

Action Guide

SOCIAL DRIVERS OF HEALTH

WHY

consider the Social Drivers of Health?

Health centers, by virtue of their mission and model, play a pivotal role in addressing Social Drivers of Health (SDOH) among medically underserved patients nationwide. Signed into law in 1964 as part of President Lyndon B. Johnson's 'war on poverty', health centers serve patients and communities at greater risk of preventable chronic and other diseases¹⁻³.

Social drivers of health are the conditions in which people are born, grow, work, live, and age. SDOH are non-medical conditions that include social, economic, physical, or other factors present in people's lives. These factors have been found to directly influence health, functioning, and quality of life outcomes and risks⁴⁻¹².

Research shows that social drivers, also called social risks, may have a greater influence on health and health equity than lifestyle choices or health care, with some studies suggesting that SDOH may account for 30-55% of health outcomes¹³.

The movement of health systems toward value-based care provides significant opportunities to address SDOH while improving value and quality of care¹⁴. Value-based care is a potentially important financing mechanism for SDOH services with opportunities for long-term sustainability and population health improvements¹⁴.

SOCIAL DRIVERS OF HEALTH



The Value Transformation
Framework addresses how health
centers can use a systematic process
to address the social, economic, and
environmental circumstances that
influence patients' health and the
care they receive. This Action Guide
offers a set of action steps health
centers can take to integrate social
risk assessment and interventions as
part of organizational transformation.

WHAT

can health centers do to address social risk?

SDOH include such factors as income, education, employment, food, housing, and social inclusion and non-discrimination. Healthy People 2030 groups SDOH into 5 domains⁴:

- Economic stability
- Education access and quality
- · Health care access and quality
- · Neighborhood and built environment
- Social and community context



The community health center model and mission, including a patient majority board, strongly positions health centers to address SDOH in medically underserved communities, and:

- Identify the social drivers impacting the local community and target populations
- Screen individuals for social risk factors
- Design interventions to address identified social risks factors
- Design models of care and services that support health equity
- Form partnerships that enhance the community's ability to address social risk factors
- Demonstrate value to payors by incorporating SDOH into care and reimbursement models

A number of SDOH measures appear within health center reporting requirements of the <u>Uniform Data System</u>. This data is a starting point for health center efforts to collect SDOH data and develop interventions to address identified patient needs.

Sample of UDS Reporting for Social Risks				
Table 3B: Demographic Characteristics	APPENDIX D: Health Center HIT Capabilities			
Address Race Ethnicity Patients best served in a language other than English Sexual Orientation Gender Identity	Sample social risk questions on the HIT Form required as part of Usubmission: Does your health center collect data on individual patients' social risk factors, outside of the data countable in the UDS? How many health center patients were screened for social risk factors using a standardized screener during the calendar year			
Table 4: Calented Detions Characteristics	Which standardized screener(s) for social risk factors, if any, did you use during the calendar year? Of the total patients screened for social risk factors, please provide the total number of patients that screened positive for any of the following at any point during the calendar year: • Food Insecurity • Housing Insecurity			
Table 4: Selected Patient Characteristics Income Level Insurance Special Populations (Agricultural Workers, Homeless, Veterans, Accessible Public Housing)				
Table 6A: Selected Diagnosis and Services Rendered Human Trafficking T74.5- through T74.6-, T76.5- through T76.6-, Z04.81, Z04.82, Z62.813, Z91.42 Intimate Partner Violence T74.11, T74.21, T74.31, Z69.11	Financial Strain Lack of Transportation/Access to Public Transportation If you DO NOT use a standardized screener to collect this information, please indicate why.			

<u>Uniform Data System 2023 Manual Health Center Data Reporting Requirements</u>





HOW

health centers can collect and respond to SDOH?



This Action Guides outlines a series of steps health centers can take to collect and respond to social risk data.

