Keys to Cross-Sector Collaboration

Learning from the Implementation of a Comprehensive Social Continuum Assessment (CSCA)

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Introduction

The COVID-19 pandemic has brought about new and unanticipated challenges to meeting our health and essential resource needs. It has also underscored and deepened pre-existing gaps in how our health care, public health, social services and other systems operate to support the essential needs and well-being of every person. Comprehensive approaches to essential resource screening, coordinating care, and leveraging data for systems improvement must be activated not only in response to crises and pandemics, but also as a means of permanently re-imagining what efficient and effective care looks like in communities.

Prior to COVID-19 but underscored and brought to the forefront of public discussions is an interest in better understanding social risk factors. Social risk factors are adverse social conditions (e.g. food or housing insecurity, unsafe working conditions, etc.) that can result in or exacerbate racial inequities in health. Hugh Alderwick and Laura M. Gottlieb describe a key difference in social risk factors and social determinants of health, stating, "Social determinants shape health for better or worse. Higher income, for example, is associated with better health, while lower income is associated with worse health. In contrast, social risk factors are specific adverse social conditions that are associated with poor health, like social isolation or housing instability." In order to effectively address social risk factors, we must develop and leverage tools that make collaboration and coordination across sectors possible both on a daily basis and in times of crisis. Coordination must go beyond locating resources based on specific domains (like food, heat or housing, etc.) and be designed around the way people access those resources in their daily lives, which often requires them to navigate multiple systems and processes.

Efforts to coordinate resource access across sectors have gained traction in recent years, with even more emphasis in the context of COVID-19, which has made the need for real-time data for coordinated resource referrals all the more critical. Community Information Exchange (CIE) is an approach to build cross-sector collaboration. At its core, it can serve as an infrastructure that supports coordinated care through the use of shared language and assessment tools across partners, an essential resource database, and notably, the ability to leverage real-time data for effective case management as well as capture client data that shows change over time.

This paper focuses on a key tool that supports shared language and measurement within the CIE, the Comprehensive Social Continuum Assessment (CSCA). After providing a brief overview of the history and development of this tool, we will share lessons from implementation and potential next steps for continuous improvement and applications of similar tools that better support collaboration and coordination across systems. By sharing our collective insights and learnings about CSCA, we hope to deepen and broaden existing conversations and stimulate the sharing of new insights from others determined to accelerate cross-sector collaborations in a variety of areas ranging from health to social services.

Background

CSCA's predecessors - the Self-Sufficiency Standard and the Self-Sufficiency Matrix - provide important context for its intent and application today.

In the 1990s, Diana Pearce established the Self-Sufficiency Standard, a benchmark for understanding the basic expenses a working family has in order to meet their essential needs without public assistance in any given geography. At the time, this helped evolve existing poverty-specific measures into standards of self-sufficiency.

Building and expanding upon this work, the Snohomish County Community Action Division of the Human Services Department, United Way of Snohomish County, and other community stakeholders came together to create the Self-Sufficiency Matrix. This case management tool builds on the notion of self-sufficiency while expanding standards beyond economic measures to include other factors such as career resiliency or support systems and transportation. The tool was more than a theoretical construct or framework; practitioners used it as a case management tool, a self-assessment tool, a measurement tool, and a communication tool. The tools help in the identification of appropriate community resources and identifying barriers and supports.

2-1-1 San Diego developed the CSCA (formerly known as the Risk Rating Scale) to serve as a common language to understand the complexity of social influences on individuals and serve as a standard measurement tool shared by any practitioner and collaborator in the CIE to capture the impact of an intervention, its value, and its return on investment (ROI). Beyond the individual impact, the CSCA can also be used in concert with other approaches to assess whether interventions are advancing racial equity over time at a population health level. The goal of the CSCA is to: a) holistically capture the comprehensive needs of an individual and b) track change over time based on an individual's perceived situation.

The CSCA emerged out of conversations with community stakeholders that highlighted where there were gaps in shared language and alignment. Common themes regarding the challenges of establishing shared language and measurement tools include:

- **Lack of Standardization in Screening and Assessment:** Caregivers[1] across sectors that include early childhood, housing, social work, and health are trained in alignment with discipline-specific vocabularies, evidence-based approaches, and standards of care. However, caregivers often work with the same individuals and families who must make sense of these different approaches in their lived experiences as whole people. This creates challenges for organizations to adopt standards to screen and assess for needs in a comprehensive and holistic manner that is simple and efficient for clients.

