Social Determinants of Health

RESOURCE GUIDE

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About This Guide

The purpose of this guide is to describe the strategies used by health plans and clinically integrated networks (CIN) to address social determinants of health (SDOH).

CINs are health care providers that formally collaborate through financial incentives to ensure higher quality and better coordinated, more efficient services for patients.[2] Health plans and CINs can leverage their capacity to collect and share data and coordinate care among multiple organizations and individual practitioners that administer and/or deliver health care. They can also establish partnerships with community-based organizations (CBO) to connect people to resources that can address their social needs. Increases in payment incentives have motivated many health care organizations to adopt strategies that address the SDOH of Medicare and Medicaid recipients. Additional information on strategies used by health plans and CINs to address SDOH is currently emerging.

NCQA conducted a survey with 56 respondents as well as semi-structured interviews with qualified representatives from 19 health plans and CINs to assess organizations' motivations for addressing SDOH and methods for evaluating the outcomes associated with SDOH strategies. This guide features case studies that illustrate how SDOH strategies can work in practice. It also presents resources (e.g., health risk assessments and care management tools) that health plans and CINs can use to help patients address their unmet social needs.

This resource guide also addresses common questions that a health plan or CIN might have when embarking on different phases of this journey, including:

1. We want to help address SDOH in the population we serve. Where should we start?
2. What are the right questions to include in our SDOH assessment?
3. What data could we use to help design SDOH interventions and measure their impact?

Additionally, this guide may help practitioners understand more about resources that may be available to their patients.

Selected key terms used in this guide are defined in Table 1.

TABLE 1: Key Terms Used Throughout the Guide

TERM	DEFINITION
Health equity	"Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care."[3]
Social determinants of health	"The conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems."[4]
Social risk	The adverse social conditions associated with poor health, such as poverty and social isolation.[5]
Social needs	Immediate necessities deemed by the individual's preferences and priorities.[5]
Health disparity	A health difference that is closely linked with social, economic and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.[6]
Clinically integrated network	Health care providers that formally collaborate through financial incentives to ensure higher quality and better coordinated, more efficient services for patients. The structure of a CIN enables the support of multiple contracts.[2]
Commercial health plan	Also "health plan." Health insurance plans not paid for by the federal government. Individuals acquire coverage through their employer or by directly buying into a plan via the federal Exchange.[7]

NOTE: This Resource Guide does not replace any category of standards in NCQA Health Plan Accreditation, Population Health Program Accreditation or any other NCQA Accreditation, Certification or Recognition program, or dictate additional requirements that must be met for an NCQA survey or requirements for how value-based care should be implemented.

ABOUT NCQA AND JANSSEN SCIENTIFIC AFFAIRS, LLC

The National Committee for Quality Assurance (NCQA) is a leading nonprofit organization dedicated to improving health care quality through measurement, transparency and accountability. Since its founding in 1990, NCQA has been central in driving improvement throughout the health care system, helping to elevate the issue of health care quality to the top of the national agenda.

NCQA has created this Social Determinants of Health Resource Guide with sole sponsorship funding from Janssen Scientific Affairs, LLC (Janssen). Although Janssen had no specific input into the content of the Resource Guide, Janssen and NCQA share the belief that the future of health care delivery requires collaboration between diverse stakeholders with the shared aims of improving patient experience and population health while providing better value care. This Resource Guide helps organizations across the health care ecosystem develop their SDOH strategy and identify best practices for achieving SDOH goals.

ACKNOWLEDGMENTS

NCQA's extensive research to develop this Resource Guide involved interviews with 19 stakeholders, including CINs and health plans. These interviews were invaluable to our work and provided key insights into the types of local and nationwide interventions and programs they are using to address the social needs of their member and patient populations.

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NCQA and Janssen extend appreciation to the following two external reviewers who helped shape our work. We appreciate their dedication to the field of SDOH.

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Introduction

SOCIAL DETERMINANTS OF HEALTH: THE ELEPHANT IN THE ROOM

Social determinants of health (SDOH) are the conditions in which people live, work and play—they are the forces and institutions shaping the conditions of daily life, including political systems, public policies and social norms.[4] The *Healthy People* Initiative identified five key areas of SDOH: economic stability, education access and quality, social and community context, health care access and quality, and neighborhood and built environment.[6] Social and environmental factors play a fundamental role in the health of every individual. SDOH may be positive (promote better health) or negative (undermine health). For example, income is an SDOH. Having a high income supports better health; having a low income can be an obstacle to good health.

Every individual has a combination of positive, negative and neutral SDOH that directly affects their health. One meta-analysis found that adverse social factors such as low levels of education, high levels of racial segregation, limited social supports and poverty accounted for over a third of the deaths per year in the United States.[3] Adverse SDOH, or social risks, have long been the "elephant in the room" because their negative impact on health outcomes has been known for decades. However, health systems did not—and in many cases, still do not—have the incentives, resources or capacity to address population-level social risk, although they directly affect health outcomes.

Disparities in quality and outcomes of care often reveal social risk. Data describing a person's social needs—the immediate necessities that reflect a person's preferences and priorities—are necessary for whole-person care, which includes coordination of physical health, behavioral health and social services to promote better health outcomes and more effective use of resources.[8] Often, social needs data provide insight into services and supports a person may need to prevent or manage a health condition. However, practitioners generally lack access to social needs data and the means to address unmet social needs. A national poll showed that 85% of physicians believe that unmet social needs lead directly to worse health, that social needs are as important to address as medical needs and that addressing these needs is important to everyone (not just to low-income individuals), but only one in five (20%) physicians feel confident or very confident in their ability to address patients' social needs.[9]

The Institute of Medicine's report, *Crossing the Quality Chasm,*[10] recommended achieving equitable outcomes of care as a key aim for improvement. Equitable care means providing care that does not vary in quality because of personal characteristics like gender, race, socioeconomic status and geographic location.[11] There is a sequence of factors that result in health inequity. Systemic and institutional drivers, such as racism, sexism and classism, affect the distribution of power and resources. Unequal distribution of power and resources, and the resulting social, economic and environmental disparities, are made manifest in uneven health risk, access to high-quality care and health outcomes.[12]

Increasingly, health care organizations are recognizing and implementing efforts to address social determinants as part of an overall strategy for achieving equitable outcomes. Some states provide incentives for health systems to work with community-based organizations (CBOs) and public health systems to address adverse SDOH. In the private sector, employers have started to work with health plans, practitioners and communities to create or improve existing resources to better meet their employees' social needs. In addition, some clinically integrated networks (CINs) have started to address institutional racism and discrimination that drive disparities in treatment and inequitable health outcomes.

MOTIVATION TO ADDRESS SOCIAL DETERMINANTS OF HEALTH

Research has shown that health care has a small influence relative to the other factors that contribute to premature death in the U.S. Shortfalls in medical care impact just 10% of early deaths; factors influenced by or interacting with the SDOH, such as social circumstances, environmental exposures, genetic predisposition and behavioral patterns, impact 90% of early deaths.[13] Low educational attainment,[14] low socioeconomic status,[15] unsafe housing,[16] racism[17] and food insecurity[18] are predictors of poor health. Studies have found that a person's zip code is a better predictor of life expectancy than genetic code.[19] As a result, the National Academies of Sciences, Engineering, and Medicine recommends that health care organizations adjust clinical care to address social risk, connect patients with social needs to government and community resources and promote teamwork across organizations to organize community social care assets.[20]

Increasingly, policymakers and health care organizations view reducing the impact of negative upstream SDOH (e.g., food and housing insecurity) as a useful strategy for reducing long-term health care costs. Rising health care costs have placed an enormous financial burden on patients and families. The high costs of medical care and health insurance are more than many families can afford; medical and insurance costs also eat away at employers' bottom lines and strain government budgets.

In response, policymakers have promoted shifts in care delivery and financing from volume to value, such as the 2010 Affordable Care Act (ACA) and the 2015 Medicare and CHIP Reauthorization Act (MACRA), which increased health care providers' accountability for health outcomes. The ACA extended health insurance coverage to more than 27 million Americans. This has allowed health care organizations to concentrate resources and creativity on addressing SDOH, rather than filling gaps in coverage, and expand population health improvement efforts beyond disease management to more upstream activities.[21]

Medicare Accountable Care Organizations (ACO), also a product of the ACA, bear financial risk for minimizing total cost of care and improving quality for their patient populations.[22] Some ACOs address SDOH by collecting information about social needs, securing patients transportation for nonemergency medical care, helping patients enroll in social services and addressing social isolation.[23] Some have cited ACO financial incentives for practitioners as an impetus for broadly addressing patient needs, including nonmedical, through better care coordination and integration.[23]

The Centers for Medicaid & Medicare Services (CMS), through ACA authority, also established Accountable Health Communities, composed of health care organizations and CBOs that screen for social needs (e.g., food and housing insecurity) and test strategies for integrating health and social services.[21] A majority of states require managed care plans to screen Medicaid beneficiaries for unmet social needs.[24] Recognizing the potential benefit for savings and better health outcomes, health plans and CINs have begun to adopt these strategies for privately insured populations.

Employers, too, increasingly recognize how adverse SDOH can lead to lost productivity and high health care costs for employees. For instance, workers may forgo or delay preventive care because they do not have child care or transportation, or they may use emergency services because they do not know about lower cost options. Commercial health plans have a unique opportunity to leverage relationships with employers to develop partnerships, create programs and improve health outcomes for employees.

Natural disasters have highlighted the intersection between SDOH and disaster vulnerability. The U.S. has been hit by numerous Category 5 hurricanes, including María, which practically leveled Puerto Rico and the Virgin Islands in 2017, and Katrina, which devastated cities along the Gulf of Mexico in 2005.[25] The California wildfires of 2018 killed dozens of people and destroyed almost 18,000 structures, leaving many people homeless.[26] Most recently, the 2020 coronavirus pandemic caused almost 200,000 deaths in the U.S. alone,[27] led to unemployment rates not seen since the Great Depression,[28,29] and exacerbated long-standing disparities and social need.[30,31]

People at greatest risk for death from COVID-19 are among the most vulnerable groups, including those with pre-existing conditions,[32] who are more likely to be of lower socioeconomic status or a racial and ethnic minority.[12,33] Racial and ethnic minorities and low-income individuals, who are more likely to work in service industries, are also at greatest risk of exposure to the virus and are some of the hardest hit by the global economic shutdown.[34] These factors are some of the many that have motivated health care organizations to work to address upstream determinants of health.

NCQA AND SOCIAL DETERMINANTS OF HEALTH

NCQA is committed to addressing SDOH through its products and programs. NCQA has a variety of evaluation programs for health plans, case management organizations, CBOs and patient-centered medical homes (PCMH). Each program includes standards related to SDOH.

NCQA **Health Plan Accreditation** is the most comprehensive evaluation in the industry and the only assessment that uses results of clinical performance (HEDIS [Healthcare Effectiveness Data and Information Set] measures) and consumer experience (CAHPS®[35] [Consumer Assessment of Healthcare Providers and Systems] measures). In 2018, NCQA created a new category of Health Plan Accreditation standards: Population Health Management (PHM). The PHM standards include requirements for population-level assessment of SDOH. Health plans must assess the characteristics and needs of their member populations, including SDOH, and review community resources for integration into program offerings to address member needs. Health Plan Accreditation helps health plans win business, meet regulatory requirements and distinguish themselves from the competition.

NCQA's **HEDIS Measures** currently include Diversity of Membership measures. For two years, Medicare Advantage plans have reported HEDIS data stratified by beneficiary status. NCQA plans to roll out stratified HEDIS reporting for other product lines in the future.

The **PCMH Recognition Program** focuses on quality primary care. PCMHs must also show that they address the individual needs of their patients, including SDOH. In order to become an NCQA-Recognized PCMH, practices must demonstrate that they have evidence-based structures—such as standards for data collection, care management protocols and systems for information sharing—to provide high-quality care. These standards are in support of addressing SDOH.

NCQA's **Multicultural Health Care Distinction Program** identifies organizations that excel in providing culturally and linguistically appropriate services (CLAS) and work to reduce health care disparities. To earn this Distinction, health plans demonstrate that they collect data on race, ethnicity and language and that they use the data to improve services for minority groups. Health plans must also demonstrate that they maintain a practitioner network that is capable of serving their diverse membership.

NCQA's **Population Health Accreditation** standards provide a framework for organizations to standardize care, become more efficient and manage complex needs better. This helps keep members healthier, reduce risks and prevent unnecessary costs from poor care management. The NCQA Population Health Accreditation program evaluates organizations in data integration, population assessment, population segmentation, targeted interventions and practitioner support.

NCQA's **Long-Term Services and Supports (LTSS) Accreditation program** requires organizations to screen patients for SDOH. LTSS are supportive services (e.g., help with getting dressed, mobility, shopping, cooking) to help people complete daily self-care tasks. As states shift from fee-for-service to managed care, increasing numbers of people with complex needs are moving into managed care plans holding NCQA Accreditation. Managed care plans and CBOs need a common language and framework for coordinating LTSS with medical care.

THE NCQA POPULATION HEALTH MANAGEMENT CONCEPTUAL MODEL

NCQA developed the PHM Conceptual Model (Figure 1) to outline activities that comprise a comprehensive strategy for addressing needs across the continuum of care.[36] The model addresses how various entities can share accountability and collaborate on interventions to develop a complete PHM strategy. PHM approaches care delivery by concentrating on the needs of the whole person instead of a disease-centered approach.

The focus of the PHM model is to address an individual's needs outside the treatment of disease and illness through care delivery. Assessing SDOH is a critical aspect of PHM since comprehensive care cannot be delivered without addressing SDOH. Approaches to understanding and targeting SDOH can be incorporated into organizations' PHM strategies. The PHM model can be a lens to organize SDOH approaches into larger components relevant to PHM programs for health plans and CINs.