- **STEP 1** Engage leadership and Board members in prioritizing SDOH efforts: In setting SDOH as a priority, leadership identifies a staff lead for SDOH screening and intervention processes, supported by an interdisciplinary implementation team.
- **STEP 2 Understand social risk factors in your community:** Review health center needs assessment and population level data sources to understand prevalent social risk factors in your community.
- **STEP 3 Identify community resources to address social risks:** Develop a resource list that identifies internal and external community resources available to address social risk factors.
- **STEP 4 Design a workflow for SDOH** *screening*: Workflow elements include: selection of a tool and target population(s), how, when, and where in the visit process to collect information, and documentation.
- **STEP 5** Design a workflow for <u>interventions</u> in response to identified SDOH needs: Workflow elements include the role of staff related to interventions, follow-up of interventions, and documentation.
- **STEP 6** Train health center staff: Provide training to staff on SDOH workflows and techniques to screen and provide interventions related to sensitive subjects.
- **STEP 7 Optimize billing opportunities:** Explore opportunities to bill for SDOH screening and interventions.
- **STEP 8** Collect and monitor SDOH data over time; use data to inform practice transformation: Collect and track SDOH data over time and incorporate into risk stratification processes to inform care models and service delivery.
- **STEP 9** Leverage SDOH data to drive value-based payment and reimbursement: Share SDOH findings with payors, key partners, and policymakers to drive value-based contracting and payment models.



Engage leadership and Board members in prioritizing SDOH efforts. Engage health center leadership, Board members, and other stakeholders in SDOH efforts, highlighting the ways this work aligns with existing organizational priorities and adds value to patients, the health center, and the community. Attention to SDOH supports the Quintuple Aim: improved health outcomes, improved patient experiences, improved staff experiences, reduced costs, and equity.

Leadership is responsible for identifying a staff lead responsible for the design and delivery of SDOH screening and intervention processes. A staff leader can integrate SDOH screening and interventions into health center workflows and develop an interdisciplinary team representing varying roles and expertise (e.g., provider, front office, community health worker, quality improvement, and IT) to achieve related goals.

See NACHC's <u>Leadership Action Guide</u> for additional engagement strategies. Page 12 of the <u>PRAPARE® Implementation and Action Toolkit</u> offers examples of how to communicate with staff and patients about targeted SDOH efforts.



Action Step: Engage leadership and Board members in prioritizing SDOH processes. SDOH is stated as an organizational priority with allocated staff and resources. An identified staff lead oversees screening and intervention processes with support from an interdisciplinary implementation team.

STEP 2

Understand social risk factors in your community. An effective SDOH strategy is based on an understanding of the prevalent social risk factors in the local community served by your health center. Community level social risk data informs strategies for social risk screening and interventions. This data can come from a variety of sources.

Begin your SDOH strategy by reviewing data collected for the needs assessment required as part of HRSA health center program requirements. This needs assessment is completed at least once every three years to inform and improve the delivery of health center services (HRSA). Needs assessments address:

- Factors associated with access to care and health care utilization (for example, geography, transportation, occupation, transience, unemployment, income level, educational attainment)
- The most significant causes of morbidity and mortality (for example, diabetes, cardiovascular disease, cancer, low birth weight, behavioral health) as well as any associated health disparities
- Any other unique health care needs or characteristics that impact health status or access to, or utilization of, primary care (for example, social factors, the physical environment, cultural/ethnic factors, language needs, housing status)

For more information on this health center program requirement, see <u>Chapter 3: Needs</u> <u>Assessment</u> of the HRSA Health Center Program Compliance Manual.

As part of, or in addition to, the HRSA-required needs assessment, health centers can access a robust array of public data on your community's social risk^{5, 15-21}. These include:

- <u>County Health Rankings</u> provides annual data on vital health factors such as high school graduation rates, obesity, smoking, unemployment, access to healthy foods, the quality of air and water, income inequality, and teen births.
- <u>Multidimensional Deprivation Index (MDI)</u> measures poverty and deprivation along six dimensions: standards of living, education, health, economic security, housing quality, and neighborhood quality.
- <u>National Environmental Public Health Tracking Network</u> gathers and tracks health and environmental data from the national, state, and county levels. This Centers for Disease Control and Prevention (CDC) tool allows users to search and download data in maps, charts, and tables. Dashboards such as the Environmental Justice Dashboard are also accessible.
- <u>Neighborhood Atlas</u>[®] uses the Area Deprivation Index (ADI) to rank neighborhoods by socioeconomic disadvantage. Factors included are income, education, employment, and housing quality.
- PLACES: Local Data for Better Health provides health data for all counties, incorporated
 and census designated places, census tracts, and zip code tabulation areas. Offers an
 interactive map of 29 chronic disease related measures. This data is aggregated through
 a collaboration between the CDC, the Robert Wood Johnson Foundation, and the CDC
 Foundation.