- **Limited Definitions of Value and Impact of Collaborative Efforts:** With the importance of community-based involvement in supporting healthcare outcomes, diverse community stakeholders from CBOs to staff and leadership from other institutions outside of healthcare struggle with the ability to comprehensively share the outcomes of their work through succinct measures that are easily understood by their partners. Furthermore, cost and value definitions can be driven by a single sector or the largest systems represented at the table. Insights from all partners, including the people and populations most impacted by systemic barriers, are crucial if true value and cost is to be calculated in order to launch and sustain effective care coordination networks. Designing measures that apply to all stakeholders necessitates the presence of representatives from those groups at the table throughout the development, implementation, improvement, and assessment of programs and services.

- **Screening that Captures Limited Information:** Binary models in screening tools can be used to identify social risks and assessments can be used to further determine what social needs might be present. But yes/no responses may not provide a full picture of the spectrum of risks and assets, resulting in limited ways of determining the urgency and opportunity of certain resource referrals and interventions. For example, a binary screening question for food insecurity may surface a risk for an individual but miss the degree of severity as well as the interactions between food insecurity and housing insecurity. It might also emphasize deficits at the expense of illuminating strengths such as interpersonal or institutional relationships that could be critical to build on to improve food security. Another example comes from early childhood social service organizations who have shared how they use a Strengthening Families approach. Screening tools often include questions about protective factors such as parental resilience and social connectedness. Binary models that are solely risk-focused miss the opportunity to leverage strengths and assets within a broader narrative that ranges from crisis to thriving.

[1] Here, we use the term "caregivers" broadly in order to include those who are part of workforces that range from physicians and nurses to community health workers and social workers, as well as those who provide care to family members or loved ones by virtue of relationships outside of the realm of employment.

[2] Taylor, LA and EH Bradley. 2013. The American Healthcare Paradox: Why Spending More is Getting Us Less.

[3] Hare, I. 2004. Defining Social Work for the 21st Century: The International Federation of Social Workers' Revised Definition of Social Work.

- **Lack of Investment in Building Capacity Across the Social Service Ecosystem:** The National Alliance for Families and Communities and APHSA's describe how human services impact one in five Americans in their report, A National Imperative: Joining Forces to Strengthen Human Services in America. CBOs account for almost $200 billion when it comes to the cost of delivering those services. However, healthcare, social services, and CBOs are not on a level playing field. Compared to other Organization for Economic Co-operation and Development (OECD) countries who spend $2 on social services and $1 on healthcare, the United States spends $2 on healthcare and $1 on social services, resulting in poor health outcomes ranking.[2] As a result, CBOs may struggle to meet local demand for services and maintain cross-sector collaboration. The CIE and CSCA helps to enable more efficient resource access and coordination, given the limited resources across sectors.

Shared language and assessment tools must include strengths-based frameworks if they are to adequately capture experiences from crisis to thriving in a person's life. A spectrum of social well-being also allows for diverse takes on what thriving means from a client's own perspective, accommodating a multiplicity of racial, gender, and other identities. Perspectives from social work can be helpful here because of the discipline's historic attention to leveraging the talent and expertise of clients and relationships with the society they operate in.[3] As healthcare providers look to invest in or partner with community-based organizations, understanding the strengths of the social service ecosystem as a whole along with the opportunities and gaps in collaboration can also help improve planning and coordination. Identifying where services overlap in order to increase efficiency and coherence is one way of accelerating collaboration and communication between organizations.

Components of the Comprehensive Social Continuum Assessment (CSCA)

The CSCA documents strength and vulnerability across three main constructs: (1) immediacy, (2) barriers and supports, and (3) knowledge and utilization.

Immediacy describes how quickly an individual needs access to resources and an understanding of the current situation. For example, accounting for the needs of an individual who is currently homeless is different than an individual who has a thirty-day eviction notice.

Barriers and Supports shed light on specific experiences, situations or connections that impact an individual's ability to access the things they need. For example, accounting for an individual living in a rural area without bus lines is different than an individual that is in an urban setting and has family who can provide transportation as needed.

Utilization and Knowledge identifies the level of understanding, ability and use of the resources available to the individual based on their situation. For example, accounting for the fact that an individual who is accessing SNAP or WIC has different knowledge about resources than an individual who has only accessed emergency services like a food bank or congregate meals. All three constructs are assessed across domains to create a more comprehensive case management approach. Thinking about these constructs together allows case managers and clients to formulate a more robust and relevant plan while also providing data that are needed to inform population level planning.

