Addressing Social Needs Through Integrated Healthcare and Social Care in Texas:

Case Studies, Key Issues, and Recommendations to Advance Practice

September 2020

To improve the health and well-being of their patients, healthcare innovators are working to systematically screen patients for social, economic, or other non-healthcare needs and link them with appropriate services provided internally or through community partner organizations. Seeking to support this movement, the Texas Health Improvement Network (THIN) launched a project in June 2019 to explore the current practice of healthcare and social care integration in Texas, identify key issues impacting adoption and sustainability, and develop recommendations to advance this work in Texas.

This final project report provides:

- Background information on healthcare and social care integration
- Case studies from six Texas organizations
- Key themes from case studies and expert panel meeting
- Recommendations to accelerate adoption and create sustainability

Executive Summary

The Texas Health Improvement Network (THIN) conducted a 15-month project to explore the current practice of healthcare and social care integration in Texas, identify key issues impacting adoption and sustainability, and develop recommendations to advance this work in Texas. Six Texas case studies were conducted, providing a qualitative snapshot of healthcare and social care integration activities in Texas. A two-day meeting of experts and leaders from within and outside Texas was convened for a deep dive into the subject of healthcare and social care integration. Panels discussed implementation practice, outcomes, and paths to sustainability.

Through this project, the following key themes and recommendations to increase adoption and sustainability were identified:

1. **To advance this work, recognize and leverage the non-health benefits of addressing patients' social needs.**

Social determinants of health are also determinants of other valued social goods including child welfare, education, and public safety. Quantifying non-health benefits and securing financial commitments from other sectors will be necessary to expand, scale and sustain healthcare and social care integration.

2. **Addressing patients' social needs requires a fully engaged and robust social service sector.**

The expertise needed to address patients' social needs lies outside the traditional healthcare fields. The task of integrating care across multiple clinical and social service agencies requires a robust social service sector with a strong inter-organizational infrastructure.

3. **Safety net providers are motivated by mission to address patients' social needs.**

Since their inception and motivated by mission, community health centers have worked to adjust care in consideration of their patients' social circumstances, and have sought to connect patients with needed social services.

4. **Healthcare and social care integration is taking place in many forms across Texas.**

Throughout the state, interest in establishing multi-institutional partnerships organized around a shared screening tool and referral platforms was evident, and many communities were in early stages of implementation. Several focused approaches to addressing patients' social needs are also in practice, including:

- Healthcare and charitable food system partnerships
- Home remediation to address asthma triggers
- Medical-legal partnerships (MLP)

5. **Addressing social needs is labor- and relationship-intensive.**

Screening, counseling, and connecting patients to appropriate community partners takes time. Many with social needs also have behavioral health issues, making navigation more challenging.

6. **Technology is a critical catalyst.**

Technologies such as EHR-integrated screening tools and community resource referral platforms are central to this work, particularly for multi-organizational partnerships.

7. **Payors are interested in finding ways to address health-impacting social needs that generate a short-term return on investment.**

Many payors are experimenting with ways to address or cover costs related to patients' social needs, but need to achieve cost savings in a relatively short time frame to justify the investment.

8. **Focused, practice-based research will help accelerate this work.**

The connection between social needs and health outcomes is well-established, and research on effective and cost-effective implementation strategies and practices will help translate this knowledge into action.

Recommendations

1. **Recognize and leverage the non-health benefits of addressing patients' social needs, and facilitate alignment of public investments to achieve common goals.**

To take this work to scale in Texas and achieve health outcomes with long time horizons, multi-sector public investments are necessary. Such investments must generate benefits to all involved entities. Texas should study models currently being tested to provide the needed framework for mutually-beneficial partnerships. Invest in identifying initiatives that will not only have health outcomes but also impact non-health outcomes that will save public dollars.

2. **Honor, engage, and invest in the infrastructure of the social service/nonprofit sectors.**

Seek to understand the language, goals, evidence, tools, methods, and resources of the fields and entities with expertise to address social needs. Investigate the current resources, capacity and infrastructure needs of the nonprofit sector in Texas.

3. **Coordinate and align work of MCOs and healthcare clinics/systems.**

As healthcare systems in Texas are experimenting with how to best address their patients' social needs, so too are Texas's Medicaid MCOs. Coordination and collaboration between plans and providers will help further this work and avoid duplication of efforts.

4. **Build on focused initiatives with the most traction and potential for short term outcomes.**

Initiatives with a specific scope of needs addressed or services provided, existing champions, potential for outcomes in less than two years, and an emerging evidence base to support their effectiveness are good entry points for clinics and communities interested in addressing health-impacting social needs. These approaches can serve as the foundation and framework for learning and expanding the work of healthcare and social care integration in Texas. Three salient examples are MLP, home remediation for asthma triggers, and initiatives addressing food insecurity.

5. **Contribute to the evidence base by studying early adopters.**

Help close research gaps related to implementation and effectiveness by studying early adopters across Texas. Questions related to cost-effectiveness are especially critical given the importance on return on investment to funding through existing healthcare dollars.

6. **Encourage private philanthropy to fund start-up partnerships and evidence-generating projects to inform practice and investments.**

Philanthropic funds can catalyze this work by 1) enabling communities to fund initial costs related to building multi-sector networks, and 2) helping generate evidence related to implementation, effectiveness and cost-effectiveness of various integration approaches.

Background

Why focus on social determinants of health?

A majority of Texans recognize that access to good medical care in not enough for a person to live a healthy life [1]. The World Health Organization defined social determinants of health (SDOH) as "the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life" [2]. Decades of observational epidemiological studies demonstrate relationships between social, economic,

and environmental factors and health outcomes [3]. Studies also show lower investments in social care are associated with poorer health outcomes at the county, state, and national levels [4-6]. In national comparisons, the U.S. ranks relatively high on healthcare spending but low on social spending, and low on health outcomes such as life expectancy (Fig. 1).

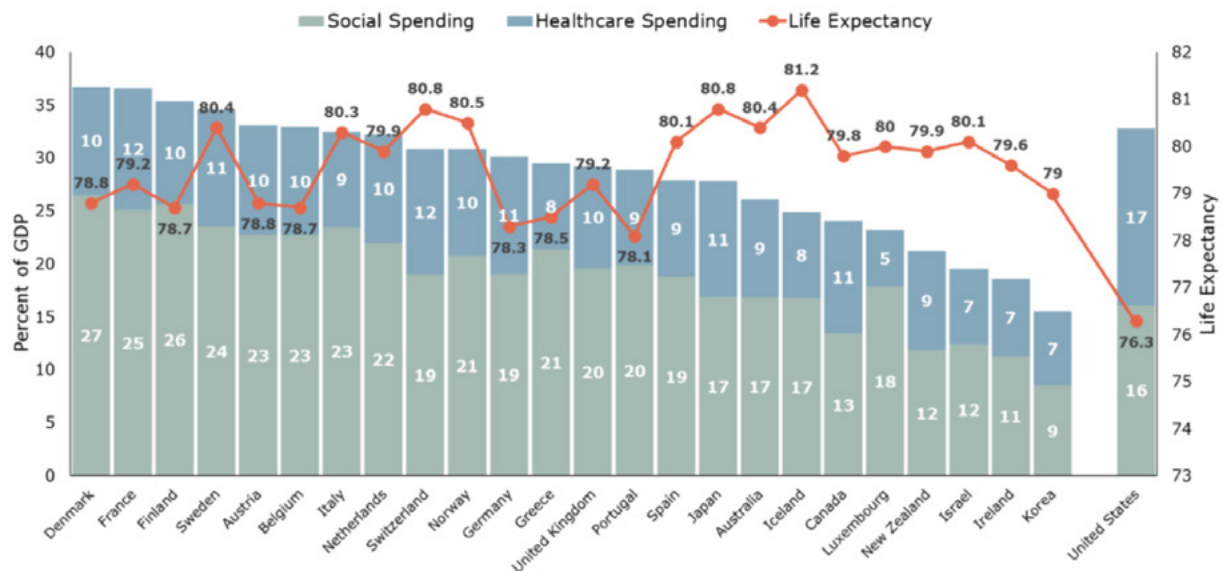Figure 1. Healthcare and Social Care Spending and Life Expectancy among 11 High-Income Countries

Image source: Episcopal Health Foundation, with data from Rubin, Jennifer, et al. "Are better health outcomes related to social expenditure?" Cambridge (UK): RAND Europe (2016) and OECD (2020) "Life expectancy at birth" (indicator). doi: 10.1787/27e0fc9d-en

How can we improve social determinants of health?

SDOH-related work can take many forms. As this field is rapidly developing and specializing, the language used to describe it is evolving. Often the same words are used to mean different things, generating confusion and misunderstanding [7]. Recent commentary has identified a need to differentiate between individual-focused work and community-focused work [8] (Fig. 2).

Community-focused work seeks to improve social, economic and environmental conditions through collective action aimed at changing laws, policies, and built and social environments, and making other systemic changes. Individual- or patient-focused work seeks to address individuals' non-medical, health-impacting needs, typically through screening patients and linking them to appropriate services. Some advocates are encouraging a shift towards reserving the term "social determinants of health"

for community-focused work, and using "social needs-targeted care" when talking about individual-focused work [7]. It is important to note that social needs-targeted care alone is insufficient to address social determinants of health. This work must occur in parallel with broader, community-wide efforts to create the conditions that support health.

Figure 2. Individual versus community-level approaches to addressing social determinants of health/social needs
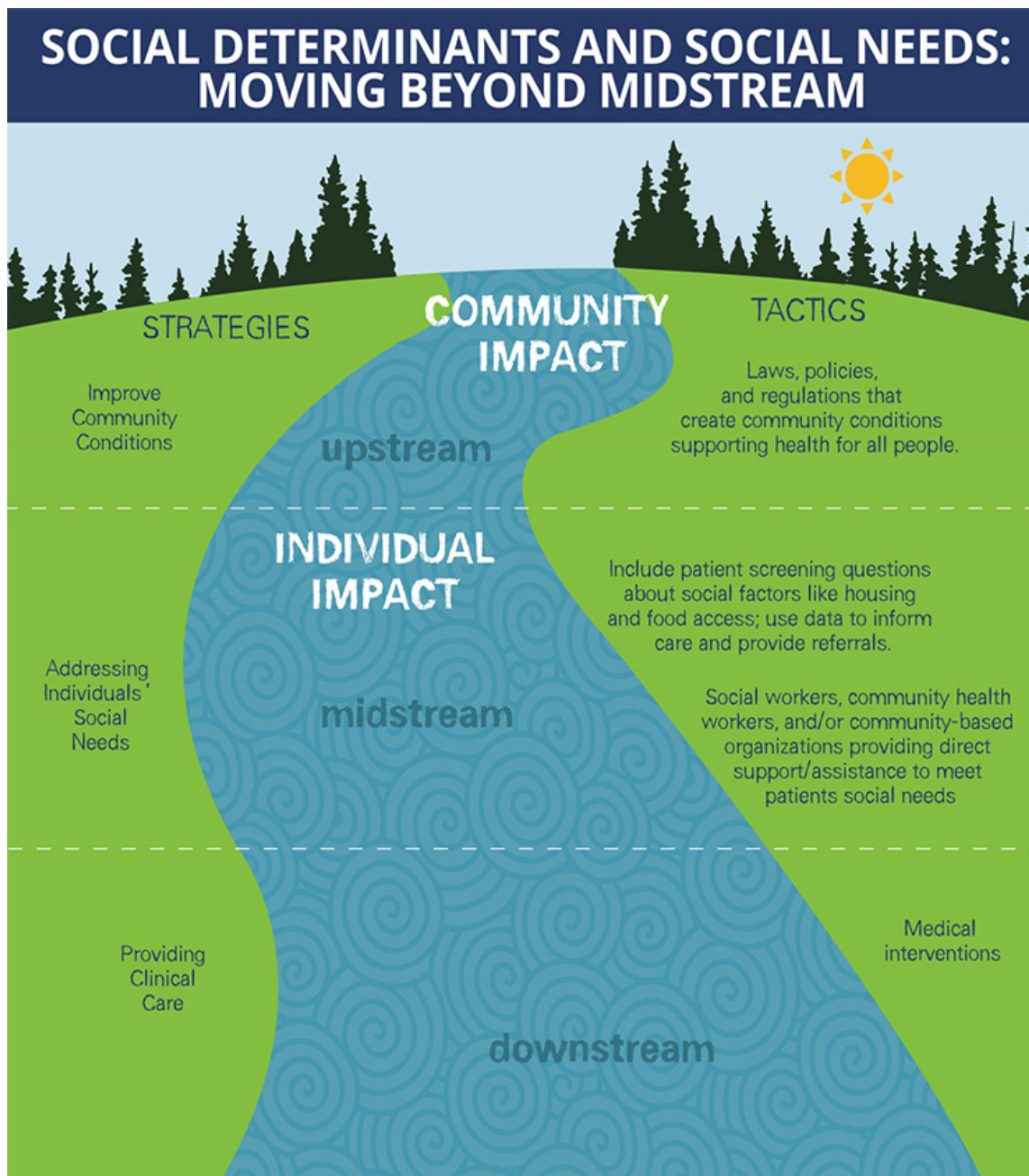
SOCIAL DETERMINANTS AND SOCIAL NEEDS: MOVING BEYOND MIDSTREAM

COMMUNITY IMPACT

STRATEGIES

TACTICS

Improve Community Conditions

upstream

Laws, policies, and regulations that create community conditions supporting health for all people.

