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Screening for Social Determinants of Health in Populations with Complex Needs: Implementation Considerations

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IN BRIEF

With the recognition that social determinants of health (SDOH) can account for up to 40 percent of individual health outcomes,[1] particularly among low-income populations, their providers are increasingly focused on strategies to address patients' unmet social needs (e.g., food insecurity, housing, transportation, etc.). This brief examines how organizations participating in *Transforming Complex Care* (*TCC*), a multi-site national initiative funded by the Robert Wood Johnson Foundation, are assessing and addressing SDOH for populations with complex needs. It reviews key considerations for organizations seeking to use SDOH data to improve patient care, including: (1) selecting and implementing SDOH assessment tools; (2) collecting patient-level information related to SDOH; (3) creating workflows to track and address patient needs; and (4) identifying social service resources and tracking referrals.

C ompared to other industrialized nations, the United States spends much less on social services, and much more on health care.[2] This is true despite evidence that social determinants of health (SDOH) — including income, educational attainment, employment status, and access to food and housing — affect an array of health outcomes,[3] particularly among low-income populations.[4] Individuals with unmet social needs are more likely to be frequent emergency department (ED) users, have repeat 'no-shows' to medical appointments, and have poorer glycemic and cholesterol control than those able to meet their needs.[5]

Recognition of the role SDOH play in influencing health outcomes is growing in the health care field, and many providers are developing strategies to more effectively address patients' social needs. This brief draws from the experiences of six health care organizations participating in *Transforming Complex Care* (*TCC*), a national initiative made possible by the Robert Wood Johnson Foundation and led by the Center for Health Care Strategies. The sites serve various populations with unique health and social needs, including adults with physical and behavioral health comorbidities, dual eligible individuals, and people experiencing homelessness. Through the initiative, the sites are refining their care models to more effectively identify and tailor services for these complex need populations. Drawing from the TCC site efforts, this brief explores strategies for using SDOH data to identify patient needs, including: (1) selecting and implementing SDOH assessment tools; (2) collecting patient-level information related to SDOH; (3) creating workflows to track and address patient needs; and (4) identifying community-based social service resources and tracking referrals.

Background

As interest has grown in addressing patients' social needs as a way to improve health outcomes, various national organizations have sought to standardize strategies for identifying and addressing

social needs in clinical practice. In 2013, the National Association of Community Health Centers, the Association of Asian Pacific Community Health Organizations, the Oregon Primary Care Association, and the Institute for Alternative Futures collaborated to develop a standardized assessment tool known as the Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE)[.6,7] Following this work, the Oregon Community Health Information Network released a set of electronic health record (EHR)-based tools that use PRAPARE to identify and address patients' unmet social needs.[8] Health Leads created a screening toolkit that guides providers in how to ask questions to uncover underlying social needs, and gauges the impact of these needs on health and well-being.[9] More recently, the Center for Medicare and Medicaid Innovation (CMMI) released an Accountable Health Communities (AHC) screening tool that was tested by a panel of experts to identify patients' unmet needs.[10] In 2014, the Institute of Medicine's (IOM) Committee on the Recommended Social and Behavioral Domains and Measures for Electronic Health Records recommended that at minimum, 10 patient-reported social and behavioral domains and one neighborhood/community-level domain should be documented in EHRs.[11] The recommendations established a much-needed benchmark for prioritizing SDOH categories for patient assessments. Exhibit 1 uses the IOM's domains as a framework for illustrating which social and behavioral domains TCC sites are addressing in their tools as well as domains used in the standardized models introduced above. For the purposes of this brief, SDOH include the social, behavioral, and environmental determinants of health and data being collected by *TCC* site.

Exhibit 1: SDOH Tools Used at TCC Sites by IOM Social, Behavioral and Environmental Determinants of Health Assessment Domains*

IOM Domain	Number of TCC Sites Screening for Domain	AHC Screening Tool	PRAPARE Tool	Health Leads Social Needs Assessment
Alcohol use	3			✔ (optional)
Race and ethnicity	1		✔	✔
Residential address	4	✔	✔	✔
Tobacco use	2			✔ (optional)
Median income	2		✔	✔
Depression	4			✔ (optional)
Education	4		✔	✔ (optional)
Financial resource strain**	6	✔	✔	✔
Intimate partner violence***	1 (optional)	✔	✔ (optional)	✔
Physical activity	3			✔ (optional)
Social connections/isolation	5		✔	✔ (optional)
Stress	5		✔	✔ (optional)
Other *(Determinants not in IOM definition)*	Other data collected by TCC sites: Air pollution; childcare; disability; drug use; employment; fire concerns; general wellness/quality of life; health literacy (3); legal challenges; medical bills; medication; compliance barriers; parenting; patient engagement (2); seatbelt use; sexual health; spirituality/ social connections (2); work environment concerns	Transportation	Employment; health insurance status; incarceration (optional); language; refugee status (optional); seasonal or migrant farm work as main source of income; transportation; veteran status	Childcare (optional); employment (optional); transportation

* Note that some sites regularly ask about social needs, but this information may be captured outside of their SDOH tool.
** Includes food and housing scarcity.
*** May include interpersonal safety, safe environment, and/or exposure to violence.

