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CONTRACTOR PROJECT REPORT

Social Determinants of Health Data Sharing at the Community Level

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OFFICE OF THE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION

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Executive Summary

Background

The environmental conditions in which people are born, grow, live, work, and age—such as income, education, employment, housing, social support, and transportation—are increasingly recognized as having profound effects on health outcomes.[1] As a result, healthcare providers are being encouraged to screen for these social determinants of health (SDOH) so that underlying social needs and risk factors are uncovered and addressed. Doing so requires communication and coordination between social service providers and health systems, which traditionally function independently. New community networks have emerged to facilitate these cross-sector connections, but they are confronting challenges in overcoming entrenched barriers to information sharing.

In its second report to Congress under the 2014 Improving Medicare Post-Acute Care Transformation (IMPACT) Act, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) recommended that the U.S. Department of Health and Human Services (HHS) explore whether and how health and social service providers share SDOH data at the local level.[2] With funding from ASPE, NORC at the University of Chicago conducted a landscape review of community-level efforts to address SDOH, followed by interviews with participants in three community-level initiatives that have built networks to coordinate clinical and social services. This report presents our cross-site analysis of the three initiatives, highlighting factors they identified as facilitating their efforts, the challenges they have faced thus far, their plans for continued expansion, and opportunities for federal and state entities, among other actors, to contribute to their efforts.

Approach

Based on our landscape review of cross-sector SDOH initiatives, we selected three initiatives in the early stages of implementing community resource referral platforms (referred to as "platforms"). We considered initiatives that represented a variety of missions, geographic locations, and cross-sector partnerships, ultimately selecting: (1) The GRACE Network centered in and around Grand Rapids, Michigan; (2) Healthy Together, which covers multiple counties in New York State; and (3) United Community, based in Louisville, Kentucky, which covers multiple counties in Kentucky and Southern Indiana.

Between August and October 2020, we conducted telephone interviews with a total of 15 individuals across the three initiatives to discuss their missions, network partners, platforms, and progress, as well as lessons learned and future plans. Given that our research reflects the experience of only three communities among a rapidly growing ecosystem, we do not intend our findings to be representative. Rather, they represent a "snapshot" of three different community-level efforts at this moment in time. In spite of the small sample, a cross-case analysis revealed important lessons that

can potentially inform policymakers and benefit other efforts to share SDOH information at the community level.

Findings

We focused our analysis on themes that arose consistently across the three initiatives to provide a roadmap for policymakers and other initiatives. Given that the initiatives encompass a diverse array of organizations from health, education, social services, transportation, and other sectors, the experiences of their participating organizations vary widely. Despite their different priorities, information needs, and workflows, interviewees from all three initiatives raised consistent issues when reflecting on their primary facilitators and challenges.

Facilitators. Several factors bolstered the initiatives' efforts. First and foremost, strong leadership at the central or founding organization was essential. Leadership helped bring stakeholders together and provided an overarching vision for the project, keeping diverse partners engaged and committed. Likewise, many interviewees articulated the importance of the "homegrown" mission that spoke to their communities' needs and local culture. Coming together around an issue like homelessness, for example, helped organizations from different sectors build the trust and cooperation needed to break down longstanding information silos. Developing a robust network of contributing organizations was another notable facilitator—which the initiative accomplished by actively recruiting and building trust among partners willing to use a shared platform instead of their usual referral processes. The strength of the referral networks enabled participating organizations to meet their client needs, which engendered additional trust and engagement. Finally, use of the platforms facilitated information sharing, especially when tailored with functions and workflows that supported the initiatives' needs.

Challenges. Challenges that emerged as initiatives navigated their local landscapes included working around competing initiatives that complicated community efforts and led to confusion and inefficiencies in making social service referrals. Interviewees also experienced challenges managing participants across sectors. Because the initiatives are still growing, the referral options in certain sectors could be limited. Managing workflows—including adjusting to new workflows and navigating duplicative data entry systems—sometimes hindered use of the platforms, especially among social service organizations that had additional data they needed to capture outside the initiative's platform (e.g., detailed screening assessments, reporting data to other funders). Finally, although all the initiatives had secured funding for their current scope and operations, interviewees spoke of the need for additional funding for expansion and sustainability.

Opportunities for Federal and State Involvement

Interviewees agreed that existing community initiatives could benefit from the participation of state and federal stakeholders who could bring new relationships and participants to the network, as well as added funds that would expand the networks' reach and impact. However, they emphasized that leadership and decision-making should remain in community hands—given the centrality to network

success of a homegrown mission, trust, and local relationships. Interviewees shared guidance for government efforts and specific ideas for opportunities within the following themes:

- *Maintaining Person-Centered Orientation:* Interviewees advised that when the health sector enters the realm of SDOH-related referrals, initiatives need to take the "long view"—understanding individuals' social needs and acting in ways directed at improving community health, rather than "checking a box" on SDOH.
- *Ensuring a Strong Community Role in Federal and/or State Interventions:* Interviewees recommended avoiding a top-down approach and instead supporting communities as they pursue the priorities, efforts, and relationships that the networks have already established.
- *Increasing Coordinated, State-Level Activities:* In the long-term, interviewees envisioned a single state network versus multiple siloed and/or competing networks. Starting small and local was a pragmatic decision for the networks, but they would like assistance in expanding their reach through additional partnerships and network consolidation.
- *Supporting Dissemination and Shared Learning:* The majority of interviewees had little to no awareness of similar initiatives elsewhere. They expressed support for communities of practice and other opportunities to disseminate best practices across communities and learn from peers' experiences.
- *Assisting with Network Funding:* Interviewees identified a need to sustain and grow these networks via funding support from diverse sources.
- *Considering Participation Mandates:* Several interviewees mentioned the potential to make participation in data sharing platforms a requirement for models, demonstrations, and/ or payment programs.
- *Assisting in Data Systems Integration:* Several interviewees saw a potential role for federal and state agencies to help aggregate data sources from different networks, which they deemed preferable to creating a centralized database.
- *Continuing Support for Interoperability Standards:* Interviewees agreed that interoperability—especially between health and social service sectors—should continue to be a priority, as it is a key component in addressing SDOH. Not every community-based organization can invest in a referral platform, but their information should be interoperable (e.g., via open source, standards-based care coordination frameworks).

Interviewees felt that the kind of public sector support outlined above would meaningfully assist their initiatives and similar endeavors—enabling community initiatives to continue on their chosen implementation trajectories; expand their networks and services to new populations and areas of SDOH-related need; and sustain these efforts into the future with expanded partnerships, funding, and participation.

Introduction

The health sector has increasingly focused on the need to address the social determinants of health (SDOH)—the environmental conditions in which people are born, grow, live, work, and age (such as income, education, employment, housing, social support, and transportation).[3] Partly in response to changes in healthcare payment structures that focus on value over volume, healthcare organizations have begun to incorporate assessments of patients' social needs and social risk factors into clinical workflows; integrate social workers and community health workers into care teams; and develop processes and adopt technologies to refer patients' to community-based social services.[4]

Stakeholders have reached consensus that addressing SDOH requires collaboration and integration among health plans, health systems, and community-based organizations (CBOs).[5,6] Yet, the health and social service sectors[i] have traditionally functioned in silos, with disparate funding streams, referral pathways, cultures, and technology systems that create challenges to integration.[7] A qualitative study of accountable care organization (ACO) efforts to address patients' social needs found limited cross-sector contacts. ACOs find it difficult to initiate relationships and to evaluate the quality of the social services offered.[8] In addition, healthcare providers find it challenging to maintain up-to-date directories of social service providers and to understand eligibility criteria for different services. Many lack workflows to follow up with patients on referrals.[9,10] CBOs and social service agencies face challenges when forging and maintaining cross-sector relationships because they lack the necessary resources to purchase, maintain, and upgrade IT systems.[11,12] Targeted missions and limited resources (i.e., funding for human capital) can also prevent CBOs from pivoting toward new partnerships and work streams.[13,14]

One important component of cross-sector integration is the capture and sharing of key information across organizations. This includes information such as individuals' self-reported social needs (e.g., homelessness or food insecurity); eligibility for and enrollment in health and social services programs (e.g., home delivered meals); whether an individual has interacted with a CBO, and if so, what intervention they received (e.g., connection with a food bank).[15] Yet, a number of factors challenge information sharing: managing individuals' consent, lack of a standardized framework for collecting and storing information, standards for SDOH capture and sharing, and a platform to assist bi-directional exchange.[16]

These issues are discussed in the Office of the Assistant Secretary for Planning and Evaluation's (ASPE) Report to Congress on the Role of Social Risk in Medicare's Value-Based Purchasing (VBP) Programs. Released in June 2020, this is the second of two Reports to Congress on social risk factors mandated by the 2014 Improving Medicare Post-Acute Care

[i] For this report, we use the National Academies (2019) definition of social services: "services, such as housing, food, and education, provided by government and private, profit and non-profit organizations for the benefit of the community and to promote social well-being."