INDIVIDUAL IMPACT

Addressing Individuals' Social Needs

midstream

Include patient screening questions about social factors like housing and food access; use data to inform care and provide referrals.

Social workers, community health workers, and/or community-based organizations providing direct support/assistance to meet patients social needs

Providing Clinical Care

downstream

Medical interventions

Image source: Source: "Meeting Individual Social Needs Falls Short Of Addressing Social Determinants Of Health, " Health Affairs Blog, January 16, 2019. DOI: 10.1377/hblog20190115.234942

What role can healthcare play?

Given the large investment that the U.S. makes in healthcare delivery ($3.5 trillion in 2017) [9] and the expectation that the health care sector has a responsibility for improving the health of the U.S. population, the healthcare sector has a role to play in addressing social determinants at the community level and social needs at the individual patient level [10]. Healthcare entities can be involved as leaders or partners in community-wide coalitions dedicated to improve the health of regional populations, and can work to address social factors within patient populations through social needs-targeted care [7].

The National Academies of Sciences' 2019 consensus study report on integrating social care into the delivery of healthcare identified five ways for healthcare systems to integrate social care into healthcare delivery [11]. These activities are described in the table below, applied to the example of food security. The THIN project focused on "assistance" and "alignment" activities in Texas.

Table: Healthcare system activities that strengthen social care integration

ACTIVITY	DEFINITION	FOOD SECURITY-RELATED EXAMPLE
Awareness	Activities that identify the social risks and assets of defined patients and populations.	Ask patients about food security
Adjustment	Activities that focus on altering clinical care to accommodate identified social barriers.	Adjust insulin doses to avoid hypoglycemia when food benefits get low.
Assistance	Activities that reduce social risk by providing assistance in connecting patients with relevant social care resources.	Connect patients with food assistance programs
Alignment	Activities undertaken by health care systems to understand existing social care assets in the community, organize them to facilitate synergies, and invest in and deploy them to positively affect health outcomes.	Co-locate food programs on healthcare campuses; source locally grown food for cafeteria;
Advocacy	Activities in which health care organizations work with partner social care organizations to promote policies that facilitate the creation and redeployment of assets or resources to address health and social needs.	Advocate for larger food benefit packages

Table modified from Table S-1 in National Academies of Sciences, Engineering, and Medicine. 2019. *Integrating social care into the delivery of health care: Moving upstream to improve the nation's health*. Washington, DC: The National Academies Press; and presentation by Laura Gottleib, MD MPH.

Texas Health Improvement Network

Advancing social care and healthcare integration

Addressing patients' social needs is not a fundamentally new idea or practice, particularly in community health centers that serve all patients regardless of their ability to pay [12]. Nurses, social workers, case managers, community health workers, medical social workers, and other essential clinic staff are connecting patients with community resources on a daily basis. However, this traditional approach needs an upgrade to be more efficient and scalable.

The current movement calls for a more systematic, integrated approach to addressing patients' social needs, developed and executed in close partnership with community organizations. To this end, tools aimed at helping facilitate this work have proliferated.

Social Needs Screening Tools

A large and growing number of standardized social needs screeners are now available to help clinics identify and document their patients' social needs. These screening tools can be integrated into Electronic Health Records (EHR) systems. Numerous stakeholders, researchers, and practitioners have developed tools for a variety of populations, settings, and particular purposes. The University of California, San Francisco SIREN (Social Interventions Research & Evaluation Network) team created a table that compares the most widely used social needs screening tools.* In collaboration with SIREN, Kaiser Permanente provides a searchable site to help stakeholders select an appropriate tool.†

Community Resource Referral Platforms

A host of technology platforms are now available to facilitate connection between healthcare and social service organizations. These platforms are in some ways an updated version of the 2-1-1 service (and in some communities, 2-1-1 is actively working with a referral platform to ensure their services are complementary). Such platforms have the potential to solve some of the major challenges in addressing social needs; namely, keeping up with details of an ever-changing landscape of social services, and facilitating connection with community partners in a "closed-loop" manner, which allows clinics and community organizations to share information about their patients and clients.

As with screening tools, the number of referral platforms has mushroomed. In 2019, SIREN developed a guide to the available referral platforms that includes information on the experiences of early adopters [13].‡ Even in the short time since the report was initiated, the landscape has evolved, with many new non-profit and for-profit businesses operating in this space.

---

*Available at: https://sirenetwork.ucsf.edu/tools-resources/mmi/screening-tools-comparison/

†Available at: https://sdh-tools-review.kpwashingtonresearch.org/

‡Available at: https://www.episcopalhealth.org/research-report/communityresource-referral-platforms-guide-health-careorganizations

Evidence Base

What do we already know about effective interventions?

The empirical evidence for the effects of social-needs informed care on health outcomes and health care cost containment is sparse, but growing. SIREN maintains a library of evidence from both peer-reviewed and other sources.*

A 2017 review by Laura Gottleib (SIREN's director) and colleagues identified 37 peer-reviewed studies of U.S. clinic-based interventions that addressed at least one social need in a manner that was integrated into the healthcare delivery system [14]. Target social needs included housing, employment, education, economic security, personal safety, child care, food security, and legal needs. Some interventions focused on specific health conditions (e.g., asthma), or particular demographic groups (e.g., veteran status).

The majority of evaluations measured outcomes related to process or social needs. A smaller proportion assessed outcomes related to health, healthcare costs, or healthcare utilization. The breadth of approaches and measures led to mixed results, although promising evidence was found for interventions addressing legal needs (medical-legal partnerships), interventions addressing social needs in pediatric settings, and employment needs among veterans.

Other systematic reviews have found strong evidence for the effectiveness of home-based environmental interventions for children and adolescents with asthma [15]. Evidence is also growing related to interventions seeking to address food insecurity [16] and permanent supportive housing [17].

What are the key questions to advance this work?

To help advance research in this area, the *American Journal of Preventive Medicine* produced a December 2019 supplement entitled "Identifying and Intervening on Social Needs in Clinical Settings: Evidence and Evidence Gaps." An article in this supplement by SIREN managing director Caroline Fichtenberg and colleagues proposed a set of key questions for advancing the field [18]. These included:

- How do these interventions work? For instance, do they work by reducing patients' social needs, by improving the quality of care and care effectiveness, by reducing patients' stress and anxiety, or by reducing provider burnout?

- What are the most effective and cost-effective interventions and strategies?

- Is it more effective (and cost effective) to target some social risks than others?

- Who will benefit most from a given intervention?

- Do social needs interventions have negative unintended consequences?

- What are the impacts on health equity?

- How can we encourage adoptions and uptake of effective interventions?

- What payment and quality incentives can drive adoption of interventions?

Center for Medicare & Medicaid Services Accountable Health Communities Model

In 2018, CMS funded thirty sites across the country to test whether systematically identifying and addressing the health-related social needs of Medicare and Medicaid beneficiaries' through screening, referral, and community navigation services will impact health care costs and reduce health care utilization. Three funded sites are located in Texas: Parkland Center for Clinical Innovation in Dallas, UT Health Science Center in Houston, and CHRISTUS Santa Rosa in San Antonio. These sites are generating practice-based evidence that will be invaluable to Texas and the nation.

---

*Available at: https://sirenetwork.ucsf.edu/tools/evidence-library

Case Studies on Healthcare and Social Care in Texas

Through group interviews, sixteen key informants from six Texas organizations shared their experiences and perspectives with healthcare and social care integration. Participants described their current work, challenges they've experienced, lessons learned, and plans for the future. Interviews were recorded, transcribed, and summarized into a set of six case studies.

Sites/programs interviewed:

The Matagorda Episcopal Health Outreach Program (MEHOP), a five-clinic FQHC serving rural the counties of Matagorda and Wharton in southeast Texas

Stephen F. Austin Community Health Center, a 12-clinic FQHC serving Brazoria County, Galveston County, and Southwest Harris County

St. Paul Children's Clinic, an independent clinic that provides pediatric medical and dental care from birth to age 21 in Tyler (Northeast Texas)

Baylor College of Medicine's (BCM) Environmental Health Service provides clinical environmental healthcare services (including asthma home remediation)

Texas Legal Services Medical-Legal Partnership, which operates in six clinic sites in central Texas

Texas Children's, a large, multi-organizational health system that includes Texas Children's Pediatrics (TCP) and the Texas Children's Health Plan

Case Study: Matagorda Episcopal Health Outreach Program (MEHOP)

Organization Description

The Matagorda Episcopal Health Outreach Program (MEHOP) is a federally qualified health center (FQHC) that has served the rural counties of Matagorda and Wharton in southeast Texas for 20 years. MEHOP serves over 10,000 patients annually across its five clinics, and provides adult and pediatric primary care, maternity care, behavioral health, ophthalmology, gastroenterology, and dentistry services. MEHOP is designated as a Patient-Centered Medical Home (PCMH) by the National Committee for Quality Assurance (NCQA). About a third of MEHOP patients are covered through CHIP or Medicaid, or are uninsured.

Interview date: **November 2019**

Interviewees

Celeste Harrison
Chief Executive Officer

Christine Carrasco
Director of Nursing

Dena Gomez
Case Manager and Community
Outreach Department Lead

Current Social Needs Screening and Referrals Process

Since its inception, MEHOP has worked to connect its patients with needed social services. Social needs are identified informally, without a standardized screening tool.

> *"The majority of the time it's not a formal coded process. The provider, the MA [Medical Assistant], the front staff notifies someone in Dina's [community outreach] department or elsewhere that someone's in need and we do our best to satisfy that need." (Harrison)*

Social needs of their patients include "all the things that go along with social determinants of health (Celeste)," including food insecurity, legal issues, and access to safe and affordable housing.

One issue MEHOP has been working to address for many years is food insecurity. The organization has tried a variety of strategies.

> *"We had things like we partnered for a while with an institution where you could purchase food at a very low price. That institution went out of business. We had a community garden that we*

planted here and gave food out for many years until we just got frustrated because people weren't taking the food." (Harrison)

The work of connecting patients to social services is primarily handled by the four community health workers (CHWs) in the community outreach department, although any staff member may provide a referral. Referrals are typically given to the patient directly, and patients are encouraged to follow up with the referral themselves. MEHOP does not have an established way to determine whether the patient has followed up with the referral or has had their need addressed.

Although they do not use a community resource referral platform, staff are very familiar with the available community resources.

> *"There isn't a social service agency that we don't partner with in some way.... We know all of them and we work with all of them." (Harrison)*

Key Challenges

Staff Time

Helping address patients' social needs has always been an important component of the whole-patient care MEHOP strives to provide, but such efforts have had to occur alongside the critical healthcare delivery-related responsibilities of the clinic system. The demands of serving the healthcare needs of patients in a low-resourced community often leave little time for any additional tasks. This is not only true for healthcare providers who have limited time with each patient, but also for those who are tasked with facilitating linkages with social services. The community outreach department handles a range of mission-critical tasks, such as finding referrals to needed specialty care, which is a challenge in a rural area, especially for patients without private insurance. Closing such referrals is critical for patients' physical health, and closure of these referrals is

a quality measure by which the organization is assessed. The CHWs also handle determination of eligibility for public healthcare coverage options, an essential service for their patients and critical to the organization's financial viability.

To step more fully into the practice of identifying and addressing patients' health-related social needs would require a whole-team effort, greater time investment, and more resources available to address identified needs.

> *"It goes all the way through, from front staff seeing if they have insurance or not, going through the MA [Medical Assistant] who takes the intake, and the provider going in there and digging deeper. And then if a reoccurring problem happens, digging deeper, 'why is that problem continuing to happen, why am I seeing*

this patient four times for the same thing this year?' Putting the referral in, the community health worker going out maybe to the house or calling the patient, finding things at home, which is what we really need to fix so the patient doesn't come in four times. And then finding the means to fix what's going on." (Harrison)

Capacity of Community Resources

While MEHOP has attempted to partner extensively with available community resources, they face a lack of available resources in the area.

"So even though we're partnered with everybody, a lot of the things that are available in the urban areas just aren't available here." (Harrison)

"And for utility assistance, it's first come first served, so it may not be there, available for our patients." (Gomez)

The services that do exist may not be what is needed to truly address the health impacts of the social need. For instance, MEHOP provides referrals to various church-based food pantries, but they recognize that these referrals are not enough to address the health impacts of food insecurity.

