

## Innovation Wave 47 - Summary Report

### A System Approach to Social Determinants of Health Screenings and Community Linkages

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#### Intent and Aim

A national shift toward value-based care models, including the accountable care model and the Accountable Health Communities model, is incentivizing health systems to address the ways in which social determinants of health (SDOH) affect a patient's health outcomes and well-being. To address patients' unmet social needs, health systems are screening patients and developing systems to connect patients with appropriate community resources. The aim of this work is to understand the current state of SDOH screenings—common domains, tools used, and the process of screening; the various ways linkages are made after the screening process; the ways organizations determine whether a linkage is “successful;” and how the healthcare sector can work with community partners to ensure resource alignment. In addition, we will consider some of the financial implications for this work such as how to afford the initial screening along with what health care is doing to support some of its key partners.

#### Background

The United States has, in the past, focused on improving the healthcare delivery system as a key to improving health outcomes. However, research has shown that medical care is a small contributing factor to the overall health status of a population, that interventions outside of the medical system are likely to have a larger effect on reducing illness and disparities,<sup>1</sup> and that higher social spending correlates with better health outcomes.<sup>2</sup> A literature review showed that, “100% of the studies evaluating income support programs, 88% of the care coordination and community outreach interventions, 83% of the housing support programs, and 64% of the nutritional support programs had statistically significant positive impact on health outcomes alone or on both health outcomes and healthcare spending.”<sup>3</sup>

Additionally, not addressing contextual aspects of an individual's life, including the ability to pay for medicine, is considered an under recognized cause of medical error, and can result in unnecessary tests, procedures, and medication; thus affecting both health outcomes and healthcare costs.<sup>4</sup> In recent years, health systems have become increasingly aware of the evidence that addressing SDOH is critical to advancing population health, improving the quality of care, reducing the cost of care, and advancing equity.

The World Health Organization (WHO) describes social determinants of health as “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.” Health People 2020 highlights five key areas of SDOH: economic stability, education, social and community context, health and healthcare, and neighborhood and built environment. Within these five determinants are key underlying issues.

Determinants	Key Issues
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Economic Stability	Employment Food insecurity Housing Instability Poverty
Education	Early childhood education and development Enrollment in higher education High school graduation Language and literacy
Social and community context	Civic participation Discrimination Incarceration Social cohesion
Health and health care	Access to health care Access to primary care Health literacy
Neighborhood and built environment	Access to foods that support healthy eating patterns Crime and violence Environmental conditions Quality of housing

### Opportunities to Address Social Non-Medical Needs

With the national shift from a volume-based reimbursement model to a value-based reimbursement model, there are opportunities to redesign the delivery system to go beyond the hospital walls and focus on a wider range of social, behavioral, economic, and environmental factors that influence health outcomes. While there have been many initiatives in the past few years to address social determinants of health, including place-based approaches, this paper will focus on integrating social needs screenings into healthcare settings.

Alternative payment models that incorporate social needs and realign incentives are becoming the future of value-based care.<sup>5</sup> In fact, both the Secretary of Health and Human Services, Alex Azar, and the Centers for Medicare and Medicaid Services (CMS) administrator, Seema Verma, have said that the transition to value-based care needs to be accelerated.<sup>6,7</sup> Nationwide, there has been support for the testing and spread of new delivery and payment arrangements that hold providers accountable for patient health and healthcare costs.<sup>8</sup> Many states are positioning the accountable care organization (ACO) model as a way to integrate essential, non-medical support into clinical care, which incentivizes team-based care, data sharing, referral networks and resources, and collaboration.<sup>9</sup> The bundled payment model reimburses for an episode of care of a specific condition over a defined period of time, incentivizing providers to integrate health and social services to improve outcomes. Additionally, the Patient Centered Medical Home (PCMH) care delivery model requires primary care providers to address patient social needs before receiving payment, which includes advanced care coordination and supporting linkages of patients to local social service agencies.<sup>10</sup> In February 2018, five Governors released a “Bipartisan Blueprint for Improving Our Nation’s Health System Performance,” which outlines strategies for improving health system performance and reorienting the healthcare system on value. One recommendation was to expand successful state Medicaid innovations, and a key component under that suggestion was to incorporate social determinants of health into Medicaid as well as measure and incentivize health and critical social outcomes (e.g. reducing poverty, increasing employment, and reducing criminal recidivism).<sup>11</sup>