Selecting, Adapting, and Adopting Assessment Tools

Many *TCC* sites adapted existing assessment tools or created new ones in order to better capture patients' social needs and barriers to care. Factors to consider in deciding whether to adapt an existing tool or develop a new one, include the: (1) capacity to address specific needs (e.g., contracts with community-based organizations, existing relationships, knowledge of community assets, staff trained to screen and address); (2) availability of local resources/referral network; (3) ease of use within a clinical setting; and (4) the ability for a tool to capture specific needs that the organization can address.

For example, Redwood Community Health Coalition (RCHC), a consortium of 17 health centers in Northern California, tailors questions from the PRAPARE tool according to each center location. The health centers have agreed upon a standard set of "required" PRAPARE questions to pilot; however, provider comfort level and preference dictate which additional, "optional" PRAPARE questions are used for each center. One of Redwood's members, West County Health Centers, is piloting what it has coined "PRAPARE Plus," incorporating additional SDOH metrics such as medication access, literacy, caregiving, and financial abuse (exerting inappropriate control over another person's finances) into the standardized tool.

In contrast, the AccessHealth Spartanburg team has developed its own screening tool that includes social needs questions not captured by other standardized assessments. For example, AccessHealth's tool queries about a patient's connection to a religious community, which may provide an array of social supports, including transportation. The tool also measures health literacy, [6] and the patient's health and social needs at baseline. The collected information is used to inform individual care planning, goal setting, and appropriate resources for the patient.

Other considerations in selecting and implementing a tool include how much information to collect, and how to share information with other providers and community organizations. Some *TCC* sites encourage providers to ask as many questions as possible in order to understand the needs of individual patients as well as the total population served. Others, however, limit the number of questions due to time constraints and concerns that it may be unproductive to unearth needs that providers cannot directly address. There are also varying beliefs regarding the privacy of SDOH information. In particular, some providers believe that SDOH data represent protected health information that could be subject to the Health Information Portability and Accountability Act (HIPAA) or other state laws. Accordingly, it is important for organizations to review all relevant privacy and consent laws and establish policies governing the types and ways that information can be exchanged.

View *TCC* Sites' Assessment Tools

Questions from the screening tools developed or adapted by the *TCC* sites are available to download. Visit **www.chcs.org/sdoh-screening/**.

AccessHealth: Providing Linkages to Services Beyond Health Care

In addition to connecting patients to health care, AccessHealth Spartanburg (AHS) serves thousands of low-income South Carolinians by referring them to social services such as food pantries, shelters, and job placement programs.

Cartia Higgins, a community health worker at AHS, recently referred a homeless man with a serious leg injury to physical therapy and helped him obtain a prosthetic leg. But just as important as this critical medical treatment, Higgins was able to link him to community resources that addressed his most pressing need — a lack of stable housing.

Collecting and Integrating SDOH Information

After selecting an assessment tool, providers must integrate it into the screening process. For example, OneCare Vermont, a statewide accountable care organization (ACO), has embedded its screening tool, the Vermont Self-Sufficiency Outcomes Matrix, into its electronic care coordination platform. By integrating the screening process into the shared care coordination tool, it is accessible to care team members at both the community and health system levels, enabling multiple team members to track patients' needs and progress toward achieving goals. The assessment can be completed on paper and uploaded to the system, or completed electronically.

Similarly, ThedaCare, a nonprofit health system in northeastern Wisconsin, created an electronic tool for community paramedics who provide home-based services to patients in need. The community paramedics have online access to EPIC, the health system's EHR, in order to update patient SDOH information. NoteWriter,[12] a streamlined electronic template and reminder system within EPIC, prompts the paramedic to ask about any barriers to care or life hazards that may be present in the patient's home or environment. Barriers to care are recorded at every home visit, and life hazards are addressed with patients during home visits. Through NoteWriter, the paramedic can enable access to a patient's information by his or her provider team with the click of a button. This tool has increased the speed at which paramedics can record patient-related SDOH information, improved the consistency of documentation, and streamlined the process of communicating with the care team. ThedaCare estimates that this tool has decreased its average home visit by 15 minutes, which in turn has expanded the amount of patients a community paramedic can see on any given day.