Assessment Tool Development and Design

2-1-1 San Diego researched available tools through a literature review, and then leveraged strong, existing relationships between stakeholders in the CIE. As a result, the assessment tool was developed by incorporating multiple perspectives. The first step was to define which SDoH domains were most relevant. After examining other SDoH domain frameworks (eg, Healthy People 2020 and LiveWell San Diego) and making a first round of adaptations based on stakeholder input, 2-1-1 San Diego piloted a tool that used one question per domain to determine risk. Many partners had existing tools that were successful for focused interventions. By leveraging these concepts and adapting them for the purpose of a more unified and collective approach, the CSCA was born.

Key steps in development included:

1. Extensive literature review on existing tools with support from the University of San Diego Caster Center
2. Literature review on domain-specific concepts
3. Literature review around immediacy, barriers, supports, and knowledge to build CSCA framework
4. Leveraged existing tools, identified questions or indicators that fit the framework
5. Drafted list of questions and appropriate responses, reviewed with subject matter experts and aligned responses with local resources where possible
6. Assigned risk to responses for each question based on literature reviews (ie to what extent did indicators or situations impact a person's risk or vulnerability)
7. Aligned total risk score ranges to descriptions of risk level
8. Initial assessment of internal validity and interrater reliability

2-1-1 San Diego conducted over 20 focus groups with a total of over 65 participants representing subject matter experts (SMEs) from CIE Network Partners and 2-1-1 San Diego call center staff who use this tool on a daily basis. Members of the focus groups conducted independent assessments of social well-being. After the initial focus groups and exploratory data analysis, new survey tools were created and subsequently deployed for testing. After testing in a live environment, data were brought back to another focus group.

Recommendations that came out of the focus groups who tested the validity of the CSCA included the need to clarify wording, expand response options to capture a broader range of scenarios, and adjust the logic and flow of the questions as well as refine point allocation and construct weighting. Additionally, exploratory analysis helped to better understand which questions had the greatest impact on assessing social well-being. Items that had strong associations with social well-being level were maintained in the instrument. Strong interrater reliability informed which areas to adjust construct weighting and individual point allocation.

By implementing a smaller scale pilot test and taking a quality improvement approach, participants quickly learned that the initial tool led to inconsistency in utilization and results. 2-1-1 San Diego then established more precise, algorithm-based assessment tools that accounted for appropriate questions based on an individual's need. This aligned with practices in healthcare such as when nurses use a clinical workflow to assess for a condition-specific risk or in social services where, for example, additional diversion questions could help identify resources that could prevent homelessness if an individual mentions they are being evicted. A primary data set that ranged from 8-15 questions per domain to set score standards was established. Values and point allocations were assigned, generating a score for each question and possible response based on literature with support from USD Caster Center for Non-Profit and Philanthropic Research.

Components of the Risk Rating Scale

The CSCA can be used in communities for the following objectives:

1. Individual care plans: Identify the best resources, coordinating care, and setting goals and priorities together
2. Shared language that supports inter-agency planning: Enable communication about risks and strengths for caregivers, managers, and leaders from multiple sectors. Share data and integrate within coordinated care networks such as a CIE.
3. Consistent measurement of change over time: Measure in a way that is sensitive to small and large changes in risks and strengths. Leverage data to inform population-level approaches.