Furthermore, CMS is currently testing an Accountable Health Communities (ACH) Model and an advanced primary care model called the Comprehensive Primary Care Plus (CPC+) program. The goal of the ACH Model is to test whether systematically identifying and addressing health-related social needs will reduce costs and improve health outcomes.<sup>12</sup> Participating organizations serve as “hubs” or “bridges”

in their communities. The screening tool CMS released is intended to be a standard tool used across all participating communities. CPC+ Track 2 has a requirement for organizations to systematically assess patients' psychosocial needs, inventory resources to meet those needs, and identify how the practice can develop capability to meet those needs. It does not require organizations to use a specific tool. In year two in CPC+ Track 2, organizations are expected to address psychosocial needs for at least the high-risk patient population.<sup>13</sup> Health Leads predicts that these two pilot programs will increase the number of social needs screenings from tens of thousands per year to about 15 million per year, indicating a trend in the integration of social needs into medical care.

## Methods

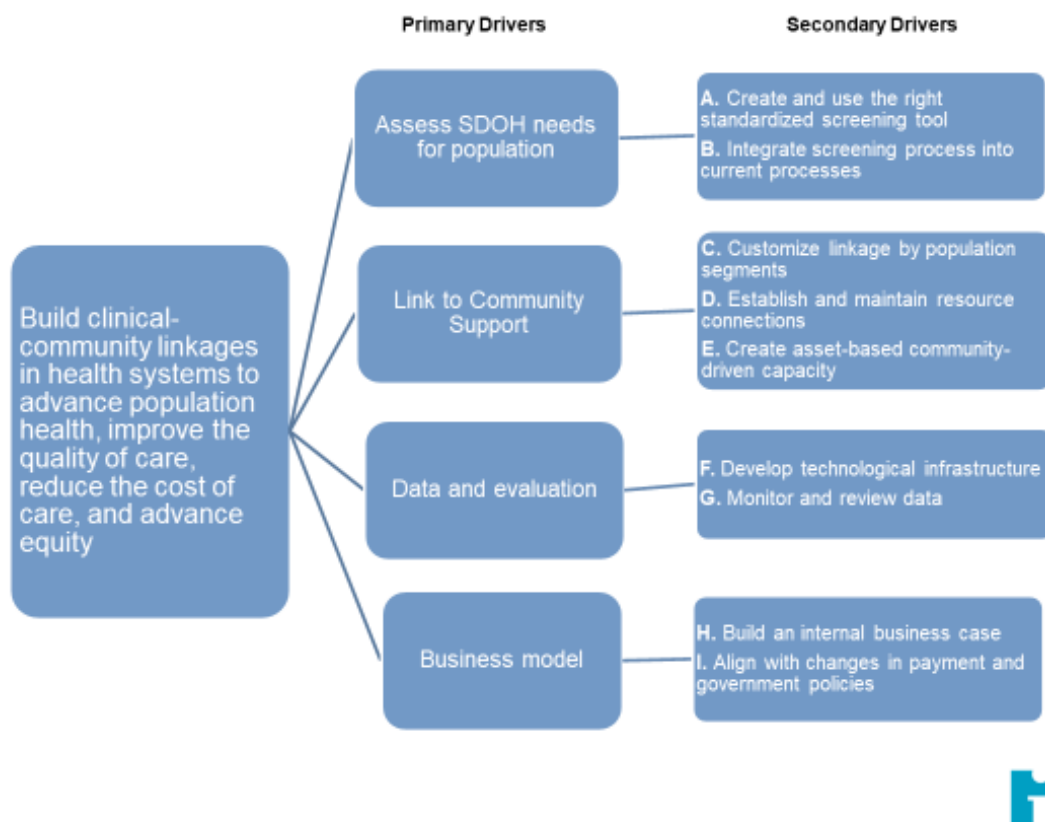
The first phase of this 90-day wave consisted of scanning healthcare journals and leading healthcare magazines to identify the current state of SDOH screenings and existing tools used. The second phase consisted of key informant interviews. See Table 1 for the list of organizations that took part in the interviews.

*Table 1. Key Informant Interviews: List of Organizations*

Organization
Contra Costa Health Services
CHI Franciscan Health
Health Leads
Kaiser Permanente's Care Management Institute
Main Line Health
Northwell Health
NowPow
Presbyterian Healthcare Services
Rush University Medical Center
University of California, San Francisco and Social Interventions Research & Evaluation Network (SIREN)
CMS AHC Albuquerque
Pathways HUB Akron Summit Community Action, Inc.
Tenfold Health
Columbia Gorge CCO Oregon

## Results

We have synthesized our findings into a simple driver diagram that has an aim of building clinical-community linkages in health systems to advance population health, improve the quality of care, reduce the cost of care, and advance equity. The paper will follow the structure of the secondary drivers, though it is not intended to be sequential. Multiple drivers can be, and must be, pursued simultaneously to achieve results at scale.