Integrating an SDOH tool within patient health records can be costly and time-consuming, and may require a significant investment in data system upgrades. As a result, some providers may opt for more "low-tech" methods, such as paper and pencil surveys, until they have the resources to embed the tool electronically. For example, prior to adding its SDOH assessment into its care management software, AccessHealth Spartanburg collected information and tracked referrals using paper records.

> **ThedaCare: Leveraging Community Paramedics to Extend the Reach Beyond Health Care**
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> ThedaCare's community paramedicine program helps high-need, high-cost patients by identifying health hazards and providing routine medical care within the home, as well as linkages to social services.
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>
>
> Community paramedics assisted one 47-year-old man who was experiencing up to 30 pseudoseizures a day by reconciling his medications and addressing environmental factors, such as a lack of air-conditioning, which aggravated his health condition. Today, the patient has resumed activities in his community, is seizure-free, and no longer has to wear a helmet to prevent fall injuries at home.

Creating Workflows to Track Patient Needs

Organizations administering SDOH assessments often establish workflows to track patient needs and referrals. This helps standardize the process of screening patients and referring them to services, and allows the care team to better understand team members' roles and responsibilities. Provider workflows typically include: (1) time frame for administering an assessment (e.g., during intake,

following the first appointment, etc.); (2) care team member(s) responsible for conducting assessments and subsequently making referrals; and (3) tracking of necessary referrals and follow up. Virginia Commonwealth University Health System's (VCU Health) TakeCCARE (Complex Care Assisting and Reviewing Education) program for complex patients developed a workflow for administering the Health Leads Social Needs Assessment tool (see Exhibit 2). The team administers the survey when the patient is initially hospitalized, following discharge, and during reassessment. Establishing a consistent approach to measurement ensures that patients are assessed at appropriate intervals to track changes in health condition, social needs, goals, and referrals. It also helps providers collect "clean" data that can be used for population-level analyses.

When establishing a workflow, it is important to consider which care team member is best suited to administer the SDOH assessment. Because of their lived experience and unique understanding of the communities they serve, community health workers are well positioned to speak with patients about the social barriers they face. In addition, care team members who conduct home visits (e.g., nurses, community paramedics, peers) have the innate ability to address patients' social needs due to their experiences, on the ground training, and "window of opportunity" to observe patients in their natural home environment. Finally, clinical social workers, who have substantial background in the impact of social needs on general health, and receive training in making referrals to social services, might also be considered for administering a SDOH tool.

Exhibit 1: VCU Workflow for Administering the Health Leads Social Needs Assessment: Timeline of Typical Relationship between CHW and Patient after Hospitalization

Patient is hospitalized	Week 1: Home visit two days after discharge	Weeks 2-5: Care management	Week 6: Care management and assessment	Weeks 7-12: Care management and reassessment
■ During the morning huddle, new patients are reviewed and assigned to a CHW for the TakeCCARE program ■ CHW contacts patient: - Bedside introduction - Schedules a home visit - Administers baseline PAM/VR-12/ social needs assessment ■ Patient is discharged from the hospital	■ If not conducted at hospital, administer baseline PAM/VR-12/social needs assessment ■ Listen to/document patient's goals, preferences, and cultural/linguistic barriers to care ■ Reinforce and align patient's goals with care plan ■ Assess, identify, and address social needs ■ Provide disease self-management coaching	■ During weekly home visits: - Listen to/document patient's goals, preferences, and cultural/linguistic barriers to care - Reinforce and align patient's goals with care plan - Assess, identify, and address social needs - Provide disease self-management coaching	■ Administer follow-up PAM/VR-12/social needs assessment if original PAM score is 3 or 4, otherwise, wait until week 12 ■ Made decision on patient's ability to self-manage health ■ Continue to reinforce and align patient's goals with care plan ■ Assess, identify, and address social needs ■ Provide disease self-management coaching	■ Administer follow-up PAM/VR-12/social needs assessment ■ Continue to reinforce and align patient's goals with care plan ■ Assess, identify, and address social needs ■ Provide disease self-management coaching ■ CHW closes out care management process for patient

Identify Community Resources and Close the Referral Loop

Many health care organizations lack a formal inventory of a community's available resources to address SDOH, as well as a standard process for tracking what happens after referrals. Often there is a lack of coordination between a community's social service organizations (such as food banks, homeless shelters, transportation agencies, etc.) and health care providers, many of which serve the same clients.