FIGURE 1: NCQA Population Health Management (PHM) Conceptual Model

THE SOCIAL DETERMINANTS OF HEALTH RESOURCE GUIDE

This Resource Guide is divided into six sections, forming a progression of activities organizations have employed to address adverse SDOH:

SECTION 1: Assessment Design. Approaches to assessing SDOH for a defined population.

SECTION 2: SDOH Data. Approaches to identifying the SDOH data used to define populations in need of interventions and for decision making on targeting interventions, determining resources needed, connecting people to resources and assessing intervention effectiveness.

SECTION 3: Data Sharing, Integration and Quality. Approaches to evaluating and sharing data and integrating multiple data sources to inform selection of interventions to address population needs.

SECTION 4: Collaboration with CBOs. Approaches to collaboration among health care, social and human services and government to meet community needs.

SECTION 5: Measurement and Evaluation. Approaches to targeting social interventions and assessing their impact.

SECTION 6: Quality Improvement. Approaches to continuous improvement of SDOH programs and interventions.

Each section includes in-the-field examples that highlight real-world strategies and initiatives used by health plans and CINs to address SDOH.

Assessment Design

The four main aspects of assessment design are: whom to assess, what to assess, what questions to ask and how to implement the assessment. This section discusses the four main aspects of assessment design and how organizations have overcome common barriers to assessment.

PROGRAM DESIGN: DETERMINING A FOCUS

"A vision without a strategy remains an illusion."[37] Once an organization has made addressing SDOH a strategic priority, it is time to implement an action plan. These plans often involve choosing where to spend resources, how to engage patients or members for SDOH screening and referrals or developing and administering intervention programs.

An SDOH assessment program generates data about adverse SDOH factors relevant to the population, which can inform decisions about where to target resources to address adverse SDOH. No SDOH assessment programs included in this guide address protective SDOH; rather, they focus on identifying social risks of a population and social needs of individuals. High-quality data from multiple sources will be most valuable for targeting interventions. The assessment design considers the following factors:

1. What population is the organization trying to serve? (Characterize the entire population.)
2. What subset of the population is most likely to benefit from SDOH intervention?
3. What methods will the organization use to reach that population?
4. What SDOH factors does the organization need to be aware of or want to help address? Which SDOH areas will have the greatest impact if addressed?
5. Which SDOH areas have existing community resources, and where are there gaps in resource availability?
6. Which SDOH areas are within or outside the organization's scope or purview? Where is it appropriate to partner with community organizations doing this work?

Designing an SDOH program involves answering the basic questions: Who, what, when, where, why and how.

Who Will Be Assessed?

Understanding more about the characteristics of its population as a whole can help an organization determine how to target an assessment program to members who can benefit most from SDOH interventions.[38] Although some organizations conduct universal assessment, not all have the resources and budget to do so. Determining whom to assess might depend on organizational or community resources and the prevalence of social risk factors in the population. Some organizations start with high-risk individuals and expand to larger populations once workflows are in place.

Population characteristics can be used to determine what population segments to assess, what SDOH the assessment covers and the assessment method. An organization can follow various approaches to defining its population, although this decision may be shaped by organizational mission or funding. Table 2 presents approaches to identifying the population to be assessed.

Once the organization better understands its population, the next step is to identify a systematic way to assess for specific SDOH and social needs. SDOH assessment can identify groups that could benefit from particular services or interventions.

TABLE 2: Population Identification Strategies with Representative Program Examples

POPULATION IDENTIFICATION STRATEGY	PROGRAM EXAMPLES
Universal SDOH Assessment Organizations can assess an entire patient or member population for unmet social needs with a universal screening tool, often administered at the point of care. **Limitations:** Individuals facing barriers to care, often caused by SDOH factors, may not have regular encounters with healthcare and would be missed in assessment.	The American Academy of Pediatrics recommends universal SDOH screening for of all pediatric patients to help connect families with local resources.[39] The American College of Physicians promotes increased screening and collection of SDOH data to support health impact assessments and drive evidence-based decision-making.[40]
Hot Spotting Organizations can identify a community, defined by zip code or local zoning, to assess for unmet social needs. Community-level population health metrics from Census and clinical data, can identify "hot spots"—communities with high levels of social risk or poor health outcomes. **Limitations:** Organizations may invest in community-level interventions without knowing if their own patients or members will benefit.	UnitedHealthcare Empowering Health provides grants to purchase freezer trucks for community food banks.[41,42] Summer meals for children were offered during ED visits to connect families with the U.S. Department of Agriculture's Summer Food Service Program (SFSP).[43]
Predictive Modeling and Machine Learning Organizations can use predictive modeling and machine learning to analyze cost, utilization and other data to identify candidates for screening. Organizations may first administer a low-resource-intensive, high-sensitivity social needs screening tool to identify potential cases, then follow up with potential high-risk cases to confirm social needs using a more resource-intensive, high-specificity assessment.[44] **Limitations:** The highest-performing models often provide fewer interpretable results. Because these approaches are designed to work at the population level, it may not be clear which factors are flagging specific individuals as high risk.[44]	Kaiser Permanente of Colorado used electronic health record (EHR) and utilization data to predict need in a Medicare population. The model showed that the highest-risk members had a 3-fold greater risk of food insecurity than the population as a whole and over a 10-fold greater risk than lowest-risk members.[45]

TABLE 2: Population Identification Strategies with Representative Program Examples (Cont.)

POPULATION IDENTIFICATION STRATEGY	PROGRAM EXAMPLES
Group-Based Risk Identification Organizations may use retrospective analysis of claims and patient record data to identify a population for SDOH assessment based on membership in a group known to have social needs. For example, selection criteria might include case management program enrollment, insurance type, area of residence, or other characteristics associated with high social needs (e.g. veteran status; English as a second language; live alone). **Limitations:** People outside of selected groups may have social risks and not all members of selected groups may be at risk.	Type 2 diabetics are often a focus of SDOH screening due to the impact of food insecurity on disease progression.[47] A small number of patients with complex medical and social needs drive a large proportion of health care costs. Numerous interventions have attempted to reduce health care utilization and cost for these "super-utilizers."[48] Dual-eligible (Medicare + Medicaid) member risks are different from those of commercially insured members.[49] Children living in communities with significant exposure to fine particulate matter may have more frequent asthma symptoms, leading to ED utilization or rescue inhaler prescriptions.[50] The VHA has a program for rural case management for elderly veterans and the department of Housing and Urban Development provides Veterans Affairs Supportive Housing (HUD-VASH) vouchers.[51,52] A screening program found that Spanish-speaking Hispanic patients were disproportionately impacted by unmet social needs.[53] A variety of interventions have been evaluated to target social isolation and loneliness, to improve health and/or health care utilization.[54]

The following example describes how a CIN, Baylor Scott & White Health, capitalized on a moment of growth—a merger between two health systems—to implement a universal EHR-embedded SDOH assessment tool. Although there are no results to date, the example provides a view of the process this organization uses to screen all patients. The example that follows from Cigna describes a categorical approach to assessment.

IN-THE-FIELD EXAMPLES AND TOOLS: Baylor Scott & White Health

Situation: Baylor Scott & White Health (BSWH), the largest non-profit health system in Texas, comprises 50 hospitals and over 6,000 access points, most of them primary care clinics. BSWH patients with unmet social needs have more preventable ED visits, hospital readmissions and increased long-term costs of care.

Solution: In March 2019, BSWH implemented an SDOH screening tool in its EHR to assess patients' social needs. Patients are screened for tobacco use, alcohol use, depression, social isolation, food insecurity, transportation and financial insecurity. Screening is administered by a medical assistant, nurse or physician—some questions are asked at every encounter, while others are asked once a year. EHR-based screening supports consistency in the questions asked and resources recommended across facilities. The EHR includes a community resource directory that enables staff to match patients to resources that will be the most useful. BSWH monitors screening rates across facilities and educates lower-performing clinics on best screening practices.

Results: As of January 2020, 1.84 million patients have been screened.

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

IN-THE-FIELD EXAMPLES AND TOOLS: Cigna

Situation: Cigna* recognizes that SDOH can be a cause of distress in cancer patients, negatively impacting their ability to access treatment and achieve positive health outcomes. Although the American Academy of Surgeons added distress screening to its accreditation standards for cancer programs in 2012,** Cigna found that in practice, many patients went unscreened due to the difficulty of incorporating screenings into providers' workflows.

Solution: Cigna developed a standardized distress screener that it coupled with case management for positive screens. It used the National Comprehensive Cancer Network distress screening tool,*** a distress "thermometer" and problem list with five domains (physical, family, emotional, practical and spiritual/religious), converting the paper and pencil tool into a telephone screener. On the day of the telephone appointment, case managers use the tool to gauge patient's distress and define its causes. Cigna adapted this telephone screening tool to let oncology case managers quickly check in on patients during appointments to gauge their distress levels.

Based on the severity of the distress and the problems identified, the case manager—a Cigna oncology nurse—calls the ordering oncologist to share screening results and interventions implemented. This lets the oncologist work with the patient in the clinical setting, while the oncology case manager works with the patient by telephone to address their needs at home.

Cigna found that oncology case management patients often need help getting food on the table or paying their utilities or medical bills. Case managers connect them with helpful services such as transportation assistance, community support programs and behavioral programs.

Results: In the initial pilot, half the oncology case managers used the tool and half did not. 54% of case management patients screened with the tool reported mild or greater distress. Screened patients were 16% more likely to be referred to internal and external resources, participated in case management 73 days longer and were 2.7 times more likely to achieve case management goals than patients who were not screened. There was also a 14.7% reduction in inpatient visits, a $6,840 reduction in yearly inpatient costs per patient and an increase in behavioral case management utilization.

Cigna attributes patients' increased engagement and reduced inpatient utilization and cost to the use of the distress screening tool and subsequent changes to their case management plan. The tool may have also improved oncology case managers' ability to identify needs and offered patients a method for discussing psychosocial needs without fear of stigma. Cigna also learned that showing immediate interest in meeting patients' needs resulted in their increased engagement—patients were more likely to answer Cigna's phone calls and interact with the plan. Cigna is conducting additional review to further assess the impact of this program.

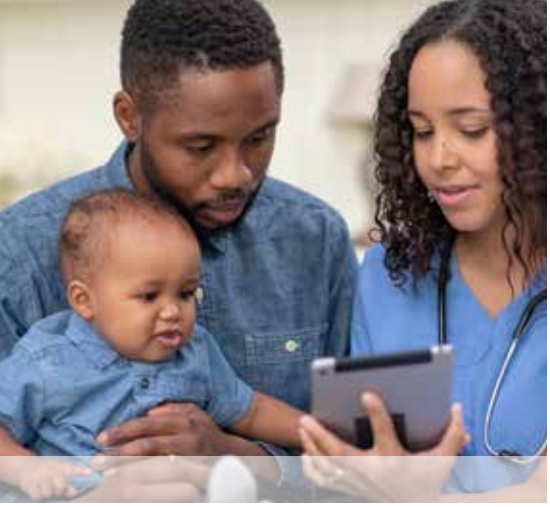
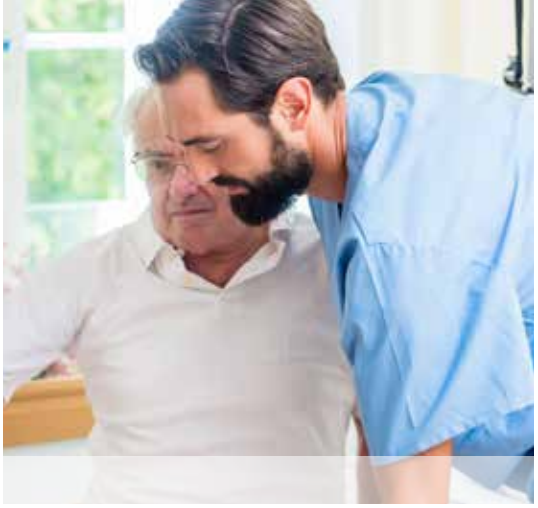
These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

*"Cigna" refers to health care operating subsidiaries of Cigna Corporation, including Cigna Health and Life Insurance Company.

**Kendall, Jeffrey. (July 2018). Oncology Distress Screening: Integral to Patient-Centered Care. HealthWell Foundation. Retrieved from https://www.healthwellfoundation.org/story/oncology-distress-screening-integral-to-patient-centered-care

***National Comprehensive Cancer Network. (February 2018). NCCN Distress Thermometer and Problem List for Patients. Retrieved from https://www.nccn.org/patients/resources/life_with_cancer/pdf/nccn_distress_thermometer.pdf

^Swanson, AJ, Castel, LD, McKenna, PA, Shen, YA, and Sagar, B. (2019). Integration of the National Comprehensive Cancer Network (NCCN) Distress Screening Tool as a Guidepost for Telephonic Oncology Case Management. Professional Case Management Journal 24(3), 148-154.


Commercial health plans can collaborate with employers to identify and address the needs of employee populations facing SDOH barriers to care. Understanding the value of potential reductions in health care costs and improvements in employee productivity, employers collaborate with healthcare organizations to assess employee needs and devise upstream, value-based solutions to improve health outcomes. The following example illustrates how Aetna has used analytics to assess the social risks of specific employee populations to target interventions to fulfill their needs.

IN-THE-FIELD EXAMPLES AND TOOLS: Aetna

Situation: Aetna sees potential for employers to be powerful change agents in improving the health of their employees. From the employer's perspective, social determinants represent a "profound business challenge," one felt through increased health plan costs, productivity losses and diminished health equity. And for employees and their families, SDOH are a seemingly insurmountable barrier preventing them from achieving optimal health. Toward that end, working with employers and applying advanced analytics, Aetna is deploying focused solutions to improve worker health and lower plan costs.