- Social Vulnerability Index (SVI) measures social vulnerability by census tracts. CDC and the Agency for Toxic Substances and Disease Registry (ATSDR) use U.S. Census data to determine social vulnerability on 16 factors mapped into four themes: socioeconomic status, household characteristics, racial and minority status, and housing type/ transportation.
- AHRQ Social Determinants of Health Database offers a SDOH database created under a Patient Centered Outcomes Research (PCOR) Trust fund project. Data, available for download and analysis, corresponds to five SDOH domains: social, economic, and healthcare context, education, and physical infrastructure and can be linked to county, zip code, and census tract data.
- <u>HDPulse</u> provides interactive graphics and maps to visualize health disparities within
 a state or county, managed by the National Institute on Minority Health and Health
 Disparities. A section on practice-based interventions and research is being developed.



Action Step: Understand social risk factors in your community. Review health center needs assessment and population level data to understand prevalent social risk factors for your service area. Use social risk data from multiple sources to drive your targeted SDOH strategy.



Identify community resources to address social risks. Informed by data on the social risk factors affecting your health center's service area, compile a list of resources and service providers to support a response. Some needs may be addressed within the health center, while other needs may require outside organizations and partners. Develop a resource list divided by service-type and identify internal and external resources that staff can refer to when addressing a patient's social needs. This resource list can include:

- local housing organizations
- transportation resources
- job-training programs
- mental health programs
- childcare or eldercare providers
- addiction recovery programs
- food banks
- other similar providers

Include contact information for each resource (address, phone number, email and contact name, if available).

Consider organizations that can help you create a social risk resource list. These organizations maintain up-to-date information on a variety of resources, by community or zip code²²⁻²³. Examples include:

- <u>211</u> offers web, phone, and text search options to connect individuals to local resources and services. Operated through a network of more than 200 organizations across the country.
- The EveryONE Project Neighborhood Navigator suggests resources for food, housing, transportation, employment, and other services, by zip code. Uses same search engine as Findhelp.org and AuntBertha.com.

In instances where community resources may not exist for identified social risk factors, health centers should continue to assess need and collect data. This data can help inform new resources and services developed by the health center or community organizations in the future.



Action Step: Identify community resources to address social risks. Develop a resource list, or share information about existing databases, to inform patients about services provided at the health center or within the community that could address their SDOH needs.



Design a workflow for SDOH *screening*. SDOH screening, and the targeted interventions that follow, requires a team-based approach. Begin by creating a step-by-step workflow for how SDOH screening will be integrated into health center processes.

When designing your screening workflow, be sure to address the following elements:

- Select the SDOH screening tool. NACHC in collaboration with the Association of the Asian Pacific Community Health Organizations (AAPCHO) and the Oregon Primary Care Association (OPCA) developed a standardized patient risk assessment tool called the Protocol for Responding to and Assessing Patients 'Assets, Risks, and Experiences (PRAPARE®) to offer a uniform process to collected data on SDOH. PRAPARE® includes 21 questions with 16 core measures designed to engage patients and assess their social drivers of health. For this Action Guide, the PRAPARE® Assessment Tool & Toolkit are used to illustrate examples, although health centers may utilize any SDOH screening tool.
- **Define target population.** If implementing SDOH screening is new to your health center, it is recommended that you test a workflow with a sample target population to allow for process improvement before expanding this workflow to your entire patient population. For example, you may choose to focus first on the patient panel(s) of one or two providers who are highly engaged and supportive of this new initiative, choose patients who are engaged in care management services, or who have a specific chronic condition.

OUTLINE SCREENING WORKFLOW

- **WHEN.** Screening could be initiated prior to the patient appointment, when the patient checks in at the front desk, during the rooming process, or after the clinical exam, for example.
- **HOW.** The patient completes the screening tool through an electronic form (iPad/tablet, text messaging), the patient completes the tool via paper form, or a staff member verbally asks the patient each question (in-person or via telehealth or phone call), for example. Because of the personal nature of these screening questions, a private or one-on-one setting is recommended to ensure the patient is comfortable and information is protected.
- HOW OFTEN. SDOH screening could occur annually, at every visit, and/or at a 'trigger event' (for
 example: a certain visit type, care management enrollment, etc.). While it is essential to have a
 standardized workflow, due to the personal nature of the screening questions and potential sensitivity
 of patient responses, flexibility may be needed to deliver the screening at a time when patients are
 most receptive to sharing.
- **WHO SCREENS.** If screening is delivered verbally, you may find that patients are more comfortable sharing information with a Community Health Worker (CHW), Care Manager, or other extended care team member that has an established care relationship or who can relate to the patient (lived experience). For details on training staff to screen for SDOH with empathic inquiry, see Step 7.
- **HOW/WHERE to DOCUMENT.** It is critical that SDOH screening be documented in the EHR. Depending on which SDOH screening tool is used, you may be able to work with your EHR representative to implement the tool directly into your EHR. Utilizing structured fields within your EHR to document screening results provides a consistent location for staff to capture this information and allows for reports to be pulled from the EHR.