TCC providers have sought to combat these issues by convening community stakeholders to: (1) identify the social service assets and gaps within the community; (2) help patients understand their benefits (e.g., Supplemental Nutrition Assistance Program (SNAP), heating assistance, Women Infants and Children (WIC) benefits); and (3) establish relationships with "non-traditional" partner organizations such as YMCAs, faith-based organizations, community centers, and others. ThedaCare, for example, is partnering with Gold Cross Ambulance in forming an advisory board that will work collaboratively with community organizations and health system leadership to identify community resources and address SDOH. This will allow community paramedics to more easily make referrals when patients' unmet needs are identified.

Many provider organizations are beginning to use technology-based applications to ensure that a patient connects to a referred social service agency or community-based organization and ultimately receives the intended service. AccessHealth Spartanburg is piloting Healthify — a software platform that helps health care organizations find community services, track social needs, and coordinate referrals with community partners — in combination with the organization's electronic workflow and care plan to ensure that patient needs are documented across the care team. In addition, two Redwood Community Health Centers (RCHC) participating in *TCC*, Petaluma and West County Health Centers, have been pilot testing a program called Purple Binder.[13] Purple Binder's web-based referral network creates a feedback loop between health systems and community providers by giving them the ability to access available resources, make referrals, and track outcomes. Parallel to the pilot, RCHC is conducting a scan of similar platforms to ensure the final selected product meets health center needs. See Exhibit 3 for the functionality assessment that RCHC is using to guide the selection process.

Because some providers may not have the resources to incorporate a new technology into their workflow, organizations may consider alternative options such as building their own web-based catalogue. Mountain-Pacific Quality Health's ReSource Team in Kalispell, Montana includes a registered nurse and volunteer community health worker from ASSIST, a nonprofit organization that uses volunteers to connect socially and geographically isolated individuals to community resources. Through this partnership, the ReSource Team has access to a public-facing, online database created by ASSIST that catalogues local resources to address patients' SDOH needs.

Exhibit 3: Using Electronic Platforms to Catalogue Community Resources and Address SDOH

There are variety of applications that providers and clinical care team members can use to search, track, and connect patients to social services in their communities. Following are examples of national as well as local tools (see links for more information):

- **1Degree**, San Francisco, California
- **Aunt Bertha**, Austin, Texas
- **Healthify**, New York
- **Health Leads Reach**, Boston, Massachusetts
- **Purple Binder**, Chicago, Illinois
- **NowPow**, Chicago, Illinois

Redwood Community Health Coalition created the following functionality assessment to guide the selection of an electronic tool to help their providers address patients' SDOH.

HEALTH CENTER MUST-HAVE FEATURES:	HEALTH CENTER OPTIONAL FEATURES:
✔ Vendor can fully resource the community and maintain resource directory (does not depend solely on user crowdsourcing for this function).	✔ Categorizes resources by social work standard codes.
✔ Referral system (closed loop preferred).	✔ Contains user rating/comments system.
✔ Public-facing website.	✔ Contains integrated SDOH questionnaire that drives automatic referrals.
✔ Resources available to patients via web/text/phone/print (English/Spanish option available).	✔ Integrates with EHR and HIE.
✔ Organization/user level data on system usage and referral patterns and ability to export this data.	✔ Users can upload patient flat files.
✔ Ease of use/low-cost integration for community services.	✔ Users can create a list of notes or "favorite" resources that can be accessed by the team members.
	✔ Users can create a personal list of favorite resources within product.
	✔ Health center single sign-on capability; thus, users do not have to sign on separately to the resource directory.

Barriers and Challenges to Addressing SDOH

Health care organizations typically face several challenges in implementing strategies to assess and address SDOH. These include:

- **Communicating appropriately with patients about SDOH,** without jeopardizing the patient/provider relationship. This is especially true during the initial stages of a relationship, when trust and therapeutic rapport have yet to be established. If a provider is viewed as presumptuous or judgmental, the provider-patient relationship could be unintentionally damaged.[14] Care team members who have not been adequately trained on how to discuss SDOH with patients may feel uncomfortable asking personal questions that expose social barriers such as housing instability, domestic violence, or financial insecurity. Training care team members in

techniques such as motivational interviewing and health coaching can help empower staff and build confidence.

- **Building an adequate referral network** of agencies that offer expertise, services, or resources that address identified social needs can be complex and time consuming. This network of services should be based on data reflecting the patient population's most urgent needs and cataloguing the inventory of community resources. Health care organizations should dedicate resources to not only ensure that patients are referred to appropriate services, but also to build in consistent follow-up mechanisms to track connections to care and offer alternative options when necessary.