Solution: Aetna uses its Health Equity Framework to provide an at-scale analytics solution for employers to understand—and quantify—the cost of social determinants on employee and dependent populations. Core to analysis is Aetna's SDOH Index, an algorithm that creates a composite score indicating how likely an individual (and associated health care claims, engagement, risk and outcome data) is to be negatively impacted by social determinants of health. To contextualize results, Aetna's Plan Sponsor Insights team—an internal analysis- and clinical-oriented benefits consulting team—then organizes disparity metrics* into four categories: navigation, engagement, outcomes, and lifestyle. From there, Aetna engages an expanded set of employer and business partner stakeholders to build upon analysis findings, seeking to understand the root cause factors driving identified disparities.

While each plan sponsor's situation is unique, Aetna applies interventions to remediate social determinant disparities originating from four primary sources: plan sponsor, Pharmacy Benefit Manager/Aetna, community organizations and providers/network. To date, Aetna has partnered with 10 progressive employers in pilot studies to assess and implement remediation opportunities. The organization continues to integrate learnings from its partnerships into its ART plan sponsor analytics and insights platform, scaling SDOH analysis and insights to reach Aetna's 5,000+ large group customers across the nation. Aetna hopes to empower employers to pursue solutions that benefit employees most in need while satisfying their bottom line in a way that supports all stakeholders.

Results: Preliminary findings from Aetna's 10 employer pilots show that over 5% of total health plan costs each year are attributable to unaddressed disparities related to SDOH, and an even larger percentage for costs associated with lost productivity. Excess costs come in part from lower spending on preventive and primary care, which in turn results in significantly increased ED utilization and hospital admissions. These higher need groups are also more likely to use out of network providers and less likely to receive care from Centers of Excellence.

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

*For more information on disparity metrics, visit https://view.highspot.com/viewer/5e27240f78e87d27b2ce09af.

What Will Be Assessed?

There are three different approaches to assessment of SDOH: strengths-based assessment, needs-based assessment and risk-based assessment. Strengths-based assessment focuses on measuring a patient's positive or protective factors that help them take actions toward improved health (e.g., relationships, methods for dealing with stress, ability to access resources). It is more often used in behavioral health than in physical health care and has the advantage of capturing an individual's ability to thrive even in adversity.[55] Strengths-based assessments are often preferred to the more "narrow models that emphasize people's vulnerability, the power of disease processes and professional expertise."[55]

Risk-based and needs-based assessments are more commonly used in medical settings. Risk-based assessment captures individual characteristics associated with poor health outcomes. Poverty, minority race, ethnicity, sexual orientation or gender identity and primary language other than English are all examples of characteristics associated with higher risk for poor health. Identification of at-risk patients is clearly important, but focusing on risk factors alone will not identify which individuals need services—which services are needed—and what the patient's health outcomes will be.[55] To focus more practically on connecting individuals to services that may improve their health, some organizations use a needs-based assessment. Needs-based assessment gauges individuals' immediate unmet needs based on their preferences and priorities.

There are several excellent catalogs of screening and assessment tools, including one from the Kaiser Permanente Washington Health Research Institute in collaboration with SIREN,[56] one from Health Leads[57] and a recent review paper by Moen.[58] Two common SDOH assessment tools include the National Association for Community Health Centers (NACHC) Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) tool[59] and the Health Leads[60] model. The PRAPARE assessment tool was developed for use by community health centers, but it has been adopted across the continuum of care. It contains a set of validated questions that can be selected based on a user's priorities. The PRAPARE tool aligns with national initiatives prioritizing social determinants[61] (e.g., Healthy People 2020), clinical coding under International Statistical Classification of Disease and Related Health Problems, 10th Revision (ICD-10)[62] and health centers' Uniform Data System (UDS).[63] PRAPARE EHR templates exist for systems such as eClinicalWorks,[64] Epic[65] and NextGen,[66] and are available as part of the PRAPARE Implementation and Action Toolkit.[67]

Health Leads offers a software solution that combines a resource database, social needs assessment and analytics. Health Leads' *The Essential Needs Roadmap* guides organizations through creating a program to address patient's SDOH and is available free of charge on the Health Leads website.[68]

What Questions Will Be Asked?

There is limited scientific evidence in favor of asking about a specific SDOH concept or asking questions in a particular way. The U.S. Preventive Services Task Force (USPSTF) issues recommendations when there is high certainty that the net benefit of a service is substantial. The USPSTF recommends screening for intimate partner violence, elder abuse and abuse of vulnerable adults.[69] It has not made recommendations on SDOH assessment for transportation, food insecurity, safety, housing, financial situation, education and social connections,[70] and indicated that current evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment.[71]

In the absence of strong evidence supporting screening for specific SDOH factors, organizations often use existing SDOH screener questionnaires based on their areas of interest, their service capabilities or on the perceived needs of their population. There are many questions available for inclusion in an assessment of each area of interest/potential need.

An organization might consider the social risks in the population and the local resource landscape when choosing specific questions or tools to evaluate individual social needs. For example, if housing insecurity is a major issue in the population served, a question about recent experience with homelessness might be appropriate; if housing insecurity is less prevalent, a question about the risk of potential homelessness might be more relevant. See Table 3 for examples of questions about housing security.

The local resource landscape is also relevant to selecting questions. If specific resources (subsidized housing, homeless shelters, rent assistance, homelessness prevention programs) are not available, asking if those resources would be helpful does not help the individual in need, although such questions may be useful in making a case for programmatic funding.

TABLE 3: Example Assessment Questions Pertaining to Housing Security

	QUESTION	LANDSCAPE	RESOURCES	VALIDATED
A	Do you think you are at risk for becoming homeless?[72]	Subsidized housing may have long wait lists in certain localities but getting signed up is the first step.	• Housing shelters[73] • Subsidized housing[74] • Financial assistance	Yes
B	An eviction is when your landlord or a government or bank official forces you to move when you don't want to. In the past five years have you ever been evicted?[75]	Legal aid and medical legal partnerships can assist in preventing and postponing evictions.	• Legal aid[76] • Medical legal partnerships[77,78] • Financial assistance	No
C	How often in the past 12 months would you say you were worried or stressed about having enough money to pay your rent/ mortgage?[79]	Non-housing related subsidies such as food or child care subsidies can free up money to help pay rent. Financial counseling and tax preparation assistance can also assist.	• Medical-financial partnerships[80] • Tax preparation assistance[81] • Subsidized housing[74] • Child care subsidy to allow for work outside of home • Supplemental Nutrition Assistance Program (SNAP) benefits[82] or food banks[83] • Free and reduced lunch programs through schools	Yes
D	In the last month, have you slept outside, in a shelter, or in a place not meant for sleeping?[84]	Housing shelters and emergency housing programs can help people in immediate-need situations.	• Housing shelters[73] • Subsidized housing[74] • Emergency shelter[85] • Homeless liaison programs[86]	Yes
E	Are you worried or concerned that in the next 2 months you may NOT have stable housing that you own, rent, or stay in as part of a household?[87]	Research shows that interventions to prevent homelessness are more cost effective than addressing issues after someone is already homeless.[73]	• Foreclosure prevention counseling[88] • Rapid rehousing[89]	Yes

Although an organization could develop and validate its own questions, organizations often find it most expedient to implement previously developed and validated assessment questions or tools. Using validated instruments offers greater assurance about the quality of assessment data. The following SDOH assessment, Figure 2, is an example created by Montefiore, a health system based in New York state. Montefiore adapted its SDOH screening tool from pre-validated tools and customized the tool to its workflow and population.

FIGURE 2: Montefiore's 10-Question SDOH Survey[90]

	QUESTION	YES | NO
	Are you worried that in the next 2 months, **you may not have a safe or stable place to live?** (risk of eviction, being kicked out, homelessness)	Y N
	Are you worried that the **place you are living now is making you sick?** (has mold, bugs/ rodents, water leaks, not enough heat)	Y N
	In the past **3 months,** has the **electric, gas, oil or water company threatened to shut off services to your home?**	Y N
	In the last 12 months, did you worry that **your food could run out before you got money to buy more?**	Y N
	In the last **3 months,** has **lack of transportation kept you from medical appointments or getting your medications?**	Y N
	In the last **3 months,** did you have to **skip buying medications or going to doctor's appointments to save money?**	Y N
	Do you **need help getting child care or care for an elderly or sick adult?**	Y N
	Do you **need legal help?** (child/family services, immigration, housing discrimination, domestic issues, etc.)	Y N
	Are you **finding it so hard to get along with a partner, spouse, or family members that it is causing you stress?**	Y N
	Does anyone in your life **hurt you, threaten you, frighten you or make you feel unsafe?**	Y N

Who Conducts the Assessment and How?

An organization's choice of assessment method depends on whether it conducts targeted or universal assessment, the literacy of the population, the length of the assessment instrument, the availability of staff and technology and where the assessment fits in the clinical workflow.

Depending on the organization, a variety of practitioners may have responsibility for SDOH assessment. Physicians, care managers, community health workers, social workers, nurses or other practitioners may all conduct the assessment, or a patient may self-assess.

Organizations have implemented different methods for assessing SDOH. Several assessment methods, which can be used alone or in combination, are described below:

- **Verbal in person.** A physician, social worker, care manager or medical assistant screens for SDOH during an in-person appointment.
- **Verbal remote.** A care manager or other practitioner telephones the individual and screens for SDOH between appointments. Results are discussed during the appointment or reviewed by the practitioner later.
- **Written.** The individual fills out a written SDOH assessment in the office before an appointment, or online or via mail. Results are discussed during the appointment or reviewed by the practitioner later.
- **Kiosk/tablet.** Individuals fill out an SDOH assessment via kiosk or tablet in the waiting room before an appointment. Results are discussed during the appointment or reviewed by the practitioner later.

The following examples describe two health care organizations' experiences conducting SDOH assessment. The first describes the iterative process used by Montefiore to identify the best assessment approach for its organization and patient population. The second describes a creative mechanism Baylor Scott & White Health (BSWH) implemented to expand assessment capacity.

IN-THE-FIELD EXAMPLES AND TOOLS: Montefiore Health System and ACO

Situation: Montefiore is a CIN serving 1.4 million residents in The Bronx, New York (the nation's poorest urban county) and across the Hudson Valley. Its patient population is 54% Hispanic and 37% African American, with a median annual household income of $34,000. Montefiore's per capita health expenditures are 22% higher than the national average. Given this high-risk, high-need population, understanding SDOH has always been central to Montefiore's care approach.

Solution: Montefiore uses three tools for identifying social risk among its population. The first is a brief (10 questions) paper-based SDOH screening survey administered to patients at check-in across Montefiore's primary care practices and E.Ds. The second is a comprehensive needs assessment administered to patients enrolling in care management. The third is a risk assessment model used to identify patients for whom care management may be appropriate.

When patients self-identify a need using the SDOH screening tool, the EHR alerts their care team (often composed of a primary care provider, medical assistants and educators), which then makes a referral or recommendation. Practices have the flexibility to determine how they screen: Some screen all new patients; others screen periodically (e.g., annually) at appointments. Patients with more complex needs are offered enrollment in the care management program directed by CMO, Montefiore's care management division.

Social workers and community health workers administer SDOH screening in various settings, checking for cultural competency, language fluidity and overall patient engagement, including response rates and rates of positive screenings. To make the screening tool more accessible to Montefiore's diverse patient population, the tool has been translated into multiple languages. Montefiore continues to explore ways to strengthen the tool, such as by incorporating the use of ICD-10-CM codes for SDOH, to ensure that care teams document the highest level of health care complexity.

Montefiore CMO providers administer the comprehensive needs assessment to patients as part of the care management enrollment process, to help develop care plans that include both individual lifestyle and clinical values. If an identified need cannot be met by Montefiore's internal partners, providers use an online referral system, NowPow,* to match patients with external community resources (e.g., food bank).

The risk assessment and stratification model helps ACO providers identify patients who may have complex social needs and qualify for care management services. It is based on 3M's Clinical Risk Groups model, used by the New York State Medicaid program.** It incorporates SDOH information and health care utilization data to create prioritized patient lists, which are shared with providers to facilitate inbound referrals for care management services.***

Results: Since 2018, almost 50,000 SDOH screening questionnaires have been completed across the system. Approximately 80% of Montefiore's population flows through a value-based payment model; from 2018–2019 Montefiore saw reductions in preventable readmissions for diabetes (6 fewer cases per 1,000 patients), heart failure (25 fewer cases per 1,000 patients) and chronic renal failure (30 fewer cases per 1,000 patients). Patient satisfaction also improved for several measures, including health care education (8% increase) and shared decision making (17% increase).

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

*For more information on NowPow, visit https://www.nowpow.com

**Medicaid Redesign Team, New York State Department of Health. (June 2016), A Path toward Value Based Payment: Annual Update, New York State Roadmap for Medicaid Payment Reform. Retrieved from https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/2016/docs/2016-jun_annual_update.pdf

***To learn more about Montefiore's use of 3M's CRG model, visit https://multimedia.3m.com/mws/media/1465683O/3m-clinical-risk-groups-real-results-eguide.pdf.

IN-THE-FIELD EXAMPLES AND TOOLS: Baylor Scott & White Health

Situation: Baylor Scott & White Health (BSWH), the largest non-profit health system in Texas, comprises 50 hospitals. With over 6,000 access points, most of them primary care clinics, BSWH services include primary care, outpatient and specialty services, ambulatory clinics and urgent care. Screening for social needs requires increased staff time and resources.