For details on EHR PRAPARE® implementation, see page 32 of the <u>PRAPARE® Implementation</u> and Action Toolkit. You may need to work with your EHR representative for specific implementation questions. In addition to utilizing structured fields, Z codes may be used to capture a patient's social risk factors through coding.

The International Classification of Disease (ICD) is used by providers to document medical diagnoses. The most recent version, ICD-10 includes SDOH-related Z codes ranging from Z55-Z65 that include encounter reason codes to document SDOH²⁴. Z codes allow for easy reporting when documented in the EHR and provide a 'common language' when sharing risk factor data with payors and other stakeholders.

SDOH-Related Z Codes			
Z Code Category	Definition		
Z55	Problems related to education and literacy		
Z56	Problems related to employment and unemployment		
Z57	Occupational exposure to risk factors		
Z58	Problems related to physical environment		
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		

For more information on SDOH Z codes see <u>CMS Using Z Codes Infographic</u>. <u>LOINC codes</u> and <u>SNOMED CT codes</u> may also be used to capture additional details on SDOH screening questions and responses to improve data sharing and interoperability. For more information on the different types of codes available for use, see the <u>NACHC SDOH Coding Infographic</u> (new link). If using PRAPARE®, see also the <u>PRAPARE® Data Documentation Quick Sheet.</u>

The following HCPCS CPT codes may be used to document that an SDOH screening was conducted:

	HCPCS CPT	Description	Tips for Using
SDOH Assessment	96156	Health behavior assessment (e.g., health-focused clinical interview, behavioral observations, validated rating scales) by a qualified healthcare professional, initial assessment.	This code is used for the initial assessment of health behaviors, including screening for SDOH. It involves conducting a comprehensive interview, behavioral observations, and using validated rating scales to assess various health-related behaviors, including social determinants.
	96160	Administration of patient- focused health risk assessment instrument (e.g., health hazard appraisal) with scoring and documentation, per standardized instrument.	This code is used for the administration and scoring of a patient-focused health risk assessment instrument, such as a standardized questionnaire or survey that includes SDOH screening. It involves assessing multiple health risks, including social determinants, and documenting the results.



Once you have a screening workflow outlined, ensure your health center has a staffing plan to support screening and follow-up interventions. UDS Table 5 captures Enabling Services staffing and visit data.

Excerpt from UDS Table 5: Staffing and Utilization					
Line	Personnel by Major Service Category	FTEs (a)	Clincial Visits (b)	Virtual Visits (b2)	Patients (c)
24	Case Managers				
25	Health Education Specialists				
26	Outreach Workers				
27	27 Transportation Personnel				
27a	27a Eligibility Assistance Workers				
27b	27b Interpretation Personnel				
27c	27c Community Health Workers				
28	Other Enabling Services (specify)	·			
29	Total Enabling Services (Lines 24-28)				

Uniform Data System 2023 Manual Health Center Reporting Requirements



Action Step: Design a workflow for SDOH screening. Select the SDOH screening tool your health center will use. Test your proposed workflow, outlining how, when, and where patients will be screened and findings documented. Expand workflow to additional populations, as appropriate. Collect data on staff used to support workflow.



Design a workflow for *interventions* **to address identified SDOH needs.** Outline who and how follow-up will be done for identified needs, and how interventions provided will be documented and tracked with the patient.

DESIGN INTERVENTION WORKFLOW

- WHO FOLLOWS UP. Identify the staff role(s) responsible for connecting patients to resources and services for identified needs (using the resource list developed in Step 3).
- **HOW FOLLOW UP OCCURS.** Develop a strategy to effectively manage referrals to both internal supports and community resources. For example, use warm handoffs for internal supports including behavioral health, financial counselors, etc. and integrate external community resource referral processes into existing health center referral policies and procedures. Provide coordination and support to patients referred to external services.
- **HOW/WHERE DOCUMENTED.** Similar to screening results, utilize structured fields within the EHR to document social risk interventions. This allows staff to easily locate this information and for reports to be pulled from the EHR. Codes can also be utilized to track social risk interventions.