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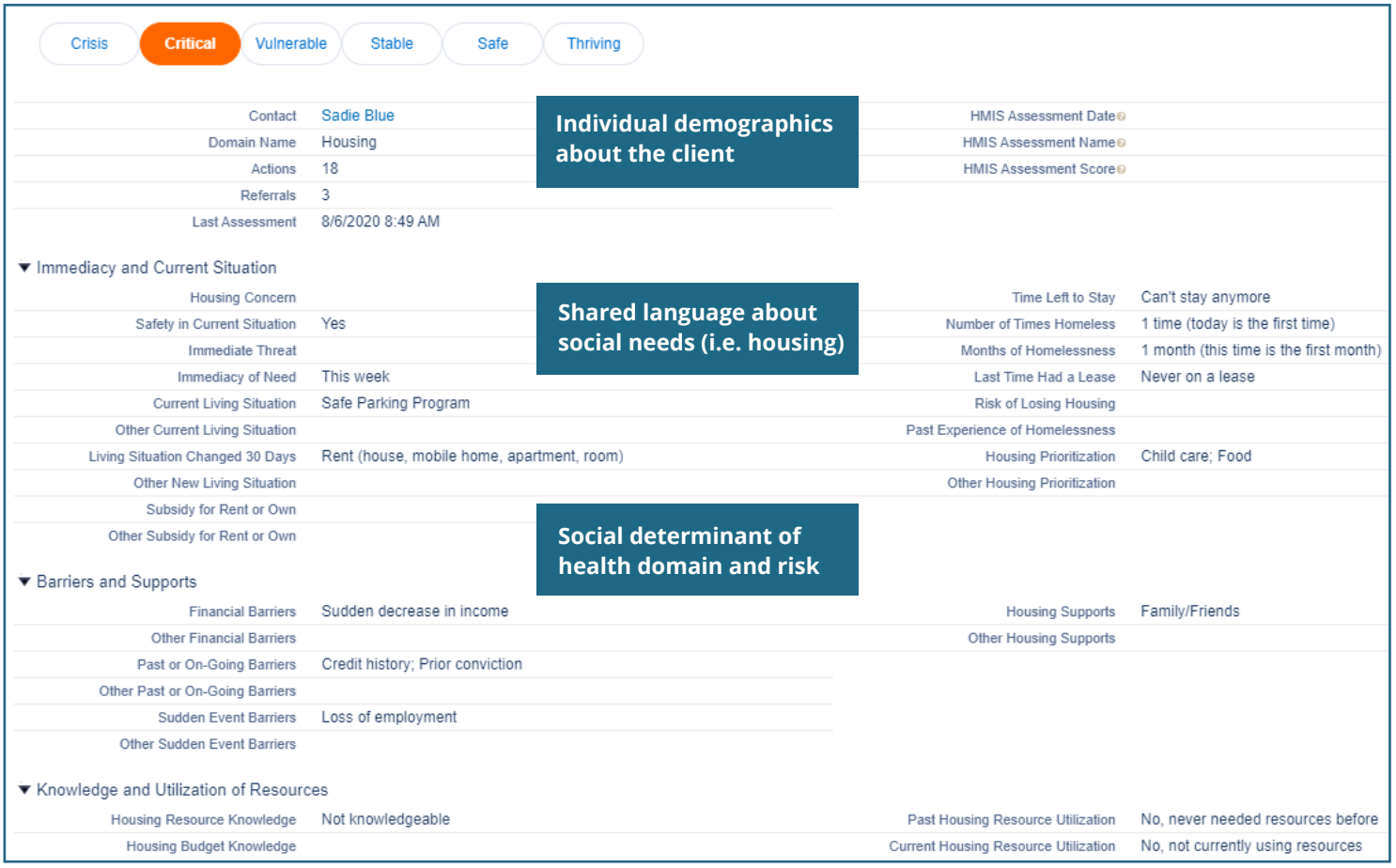
Case Study: Examples from San Diego on the Impact of a CSCA

In examining the usage of the CSCA in San Diego, we consider how the tool serves three applications, which might be more interesting to different participants at different times. The first area of focus is on generating insights that might best serve practitioners invested in care planning, implementation, and intervention. This “micro” level application of the tool possibly creates the most significant impacts and it is only “micro” in the sense of the unit of focus being one individual at a time. The “mezzo” or “meso” level application relates to how data are used to inform coordination and collaboration among organizations and institutions. Data from the CSCA here are used by data analysts (and others interested in agency level analysis). The third perspective is a “macro” level application. This perspective is useful across participants who want to understand the community-level impact of a shared language.



Micro: Individual Care Planning and Intervention

Currently, the CSCA is administered by 2-1-1 San Diego through phone-based assessments. CIE partners can also administer the CSCA through an application called the CIE Partner Community. 2-1-1 San Diego staff and CIE partners utilize the results to identify appropriate resources, coordinate care, and set goals to help individuals move toward or maintain a thriving state. Assessment questions and the level of social well-being within each domain are aligned with 2-1-1 San Diego's Resource Database to help guide navigators to the most relevant community resources. The tool provides a practical guide for staff as they ask key questions to understand the complexity of a person's situation that can highlight potential resources. Does addressing one need reduce the immediacy or urgency of the other? Does the urgency of one resource need to be addressed first in order for other resources to make sense or be accessible? The tool is also directly linked to the Resource Database to highlight the most appropriate resources based on domain, risk, and particular needs.

