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Food Bank-Healthcare Partnerships in Texas:

Cultivating Sustainable Partnerships with Population Health Impact

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Methodist Healthcare Ministries of South Texas, Inc.

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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 to address urgent health care challenges and improve the health of Texas residents. THIN is administratively housed at the University of Texas System Population Health.

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EXECUTIVE SUMMARY

Background

As part of its focus on supporting the growth of healthcare and social care integration in Texas, the Texas Health Improvement Network launched a project in January 2021 to document the current status of Texas food bank-healthcare partnerships and develop recommendations to support such partnerships in the state. Interviews with staff from all 21 food banks in Texas were conducted and analyzed to document the current landscape of food bank-healthcare partnerships in Texas, including the types of partnership models being implemented, strategies for successful partnerships, and implementation challenges.

Key Findings

All food banks expressed an interest in partnering with healthcare, and nearly all had an active or planned partnership with healthcare. The primary reason given by food banks for partnering with healthcare was to reach people experiencing food insecurity that the food bank might not otherwise reach. Most participants also saw partnering with healthcare as a key part of an organizational shift towards a greater focus on health and nutrition.

Although the specifics of food bank-healthcare partnerships varied widely, each could be described in terms of one or more of the following four categories:

1. Food insecurity screening and referral to standard food bank resources.
2. Emergency food distribution at or near a health-care setting.
3. Pop-up emergency food distribution and health screenings in community settings.
4. Specialty programs developed for patients referred by healthcare partners or with specific health conditions.

Challenges in forming and sustaining partnerships include limited staffing and physical capacity at both the food banks and healthcare sites, and the difficulty of measuring impact, particularly on health outcomes. The latter was seen as critical to sustainability.

The following three pathways by which partnerships can support population health were identified:

1. Tightening the safety net.
2. Catalyzing existing food bank movement towards greater nutrition.
3. Enhancing chronic disease management for patients experiencing food insecurity.

Recommendations

We offer the following recommendations to create sustainable food bank-healthcare partnerships across Texas that can positively impact both food security and population health:

1. **Leverage core food bank practices and available resources**
 - a. All food banks interested in partnering with healthcare should have an established training on screening for food insecurity and an efficient process for connecting patients experiencing food insecurity with existing food bank resources.
 - b. Community health clinics interested in addressing food insecurity should consider becoming a food bank partner agency to facilitate access to healthy foods for their patients and others in their communities.
 - c. Food banks interested in providing support for patients with chronic diseases should consider establishing an accredited diabetes education program and systems to bill insurance, including Medicaid.

2. Build evaluation around outcomes that are partnership- and food bank mission-aligned

- a.** Food banks should build evaluation into the program focused on realistic outcomes aligned with goals.
- b.** Build evaluation with mission-aligned outcomes to provide meaningful measures that support the overall goals of the food bank.
- c.** Spend time and attention on identifying and outlining partnerships goals and objectives to allow for more effective program evaluation.

3. Facilitate systems changes to allow all food bank/ food pantry clients access to nutritious foods that support health

- a.** Support initiatives that increase nutrition in food banking.
- b.** Improve access to produce and lean meats by food banks and pantries and increase cold storage capacity.

4. Medicaid should incentivize the screening of social determinants of health, including food security.

BACKGROUND

The widespread recognition that good health requires much more than good healthcare has led to a push for greater integration between healthcare and social care to address social needs that impact patients' health. Addressing food insecurity in patient populations has emerged as a primary focus of this movement. Food insecurity – defined by the U.S. Department of Agriculture (USDA) as lacking “enough food for an active, healthy life” (1) – contributes to a range of negative physical and mental health outcomes throughout the life course (2, 3).

A 2019 National Academies of Sciences (NAS) consensus study report identified five ways for healthcare systems to integrate social care into healthcare delivery (4). The healthcare system activities to strengthen social care integration are described in Table 1 and applied to the example of food security.

Table 1. Healthcare system activities that strengthen social care integration and support food security

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 healthcare 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
Advocacy	Activities in which healthcare 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 Gottlieb, MD MPH.

Several leading medical healthcare associations including the American Academy of Pediatrics (AAP) and the American Academy of Family Physicians (AAFP) now recommend universal screening and referrals to programs and resources that can help alleviate food insecurity (5, 6). Feeding America, the national association of food banks, has responded to this movement enthusiastically. They offer a variety of guidance and resources to facilitate partnerships between healthcare and food banks as a means of connecting patients identified as food insecure with available resources (7).

Project Purpose

As part of its focus on supporting the growth of healthcare and social care integration, the Texas Health Improvement Network launched a project in January 2021 to document the current status of food bank-healthcare partnerships in Texas and develop recommendations to support the implementation of such partnerships. This report summarizes the findings of interviews with all 21 Texas food banks and provides a set of recommendations to support the impact, scale, and sustainability of food bank-healthcare partnerships in the state.

Methods

Data collection was completed in two phases. First, a survey was distributed to all Texas food banks to gather basic information on previous, current, or planned partnerships with healthcare. Next, a set of semi-structured interviews were conducted with staff from each food bank. Interview guides were tailored according to the food bank's responses to the initial survey. For example, interviews with food banks that did not have current partnerships focused on readiness to implement a partnership.