"You can write a prescription for food, but what's available at the food banks or the churches determines whether it actually meets the need to improve health." (Harrison)

Additionally, the limited capacity for data collection, data management, and overall technological savvy

Concerns

Beyond the limitations of time and resources to address social needs, the MEHOP CEO expressed some additional concerns about formalizing social needs screening and referrals. One concern was about patient privacy.

"When it's hard coded in the system, anybody could come in, the federal government, the state, whomever could come in and extract that

of local community organizations may make a Community Resource Referral Platform a poor investment in the area MEHOP serves.

"If we're going to get money, that's just not the way to invest it. You're talking about working with people in a rural community...hardly any of the social service agencies here have the technology or the capacity to do this. The majority of all those [community organizations] have none of that [technology], and at best are keeping track by paper, if they keep track at all." (Harrison)

Lack of Recognition and Investment by Local Hospital District

The term "wrong pockets problem" has been coined to describe the situation in which an entity implementing a practice or program leads to cost savings for a different organization. This problem may be hampering the ability of MEHOP to do more to address the social needs of its patients.

"One of our greatest disappointments is the community does not appreciate what we do. Local officials just don't seem to understand and appreciate the impact that we've had. When I look at the hospital district's financials, their indigent care costs have reduced, so let's just say, seven, eight years ago they were four or five million dollars and now they're less than one million dollars, and yet there's no acknowledgement that we have had a role in that. I believe if we were given support for what we're able to do for the community, all of us would be a lot happier." (Harrison)

data out of all these individual's chart...I'm not personally comfortable that I would want them to be able to pull that data on me." (Harrison)

Another concern was about expanding the role of a healthcare entity, and potentially overstepping appropriate boundaries between organizations and with patients.

"I'm concerned about blurring the boundaries of the responsibilities of a health center...I think there really has to be some thought about everyone's role...I am growing ever concerned about the expectation that we try to do it all for the patients...at what point do we start demarcating the lines? Then it's more of a referral rather than a responsibility." (Harrison)

"Focusing on health and not just healthcare, the goal would be to make the patients more empowered rather then enabling them. And sometimes we get caught up in that one-stop shop and we're providing all these things, we can enable the patient without wanting that to be our goal, but it happens." (Gomez)

Future Directions and Recommendations

MEHOP has recently begun partnering with Greater Houston Health Connect (GHH), a Health Information Exchange (HIE) that is working to facilitate clinical integration by connecting electronic health record systems across southeast Texas. Getting health-related information on their patient population from other healthcare providers will enhance MEHOP's ability to provide appropriate care for their patients. GHH is also exploring the possibility of incorporating social needs data, and potentially developing a community resource referral platform.

MEHOP has also incorporated the social needs screening tool, PRAPARE, into their Electronic Health Records (EHR).

"We know it's coming, so we went ahead and reached out. It wasn't our decision for PRAPARE although it's a well-recognized tool. Athena, our electronic health record provider, had already made that decision. So we simply asked them to upload it into our system." (Harrison)

The MEHOP CEO is not sure yet how they will use this tool, given that a screening tool does not solve any of their biggest challenges to addressing patients' social needs. Despite her concerns about patient privacy and provider time, however, she does see a potential benefit to the systematic collection of data on social needs.

"One of the challenges we have had is for local government to openly admit that there are problems in the community. So any opportunity to collect valid data and present that is going to be invaluable to the people that live here." (Harrison)

When asked about advice they would give to other healthcare organizations on addressing patients' social needs, our interviewees focused on the importance of person-centered care.

"I think you have to start with what the patients want. So I think you actually have to ask them what is the most meaningful for them. And we've done some of that work and what's most important to them isn't necessarily what we think should be most important to them. But I think if you have successes in what's important to them then you'll have more receptivity for success for other items." (Harrison)

"And meeting them where they're at...you're going to have to do some education about how it could be better for them and how that would look for them." (Harrison/Gomez)

Case Study: Stephen F. Austin Community Health Network

Organization Description

The Stephen F. Austin Community Health Network (SFA) is a Federally Qualified Health Center (FQHC) serving Brazoria County, Galveston County, and Southwest Harris County. SFA opened its first clinic in 2008, and currently serves over 19,000 patients annually across its 12 clinic locations (including one mobile clinic and a school based mental health center). SFA provides pediatric and adult primary care, maternity care, behavioral health including counseling, psychiatry and treatment for substance abuse disorders, dentistry and pharmacy services. Approximately half of SFA patients are uninsured and about 25% are covered through CHIP or Medicaid.

Interview date: **November 2019**

Interviewees

Mark Young
Chief Executive Officer (CEO)
Penny Pabst
Chief Administrative Officer (CAO)
Meli Bartlett
Value-Based Care Manager
Ashley Rodriguez
Care Coordinator
Vvonne Garcia
Patient Eligibility Specialist

A New Approach to Addressing Patients' Social Needs

In 2017, SFA leadership began looking for ways to better address patients' social needs.

"We know that our patients have these [social needs] issues. We've known for a long time and when we started truly investing in trying to find a way, other than sending patients to the food bank, kind of a little helter-skelter way, we decided that we wanted to do an organizational approach." (Pabst)

The CEO and CAO began looking at standardized screening tools, such as PRAPARE, and community resource referral platforms. Then in 2018 they received a grant from the Health Resources and Services Administration (HRSA) that funds Information Technology improvements.

"We thought 'Okay, this is where we're going to really address the social determinants.' That's when we were looking at [community resource referral platforms]. That's when we reached out to United Way. We just happened to reach out to them when they were looking to replace their 211 system." (Pabst)

SFA and the United Way of Brazoria County worked together to vet referral platform options, cover startup costs, and build the referral network. The partnership with United Way was not only fortuitous, but also essential to moving forward.

"They invited some of their United Way grantee partners to come in and look at them [referral platforms]. They voted, we voted, and we all agreed on Signify. They put up like $60,000. We put of $80,000. So we put up all the implementation costs. They put up the training costs. It's been a great partnership. We would not have been able to create a network without the United Way." (Pabst)

Social Needs Screening and Referral Process

Now that the referral platform is in place and all the partners have been trained on using the screening tools and the platform, SFA has begun integrating use of the platform into their workflow.

"So we do the SDOH [Social Determinants of Health] screen on their initial visit and then six months later, but every time the patient comes in for their monthly visit or when we talk to them on the phone, each time they're asked if anything has changed... We can opt them into the Signify Health, and it will create referrals for them based off their needs, whether it be transportation, food, childcare, utility, and those referrals will be created... and then that facility has, I think, it's two to three days to reach out to the patient and offer them services." (Rodriguez)

Staff feel this system is a huge improvement over the previous way of providing referrals, particularly the accountability aspect.

"In the past, we would refer patients, but we would never hear back whether they actually got the assistance. Now we can track....We know now that they went to the food bank, and the patient was there on this date, and they got their food. We know they got utility assistance, they got transportation assistance, everything. So we can actually track it in the system, and everyone's accountable." (Pabst)

"It's not just greater Houston Food Bank. It is Houston Food Bank with Todd Jones as the contact person with the little synopsis of what the patient should expect. So it's backed. We know that these people are in partnership with us. So it's not like we're blindly Googling." (Bartlett)

The clinic also recognizes its role as a member of the referral network and its responsibility to respond to referrals from other partners.

"We are in the system as a healthcare provider. We offer medical, dental, eligibility for services, and we see all of our pending items. So I am to be

monitoring and making sure our staff are meeting our commitment to the community." (Pabst)

Moving Towards Full Adoption

The successful launch of this initiative was driven by innovative leadership at both the clinic system and in the community, funding to cover start-up costs, and adequately-resourced community organizations that can participate in a referral network. Getting from start up to full integration across all their clinic sites will require ongoing commitment and addressing challenges that arise.

One of the challenges SFA is navigating are patient concerns around privacy.

"Some are all for it, and some are still like, 'No, I don't want to.' They're not too sure about it even though we tried to explain, let them know no one's watching them…Sometimes they just don't want anyone else to know their health information." (Rodriguez)

Staff believe that with continued education and experience over time, they will be able to alleviate patient concerns and increase utilization of the new system.

"Educating the staff what the program is, why we're integrated or partnered with Signify, and then making sure that they educate the patients why it's a good thing to participate in this

collaboration or in this program with Signify." (Bartlett)

"We just got to get used to using it. It's another software." (Garcia)

Getting to the goal of all patients being routinely screened, and creating enough referral options to address identified needs will take time. It will also require further investments and additional partnerships.

"I can't dedicate as much of my time to making sure it's pushed through as I would like. So it's all about staffing. It's all about money to pay another employee the amount of money that we need to really make the process happen." (Pabst)

"[SFA is planning to] hire a social determinants of health manager who will not only ensure everybody is being screened, but also work…with the community organizations to keep building this network. If there's a way to spread this or duplicate this in Galveston County…I would like to do that because our patients are coming from a wider area, and the United Way is only committed working within Brazoria County." (Pabst)

Getting to Health Outcomes

Through their new community partnerships and closed-loop referral process, SFA is looking not only to help address their patients' social needs, but also to improve their patients' health outcomes.

"The goal is they will have healthier outcomes. This system has the ability to have a clinical pathway. We've got our lab results for A1C test results and the lipid levels going into a diabetic pathway within Signify from our EHR; and blood

pressure readings- we're putting the vital signs into the system, as well. We are tracking these measures over time using the system for the referrals. Are we seeing an impact on their A1C levels? We're even looking at down the road with our diabetic retinopathy eye screens, we want to get those into the system. We want to really see if can we measure true health outcomes as a result of impacting their social determinants of health." (Pabst)

Case Study: St. Paul Children's

Organization Description

Interview date: **March 2020**

Interviewee

Valerie Smith MD
Pediatrician and Community
Centered Health Home Director

St. Paul Children's Clinic is an independent clinic that provides pediatric medical and dental care from birth to age 21 in the northeast Texas city of Tyler. Founded nearly thirty years ago by the Methodist church, the clinic also offers a food pantry and provides assistance enrolling patients, their families and the larger Tyler community in a wide range of benefits programs. The clinic serves between 5-10,000 patients annually, 85% of whom are covered by Medicaid or CHIP, and had 14,000 individual patient encounters in 2019. St. Paul's has a partnership with CHRISTUS Trinity Mother Frances Health System that includes sharing hospital call, after hours nurse call line access, and electronic medical record (EMR) platforms.

Current Social Needs Screening and Referrals Process

Evolution to Systematic Screening

St. Paul Children's work to address social needs predates its clinical services. In the past three years, however, the clinic has begun to approach its social care in a more systematic way.

> *"I think my clinic is unique in many ways in that we had a food pantry and a clothes closet before we had a medical clinic. But from the standpoint of screening in medical settings, approximately three years ago we started screening formally for food insecurity. We had previously been asking families whether they were participating in WIC or SNAP or school lunch and breakfast as part of our yearly checkups, but we weren't formally screening for food insecurity. And so we started formally screening for food insecurity about three years ago using the Hunger Vital Sign. And then about twelve months after that we started doing a broader social determinants of health screen."*

St. Paul Children's current screening tool is a modified version of the Health Leads Toolkit, which was the second screener it tried.

> *"We have actually a team that includes myself, one of our nurse practitioners, our clinic manager, as well as our social worker and our executive director and our HR person, and went through and developed [the screening tool] together. And then we... beta tested it with a small number of patient families just to make sure that it was clear and concise, and families were comfortable answering the questions before we rolled it out."*

The screening tool includes questions on housing, food, utilities, education, childcare, employment, transportation, legal needs, and domestic violence. It also asks a question about the urgency of each identified need.

Parents are asked to complete the Family Needs Assessment (the term used by the clinic for the social needs screener) at new patient visits and annual well-child visits. The clinic also screens dental patients and

food pantry clients annually. The screening is included with other paperwork that parents complete while waiting to be called back into the exam room.

> *"And then once they have been screened... the pediatrician or the nurse practitioner looks at it in the room and talks with the family about any specific issues that are brought up on the screen that they are concerned about or that the family has indicated that they have a need. We have a one pager for resources for each of the needs within our screener that our social worker developed, and the families are given those one pagers."*

For families with multiple needs or urgent needs, providers will refer the family to the clinic's Licensed Clinical Social Worker (LCSW) or the social work intern. Providers try to make the referral to the social worker in person – a "warm" referral – if possible. The LCSW can provide counseling to patients, can help patients connect with social care referrals, and can follow up directly with the family to make sure they were able to enroll and utilize the services.

Inability to "Close the Loop" with Community Partners

The large volume of patients and limited capacity of the social work team means many families do not get help making a connection with social care services.