## Assess Social Determinants of Health Needs for Population

### A. Create and use the right standardized SDOH screening tool

#### *Asset analysis and needs analysis*

When approaching this process, it is common to start with a needs analysis or a process that focuses on community needs. This has the potential consequence of stigmatization and bias focused on deficiencies. Using a strength-based approach and understanding social connections, resiliency, and other protective factors positively correlates with long-term outcomes.<sup>14</sup>

Asset-based community development offers a framework that focuses on community strengths, capacity, and assets, rather than deficits and needs. It is built on four principles:<sup>15</sup>

1. It focuses on community assets and strengths rather than problems and needs
2. It identifies and mobilizes individual and community assets, skills and passions

3. It is community driven – ‘building communities from the inside out’ (Kretzmann & McKnight, 1993)
4. It is relationship driven.

This model acknowledges the skills and abilities of individuals within the community, allows for deeper engagement with those with lived experience, identify existing community organizations and institutions (non-profits, local businesses, government agencies, colleges/universities, etc.), looks at the physical environment, considers the local economy, and appreciates the stories, culture, and heritage of the community. For more on this approach, see Section E: “Create asset-based community-driven capacity.”

Once the assets have been identified, ensure that there is a process to engage identified stakeholders to identify the top needs. The set of questions asked in the screening tool should reflect the top health and social service needs of the community served. Depending on the resources available, this can be done several ways: through coalition building with other organizations to do a community health needs assessment (CHNA); examining local and regional data; patient surveys; focus groups with patients, community leaders, and other relevant stakeholders; and/or the analysis of existing data. As much as possible, engage individuals with lived experience of inequity throughout the process who can offer expertise into the assets, barriers, and solutions.<sup>16</sup>

#### *Define the target population*

After the most critical needs have been identified, define the target population who will benefit from linkage by understanding the organization’s aim in engaging in this work and then prioritizing which SDOHs to target, which population will benefit most, and which SDOH will decrease per capita healthcare expenditures. Often, the greatest initial impact will be addressing SDOH for populations at highest risk, such as those with dual eligibility, low-income individuals or families, and those who are disabled.<sup>17</sup> Eventually, it will be important to spread the interventions to all patients as limiting screening practices based on apparent social status may reinforce stereotypes, stigmatize the process, and could lead to implicit bias and presumptions about certain populations.

#### *Choosing the appropriate tool*

There are numerous existing tools that have been widely adopted for social care screenings. Based on interviews, Table 2 shows some of the more commonly adopted tools and the domains the tools cover.

*Table 2. Common Social Needs Screening Tools & Recommended Domains for Assessment*

	<a href="#">Health Leads</a>	<a href="#">Protocol for Responding to and Assessing Patients’ Assets, Risks, and Experiences (PRAPARE)</a>	<a href="#">CMS Accountable Health Communities Health-Related Social Needs Screening Tool</a>	<a href="#">Health Begins</a>	In all tools
Employment	X	X	X	X	X
Food insecurity	X	X	X	X	X
Housing instability	X	X	X	X	X
Housing condition		X	X		
Financial strain	X		X	X	
Utility Needs	X	X	X		
Education	X	X	X	X	X

Social support and isolation	X	X	X	X	X
Physical activity			X	X	
Mental/behavioral health		X	X	X	
Substance use	X		X		
Immigration		X		X	
Exposure to violence	X	X	X	X	X
Transportation	X	X	X	X	X
Other questions asked	Childcare	Veteran Status; Insurance status; Income; Access to health care; phone; incarceration; refugee	Disabilities	Civic engagement	
Estimated Time to Complete by Patient	5 minutes	10 minutes	5 minutes	N/A	

Common social needs across most tools include questions on education, employment, financial strain, housing instability, food security, exposure to violence, food insecurity, transportation, and social support. This aligns with the five key SDOH outlined by WHO. Depending on the population served, health systems have incorporated additional domains not reflected in the tools outlined in Table 2, such as gender identity, incarceration history, caregiver responsibilities, dental or vision needs, legal assistance, and voting status. For additional screening instruments, the [Social Interventions Research & Evaluation Network \(SIREN\)](#) has compiled a list of available tools, brief summaries about where and when the tools have been used, and any existing evidence about them. In addition to screening instruments, SIREN has compiled reports, briefs, and commentaries into its Evidence Library, as well as webinars and presentations that may be useful to stakeholders involved in this work.