Transformation (IMPACT) Act. As required by the IMPACT Act, the ASPE Report includes recommendations, one of which is that the U.S. Department of Health and Human Services (HHS) explore whether and how health and social service providers share SDOH data at the local level.[17]

In response to the ASPE Report's recommendations, NORC at the University of Chicago conducted a landscape review of community-level efforts to address SDOH, and developed a set of profiles—based on key informant interviews—featuring three community-level initiatives engaged in data sharing to coordinate services across the health and social service sectors. For this report, we define community-level efforts as local public health initiatives, health system efforts, and partnerships between healthcare and CBOs.

Our report has three purposes:

1. To provide a window into emergent patterns among a heterogeneous group of three community-based initiatives to share SDOH information
2. To identify common challenges and facilitators that provide a model for others forging similar collaborations between the health and social service sectors
3. To highlight areas in which state and federal involvement can best support community-level efforts

The intended audience for this report includes multi-sector stakeholders interested in and/or engaged in efforts to connect the health and social service sectors to address SDOH needs, as well as local, state, and federal government entities whose support could aid such efforts.

In the sections that follow, we begin with background on the current landscape of data sharing between the health and social service sectors, followed by a summary of our approach to the project. Our findings section presents a cross-initiative analysis, highlighting common facilitators and challenges, and discussing opportunities for future federal and state involvement. After a brief conclusion section, we provide snapshots of each of the three initiatives we examined, summarizing their origins, implementation experiences, and future directions.

Background

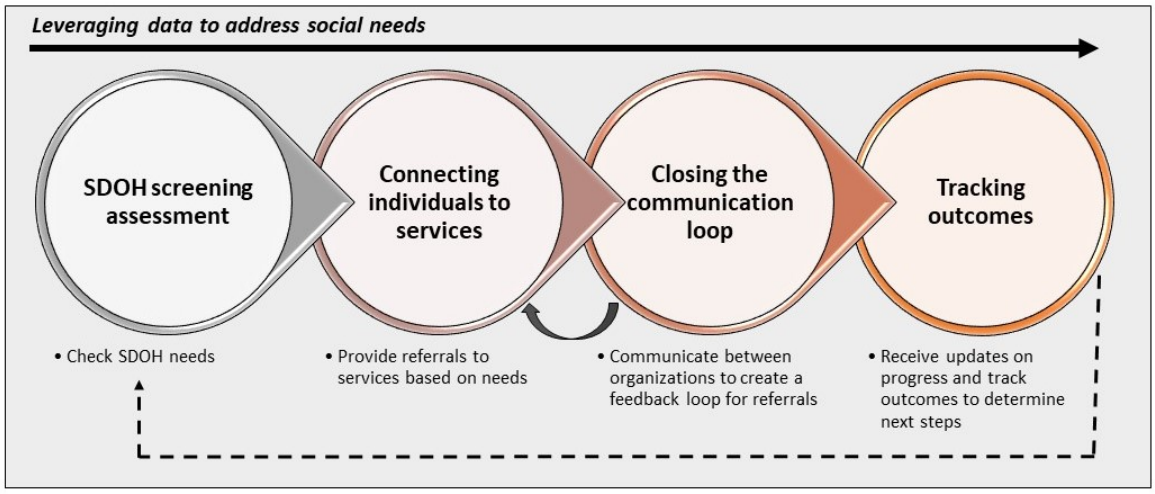
Historically, communication between the healthcare and social service sectors has involved a mix of faxes, phone calls, and paper-based referrals among existing partners. However, as communities focus more intently on social needs and social risk factors, existing referral systems must evolve in multiple ways. Communities will require more expansive, vetted networks to draw from in order to meet a broader set of social needs; they will need technological solutions to manage networks, the individuals they serve, and cross-sector information exchange; and they must have funding and leadership to manage the costs, relationships, and governance involved in growing and maintaining cross-sector partnerships.

A number of community-level initiatives have emerged in recent years, leveraging data to identify and engage with patients who have health and social needs, and to connect them with organizations that can help them address these needs.[18] Below, we provide a high-level overview of how community resource referral platforms can support cross-sector information sharing and referrals, and the kinds of community-level partnerships being formed to facilitate this kind of exchange.

Technology to Support Cross-Sector Data Sharing

Screening someone for a social need or risk factor is just the first step in supporting the individual and improving their care and care coordination. It is necessary to follow up on whether each individual's needs were, in fact, met and to monitor their outcomes. Exhibit 1 illustrates the steps in the process of identifying and addressing social needs. Electronic data sharing can facilitate this process, ensuring that individuals are screened and connected to needed services—referred to as "closing the loop" on referrals—and then taking an additional step toward whole person care by monitoring their outcomes and adjusting services over time. There are a variety of technology platforms to support this kind of data sharing, and there are ongoing developments in interoperability

Exhibit 1. Steps in the SDOH Capture and Referral Process



standards that will, in time, facilitate SDOH data sharing and referrals irrespective of platform.[19] For example, in keeping with 2014 National Academy of Medicine (NAM) recommendations for electronic health records (EHRs),[20] [21] the 2020 edition of the Office of the National Coordinator for Health Information Technology's (ONC) Interoperability Standards Advisory (ISA) incorporates four SDOH domains into the interoperability framework.[22]

One common approach health and social services providers use to share SDOH information is a "homegrown" community information exchange (CIE). CIEs tend to serve smaller geographic areas (e.g., states, cities, small regions), and are often comprised of multidisciplinary network partners that share technical standards to support exchange, a resource database, and an integrated technology referral platform. Care planning tools enable partners to integrate data from multiple sources and make bi-directional referrals to create a shared longitudinal record. For example, in 2011, San Diego 2-1-1 created the San Diego CIE, which unites 9 different data systems in health and social services, behavioral health, and probation, and connects 34 CBOs. It uses Salesforce software with data management middleware to offering a communication feed with care team alerts, program enrollment, and shared goals; a resource database; and bidirectional information sharing.

Community resource referral platforms, which are the focus of this report, are another promising approach to support multi-directional communication, referrals, and coordination across sectors.[23,24] Proprietary community resource platforms like Unite Us, Signify, Aunt Bertha, and Healthify provide data infrastructure and manage the practical, legal, and technical complexity of data sharing.[ii] These platforms allow users to exchange and store referrals; follow up with patients and service providers to ensure services have been received (i.e., "close the loop" on referrals); and share case notes across organizations. To facilitate referrals, platforms also include directories of the resources that participating service providers offer (e.g., food banks, childcare, housing assistance).

Some of these referral platforms reflect all available resources in the community, while others focus on specific sectors. Many platforms pull resources from the web, but some engage in the time- and resource-intensive process of vetting participants and maintaining up-to-date directories for their community or geographic area (i.e., only listing organizations that are currently accepting referrals).[25] Some platforms offer additional services, such as case managers who help respond to referrals and coordinate services. For example, if a referral is made for a food pantry, a case manager can locate one nearby and verify that it is accepting new clients. Many platforms also include reporting capabilities, allowing users to track service use and analyze individual and population-level trends.[26]

[ii] For a comparison of community resource referral platforms, see Community Resource Referral Platforms: A Guide for Health Care Organizations. Available at: https://sirenetwork.ucsf.edu/sites/sirenetwork.ucsf.edu/files/wysiwyg/Community-Resource-Referral-Platforms-Guide.pdf.

Partnerships to Support Cross-Sector Data Sharing

Numerous efforts to connect the health and social service sectors are underway at the community level. While this report focuses on community-level initiatives, a number of initiatives are also emerging at the state level (see examples in text box), spurred by interest in understanding SDOH, improving long-term patient outcomes, and addressing disparities exacerbated by the COVID-19 pandemic.[27] Many initiatives view their work across multiple sectors as part of an overarching goal to provide whole person care to their community members.

Community-level initiatives tend to involve a central mission around which a convening organization rallies the community, creates a governance structure, and selects a referral platform. A neutral "backbone" organization often serves as a convener, leading the efforts of a host of partner organizations.[28] Convening organizations may include local non-profits, healthcare systems, departments of health, or CBOs. In several communities, United Way serves in this central convening role. Healthcare organizations may also serve as conveners, forging cross-sector partnerships as part of their efforts to screen patients for social needs and social risk factors. For example, Mosaic Life Care, a Missouri health system, spearheaded a collaboration between CBOs and the St. Joseph Department of Health.[29] Some health systems take on additional responsibilities beyond the convening role, such as investing in referral systems.

