equity.

ACKNOWLEDGEMENTS

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APPENDIX - ABBREVIATIONS

AAFP – American Academy of Family Physicians
AAPCHO – Association of Asian Pacific Community Health Organizations
AHC – Accountable Health Communities
AHC HRSN – Accountable Health Communities Health-Related Social Needs
AHRQ – Agency for Healthcare Research and Quality
AMA - American Medical Association
ANSI – American National Standards Institute
CDC – Center for Disease Control and Prevention
CMS – Centers for Medicare & Medicaid Services
CPT® – Current Procedural Terminology
FHIR – Fast Healthcare Interoperability Resources
HARK – Humiliation, Afraid, Rape, Kick
HCPCS – Healthcare Common Procedure Coding System
HL7 – Health Level 7 International
ICD-10-CM – International Classification of Diseases, Tenth Revision, Clinical Modification
ISA – Interoperability Standards Advisory
LOINC® – Logical Observation Identifiers Names and Codes
NACHC – National Association of Community Health Centers, Inc.
NCHS – National Center for Health Statistics
NIH – National Institutes of Health
NLM – National Library of Medicine
OMH – CMS Office of Minority Health
ONC – Office of the National Coordinator for Health Information Technology
OPCA – Oregon Primary Care Association
PHIN VADS – CDC's Public Health Information Network Vocabulary Access and Distribution System
PRAPARE® – Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences
SDOH – Social Determinants of Health
SEEK™ PQ-Re– Safe Environment for Every Kid Parent Questionnaire
USCDI – U.S. Core Data for Interoperability
USPSTF – U.S. Preventive Services Task Force
VSAC – NLM's Value Set Authority Center
WE CARE – Well Child visit, Evaluation, Community Resources, Advocacy, Referral, Education