Solution: BSWH drew on the Health Leads* model to develop its Community Advocates program, an internship program that pairs trained volunteers from local colleges with front-line care coordination staff to screen patients for social needs and connect them with community resources. The Community Advocates program uses aspiring health care professionals—"community advocates"—to perform patient screenings, referrals and patient health education. This model frees up provider time to perform other tasks and provides students with valuable field experience. Providers may refer patients to get screened or community advocates may identify patients eligible for screening from the EHR and screen them in the exam room or over the phone.

Results: In the first two years of the program (2017–2019), more than 3,000 patients were screened for social needs. Over 91% of patients screened had a social need and were referred to a community resource. BSWH plans to evaluate whether the Community Advocates Program improves health care outcomes.

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*For more information on Health Leads' tools and resources, visit https://healthleadsusa.org/resource-library.

In addition to choosing a method for conducting assessments, organizations need to determine the frequency of assessment. Each question or data element may have unique timing or collection frequency.

Considerations for determining frequency include:

1. How often does a patient's status change for the question?
2. How often would the answer need to be collected for it to be considered accurate, and when would it be considered out of date?

Information about topics with immediate effects (e.g., safe home environment) may need to be asked more often than other questions (e.g., education level) that will change less often or with fewer immediate, potentially harmful results.

For the assessment to be useful, it must be documented. Staff or clinicians responsible for documentation need guidance to distinguish between documentation of no need and when an assessment question has not been addressed, or when a need is identified but the patient does not want assistance. Considerations include where (e.g., EHR, case management files) and how (e.g., scan patient-completed form, text notes, coded values) to document assessment information. Refer to the *SDOH Data* section for a more complete discussion of coding for SDOH. The following in-the-field example describes how Integrated Health Partners, a CIN, developed and implemented its SDOH assessment.

IN-THE-FIELD EXAMPLES AND TOOLS: Integrated Health Partners

Situation: Integrated Health Partners (IHP) is a physician organization serving Calhoun County and surrounding areas in Southwestern Michigan. IHP's primary care practice care managers have discussed SDOH and barriers to care with their patients for years but lacked a standardized way to ask questions and categorize responses.

Solution: As part of the Michigan State Innovation Model (SIM),* IHP rolled out a comprehensive, paper-based SDOH screening questionnaire. The questionnaire was developed by the state and adapted from Health Leads, and screens for social risks in nine SDOH domains: health care, food, employment, income, housing, personal safety, environmental safety, transportation and education. Patients complete the questionnaire during an office visit check-in; most practices screen all patients at least once a year. Patients who screen positive for a social risk are referred to appropriate resources by the onsite care manager.

To support care managers and promote collaboration between practice care managers and community organizations, IHP created and facilitates a care management collaborative with quarterly meetings at which information is shared and tests of change are developed. A "speed-dating" event allowed community organizations to educate care managers on service offerings and best practices for managing common conditions such as behavioral health issues and violence.

A subset of collaborative members recently joined IHP's team-based learning collaborative, that is tracking IHP practices' utilization of the screener and their positive screening and referral rates. IHP plans to develop a standardized screening tool for integration into practices' EHRs that will be electronically captured by IHP; SDOH and referral information will then be transmitted to the Michigan Health Information Network to be aggregated across the state.

Results: To date, outcome data for this initiative has been largely anecdotal because screening and referral data are not yet integrated into the EHR. Care managers have expressed that work with SDOH and the learning collaborative experience have contributed to job satisfaction. "Care managers are able to connect people to the community resources they need, and the difference that makes in their lives, that's a job satisfier for the care managers and the care coordinators," explained Ruth Clark, IHP Executive Director.

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*Michigan Department of Health and Human Services. (2020). State Innovation Model. Retrieved from https://www.michigan.gov/mdhhs/0,5885,7-339-71551_64491---,00.html

OVERCOMING BARRIERS TO ASSESSMENT

The literature highlights several barriers to collecting SDOH-related sociodemographic data such as race; ethnicity; primary language; sexual orientation; practitioners don't know which questions to ask, how to word the questions or the best methods to use to survey patients; and practitioners are apprehensive that asking personal questions might disrupt the clinical relationship.[91–93] There is also concern about using limited clinician time to ask these questions, and physician practices may lack the resources to carry out routine social needs assessment.[94]

Studies have shown that patients are less likely to express an unmet social need when asked by a practitioner than when they self-identify a need,[95] yet patients are increasingly open to being asked about their social needs in clinical settings: A recent study[96] based on 50 patient interviews conducted across 10 sites in 9 states found the following:

1. Patients know the importance of assessing for social risks.
2. Patients understand the connection between social risks and overall health.
3. Patients feel that patient-centered implementation of social risk assessment is important.
4. Patients recognize there are limits to health care's capacity to address or resolve social risks.

Many organizations use lower-cost methods to conduct SDOH assessment. Some give patients self-assessments to complete at check-in (e.g., Integrated Health Partners) or administer telephone assessments (e.g., Health Care Services Corporation). Other organizations (e.g., Cigna) have social workers, care managers, medical assistants or CHWs conduct SDOH assessments. Organizations such as Montefiore and Integrated Health Partners use patient-facing SDOH assessments that allow patients to self-identify their social needs. Some organizations may lack the resources to effectively address patients' identified social needs.[97]

SDOH Data

This section describes the types and sources of SDOH data and presents examples of how organizations capture and use data to serve their populations.

SDOH data can focus attention on specific needs and resource gaps that interventions can address. Organizations use data to target patients and members most likely to benefit from additional support or specific interventions; for example:

- Stratify patients or members to qualify them for particular or more-intensive social interventions.
- Match individuals to relevant resources.
- Inform patient care.
- Identify resource gaps by geography or population.

DATA SOURCES

Health plan and CIN methods for assessing SDOH and collecting SDOH data vary, depending on the availability of data and resources, population characteristics and setting. The National Academy of Medicine[98] suggests that there are three considerations when assessing the advantages and disadvantages of specific data sources for specific social risk factors: 1.) collection burden (clinical and administrative time, financial cost), 2.) accuracy and 3.) clinical utility. Collection of SDOH information should be routinized and integrated into the workflow of practices so that it is accurately collected with the least amount of burden, financial cost or distraction from direct care provision.

There are three levels of SDOH data; they come from different sources and can serve different needs.

1. **Patient-level health care data:**
   - Patient-generated: Patients report on SDOH, social risk factors or social needs to inform medical or social care decisions. Information may be gathered through formal assessment or individuals may incidentally disclose a social need (e.g., transportation issues that caused a missed appointment).[44] Such data may be documented in the EHR, in case management or in other systems.
   - EHR and claims data: Health plans collect and integrate EHR and claims data from hospitals, clinical practices and other health care organizations to create a comprehensive view of an individual's health care across settings.
2. **Neighborhood-level data:** Organizations use zip code as a proxy to understand patients' likely SDOH and social risks based on their neighborhoods. Table 4 contains a list of neighborhood-level data sources.
3. **Person-level non-health care data:** Organizations are using data about patients from large non-healthcare data sources (e.g., housing, financial, criminal) to make inferences about social risks and social needs.[99] This method is gaining traction as more data sources become available.

The following example, featuring Health Net, LLC, describes how a health plan used a combination of patient-level data, provider data and public mapping data to target an intervention. Each data source is discussed in greater detail following the example.

IN-THE-FIELD EXAMPLES AND TOOLS: Health Net, LLC

Situation: In 2017, California Health and Human Services directed health plans operating in California to improve their rates of cervical cancer screening.* Health Net analyzed its performance on the HEDIS measure Cervical Cancer Screening and identified comparatively low rates of screening among members who self-identify as Chinese** and whose language preference was English or Mandarin.

Solution: Health Net overlaid member and provider screening adherence analyses with geospatial mapping to analyze outcomes geographically and identify an area of focus. The San Gabriel Valley, in Los Angeles County, showed a high volume of members not receiving cervical cancer screening. Health Net determined the target population to be female patients 24–64 years of age, of Chinese origin, whose primary care physicians were members of an independent physician association that exhibited low rates of cervical cancer screening (CCS). Health Net held focus groups and key informant interviews to learn about barriers to screening faced by these members and identified three they could immediately affect: lack of education about the importance of screening, especially for older women; a preference for female providers; and scheduling issues.

To educate the target population on the importance of screening, Health Net launched a promotion campaign. It created an infographic—"Rx for CCS"—that resembled a doctor's prescription and was produced in English and Mandarin. The infographic was handed to patients by discharge medical assistants (the staff who check out patients after an appointment). Medical assistants also documented the demographic information of members who received the Rx for CCS. The infographic highlighted the importance of regular screening, encouraged patients to schedule an appointment, and highlighted extended hours and availability of female providers—key barriers identified by patient interviewees.

To increase access to gynecological visits with female providers, the two local Federally Qualified Health Centers in the San Gabriel Valley hired female nurse practitioners to perform the screening. Health Net also incentivized use of alternate access points by giving them a gift card when they completed screening at a local urgent care clinic. Health Net learned that their female Chinese members preferred to go to a clinic they were familiar with to be screened by a female mid-level provider over visiting an unfamiliar provider, even if it meant waiting significantly longer for an appointment.

Results: A total of 192 Rx for CCS were handed out during the January–June 2019 intervention period. An average of 51% of the patients who received the Rx for CCS handout scheduled an appointment with the mid-level female provider at the provider partner office. Health Net's analysis showed a 4% increase in CCS for Mandarin-speaking Chinese members at its provider partner office.
Future iterations of this program may apply the same communication strategy to additional populations or geographies where disparities are present. Health Net also wants to explore how this communication strategy is received by various groups, and its behavioral impact.

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*Office of the Patient Advocate, California Department of Health and Human Services. (2018). Retrieved from https://data.chhs.ca.gov/dataset/https-opainternetauthoring-reportcards-pages-default-aspx
**Centers for Disease Control and Prevention. (December 2018). CDC Race and Ethnicity Code Set (Concept Code 2034-7). Public Health Information Network Vocabulary Access and Distribution System (PHIN VADS). Retrieved from https://phinvads.cdc.gov/vads/ViewValueSet.action?id=9152A536-AEEC-E711-ACD6-0017A477041A#

PATIENT- OR MEMBER-LEVEL SDOH DATA

Although collection and assessment of patient-generated data is the primary means of collecting SDOH data, organizations face challenges in capturing data that can enable them to address social needs.

EHRs are the most common repository of patient-level data. Many types of SDOH data can be captured in EHRs, including social and interpersonal needs. EHRs can even contain a full social needs assessment tool (e.g., housing instability, food insecurity, transportation).[100] They have the potential to be rich sources of SDOH data, but there are significant challenges: SDOH data are often captured in text notes rather than in discrete data fields, making extraction and analysis difficult, and even though there are existing codes for SDOH, their use in EHRs and claims is limited. The availability of SDOH data in the EHR can help clinicians link patients to community resources.

Natural Language Processing (NLP) is one approach to deriving context about SDOH from free text notes written in the EHR. For example, one study found that social isolation can be derived from clinical notes about prostate cancer.[101] Massachusetts uses eligibility/enrollment data to identify Medicaid members with housing instability based on their having three or more addresses within a year.[102]

Background on SDOH Data: How Did We Get Here?

In 2018, SIREN published a list of codes[103] related to social risk factors from four standard medical vocabularies: LOINC,[104] SNOMED CT,[105] ICD-10-CM[106] and CPT.[107] The list included codes for screening, assessment, and intervention related to 20 SDOH domains from 6 commonly used social assessment tools.

Studies have shown there is still low uptake of SDOH coding in EHR and claims data. A 2017 study showed ICD-10 SDOH Z codes were recorded for 1.4% of Medicare beneficiaries, with the five most prevalent codes being Z59.0—Homelessness, Z60.2—Problems related to living alone, Z63.4—Disappearance and death of family member, Z65.8—Other specified problems related to psychosocial circumstances and Z63.0—Problems in relationship with spouse or partner.[108]

In November 2018, with initial funding from the Robert Wood Johnson Foundation,[109] the Gravity Project was initiated, which aims to standardize codes and facilitate the use of SDOH data in patient care.[110] This project will identify coded data elements and associated value sets to represent SDOH across four clinical activities: assessment, diagnosis, planning and interventions. The project focuses on three specific social risk domains: food insecurity; housing instability and quality; and transportation access. The project intends to develop use cases and recommendations for documenting SDOH data in EHRs and claims, identify common data elements and associated value sets and develop recommendations for grouping these data elements for interoperable electronic exchange and aggregation.

Some health plans have expanded the availability of SDOH coding to capture information in discrete data fields. The following examples describe two health plans' efforts to expand and improve the codes available for capturing SDOH data.

IN-THE-FIELD EXAMPLES AND TOOLS: UnitedHealthcare

Situation: UnitedHealthcare (UHC) identified a need to capture member SDOH data: Social risk factors affect care quality, cost, use and patient outcomes. Capturing the data is vital to identifying and helping members manage social risks that pose barriers to care.

Solution: UHC developed "member attribution" codes to fill gaps in the ICD-10 Diagnosis Codes for describing and categorizing these data. It is building on that work to expand ICD-10-CM codes across the health care environment, to standardize identification of SDOH and track quality of care and outcomes for vulnerable populations.