Mezzo: Agency Level

Understanding levels of social well-being among groups of clients served by an agency can help guide an agency's approach to planning programs and developing partnerships. For example a Federally Qualified Health Center could view the CSCA results for patients that have been assessed by 2-1-1 San Diego, discover that they are missing opportunities to address homelessness in a significant portion of their own clinic population, and determine that they would like to create a standard referral pathway for offering enrollment in healthcare for the homeless programs versus standard primary care to patients like these. They could then monitor the impact of the new coordination using follow-up CSCA results.

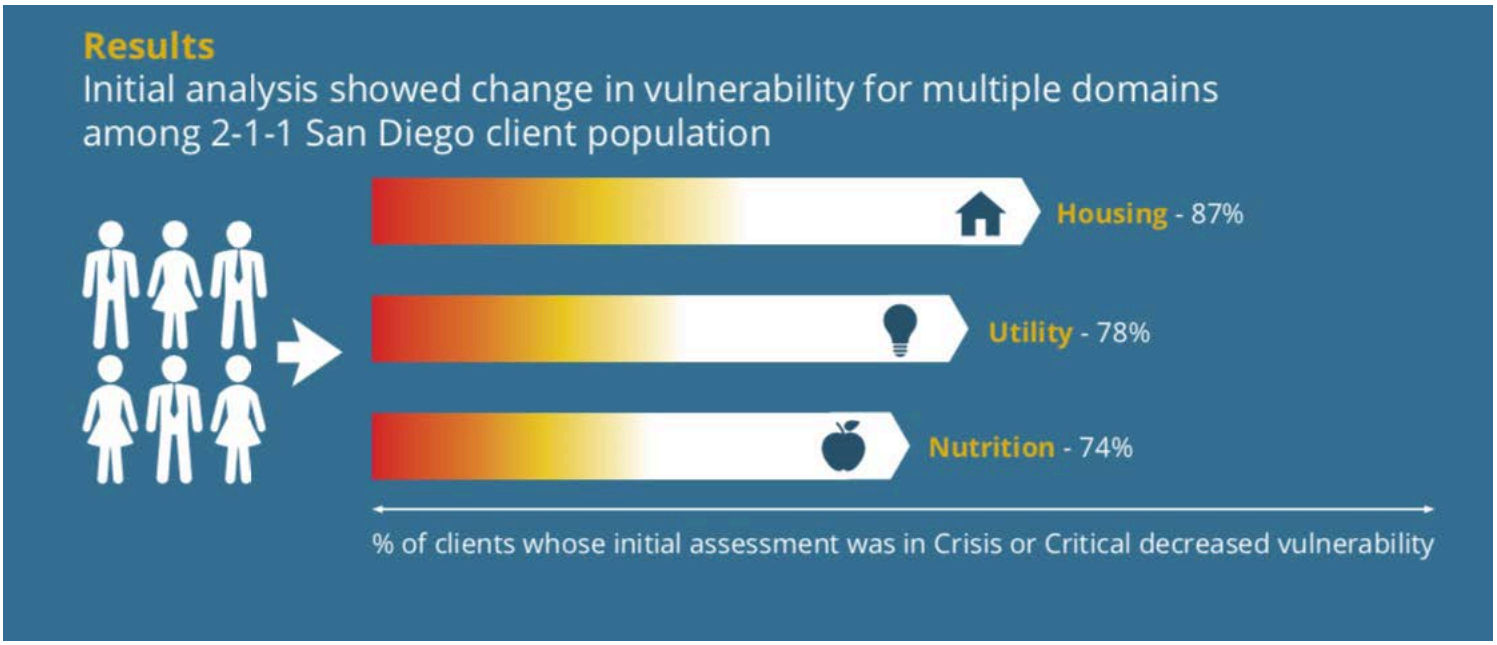
Macro: Community Level

Implementing the CSCA across a network of partners also allows the ability to see data on social well-being across a broad cross-section of the population in a community. For example, data on the clients served by any network partner can provide clues to the effect of regional policies or investment strategies.

Measuring Change Overtime

In addition to improving care coordination, the CSCA enables monitoring changes in social well-being over time. A wellness score is generated at the completion of each domain-focused assessment, which also plots the result into one of the six wellness categories for that domain, ranging from crisis to thriving. To better understand what it looks like when a wellness score is monitored over a longer period of time and how that informs better care coordination, we analyzed the use of the CSCA in more detail within one of our multi-sector partnerships.