Note that the screening process for pediatric populations differs slightly and may need a different questionnaire and process. The [American Academy of Pediatrics' Screening Technical Assistance & Resource \(STAR\) Center](#) has compiled a list of screening tools for children aged 0 to 5 years. Common tools used to collect pediatric social histories include WE CARE (Well Child Care, Evaluation, Community Resources, Advocacy, Referral, Education Survey Instrument) and Whole Child Assessment for Ages 0-6 months.

The suggested instruments mentioned in Table 2 have been tested and validated for research purposes, though the actual questions used should be adapted in a clinical setting that best fits the needs of the patient population. Questions should be tested to confirm that the meaning of the question is clearly understood by both patients and providers. The Joint Commission recommends that patient materials be written at or below a fifth-grade reading level.<sup>18</sup> On average, adults in the U.S. read between the eighth and ninth grade level<sup>19</sup> and the average Medicare beneficiary reads at fifth-grade reading level.<sup>20</sup> The problem is compounded for adults whose primary language is not English, in which case, translation services should be offered. It is even more important to test questions in advance to check for understanding if the tool is translated into a different language or if the process is dependent on a translator who has not been fully trained on the tool.

## **B. Integrate the screening process into current processes**

### *Determine people responsible*

While there is an agreement about common domains health systems should screen for—education, employment, exposure to violence, financial strain, food insecurity, transportation, social support, and housing instability—there could be variation in how the tool is administered and who does it. A previous IHI wave on clinical-community linkages (Wave 41) found that existing models rely heavily on community health workers (CHW) to serve as the coordinator to do the identification, engagement, and linkage, but many organizations use CHWs as a one-size-fits all solution and there are some issues that they may not be equipped to deal with.<sup>21</sup> Some organizations find it most effective to have physicians administer the screening; others use self-administering methods, such as paper, tablet, or computer; others use college students; and others use nurses, medical assistants, health conductors, or other workforce. It is important to understand and respect how the target patient population prefers to disclose sensitive information and the most comfortable way to seek assistance. For example, Contra Costa Regional Medical Center decided to train their workforce (e.g. *promotoras*, African American health conductors, and re-entry health conductors) to administer the screening after a visit instead of during registration so that patients can build a trusting relationship first.<sup>22</sup>

When the person or people responsible have been identified, their roles and responsibilities should be documented. For organizations with a diverse patient population, there should be diversity of skill sets among the staff, including motivational interviewing, community involvement, and/or language capacity. For example, research and interviews suggest that provider and patient race concordance is associated with greater satisfaction with care, suggesting that there should be more efforts to increase the number of minority providers and the ability of providers to interact with patients who are not of their own race.<sup>23</sup>

### *Determine how to integrate into current processes*

To successfully make changes to any process, the initial step should be to understand what is sometimes referred to as “the psychology of change.” IHI developed a framework that is centered around the concept of “activating people’s agency” through five practices: unleash intrinsic motivation, co-produce in authentic relationships, distribute power, co-design people-powered change, and adapt in action. In this work, steps should be made to understand that staff may believe the importance of new initiatives but may have challenges to implement them due to the fear of increasing workload and/or job insecurity. At the front-line staff level, planning should start with a way to assess the current activities in the organization related to social care screenings, as there might be individuals or groups who have already been doing the screening and/or linkage or see this work as part of their scope of work. Additionally, there should be engagement of all stakeholders who will be impacted by the changes to the clinical workflow. These stakeholders are crucial to identifying existing needs and designing or redesigning the workflow. If there are individuals, such as social workers, who are currently responsible for this work, engage them early in the process and identify how the changes would allow them to work more effectively and at the top of their license. Once the existing assets within the organization have been identified, creating the right structure to fill in the gaps will allow the process to operate more efficiently.