Visit https://thegravityproject.net/overview/ or the Gravity Confluence Portal for more

AAPCHO Enabling Services Implementation Guide; for a full list of codes and definitions, see pages 27-29.



The following HCPCS CPT Codes can be used to track social risk factor interventions:

	HCPCS CPT	Description	Tips for Using		
Addressing Food Insecurity	97802	Medical nutrition therapy; initial assessment and intervention, individual, face-to-face with the patient, each 15 minutes			
	97803	Medical nutrition therapy; re-assessment and intervention, individual, face-to-face with the patient, each 15 minutes			
	97804	Medical nutrition therapy; group (2 or more individuals), each 30 minutes			
Addressing Identified Social Risks	99401	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to an individual (separate procedure); approximately 15 minutes	These codes used for counseling and		
	99402	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to an individual (separate procedure); approximately 30 minutes	interventions aimed at promoting health, preventing illness, and reducing risk factors. They can be used to address specific needs identified		
	99403	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to an individual (separate procedure); approximately 45 minutes	through SDOH screening Should be reported together with applicable ICD-10-CM Z-code(s)		
	99404	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to an individual (separate procedure); approximately 60 minutes	which demonstrates the link or need for the preventive medicine counseling		
	99411	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to individuals in a group setting (separate procedure); approximately 30 minutes	Cannot be reported in addition to preventive medicine service codes 99381–99385 and 99391–99395 for comprehensive preventive medicine		
	99412	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to individuals in a group setting (separate procedure); approximately 60 minutes	evaluation and management of an individual (overlapping services)		



Action Step: Design a workflow for *interventions* to address identified SDOH needs. Outline who and how follow-up will be done for identified needs, and how interventions will be documented and tracked.



Optimize available billing opportunities. Billing opportunities for SDOH screening and social risk interventions will vary by payor and state. When qualifying, leverage Medicare care management billing opportunities, including new opportunities for <u>Principal Illness Navigation</u> and <u>Community Health Integration</u>. For more information on these reimbursement opportunities, view NACHC's suite of <u>FQHC Reimbursement Tips for Medicare Care Management Services</u>.



Action Step: Explore opportunities to bill for SDOH screening and interventions. View NACHC's set of Payment Reimbursement Tips for Federally Quality Health Centers (FQHCs) for Medicare care management services.



Train health center staff in SDOH screening and intervention. Establish staff training programs that create an organizational culture open to social risk assessment and patient engagement. Many social risk questions can be sensitive in nature. They may feel intrusive or reveal information that could be perceived as less desirable, judged, or unlawful²⁷. Sensitive questions can be uncomfortable for the person asking the questions as well as for the person responding to the questions. People sometimes respond by editing their answers to hide things or provide what they believe to be more socially acceptable answers. This is known as a "social

desirability bias"²⁷⁻²⁹. To avoid this tendency and gather more accurate data, it is important to build a culture of sensitivity and respect.

Use *empathic inquiry* to authentically connect with patients to understand their needs and priorities and build trust³⁰⁻³². This will ensure patients are treated with respect and consideration so they can speak honestly in a welcoming and open environment, especially when they are asked to speak about vulnerable topics²⁷. Trust between patients and providers is critical to development of appropriate care and treatment plans.

Additional information on empathic inquiry and sample staff SDOH training curriculums can be found on page 50 of the PRAPARE Implementation and Action Toolkit.

Additionally, train staff on the SDOH workflows. Consider the unique role of each staff member in the process. Training could address, for example: How can providers champion the process and help reinforce the 'why' with patients? What is the role of front office staff who may first identify literacy or language barriers and may be helpful in implementing the screening tool? How can quality improvement staff and/or data analytics staff support workflow development/improvement and data reporting efforts?



Action Step: Train health center staff in SDOH workflows and in techniques to screen and provide interventions related to sensitive subjects, using skills like empathic inquiry.



Collect and monitor SDOH data over time; use data to inform practice transformation.