> *"And then this is the piece that I really hate about this process, and I would like for it to be better...[the social worker] just doesn't have the capacity to see every family... if it's somebody who we just gave resource information to, we don't have a great way of tracking, and we certainly don't have closed group loop referrals with the social service organizations that we refer to. So that's where I would really like to see some improvement in what we're doing, is being able to close those loops."*

St. Paul Children's is not currently linked to community social service partners through a community resource referral platform. While Dr. Smith sees the potential value of such tools, she also sees many barriers to

bringing such a platform to her community, including the costs, concerns related to privacy and data sharing, and the need for community-wide buy-in.

"I am really skeptical of platforms that charge for organizations to use them. How do we get uptake of that when we've got nonprofits that are working on this shoestring budget and clinics that are working on a shoestring?"

"I think there also is concern. I mean I will tell you one of the ones that just kind of flabbergasts me is that I cannot close the loop if I refer a family to parents as teachers or the nurse family partnership within my program, like within my community. Even if I as a health care

provider have directly referred them there... they feel like that violates their contract and their confidentiality agreements with their clients."

Ultimately, moving forward with a referral platform would require buy-in from the leadership of the major health institutions in the region.

"My small clinic isn't a big enough player. To get a bunch of nonprofits and social service agencies to uptake an electronic platform and to change their workflow? Because that's ultimately what you're asking people to do...I think the thing that it would require would be the buy-in of either the CHRISTUS Health System or the UT Health System."

An Integrated Approach to Addressing Food Insecurity

St. Paul Children's greatest success in addressing patients' social needs and integrating clinical and social care is in the area of food insecurity. From its inception, addressing food insecurity has been central to the work of St. Paul Children's. In recent years, the clinic has strengthened and expanded its work in this area and built strong community partnerships.

"Food insecurity is the easiest loop for us to close internally in that we A, can know if our food pantry served the family. B, we also have a health care partnership with the East Texas Food Bank where we can actually enroll families in a program where they come to clinic, and for 12 weeks they can get a box and then a bag of produce of healthy foods. And also motivational interviewing focused nutrition education each week.

And then during that time, one of the things that we do is have someone there who if they are SNAP eligible, can enroll them in SNAP. And then our next kind of plan to help close that loop further... we're aiming by this summer to have a WIC staff member embedded in our clinic as well. So we really could feel like we were confidently closing that food loop pretty much as tightly as I think possible for families."

An Entry Point to Addressing Other Social Needs, in Partnership with the Community

Dr. Smith is aware that food insecurity is only one of the issues facing St. Paul's patients and their families. Another major issue facing families is access to safe and affordable housing.

"Specifically, housing would be the one [social need] that I think is the most challenging. Because other than providing emergency assistance for someone who is homeless and in need of a shelter, our HUD list is full. The transitional housing that's provided by another nonprofit in town always has a very long wait list. We have much fewer resources for housing, which I think is not unique to our community at all."

Addressing food insecurity can take some economic pressure off of families, allowing them to use their financial resources for other needs.

"Thinking about how many of our families have multiple needs...while we may not be able to meet all of them, by helping to reduce the strain of one need ... if I can get a family who has housing insecurity and food insecurity, if I can get them enrolled in WIC and SNAP, and have them know where they can go consistently to

get healthy food at a food pantry, then my hope is this that that relieves some of that strain and they're able to utilize more of their own personal family resources towards one of those other needs that I don't have as great of community based organization resources for like housing."

The clinic also provides enrollment assistance for all available benefits programs. It provides this service to the families of pediatric patients, as well as to anyone who utilizes the food pantry even if that person is not connected to a clinic patient. In doing so, the clinic is helping to address economic insecurity, which is a common root cause of many social needs. Through its community partnerships, the clinic has also been able to help expand enrollment assistance in the community.

"One of the things that we have done with our work with the food security council, which is a multi-sector coalition, is that we have trained additional nonprofits and clinics to have staff members who can help with benefit enrollment assistance. The coalition hosted the training…

conducted by the Children's Defense Fund and the East Texas Food Bank staff. So just one of those great places where we kind of all came together."

"The food bank was enrolling families for SNAP, but it's the same application and all you really have to do is ask a few more questions and encourage a family to investigate whether they're eligible for SNAP, or Healthy Texas Women or any of the other programs that are available. By ensuring that a family is enrolled in everything they're eligible for, you really can make a significant difference in the monthly strain within their household."

"Because we know that maybe you are a clothes closet or something like that at a church, but if you can identify while you're seeing a family, 'Oh, this is a family who would also be eligible for Medicaid and SNAP,' and you can free up those dollars for that family, right, then you've actually helped address more than just their clothing need. So it's been one of our key strategies."

Outcomes and Sustainability

Dr. Smith thinks getting to measurable health outcomes through this work will be challenging. She sees the potential, however, to improve outcomes related to social needs and help influence changes in health behaviors. Perhaps even more importantly, in terms of sustainability, she sees potential for reducing healthcare costs.

"I think the first outcomes that we'll be able to see within my clinic actually aren't health outcomes. But now that we've got the screener integrated into our EMR, we will be able to follow it over time. And so, the first thing that we should be able to see is a family who was food insecure at their previous screening and isn't today, or didn't have reliable childcare and does today, and start to see the movement on … actually improving some of those social determinants of health."

"Ideally, at some point in time, we do start to see health outcomes change as well. I think that is trickier in a pediatric population than it is in an adult population, because by and large, most kids are healthy thankfully. And we are really looking at…reducing their risk long-term of having cardiovascular disease, or hypertension, or stroke, or all of those things that we know are associated with many of these social determinants."

"We are looking at clinical outcomes related to childhood weight, blood pressure, that type of thing. Although, I'm not sure we're going to see a ton there. But our healthcare/food bank partnership also has a pre-test and a post-test that looks at behavior and knowledge and self-efficacy related to healthy food habits for a family. And so my hope is to start to see the needle move on some of those measures."

"There's a good case in the literature now, which didn't exist even five years ago, for the relationship between addressing social determinants of health and health care costs. Families, for example, who are on SNAP have lower health care costs per year than families who are food insecure and are not on SNAP. So not necessarily health outcomes, but cost, which I think should be a good motivator."

"So looking at things like decreased ER visits and decreased sick visits … I think that that data that may be easier to get than health care outcomes … if we could get payers to cooperate, we've got really robust claims data that we could potentially use to look at expenditures."

Over the longer term, Dr. Smith sees a need for more applied research, and more funding for that research.

"I joked for many, many years that people would try to get me into research projects. And I would be like, 'No, no, I'm just a community pediatrician.' And now, I'm like, 'Oh, wait. We have to study all these things.' And there's a huge set of knowledge gaps that we have."

"If you look at what the NIH funding as far as nutrition research, it's like vitamin D uptake kind of things. What we really need to do is push the NIH and other large funders of research to do some applied research focused on social determinants."

Case Study: Baylor College of Medicine Asthma Home Remediation Program

Organization Description

The Baylor College of Medicine's (BCM) Environmental Health Service seeks to improve the understanding and reduce adverse health effects of exposures to environmental health hazards. The Environmental Health Service provides clinical environmental healthcare services through several clinic locations, including the Environmental Health Clinic, a specialty research clinic within the Harris Health System in Houston. The clinic has a particular focus on serving low income adults and children with poorly controlled asthma.

Interview date: **May 2020**

Interviewee

Rebecca (Becca) Bruhl DrPH MPH
Associate Director,
Environmental Health Service
Winifred (Winnie) J. Hamilton PhD SM
Director of the Environmental
Health Service
Quynh P. Nguyen FNP
Nurse Practitioner
Adriana Rangel MPH RRT
Health Educator

The Asthma Home Remediation Program

The team has developed an evidence-based, multi-component intervention to address asthma, based on existing clinical best practice guidelines for managing asthma[1] and a national initiative to reduce health and safety hazards in the home[2]. The clinical component includes a comprehensive asthma assessment and tailored asthma self-management education. The home-based component includes up to five home visits to identify and reduce indoor allergens. These home-based components are a promising example of work to address patients' social needs that can have measurable impact on patients' health outcomes.

The HIITBAC Study

Evidence suggests that multi-component interventions including home-based services to reduce asthma triggers are effective, particularly for children. More work is needed to understand the impacts of the non-clinical (home-based) components beyond what's achieved by high-quality clinical care, as well as to understand how the intensity and breadth of the home-based components affect outcomes. This information is critical to optimize (and justify) investments in the non-clinical components. The Houston Home-based Integrated Intervention Targeting Better Asthma Control (HIITBAC) for African Americans study was designed to help fill this knowledge gap.

To assess the effectiveness of its home-based asthma control intervention, the research team conducted a pragmatic randomized clinical trial with a population of African-American adults with poorly controlled asthma. The HIITBAC study compared a group of patients receiving the high-quality clinical care only to those receiving both the clinic- and home-based components. Results suggest that participants in both groups improved:

> *"For all of our key measures and in both groups, the outcomes at exit were significantly better than at baseline. For example, there were fewer ED [Emergency Department] visits, more symptom-free days, higher ACT [Asthma Control Test] scores, and higher quality of life scores at exit compared with the baseline visit." (Hamilton)*

In the comparisons between the group that received the home visiting and those that only received the in-clinic care researchers did not find as many differences as they had expected. These findings do not mean that the home-based components were not impactful, and the researchers are exploring the study's findings. The researchers note, for example, that the in-clinic care received was a fairly powerful intervention alone, potentially reducing the between-group differences. More broadly, the study results and experience highlight some of the challenges to understanding the health impacts of addressing clinical and non-clinical care needs, as well as the challenges in addressing non-healthcare needs in a high-need population. Lessons learned were reported in a recent publication[3] and discussed during the interview.

One challenge is a lack of routine access to adequate asthma care among the patients most in need of such care. In the HIITBAC study, researchers sought to understand the added benefit of the home-based components, and initially planned to have enrollees assessed by the adult Asthma Clinic at Harris Health, but this turned out to be logistically untenable and the role was taken over by Environmental Health's providers. Ultimately, this may have been fortuitous as it provided a more comprehensive assessment of asthma care in the community, almost all of which is provided by primary care providers (PCPs). Ultimately, the researchers came to realize that the majority of the study participants had very limited asthma care and limited primary care overall prior to the intervention. This finding is supported by the literature.

1- https://www.nhlbi.nih.gov/health-topics/guidelines-for-diagnosis-management-of-asthma

2- https://www.hud.gov/program_offices/healthy_homes/hhi

3- Bruhl RJ, et al. Design of a home-based intervention for Houston-area African-American adults with asthma: Methods and lessons learned from a pragmatic randomized trial. Contemporary Clinical Trials. 2020 Mar 6:105977.

"We see a lot of uninsured and underinsured asthmatics leap-frogging from emergency room visit to emergency room visit to get what we would call routine care. Many of our patients, for example, have never had an asthma action plan before or been tested for allergies, or had a discussion about potential triggers. Many don't know the difference between controller and rescue medications, and almost none have been shown how to use their inhaler." (Nguyen)

"If you get into literature, one of the things you'll see worldwide–it's not just in the United States–is that many patients are not receiving guidelines-based care. It also becomes clear that such care at the PCP level is often impossible to provide for numerous reasons including self-efficacy, time and inadequate reimbursement." (Hamilton)

In addition to patients not having access to the routine clinical care that might help them manage their asthma, addressing home-based asthma triggers is especially challenging in a population that can be highly mobile, or living in poor-quality housing.

"People move a lot and most of our clients rent. We also encounter considerable substandard housing. For example, we have one client with no water, others with no electricity... and quite a few people without air conditioning or who must deal with food insecurity. We've had to adjust our intervention to better address some of these realities." (Rangel)

Work with UnitedHealthcare

The BCM Environmental Health Service is currently developing a pilot project with UnitedHealthcare to provide its multicomponent asthma intervention, including the home-based components, to asthmatic, Medicaid-covered patients (adults and children) identified by UnitedHealthcare. The pilot will combine the billable medical services with a vendor agreement to cover the non-clinical home-based services. Another partner will provide minor home repairs such as replacing carpet with hard flooring and repairing leaks.

UnitedHealthcare is planning to use claims data to identify a set of patients with poorly controlled asthma from the adults and children enrolled in its Medicaid plan to refer for services.

"These are patients who have potentially life-threatening asthma, and often other comorbidities as well. To the extent that our and similar programs improve asthma control and quality of life, there are quantifiable economic savings—such as fewer ED visits and increased productivity—to be had." (Hamilton)

If the pilot proves successful, the plan is to transition to a bundled payment arrangement for the medical and social care (home-based services) components.