Once the process has been outlined, small tests of change should be implemented to determine the appropriate way to do the screening and what it looks like for a patient moving through the system. For example, integrating demographic information into the workflow so that patients are not asked to fill out the same information unnecessarily. While income level or occupation might be collected more frequently, race/ethnicity might only need to be collected once. A patient may feel frustrated if asked to fill out the same questions multiple times, which may damage the trust they have in the health system. As mentioned previously, it is important to plan for how to spread this process to all patients. Not only can limiting screening practices based on apparent social status stigmatize the process, it could reinforce implicit bias and institutional inequity, and fail to support patients who go through a job loss or another adverse life event when they were previously economically secure.<sup>24</sup>



## Link to Community Support

### C. Customize linkage by population segments

The Institute of Medicine’s “Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century” contains ten rules to redesign and improve care. Number two is, “Customization based on patient needs and values: The system of care should be designed to meet the most common types of needs, but have the capability to respond to individual patient choices and preferences.” Number three is, “The patient as the source of control: Patients should be given the necessary information and the opportunity to exercise the degree of control they choose over health care decisions that affect them. The health system should be able to accommodate differences in patient preferences and encourage shared decision-making.”

Organizations can consider planning for several different cost-effective interventions that will link patients to community support based on the level of support and resources needed to close a loop. This is dependent on several factors, including the number of social needs identified, the severity of the issue, the level of existing social support, and the preference of the individual. For example, an older adult with one or two needs and with existing social support may simply need a referral to an established community partner, which is less resource intensive, compared to an older adult with more 3+ identified social needs with limited social support and limited English proficiency.

After the screening, patients should be engaged in the decision-making process regarding whether they want to be linked to resources, and if so, which need they would like to prioritize, and the degree of support they will need to successfully address their needs.<sup>25</sup> Patients should be asked about their priorities, concerns, existing resources, and desire for assistance. A detailed customized plan to address the needs, along with a timeline for follow-up should be formed with input from the patient. There may be different paths, depending on the needs of the patients and the social support they have in order to navigate the resources. In fact, some individuals may choose not to be connected to resources at that time. A study found that there was only a 35% overlap between the families who screened positive for food insecurity and those who requested food assistance.<sup>26</sup>

Table 3 gives an example of how organizations can plan to segment the way individuals are linked to resources. For individuals who need minimal direction, a list of resources is sufficient. For others with more complex needs, it might be more effective to have a community care coordinator who can identify, engage, and meet individuals in their home or community setting to address identified issues. In this example, the interventions are designed to meet population needs, but allow flexibility to respond to individual preferences.

*Table 3. Sample interventions by population segments*

<b>Level of support</b>	<b>Potential Interventions</b>
Low touch (1-2 identified needs, high-level of social support)	<ul style="list-style-type: none"> <li>○ Print out of list of resources with contact names</li> <li>○ Mobile app</li> <li>○ College students who can directly connect individuals to resources</li> </ul>
Medium touch	<ul style="list-style-type: none"> <li>○ Warm hand-offs between practice and community resource</li> <li>○ Establish expectations for follow-up</li> </ul>
High touch (high-risk, high-cost patients; low level of social support)	<ul style="list-style-type: none"> <li>○ Dedicated resources (e.g. social workers, community health workers, community care coordinators)</li> <li>○ Dedicated care management team</li> </ul>



**At this point in time we are not aware of any organization that is doing large scale SDOH screenings that has developed a robust segmented approach for connecting individuals to resources.**

#### **D. Establish and maintain resource connections**

Screening without a clear process to effectively and efficiently link patients to resources can be harmful and may lead to patients feeling frustrated, thereby damaging the trust between the patient and provider.<sup>27</sup> Prior to implementing the screening, it is important to establish a plan to engage resources within the community and develop an infrastructure to link patients to the appropriate resources and follow-up.

Although there is no recommended way to establish and maintain resource connections, outlined below are several examples from our interviews with key informants who have engaged in the implementation process. These examples provide a start to enabling bi-directional communication between provider organizations and social services organizations to ensure a closed-loop linkage.

- Many provider organizations are using technology-based applications to maintain an updated list of resources and to ensure that a patient connects to a referred organization, such as [Health Leads Reach](#) and [NowPow](#).
- Main Line Health in Pennsylvania started out with an Excel spreadsheet with 200 resources. Over the years, they transferred the resources onto a Wiki page staff can use to connect patients to resources, track recent updates and crowdsource information to keep resources updated. Now they are considering transferring these resources to [myHealthFinder](#).
- AccessHealth in Spartanburg South Carolina is testing [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.<sup>28</sup>
- Some Federally Qualified Health Centers (FQHCs) in California are testing a program called [Purple Binder](#), which is a web-based referral network that gives health systems and community providers the ability to access available resources, make referrals, and track outcomes to "close the loop."
- In Colorado, a project is underway to establish a statewide database of up-to-date community resources that allows physicians to assess patients' needs, create profiles for them, and connect them to community resources. The goal is that this will enhance collaboration across systems, which can lead to improved screening, service alignment, referrals, data and usage.<sup>29</sup>
- Medecision and Baystate Health in western New England launched [Aerial InCircle](#), a social-mobile application that allows patients to choose who can access their information and communicate with their care circle (e.g. care team, care givers, family, friends).
- [TAV Health](#) works to create a virtual team with community partners and providers.
- Contra Costa Regional Medical Centers in California worked with Health Leads to launch [CoCoHealth app](#), which helps community members identify their own resources in Contra Costa County. However, it does not yet connect social service agencies to providers to ensure a closed loop.
- Other applications provider organizations and/or care teams have used to search, track, and connect patients are [1 degree](#) and [Aunt Bertha](#).