The shift to value-based care has been a catalyst for addressing SDOH, and for developing and implementing platforms to

Examples of emerging state-level initiatives to integrate health and social services

- In 2019, the North Carolina Department of Health and Human Services (NC DHHS), through the state's Section 1115 Medicaid waiver, and the Foundation for Health Leadership & Innovation (FHLI), launched NCCARE360. Built on the Unite Us platform, NCCARE360 offers a resource directory and call center, a resource repository, and a referral and outcomes platform. As of June 2020, NCCARE360 was available in all 100 counties across North Carolina. As implementation progresses, the network plans to connect with additional platforms (e.g., EHRs, social services software, NC HealthConnex).
- In September 2020, Nebraska's statewide health information exchange (HIE), CyncHealth (formerly NeHII) partnered with Unite Us to launch the Unite Nebraska initiative.[ii] The platform offers a closed-loop referral system and assists users in coordinating housing, nutrition services, employment services and benefits, and community-based resources. CyncHealth has also joined the Gravity Project, sponsoring its expansion into additional domains (e.g., financial strain, material hardship, stress) and submitting a letter of support for Gravity's submission of SDOH codes for inclusion in the U.S. Core Data for Interoperability.[ii]
- As part of its Medicaid 1115 waiver renewal, Arizona's Medicaid agency is partnering with the state's HIE, Health Current, to adopt a closed-loop referral system. This effort builds upon their whole person care initiative, focused on housing, employment, and criminal justice with plans for expansion into social isolation.

i Jason C. Nebraska Health Information Exchange Joins SDOH Data Group. EHR Intelligence. January 29, 2021. https://ehrintelligence.com/news/nebraska-health-information-exchange-joins-sdoh-data-group
ii ONC. USCDI Social Determinants of Health. https://www.healthit.gov/isa/uscdi-data/social-determinants-health

support person-centered, coordinated care and improve health outcomes. Federal and state delivery and payment reform models and programs (e.g., ACOs, Accountable Health Communities, the Medicaid Delivery System Reform Incentive Payment [DSRIP] program, Medicaid managed care, State Innovation Models) have supported community- and state-level data sharing initiatives. While value-based care programs have been an accelerator, funding for this work goes beyond the healthcare sector, with a mix of public and private sources providing support for start-up costs and ongoing maintenance. Several national foundations, including the Robert Wood Johnson Foundation, the Kresge Foundation, the W.K. Kellogg Foundation, and the de Beaumont Foundation have supported efforts to build community capacity for multi-sector data sharing and provide forums for sharing best practices.[30] Funding can also come from local stakeholders, such as non-profits and foundations, as well as local governments, commercial insurers, and health systems whose communities, beneficiaries, and patients/clients can benefit from cross-sector efforts.[31]

Approach

To identify community-level initiatives for our report, we conducted an environmental scan, reviewing peer-reviewed and grey literature, as well as websites, presentations, and profiles of initiatives actively working on SDOH. Based on this review, we selected three initiatives that have adopted referral platforms and have plans for and/or evidence of SDOH data sharing within their community, including active partnerships and technical infrastructure. We intentionally selected initiatives with different types of convening organizations and different community-driven motivations for sharing SDOH data. We excluded initiatives whose publicly available materials did not indicate a mechanism for data sharing, exchange, or integration; did not focus on coordinating services; and/or those extensively profiled elsewhere. Later in the report, we provide detailed "snapshots" of the three initiatives we selected: The GRACE Network, Healthy Together, and United Community. Appendix B provides an overview of their key characteristics.

Between August and October 2020, NORC conducted 60-minute semi-structured telephone interviews with 15 individuals across the three community-level initiatives (see Exhibit 2). We interviewed the convening organizations first to determine the scope of each initiative and their appropriateness for inclusion. Following these discussions, convening organizations provided us with contacts for further interviews. The main discussion topics included:

- Key characteristics, such as partners and participating organizations, funding, rationale for selection of the referral platform, and populations included
- How information on SDOH is captured and used, mechanisms for measuring success in the short- and long-term
- Facilitators and challenges experienced during the implementation process
- How local, state, and federal government can facilitate sharing data between sectors

Exhibit 2. Stakeholder Interviews by Initiative and Sector

Interview Totals*	Housing	Food	Education	Other CBOs [a]	Health Systems	Technology Vendor
The GRACE Network (n=4)	1	1	-	1	1	-
Healthy Together (n=5)	1	1	-	2	1	-
United Community (n=6)	1	1	1	1	1	1
Number of Interviews by Sector	3	3	1	2	3	1

* We did not include a separate column for the convening organization because all conveners work within one or more sectors. For example, Community Rebuilders is both the convener of the GRACE Network and a housing-focused organization.

[a] "Other CBOs" indicates organizations involved in multiple sectors.

Findings

In this section, we present cross-cutting themes that emerged from interviews across the three initiatives. We first provide a high-level overview of the initiatives, including our findings on key characteristics, scope, and progress. We then discuss cross-case facilitators and challenges, followed by opportunities for federal and state governments to support cross-sector data sharing initiatives. Because these findings draw on discussions with a limited number of stakeholders from each initiative, our findings are a snapshot—rather than a definitive view—of cross-sector implementation experiences as these three communities establish and expand their networks.

Overview of Community Initiatives

The three community initiatives—The GRACE Network, Healthy Together, and United Community—have well-defined missions related to SDOH that speak directly to their communities' most urgent needs. Their core missions center on hunger (3) and housing insecurity (2)—especially among families—and intersections with education (2). Planned expansions will include areas like employment, behavioral health, transportation, and other common domains of SDOH-related needs. At the time we conducted interviews, between August and October 2020, the initiatives had assembled core partners and brought on many organizations to participate in the networks. All intend to expand their partnerships and reach. All use proprietary closed-loop referral platforms to share information between healthcare and social service organizations. See Exhibits B-1 and B-2 in Appendix B for details.

Initiative Highlights

The Gather Resources & Align Community Effort **(GRACE) Network** is a coordinated care network that addresses housing and other medical and non-medical needs in Grand Rapids, Michigan. The initiative has a special focus on families at risk for homelessness. Community Rebuilders, a nonprofit focused on housing, is the convening organization. With philanthropic support, the initiative went live in December 2019. It offers a platform to deliver, receive, and track referrals among partner organizations.

The Alliance for Better Heath, as part of its Healthy Alliance Independent Practice Association (IPA), launched the **Healthy Together** referral network in April 2018. Leveraging Delivery System Reform Incentive Payment (DSRIP) funding, the referral network has expanded to over 13 counties in New York State. Participating organizations can refer individuals to partnering organizations and monitor the status of referrals.

United Community is a community-wide initiative that deploys a shared technology platform to initiate and close referrals across the health, education, and human services sectors. Metro United Way is the convening organization. Key partners include Evolve 502 (a Louisville organization focused on reducing barriers to college education); Louisville Metro's Department of Public Health & Wellness; and Passport Health Plan, a Kentucky Medicaid Managed Care Organization. Aetna Better Health of Kentucky joined United Community in December 2019.

Implementation Progress. Exhibit 3 highlights the initiatives' current scope, trajectories, and challenges. All three initiatives have completed the early stages of development, establishing their initial cross-sector network of organizations and selecting a community resource referral platform. All three are currently in the uptake/implementation phase, focusing on growing their networks and fully leveraging the capabilities of the selected platforms.

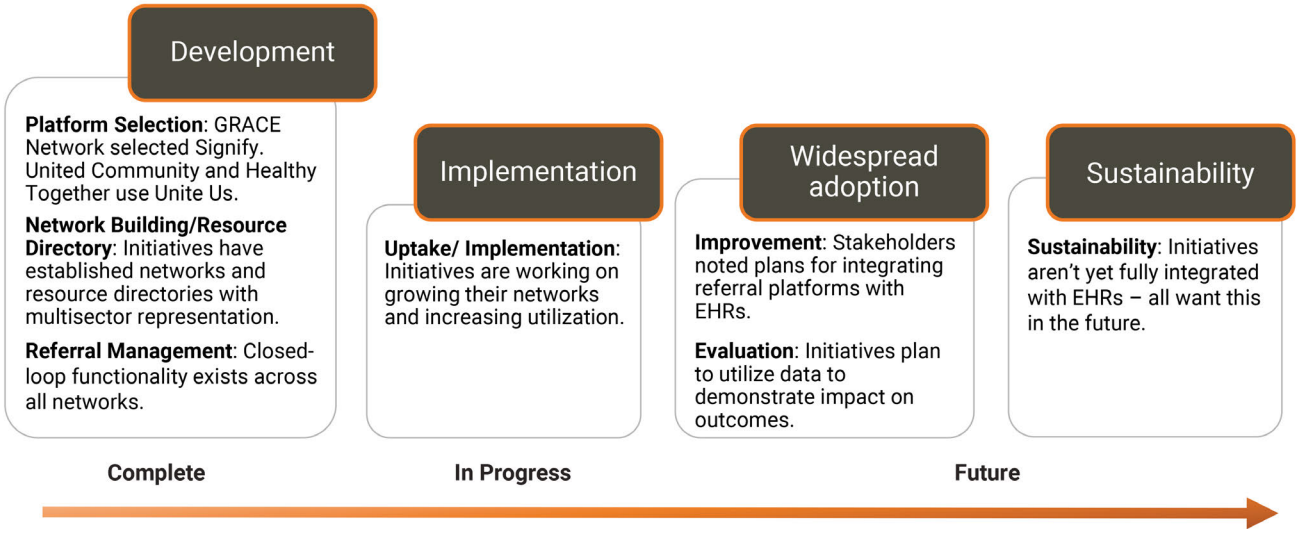
Interviewees generally had a positive view of the technical support and capabilities of their closed-loop referral platforms. For example, Unite Us—used by United Community and Healthy Together—has been responsive to requests to tailor the platforms to initiative needs, and the company provides training and live chat functionalities that help users troubleshoot issues on the platform.