SDOH data is an essential component to population health management. The staff lead (Step 1) is charged with implementing/enhancing SDOH screening and intervention workflows (Steps 4 & 5). This includes regularly assessing the scope of SDOH screenings, as well as the types and impact of interventions provided. They can also assess staff and patient feedback on the workflow.

Workflow adjustments should be made, as needed, based on findings. If workflows were tested in a smaller target population first, consider expanding to additional population(s). See the NACHC Improvement Strategy Action Guide.

As SDOH data is collected, integrate it within your health center's risk stratification process and identify areas to reduce redundancy (in questions asked and data collected in the EHR). See NACHC's <u>Risk Stratification Action Guide</u> and the <u>PRAPARE® Risk Tally Score Quick Sheet</u> for more information.



Action Step: Collect and monitor SDOH data in target groups and over time in broader populations. Incorporate SDOH data collected into your health center's risk stratification processes to inform care models and service delivery. Use data to drive efficiencies and practice transformation.



Leverage SDOH data for value-based payment and reimbursement. Health centers can use SDOH information to drive program decisions and inform value-based payment efforts.

When SDOH data is added to key reports for executive leadership and the board, it can inform organizational priorities and value-based care strategies that support the Quintuple Aim: improved health outcomes, improved patient experiences, improved staff experiences, reduced costs, and equity.

Findings can also be shared with social service organizations, providers, health plans, and consumer/patient advisory boards to identify unmet needs and advance health equity.

At the payor level, CMS continues to test Accountable Care Organization (ACO) models, including the Medicare <u>Shared Savings Program</u> with Advanced Investment Payments (AIP) to encourage health care providers in rural and underserved areas, such as federally qualified health centers,

to participate in ACOs. Additionally, CMS has given payers with Medicare Advantage plans greater discretion in determining supplemental benefits that address SDOH and Medicaid Managed Care Organizations (MCOs) have begun addressing a range of social risk factors in their payment models, as well as home-based community service programs and coordination of care.



Action Step: Share SDOH findings with payors, key partners, and policy-makers to drive value-based contracting and payment models.