The Care Transitions Intervention (CTI) Program is a partnership between Sharp Grossmont Hospital (SGH), 2-1-1 San Diego, Feeding America San Diego, Grossmont Hospital Foundation, and Sharp Healthcare. At SGH, CTI connects high-risk patients to 2-1-1 San Diego health navigators to receive critical services such as access to a medical home, housing, fresh food and nutrition, transportation, and social support for transitions back to the home. Connections to these supports are made using the CIE platform. 2-1-1 San Diego health navigators address both short- and long-term care needs and SDoH, allowing SGH to leverage community partnerships to improve health outcomes and reduce readmissions. Health navigators document services in the CIE, which are sent to hospitals as monthly reports that include patients' essential resource service utilizations as well as their vulnerability using the CSCA via pre-post testing. The program has demonstrated success at reducing patient readmissions. Patients referred to 2-1-1 San Diego experienced a 9.6% readmission rate compared to a 30% rate in a comparison group. 91% of patients in the program experienced a decrease in vulnerability for at least one SDoH domain. Furthermore, SGH estimates that the CTI program provides a cost- savings of roughly $17,562 per inpatient admission and $1,387 per emergency department admission, with greater return on investment for uninsured populations.



CSCA data has also informed population health interventions and the addressing of upstream factors that impact health. One key insight that emerges from these data is the relationship between common health conditions and social determinant indicators. For example, food insecurity indicators were highest for clients with diabetes (34% of clients indicated some form of food insecurity, compared to those with anxiety or depression where only 16% experienced food insecurity). Medical financial indicators were highest for those with anxiety or depression (27% of clients experienced some form of medical financial hardships, compared to 11% with cancer). Such findings have informed intervention strategies by illuminating which social needs present the most risk to populations with specific health conditions and provide early indicators to proactively tailor interventions.

Lessons Learned

Early testing of this tool has provided the opportunity to glean insights from both a service delivery lens as well as an evaluation perspective. What has become clear is that a simple tool, when constructed collaboratively with a committed network of partners, can become instrumental in creating shared language and coordinating work across sectors to better address the needs and desires of a whole person.

Opportunities for utilizing tools like the CSCA are numerous. Across each of these potential forms of impact is the concrete operationalization of collaboration through shared language. Shared language between care team members and the individual they are working with is the ability to communicate about common goals for thriving.

Promising practices for using a tool like the CSCA include: 1) care coordination; 2) shared language within a CIE; and 3) risk and well-being stratification. Care coordination teams can use the CSCA for care planning to set goals and share progress.

Lessons learned from implementing the CSCA may also help to advance future work in this arena. Core components that contributed to the success of the initial implementation of the CSCA: 1) deep partner engagement and participation from early phases of tool design and refinement, 2) rapid and iterative innovation cycles to learn what was and was not working, and 3) using qualitative and quantitative approaches to evaluation.

Building the technology to support this work was more complicated and resource intensive than initially anticipated. Other organizations, networks, and collaboratives interested in similar approaches may benefit from implementing co-design with partners in creating, adopting, and rolling out new tools as well as setting up a hypothesis-driven, innovation approach to continuous learning. Furthermore, any incorporation and integration of technology would benefit from a manageable timeline and adequate allocation of time and resources.

Next Steps

Further study of the CSCA as well as tools similar in design and approach will help advance the field of cross-sector work to ultimately address the upstream social determinants of health (SDoH). Our preliminary results indicate the promise of the CSCA and similar scales as tools to support effective case management. In addition to providing a more comprehensive version of an individual's situation, tools like the CSCA allow for reviewing population health data over time to assess whether interventions and collaborations are truly advancing equitable and informed approaches to care, and to the policies and systems that drive health and wellness.

More specifically, we recommend the following next steps:

1. Increase access to social well-being information within healthcare

Social well-being is often discussed in the context of health plans and algorithms to segment patients to better manage cost/utilization. The CIE is an example of how organizations can collaborate on shared information across health and human services, and also enable the sources of data (community members) to have a say in how social well-being data is used. There are similar efforts developing around the country and further integration of information being shared between social service agencies and CBOs will help inform healthcare efforts to improve population health outcomes.