Platform Use. The communities we profiled use the Unite Us and Signify platforms, which are proprietary platforms built to facilitate cross-sector social service referrals.

Information is currently flowing from the referral platforms to participating CBOs in the social services sector. CBOs vary in the amount of information they feed back into the system. Some CBOs are feeding limited information back into the platforms at present, as they onboard and adapt to new workflows, but have the intention to share information at a later date. Other CBOs primarily use the platforms for closed loop referrals, without needing to upload additional information into the platform (e.g., a client is referred to a food pantry and the food pantry acknowledges the request). The initiatives would like data reporting to become a routine part of platform use, both to support participating organizations and to enable analytics. Many of the metrics of interest (e.g., use patterns, volume of referrals) can be collected automatically, and the platform vendors are working with the initiatives individually to define further metrics.

At present, CBOs from United Community report a low volume of referrals from health systems, and a small number of CBOs to

Exhibit 3. Initiative Process and Progress



whom they can refer; the Unite Us team is working to onboard and train new users and partners. Within the GRACE Network, some CBOs are receiving many referrals through the platform, but do not often make referrals to other services within the network. Some CBOs do not plan to make referrals to other organizations on a large scale, while others are currently limited in their ability to make referrals because clients have not consented to the platform.

Many participants reported incomplete alignment between SDOH data captured for their respective initiatives compared to the information needed for their internal processes, which has resulted in duplicative data entry and/or the need to collect additional data from individuals seeking services. For example, the referral platform may not capture when clients return to a food pantry after the initial referral is closed.

The success of the platform depends on the quality of the underlying referral network. All three initiatives are growing their referral networks, with new CBOs and health systems joining and using the referral platforms (Signify and Unite Us). Yet, the extent to which network participants are using the platforms to accept referrals, use screening tools, and/or enter data varies, which affects the utility of the platform and network for other users.

For example, some healthcare systems are using the platforms only to make referrals, while some CBOs are only receiving referrals. As a result, referrals for certain types of services (e.g., housing) are more fruitful than for others, depending on the breadth and depth of the network and the engagement of partners. While there was little doubt among interviewees that they will be able to fill these gaps, they know it will take time to build a robust referral network and to fully leverage the referral platforms.

Facilitators and Challenges

Across the initiatives, a number of salient themes and key takeaways emerged. We have categorized these themes as either facilitators of the initiatives' goals for the networks or as challenges they face as they move forward.

Cross-Initiative Facilitators

Across the interviews, consistent themes emerged regarding the importance of community-level relationships, which support all aspects of the initiatives. Interviewees reported that having a strong leader who can articulate a central message and bring a community of partners together around a cohesive strategy is hugely beneficial. Likewise, a community-driven mission draws people to the network and fosters resilience among them during the early days of implementation. Finally, a broad network is also necessary for platform use. If people cannot find the kinds of service providers they need, they will turn away from the platform and revert to their existing referral processes.

Facilitator: Initiatives benefit from a strong leader who can build connections among the community and bring everyone to the table. This includes facilitating connections among CBOs and between CBOs and health systems. A strong leader can also help solve problems and reinforce the overarching vision that keeps everyone invested and committed to solving problems, even when things are not easy or perfect. For example, participants from three organizations in the GRACE Network credited Community Rebuilders, the

convening organization, with the success of the GRACE Network thus far. As one participant stated, the CEO at Community Rebuilders has been "leading the charge" and "has been very patient throughout…articulating her vision for the GRACE Network… recognizing where each of the individual organizations are coming from, and that our needs and our desires may be a little bit different."

Similarly, interviewees credited leadership at Metro United Way with using their connections and good reputation locally to engage large organizations in the community early on, to create a vision, and to succeed in obtaining financial support to establish the United Community network.

Across all three initiatives, interviewees also praised leadership for recognizing the diversity of the organizations involved and successfully bringing them to the table. Many stakeholders contributed to the planning and development process, rather than simply being expected to accept top-down decisions and follow suit.

Facilitator: A strong, "homegrown" mission and local culture provides impetus for change and brings people together in support of an initiative. For example, GRACE Network emphasized the importance of building collaborations among organizations that do not usually collaborate to develop a cross-sector approach to address homelessness, food insecurity, and ultimately health equity. GRACE found this shared mission to be a motivating factor for organizations to join the network.

Participants in the United Community discussed the importance of the Louisville culture for their network. They emphasized that many organizations in the community have shared goals and purpose, which allowed them to work together to build a network. This was also a common refrain for participants in Healthy Together, who expressed a shared desire to break down silos between sectors and a common belief that a network like Healthy Together could greatly benefit their community.

In addition, interviewees acknowledged that it takes time for participating organizations to see a full return on investment. Therefore, a shared mission (e.g., addressing homelessness among families) draws community participation and serves as a ballast against other frustrations along the way (e.g., duplicate data entry, small referral networks).

Facilitator: A robust network of participating organizations is essential for a referral platform to be useful. Interviewees emphasized that developing and solidifying relationships among network participants—facilitated by a strong leader and shared mission—builds a strong, engaged network of organizations using the platform, rather than reverting to their usual workflows. As one participant noted, and many echoed, "The technology is a way to get from Point A to Point B.... The network is more about relationships between partners, and that involves trust and the ability to work together."

Interviewees from each initiative reflected that successful referrals (and referral platforms) require both a deep network and strong relationships between participating organizations to ensure that referrals are addressed in a timely manner. One participant from United Community suggested that the referral network must grow to address a broad set of needs; for example, at present, if

someone needs housing, transportation, and food-related resources, Unite Us will not be an effective resource for food. To navigate around network gaps, one Healthy Together participant described leveraging referral coordination navigators to find services. For example, if clinical service providers refer directly to a CBO that cannot take on new clients, the referral could well languish until the next time the provider returns to the patient's case. Navigators, in contrast, can focus on referrals and contact CBOs until services are secured. Some participating CBOs noted that network participation has increased their caseload in a positive way. For example, one CBO focused on food insecurity indicated that they use the network to gain referrals, but have not used it to increase their referral capabilities to other organizations or sectors.

Facilitator: Vendor-run referral platforms facilitate information sharing. Notably, participating organizations did not encounter challenges around governance—such as information sharing, data sharing agreements, and privacy protections. Technology companies behind the referral platforms (e.g., Unite Us, Signify) and the convening organizations (e.g., United Way) handle the governance necessary for information sharing so that participating organizations to focus on the services they need to access across the platform.

Cross-Initiative Challenges

The initiatives encountered several common challenges. Initiatives have to contend with competing interests from other efforts at the state or local level, as well as the competing interests of organizations within their own networks. In addition, introducing a new referral platform can create multiple workflow issues that slow down adoption within CBOs. Finally, as initiatives expand, they must contend with the question of how to ensure long-term sustainability.

Challenge: Competing networks at the state and local levels can complicate the work of community-level initiatives. Multiple similar efforts lead to confusion, diffusion of effort, and inefficiencies in data entry and referrals. For example, one interviewee noted that a competitor is working to build a state-level network. Even though the local initiative is more advanced in many ways, it does not want to offend or encroach upon this larger effort. An interviewee from another initiative described how only one of the two major health systems in their area participates in the network—and the other does not plan to join. Interviewees wondered whether this would become a perpetual barrier for the network's growth, especially since the nonparticipating health system works closely with the county. Another interviewee, commenting on multiple fragmented efforts in their geographic area, expressed hope that eventually the competing networks would coalesce into one system that enables all local stakeholders to collaborate.

Challenge: Managing the diverse needs of participating organizations from different sectors is complex. For example, the Alliance for Better Health has focused on organically growing the Healthy Together network to promote scalability and sustainability. However, this organic growth means that some network participants do not have access to their usual referral partners. A participating health system echoed the need for network growth to meet their patients' needs for referrals for mental health and behavioral health services.