All interviews were completed via Zoom between April and October of 2021. The Chief Executive Officer (CEO) was asked to identify the person or persons most knowledgeable about their healthcare partnerships to participate in the interview. Interviews were professionally transcribed and analyzed to document the current landscape of food bank-healthcare partnerships, including the types of partnership models being implemented in Texas, strategies for successful partnerships, and implementation challenges.

Findings

All 21 food banks in Texas participated in interviews. Interviewee positions included: CEO, Chief Operations Officer, Chief Program Officer, Director of Programs, SNAP Program Director, Director of Community Health and Nutrition, Director of Community Partner Relations, Director of Compliance, Nutrition Education Program Manager, Health Promotion Coordinator, Diabetes Hands-on Program Coordinator, Senior Manager of Nutrition and Social Services, Health Partnerships Manager, and Grant Writer. This diversity of staff positions identified by the CEO as the most knowledgeable about healthcare partnerships reflects the diversity of approaches to partnerships taken by food banks, the newness of forming partnerships outside the traditional food bank/pantry network, and the variation in food bank staffing across the state.

Models of Food Bank-Healthcare Partnerships in Texas

Although the specifics of food bank-healthcare partnerships varied widely, each could be described in terms of one or more of the following four categories of models. We defined these categories from the perspective of what participants receive through the partnership. As a result, these models are similar, but not identical to models described by Feeding America (8), and illustrate current practices in Texas. While each category of model is outlined below, it should be noted that each was implemented differently across the food banks.

1. **Food insecurity screening and referral to standard food bank resources.** Available services include food pantries, education classes, and assistance enrolling in benefits programs such as SNAP. Food banks develop and provide training services for health care partners on hunger, food insecurity, and food bank resources. The training may offer continuing education credits. Healthcare partners then commit to screen and refer patients to the food bank or area food pantries. This allows the healthcare partner to provide resources after identifying a patient experiencing food insecurity. Typically, patients are screened using a 2-item screening tool called Hunger Vital Signs (9).

2. Emergency food distribution at or near a healthcare setting. This includes onsite food pantries, emergency food boxes distributed on site, and mobile food distribution at or near the healthcare site. Onsite food pantries or food boxes stored at the healthcare partner site allow for food distribution at the time of a healthcare visit. Access to the pantry may also occur outside of a healthcare visit, and by non-patients. Mobile distributions also make food available at healthcare locations, but food is delivered from a mobile pantry food truck in the parking lot of the healthcare provider or community location near the healthcare facility. These types of partnerships target patients with food insecurity but may also target food-insecure community members through the mobile pantry food truck. The distribution may be done by food bank staff, healthcare staff, or a combination.

3. Pop-up emergency food distribution and health screenings in community settings. These partnerships bring together food bank and healthcare resources in a pop-up style event where community members can receive food and food-related education as well as health care screenings and referrals. These partnerships target residents of low-income communities who may or may not currently be receiving services from either partner.

4. Specialty programs developed for patients referred by healthcare partners or with specific health conditions. These partnerships between food banks and health care often have a specific focus on providing support for managing chronic disease, frequently diabetes. The types of partnerships include food prescription interventions that provide a “prescription” that serves as a ticket for a healthy food box to be picked up at a specific pantry (sometimes called a “food pharmacy”) at a scheduled time, and nutrition-based education classes with food resources provided at each session. Most commonly these programs focus on healthy eating and diabetes self-management. While education programs do typically require participants to be diagnosed with a chronic condition, food insecurity is not always a requirement of participants.

The most common partnership was emergency food distribution at or near a healthcare facility and the least common was pop-up emergency food distribution with health screenings in a community setting. Table 2 provides the model categories used by each food bank with a previous, current, or planned food bank-healthcare partnerships.

Table 2. Food Bank-Healthcare Partnership Category Models (previous, current, or planned) Described by Texas Food Banks (n=21)

Food Bank	FOOD INSECURITY TRAINING & REFERRAL	EMERGENCY FOOD AT/NEAR HEALTHCARE PARTNER	POP-UP: FOOD+HEALTH SCREENING	SPECIALTY PROGRAM
Brazos Valley Food Bank	X	X		X
Central Texas Food Bank	X	X		
Coastal Bend Food Bank				X
Concho Valley Food Bank				
East Texas Food Bank	X	X		X
El Pasoans Fighting Hunger		X		
Food Bank of The Golden Crescent				X
Food Bank of The Rio Grande Valley	X			X
Food Bank of West Central Texas		X		
Galveston County Food Bank				
High Plains Food Bank		X		X
Houston Food Bank	X	X		X
Montgomery County Food Bank			X	
North Texas Food Bank		X	X	
San Antonio Food Bank	X	X		X
South Plains Food Bank		X		
South Texas Food Bank		X		
Southeast Texas Food Bank				X
Tarrant Food Bank		X		X
West Texas Food Bank		X		
Wichita Falls Area Food Bank		X	X	X
Total Models Identified	6	14	3	11

It should be noted that during interviews, food bank staff were asked to focus on the partnerships or programs that required the most coordination. Because of this, there may be other partnerships between food banks and healthcare that were not identified during

the interview. For example, more food banks may be working with local health care providers or institutions to provide training on food insecurity screenings and referral strategies, yet this was only identified by six unique food banks.