Each provider organization should pilot the platforms to ensure the product meets the needs of the organization and patient population. Understanding the existing resources within the community and creating a system to track these resources, get feedback from patients about their experience, and update the resources accordingly can improve the quality of the resources and build patient and provider trust.

## **E. Create asset-based community-driven capacity**

As the number of screenings and linkages to resources increase, it will increase demand for social services and impact the carrying capacity of the social services sector. The 2015 Nonprofit Finance Fund State of the Sector survey found that 76% of non-profits reported an increase in demands for services – a finding that was consistent seven years in a row.<sup>30</sup> To get to scale, it is clear that strong collaboration across the public, private, and nonprofit sectors is necessary to the linkage process.

Past IHI research (Wave 42) has also found that having an “integrator”—a coordinating entity at the community or state level—to support the development, operation, and improvement of the system for coordination of service is necessary to avoid duplication of services for individuals. The most common collaborators with health care were social services organizations and local governments, and in almost all examples involving multi-sector collaborations, the healthcare sector plays a key role, but it is not at the center of the initiatives. Given this, healthcare should evaluate how to best contribute to community initiatives. In some cases, healthcare providers have had long existing relationships with community partners, while others are starting to build and strengthen those relationships. In both scenarios, there should be continued investment to build multi-stakeholder community coalitions through building trust and informal relationships across agencies. A past IHI 90-day research project (Wave 41) outlined high-level principles that should inform design for communities involved in working on clinical-community linkages (Appendix A).

There are many different models to build community capacity. The asset-based community-driven development model mentioned in Section A is one example that allows for engagement with those with lived experience, working with community partners to assess resources and create a shared plan for addressing gaps, acknowledging the assets, and appreciating the local culture. The Pathways to Population Health framework provides another way to help organizations progress in population health.<sup>31</sup> Additionally, the Aspen Institute has identified eight outcomes of community capacity building, which healthcare could consider when working with a community:

1. Expanding, diverse, inclusive community participation
2. Expanding leadership base
3. Strengthening individual skills
4. Encouraging a shared understanding and vision
5. Strategic community agenda
6. Facilitating consistent, tangible progress toward goals
7. Creating effective community organizations and institutions
8. Promoting resource utilization by the community

Frequently, collaboration is driven by alignment of project plans, sharing of metrics and data, and other formal activities. From these models, informal relationships are often a stronger driver to collaboration and the change process. Cross-sector collaboration requires the informal sense of shared values, common language, and trust in others’ intentions, which allows teams to have honest conversations about what is or is not working.<sup>32</sup> More time should be spent discussing personal drivers, deeply understanding each organization’s culture and language, and creating a space that shows a belief in people’s positive intentions even when approaches differ. In fact, having informal relationships allows community capacity building, which allows for appropriate local community members to take leadership for their own development.

## **Data and Evaluation**

### **F. Develop technological infrastructure**

If there is an electronic health record (EHR) system in place, integration of SDOH into the EHR system is critical and will allow better evaluation of programs. Researchers working with the Oregon Community Health Information Network (OCHIN) have found that patient and population health outcomes could be improved when the collection and presentation of SDOH data is standardized and accessible to providers.<sup>33</sup> Additionally, the Institute of Medicine (IOM) organized a committee that recommended social and behavioral domains and measures that capture the SDOH for electronic health records that will meet the “meaningful use” definition.<sup>34</sup> The 11 recommended domains are: race or ethnic group, education, financial-resource strain, stress, depression, physical activity, tobacco use, alcohol use, social connection or isolation, intimate-partner violence, and neighborhood income.