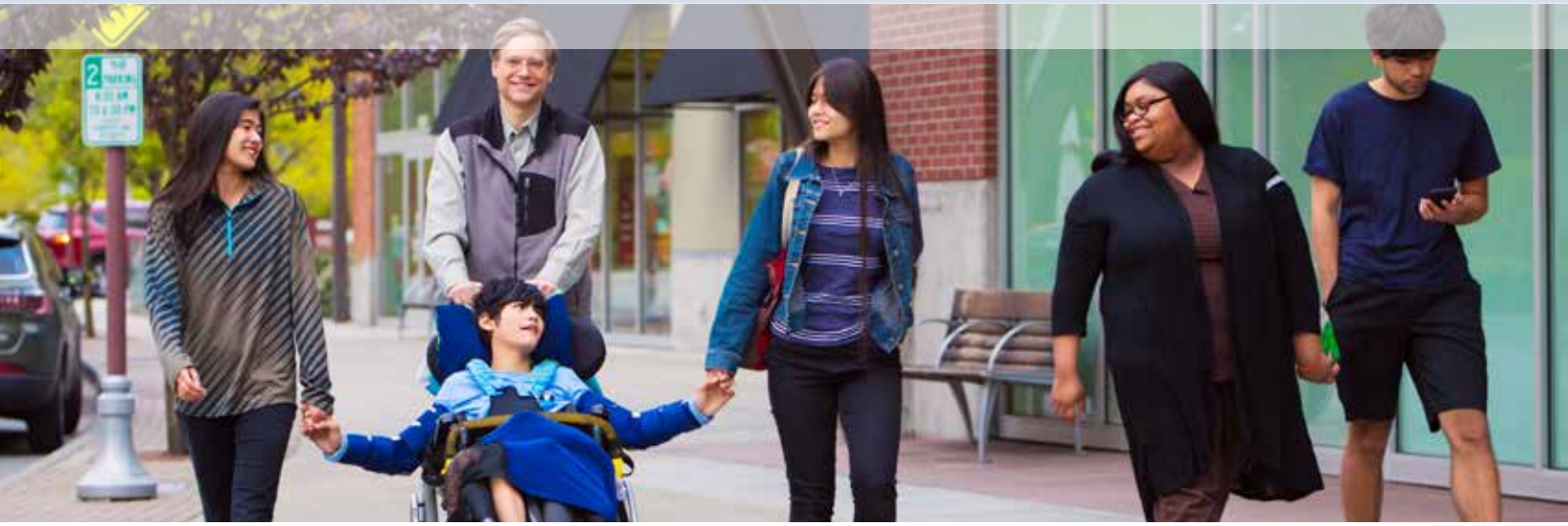
UHC submitted an expansion request to the ICD-10 Coordination and Maintenance Committee for review and presented to the Committee in March 2019. While awaiting the Committee's determination, UHC resubmitted the request in 2020.

This proposed ICD-10-CM code expansion would promote granular coding of SDOH barriers to care that is not currently present in or supported by existing ICD-10-CM codes. Expanding the codes will capture social needs and barriers more accurately. For example, although low income is an existing ICD-10 Z series code, UHC recommends additional codes to specify whether low income relates to factors such as prescriptions, utilities, medical care or transportation. The new codes will support a standardized approach to identifying, reporting and tracking specific barriers to care. The codes will also help assess health, improve HEDIS measure outcomes related to SDOH and support the organization in referring members to resources.

Results: UHC is currently tracking the new codes recommended for ICD-10-CM expansion through standardized member attribution codes for its Medicare Advantage, Medicaid and Employer Group retiree members. Over a 2-year period, the following codes were most frequently used in UHC's member population:

- "Unable to pay for prescriptions": 19.5% of members.
- "Inadequate social interaction": 13.3% of members.
- "Unable to pay for medical care": 12.2% of members.
- "Unable to pay for utilities": 11.1% of members.

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.



IN-THE-FIELD EXAMPLES AND TOOLS: BCBS VT

Situation: BCBS VT offers health care insurance to individuals and families in Vermont. In 2019, recognizing a rise in utilization and health care needs over time, BCBS VT conducted a strategic assessment to identify the underlying causes. It identified food insecurity as a main cause.

Solution: BCBS VT conducted a scan of work being done in the state to address food insecurity, identify the communities with the highest burden and develop recommendations to close gaps. Its resulting recommendations included standardizing food insecurity screening for providers, developing partnerships with community organizations that address food insecurity and improving nutrition as an alternative to medications.

BCBS VT developed several initiatives to align with its recommendations. It implemented use of the Hunger Vital Signs Screening Tool* in primary care settings to standardize screening for food insecurity, and with Yale School of Nursing,** collaborated to propose new ICD-10 (International Statistical Classification of Disease and Related Health Problems, 10th Revision) codes that allow identification and tracking of food insecurity, lack of safe drinking water and dietary noncompliance due to financial hardship. The codes were approved and incorporated into The Gravity Project, a national initiative sponsored in part by the Blue Cross Blue Shield Association, to improve SDOH documentation.

BCBS VT also sponsors a food bank and partners with the Vermont Farmers Food Center's Farmacy Project, which allows health care providers in Rutland county to write "prescriptions" for patients with food insecurity to receive local produce throughout the year.

Results: Next, BCBS VT plans to assess food delivery options for members and to sponsor research through the Vermont Caring Foundation to help educate other health plans and entities on systematic ways to provide individuals with affordable food.

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

*For more information on the Hunger Vital Signs Screening Tool, visit frac.org.
**For more information on Yale School of Nursing, visit nursing.yale.edu.

NEIGHBORHOOD- AND COMMUNITY-LEVEL DATA

Neighborhood or community-level data can be used to estimate social risk for a specific population or location. These resources include a variety of metrics, indices and mapping tools that provide insight into SDOH. Table 4 lists examples of community and neighborhood-level data sources or reports; the example that follows shows how Health Care Services Corporation, a health plan, uses neighborhood-level data to identify patients with social needs that interfere with their cardiac care.

TABLE 4: Community- and Neighborhood-Level Data Sources/Reports

TOOL	SPONSORING ORGANIZATION	DATA AVAILABLE	BACKGROUND
American Community Survey (ACS) [111]	US Census Bureau	• Economic characteristics (income, percentage of families in poverty). • Demographic data (languages spoken at home, race, insurance coverage). • Housing (occupants per room, gross rent as percentage of income). • Educational attainment for population 25 years of age and older.	Data are available at various geographic granularities, including zip code, census tract and census block group.
Food Access Research Atlas[112]	USDA Economic Research Service (ERS)	Provides food access data for populations within census tracts.	Offers census tract-level data on food access that can be downloaded for community planning or research purposes.
Area Deprivation Index (ADI) and The Neighborhood Atlas[113]	University of Wisconsin	Accounts for income, education, employment and housing quality at the neighborhood level. The ADI uses American Community Survey Five Year Estimates in its construction	Allows users to rank neighborhoods by socioeconomic disadvantage at the geographic (state or national) level. Based on a measure created by the Health Resources and Services Administration (HRSA).
National Equity Atlas[114]	Sponsored by Ford Foundation, the Marguerite Casey Foundation, the Robert Wood Johnson Foundation, the Surdna Foundation, and the W. K. Kellogg Foundation	Demographics, racial inclusion and the economic benefits of equity at the city, state and national levels.	In a partnership between PolicyLink and the USC Program for Environmental and Regional Equity (PERE), this project was designed to help create a new, resilient and equitable economy.

TABLE 4: Community- and Neighborhood-Level Data Sources/Reports (Cont.)

TOOL	SPONSORING ORGANIZATION	DATA AVAILABLE	BACKGROUND
Opportunity Index[115]	Opportunity Nation and Child Trends	Annual report that combines indicators at the national, state and county levels: economy, education, health and community.	Provides data that show what opportunity looks like in the United States in a "big-picture" view and a localized perspective on conditions influencing the neighborhood.
Community Need Index[116]	Dignity Health and Truven Health jointly developed a Community Need Index ("CNI") in 2004.	A 5-point index based on the average of socioeconomic barrier scores: A score of 1 indicates little need; 5 indicates a zip code with high need.	This tool is designed to help gather vital socioeconomic factors in the community.
2019 Healthiest Community rankings[117]	Collaboration between U.S. News & World Report and the Aetna Foundation	Top 100 rural, high-performing communities based on 10 categories: population health, equity, education, economy, housing, food & nutrition, environment, public safety, community vitality and infrastructure.	The platform includes an interactive Data Explorer tool[118] for users to further explore data and trends.
PHATE[119,120]	The American Board of Family Medicine and built by the University of Missouri	Neighborhood characteristics, disease and poor-quality hot spots, local community organizations. Creates a Community Vital Sign for each patient, using a neighborhood social deprivation index.	Can also include (EHR) data from the PRIME Registry,[119] a qualified clinical data registry available to all primary care practitioners.
County Health Rankings & Roadmaps[121]	The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute	Contains snapshots of community health as well as a community ranking system.	Measures important health factors in communities around the U.S. in an effort to drive change toward improving health.



IN-THE-FIELD EXAMPLES AND TOOLS: Health Care Services Corporation

Problem: Heart disease is one of the leading causes of death in the United States. Patients with heart disease and other chronic illnesses often have unmet social needs that can lead to poor disease management and increased gaps in care.

Solution: In 2018, HCSC created the Health Advocacy Solutions Program pilot in collaboration with the American Heart Association (AHA). The program targeted members with a diagnosis related to heart disease and invited them to enroll in case management to help address the social needs associated with their diagnosis. The AHA trained HCSC staff on the social risk factors commonly associated with heart disease and how to better support these patients. The HCSC staff included nurses, social workers and advocates that focus on customer service.

HCSC used an internal zip code-level SDOH database to identify the unmet social needs of members with heart disease who may live in an area associated with difficulties accessing health care. HCSC then used a proprietary algorithm to select members who would be most likely to engage with care managers and with the program. HCSC identified just over 800 members with suspected social needs who were not already working with a provider and contacted them to confirm their need, provide resources and enroll them in the Health Advocacy Solutions Program.

Patients who enroll in the Health Advocacy Solutions Program work with nurses, social workers and benefit specialists to address social needs and understand and participate in their heart disease care. Case managers use Healthify* to refer patients to community resources. Recognizing that navigating and understanding insurance benefits can be confusing. Susan Laski, Divisional VP of Clinical Operations of the Health Advocacy Solutions Team, explains of the program model, "It's important to have a member-driven focus... The clinical and nonclinical customer service advocacy staff work together holistically to meet the members' needs."

Results: Early results show that 37% of patients were successfully contacted for the pilot and 87% completed the telephone SDOH assessment. Social needs were self-reported by 41% of assessed participants and 100% of those invited chose to enroll in the Health Advocacy Solutions Program. HCSC will continue to assess this program to understand its impact on utilization and cost.

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

*For more information on Healthify, visit https://www.healthify.us.

PERSON-LEVEL NON-HEALTH CARE DATA SOURCES

Using non-health care data sources at the person level to understand a patient's SDOH factors or social risk level is a new area of study. Patient-level information created for nonclinical purposes (e.g., financial transactions, purchasing behavior, transportation behavior) is gathered from multiple sources and integrated to provide a holistic view of the patient. Individual-level data from credit rating agencies can be purchased, including credit scores, employment history, bankruptcies and lien filings. These data can speak to financial distress and social need, but are also deeply personal and not related to health care; therefore, it is important to understand patient and member attitudes toward using this type of information to identify social need in health care settings.[44]

Data Sharing, Integration and Quality

DATA SHARING AND INTEGRATION

This section describes how data from multiple sources can provide a holistic view of an individual and discusses how patient privacy concerns and limited information highlight the limitations and difficulties for data sharing and integration.

In an ideal world, health information flows freely between care providers (e.g., government and private-sector health care, social and human service organizations) and practitioners understand individuals' full medical and social history, needs and preferences. Toward that end, data sharing and data integration allow the most comprehensive understanding of an individual and their medical and social circumstances and needs.

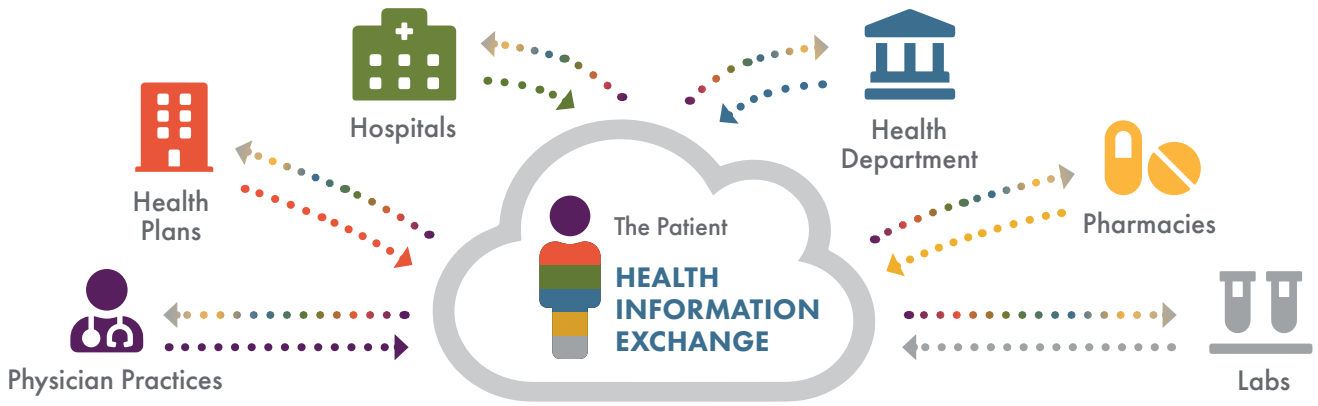
Data sharing involves exchanging patient or member information with organizations that are not part of the same health system and do not share the same EHR. Data integration is combining data from several sources or systems (e.g., claims, laboratory, pharmacy, community-level geographic information systems), across sites of care (e.g., medical home, hospital, CBO, home care agency) and disciplines (medical, behavioral, social). Sharing and integrating data provides a more holistic picture of the patient's medical status, SDOH and social risks.