Impetus for Developing Healthcare Partnerships

All food banks expressed an interest in partnering with healthcare, and nearly all had an active or planned partnership with healthcare. The primary reason given by food banks was to reach people experiencing food insecurity that they might not otherwise reach. Most

participants also saw partnering with healthcare as a key part of their goal to shift towards a greater focus on health and nutrition as an organization. Table 3 below provides examples of reasons food banks are interested in partnering with healthcare.

Table 3. Reasons for Partnering with Healthcare Described by Texas Food Banks.

Reason	Sample quotes
Opportunity to expand access to more populations facing food insecurity	<p>“being able to get out into those food deserts more and just being able to get food into the hands of people that didn’t have access.”</p> <p>“From the food banks perspective, it really, I think is just having other partners on the ground to help us reach people in need.”</p> <p>“It’s maybe families that we’re not serving yet. It’s an entry point to let them know who we are and how we can serve them.”</p>
Help facilitate an overall shift towards being more health-supporting as an organization	<p>“The foundation for our partnering with healthcare organizations is to try to put a focus on fresh food and accessibility”</p> <p>“we had this big internal effort...to ensure that if we were going to go out building healthcare partnerships, that we would have a referral network ready to serve patients, that healthcare partners would have confidence in.”</p>
Belief in the underlying premise that such partnerships can support health	<p>“We know about diet-related illnesses. We know about the impact of poverty on health, and a lot of that is about access to foods that are beneficial to the body, as opposed to foods that are affordable and easily available.”</p> <p>“Well to me and to the food bank here, food is medicine.”</p>
Potential to tap into new funding streams	<p>“Just working with the individuals and corporations that can either support us financially or programmatically”</p>
Desire to be part of the movement	<p>“Food banks kind of like to compete with other food banks. So sometimes if you hear that a food bank is starting some type of program, we’re like ‘Oh, well we want to have that at our food bank”</p>

Most food banks reported that they originally learned about partnerships between food banks and healthcare organizations through either Feeding America, the national organization of food banks, or Feeding Texas, the statewide food bank network. For example, one food bank suggested, “[I]t trickled down from Feeding America...like a lot of programs that we do, like our healthy pantry project, it was initiated at Feeding America.”

Several food banks reported the biggest impetus to start the partnership was being approached by healthcare with a proposal to partner. For example, one food bank suggested, “[A local hospital] had reached out to me one day and just said, ‘Hey, we just want to talk. And we just want to kind of see how we can maybe collaborate.’ And we were just, myself and two representatives from [local hospital], and I think it was just my nutrition services director. I think it was just us in the room, and we were just kicking around ideas.”

Finally, some food banks reported Managed Care Organizations (MCO) initiated conversations about food banks-healthcare partnerships. For example, one food bank said, “The first time I heard about it was when [a managed care organization] reached out to us...it was over a year ago to see if this would be something we would be interested in. And since we are trying to find innovative ways to get our food out and we said, ‘Sure.’”

Challenges of Building Partnerships

When discussing challenges in forming and sustaining existing and previous partnerships with food banks, the challenges fell into a few different categories. These challenges included:

- staffing at both the food bank and healthcare partner
- limited physical capacity to safely store fresh and frozen foods

- perceived administrative burden establishing partnerships
- informal processes of communication and referral, and
- limited funding to support additional programs.

Staffing.

The most common challenge to implementing new partnerships and sustaining existing partnerships was related to staffing. Most food banks suggested that they do not have enough staff members to add additional programs to their general operations. Many reported that existing staff are already “wearing multiple hats.” In addition, food banks also mentioned that frequent staff turnover within healthcare organizations creates difficulties for food bank-healthcare partnerships. Table 4 provides examples of staffing challenges reported by food banks.

Table 4. Staffing challenges related to food bank-healthcare partnerships according to food banks.

Topic	Sample quotes
Food Bank Staff Shortages	<p>“Having more staff to help and build more relationships with other healthcare partners, not only in our county, because that’s really what I’m focusing on, but the other two counties that we work as well.”</p> <p>“We’re all wearing multiple hats with everything going on. [Our nutrition education manager], I mentioned who’s over our nutrition education not only does the classes and things of that nature, but he also oversees the logistics of the mobile harvest distribution and then also the maintenance of our on-site garden.”</p>
Healthcare Partner Turnover	<p>“I would say something else that I have also noticed is turn over [in] staff with healthcare partners. It really, really affects ... program implementation. So, you train somebody, they already understand the process and all of a sudden, that person leaves. Nobody there wants to step in the shoes to do the program, while that person leaves.”</p>

Limited Physical Capacity.

Food bank-healthcare partnerships place a major emphasis on providing access to fresh and frozen foods, specifically produce and lean meats. Many food banks had limited capacity to safely store and distribute fresh and frozen foods, which in turn limited their ability to start or scaleup healthcare partnerships. Additionally, some food banks, particularly those with large geographic areas to cover, mentioned limitations related to transporting food to agency partners (i.e., pantry locations).

Some food banks mentioned that working with healthcare facilities that are interested in distributing food face challenges because clinics and hospitals were not designed to support safe food storage. Some partnerships have found creative solutions for co-located pantries using hallways or extra closet space. Table 5 provides example quotes highlighting physical capacity limitations.