Several major EHR vendors, including EPIC, Cerner, athenahealth and eClinicalWorks, have begun to broaden the types of data they can collect to incorporate social determinants, population health, and other relevant data into their product, thus creating a Comprehensive Health Record (CHR). In fact, EPIC plans to include a standard SDOH screening based on the IOM recommendations in the 2018 version.

The challenges are that: 1) the different EHRs collect information differently, which makes it inconvenient for health systems that use multiple EHRs; 2) the domains included in the IOM recommendations are different than many screening tools that are used; 3) due to HIPAA compliance, health systems use a different platform to communicate with patients and community agencies and it is often not integrated with the EHRs. There needs to be a better data interoperability to support the exchange of information between provider, patients, and community partners, while ensuring the privacy and security safeguards of patient data.

### **G. Monitor and review data**

Often, the criteria for success are not clear and vary across organizations. Some define success based on process measures (e.g. linked to a housing agency; put on a waitlist for affordable housing). Others define success based on outcome measures (e.g. confirmation that an individual has moved into an affordable housing unit for a minimum of three months). For each domain, it is important to have both process and outcome measures that are clearly defined, easy to understand, and measurable to track progress. It is even possible to track based on “complete” or “finished incomplete,” which helps to identify gaps and needs that may require larger policy changes.

Additionally, to understand if an intervention is working as intended or engaging in a process of improvement, organizations must commit to using evidence and to generating new knowledge. As such, this includes creating a plan for who oversees reviewing the data, how often it is reviewed, the progress towards outcome goals, how that data informs continuous process improvements, and how data is used for institutional changes and resource allocations.

## **Business Model**

In health systems engaging in this work, the board and c-suite of the health system should understand why this work is important and how it addresses the Triple Aim. Increasingly, there are more monetary incentives to engage in this work and leaders need to be able to communicate the business case for this, how it fits into its strategic and operational objectives, and allocate the appropriate resources to ensure its success. Additionally, leaders must learn to work more closely with leaders in the finance and civic sectors to make sustainable investments towards health.

### **H. Building an internal business case**

As the work to address SDOH continues to ramp up, healthcare organizations are funding this work through grants or pilots. Few have business models that do not depend on outside financial support or create business cases to prove effect of an investment in their own revenue. In March 2018, the

Commonwealth Fund and KPMG LLP released a [guide](#) for health plans and providers to incorporate services targeting SDOH directly into their business operations.<sup>35</sup> The framework outlines six steps: 1) identify SDOH; 2) identify outcomes of success; 3) measure costs; 4) select investment models; 5) ROI calculation; and 6) sensitivity analysis and kick-off.



Source: Analysis of the authors, KPMG LLP.

It gives a framework for how healthcare organizations can build addressing SDOH directly into their operations without depending on external financial support.

### I. Align with changes in payment and government policies

It is clear that integration of medical and social services is the direction healthcare payment reform is heading. At the national level, the spread of alternative payment models (e.g. ACOs, bundled payments, and MACRA), incentivizes healthcare providers to explore ways to integrate health and social services. At the state level, the new and updated Medicaid managed care regulations are helping states to invest at the community level and pay for nonmedical interventions,<sup>36</sup> and states are using frameworks, such as the one released by the Center for Health Care Strategies and the Milbank Memorial Fund, to begin integrating medical and non-medical services into their payment and financing models.<sup>37, 38</sup>

While healthcare is undergoing payment reform, there is a trend in outcomes-based funding models in the social services sector. The theory is that paying for outcomes will align with motivation and commitment by giving service providers flexibility to focus and improve on services that produce lasting changes.

Healthcare organizations are familiar with the Pathways Community HUB model, which ties billing to outcome reporting. In fact, 50% of the HUB's funding is tied to specific health and social service outcomes produced and there are specific incentives in place for organizations to serve those at greater risk to mitigate the unintended financial incentives to only serve low-risk, easy-to-link individuals.<sup>39</sup> Instead of paying for short-term outcomes and forcing providers to subscribe to certain protocols, the model allows a community care coordinator to assess risk-factors, develop a care plan and complete identified pathways according to the individual's needs and preferences. To account for local variance in funders, each HUB contracts directly with care coordination funders in their area for different pathways completed.