Challenge: Workflow changes and duplicative data entry contribute to challenges in adopting the referral platform because data capture and data sharing are less efficient. Introducing a new platform, regardless of its functionalities, tends to necessitate changes to workflow within organizations. Although the platform vendors offer user support, CBO staff often struggle to integrate the platforms into their workflows. For example, the Healthy Together initiative and their Unite Us platform provide technological support and trainings, but it was a significant shift for CBO partners to transition from traditional outreach methods (e.g., telephone) to an electronic platform.

Duplicative data entry and logging into multiple platforms also creates workflow challenges for users. First, federal or state programs may require CBOs to report information in a specific system (e.g., organizations addressing homelessness need to enter data into the Homeless Management Information System [HMIS]). Second, CBOs may have funding-related reporting requirements (e.g., grant funding, DSRIP funding) in addition to initiative-related data entry. Finally, an initiative's platform may not capture CBO-specific data, leading some CBOs to continue entering data into their own systems as well as the initiatives'. One CBO interviewee reported entering SDOH data in triplicate. When their federal grant ends, they will be able to reduce their data entry to two systems—the initiative's and an internal system—with the goal of working with the initiative to align the two.

Challenge: Organizations have funding in the short-term, but long-term sustainability remains a challenge. All three initiatives have assembled financial support from a combination of private sector grants and government funding to cover the cost of the referral platforms, rather than passing along fees to the CBOs. For example, within United Community, CBOs do not pay a fee to participate in the network, and one CBO interviewee noted that their organization's participation is dependent on this. They could not afford to pay a monthly fee, given their small operating budget. The initiatives understand this is true for many organizations in their networks and will continue to seek investment from outside sources to sustain their efforts. For example, some funding streams in the GRACE Network could end in late 2021.

Effects of COVID-19

- **COVID-Specific Activities.** Two initiatives saw a sudden, urgent need for their services as a direct result of COVID-19. Given their relationships in the housing sector, they were able to offer emergency housing for families quarantined for COVID-19, and a coordination center to assist people with evictions.
- **Disruptions to Referrals.** All three initiatives reported a decline in platform use, especially during the early spring of 2020 when CBOs either had to limit services or to shut down completely due to COVID-19.
- **Delayed Expansion Plans.** For all three initiatives, COVID-19 delayed some collaborations and new outreach efforts, as well as plans for training and onboarding staff.
- **Centralization of Efforts without Including CBOs.** One interviewee observed that, because of COVID-19, the local government began pursuing "in-house" service coordination efforts separate from the nonprofit community.

Opportunities for Federal and State Contributions

Interviewees agreed that federal and state involvement could, indeed, be helpful in supporting community data sharing efforts, but wanted to specify the context in which that help could be maximally effective. With a patient-centered focus, and community-level partners at the helm, they had multiple suggestions for building productive collaborations and specific areas that would benefit from federal and state involvement.

Maintain Person-Centered Orientation When the Health Sector Enters the Realm of SDOH-Related Referrals. Interviewees in the social services sector emphasized that the core of their business is addressing whole person needs, which can be a long, complex process. They cautioned against a "check the box" mentality for SDOH, advocating instead for a patient-centered approach that seeks to understand multiple aspects of social needs—which necessitates a long-term view.

Interviewees emphasized that clients want to maintain autonomy and dignity in seeking supportive services. One interviewee from GRACE Network reflected that people often request less time and support than the CBO offers. However, people do volunteer criteria they want taken into account when help is available, such as obtaining housing near family, job, or school. It is clear to the initiatives that a service provider opting for the most expedient solution would fail to address the needs of the whole person.

Ensure a Strong Community Role in Federal and State Interventions. For federal and state partners interested in providing strategic or technical assistance support, interviewees characterized the need as "not more top-down support," but rather help with more effectively directing the efforts and agenda the community has already established. One interviewee reflected that if a community had no existing relationships, the government could more easily design and build a network using the top-down approach. However, communities typically have resources and knowledge about the people who live there, existing relationships, and experience in what works and does not work. Another interviewee commented that involving the government would enrich the network, but achieving the

goals of the network would need to start with trust, community buy-in, and personal, cross-sector relationships.

Increase Coordinated, State-Level Activities. One interviewee described the importance of expanding data sharing initiatives to be statewide, with the caveat that state-level bureaucratic challenges and competing interests make it easier to start initiatives at the community-level. That interviewee noted that it is much better to have a single network versus multiple siloed or competing networks, and that their own initiative considered launching a statewide effort. It was determined, however, that a statewide effort would not happen fast enough for their population and mission, so they started at the local level with an eye to expansion.

Another interviewee suggested that including state-level players like state health departments and state-level policy committees could facilitate already existing community efforts. For example, New York State has a dedicated department for SDOH, as well as a hunger and food policy committee. Health and social service departments can help with data, referrals, and other resources, and the state can help structure the policy and funding resources. The interviewee also noted that focusing on SDOH at the community level could have financial benefits for the state by improving prevention of serious health and social outcomes among its Medicaid population.

Support Dissemination and Shared Learning. Some interviewees were aware of similar initiatives (e.g., NCCARE 360), but few had connected with other community-level initiatives to share experiences and lessons learned. As the convener for United Community, Metro United Way leadership did report sharing their experiences with other communities interested in adopting similar networks.

One health system interviewee from United Community expressed the desire to learn whether other health systems had been able to integrate their EHRs with Unite Us. Another mentioned that dissemination of lessons learned would be valuable, noting that the work United Community is doing to adapt the Unite Us platform for the health, social services, and education sectors could help other communities implement the same platform around their own priorities.

Assist with Funding for Networks. Interviewees saw a definite role for government in helping to sustain and grow these networks via funding and working alongside community partners on their goals. Funding possibilities include partnerships between government, payers, and health systems.

One interviewee noted that investments in referral networks could count in a positive way toward the Medical Loss Ratio (MLR)—the proportion of a premium a health plan spends on healthcare claims and quality improvement activities compared to administrative activities—therefore increasing the value proposition for a health plan to invest.[32] This interviewee suggested that plans could contribute a percentage of premiums to initiatives like those featured in this report. Another interviewee felt strongly that CBOs should be reimbursed for referrals they receive from health systems to help offset the financial and administrative burdens of network participation.

Consider Participation Mandates. Several interviewees mentioned the possibility of making participation in collaborative data platforms a requirement for federal and/or state models, demonstrations, and/or payment programs. Likewise, the government could encourage the use of community resource referral platforms and/or exchange standards and/or connections with these initiatives via managed care contracts; however, interviewees also noted the need to balance mandates with positive incentives.

Assist in Data Systems Integration. Several interviewees saw a role for federal and state agencies in helping aggregate data sources from different networks, rather than trying to centralize all efforts into a single database. One interviewee echoed this suggestion, suggesting federal agencies could support data integration. The interviewee cited an effort to create a data system to follow students from pre-K into their careers, but pointed out that it would be more realistic to create linkages across data systems rather than a central repository. The interviewee also emphasized the importance of data analysis—not just data collection—because connecting data systems will be useful only when the aggregate data help to answer questions and inform decisions.

Assist in the Adoption of Interoperability Standards. One interviewee felt strongly about the need for ongoing federal funding to address interoperability issues through the continued development and adoption of standards. The platforms have alleviated many of the challenges associated with sharing data—especially across sectors—however, the informant pointed out that referrals should also be shareable across different referral platforms and EHR systems.

Recent efforts to improve the coding of SDOH include the creation of Open Referral standards, which aim to improve the use of directories, and the Gravity Project, which focuses on improving SDOH coding vocabulary. CMS and numerous others have issued support for the consensus-driven standards being developed by the Gravity Project.[33]

Other efforts aim to address the need to facilitate SDOH-related referrals between systems.[34,35] For example, there are multiple HHS efforts related to SDOH data sharing,[36] including a recent Administration for Community Living (ACL) challenge grant to develop interoperable, scalable SDOH data sharing solutions.[37] There are also two separate efforts to develop HL7 FHIR standards that would apply to SDOH data sharing: one for bidirectional service referrals; [38] the second, 360X, will translate the codes being developed Gravity into FHIR-based standards with the express goal of facilitating closed-loop referrals for SDOH.[39] As they are developed, these FHIR standards will need balloting and testing, followed by dissemination to encourage their uptake across the health system.

Conclusion

Although in the early stages of implementation and platform use, the initiatives profiled here have already generated a number of lessons for organizations embarking on similar efforts and for local, state, and federal stakeholders interested in cross-sector collaboration on SDOH.

Community resource referral platforms provide an important mechanism for healthcare and social service organizations to coordinate services and address individuals' SDOH needs. In particular, our findings illustrate the significant time and resources community-level initiatives are investing in the relationships necessary to build a robust referral network. Off-the-shelf platforms facilitate the process by handling the technical and governance aspects—such as platform design and information sharing, data sharing agreements, and privacy protections—that often challenge information sharing efforts.