"In the long run, whether or not such a holistic program is sustainable will be determined primarily by whether or not we can reduce the costs associated with healthcare utilization." (Bruhl)

Scaling up and Sustainability

The pilot project with UnitedHealthcare provides an opportunity to test whether the home portion—the services aimed at addressing the "social need" for a healthy home environment—has measurable health impacts, and whether it generates enough return on investment (ROI) to justify the expense. The pilot will also show whether the ROI varies based on characteristics of the patients. For instance, providing the services to adults may lead to greater cost savings than providing them to children.

This type of work is critical to testing whether services to address health-impacting social needs are effective and cost-effective. Scaling this work beyond UnitedHealthcare's Medicaid-covered populations would require system changes.

> "We are excited to be collaborating with UnitedHealthcare. I think what we'd all like to see is Texas Medicaid eventually covering these services. This would make the services more broadly available and provide for longer term sustainability. For now, we need to show—in Texas—that such a program would not only improve the lives of asthmatics but also save the taxpayers money." (Bruhl)

In Texas, most adults with Medicaid coverage are temporarily covered while pregnant or qualify due to a disability. Funding for services to create healthier homes in populations not covered by Medicaid, or for those who would experience health benefits but don't generate an ROI, will require other sources of funding.

> "In our current healthcare system, the program is not sustainable unless we can show that the cost savings exceed the cost of the program itself...in hard dollars. That said, investing in the health and livelihoods of area residents has numerous other very real but less easily quantifiable economic benefits. For example, how much is a high-school diploma or increased productivity at work worth?" (Hamilton)

Case Study: Texas Legal Services Center Medical-Legal Partnership

Organization Description

Texas Legal Services Center (TLSC) is a non-profit law firm that was established in 1974. Through its Medical-Legal Partnerships (MLP), the organization collaborates with healthcare clinics to promote physical, mental, and emotional health through integrated legal care. TLSC MLPs are based on the national MLP model of increasing access to justice while mitigating socio-legal determinants of health—such as lack of access to care, financial and food insecurity, housing instability, and personal uncertainty—by embedding legal professionals with the health care team to detect, address, and prevent health-harming legal needs for patients and communities. The MLPs began in 2012 as a partnership with People's Community Clinic, a Federally-Qualified Health Center (FQHC) in Austin. The MLPs now operate in three People's sites and three sites in the Kind Clinic network, a sexual health and wellness clinic network dedicated to the treatment and prevention of sexually transmitted infections.

Interview date: **April 2020**

Interviewee

Keegan Warren-Clem JD MPH
Managing Attorney, Medical-Legal Partnerships at Texas Legal Services Center, and adjunct professor at The University of Texas School of Law and the McCombs School of Business.

An Early Model for Addressing Patients' Social Needs

MLP was one of the early prototypes of healthcare and social care integration. MLP pioneers began addressing patients' social needs well before the phrase "social determinants of health" was widely heard outside of academic public health conversation. The first modern MLP began in 1993 in Boston as a strategy to compel landlords to comply with sanitary codes and clean up mold in the apartments of children with uncontrollable asthma.[1] Today, MLP programs like the one Warren-Clem directs address a wide range of "health-harming legal needs."

> "So much social needs screening carves legal out to be something separate, when in reality it is or underlays everything. We should absolutely not reduce that which is legal to, 'Have you been arrested? Or were your parents arrested 40 years ago?' Rather, in understanding that it's not a separate category, we can leverage legal interventions as part of social needs care. After all, law is part and parcel of every piece, every social need."

One key way MLP addresses social needs is by helping to address financial insecurity.

> "Programs like SNAP, WIC, social security disability, and others are about stabilizing folks financially, but they're also very heavily bureaucratic. An attorney can assist people with maintaining and maximizing their benefits, with demonstrating eligibility, and with overcoming terminations and overpayment allegations, and so that is one area where we have done a lot of work and had a lot of impact."

Another major area where MLP programs work is to help address needs related to housing.

> "Think about all of the ways that housing impacts health. We have so many programs and so much funding going into homelessness and health care, but what if we kept people from being evicted to begin with? Because eviction is not just a short-term issue; it is long-term. For example, a negative rental history is just like a negative credit history, in that it reduces opportunity. Most directly, you will not be able to get another apartment with that kind of record.

> Housing also impacts the health of, for instance, a kiddo who has asthma and who goes home to a moldy apartment. A clinician can give that kid inhalers and steroids, but what you actually need to do is help that family enforce their rights as tenants so that they live in clean circumstances, and so that the asthma will either take care of itself, or it will be much more manageable through medical intervention."

Integration into the Healthcare Team and Workflow

A key characteristic of this MLP program is its full integration into clinical operations. In the clinics where Warren-Clem's MLP programs operate, referrals for legal care are made by providers the same way they make other referrals for behavioral health or other specialists: through the Electronic Health Record (EHR). Before being able to make those referrals, providers have had to learn to identify potential legal needs.

> "Lay folks often cannot diagnose—to borrow that language—they struggle to identify legal issues. It's not like having a broken bone. You actually have to have the expert at the table, to have someone who's trained in how to spot those issues."

> "The first intervention in terms of addressing the social or legal need is not always that you need to talk to a lawyer, but sometimes it is that a

---

1- https://medical-legalpartnership.org/wp-content/uploads/2015/01/NACHC-Magazine-A-History-of-the-Medical-Legal-Partnership-Movement.pdf

lawyer needs to help translate this larger system and make it useful as part of healthcare delivery."

The MLP lawyers have offices in the clinics and have established professional relationships within the clinic team, which allows for more informal consultations to occur as well.

"One thing that we do is very deliberately build those professional relationships so clinicians and staff can just ask us questions. Maybe we'll get directly involved, but maybe what we do is just provide them with a little bit of background information about what they might be missing. We call this 'curbside consultations', and it is a regular part of the integrated service we provide."

Embedding legal professionals (and others who are trained to address social needs) in a healthcare setting allows the healthcare providers and other professionals to confidently play a role in helping to address their patients' social needs without needing to step outside of their areas of expertise.

"Clinicians and administrators and traditional medical care staff must feel like they have all of the tools necessary to address social needs, because otherwise what we're doing is asking very, very busy people to take on one more thing that they've likely received no training in school, as medical students, or in their professional careers. And so one of the most important things we can do is make sure we are surrounding them with professionals who are actually able to do that work so that they can do the very important work of practicing medicine."

"When you make an attorney part of the healthcare team, you can reduce some of the stressors and burdens that the call to address social needs as part of healthcare delivery is creating for physicians."

"And that's really the power of MLP. It's not solely about the direct legal services that the attorney could separately provide. It is about the intersection of collaboration that makes those services more efficient."

Assessing Outcomes

The legal profession has well-established systems for measuring both the scope of service provided and the impact of those services on social needs.

"There is a national system of 'legal diagnoses' promulgated by the Legal Services Corporation, a Congressional agency, and that system can be thought of as similar to the ICD. There are problem categories—including financial, education, employment, family, health, and housing, amongst others—and those categories are broken down into problem codes—such as utilities, special education, employment discrimination, domestic abuse, Medicaid, public housing, and so on. And then those are broken down into sub-problem codes."

"There is a national system for measuring how much intervention it took to resolve a problem. For example, was the outcome achieved through advice and counsel? Or was this an administrative

hearing? Did the attorney have to go to court or did they settle it? Was there litigation involved? It is a standardized system."

"Legal services organizations in Texas use state-level outcomes that are promulgated by the Texas Access to Justice Foundation, which can be thought of as the giving wing of the state judicial branch. It is about 300 outcomes that look a whole lot like social determinants of health to my eye. I'll give you the example of the little girl with asthma living in an unhealthy apartment. The recorded outcome on that case is 'obtained repairs or otherwise enforced rights to decent, habitable housing', which is coded '6306'. That is decidedly a social need."

Assessing health outcomes is more challenging. As in other real-world contexts, traditional randomized controlled trials to assess health outcomes are either impractical or unethical.

"I can't look at somebody and diagnose them with a legal issue and then not do anything about it or do less than the appropriate thing. That would be unethical for an attorney."

Rigorous and appropriate research methods to assess the health impacts of addressing social needs do exist, and the organization has a lot of existing data at the client and issue levels that could potentially be used to assess health outcomes, but conducting such studies requires time and funding.

Funding and Sustainability

Funding for the MLP program comes from a variety of philanthropic sources as well as more traditional medical streams, such as from the federal Health Resources and Services Administration and the 340(B) pharmacy program. Warren-Clem believes that the greatest potential to achieve sustainability lies in tapping into existing healthcare funding.

"We underfund social care in this country and we—and this isn't going to make me popular— we overfund medical care, especially care for preventable disease and illness. That is, we prioritize the downstream response rather than trying to keep people healthy upstream. And so although there concerns that we're medicalizing social needs, I don't think that's necessarily what's going on. I think we're trying to leverage opportunities in a way that puts resources where people are."

"I wish I could wave a wand and just reallocate in a way that let us spend on health as wellness and on social needs—in a way that kept people out of our medical system as much as possible. I don't have that wand. But there are definitely opportunities to look at the ways that we're already funding this system and to recognize that legal services must be a part of that."

"It is very difficult to both do the work and research the work, both in terms of human time and in the money to pay for it."

The MLP recently received some external research funding and is in the process of conducting a small research study on the health outcomes of addressing legal needs of transgender and non-binary patients.

Beyond philanthropy, a few other options exist to help cover the costs of legal services. For FQHCs, there are opportunities to cover legal services using federal funding available to cover services such as case management.

"In 2016, the Health Resources and Services Administration expressly added legal services to FQHC regulations as case management services and enabling services."

Non-profit hospitals also have community benefit funds that could be used to cover legal services. These types of options are limited, however, and would require competing with other social needs-oriented services.

Warren-Clem sees the shift to value-based care as the best opportunity to tap into existing healthcare funding.

"Funding is piecemeal until we get to a point where we are reforming the whole system. I think opportunity lies in our third-party payers truly moving into value-based care and recognizing that that is going to mean broadening the definition of the health care workforce."

Case Study: Texas Children's

Organization Description

Texas Children's is a large, multi-organizational health system that includes entities such as the Texas Children's Hospital, Texas Children's Pediatrics (TCP), the Pavilion for Women, and the Texas Children's Health Plan. Each entity in the Texas Children's family has its own governance and licensing structures. Texas Children's provides healthcare primarily in the greater Houston area, with 51 pediatric primary care sites in the City of Houston. It also has one office in College Station, and has recently grown into the Austin market with pediatric primary care practice locations. It serves just over 30% of the pediatric market in Harris County, including a mix of Medicaid and private insurance patients. Payor mix varies substantially by clinic.

The Texas Children's Health Plan offers CHIP and Medicaid plans in over 50 counties from Northeast Texas to Matagorda. The health plan and the healthcare clinics serve an overlapping population. The majority of Medicaid-covered pediatric patients in the region are enrolled in the Texas Children's Health Plan.

The Texas Children's family also includes The Center for Children and Women (The Center), which provides both pediatric and OB/GYN services under a fully capitated patient-centered medical home (PCMH) model. Unlike the more typical model of a primary care practice that takes a mixture of health plans, The Center is only for members of the Texas Children's Health Plan.

Interview date: **December 2019**

Interviewee

Stanley Spinner MD
Vice President and Chief Medical Officer, Texas Children's Pediatrics
Diane Scardino
Vice President of Texas Children's Health Plan

Current Social Needs Screening and Referrals in Pediatric Primary Care

TCP has a social needs screening questionnaire built in to their electronic medical record (EMR) system. Parents may be asked about their social needs when they bring their children in for the first time and during annual well checks. The extent to which the screening process occurs varies, in large part due to variation in staffing resources at each clinic. In TCP clinics with high proportions of Medicaid- and CHIP-covered patients, TCP has recently incorporated social workers. These staff increase the prevalence of social needs screenings.

> *"In our practices where we do have our social workers embedded...the social workers will be able to spend much more time with families, questioning them about transportation needs, housing issues...those things are more readily addressed in those seven practices with our embedded social workers. But the other practices, we don't really have embedded social workers. So, again quite limited on what we can really screen for if you don't have someone dedicated for that."*

TCP would like to strengthen the capacity of TCP to connect patients with needed social care.

> *"When it comes to partnerships...I will say that that's an area that we have very little right now. We have some...for instance for the Y where we'll refer families for help with food insecurities or for health education when it comes to proper eating, exercise and things like that. We don't really have much that we can really connect with. That's an area that we have a huge need for."*

The Texas Children's system has an established Medical-Legal Partnership, a successful model for integrating healthcare and social care that brings lawyers into health care settings where they use their legal services and expertise to help address health-harming social needs. But this partnership is only available in a few sites where legal needs are greatest.

> *"I think you're going to see this theme again and again where we have lots of examples of good pilot programs...it will be hard for us to say across the board, we have this partnership in all of our places of care." (Scardino)*

Future Directions

Recognizing the importance of addressing patients' social needs, Texas Children's has convened a high-level executive steering team to establish a plan for moving this work forward throughout its system.