Table 5. Limitations on capacity related to food bank-healthcare partnerships according to food banks.

Topic	Sample quotes
Storage and Transport Capacity	<p>“[A healthcare partnership] would be tough for us to do right now with our current physical facility. Because the main thing we’re looking at doing the way I understand it would be to give folks access to fresh produce and fruits and vegetables and so forth. And we are kind of bottlenecked in that area because of the size of our local facility.”</p> <p>“We need a larger facility because like I said, we are maxed out. We need more vehicles and more food, because we’re scratching the surface on hunger and in our 12 counties.”</p>
Healthcare Partner Storage	<p>“when [healthcare facilities] were built ..., I think they never envision themselves be in the forefront fighting social determinants of health. So, all their spaces are used up for rooms, or for offices or things like that. They never planned for, we need space to do something more, something additional, or something out of the box. So right now, they want to do this work, but space is always the problem. Space, even to store dry foods, shelf stable food is a problem. And the space to store frozen items, or fresh produce is another problem.”</p>

Administrative Burden.

Administrative challenges described by food banks focus primarily on the length and complexity of approval processes required at some health facilities, but also include issues of perceived administrative burden from the healthcare provider. For example, one food bank suggested that they decided not to establish a co-located pantry at a healthcare facility because the approval process was so lengthy. Instead, that they opted to pursue a simpler model of emergency food box distribution.

“And so, they were trying to figure out just where on campus they could even have the space to be the pantry. And then it was staffing and stuff like that for the pantry. Then it

was, you had to get the school’s approval, but also the hospital’s approval. And then the hospital like had this merger and it was just like too many people that you had to get approval from. And so, we just ended up saying, ‘okay, we’ll do the boxes for now. And I guess if y’all are in a spot to establish a pantry in the future, you know where to find us.’”

Another issue described by food banks was when partnerships were established by upper management, there was resistance from those administering the program because of changes in workflow and administrative processes.

“the issue with the clinics is, we got the buy-in and everything from [leadership], and then like the actual day-to-day stuff at the clinic, wasn’t always the smoothest. So, it’s essentially you hear from way up here, ‘Hey, you’re going to do this program.’...and then it’s like it’s going to change all of these processes in your clinic.”

Informal Referral Processes.

An area that many food banks identified as a challenge is the lack of formal processes for making referrals between healthcare providers and the food bank. While most food banks received referrals from local healthcare providers on an informal basis, many suggested that they wish there was a more formal process for healthcare providers to refer patients in need of emergency food.

“[A] more formal process for our clinics would be helpful, and that means not just picking up the phone and saying, ‘I’m sending so and so over. They need food, and they want to enroll in your program.’ Just a more formal process for the pantry program.”

In addition to formalizing referral relationships, food banks also suggest that they would like additional support to help them identify which clinics are the most interested and appropriate for future partnerships. Currently, much of the networking and outreach for partnerships is done by the food bank, yet little direction is provided on how best to identify local clinics or what practice-based steps are effective for forming partnerships with healthcare organizations.

“[A] more structured process for identifying new clinics and how to get it launched.”

Funding.

In addition to funding to cover staff time, particularly for partnerships that are logistically complex, additional funds are often needed to purchase produce and lean meats that are often included in food distributed through healthcare partnerships. For example, one food bank said we need “funding because we’re going to have to purchase food and having consistent access to those items that people are going to need,

that is going to come with a price tag. That’s certainly something that we’re very well aware of as we move forward.”

Partnership Evaluation

Table 6 lists themes and example quotes related to evaluation. Nearly all interviewees wanted to improve the way they were evaluating their partnerships. Few reported having strategies in place either to assess implementation progress or quantify impact. Some food banks report that they collect limited information to minimize participant burden. Others do collect a variety of outcome measures but do not have the expertise to analyze the data. All interviewees reported a desire to improve their partnership evaluation strategy.

The most robust evaluations were reported by food banks with partnerships focused on serving patients with specific health conditions. However, most of these partnerships felt their evaluation was inadequate, describing challenges related to having to rely on their healthcare partners for health outcomes data and lack of analysis support. Many mentioned a perceived need to demonstrate health impacts to sustain funding but did not have a clear path forward to obtaining the desired evidence.

Food banks were also very interested in documenting impacts other than health outcomes, such as reduced food insecurity and improvements in mental health. As one interviewee explained, “Is it helping in any way to [reduce] worry about where the next meal is going to come from...not just the clinical aspect of it, we want to know how the emotional aspect of it, the mental aspect of it.” However, most felt limited in their ability to collect and analyze data beyond the standard output measures that have historically been used by food banks (e.g., numbers of clients served, pounds of food distributed).