Person-centric missions, engaged partners, and cross-sector commitment to community health drive these three initiatives. As such, network participants share an interest in migrating the services they usually provide in silos to a partnership-based approach facilitated by a technical platform. Consistent with previous work, our findings suggest that a community-driven mission, a strong leadership team, and early outreach to community partners facilitate meaningful engagement with referral platforms.

Top Facilitators

- Strong leadership
- A unifying, homegrown mission
- A wide and deep network of participants
- A technology platform that reflects network needs

Top Challenges

- Different needs among participating organizations
- Competing state and local efforts
- Workflow burden
- Sustainable funding

Their future activities will focus on depth and breadth. The initiatives plan to deepen platform use by encouraging individual partners to use more of the platform features—from data entry to data sharing and analytics. They also plan to broaden the platforms' scope to reach more populations and address more SDOH domains.

Interviewees spoke positively about expanding network participation to include: (1) state and local partners that can increase the reach of the initiatives and reduce competition between initiatives in the same geographical areas; and (2) federal partners that can help with standards, facilitating knowledge sharing among the initiatives, and funding for implementation and network maintenance. At the same time, interviewees emphasized that key to the success of such partnerships with government will be maintaining community leadership and priorities—given that so much of the initiatives' success rests on the community relationships they are building.

SNAPSHOT: GRACE Network

Origins

The GRACE Network was created around a central mission to address homelessness in Grand Rapids, Michigan. Community Rebuilders, a nonprofit housing agency whose work includes addressing homelessness among veterans, serves as the convening organization. During the course of their work, Community Rebuilders leadership became convinced of the need to screen for and address SDOH. They endeavored to do this by connecting with nontraditional partners across healthcare and social services whose shared values would benefit the community. Launched in 2019, the GRACE Network builds the cross-sector partnerships necessary to fully address the needs of individuals and families experiencing homelessness, with the goal of making family homelessness "rare, brief, and nonrecurring."

GRACE Network Characteristics

Location: Grand Rapids, Michigan

Convening Organization: Community Rebuilders, a nonprofit organization focused on housing

Launch Date: Went live in December 2019

Sectors: Health, early education, transportation, housing, and employment sectors

Interest in SDOH: Creating a coordinated care network to end homelessness

Network: Includes 20 organizations representing the key sectors above

Funding: Philanthropic support

Data Sharing Platform: Signify

The GRACE Network currently comprises 20 organizations. Network leadership emphasizes a vision in which the initiative's service improves equity among community members and ensures all voices at the table are heard. The initiative has attracted participation among numerous sectors and organizations that screen for housing insecurity and/or provide supportive services related to homelessness. These include a Federally Qualified Health Center (FQHC), shelters, a Fair Housing Center, school systems, early education programs, and nutrition-related, transportation, and employment services. The GRACE Network is continuing to expand among social service providers. Community Rebuilders has observed that new organizations often join after hearing about the network from other participating organizations. Community Rebuilders has encountered enthusiasm among healthcare organizations as well, with three large health systems joining the network.

Community Rebuilders received a $5 million grant from the Bezos Day One Families Fund in 2018, which allowed them to invest in the Signify platform. Typically, each organization pays a relatively small fee to access data in the system network. If an organization wants to bring a new subpopulation into the platform, that organization must invest additional funds. A local foundation, the Grand Rapids Community Foundation, covered the first year of the monthly fees CBOs must pay.

Implementation Experience

CBOs are participating in the GRACE Network at different levels, varying in what functionalities they use and the volume of referrals they receive. A number of platform features are currently available to members of the network, including screening, closed-loop referrals, and an up-to-date referral network.

Social service organizations have their own domain-specific screening tools, but are starting to broaden their view to other SDOH needs through participation in the GRACE Network. The GRACE Network offers a 10-question Health-Related Social Needs (HRSN) Screening Tool that any organization in the system can use to conduct an SDOH screening for broader needs.[40] Since joining the network, many organizations previously conducting targeted needs assessments (e.g., specifically for homelessness or for clinical risk factors) have begun to screen for additional SDOH, with several using the HRSN tool. For example, one network partner that connects schools and parents is using the platform to ask questions about SDOH such as food security, which were not previously screened.

Referrals are the number one use of GRACE Network to date. Participants can accept referrals from other organizations on the network and review information gathered by them. Network participants help keep the GRACE Network referral network current, flagging organizations no longer operating (e.g., because of COVID-19), so that no dead-end referrals are made. Some GRACE Network members also use the system to close the loop on referrals—tracking whether individuals actually receive services, and if so, where. The extent of referral tracking is a function of the implementation process, in which CBOs who are accustomed to different workflows are being brought on to the system incrementally, how well the system can support their immediate priorities, and how quickly they can expand their use of the platform, feature by feature.

Monitoring Use and Impact

Community Rebuilders has access to the Signify data to study consumer impact and community health. The network measures key performance indicators for every pathway in the system—for example, employment. They are able to track a referral to a resume workshop, attendance, and subsequently employment. They believe that "closing the loop" and offering transparency in the form of performance metrics provides value to the participants who take the time to enter data, make referrals, and appreciate feedback on the results.

A majority of interviewees said that they are benefiting from their participation in the network, in terms of relationship building and breaking down silos between organizations that serve the same populations but were not previously communicating. Participants now feel they are working toward one goal, and that they will get closer to achieving this goal as the network and platform continue to develop. One interviewee reported that hospitals in the community who have previously invested in other systems and platforms have since chosen to join GRACE Network. The hospitals were reportedly impressed that Community Rebuilders had built a strong referral network in the community with the Signify platform. Another health system tried to develop its own network capacity for five years, before finding and joining the GRACE Network because of its strong commitment to its mission and stakeholders.

CBOs lauded the leadership of Community Rebuilders as a key facilitator of the initiative. In addition to being a strong advocate for the network and its mission, interviewees praised the convening organization for recognizing the needs and goals of each partner organization. This has created a culture within the network where all participating organizations have a shared investment in its success and a voice in decision making. In addition, being a relatively small entity has allowed Community Rebuilders the agility to make progress quickly, in comparison to a hospital, for example, which would have faced more bureaucracy. Being a community organization rather than a healthcare organization also helped the initiative garner trust with the CBO community.

Community Rebuilders has encountered challenges in their effort, given multiple SDOH-related initiatives and funding streams in the community, as well as state-level networks (e.g., HealthNet is part of the Centers for Medicare & Medicaid Services [CMS] Accountable Health Communities model). While multiple simultaneous efforts expand the sharing of SDOH overall, they tend to create silos between the separate networks. For those who participate in multiple initiatives, this means separate requirements for data entry—with CBOs finding their limited staff having to spend valuable time entering similar data in different formats in multiple systems.

Even though the health systems have been enthusiastic participants in GRACE Network, several interviewees noted reluctance among their clients to engage with the health system. Individuals do not always want to discuss SDOH with healthcare providers or obtain a social service referral through the health system because the request will be connected to their health records. They are more comfortable self-referring or seeking specific services through trusted CBOs. Interviewees felt that greater comfort and trust would accrue over time, as health systems continue to demonstrate commitment to SDOH that extends beyond documentation to offering fruitful referrals and coordinated care.

Future Directions

Expanding the network of participants is a priority for the GRACE Network. Network partners have advocated for expansion to include new populations as well. Community Rebuilders plans to work within the Signify platform to create referral pathways to respond to these priorities—for example, implementing a pathway to identify high emergency department (ED) utilizers and connecting them with supportive services that reduce their reliance on the ED.

Helping more members participate in closed-loop referrals is another central goal. Part of the network's selling point for participating organizations is the prospect of moving beyond tracking navigation or referral services for SDOH to appropriate next steps. For example, healthcare providers see the value of taking time to refer their patients to social services when they can see the results of that referral. In addition, many participants are still getting comfortable with the platform. They use it to receive referrals, but do not yet enter additional information describing what services they are providing in response to referrals. This will be a priority area for development.

From the beginning, Community Rebuilders has recognized the importance of tracking outcomes and impact as the initiative moves out of the initial phases, focused on relationship building and onboarding users onto the platform, into a later phase of development. The GRACE Network is beginning to track outcomes (e.g., employment) as more than just a process measure to track whether navigation or referral services were delivered.

Community Rebuilders is seeking additional funding sources to defray the cost of CBO participation. Grants currently cover CBO participation fees, but CBOs will need to begin paying a monthly fee starting in December 2021, unless Community Rebuilders finds new funding.