Health and Community Information Exchanges

Health information exchanges (HIE) foster transparency and collaboration across disparate health care organizations serving the same population.[122] In many states, a single HIE—privately or publicly owned—allows health care organizations to efficiently exchange patient data despite having different EHRs.[123] The HIE is a common data interchange platform for all partner organizations. Figure 3 illustrates how HIEs combine information from diverse sources to "color in" the patient's profile.

Community information exchanges (CIE) are ecosystems of health care and community partners that share information on the individuals they serve through a standardized data collection language.[122] Community partners may share data on housing and food voucher usage, for example, which helps health care organizations understand the extent and nature of unmet social needs. This approach generates information transparency and strengthens partners' capacity to plan care for their patients/members. Some CIEs may include a resource database and an integrated software platform to coordinate care planning and facilitate bidirectional referrals for their shared community.[122] One example of this model is CIE San Diego.

FIGURE 3: Health Information Exchange Conceptual Diagram



Data sharing is complicated by privacy laws, a lack of standards for SDOH data collection and the limited interoperability of electronic record keeping systems.[124] Multiple competing care coordination solutions have also contributed to a more fragmented system.[125] Health care organizations that serve the same community but operate on different EHR systems or that use different care coordination software may not be able to exchange data on their shared patient populations.

Integrating data across multiple sources is another way to construct a more holistic view of patients. Data integrated from various sources can be applied to patient care (e.g., clinical decision support, patient empowerment), predictive risk modeling (social predictive modeling/ case finding, adjusted payment models) and community engagement or investment (e.g., community assessment and intervention, spatial analytics).[126] CINs and health plans with the capacity to conduct finely detailed analytics with integrated data are better positioned to improve health, lower costs and provide better-quality care.

Many health care organizations use care coordination software, such as NowPow,[127] Unite Us,[128] Healthify[129] and Health Leads,[60] to share data with non-health care partners, integrate data from different sources and assess SDOH interventions. The *Collaboration with CBOs* section further details how organizations can use care coordination software to collaborate with CBOs and address needs.

The following three in-the-field examples—UPMC Health Plan, Health Net LLC and Humana—exemplify how health care organizations exchange information with non-health care partners, such as CBOs and government agencies, and integrate data from different sources to address SDOH. These organizations, like the others featured in this guide, recognize how rich patient and member data helps them improve health outcomes and reduce cost.

IN-THE-FIELD EXAMPLES AND TOOLS: UPMC

Situation: UPMC Health Plan identified gaps in care for members who interact with multiple health care and social service organizations and wanted to create a more complete picture of this population.

Solution: UPMC Health Plan entered a data sharing agreement with the Allegheny County Department of Human Services* (DHS), where the majority of its members reside. The agreement enables exchange of individual-level health and human services utilization data of UPMC Health Plan members enrolled in an Allegheny County human services program. Its goal is to improve care coordination, analytic capabilities and identification of SDOH such as housing insecurity or unemployment.

Currently, shared data includes approximately 187,000 adults and children who are actively enrolled in both a UPMC insurance product and at least one county human service. UPMC Health Plan receives information about the Allegheny County DHS programs in which its members are enrolled, the name of the service coordinator and the agency that serves the member. Allegheny DHS receives utilization data from UPMC Health Plan, including information about ED visits, primary care visits, providers and primary diagnosis codes related to utilization.

This agreement has already led to a partnership to better coordinate care for UPMC Health Plan members with intellectual disabilities and autism in Allegheny County. The next step is for the data to be analyzed and evaluated to identify SDOH factors for each member. The information will be provided to care coordination staff, to improve care coordination, and will be used to inform tailored interventions and strategies to impact social risks.

Results: UPMC Health Plan and Allegheny DHS successfully shared data at the end of 2019 as part of this agreement. The integrated data set will be used to improve care coordination for shared clients and to guide advanced analytics for risk, including modeling and outcomes assessment.

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*For information on the Allegheny County DHS, visit https://www.alleghenycounty.us/human-services/index.aspx.

IN-THE-FIELD EXAMPLES AND TOOLS: Health Net, LLC

Situation: Health systems and social services often operate in silos, despite overlapping goals and populations served. Intersectoral collaboratives and innovative models for community care coordination help mitigate this problem.

Solution: Health Net LLC, a health plan subsidiary of the Centene Corporation,* has partnered with the San Diego Health Care Quality Collaborative (SDHQC) to establish a community HUB.** The HUB links health care consumers (members) to community-based service providers through "neighborhood navigators" (CHWs). Guided by CLAS standards, the HUB pairs Health Net members with bilingual Hispanic CHWs who are representative of the Chula Vista community. The CHWs support and connect enrolled members to a range of health services.

Health Net overlaid geographically linked demographic and SDOH data to identify opportunities to improve health outcomes for members facing social barriers to accessing care. Health Net assessed claims data to identify high-risk groups; it categorized members as high risk or having a care gap based on the performance measure benchmarks defined by the Managed Care Accountability Set, a set of performance measures that the California Department of Health Care Services selects for annual reporting by Medi-Cal managed care health plans.*** Common social needs identified related to transportation, education, socioeconomic, race/ethnicity and cultural barriers.

Health Net and SDHQC implemented a two-pronged plan to address the needs highlighted by Health Net's analysis: Identify patients' social needs with intake surveys at the point of care, then refer patients to community resources using the 2-1-1 San Diego CIE.^ 2-1-1 San Diego is a call center and information hub that has collected a single longitudinal record of the resource needs and referrals of the San Diego community since 2017. It is "an ecosystem composed of multidisciplinary network partners that use a shared language, a resource database and an integrated technology platform to deliver enhanced community care planning."^^ Health Net and SDHQC utilize this information resource to inform members' care planning and facilitate better outcomes.

Results: Health Net is assessing the effect of this work on outcomes and considering opportunities to implement the same collaborative care model on other populations or in different geographic areas

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*For more information on the Centene Corporation, visit https://www.centene.com.
**The Pathways Community HUB Model (https://pchi-hub.com/) helps communities work together to support their vulnerable populations. There are 21 evidence-based, standardized pathways used to address risk factors that are barriers to achieving health.
***California Department of Health Care Services (DHCS). "Medi-Cal Managed Care Quality Improvement Reports," July 13, 2020. https://www.dhcs.ca.gov/dataandstats/reports/Pages/MgdCareQualPerfEAS.aspx
^ For more information on CIE San Diego, visit https://ciesandiego.org.
^^2-1-1 San Diego. (2019). Policy Brief Series – September 2019: Housing Instability in San Diego. Retrieved from http://ciesandiego.org/wp-content/uploads/2019/09/Housing-Instability-in-San-Diego-Policy-Brief-090819.pdf

IN-THE-FIELD EXAMPLES AND TOOLS: Humana

Situation: Humana Inc., a health plan based in Louisville, Kentucky, serves members across the United States. Humana recognized the need to identify risks at the local level and to better understand patient and community health needs and resources.

Solution: In 2015 Humana announced a "Bold Goal"* initiative as part of its population health strategy to improve health by 20% in the communities it serves. In this initiative, Humana works within target communities and communities across its enterprise to address SDOH. Cross-sectional data for Humana members who participated in the Centers for Disease Control and Prevention (CDC) Healthy Days survey** was combined with Robert Wood Johnson Foundation County Health Rankings and Roadmaps data*** on SDOH factors and health outcomes.^ Data were analyzed to assess the relationship between healthy days and SDOH for Humana members and to identify opportunities to address risk factors.

Technology and data have been instrumental in Humana's work toward improving community SDOH factors. Humana developed Zoom In™,^^ an interactive, web-accessible tool that uses advanced data visualization and heat-mapping technology to display the prevalence of social risks and community resources to address risks at the neighborhood level. Zoom In™ is a payer-agnostic tool available for public use. Providers and care managers can use the prevalence of social risks identified in the patient's community to focus their care management strategies, such as further screening for possible social risks, and use the tool to identify resources to address identified social needs.

Results: Preliminary feedback from providers and care managers reported improved patient referrals to resources and care management. Humana will measure process efficiencies for care managers, as well as referee engagement with resources.

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*For more information on Humana's Bold Goal, visit https://populationhealth.humana.com/
**For more information on CDC's Healthy Days Survey, visit https://www.cdc.gov/hrqol/hrqol14_measure.htm
***For more information on Robert Wood Johnson Foundation's County Health Rankings and Roadmaps, visit https://www.countyhealthrankings.org/
^For more information on the data analysis approach, visit https://www.liebertpub.com/doi/pdf/10.1089/pop.2017.0142.
^^For more information on Zoom, visit https://zoomin.humana.com/#!

DATA QUALITY

By selecting valid and reliable assessment tools, and then implementing the tools using a comprehensive process that defines standards for documentation and roles and responsibilities for conducting assessment, organizations can be confident that data will help them address the social needs of patients and members.

Organizations need to have confidence in the accuracy and reliability of their assessment data and the data shared by other organizations and integrated across systems. To be useful, data must be available when needed and must be accurate. Much has been written on how to assess SDOH data for quality and comprehensiveness. Beltran and team, focusing on SDOH variables collected in CDC surveillance systems addressing HIV, viral hepatitis and TB, recommend assessing data for timeliness, percentage complete and availability of published quality standards.[130] The CDC's Guidelines for Evaluating Surveillance Systems Working Group created the following list of standards for reviewing data quality:[131]

- Timeliness
- Percentage complete
- Availability of published quality standards
- Simplicity
- Flexibility
- Acceptability
- Sensitivity
- Predictive value positive
- Representativeness
- Stability

By applying these concepts, organizations can evaluate data to understand key aspects of quality:

- What are the lag times between provision of services and availability of specific data?
- Are data from specific types of organizations (e.g., pharmacies) or from specific organizations systematically missing or unreliable?
- Are there systematic errors in specific variables, or do key details get lost when data are combined across systems that code variables differently?

Answering these questions might help CINs and health plans know how best to use—and when to disregard—the data to which they have access.

Collaboration with Community-Based Organizations

This section describes how CINs and health plans can collaborate with government, human and social service organizations.

PARTNERSHIPS ACROSS THE CARE CONTINUUM

Partnerships—including between health care organizations and between health care organizations and CBOs, employers, or government agencies—can meet the needs of the community better than the same organizations working independently. Working with multidisciplinary partners, CINs and health plans gain community buy-in, increase their capacity to address community needs and extend limited resources.[132]

CINs and health plans offer an important source of much-needed funding to augment CBOs' impact. Many CBOs have been working to address SDOH such as housing, transportation and food insecurity for decades. These organizations are cognizant of community needs but may lack the capacity and resources to fully address them. CINs and health plans can leverage the foundation that CBOs have already laid by providing them much-needed funding to support organizational capacity. Large hospitals often serve as anchor institutions for the network of organizations in the hospital's service area.[133] As the primary source of care for many community members, the hospital's community-based health care and outreach activities addressing SDOH have the potential to engage patients and multidisciplinary community partners in a unified, communitywide SDOH strategy.

Health plans and CINs coordinate with partner organizations to address the community's social needs. For example, health plan and CBO administrators collaborate to clarify each organization's structure and workflow, determine roles and responsibilities and find consensus on SDOH data standards, data collection tools and an information-sharing approach.

The following examples describe how two health care organizations have partnered across sectors to develop interventions to address the unmet social needs of their shared populations. In the first example, Health Care Services Corporation (HCSC), a health plan, partners with an employer to develop an intervention targeting a group of employees with unmet needs. In the second, Anthem partners with a care coordination hub to extend its capacity to address members' unmet needs; the care coordination hub picks up where the health plan's service offerings leave off.

IN-THE-FIELD EXAMPLES AND TOOLS: Health Care Services Corporation (HCSC)

Situation: The transgender community has a higher prevalence of mental health issues (e.g., depression, eating disorders) and is more likely to have unmet social needs (e.g., lack of social support, discrimination)*,** compared with their cisgender peers. The complex health care system can be unwelcoming and place significant burden on those navigating gender transition.

Solution: HCSC created a new functional unit, the Gender Affirmation Team (GAT), to develop a care management program that offers care coordination support to participating transgender members. This model was piloted on a large client's employee population. The GAT collaborated with a committee of members identifying as transgender or transgender allies to create a flier to inform the large client's employee population about the program. Employees self-refer into the program based on self-identification as transgender. Active employees and their covered dependents, as well as non-Medicare retirees, are eligible for the program.

The program's case management teams include social workers, registered nurses, behavioral health specialists and benefit specialists. They help program members, their families, and their primary care practitioners navigate health services during their gender transition. Care management teams develop a member-focused care plan involving needs identification, resource coordination, and goal tracking. The care management team uses the Healthify*** platform to refer members to community services and support networks.

Results: Since the pilot began in 2016, 47 (of 55) self-identified transgender employees eligible for the program elected to enroll. Satisfaction surveys administered to program enrollees reveal 96% satisfaction with the program. HCSC has received requests from other employers to provide a similar program option for their employees who identify as transgender.

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

*Martinez-Velez, Jose J., Kyle Melin, and Carlos E. Rodriguez-Diaz. "A Preliminary Assessment of Selected Social Determinants of Health in a Sample of Transgender and Gender Nonconforming Individuals in Puerto Rico." Transgender Health 4, no. 1 (January 17, 2019): 9–17. https://doi.org/10.1089/trgh.2018.0045.
**HealthyPeople.gov. "Lesbian, Gay, Bisexual, and Transgender Health," 2014. https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health.
***For more information on Healthify, visit https://www.healthify.us.

IN-THE-FIELD EXAMPLES AND TOOLS: Anthem

Situation: Anthem sought an up-stream approach to address the social needs of its high-risk members.