In the social services sector, Pay for Success (PFS) ties payment for service delivery to achievement of measurable outcomes. Similar to the value-based payment models in healthcare, PFS is tied to longer-term outcomes instead of volume of services delivered or short-term outputs. This model helps to address the "wrong pocket problem" by providing a mechanism that allows for providers to identify the specific impact of an intervention, identify agencies that would benefit from the program's cost savings, and work

together to agree on a set budget prior to implementation of the program. For example, a social service agency that builds supportive housing for homeless individuals in the county might see the cost savings accrue to the sheriff's office or emergency departments, but not to their own agency's budget.<sup>40</sup> PFS allows that agency to identify the departments benefiting from the building of supportive housing and negotiate for those agencies to pay for part of the cost based on length of stay or avoided jail days.

Although the trend is headed in this direction, more evidence is needed to understand the payment, policy, and regulatory options to support integration of services. Until there is alignment of payment systems and government policies, healthcare organizations must engage potential payers and funders to be at the table as key stakeholders. This includes philanthropy; local, state, and federal agencies (e.g. state-funded health initiatives) and third-party payers (e.g. Medicaid managed care organizations). Addressing health-related social needs requires an ecosystem approach, and this provides a way forward. The challenge now lies in building cross-sector coalitions, agreement on results, investments in data infrastructure, and alignment of data across databases.

## Conclusion

Considerable scientific evidence has shown that interventions aimed at addressing unmet social, nonmedical needs are more important to impacting health outcomes than clinical interventions. There are many organizations and health systems that have engaged in addressing the SDOH for over a decade, and now there is a major shift underway, with many others in the healthcare sector joining. Screening and linking patients to resources is a way medical care has started to address this. The first section of this report summarizes the existing tools and processes various health systems have tried to implement social care screenings.

Furthermore, continued implementation to impact the SDOH would signify a cultural shift in how health is viewed and truly influence the underlying conditions resulting in inequity. To move our healthcare system from focusing on sickness to focusing on well-being, collaboration across sectors to address the social determinants of health is critical. Without a system in place to connect and coordinate services, individuals will encounter a fragmented system of care.

As such, we recommend the following:

- Local leaders across sectors collaborate and agree to a standardized, shared, community-wide screening tool and linkage process, including determining how to share information with patients, providers, and community partners.
- Apply and test the nine secondary drivers (A-I) that we have explained in this paper. We think there are many process issues that need to be tested. Two of those are: how to incorporate SDOH screening into existing workflow and how to take a segmented approach to connecting people.
- Technology based applications used to connect patients to community resources should be linked back to providers, and ultimately, linked with EHRs to form a closed-loop referral system.
- IHI should work with “integrator” communities (e.g. AHC) and others to learn how the health care sector can work more closely with leaders in the social sector to systematically address social needs, how to push towards a more sustainable funding model for services, and how to address structural barriers when scaling interventions.

## Appendix A: High-level principles that should inform design for communities seeking to improve clinical-community linkages.

1. *Identification of a common goal.* Members of the community are involved in defining the problem and needs the system is trying to address, and the system is co-designed with individuals with lived experience. “These are individuals who, like patients/family members, have experienced the outcome or topic (e.g., poverty, homelessness, incarceration), and therefore hold “lived experience” about it”.<sup>41</sup> All partners share a mission and vision, including sharing resources and acting as one entity rather than single-issue organizations. Partners should include service providers (e.g. health care, public health); institutions (e.g. business, policymakers, funders); community-based organizations; and community members for whose benefit the changes are being designed.
2. Identify champions at clinical and community organizations and clearly define their importance and roles in moving this work forward.
3. *Adapt and tailor “off the shelf” models.* Some models require strong fidelity to their approach, but often cannot be easily replicated in different communities given myriad differences between individuals, populations, and the communities themselves. Thus, if selecting an “off the shelf” model, it needs to be tailored and adapted to local community context in order to be successful.
4. *Do not create a parallel process.* Some approaches can inadvertently create a parallel process in a community that does not link back with other parts of the system and does not benefit the individual.
5. *Design for the margins.* Design a system around those who are most disadvantaged, and provide intensive services only to those who will benefit from intensive services.
6. *Design the system to reflect the needs of those it is designed to benefit.* Along with content and process expertise, the system design must include the individuals who need the services and who are experiencing poor health outcomes.
7. When possible, identify and address root causes and structural determinants of health.
8. Do not put too much burden on one role, e.g. the PCP, to do most of the work.
9. Work to end duplication of services between the various organizations trying to serve these individuals.
10. Think carefully about who/what entity can be an integrator of services.
11. Consider payment models and payment systems from the beginning.
12. *Data Systems.* Consider the data system needs to support this work, including HIPPA and privacy issues and how the different systems will connect and communicate.
13. One entity leads coordination of services, with linkages to wraparound services provided by different community entities.

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