> *"Our Chief Nursing Officer is involved, Chief Vice President, finance, two Executive Vice Presidents. So it's a very high-level group." (Scardino)*

One major focus is on selecting a community resource referral platform to facilitate referrals to social care partners in a "closed loop" manner, allowing two-way communication about whether care has been obtained and the social need met. This technology would enhance the existing referral processes occurring now.

> *"I guarantee you in the last 30 minutes, somewhere in one of our TCP practices we made*

> *a referral for social services or we said, 'Hey, go check out the Houston food bank.' What we don't have today is any knowledge whether they ever showed up, or connecting and closing that loop... some of this is going to be just continuing that organic relationship that already exists. I mean, our inpatient social worker is in the hospital every day to make referrals for all sorts of things." (Scardino)*

As Texas Children's moves forward in selecting a platform, they recognize the benefit of coordination across the region.

> *"We are actually in the RFP process [for a community resource referral platform], but we are also trying to be extremely considerate of all the potential hospitals that may be doing this...so if Texas Children's goes and does Aunt Bertha and*

Methodist does NowPow and Memorial Hermann does TAVHealth, you're not going to have a food bank in play that wants to actually do the work because now they have to log into three different apps." (Scardino)

Texas Children's is considering the best path forward to encourage regional coordination.

"We're certainly trying to be very cognizant that both Harris Health and Methodist are kind of in the same process as well." (Scardino)

Once the platform is established, it will be available across all Texas Children's entities. However, the expectation is that use will be higher in some clinics than others.

"There are definitely some practices that are well-equipped and could handle this...A highly commercialized TCP, 100% commercial payers, they're probably not going to use the app as much as a community care setting...where again maybe the physician is having the conversation, but it's really the social work and those wrap around team members that should be making those referrals and handling that piece." (Scardino)

There is a recognition that the need for social care referrals will exist in many clinics that do not have the same level of social work support.

"I would say though...even though I refer to the seven practices, community care practices, we still have a fair number of our practices where the majority of our families are Medicaid. So, would have very similar needs." (Spinner)

The Texas Children's Health Plan may play a role in helping connect patients with social care, not only in clinics that do not have the needed staff in-house, but also in areas where the health plan has members but there are no Texas Children's clinics.

"So, think about our rural northeast where our Texas Children's Pediatrics are not there today. It might be a private practice in Tyler, Texas where we would help make a referral." (Scardino)

Given the size of the Texas Children's system, there is great potential over time to develop a strong understanding of community needs, as more data are collected and analyzed. This can in turn lead to more strategic community benefits investments of the kind required by the IRS of non-profit hospitals such as Texas Children's Hospital.

"With those analytics that you start to gain, it will help us as a system to really pinpoint where we as an organization need to develop stronger community partnerships. Or where we help fund seed projects because it makes sense for us to do that because now we've seen this in a large majority of our kids..." (Scardino)

Even with a robust community resource referral platform in place, the challenges of covering costs related to social care and evaluating outcomes still need to be solved.

"[We are in] a world that's halfway stuck between fee-for-service and capitated. Until you're in a full capitated or value-based arrangement, you're really struggling to show how you can pay for social determinants of health. There's also no really good mechanism in place to identify whether you're successful." (Scardino)

Texas Children's position as both payer and provider means it will have unique vantage point and ability to move the work of integrating healthcare and social care forward in Texas. But they also recognize that they have a lot of work ahead.

"I do think at the point that we do get to that capability to do referrals, we may be on the leading edge because we will be both a payer and provider system that is completely on EPIC...that lens of being able to see from payer to provider, where we overlap, is unique and I do think we are further along than a lot of systems in that way. Definitely in the pediatric side, even nationally I think we're further along, but we're not there yet either." (Scardino)

Expert Panel Meeting

In June 2020, THIN convened a virtual panel meeting of experts and leaders from within and outside Texas for a deep dive into the subject of healthcare and social care integration. The background information and case studies contained in this report were shared in advance with the meeting invitees. The meeting included an opening keynote and four expert panels. Attendees included representatives from Texas state agencies, legislative staff, health plan administrators, providers, researchers, representatives from healthcare associations, and members of the Texas Health Improvement Network advisory council. The agenda and panel descriptions are provided in Appendix A.

Presenters and Moderators:

- **Norm Chenven MD**, Founder/CEO, Austin Regional Clinic

- **Roxana Cruz MD**, Medical Director, Texas Association of Community Health Centers

- **Katrina Daniel**, Chief Health Care Officer, Teacher's Retirement System of Texas

- **Salil Deshpande MD**, Chief Medical Officer, UnitedHealthcare

- **Jamie Dudensing RN MPA**, Chief Executive Officer, Texas Association of Health Plans

- **Laura Gottlieb MD**, Founding Director SIREN, UCSF

- **Celeste Harrison**, Chief Executive Officer, MEHOP

- **Mini Kahlon PhD**, Associate Professor & Executive Director, Factor Health, Dell Medical School

- **David Lakey MD**, Vice Chancellor for Health Affairs and Chief Medical Officer, UT System Population Health and former Texas Commissioner of Health

- **Elena Marks JD MPH**, Executive Director, Episcopal Health Foundation

- **Stephanie Muth**, Principal, Stephanie Muth Consulting and former Texas Medicaid Director

- **Len Nichols PhD**, Non-Resident Fellow, Urban Institute and Professor Emeritus of Health Policy, George Mason University

- **Penny Pabst**, Chief Administrative Officer, Stephen F. Austin Community Health Network

- **Adrianna Cuellar Rojas**, President/CEO, United Ways of Texas

- **Theresa Scepanski MA**, Chief Administrative Officer University Health System

- **Nirav Shah MPA**, Vice President, Social Finance

- **Shao-Chee Sim PhD**, Vice President for Applied Research, Episcopal Health Foundation

- **Valerie Smith MD**, Director Community Centered Health Home, St. Paul Children's

- **Kirk Watson**, Founding Dean UH Hobby School of Public Affairs and former State Senator

- **Keegan Warren-Clem JD MPH**, Managing Attorney, Medical-Legal Partnerships at Texas Legal Services Center

- **Ryan Van Ramshorst MD**, Chief Medical Officer, Texas Medicaid

Key Themes

Based on a review of the literature (summarized in the background section) and qualitative analysis of the case study interviews and expert panel meeting transcriptions, the following set of key themes and recommendations to increase adoption and sustainability were identified.

Overarching Themes

1. **To advance this work, recognize and leverage the non-health benefits of addressing patients' social needs.**

Addressing social needs has the potential to generate benefits beyond health, and avert downstream costs for payors outside of healthcare. What public health researchers have identified as social determinants of health are also determinants of other valued social goods including child welfare, education, and public safety. Quantifying non-health benefits and securing investments in social care from other sectors will be necessary to expand, scale and sustain healthcare and social care integration. This will require regional or statewide cross-sector leadership and effective mechanisms.

"If you're really talking about it 10 years, five years out, you're really talking about government investments in communities, almost looking at social determinants of health as a public health issue, if that makes sense, not a health coverage issue, but a public good or a public health issue that really needs investment." (Van Ramshorst)

"The way to get an investment in public health is to show and get that no-cost somewhere in the state. Even if it was prisons, criminal justice education, somewhere you could get a no-costed bill, and that was a huge way to get that done." (Dudensing)

"It turns out when we look upstream and we see these issues, we see the lack of housing, we see the lack of transportation, we see the inappropriate food, we see all the things that lead to people not getting what they need. Those things are like public goods. They create what we call a free rider problem, in that no one person typically is willing to invest enough to solve the problem,

because the benefit to that investment would flow to so many different potential beneficiaries, not just the people, but all those downstream actors. So it turns out the solution to this kind of free rider problem was created by a group of in 1970s. And it works under two conditions: first, there must be an operational local stakeholder coalition, and there's got to be someone who can play the role of trusted broker." (Nichols)

The current events may provide an opening into the conversations needed to create a broader movement that addresses a range of goals.

"We cannot, in my mind, try to just recreate a past that really wasn't there and that COVID-19 has proved wasn't really there... with the COVID opportunity that we have, that may be an opportunity to get the Legislative Budget Board to focus on these kinds of instances where if you spend a dollar here, you save $1.50 and so that's worth spending the dollar." (Watson)

"The pandemic we're living through is like nothing we've experienced in our lifetimes, and not surprisingly, it's disproportionately affecting black and Hispanic communities and low-income communities. We're also hearing about the powerful demands in the wake of the deaths of George Floyd and many others to rethink how we create public safety and how we redesign our institutions. And when we do redesign our systems and institutions, we've got to have a greater investment on social care." (Marks)

2. **Addressing patients' social needs requires a fully engaged and robust social service sector.**

That social factors significantly impact the health of patients is now widely accepted both outside and within healthcare. Yet the expertise needed to address patients' social needs lies outside the traditional healthcare fields. The requisite expertise to address social needs is found in a diversity of sectors including law, social work, education, counseling, volunteer management, housing, and workforce development. Each field has its own knowledge, skills, interventions, and outcomes.

"I think that part of demonstrating respect for social services partners is to look at the research that is already being done in those fields that has long existed, long before health care came into this conversation, these organizations were doing work and they were measuring it and they were evaluating it." (Warren-Clem)

The task of integrating care across multiple clinical and social service agencies requires a robust social service sector with a strong inter-organizational infrastructure. Clinics can play leadership roles in building needed partnerships, but they cannot do this work without a larger community coalition or organizing force and well-resourced community partners.

"They invited some of their United Way grantee partners to come in and look at them [referral platforms]. They voted, we voted, and we all agreed on Signify. So we put up all the implementation costs. They put up the training costs. It's been a great partnership. We would not have been able to create a network without the United Way." (Pabst)

"My small clinic isn't a big enough player. To get a bunch of nonprofits and social service agencies to uptake an electronic platform and to change their workflow? Because that's ultimately what you're asking people to do." (Smith)

To fully engage with healthcare and provide the services needed, the Texas nonprofit sector needs a robust infrastructure and adequate capacity. However, the lack of investment in social care relative to healthcare seen at the national level is also evident in Texas, leaving the nonprofit sector at a disadvantage.

"The nonprofit sector in our state is very, very young and very under-resourced. So, when we think about our safety net and the social services that we're trying to align and integrate in with healthcare, you've got a very young disparate sector. Our infrastructure of the nonprofit sector in Texas is fragmented. When you look at other states, there's usually a nonprofit organization that advocates for just the sector and in Texas, that's not the case." (Rojas)

Currently the nonprofit sector is heavily reliant on philanthropy. Philanthropy is well-positioned to provide start-up funding and test models and innovations, but it cannot sustain ongoing service delivery to address social needs at the necessary scale.

"I don't think we should be asking our philanthropies to stand in for poor governmental prioritization." (Warren-Clem)

"I don't see a way for philanthropy, churches, the private social safety net to meet that challenge." (Smith)

Additional Key Themes

3. Safety net providers are motivated by mission to address patients' social needs.

Since their inception and motivated by mission, community health centers have worked to adjust care in consideration of their patients' social circumstances, and sought to connect patients with needed social services. Representatives from healthcare systems expressed their continued commitment and enthusiasm for engaging in this work.

"This adjustment work is stuff that as providers, particularly in the safety net, we do every day. We just don't always do it well or systematically. We send out mobile vans, we have evening and weekend clinics, we provide interpreters, we provide low literacy materials. We won't prescribe a C-PAP machine for a patient living in a shelter or loop diuretic to patients who have hypertension, but don't have regular access to bathrooms." (Gottlieb)

"There isn't a social service agency that we don't partner with in some way. We know all of them and we work with all of them." (Harrison)

"I think that the panelists here and all of the staff that they represent at their respective health centers do this work because they're very mission driven for their patients and their populations. It all comes from why you do the work that you do." (Harrison)

4. Healthcare and social care integration is taking place in many forms across the state.

In communities across Texas, interest in establishing multi-institutional partnerships organized around a shared screening tool and referral platforms was evident. Through this project, several partnerships in various stages of development were identified. The case study of the Stephen F. Austin Community Health Center provides a look at the experiences of one of Texas's pioneers in this movement.

Although such large-scale, multi-institutional partnerships are still early in development in Texas

and the U.S., other more focused approaches to addressing patients' social needs are in practice across the state. Such approaches may offer a viable starting place for organizations and communities seeking to integrate healthcare and social care.

"We can really target specific issues to drive change and not just think of it as this broad menu of social determinants of health, because I think that's what we often do. We think about social determinants of health as this laundry list of issues that is very exhaustive. If we could really think about single opportunities and identify where those opportunities exist, to jump on those to drive change, instead of that broad range of patient needs. That might help us be successful with this." (Rojas)

The following three approaches have been or are being adopted in many different communities across the state, have an emerging evidence base related to outcomes and implementation, and have champions working to support and expand their adoption

Healthcare and charitable food system partnerships to address food insecurity and access to healthful foods.