Solution: Anthem's Community Care Coordination (A3C) Program addresses social needs by partnering with Preferred Community Health Partners (PCHP), an Indianapolis-based care coordination hub that leverages CBOs and CHWs to meet individuals' social needs. The A3C model was first piloted in 2015 and then expanded nationally to 17 other state markets in 2018 and 2019. Anthem Care Management, which includes utilization managers, providers and administrators, identifies eligible members through utilization data and screening at clinical touchpoints. High-risk members (e.g., frequent inpatient use, multiple chronic conditions) and members who need assistance accessing services (e.g., identified SDOH) are then referred to PCHP, which supports them for at least 30 days.

At no extra cost to these members, PCHP CHWs work to identify gaps (e.g., literacy, functional, behavioral, social), schedule follow-up appointments, support adherence to discharge orders and provide guidance to community resources. PCHP reports members' social needs assessment and referral data back to Anthem through its web-based reporting tool. Anthem then shares this information with its providers through the web portal, Availity.* A3C's data integration, closed-loop referrals and leveraging of community resources offers Anthem providers a holistic perspective of its patient population that helps members manage their health better.

Results: The Indiana pilot, which engaged 3,836 members by its 2017 culmination, yielded a 7.7% reduction in cost for the targeted services and a benefit-cost ratio of 3.28:1.

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*For more information on Availity, visit https://www.availity.com.

LEVERAGING COMMUNITY RESOURCES

Community resources are assets that include physical spaces (e.g., community centers, churches), the social capital of residents and services (e.g., government, social, human) that help meet residents' needs.[134] Health care organizations—CINs and health plans—can leverage these resources to help meet the unique needs of the community. The following example describes how HealthPartners, a CIN, capitalize on community assets to extend its ability to meet patients' social needs.

Community-Based Organizations

CBOs provide social and human services support to address the social needs of individuals in a community, typically at low or no cost to beneficiaries. Because CBOs often specialize in a specific social need (e.g., food insecurity), they are better equipped than health care organizations to navigate the policy landscape and service delivery logistics related to their social mission. The following example describes how HealthPartners established a systemwide approach to addressing food insecurity in its community by partnering with a CBO.

IN-THE-FIELD EXAMPLES AND TOOLS: HealthPartners

Situation: Before 2017, HealthPartners had no unified approach to address food insecurity in its community. To meet patients' needs, HealthPartners implemented a systemwide, cross-sectoral food insecurity reduction program. It partnered with a local civic organization to help connect patients with the food services for which they are eligible.

Solution: In 2017 HealthPartners conducted two 6–8-month pilots on a small sample of urban and rural clinical locations in Minnesota and Western Wisconsin. Providers screened patients for food insecurity using the Hunger Vital Sign* two-question food insecurity survey. HealthPartners scaled up the intervention in 2018 and now administers the Hunger Vital Sign survey to all patients at pediatric well-child visits across the health system and to patients admitted to Regions Hospital in St. Paul for nonbehavioral health reasons. It plans to expand the program in 2020 to screen patients at adult well-visits.

Hunger Vital Sign screening results are documented in the EHR and all patients who test positive for food insecurity are referred to HealthPartners' community partner, Hunger Solutions. Hunger Solutions contacts patients by phone or email to connect them with local food services, such as food shelves, emergency food locations and Supplemental Nutrition Assistance Program (SNAP)/Special Supplemental Nutrition Program for Women, Infants and Children (WIC) benefits, and screens for other SDOH as well. After referring patients to appropriate community resources, Hunger Solutions notifies HealthPartners. Hunger Solutions provides population-level data, such as the number of patients reached by phone or email and the number of patients found eligible for an appropriate resource.

Results: Of the patients screened at Regions Hospital, about 8% screened positive for food insecurity. Hunger Solutions has been able to reach 54% of those patients; of that percentage, 45% qualified for SNAP benefits.

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* For more information on the Hunger Vital Sign survey, vist https://childrenshealthwatch.org/public-policy/hunger-vital-sign

Value-Based Payment Arrangements

Payment to practitioners in value-based payment arrangements is based on the outcomes patients achieve rather than on the volume and prices of services provided. This payment structure incentivizes practitioners to look upstream—to SDOH—to devise effective solutions to social needs. By addressing SDOH, practitioners could avoid preventable high-cost utilization, foster better patient health, and achieve greater profit margins.[135]

Health plans and CINs can support practitioners by establishing value-based payment relationships with community partners to meet patients' social needs; for example, with CBOs, to coordinate care for their shared population and mutually benefit from the cost savings. Health plans and CINs can also offer shared savings to increase CBO resources and capacity to serve more individuals. For example, a CBO can earn a bonus from a CIN for keeping a patient in housing year over year. CBOs, often non-profit organizations operating on a shoestring budget, may need significant investment in infrastructure and business acumen before value-based payment can be maximally effective. The following in-the-field example describes this kind of arrangement.

IN-THE-FIELD EXAMPLES AND TOOLS: UPMC

Situation: A substantial number of UPMC members residing in Allegheny County, PA, were identified as having housing instability.

Solution: UPMC offers a wide range of insurance coverage products and is dedicated to quality and providing outstanding customer service across product lines. It identified housing instability as a barrier to care for members; specifically, those who were hard to reach. UPMC identified members considered high need (having complex medical, behavioral or chronic conditions) and assessed them for housing instability based on claims-based ICD-10 Z codes for homelessness and housing need, analysis of discharge paperwork or during interaction with a care manager.

UPMC partnered with Community Human Services (CHS),* a CBO, to provide housing resources. The first iteration of the program was restricted to UPMC members who were homeless, using the HUD definition.** The program was expanded in 2019 to include members who were housing unstable (had a housing need) and received access to housing choice vouchers from city and country housing authorities. CHS connected these members to housing resources, including helping with the city housing authority's voucher process, providing support for tenants' rights and responsibilities and referrals to the CHS network of landlords. UPMC provided "wraparound services"—medically focused supportive services in members' homes.

UPMC and CHS participated in a pay-for-performance arrangement. CHS is eligible for several bonus payments for every member who is stably housed for agreed-upon lengths of time.

Results: UPMC realized the following results during the first iteration of the program that provided housing support for homeless members who met the HUD definition. Outcomes have not been assessed for the second iteration of the program.

- 85% of members (around 50–55 people) who received housing support were stably housed. 50% of those were housed within two months. 30% of housed members remained in housing two years later.
- Overall, there was approximately a 59% reduction in health care costs for these members.
- Total cost of unplanned medical costs fell approximately $6,400 per member for each year they were stably housed.

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*For more information on Community Human Services, visit https://chscorp.org.
**For more information on HUD and its definition of homeless visit https://www.hud.gov.




REFERRALS

Practitioners refer patients to non-health care community resources whose skills and knowledge complement theirs, increasing the total capacity to address unmet social needs. Referrals range from cold-handoff (giving the patient a phone number to call) to a more integrated referral (a member of the clinical team accompanies or personally introduces a patient to the receiving resource or practitioner). In cold-handoff referrals, practitioners connect patients with an appropriate resource—often identified from a community resource repository—but responsibility rests with the patient to follow through.

While some health care organizations routinely update lists of community resources to which they refer patients, many others facilitate referrals using community resource repository and referral platforms, such as Aunt Bertha,[136] NowPow,[127] Unite Us,[128] Healthify[129] and Health Leads.[60] These online resource referral platforms often track resource hours and availability to match patients with needed resources.

Some community resource referral platforms use analytics to show those most frequently used or searched for by geography. Health plans, CINs and CBOs can refer to neighborhood resource data when strategizing how to meet population needs. Some referral platforms have advanced features that let practitioners track needs and referrals for better coordination with community partners. And some, such as Aunt Bertha, offer a public-facing search function for individuals to search for community resources on a personal computer.[137] While different community resource referral platforms offer different advantages,[138] all seek to help practitioners address social needs by facilitating connection and communication with community-based resources.

The following examples describe how a health plan (Anthem) and a CIN (Children's Minnesota) use community resource referral platforms to support different referral processes.

IN-THE-FIELD EXAMPLES AND TOOLS: Anthem

Situation: Anthem wanted to be more proactive about identifying high-risk members and managing their care to reduce costs, utilization and the probability of downstream catastrophic health events.

Solution: Anthem Care Management screens members for SDOH issues and refers them to community resources utilizing an online platform, Aunt Bertha.* An internal algorithm identifies high-risk members who are eligible for care management and flags them for follow-up. Anthem representatives contact these members by phone, informing them that care management services are available and how they can be accessed. In higher-risk cases, care managers may reach out directly to members to invite them to enroll. On a provider's point-of-service referral, other members are filtered into one of Anthem's three care management tracks: disease management, case management, utilization management.

All members who connect with Care Management are screened for unmet social needs with an internally developed check-box questionnaire that asks them about common SDOH issues, including food insecurity, transportation, education, economic stability/socioeconomic status/income and social support/isolation. When care managers identify unmet social needs, they refer members to appropriate community resources using Aunt Bertha. Based on analysis of SDOH screener responses and Aunt Bertha searches, housing, food and transportation were the population's most common social needs.

Anthem health plans track member encounters—including SDOH, referral status and issue resolution—in providers' EHR systems and Anthem's case management information system. At this point, only the Medicaid case management program is integrated. To improve on its current model, Anthem hopes to integrate the Aunt Bertha and EHR systems across all lines of business. Anthem Care Management will also soon supplement its internal resources with an industry standardized tool to assess SDOH.

Results: Anthem has yet to conduct a formal analysis of its care management program, but intends to study the impact of successful community resource referrals on performance measures (e.g., whether meeting members' food insecurity needs affects diabetes related HEDIS measures).

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

*For more information on Aunt Bertha, visit https://www.auntbertha.com.

IN-THE-FIELD EXAMPLES AND TOOLS: Children's Minnesota

Situation: Children's Minnesota is an independent, not-for-profit system and the seventh largest pediatric health system in the United States. It provides care exclusively to children from before birth through young adulthood at 2 free-standing hospitals, 12 primary and specialty care clinics and 6 rehabilitation sites. Through a community health needs assessment, Children's Minnesota prioritized the community's desire to address the broader factors that influence health by identifying and responding to the social needs that impact childhood health.

Solution: Community Connect is a payer-agnostic program with a simple 3-step process: identify opportunities to improve health, connect families to supportive resources and conduct comprehensive follow-up to confirm connections. The program serves patients in hospital-based primary care and specialty clinics.

Patients access the program via provider referrals, self-referrals, or through screening conducted during well-child visits. Trained Resource Navigators work with families to discuss relevant social factors—for example, housing, food and transportation—and develop action plans to connect families to internal resources and provide referrals to community-based partners. While Community Connect utilizes the NowPow* resource database to help identify resources, the referral process is improved by forming community partnerships, enabling warm hand-offs and fostering closed-loop referrals. Children's Minnesota staff follows up with families and partners to ensure access to referred resources, gather feedback and facilitate additional action planning alongside families.

Results: The top 5 social needs Children's Minnesota identified were food, goods (e.g., clothing, furniture), child care, adult education and transportation. In 2019, key program metrics indicated:

- Out of almost 10,000 patients screened, 22% had at least one unmet social need.
- 60% of referred families met with a resource navigator and were connected to supportive resources.
- 71% of families who enrolled in the program confirmed successful resolution of their need, successful access of supportive resources and/or that they feel equipped to meet their needs without further assistance.
- 78% of surveyed program participants reported that the program improved their family's health and well-being.

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*For more information on NowPow, visit http://wordpress-site.nowpow.com.

In warm hand-off referrals, patients are guided through the process of connecting with a community resource, often by a CHW or case manager who knows the community and its resources and can help patients navigate. They may visit CBOs in person to build relationships and learn what individuals can expect when seeking a service, which can result in more effective encounters for patients and members.

In both warm and cold hand-off referrals, completing a "closed-loop" referral is the gold standard. Ideally, organizations can assess whether a referral was completed and a need was met. This back-end information on need fulfillment is useful for influencing future referral patterns. The following example demonstrates the value of a closed-loop referral system.

IN-THE-FIELD EXAMPLES AND TOOLS: CommonSpirit Health

Situation: CommonSpirit Health providers recognized the need to identify and address the social needs of patients to create equitable, coordinated care.

Solution: CommonSpirit Health, a national system that spans 21 states, developed an initiative—The Total Health Roadmap—that includes 3 areas of focus: adapting care systems to include screening and referrals for social need, partnering with community resources and developing leadership accountability for health equity.

CommonSpirit clinics began screening for social needs during primary care visits, using a standard tool. At least one CHW is employed full-time at each pioneer clinic to work with patients and provide referrals. Using integrated technology, clinic staff track health outcomes, screening and referrals, and work collaboratively with local community partners to close the referral loop.
CommonSpirit Health builds on information learned during the screening and referral process to engage with community partners and promote collaborative efforts in providing care and addressing the impacts of the SDOH.

Results: Nearly 20% of screened patients had at least one social need. Patients who previously identified social needs during screening reported identified fewer needs in subsequent follow-up screening. Patients also report increased knowledge of resources and increased confidence in managing their needs.

Acute care utilization reduced in patients with prior high utilization who received screening and referral services. Relationships with community partners were strengthened and the initiative received support from local, regional and national leadership.

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

Measurement & Evaluation

MEASURING SDOH PROGRAM PERFORMANCE

Organizations need to measure SDOH program outcomes and evaluate program impact to ensure that SDOH strategies work as intended and to justify continued investment. Program evaluation helps inform vital quality improvement activities for organizations accountable to payers and other partners.

Health care organizations use both process and outcome measures to evaluate the impact of their overall SDOH strategy and specific interventions. Process measures include counts of activities performed, such as the number of patients screened or referred. Outcome measures include indicators of improvement from a baseline, such as fulfillment of previously unmet needs, member and patient satisfaction, impact on health resource utilization or costs of care, achieving quality targets and return on investment.