2-1-1 San Diego has leveraged this concept for contracting with healthcare organizations to show how changes in vulnerability affect healthcare utilization outcomes. Additionally, the hope is that agencies that are participating in the CIE utilize social wellness scores to tailor their intervention strategy based on their situation. For example, if a healthcare provider knew that the individual was in a crisis for nutrition, they could prescribe accordingly. Additionally, through data sharing, social wellness scores can be generated in real-time as other agencies update information within their own electronic health records (EHRs), health information exchange (HIE), and application program interfaces (APIs). This also allows for deeper analysis of data to understand relationships between social risk factors and other factors such as race, health condition or geographic region. This can be useful for proactively hot spotting needs, appropriately allocating resources and investments in communities, and most importantly rapidly adjusting strategies to improve individual and population health

2. Expand tools to account for how certain demographic factors such as race, age, and zip code impact risk.

In order to better understand how tools like the CSCA can be used in the context of population health and racial equity, assessment and measurement tools should be expanded to account for more upstream variables that can act as risk "multipliers" or indicators of systemic racism and other inequities.

3. Test the CSCA and similar tools across multiple geographic settings.

The CSCA would benefit from implementation in other regions in order to validate its efficacy across different populations and better understand how the tool should be utilized for a wide range of landscapes and communities. Tools to develop and implement a CIE, including the utilization of the CSCA, are available online through the CIE San Diego. Organizations developing related tools such as the Self Sufficiency Matrix can similarly benefit from comparing and contrasting implementation experiences across a range of settings.

4. Continue practice-based research by testing models against other tools.

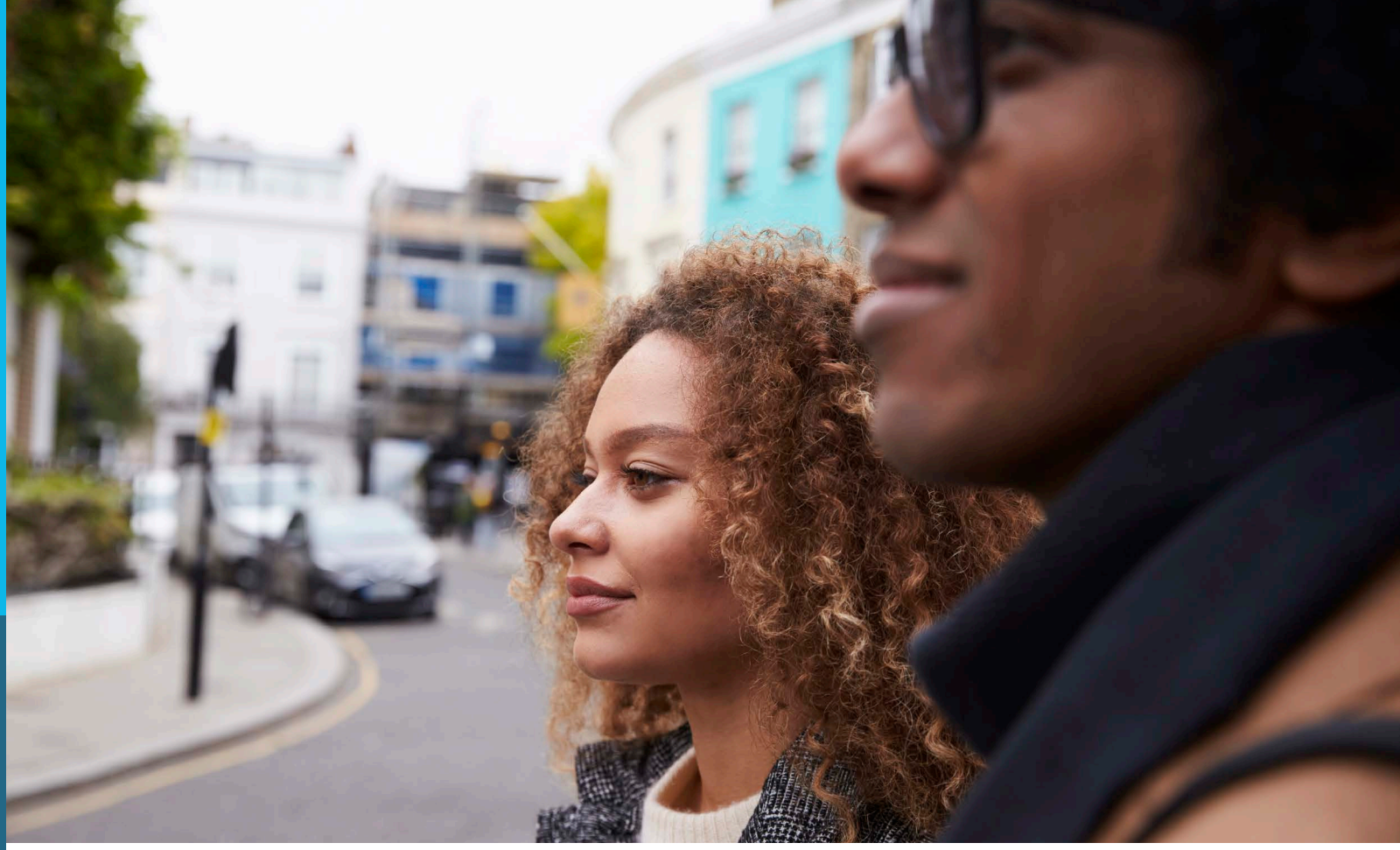
Future testing of the CSCA and other models and tools, accompanied by findings and lessons from pilots will allow the field to learn together at the leading edge of practice. Much work remains for practitioners, researchers, administrators, funders, and policymakers in the field of addressing SDoH and advancing health equity. As new models, approaches, and tools are tested, sharing insights early and often is critical to moving the needle on health in order to address systemic barriers. We share the CSCA here in the hopes that lessons learned might be leveraged for other communities that have similar commitments and face similar challenges that resonate with ours.