One health-impacting social need that many healthcare systems in Texas are working to address is food insecurity. Additional information about some of the developing partnerships between healthcare and food banks is provided in Appendix B.

"Food insecurity is the easiest loop for us to close internally in that we A, can know if our food pantry served the family. B, we also have a health care partnership with the East Texas Food Bank where we can actually enroll families in a program where they come to clinic, and for 12 weeks they can get a box of health shelf-stable food and a bag of produce. And also motivational interviewing focused nutrition education each week.

And then during that time, one of the things that we do is have someone there who if they are SNAP eligible, can enroll them in SNAP. And

we're aiming by this summer to have a WIC staff member embedded in our clinic as well. So we really could feel like we were confidently closing that food loop pretty much as tightly as I think possible for families." (Smith)

"Twice a week, we have our food bank at our facilities available to our patients. It's a lot more convenient for our patients to learn about nutrition, even have an opportunity to shop. They bring them a mobile grocery store, so to speak, and they're able to shop for groceries or receive groceries if they qualify. But utilizing some of those other agencies within our United Way structure as well, helps us extend beyond the services that we can provide as a healthcare organization." (Scepanski)

While clinic-charitable food system partnerships hold promise, work is needed to guide and establish partnerships that will impact health in measurable ways.

"You can write a prescription for food, but what's available at the food banks or the churches determines whether it actually meets the need to improve health." (Harrison)

Home remediation to address household asthma triggers

Safe and healthy living environments are essential to health. One well-established pathway linking housing to health outcomes are asthma triggers in the home. Such triggers can be eliminated through home remediation. Taking the work of integrated healthcare and asthma home remediation services to scale may be a valuable path forward for Texas.

"Children make up a huge portion of the Medicaid program. [Many] of those children have asthma and going in and dealing with the molding in their homes, the air conditioning, these other pieces of this can make a huge difference or not on whether they reduce ER visits." (Muth)

A number of initiatives working to address asthma through home remediation are underway across the state. However, despite the evidence of effectiveness,

funding mechanisms to scale and sustain this work are not yet in place.

"There is no healthcare funding available through Medicaid or through any other healthcare payer for that matter for [home] remediation. We're having to look for private investors to fund these social service interventions; interventions that are relatively low cost yet have a known, favorable impact on health and on healthcare utilization." (Deshpande)

Medical-legal partnerships (MLP)

Rather than focusing on a specific social need, MLP is an approach that can address a range of social needs through a particular type of service: legal counsel and intervention. For more information on MLP, see the Texas Legal Services Center Medical-Legal Partnership case study.

"Medical legal partnership is a means for integrating the legal system, and expertise in the system, into the delivery of healthcare. At its simplest, it means having a lawyer on site to address the health harming legal needs of patients.

"So much social needs screening carves legal out to be something separate, when in reality it is or underlays everything...In understanding that it's not a separate category, we can leverage legal interventions as part of social needs care. After all, law is part and parcel of every piece, every social need.

"[Law] is the system that is creating the problem downstream. Law also offers a potential intervention for any given social need, but of course you need that systems expert at the table for these opportunities to be obvious." (Warren-Clem)

Arguably the first model of healthcare and social care integration, MLP got its start in Texas in 2008. 2018 report found that ten years later, eight MLPs were active in the state, with two in development.

"There are a limited number of MLPs in Texas and all of them are in the major cities. So why do I think it's rare? Until you have experienced what it is to have a lawyer who's on your side, who is part of a team that you're working on, it sounds like an abstract goal... I also think that that's why it's critical that we are training medical students and residents in how to collaborate [with legal professionals]. And the other thing that we might have a conversation about is whether there should be some kind of encouragement, some kind of incentive, for doing this kind of work. In New York and in Georgia, it is defined in state law what a medical-legal partnership is. I think if we had clearer standards at the state level, clearer guidance, for whatever kind of integrated care delivery teams we're going to have, that it would both increase the amount of information in this area, as well as incentivize actually doing this work." (Warren-Clem)

5. Addressing social needs is labor- and relationship-intensive.

Screening, counseling, and connecting patients to appropriate community partners takes time. The staff responsible for these tasks such as community health workers, care coordinators, and patient navigators are also responsible for other mission-critical tasks, such as finding referrals to specialty care and assessing eligibility for public healthcare coverage options.

"I would like to say that it looks easy from the outside, but it is not easy. And as an FQHC, you might know that we juggle lots of job duties all of the time. And so our care coordinators who might juggle 150 patient panel, to be able to add this to their task load, or eligibility staff who are actually certifying patients, they're screening patients, they added this to their already existing job load. So it is something that was an expectation for them to take on, it was not something that they just didn't have anything to do." (Pabst)

"Patients referred into the community are by definition, not those who could navigate the system on their own." (Warren-Clem)

Importantly, patients with social needs may need extra help due to their physical or behavioral health needs.

"The real challenges of this for us are serving our behavioral health patients... those individuals are most challenging to really address their needs... It does take staff that are specifically trained." (Harrison)

6. Technology is a critical catalyst.

Technologies such as EHR-integrated screening tools and community resource referral platforms are central to the work of integrated healthcare and social care, particularly multi-organizational partnerships. They increase accountability, facilitate information exchange and cross-sector data sharing, and reduce workloads.

"So, we are using Signify Health, TAVHealth to connect with the other 34 social service agencies in our United Way in our community. It's a way for everybody to be held accountable, to make the referrals and to ensure that the patient's needs are being taken care of. It's how we're getting data out of the system to know that in the last year, there were 2,915 needs identified, 977 referrals made. It tells us which organizations are not meeting that need, who to follow up with, what our current top five needs are, who's referring the most, who's accepting the most referrals. And that's a way for us to track and follow up with those organizations who are not helping our patients. So it's very helpful for us." (Pabst)

While new technologies have the potential to catalyze this work by enabling communication and integration in a manner not previously possible, the adoption of referral platforms and EHF-integration is still in the early stages.

"I'll say that I think the intention of everybody who has been involved in developing those platforms and using those platforms has been this seamless integration, right? People want these to be incorporated into electronic health records, they want it to be so easy from the point of care to both make referrals and then pull it

back into the electronic health record and make it so that this social care platform is part of a health information exchange but the reality hasn't yet looked like that. I think that people are really trying to do this but it hasn't yet come to fruition." (Gottleib)

Additionally, technologies such as community resource referral platforms may not be practical in communities where the social service sector lacks the necessary infrastructure to participate.

"I don't know that we'll ever [use a community resource referral platform] just due to the rural nature of our community, be able to integrate all of that into our IT system. So that it has that natural follow through that we're so used to as far as healthcare where we put something in the system and we track it and we have immediate feedback. Well when you're working with someone that's still on pen and paper, it's going to be real difficult to have that feed directly back into the system although we would love it. I think there's always going to be those challenges for us." (Harrison)

7. **Return on Investment in a short time frame is considered essential for Medicaid/health plans to cover costs associated with social needs-targeted care.**

During the expert panel meetings, we heard that health plans are interested in finding ways to address health-impacting social needs, but need to achieve cost savings in a short time frame to justify the investment. This issue is practical – insurers need to remain within a budget. It is also philosophical – to what degree is addressing social needs the responsibility of health insurance, and specifically plans such as Medicaid that are covered through public funds?

"When you operate a system that operates on such a thin margin, such as the TRS health plans, we can't really spend additional funds. We have to find a way to realize that savings through avoided costs. So, if we can find the right partner who's willing to help us achieve savings through avoiding unnecessary expenditures, then I think

there's room to make that additional investment." (Daniels)

"There is room to operate, but I think the main thing that puts the guard rails around that is the financial structure. So just like we heard from the managed care organizations yesterday that, well yes, they're going to invest, but they're going to look for those returns on the investment that come in the short term. I think it's the same thing for the Medicaid program in general, where we could look at doing things, but they have to result in a clear benefit in the short term. A lot of what we're talking about here is not short term. Clear, you invest a dollar, you got this benefit. That's really, I think, what legislators look to as they appropriate money to the agency is, 'Well, how did you utilize that money?' If you're going to go off course, you've got to make sure you're in sync with what's the direction and what's the will of the legislature. The Medicaid program is an entitlement program, so we often are coming back for a supplemental appropriation and our expenditures are scrutinized. So, I don't think there's a lot of room for the agency to go far outside the box on that." (Muth)

The need for short term outcomes is a major challenge to financing programs to address health-impacting social needs. Although some short-term health outcomes are achievable, most health-related benefits will take many years – even decades – to accrue. The further upstream the interventions occur, the longer the time horizon before health benefits manifest.

"I think [achieving measurable health outcomes] is trickier in a pediatric population than it is in an adult population, because by and large, most kids are healthy thankfully. And we are really looking at…reducing their risk long-term of having cardiovascular disease, or hypertension, or stroke, or all of those things that we know are associated with many of these social determinants." (Smith)

We talked about the complexities and limitations of Medicaid as a solution. One of those

limitations is the populations that are covered in Medicaid. Majority of Medicaid recipients are healthy kids, and we know that addressing some of these social determinants will have long-term outcomes, but they're long-term outcomes. We won't see a return on that investment in the short term." (Muth)

8. Focused, practice-based research will help accelerate this work.

The connection between social needs and health outcomes is well-established. Research on effective and cost-effective practice is beginning to generate needed guidance for implementation. As research continues, confidence will grow among payors to make necessary investments.

"There certainly are ongoing evidence gaps in what we know about these intervention approaches. So the first is what are the most effective and cost effective interventions and strategies? For instance, is it more effective and cost effective to target some social risks than others? Second, do social needs interventions, could they have negative unintended consequences? Like for specific populations, what are the impacts on health equity? So is it possible that these individual level interventions could perpetuate some of the structural inequities or perpetuate the white supremacist system, in which they sit? And then finally, what do we need to actually scale effective interventions? what are the payment and quality incentives? What are the technology and data infrastructure, and what are the workforce innovations that we need to put them into practice?" (Gottlieb)

"In the work that we are doing with United Healthcare and Meals on Wheels Texas here in Austin, the scale and scope of the program that we have is to look at what kind of effects we can have on diabetics and their impact on A1C levels. And can we get a large enough impact to make [United Healthcare] pay attention?" (Kahlon)

As communities across Texas experiment with different approaches to healthcare and social care integration, we have an opportunity to learn from their experiences and add to the evidence base. This will require thoughtful study designs and partnerships between practitioners and researchers. Such practice-based studies are needed to generate confidence that desired outcomes are achievable in real-world settings.

"If you're looking for private investors to come in and bet on an intervention's ability to hit certain outcomes, the data will be much more important. It will be a robust set of data in order to give them confidence that there's a historical track record for that intervention to achieve the outcomes that are intended." (Shah)

"When my organization can directly identify these healthcare savings and when they can see that these savings exceed the cost of the otherwise unreimbursed home remediation expenses, it becomes just a little bit easier to justify our spending on these social interventions in addition to the healthcare services that we're accustomed to paying for." (Deshpande)

Acknowledgments

This project was made possible through support from the Episcopal Health Foundation. Members of the Texas Health Improvement Network Advisory Council and staff at UT System Population Health provided critical guidance and insights throughout the course of this project.

The following advisors were closely involved in developing the expert panel meeting and identifying key themes and recommendations:

- **Roxana Cruz**, Texas Association of Community Health Centers

- **Elena Marks**, Episcopal Health Foundation

- **Shao-Chee Sim**, Episcopal Health Foundation

- **David Lakey**, UT System Population Health

- **Nagla Elerian**, UT System Population Health

- **Dorothy Mandell**, UT System Population Health

- **Karen Batory**, Texas Medical Association

Natalie Poulos, postdoctoral fellow at UT System Population Health, shared data from her pilot project on healthcare and charitable food system partnerships in Texas.

About the Texas Health Improvement Network

The Texas Health Improvement Network (THIN) is a multi-institutional, multi-sector initiative established by the Texas Legislature in 2015, and housed at the University of Texas System Population Health.

Suggested Citation:

Nehme E, Castedo de Martell S, Matthews H, Lakey D. 2020. Addressing Social Needs through Integrated Healthcare and Social Care: Case Studies, Key Issues, and Recommendations to Advance Practice in Texas. Austin, TX: Texas Health Improvement Network/UT System Population Health.

References

1. Sim S, Marks E, Ben-Porath E, Hachey E, Su J. Texans' Views on Social Determinants of Health. Episcopal Health Foundation; 2020. 14 p. [cited 2020 June 10]. Available from: https://www.episcopalhealth.org/wp-content/uploads/2020/02/Report_1_Views_on_SDOH_FINAL_RVSD_TC.pdf

2. Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health: final report of the commission on social determinants of health. World Health Organization; 2008.