A systematic review of interventions to bridge medical and social care revealed that many implementers focus primarily on process measures and success in meeting specific social or economic needs (e.g., food insecurity) rather than on important health and health care utilization outcomes.[139]

Measuring SDOH program performance starts with defining program goals. The more clearly goals are articulated, the easier it is to capture the data needed to demonstrate performance. One approach to setting clear and measurable goals is to make them "SMART": **S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime-bound.

- **Specific:** A clear and specific goal motivates and focuses efforts appropriately.
- **Measurable:** A measurable goal can be used to track progress and motivate.
- **Achievable:** Creating a realistic and achievable goal is important for a balance between maintaining motivation and stretching capabilities to achieve the goal.
- **Relevant:** A relevant goal is important to the health plan and aligns with other goals.
- **Time-bound:** A goal with a target date enforces the deadline for reaching a goal. SMART goals provide clarity and focus for activities and encourage a methodological process for creating feasible objectives.

Table 5 contains examples of original, "non-SMART" goals and their corresponding SMART goals.

TABLE 5: SMART Goals

ORIGINAL GOAL	SMART GOAL
Increase food insecurity screenings.	By December 31, 2022, increase the percentage of eligible members screened for food insecurity from 40% (baseline) to 75%.
Lower the prevalence of uncontrolled diabetes among the food insecure diabetic population.	In the next 2 years, reduce the prevalence of uncontrolled diabetes by 20% among the population of diabetics who screened positive for food insecurity and were referred to a food resource.
Increase rates of referral for unmet social needs.	Over the next 6 months, increase the number of referrals for members who screened positive for housing insecurity by 10%.
Decrease the number of patients who report an unmet social need.	Of the total population of patients administered social needs screening, decrease the number of patients who report an unmet need by 30% in the fourth quarter of fiscal year 2021.

MEASUREMENT ISSUES

Standardized measurement is important—both for health plans and for the patients they serve. For plans, standard measures with consistent definitions, algorithms and logic ensure apples-to-apples comparison across reporting units and settings. Consistency is critical for accountability, although measures used for other purposes, such as internal quality improvement, may be modified for specific goals or settings. For patients, standardized measures can support equitable measurement by ensuring that populations with unmet needs are identified consistently and that no one is "left out" or omitted (intentionally or unintentionally).

In addition to standardized, quantitative data about program performance, many organizations also capture qualitative data. Feedback from program patients or members and practitioners can provide valuable insight into program strengths, explain quantitative results and offer direction for needed improvement.

Stratified Measures

Health plans and CINs can stratify quality measures by at-risk groups to identify and address disparities in performance. For example, a health plan stratifies a performance measure (e.g., blood pressure control) by a subgroup with social risk (e.g., African Americans). The health plan compares the at-risk group (African Americans) with a reference group (e.g., non-Hispanic Whites) or to other benchmarks (e.g., national mean) in order to determine if there is a gap. If a gap is identified, the plan can assess potential drivers and develop tailored strategies to close the gap.

In 2017, NCQA explored the use of stratification for HEDIS measures to identify disparities based on socioeconomic status using low-income status, dual eligibility and disability information that was available for Medicare Advantage beneficiaries. Effects were minimal or inconsistent across most of the measures studied. However, results for four measures—Breast Cancer Screening, Colorectal Cancer Screening, Comprehensive Diabetes Control-Eye Exam and Plan All-Cause Readmissions—showed that an SES disparity did persist after accounting for clinical and demographic factors. Given the findings, NCQA implemented stratified reporting of performance rates by beneficiary status for these measures for Medicare Advantage plans. Analysis suggests that stratified reporting can show meaningful differences in and among plans, given a contract's beneficiary profile.[140] NCQA included these stratifications in HEDIS for measurement year 2018.

Measure Stratification Example

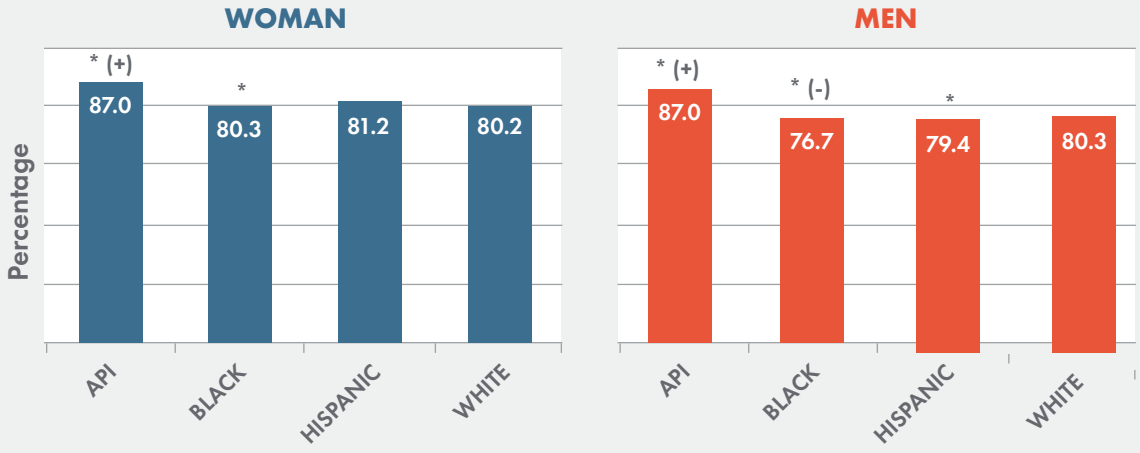
CMS releases a national-level report^ detailing the health care experiences and quality of care received by Medicare beneficiaries enrolled in Medicare Advantage (MA). This report stratifies measures in the following ways:^^

1. Gender (male, female)
2. Five racial and ethnic groups: (1) American Indians or Alaska Natives, (2) Asians or Pacific Islanders (including Native Hawaiians), (3) Blacks, (4) Hispanics, (5) Whites

The report stratifies individual performance measures by gender, race and ethnicity, and race and ethnicity within gender. An example of the last is presented below.

COLORECTAL CANCER SCREEN

Percentage of MA enrollees aged 50 to 75 years who had appropriate screening for colorectal cancer, by race and ethnicity within gender, 2018



SOURCE: Clinical quality data collected in 2018 from MA plans nationwide.
NOTES: API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic, Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

*Significantly different from the score for Whites of the same gender ($p<0.05$)

API and Black women were more likely than White women to have been appropriately screened for colorectal cancer. Hispanic women were about as likely as White women to have been appropriately screened for colorectal cancer.

Black and Hispanic men were less likely than White men to have been appropriately screened for colorectal cancer. API men were more likely than White men to have been appropriately screened for colorectal cancer.

^ For more information on the report, visit https://www.cms.gov/files/document/2020-national-level-results-race-ethnicity-and-gender-pdf.pdf.
^^ For more information on CMS' reporting of Medicare Advantage plan quality scores, visit https://www.cms.gov/files/document/2020-frequently-asked-questions-pdf.pdf.

Risk Adjustment

There is increasing awareness that value-based payment programs may penalize organizations that disproportionately serve disadvantaged populations (patients with high rates of food insecurity, homelessness, transportation barriers and other risk factors).[141] While some advocate risk adjusting performance measures,[142] NCQA favors approaches that make disparities transparent. SDOH risk adjustment without stratification can obscure meaningful differences in quality and can mask real disparities.[143] Through penalties and bonus payments, some value-based payment programs may potentially transfer payments from "safety-net" providers who can face greater challenges in achieving high performance scores to those serving richer and healthier patients, which could exacerbate disparities. Alternatively, health plans and CINs that use value-based payment programs could pay more to practices that serve disadvantaged patients, similar to how they pay more for patients with greater clinical complexity.

Quality Improvement

This section outlines how to use data to continuously improve the SDOH program and its interventions. Organizations use a formal quality improvement process to improve health and social outcomes, member and patient satisfaction and operational efficiency, and reduce preventable health care utilization and costs. One common approach to quality improvement is the Plan-Do-Study-Act (PDSA) cycle,[144] which organizations use to test and improve interventions.

PLAN **Develop a plan to test the intervention.**
- Plan the test. What question is being answered? What is the predicted outcome? What data must be collected?

DO **Carry out the test.**
- Carry out the test on a small scale, documenting problems and unexpected observations.

STUDY **Observe and learn from the consequences.**
- Analyze results and compare to predictions.

ACT **Determine what modifications can be made to the intervention.**
- Make a plan for next steps based on the result.

Table 6 contains an example of how to use a PDSA cycle to work toward an SDOH improvement goal.

TABLE 6: PDSA Cycle

Example Goal: By September 15, 2021, increase by 50% the number of health plan members enrolled in case management who are screened for SDOH.

PDSA	EXAMPLE QUESTIONS TO CONSIDER
Plan	• How will eligible members be assessed for SDOH? • What subset of members will be screened in the pilot-test (e.g., geographic area or market, members referred by a case manager)? • What assessment tools will be used? • Where will screening be documented? • If a member screens positive for an unmet social need, how will that need be addressed? • How else can success be evaluated? • What specific metrics are being used to measure the success of the intervention? • What baseline information could be collected to evaluate screening and referrals against health outcomes and costs?
Do	Implement the intervention. Document problems and challenges.
Study	• What challenges were encountered when implementing the selected assessment tools? • How much time did the assessment add to the case management encounter? • What happened to case managers' other duties when they increased the amount of time they spent conducting and documenting SDOH assessments? • What are the best methods for evaluating the data gathered from the pilot? • How should the aggregated and synthesized data be presented? • What were the methodological limitations for evaluating the pilot (what can be inferred)?

TABLE 6: PDSA Cycle (Cont.)

Act	• Should the pilot be scaled beyond members enrolled in case management? • Should changes be made to the assessment tools or documentation systems? • Should changes be made to how assessments are conducted? • Should another pilot test be conducted?

The following example describes how one CIN, MercyOne, used the PDSA cycle to implement universal SDOH screening and improve its ability to meet patients' social needs.

IN-THE-FIELD EXAMPLES AND TOOLS: MercyOne Population Health Services Organization

Situation: MercyOne is a CIN that comprises 420 hospitals, clinics and health care facilities. MercyOne recognized that patients were facing significant social barriers to better health, but without a coordinated effort to screen patients, the magnitude of need was unknown. Providers wanted to ask patients about health-related social needs but did not feel equipped with the knowledge or resources to address identified needs.

Solution: The MercyOne Central Iowa Region participated in CommonSpirit Health's grant to implement universal social needs screening in primary care and provide CHWs to partner with patients who screen positive.

MercyOne evaluated existing SDOH screening tools, including Health Leads* and PRAPARE,** and developed a tool tailored to its communities. Questions require a "yes/no" response, with a "yes" response indicating a need. The tool is now available electronically, alerting CHWs of positive screens in real time. MercyOne used the PDSA*** cycle methodology throughout implementation to improve both screening rates and patient engagement.

CHWs at MercyOne use standard protocols within a care management platform that guide them through each patient interaction and allow them to close the loop on community referrals. To build relationships with community organizations and learn their workflows, MercyOne CHWs receive paid time to volunteer at community organizations, which in turn helps refine patient recommendations.

Results: From December 2017–September 2019, MercyOne observed the following results in the Central Iowa region:

- More than 12,000 patients were screened for social needs.
  - 20% of patients screened positive in at least one social need domain.
  - 45% of patients who screened positive requested assistance.
  - Social isolation was the area of greatest need (12%), followed by food insecurity (8%) and transportation (6%).
- Almost 1,000 patients were referred to resources.
  - 68% of patients referred to resources were able to be reached for follow-up and confirmed successfully connecting to a resource.
  - 56% of patients referred to resources were able to be reached for follow-up and confirmed the resource addressed their needs.
  - Preliminary results indicated a decline in health care expenditures for patients who were connected to resources.

These results and claims were not independently verified. NCQA makes no representation or warranties and has no liability to anyone who relies on the results and claims.

*For more information on Health Leads' social needs screening toolkit, visit https://healthleadsusa.org/resources/the-health-leads-screening-toolkit.
**For more information on the PRAPARE assessment tool, visit http://www.nachc.org/research-and-data/prapare/toolkit.
***For more information on PDSA, visit http://www.ihi.org/resources/Pages/Tools/PlanDoStudyActWorksheet.aspx.

Summary

Commercial health plans and CINs have a unique opportunity to address SDOH and improve health outcomes and health equity. In six sections, this Resource Guide highlights activities organizations have implemented to address SDOH:

- Assessment design.
- SDOH data.
- Data sharing, data integration and data quality.
- Collaboration with community-based organizations.
- Measurement and evaluation.
- Quality improvement.

In-the-field examples give a closer look at how health plans implement activities. Although this guide does not represent an exhaustive list of activities, it can be a resource for influencing development of initiatives and programs to address SDOH.

Acronyms

ACA	Affordable Care Act, 2010
ACO	accountable care organization
CBO	community-based organization
CIE	community information exchange
CIN	clinically integrated network
CMS	Centers for Medicaid & Medicare Services
EHR	electronic health record
HEDIS	Healthcare Effectiveness Data Information Set
HIE	health information exchange
ICD-10	International Statistical Classification of Disease and Related Health Problems, 10th Revision
LTSS	long-term services and supports
NCQA	National Committee for Quality Assurance
PCMH	patient-centered medical home
PDSA	plan-do-study-act quality improvement cycle
PHM	population health management
PRAPARE	Protocol for Responding to and Assessing Patients' Assets, Risks and Experiences
SDOH	social determinant of health (the literature may use SDH as an alternate)
SNAP	Supplemental Nutrition Assistance Program

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