SNAPSHOT: Healthy Together

Healthy Together Characteristics

Location: Albany, Fulton, Montgomery, Rensselaer, Saratoga, and Schenectady counties in New York State

Convening Organization: Alliance for Better Health / Healthy Alliance Independent Practice Association (IPA)

Launch Date: Went live April 2018

Sectors: Health systems, health plans, and social services organizations focused on food, housing and transportation

Interest in SDOH: Address the upstream factors that impact health and health outcomes

Network: Over 100 organizations

Funding: DSRIP funds and matching funds from local health plans

Data Sharing Platform: Unite Us

Origins

The Alliance for Better Health (the Alliance) is a regional network of organizations that provide social services to those living in Albany, Fulton, Montgomery, Rensselaer, Saratoga, and Schenectady counties in New York State. Prior to launching its current initiative, the Alliance was approaching community needs through the lens of reducing hospitalizations. However, the organization soon recognized it needed to address upstream factors and focus on community resources, while also finding a way to close the loop among organizations. In forming Healthy Together in April 2018, the organization identified three primary unaddressed needs within the community—food, housing, and transportation. The overarching goal of Healthy Together is to convene a coordinated network that would eliminate silos and bring together partners that could address those needs. The Alliance initially funded Healthy Together under the Delivery System Reform Incentive Payment (DSRIP) program,[iii] a Medicaid demonstration initiative to support improve care delivery for Medicaid beneficiaries.[41] For this reason, Healthy Together initially focused on Medicaid beneficiaries and the uninsured but has since expanded to the broader population.

For CBOs, the impetus for joining Healthy Together stemmed from the same desire that motivated the Alliance—to better serve their clients by removing silos among organizations and sectors. While some organizations were concerned about duplicate systems for data entry, the opportunity for cross-sector collaboration outweighed these concerns. Another motivating factor was the Alliance's offer of monetary incentives for CBOs to join the network and use the Unite Us platform in meaningful ways. For some CBOs, the Alliance continues to cover the participation fee (there is no

[iii] The New York DSRIP program ended on March 31, 2020 (Source: https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/dsrip_faq/section2_faqs.htm)

direct cost to CBOs for network use). One CBO stated that a combination of contracts and data sharing agreements with the Alliance funds their participation.

Implementation Experience

Since its launch in April 2018, Healthy Together has grown from 20 to over 100 organizations. The Alliance has taken a slow, stepwise approach to growing Healthy Together, obtaining buy-in from community organizations and growing locally. When new CBOs join Healthy Together, Unite Us provides training and technical support. In addition, the Alliance team learns about the workflows of each CBO to help determine how the CBO can leverage the platform and who within the CBO should be using the platform.

SDOH Assessments

CBOs were often collecting SDOH information through their own intake processes prior to joining Healthy Together. They have not adopted the standardized SDOH screening for Healthy Together, instead choosing to maintain their previous workflow and methods. In contrast, health systems within Healthy Together that had not previously conducted SDOH screenings adopted the SDOH assessment.

To guide and standardize platform use, Healthy Together has achieved two important milestones. First, it has established program standards that outline expectations for organizations within the referral network (e.g., how quickly organizations should act on referrals) and best practices for the Unite Us platform, which allows Healthy Together to examine program data in real time. Second, to guide the referral process across the network, Healthy Together developed a standard SDOH assessment focusing on financial welfare, housing, social welfare, food insecurity, transportation needs, and childcare needs. However, adoption and use of this assessment is not yet widespread among network participants.

A key facilitator for Healthy Together has been the partnership's direct appeal to the community with the opportunity for cross-sector collaboration. The Alliance focused first on engaging CBOs and building trust by leveraging the organization's existing relationships with CBOs and bringing on new staff with experience in CBO engagement. When the Alliance initially launched Healthy Together, they hosted meet-and-greets with CBOs and healthcare agencies, so they could learn about the different organizations and programs joining the network. This facilitated buy-in and attracted new partners, who appreciated the effort to engage with and understand participants' needs, and saw the potential benefits the network could provide the community.

Technology support for Unite Us has also been a key network facilitator. When an organization joins Healthy Together, as noted, the Alliance learns about the CBO's workflows to see where the platform could fit in their organization. This technology support has helped CBOs navigate the adoption of Unite Us effectively. Network participants that have integrated Unite Us into their workflows commented on the value of the closed-loop referral process. In addition, some CBOs have seen a clear increase in referrals to their organization after joining the network. Since April 2018, Healthy Together has helped network participants manage over 15,000 service episodes.

While substantial benefit stems from the closed-loop referral platform and the increase in referrals, Healthy Together has encountered several challenges related to the uptake of the Unite Us platform.

While each new participant receives technology support and training, some CBOs still struggle with incorporating Unite Us and modifying their existing workflows. For example, transitioning from a paper-based system for assessments and/or phone-based system for referrals to an electronic system was a significant shift for some partners, which created inconsistent platform uptake across participating organizations.

Duplicate data entry systems also posed a challenge. Unite Us primarily provides closed-loop referral technology and does not offer CBOs the ability to record other types of data. As such, CBOs must continue using other systems to capture member/client data. In addition, some CBOs who work closely with local government agencies—whose platforms are not interoperable with Healthy Together—must use those data systems as well.

Because Unite Us has not yet fully incorporated the CBOs' existing referral networks, some CBOs do not use Unite Us at all, continuing to rely entirely on traditional approaches to outreach (e.g., making telephone calls to partners). These CBOs indicated that if Healthy Together could onboard the CBOs' own key partners into the referral capabilities of the network and platform, they would be interested in becoming network partners.

Future Directions

Healthy Together continuously reviews service categories within the network to identify potential gaps. Leadership has discussed plans for bringing on additional partners, including health plans, and expanding the network's geographic coverage. They would also like to expand into behavioral health and care related to health and wellness, such as diabetes prevention. CBOs reported interest in network expansion that draws more of their usual referral partners to the network, which would improve the usefulness of the closed-loop referral technology. Healthy Together has conducted additional outreach to CBOs within the housing sector; however, the COVID-19 pandemic has delayed these efforts. These CBOs would also like the network to engage local government agencies, given that they offer services and approve many services issued within the network (e.g., to serve Medicaid beneficiaries).

SNAPSHOT: United Community

United Community Characteristics

- **Location:** Metro Louisville (Jefferson County) in, Kentucky, Floyd and Clark counties in southern Indiana
- **Convening Organization:** Metro United Way
- **Launch Date:** Implementation of the network began in April 2019 with 50 organizations from different sectors
- **Sectors:** Health, early education, legal aid, transportation, and employment sectors
- **Interest in SDOH:** Holistically serve people in the community by addressing social needs
- **Network:** Over 150 organizations
- **Funding:** Philanthropic support, health plan
- **Data Sharing Platform:** Unite Us

Origins

In its vision for holistically serving people in the community, the leadership of Kentucky's Metro United Way saw the need to improve the processes and systems available for addressing social needs. Specifically, they wanted to establish a mechanism to communicate and refer across social service organizations, and to track how long it takes to address an individual's social needs. Drawing on relationships from past collaborations, Metro United Way leadership presented this vision to the Louisville-Jefferson County Metro Government, the education sector, a local health plan, and a local nonprofit organization. Multiple interviewees noted that in establishing the initiative, Metro United Way's leadership took on the role of "champions that were motivated to stop talking about the problems in the community and to start taking action," articulating the shared goals among these sectors and obtaining authentic buy-in from network partners.

Following the commitment of the founding partners, other organizations were attracted to the mission and Metro United Way's sense of urgency. The planning stage, which lasted approximately nine months, involved developing the initial concept for the United Community network, identifying the right vendor, and getting community buy-in. By the time United Community began implementation in April 2019, its network encompassed 50 organizations from across health, education, and social services sectors, including small CBOs and large, well-established organizations like Big Brothers Big Sisters, the local community college, and the local hospital system.

United Community has prioritized a collaborative, transparent approach to implementation. The governance team, which includes representatives from diverse sectors, was involved in initial decision-making, including determining what the community needed from the platform. An oversight committee includes Metro United Way, Passport Health Plan, Louisville Metro Government, and

Jefferson County Public Schools. Metro United Way serves in an executive capacity to keep the governance team apprised of all initiative discussions and developments.

In keeping with its goal "that none of the social services organizations would have to bear the costs" of participation, Metro United Way has relied on philanthropic support to launch and sustain the initiative. Metro United Way leadership noted that the strong appetite for this initiative among community organizations facilitated fundraising. Leadership has secured support such as foundation funding and a partnership with a health plan that allows United Community to provide unlimited licenses for participating nonprofit organizations to use the Unite Us platform.

Implementation Experience

The United Community network, which has experienced steady growth, now includes 162 organizations. Growth areas include support for employment through a partnership with the local workforce board, as well as transportation, after school programs, utility support, and health plans and providers. Another key area of expansion has been housing services, including the launch of an Eviction Coordination Center.

The primary end users of the Unite Us platform are front line staff who serve as intake coordinators, staff who work on referral services, and case managers who work with clients. Jefferson County Public Schools, for example, purchased licenses for over 100 family resource coordinators and school-based social workers to connect children with community resources through the more efficient referral process. United Community distributed one license to each care management team across five hospitals. One participating health system purchased 30 licenses, which it gave to 21 nurse navigators, a data analytic team member, a behavioral health provider, and a social worker. This health system is currently in discussions with Metro United Way about purchasing an enterprise license to use the platform on a broader scale within their organization.