Table 6. Partnership Evaluation Themes

Theme	Sample quotes
Figuring it out along the way	“we just started this program because we thought it would be great, but maybe now we should really see what the outcomes are or how has this, but we'll track things like the poundage out. But beyond that, I mean, we hadn't really... Somebody said, ‘Hey, do you want to do this?’ And we're like, ‘Sure, we'll do it.’”
Challenges defining appropriate measures	“how do you select and focus on a set of outcomes, as a food bank, when most people will sort of assume, good stuff will come from doing those things. But is good stuff coming from doing those things? So, I think that is an area where we struggle.”
Challenges with data collection & analysis capacity	<p>“We're just tracking the demographics and we find if we get too intrusive, it can turn people away...sometimes ‘what's your ethnicity’ can tick somebody off...so we just really try to ask the least number of questions that we can.”</p> <p>“So, we essentially have all that data, but no one is managing that data, is what's been the issue... Because it was like, the clinic didn't necessarily have the time to collect all of that data. The food bank didn't have the access to that data. Neither place had the skillset to analyze that data.”</p> <p>“So, I feel like in order to really evaluate both process and outcomes, for a program as big as Food Rx, it needs to be a research project, which we don't have that ability to do that internally at the food bank.”</p>
Most robust evaluation in programs focused on chronic disease management	“For those enrolled in the food prescription program because that program it's not for everybody in the sense that this program is targeted for people with chronic conditions... [the healthcare partners] have the information, so at the beginning they do baseline, A1c, BMI, blood pressure. Every quarter they do another follow up to see if there's a difference in clinical outcomes of this patient enrolled in the food prescription program.”
Demonstrating health outcomes linked to sustainable funding	<p>“[Health plans] really want to know if we can improve the patient's health outcomes. So, can we prove that they have a better hemoglobin A1C? Can we prove that they have a better LDL-HDL ratio? Can we prove that these specific health conditions were improved by doing this work? And we're just simply not there yet. We have pointed to work in other parts of the country, but they want to see local data.”</p> <p>“I think [our healthcare partner's leadership] want to see more outcomes...I think they want to see that they're preventing people from coming to the ER, from being in crisis the first time they see them, they kind of want to catch it on the front end. And so, I think they're trying to figure out, are they making a difference with these type of programs.”</p>

Fiscal and Food Resources

Food banks rely on a range of fiscal and food resources to support the various programs that they offer. Fiscal and food resources come from state and federal programs, foundations, managed care organizations, local government support, and private donations. Food banks vary widely in terms of their resources and fiscal needs. Food banks' budgets vary from \$20 to \$398 per food insecure person in their catchment area. While the focus of a food bank's budget is food, there are a variety of other costs that impact budgets. Transportation and storage of food are a significant cost to most food banks, particularly for those with large catchment areas. Because the focus of a food bank's budget is to get food, safely store it, and transport to those that need it; many food banks are operating with a lean staffing structure.

Food Resources.

Two primary food resources were discussed during interviews. The first is The Emergency Food Assistance Program (TEFAP)(10). TEFAP is a federally administered program through the Department of Agriculture. This program sources surplus commodity foods from growers and producers across the country. Foods include minimally processed fruits, vegetables, grains, and proteins that are either packaged fresh, frozen, or canned. TEFAP program food is ordered directly from the USDA through an allotted credit provided to each food bank. For many food banks in Texas, TEFAP foods make up most of the food that they distribute. The impact of TEFAP funding on the overall annual operating budget of the food bank varies widely. This funding source is between 6 to 90% of all governmental grants that the food bank receives and 2 to 9% of the food bank's total annual budget. Although this program makes up a small proportion of food bank budgets, TEFAP food can be purchased so cheaply that it provides a large percent of the food that is distributed by food banks.

To be eligible to receive TEFAP foods, individuals only need to meet income guidelines (to which they self-attest) and provide demographic information to the food bank. However, because there are data collection requirements, some food banks said that they do not

use this source of food in their healthcare partnerships. As one interviewee stated: "I think with USDA, they have their own rules. They have their own reporting.... We want to work with healthcare partners, but we don't want to be too overwhelming." Nevertheless, TEFAP foods remain one of the most cost-effective ways to support access to high quality foods.

An additional program that provides food resources to food banks and is specific to Texas is the Texans Feeding Texans – Agriculture Surplus Grant Program(11). This program is administered by the Texas Department of Agriculture (TDA) and allows for the purchase of surplus produce from Texas growers at cost. This program provides financial relief for farmers and high-quality produce to food banks. Feeding Texas receives funds for this program from TDA and distributes them to food banks. While this program has the potential to be a consistent source of low-cost produce, it is minimally funded. The total 2-year budget for this program is less than \$6 million.

Education Resources.

The primary source of funding for nutrition education services provided to food bank clients is from the Supplemental Food Assistance Program – Education (SNAP-Ed) Grant(12). SNAP-Ed is administered by the United States Department of Agriculture as part of the larger Supplemental Food Assistance Program (SNAP) that provides food resources to low-income families. SNAP-Ed grants are block grants that are distributed to the state. In Texas, the Health and Human Services Commission (HHSC) receives the funding and then distributes to Feeding Texas, who redistributes to the food banks. SNAP-Ed requires that funds are spent on staff time or educational resources. Food is not allowed to be purchased with SNAP-Ed funds. In 2020, 18 food banks received SNAP-Ed funds. These funds are used for educational materials, travel, and education staff.

Grant Funding.