- **Integrating electronic assessment tools and resource inventories** appropriately into existing EHR systems. Off-the-shelf, tested assessment tools such as PRAPARE include guidance and templates for its integration into an agency's existing EHR.[15] Embedding a homegrown tool into an EHR may require extra time and resources.

- **Breaking down silos between health and social service organizations**, which typically have vastly different financing and IT systems. Organizations may need assistance in forming partnerships with social service agencies, developing strategies to align their systems, and building a streamlined referral process to track and deliver comprehensive resources to patients with complex needs.

Since health care organizations often have varying capacities and resources to dedicate to implementing SDOH assessments, an important step toward addressing patients' social needs includes assessing the specific needs of the organization, identifying the staffing model for implementation, and determining the ways in which the data will be used. The checklist in the right sidebar above outlines considerations for organizations to help guide their planning and adoption of SDOH assessment tools.

> **Checklist for Adopting SDOH Assessments**
>
> *What is needed?*
>
> ✔ Which tool best aligns with the organization's capacity to capture and address SDOH information?
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> ✔ How will SDOH data be recorded (e.g., EHR, shared care plan, paper and pencil)?
>
> ✔ What will be used to track referrals and connections to resources?
>
> ✔ What measures will be used to assess patient outcomes related to SDOH? Are they validated?
>
> ✔ What relationships need to be established between providers and community resources?
>
> *Who will capture patient SDOH data?*
>
> ✔ Which care team member will be responsible for administering the tool?
>
> ✔ What training is necessary for those administering the tool?
>
> ✔ How will those administering the tool be made aware of the available community resources, and how will they make connections to those organizations?
>
> *How will patient SDOH data be used?*
>
> ✔ How will this information inform clinical practice and connections to meet social needs?
>
> ✔ How will organizations refer patients with identified needs to community resources?
>
> ✔ How will organizations identify the types of information that will be shared between providers and community-based organizations, and how will the organization handle gathering patient consent?

Looking Ahead

As demonstrated by the *TCC* sites, many promising opportunities to assess SDOH across a continuum of backgrounds, levels of need, and settings are emerging within the field of complex care. These assessments will yield invaluable information to providers seeking to develop personalized, holistic care plans for their patients.

In order to build support for programs that address SDOH, the body of evidence demonstrating their effectiveness will need to expand. Providers should consider incorporating SDOH measures into the initial planning of an evaluation design. By collecting SDOH measures at baseline, and throughout the course of an intervention, providers will be better able to assess the impact of their efforts on patients' health and service needs when addressing social factors. The TakeCCARE program at VCU Health, for example, tracks whether their patients' needs have been assessed, identified, and addressed, both at six and at 12 weeks (typically when the patient "graduates" from the program). In the short-term, this information ensures that a patient's whole needs are being met, and in the long-term, it can be used to assess the value of these types of programs. In addition to using SDOH data for evaluative purposes, these data can be used to inform patient risk stratification tools. Redwood Community Health Coalition plans to use data they capture from PRAPARE to inform its risk stratification model, document patient complexity, and identify patients who may benefit from intensive case management.

With the release of CMMI's Accountable Health Communities screening tool and funding for the model, there will be additional examples of providers on the forefront of innovation identifying and addressing patient SDOH-related needs. Spreading and adopting these models will serve to close the gap between integrating clinical care and addressing patients' unmet social needs to impact health outcomes and improve quality of life.

ABOUT THE CENTER FOR HEALTH CARE STRATEGIES

The Center for Health Care Strategies (CHCS) is a nonprofit policy center dedicated to improving the health of low-income Americans. It works with state and federal agencies, health plans, providers, and consumer groups to develop innovative programs that better serve people with complex and high-cost health care needs. For more information, visit **www.chcs.org**.

ENDNOTES

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[6] For information on how the PRAPARE tool was created, visit the National Association of Community Health Centers at: http://www.nachc.org/wp-content/uploads/2016/08/Chapter_1-Understand_the_Project_Sept2016.pdf.

[7] For background on the PRAPARE tool, visit the National Association of Community Health Centers at: http://www.nachc.org/wp-content/uploads/2016/09/PRAPARE_Paper_Form_Sept_2016.pdf.

[8] For more information on the EHR tools, visit OCHIN at: https://ochin.org/blog/ochin-integrates-social-determinants-of-health-tools-into-epic/.

[9] For more information on Health Leads' social needs screening toolkit, visit: https://healthleadsusa.org/wp-content/uploads/2016/07/Health-Leads-Screening-Toolkit-January-2017_highres.pdf.

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[12] For more information on NoteWriter, visit PatientKeeper at: https://www.patientkeeper.com/clinical-solutions/notewriter.html.

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