3. Hood CM, Gennuso KP, Swain GR, Catlin BB. County health rankings: relationships between determinant factors and health outcomes. American Journal of Preventive Medicine, 2016 Feb 1;50(2): p. 129-135.

4. Bradley E, Taylor L. The American health care paradox: Why spending more is getting us less. New York: Public Affairs; 2018.

5. Bradley EH, Canavan M, Rogan E, Talbert-Slagle K, Ndumele C, Taylor L, Curry LA. Variation in health outcomes: the role of spending on social services, public health, and health care, 2000–09. Health Affairs. 2016 May 1;35(5):760-8.

6. Mac McCullough J, Leider J. The Importance of Health and Social Services Spending to Health Outcomes in Texas, 2010–2016. Southern Medical Journal, 2019. 112(2): p. 91.

7. Alderwick H, Gottlieb LM, Meanings and misunderstandings: a social determinants of health lexicon for health care systems. The Milbank Quarterly, 2019. 97(2).

8. Castrucci B, Auerbach J. Meeting individual social needs falls short of addressing social determinants of health. Health Affairs blog; 2019 Jan 16 [cited 2020 June 10]. Available from: https://www.healthaffairs.org/do/10.1377/hblog20190115.234942/full/.

9. Martin AB, Hartman M, Washington B, Catlin A, National Health Expenditure Accounts Team. National health care spending in 2017: growth slows to post–Great Recession rates; share of GDP stabilizes. Health Affairs. 2019 Jan 1:10-377.

10. Woolf SH, Necessary but not sufficient: why health care alone cannot improve population health and reduce health inequities. 2019; Annals of Family Medicine, 17(3), 196–199.

11. National Academies of Sciences, Engineering, and Medicine. Integrating Social Care into the Delivery of Health Care: Moving Upstream to Improve the Nation's Health. Washington, DC: The National Academies Press; 2018. https://doi.org/10.17226/25467.

12. National Association of Community Health Centers. What is a Community Health Center? [cited 2020 June 10]. Available from: https://www.nachc.org/about/about-our-health-centers/what-is-a-health-center/

13. Cartier Y, Fichtenberg C, Gottlieb L, Community Resource Referral Platforms: A Guide for Health Care Organizations. San Francisco: Social Interventions Research and Evaluation Network, 2019.

14. Gottlieb LM, Wing H, Adler NE, A Systematic Review of Interventions on Patients' Social and Economic Needs. Am J Prev Med. 2017; 53(5): p. 719-729.

15. Crocker DD., et al., Effectiveness of home-based, multi-trigger, multicomponent interventions with an environmental focus for reducing asthma morbidity: a community guide systematic review. American Journal of Preventive Medicine, 2011. 41(2): p. S5-S32.

16. De Marchis EH, Torres JM, Benesch T, Fichtenberg C, Allen IE, Whitaker EM, Gottleib LM. Interventions addressing food insecurity in health care settings: a systematic review. The Annals of Family Medicine, 2019. 17(5): p. 436-447.

17. National Academies of Sciences, Engineering and Medicine, Permanent supportive housing: evaluating the evidence for improving health outcomes among people experiencing chronic homelessness. Washington, DC: National Academies Press; 2018 Aug 11.

18. Fichtenberg CM, Alley CE, Mistry KB. Improving social needs intervention research: key questions for advancing the field. American Journal of Preventive Medicine, 2019. 57(6): p. S47-S54.

For further reading

- Fraze TK, Brewster AL, Lewis VA, Beidler LB, Murray GF, Colla CH. Prevalence of screening for food insecurity, housing instability, utility needs, transportation needs, and interpersonal violence by US physician practices and hospitals. JAMA network open. 2019 Sep 4;2(9):e1911514-.

- Herrera CN, Brochier A, Pellicer M, Garg A, Drainoni ML. Implementing social determinants of health screening at community health centers: clinician and staff perspectives. Journal of Primary Care & Community Health. 2019 Nov;10:1-6.

- Nichols LM, Taylor LA. Social determinants as public goods: a new approach to financing key investments in healthy communities. Health Affairs. 2018 Aug 1;37(8):1223-30.

- Stout SS, Simpson LA, Singh P. Trust Between Health Care and Community Organizations. JAMA. 2019 Jul 9;322(2):109-10.

- National Academies of Sciences, Engineering, and Medicine. Investing in Interventions That Address Non-Medical, Health-Related Social Needs: Proceedings of a Workshop. Washington, DC: The National Academies Press; 2019 Sept 27. https://doi.org/10.17226/25544.

Appendices

- **Appendix A:** Panel Meeting Agenda, Description and Panelists

- **Appendix B:** Healthcare and charitable food system partnerships in Texas

Addressing social needs through integrated healthcare and social care in Texas

A next-level conversation on outcomes and sustainability
Expert Panel Meeting: June 29-30, 2020 via Zoom

AGENDA, DAY 1

Time	Length	Description	Presenters/Panelists
12:30-12:45	15 min	Welcome, introductions and overview of agenda and process	Elena Marks, Episcopal Health Foundation David Lakey, UT System
12:45-1:15	30 min	Setting the stage: what can the healthcare sector do about patients' social conditions?	Laura Gottlieb, UCSF SIREN
1:15-2:45	90 min	Panel 1: On-the-ground perspectives from Texas programs	Penny Pabst, Stephen F. Austin Community Health Network Celeste Harrison, MEHOP Valerie Smith, St. Paul Children's, Smith County Food Security Council Keegan Warren-Clem, People's Community Clinic Medical/Legal Partnership Moderator: Roxana Cruz, TACHC
2:45-3:00	15 min	Break	
3:00-4:30	90 min	Panel 2: Desired/expected outcomes from healthcare payors' perspectives	Ryan Van Ramshorst, Texas Medicaid Jamie Dudensing, Texas Association of Health Plans Katrina Daniel, Teacher's Retirement System of Texas Theresa Scepanski, University Health System Moderator: Shao-Chee Sim, EHF
4:30-4:45	15 min	Wrap up - Day 1	

AGENDA, DAY 2

Time	Length	Description	Presenters/Panelists
1:00-1:15	15 min	Welcome and reflection on day 1	Elena Marks, Episcopal Health Foundation David Lakey, UT System
1:15-2:45	90 min	Panel 3: Strategies for funding and sustainability	Len Nichols, GMU Nirav Shah, Social Finance Mini Kahlon, UT Austin Salil Deshpande, UnitedHealthcare Moderator: Elena Marks, EHF
2:45-3:00	15 min	Break	
3:00-4:30	90 min	Panel 4: Challenges and strategies for supporting this work in Texas	Adrianna Cuellar Rojas, United Ways of Texas Norm Chenven, Austin Regional Clinic Kirk Watson, UH Hobby School of Public Affairs, former state senator Stephanie Muth, Consultant, former Texas Medicaid Director Moderator: David Lakey, UT System
4:30-5:00	30 min	Summary discussion/closing	Elena Marks, Episcopal Health Foundation David Lakey, UT System

PANEL DESCRIPTIONS

Panel 1 : On-the-ground perspectives from Texas Primary Care Settings

Description:

Leaders working in Texas primary care settings serving vulnerable populations will share information on how they have approached the work of addressing patients' social needs and what help they need to advance their work. Each panelist represents an organization that was featured in the case study series. Participants are asked to read the case studies in advance of the meeting.

Key questions for discussion:

What are the major opportunities and challenges to addressing social needs in the primary care clinic setting?

What systems-level changes are needed to support clinics in addressing their patients' social needs?

Panel 2: Desired/expected outcomes from healthcare payors perspectives

Description:

Representative from Texas payors, including Texas Medicaid, health plans, Texas Teachers' Retirement System, and a local hospital district, will discuss what outcomes they want to see from this work, and how they see the roles of health plans and health care providers in implementing this work.

Key questions for discussion:

To scale up investments in social needs care, what outcomes does your organization need to achieve – e.g., health outcomes, cost savings/ROI, or social needs addressed?

What are the appropriate roles and expectations of payers, health systems, and community-based organizations in implementing and funding this work?

What strategies has your organization planned or implemented related to healthcare and social care integration?

Panel 3: Strategies for funding and sustainability

Description:

Local and national experts will discuss what approaches are being proposed or tested to cover expenses related to addressing patients' social needs, particularly those costs associated with providing needed services or resources. They will also lay out the reasons funding this work is challenging, including the concept of the "wrong pocket" problem and changing populations.

Key questions for discussion:

What are the major challenges to funding this work?

What approaches are being used, proposed or tested, in Texas, in other states, or nationally?

Panel 4: Challenges and strategies for supporting this work in Texas

Description:

State leaders will share their perspectives on how to move this work forward in Texas, incorporating and reflecting on the first three panel presentations and conversations.

Key questions for discussion:

How does the information discussed today apply in the unique context of Texas?

What key changes need to happen to address social determinants of health in Texas?

What is the role for philanthropy and traditional funders of social care?

Appendix B: Healthcare and charitable food system partnerships in Texas

The following information was collected as part of a qualitative pilot study being conducted at the University of Texas Health Science Center at Tyler/UT System Population Health.

Of the 21 food banks serving Texas's 254 counties, the following were identified as having active partnerships with health care institutions:

1. Brazos Valley Food Bank: Screen and Intervene

2. Central Texas Food Bank: Veterans Diabetes Food Boxes

3. Coastal Bend Food Bank: Diabetes Pantry & Nutrition Education Classes

4. East Texas Food Bank: Pediatric Obesity Food Boxes

5. Houston Food Bank: Food for Change

6. High Plains Food Bank: Food Boxes and Education

7. San Antonio Food Bank: Referral System for Healthcare Partners

8. Tarrant Area Food Bank: Healthcare Pantries (PARx)

Programs range from providing small scale, shelf stable emergency food boxes at select clinics to complex programs that incorporate mobile food pantries, prescribed food benefits, and nutrition education. Some served any patient who screened positive for food insecurity, while others focus only on individuals with specific health conditions. For the pilot study, interviews were conducted with staff at two of the food banks involved in partnerships to learn more about their programs.

Brazos Valley Food Bank (BVFB) is located in the city of Bryan and serves the semi-rural area of Central East Texas. In 2019, BVFB was granted funds from Blue Cross Blue Shield to support their program, Screen & Intervene, a health care partnership program to facilitate referrals to the BVFB and distribution of emergency food boxes.

BVFB established partnerships with healthcare providers that agreed to screen patients for food insecurity using the Hunger Vital Signs, a 2-item screening tool to measure food insecurity, during the medical intake process. If patients screen positive, they are referred to the Care Coordination Team at the BVFB, provided a resource handout that includes information on food assistance programs and support, and given an emergency food box.

To accomplish this coordination and delivery of emergency food boxes and information referrals, the BVFB funds, acquires, packs, and delivers emergency food boxes to healthcare partners, along with food resource handouts. Emergency food boxes include non-perishable, healthy food items that weigh approximately 30 pounds and cost $18.75. Healthcare partners are encouraged to report data including number of patients identified as food insecure and number of emergency food boxes distributed, and assess improvements in selected biomarkers (e.g., HbA1c).

Houston Food Bank (HFB) is a large, urban food bank serving most of the Houston metropolitan area. In 2015, HFB launched its Food for Change program with the goal of addressing the root causes of food insecurity.[1] Two programs within Food For Change (FFC), Food Rx and FIRSTLink, provide direct connections between healthcare and food banks.

Food Rx. The Food Rx program has established partnerships with 12 healthcare partner agencies. These healthcare partners screen patients within the target population (e.g, adults at risk of diabetes) for food insecurity using the Hunger Vital Signs. If target patients screen positive for food insecurity, they are provided a Food Rx prescription that allows them to receive free food at the Food for Change Market. Individuals can also enter the Food Rx program through Community Health Programs, which requires that participants commit to programs that include chronic disease management classes, exercise classes, and nutrition education classes (no FI required). There are 14 unrestricted FFC Markets (open to any Food Rx participant), 18 restricted FFC Markets (only specific participants), and 8 Market Trailer locations. At each market, HFB provides fresh fruits and vegetables, frozen protein, and shelf stable items.[2]

FIRSTLink. Through the FIRSTLink (Food Insecurity Resource Screening and Training Link) program, employees of the HFB train healthcare staff members on how to identify patients that are experiencing food insecurity and how to help them apply for resources such as SNAP, TANF, and Medicaid. FIRSTLink trained clinical staff help complete application with clients and then follow up with later to provide continued support.[3]

1- http://www.houstonfoodbank.org/wp-content/uploads/2018/02/BVE_HoutonFFCProgress_2017.pdf

2- https://www.houstonfoodbank.org/wp-content/uploads/2019/09/factsheet_ffc_foodrx_092719.pdf

3- https://www.houstonfoodbank.org/wp-content/uploads/2019/09/factsheet_ffc_firstlink_091619.pdf