According to several interviewees, having Unite Us on the ground to help partners with implementation on a day-to-day basis has facilitated partner implementation. Unite Us provides training and onboarding for users and organizational leadership, which facilitates buy-in. Partners are also able to work with Unite Us to modify intake forms to meet their organizations' needs. For example, a grant focused on financial coaching requires one CBO to use specific check-in forms, which have been built into United Community. Yet, high turnover among front line staff requires additional training to use the platform, which has delayed CBO adoption in some cases.

Buy-in among front line staff has been a challenge for some organizations. Some interviewees attributed this to reluctance to change workflows in instances when the new platform would require certain CBOs to enter client information twice—for example, into both Unite Us and the organization's case management system, or a system mandated by a funder (e.g., the Department of Housing and Urban Development [HUD], specific grants). This added burden has prevented some organizations from achieving efficiency benefits from the network, and some from joining at all. Some participating organizations see the need for further network expansion as a current challenge because the absence of frequent referral partners from the network limits its utility.

Stakeholders emphasized that a primary facilitator for the initiative has been the development of relationships. United Community has invested in a large network for closed-loop referrals and sees the Unite Us platform as a tool to maintain these relationships. Metro United Way shares this perspective and recognizes the need for continued network growth. The United Community initiative has fostered relationships between organizations with no previous history (e.g., the education and health sectors), that then engage others. For example, upon joining the network, Community Ministries conducted outreach to expand the network, identifying other CBOs working on eviction prevention and collecting information that would be helpful for referrals (e.g., funding, eligibility requirements) from interested parties.

Metro United Way has access to the data generated by the network and uses it to monitor network quality. For example, for each referral, they collect data on the service type, how long before the referral is accepted or rejected, and how long before the case closes. Using these data, Metro United Way and Unite Us provide analytic support to CBOs. Early on, referrals could take as long as 16 days to be accepted; now it takes less than one day. Partners were involved in developing network standards, so Metro United Way feels there is joint ownership and accountability across the platform, which means the data being captured are robust.

Future Directions

In the coming year, Metro United Way is planning to expand the geographic reach of United Community to include counties in Kentucky and Indiana, which are part of Metro United Way's service area. To address implementation challenges, Unite Us is actively trying to integrate with other systems and existing workflows. Unite Us is also developing a hub to allow people to self-refer into the network (rather than going through a CBO) which can increase the number of individuals accessing services. In the longer-term, stakeholders discussed moving beyond performance monitoring to using the data to understand the needs of their clients (e.g., predictive analytics, population health), and where there are community gaps in resources. Finally, to ensure the network's sustainability, the governance committee is actively seeking future sources of funding.

Appendix A: Glossary of Acronyms and Terms

While federal, regional, and state-level initiatives may seek to support data sharing through health information exchanges, this project focuses on smaller geographic areas where local communities are engaged in data sharing to integrate medical and social services for individuals.

Table A. Glossary of Acronyms and Terms

Acronym/ Term	Definition
CBO	A community-based organization (CBO) is a public or private nonprofit organization of demonstrated effectiveness that— (1) is representative of a community or significant segments of a community; and (2) provides educational or related services to individuals in the community.[42]
CIE	A community information exchange (CIE) is a "homegrown" technological approach that connects social services and health services. Depending on the population served, CIEs vary in their focus on specific SDOH and in the sectors involved. They tend to serve states, cities, and small regions.
Closed-loop referral	In this report, a closed-loop referral is defined as the ability to receive information back from the social service organization (or in some cases the patients) about outcomes of the referrals.[43]
Community-level	For the purposes of this project, we define communities as local public health initiatives, health systems' efforts, and healthcare and CBO partnerships.
Community resource referral platform	A community resource referral platform is a closed-loop system designed to facilitate multi-directional communication, referrals, and coordination across sectors.
Convening organization	Convening organizations rally the community, develop and solidify relationships among network participants, create a governance structure, and select a referral platform.
Dead-end referrals	Dead-end referrals are those made to organizations that are not currently active in the network, thereby creating a situation where those referrals will not be picked up (i.e., they "hit a dead-end").
DSRIP	The Delivery System Reform Incentive Payment (DSRIP) program is under the umbrella of Medicaid Section 1115 Waiver programs and gives states funding to support healthcare providers in changing care delivery for Medicaid beneficiaries. [44] In New York State, DSRIP is the main mechanism by which the state implemented the Medicaid Redesign Team (MRT) Waiver Amendment. DSRIP´s purpose is to restructure the healthcare delivery system by reinvesting in the Medicaid program, with the primary goal of reducing avoidable hospital use by 25% over 5 years.[45] The New York DSRIP program ended on March 31, 2020.

Acronym/ Term	Definition
EHR	An electronic health record (EHR) is an electronic version of a patient's medical history. It is maintained by the provider over time and may include the key administrative and clinical data relevant to care under a particular provider, including demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports.[46]
HIE	A health information exchange (HIE) allows doctors, nurses, pharmacists, other healthcare providers and patients to appropriately access and securely share a patient's vital medical information electronically.[47]
HMIS	A Homeless Management Information System (HMIS) is a local information technology system used to collect client-level data and data on the provision of housing and services to homeless individuals and families and persons at risk of homelessness.[48]
IPA	An independent practice association (IPA) is a business entity organized and owned by a network of independent physician practices for the purpose of reducing overhead or pursuing business ventures such as contracts with employers, accountable care organizations (ACO) and/or managed care organizations (MCOs).[49]
SDOH	Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.[50]
Social services	Social services include housing, food, and transportation support, provided by government and private, for-profit profit and nonprofit organizations for the benefit of the community and to promote social well-being. [51]
Value-based care	Value-based care is a healthcare delivery model in which providers, including hospitals and physicians, are paid based on patient health outcomes rather than for services rendered.[52]

Appendix B: Supporting Exhibits

Table B-1. Characteristics of Community Initiatives

Initiative	Healthcare-driven/ Community-driven	Convening Organization	Geography	Technology	Launch Date	Motivation	Sectors Involved	Network	Funding
Kentucky – United Community Shared Data Platform	Community (local government, public school system)	Metro United Way	Metro Louisville (Jefferson County), Kentucky and Floyd and Clark counties in southern Indiana	Unite Us	Implementation of the network began in April 2019 with 50 organizations from different sectors	"No wrong door" for people to access health and community services	**Education, healthcare, social services** (e.g., affordable housing, food security, mental health)	Over 150 organizations	Philanthropic support
Michigan – GRACE Network	Community (non-profit housing)	Community Rebuilders, a nonprofit organization focused on housing	Grand Rapids, Michigan	Signify	Went live in December 2019	Homelessness in families	**Healthcare and social services** (e.g., those covering employment, discrimination, financial stability, access to healthy food, transportation access)	Founded by 10 organizations representing key sectors above	Philanthropic support
New York – Healthy Together	Healthcare	Alliance for Better Health/ Healthy Alliance Independent Practice Association (IPA)	Albany, Fulton, Montgomery, Rensselaer, Saratoga, and Schenectady counties in New York State	Unite Us	Went live in April 2018	Connecting health and social services	**Healthcare and social services** (e.g., financial welfare, food insecurity, housing, child care needs, transportation needs, social welfare)	Over 100 organizations	DSRIP funds and matching funds from local health plans

Table B-2 provides additional cross-case synthesis of the SDOH domains that initiatives have targeted, and areas in which they see potential for the future.

Table B-2. SDOH Domains Being Targeted

SDOH Being Targeted	Opportunities for Expansion
Top Domains **Food Insecurity (3)** — All three initiatives are addressing food access, connecting people to food banks, food pantries, and specialty grocery stores that accept benefits. **Housing (2)** —This is an area of focus for two of the initiatives, which became especially urgent under COVID, when families needed safe places to shelter-in-place and/or to quarantine if a member of the family was infected. **Emerging Domains** **Education**—We were only able to connect with one school system, given the public health emergency; however, two interviewees noted education as a potential area for growth. Many families receive nutrition services through school and may be more forthcoming about social service-related needs in that environment vs. in connecting with a health provider.	**SDOH Domains**—Expanding reach of initiatives by including additional areas of focus (e.g., legal aid, and employment sectors) **Behavioral Health**—One interviewee mentioned the need for behavioral health referrals, especially for Medicaid beneficiaries. There is both a shortage of and high need for behavioral health support. **State Partnerships**—Community initiatives that partner with state agencies (e.g., HUD, Department of Health) **Expanding into Adjacent States**—Partnering with states that share a client population **Closed-Loop Referrals**—Many CBOs do not currently have access to the closed-loop functionality or are not yet using the capability because they are new to the platform

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