There are three primary grant funding streams leveraged by food banks for their healthcare partnerships: 1) Managed Care Organizations (MCOs), 2) foundations, and 3) county government support. Various food

banks reported financial support from MCOs to specifically support their food bank-healthcare partnerships. Most often food banks reported that this funding was to be used for initial startup costs, such as providing refrigeration and safe food storage for the healthcare partner, direct food purchases for food bank-healthcare programs, or was used to cover the partner service fee required by community partners of food banks. For example, if the healthcare partner become an on-site food pantry, they are charged a nominal service fee for each box of food distributed at their location. Another source of funding for food banks came from health focused foundations in Texas. This funding was reported by food banks to often be time limited, such as 2-3 years of funding. The final source of grant specific support mentioned across food banks was from county-level government. County government provided direct financial support for specific food bank programs.

Sustainability

Sustainability of food bank-healthcare partnerships can be difficult to achieve, yet many partnerships across the state have found strategies to support partnership longevity. Results suggest that if food banks and healthcare can integrate partnership programs into existing food bank programs and operations, partnerships are more stable and likely to be sustained. For example, if a food bank and healthcare partner establish an onsite food pantry that leverages existing food bank ordering platforms, delivery schedules, and nutrition education, the food bank saw this as a more long-term program compared to programs that were developed uniquely for the healthcare partner. Additionally, if food banks leverage existing federal funding and state funding to support partnership programs, they were less likely to worry about substantiable food sources for the program. Specifically, when food banks used TEFAP eligible foods to supply partnership programs the funding of programs appeared more sustainable.

While federal and state funding are the most consistent and reliable forms of funding, philanthropy and one-time grants were important to the initial establishment of food bank-healthcare partnerships, particularly when they serve as an 'on ramp' to existing food

bank programs. For example, one-time funding can provide the necessary supplies to build an onsite food pantry at a healthcare partner site or develop electronic referral systems that streamline patients accessing the food bank programs such as SNAP assistance, emergency food, or nutrition education.

To date, no food bank to our knowledge leverages insurance or Medicaid reimbursement for their chronic disease management programs, yet some of these specialty programs qualify as reimbursable services. To better leverage this sustainable source of funding, food banks likely need additional administrative support to complete the steps necessary to become eligible for medical billing.

How Partnerships are Supporting Population Health

Partnerships between food banks and healthcare are supporting population health through three main pathways:

1. Tightening the Safety Net

Providing strong connections between services that support individuals and families is at the heart of food bank-healthcare partnerships. By partnering, food banks and healthcare organizations have the potential to tighten the safety net of social services available within the community. The phrase 'tighten the safety net' refers to strengthening connections between programs that provide essential social services, such as access to emergency food resources and health care. By improving the connection and referral quality between these two sectors, those in need of support are more likely to receive it.

Each partner can be a gateway to other social service care programs and resources. For example, every food bank in Texas is a social service coordinator that will assist individuals with applications for social benefits programs such as SNAP. By working together and creating stronger referral connections, both food banks and healthcare can be more successful in connecting clients or patients with needed resources.

Partnerships also have the potential to increase access to health education and direct services. While it will depend on the goals and strength of the partnership, food bank-healthcare partnerships have the potential to provide increased access to nutrition education and primary care. The most common kind of nutrition education identified included general nutrition education focused on healthy eating, using ingredients provided in emergency food boxes, cooking strategies, or education focused on specific nutrition related chronic disease conditions such as diabetes. Further, these partnerships have the potential to increase access to primary care through provision of health care services at food distribution points or referral from food banks to local health care providers.

The idea of tightening the safety net is also something that will support a common goal of food banks to ‘shorten the line.’ This idea of shortening the line (rather than only feeding the line) translates into efforts such as supporting clients through application assistance for social programs, workforce training, or referrals for other social care programs, so that they do not need to access emergency food services.

“So, for us shorten the line is anything... medical, workforce development, financial coaching, those sorts of things, efforts that help not just feed the line but shorten the line.”

2. Catalyzing Food Bank Movement Toward More Nutritious and Healthful Foods

Food banks are using healthcare partnerships to support the ongoing movement within the charitable food system to provide more nutritious foods such as fruits and vegetables, lean protein, fresh dairy products, and whole grains. Food banks recognize that these are the foods that healthcare providers are seeking for their

patients. Food banks believe the development and building of partnerships with healthcare will support their goals of purchasing, receiving, and distributing more healthful foods.

“[I] think the underline factor behind all them is, the food bank also wanted to go towards that line of increasing the poundage of nutritious food. And this is one way of doing that. With this program, you can easily ensure that you’re giving out nutritious food. All I give out is just healthy options nutritious for them. This is a way of also making sure that we’re increasing what we’re giving out is much more nutritious food.”

“We proceeded down the path more profoundly around healthcare partnerships, it was of course in complementing our work around the nutrition. So, we really focused in a couple key areas. We decided to try to tackle our internal policies around nutrition and establishing a policy for the food that we were distributing in the community.”

3. Enhancing Chronic Disease Management for Patients Experiencing Food Insecurity

Food bank-healthcare partnerships are also able to impact population health by providing much needed support for patients experiencing food insecurity and chronic diseases. Food banks are particularly well-suited partners to healthcare because of their deep experience working with low-income populations and ability to provide both relevant nutrition education and nutritious foods, and to tailor the education to the needs of low-income populations.

Recommendations

Drawing on our interviews with all 21 Texas food banks and reviews of existing resources, we offer the following recommendations to create sustainable food bank-healthcare partnerships across Texas that can positively impact both food security and health.