References

- Kusnoor SV, Koonce TY, Hurley ST, et al. Collection of social determinants of health in the community clinic setting: a cross-sectional study. BMC Public Health. 2018 April 24;18(1):550. doi:10.1186/s12889-018-5453-2.
- 2. Health Resources and Services Administration. Health Center Program Uniform Data System (UDS) data overview. Accessed February 28, 2023. https://data.hrsa.gov/tools/data-reporting/program-data.
- 3. Kaiser Family Foundation. Community health centers in an era of health reform: an overview and key challenges to health center growth. March 2013. Accessed February 28, 2023. https://www.kff.org/medicaid/issue-brief/community-health-centers-in-an-era-of-health-reform-overview/.
- U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, Social Determinants of Health. Healthy People 2030. Accessed February 28, 2023. https://health.gov/healthypeople/priority-areas/social-determinants-health.
- Glassman B. Multidimensional deprivation in the United States: 2017. Am Community Surv Rep. 2019;(ACS-40), U.S. Census Bureau, Washington. Accessed February 28, 2023. https://www.census.gov/content/dam/Census/library/publications/2019/demo/acs-40.pdf. 2021 update available at https://www.census.gov/library/working-papers/2021/demo/SEHSD-WP2021-03.html.
- 6. Adler NE, Cutler DM, Fielding JE, et al. Addressing social determinants of health and health disparities: a vital direction for health and health care. NAM Perspect. 2016;6(9). doi:10.31478/201609t.
- 7. Booske BC, Athens JK, Kindig DA, Park H, Remington PL. County health rankings working paper different perspectives for assigning weights to determinants of health. University of Wisconsin, Population Health Institute. February 2010.
- 8. Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. Public Health Rep. 2014 Jan-Feb;129(Suppl 2):19-31. doi: 10.1177/00333549141291S206.
- 9. Artiga S, Hinton E. Beyond health care: the role of social determinants in promoting health and health equity. Kais Fam Found. May 2018.
- Committee on the Recommended Social and Behavioral Domains and Measures for Electronic Health Records; Board on Population Health and Public Health Practice; Institute of Medicine. Capturing social and behavioral domains in electronic health records: phase 2. Washington (DC): National Academies Press (US); 2015 Jan 8. doi:10.17226/18951.
- 11. Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health: final report. Geneva, World Health Organization; 2008.
- 12. Office of the Assistant Secretary for Planning and Evaluation (ASPE). Report to Congress: social risk factors and performance under Medicare's value-based purchasing programs. Accessed February 28, 2023. https://aspe.hhs.gov/reports/report-congress-social-risk-factors-performance-under-medicares-value-based-purchasing-programs.
- 13. World Health Organization. Social determinants of health. Accessed February 28, 2023. https://www.who.int/health-topics/social-determinants-of-health.
- 14. Crook HL, Zheng J, Bleser WK, Whitaker RG, Masand J, Saunders RS. How are payment reforms addressing social determinants of health? policy implications and next steps. Milibank Meml Fund. February 2021.
- 15. University of Wisconsin, Population Health Institute, County Health Rankings & Roadmaps. How healthy is your county? Accessed February 28, 2023. https://www.countyhealthrankings.org/county-health-rankings-roadmaps.
- Centers for Disease Control and Prevention. National Environmental Public Health Tracking Network, Data Explorer Tool. Accessed February 28, 2023. https://ephtracking.cdc.gov/DataExplorer.
- Center for Health Disparities Research, University of Wisconsin School of Medicine and Public Health. Neighborhood Atlas. Accessed February 28, 2023. https://www.neighborhoodatlas.medicine.wisc.edu/.
- 18. Centers for Disease Control and Prevention. PLACES: Local data for better health. Accessed February 28, 2023. https://www.cdc.gov/places/index.html.
- 19. Agency for Toxic Substances and Disease Registry (ATSDR). Centers for Disease Control and Prevention/ATSDR Social Vulnerability Index (SVI) fact sheet. Accessed February 28, 2023. https://www.atsdr.cdc.gov/placeandhealth/svi/fact_sheet/fact_sheet.html.
- 20. Agency for Healthcare Research and Quality. Social determinants of health database. Accessed February 28, 2023. https://www.ahrq.gov/sdoh/data-analytics/sdoh-data.html.
- 21. National Institute on Minority Health and Health Disparities. HDPulse, an ecosystem of health disparities and minority health resources. Accessed February 28, 2023. https://hdpulse.nimhd.nih.gov/index.html.
- 22. United Way. 211, Get connected. Get help. Accessed February 28, 2023. http://www.211.org/.
- 23. The American Academy of Family Physicians. The EveryONE project. Neighborhood Navigator. Accessed February 28, 2023. https://navigator.aafp.org/.
- 24. Centers for Medicare and Medicaid Services. Using Z codes. June 2022. Accessed February 28, 2023. https://www.cms.gov/files/document/zcodes-infographic.pdf.
- 25. Gravity Project. Introducing the Gravity Project. Accessed February 28, 2023. https://thegravityproject.net/.
- 26. National Association of Community Health Centers, Association of Asian Pacific Community Health Organizations, Oregon Primary Care Association. PRAPARE® implementation and action toolkit. June 2022. Accessed February 28, 2023. https://prapare.org/wp-content/uploads/2022/09/Full-Toolkit_June-2022_Final.pdf.
- 27. Paulhus D. Two-component models of socially desirable responding. J Pers Soc Psychol. 1984;46(3):598-609. doi.org/10.1037/0022-3514.46.3.598.
- 28. Latkin C, Edwards C, Davey-Rothwell M, Tobin K. The relationship between social desirability bias and self-reports of health, substance use, and social network factors among urban substance users in Baltimore, Maryland. Addict Behav. 2017 Oct;73:133-136. doi: 10.1016/j.addbeh.2017.05.005.
- 28. Tan L, Le MK, Yu CC, Liaw SY, Tierney T, Ho YY, Lim E, Lim D, Ng R, Ngeow C, Low J. Defining clinical empathy: a grounded theory approach from the perspective of healthcare workers and patients in a multicultural setting. BMJ Open. 2021 Sep 14;11(9). doi: 10.1136/bmjopen-2020-045224.
- 30. Riess H. The science of empathy. J Patient Exp. 2017;4(2):74-77. doi:10.1177/2374373517699267.
- 31. Decety J, Fotopoulou, A. Why empathy has a beneficial impact on others in medicine: unifying theories. Front. Behav. Neurosci. 2015; 8:457. doi: 10.3389/fnbeh.2014.00457.

This Action Guide was developed with support from the Centers for Disease Control and Prevention (CDC) cooperative agreement #NU380T000310. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, the CDC or the U.S. Government.