In order to ensure that the increasing attention to person-centered care and racial equity are accountable to those aims, tools like the CSCA must not only be developed but constantly reviewed and refined so that cross-sector collaboration and shared language not only increases at the outset but through sustained relationships. The CSCA is built through an agile process, allowing for updates and changes driven by feedback from those the tool is serving. We recommend similar approaches to other communities as much of the CSCA can be adopted by other communities, but allowing room for unique customization based on the needs and desires of community stakeholders.

5. Avoid overly prescriptive models in social services.

While this recommendation for next steps might sound counterintuitive to the call to increase integration of social risk data in social services and healthcare, integrating and sharing language between medical and social service settings is distinct from medicalizing social services in and of themselves. Care coordination across sectors must support a range of disciplinary frameworks. Across any discipline or field of practice, it is important to avoid oversimplified logics where x need leads to y intervention. In a social service context (and arguably, in many clinical contexts, such as primary care settings) this kind of overly prescriptive logic fails to take into account the complex needs and desires of each unique being. A simplified tracing of action plans and expected levers to impacting outcomes is often not in the interest of person-centered care. The order in which a person pursues resources across social services or perhaps the reasons for preferring one type of resource over another may vary, and oversimplifying action plans may limit some of the great strengths of person-centered medicine as well as historically whole-person approaches in fields such as social work.

In sharing the goals and results from implementing a tool such as the CSCA, we hope to deepen the many conversations in the field of SDoH and racial equity in health and social services. Beyond screening and assessment, we know that a shared language for describing the broader context in which an individual navigates through a multitude of systems is critical to real-time communication. Better communication and coordination enable more comprehensive understanding about how different factors are working together to impact people's complex lived experiences.



Continuing the Conversation

If you or your partners have shaped this field through your own tool creation/adoption, testing, and learning, we would love to hear from you and foster additional discussions. One mode of sharing lessons learned in the context of a community of practitioners, researchers, and administrators is through the All In: Data for Community Health's Data Across Sectors for Health (DASH) platform. Register and join the group here. Additionally, if you or your organization are interested in adopting the model and piloting the CSCA in your organization or network, please join us for our 2020 Annual Summit which will be hosted virtually from August 12-14 or reach out to us at CIE San Diego.

2-1-1 San Diego is an information and referral hub, accessed through an easy-to-remember three-digit dialing code. 2-1-1 San Diego provides connections to health and social resources across San Diego County and Imperial County. In 2015, 2-1-1 San Diego and several community stakeholders came together to launch the Community Information Exchange. For more information on the CIE, visit: https://ciesandiego.org/

Health Leads is an innovation hub that seeks to unearth and address the deep societal roots of racial inequity that impact our health. It works nationally and locally across the US to build partnerships and redesign systems so that every person, in every community, can live with health, well-being and dignity. For more information about Health Leads, visit: https://healthleadsusa.org/

Special Acknowledgements:
Alana Kalinowski, MSW
Rebecca D'Andrea, MSW
Joanna Oboza
University of San Diego Caster Family Center for Nonprofit & Philanthropic Research