1. Leverage core food bank practices and available resources

- a. All food banks interested in partnering with healthcare should have an established training on screening for food insecurity and an efficient process for connecting patients experiencing food insecurity with existing food bank resources.**

Building partnerships around existing resources and services is the best route to scalability and sustainability. All Texas food banks provide two key services: 1) access to minimally processed foods from TEFAP and other sources; 2) assistance enrolling in the Texas Supplemental Nutrition Assistance Program (SNAP) and other benefits programs. Food banks and their partner pantries are well-established and efficient sources of emergency food for people experiencing food insecurity. TEFAP – the backbone of the charitable food system – is a consistent source of a variety of minimally-processed foods including fruits, vegetables, meats, beans, nuts, and dairy products. All Texas food banks provide clients with assistance enrolling in benefits programs, including SNAP.¹ One in four eligible Texans is not enrolled in SNAP, one of the lowest participation rates in the country. Narrowing this gap in Texas will help decrease food insecurity in our state.

Maximizing use of these existing resources by engaging clinics – including all community health clinics – in a screening and referral partnership is a prudent, sustainable strategy to impact food insecurity in patient populations. Further, such partnerships are the least complex of all partnerships. Interviews with food banks suggested that the most sustainable,

well-functioning partnerships were those that were the least complicated and most integrated into the existing workflow and processes of the food bank. When programs are tailored to each healthcare partners needs without consideration for the food banks capacity, staffing, and ability to manage custom partnerships, sustainability and evaluation often suffer.

- b. Community health clinics interested in addressing food insecurity should consider becoming a food bank partner agency to facilitate access to healthy foods for their patients and others in their communities.**

Becoming an agency partner can take a variety of forms including embedding a food pantry in a health clinic, establishing regular emergency food box distribution, or becoming a site for mobile food distributions, as each is an example of leveraging food bank core practices. Becoming an agency partner further ensures that healthcare partners have the necessary trainings and workflow needed to identify patients experiencing food insecurity and provide direct connections to emergency food resources while working within core practices of the food bank. In addition to facilitating access to emergency foods by health clinic patients experiencing food insecurity, clinic facilities are excellent locations for community access. Clinics are typically located in an area that is easy to access and open more hours than many other pantry locations. Further, accessing a food pantry in a community health clinic may have less stigma than accessing food pantries in other settings, such as churches.

- c. Food banks interested in providing support for patients with chronic diseases should consider establishing an accredited diabetes education program and systems to bill insurance, including Medicaid.**

Many food banks are interested in offering specialized programs for healthcare partners that will lead to measurable health outcomes. The need for diabetes

1- Each food bank in Texas has at least one Social Service Coordinator funded through Texas Health and Human Services to provide enrollment assistance into state and federal benefits programs, including SNAP and Medicaid.

2- The U.S. Centers for Medicare & Medicaid Services (CMS) has authorized two organizations, the Association of Diabetes Care & Education Specialists (ADCES) and the American Diabetes Association (ADA), to grant accreditation or recognition. ADCES uses the term accreditation, while ADA uses the term recognition. For more information, see: <https://www.cdc.gov/diabetes/dsmes-toolkit/accreditation-recognition/index.html>

education programs is high, the evidence-base for such programs is strong, and accredited² programs are billable to most insurance programs, including Medicare and Medicaid. Food banks may be particularly effective in serving diabetic patients who are also experiencing food insecurity, by combining education with access to healthy foods.

Although establishing systems within the food bank to bill insurance is arduous, and alternative funding will be needed for uninsured patients, the fact that Medicaid does reimburse for diabetes education provides a foundation of support for this widely needed service. Healthcare reimbursement can provide sustainable funding for a portion of a certified diabetes educator's salary and create stability for the food bank's education programs. Further, given the current push for Medicaid to expand coverage of social needs-targeted care, it would be prudent to take the fullest advantage of an existing Medicaid-covered service.

2. Build evaluation around outcomes that are partnership and food bank mission-aligned

a. Food banks should focus program evaluation on realistic outcomes aligned with goals of the program.

Most models and iterations of food bank-healthcare partnerships being implemented across the state are seeking to provide access to foods for individuals and families that normally do not access food bank services. Yet, when asked about outcomes they would like to assess, food banks often turned to individual health behaviors or clinical markers of health. Given that the case for food bank-healthcare partnerships has been built on the connection between food insecurity and health outcomes, it makes sense that food banks want to show that partnerships are worthwhile by demonstrating health-related outcomes. Further, demonstrating a return on investment in the form of health outcomes is seen as a path to sustainability through healthcare financing.

In reality, the food bank-healthcare partnerships most likely to lead to improved health outcomes are ones that focus on a specific, high-risk population such

as people with uncontrolled diabetes, where a path to measurable health outcomes is fairly short (i.e., improvement in HbA1c). Returning to the underlying premise of food insecurity as a social determinant of health, an exclusively narrow focus on the most high-risk populations is missing the upstream, life-course perspective that is central to the social determinants of health framework.

b. Build evaluation with mission-aligned outcomes to provide meaningful measures that support the overall goals of the food bank.

Partnership and food bank mission-aligned evaluation metrics are ones that focus on measures of successful partnership implementation and patient/client engagement with food bank resources. For example, evaluation measures on the food bank side could include expanded geographic reach, increase in families enrolled in SNAP, or percentage of healthcare-referred patients who access food pantries. Evaluation measures on the clinic side could include provider self-efficacy to counsel patients experiencing food insecurity and percentage of eligible patients enrolled in SNAP. Partnerships that do aim to demonstrate health outcomes or changes in dietary behaviors must be designed specifically for that purpose and target populations most likely to experience short-term changes. Engaging an academic partner at the planning stages can help bring needed expertise and resources for evaluation.

c. Spend time and attention on building the partnerships goals and objectives to allow for more effective program evaluation.

When presented with an opportunity for new partnership, most food banks are eager to begin and figure it out as they go along. This approach may be necessary if funding does not support adequate planning time. However, when partnerships can invest time upfront to set realistic goals and outcomes that are aligned with the overall mission of reducing hunger in communities, they are more likely to be manageable and sustainable. Further, developing partnerships with intentional goals and objectives will help document the range of benefits such partnerships can create, which is needed to continue to strengthen resources for communities.

3. Facilitate systems changes to allow all food bank/ food pantry clients access to nutritious foods that support health

All food bank clients would benefit from having access to the types of nutritious foods that healthcare partners desire for their patients. Improving the nutritiousness of the foods distributed through food banks and pantries will have the greatest impact on population health, will simplify partnerships by reducing the need for specialized prescription-type programs with enhanced food boxes and special distribution for healthcare-referred patients, and will increase the scalability of partnerships. This will also reduce the potential unintended consequence of increasing inequities by providing access to more nutritious foods only to people who have a healthcare referral.

a. Support initiatives that increase nutrition in food banking.

Feeding America and Healthy Eating Research have produced a range of evidence-based resources that food banks throughout the country are using to increase the nutritiousness of the foods they and their partner pantries distribute. Many Texas food banks are using these resources to help transition their pantry partners to “healthy pantries.” Ensuring that all Texas food banks have the necessary financial support to facilitate these transitions should be a priority for any funder interested in supporting food bank – healthcare partnerships.

b. Improve access to produce and lean meats by food banks and pantries and increase cold storage capacity.

Food banks frequently sought to provide food boxes with produce and lean meats through their healthcare partnerships. Often these foods had to be purchased with philanthropic funding to supplement foods available within the food bank. Food bank staff talked specifically about needing to purchase lean meat (i.e., lean ground beef) for distribution to clients referred by healthcare. Other forms of lean protein, such as beans and low-fat dairy, were perceived as readily available within the food bank.

Food banks mentioned several Texas programs that helped provide access to these types of foods. Expanding these programs would help increase access to these sought-after foods and facilitate food bank-healthcare partnerships:

Texans Feeding Texans – Surplus Agricultural Products Grant Program was established to provide a direct route for surplus agricultural products in Texas to food banks and other charitable food organizations. This program is administered through the Texas Department of Agriculture. Funds are then provided to a non-profit agency (Feeding Texas) to administer the purchasing, transportation, and distribution of Texas grown surplus agriculture products from farmers to food banks in Texas. During interviews, multiple food banks mentioned this program as a key source for produce in both traditional food bank distributions as well as distributions with local healthcare organizations. They also mentioned that was very limited. This state-funded program has the potential to provide much more impact with additional funding.

Collaborative for Fresh Produce (CFP), a multi-state collaborative that grew out of a pilot project of Feeding Texas, works directly with growers to source fresh produce that would be rejected by retailers. CFP obtains the produce at low or no cost and distributes to its member agencies. This program was also mentioned by food banks as a valuable but limited source of produce.

Hunters for the Hungry, a program administered by Feeding Texas, distributes donated venison to Texas food banks. Hunters drop off legally tagged, field-dressed whitetail or mule deer to participating meat processors. The partner processors prepare the venison for distribution through local food banks. As of January 2022, 29 processors were listed on the Feeding Texas list of registered processors, serving just nine of the 21 Texas food banks. Several food banks mentioned that this program has great potential for expansion, particularly in rural communities.

4. Texas Medicaid should incentivize the screening of social determinants of health, including food security.

HHSC is currently developing policies to include screenings for social determinants of health, including food security, as part of Texas Health Steps preventive medical checkups for children (birth to age 20) covered through Medicaid and Children's Health

Insurance Program. Policy implementation is tentatively set for Fall 2022. HHSC should consider expansion of these policies to benefit all Medicaid covered populations.

CONCLUSION

Food bank-healthcare partnerships provide a significant benefit to community and population health across all types of models identified. Implementation challenges of partnership exist, yet food banks remain steadfast in their commitment to forming partnerships with healthcare. To move toward more sustainable programs, refinement and alignment of existing food bank-healthcare partnerships with core food bank practices and partnership evaluation built around realistic and mission-aligned goals. Ultimately, food bank-healthcare partnerships can help create systems change that will allow all clients increased access to foods supportive of health.

REFERENCES

1. Coleman-Jensen A, Rabbitt M, Gregory C, Singh A. Household Food Security in the United States in 2017. Washington, DC: US Department of Agriculture, Economic Research Service; 2018.
2. Thomas MM, Miller DP, Morrissey TW. Food insecurity and child health. *Pediatrics*. 2019;144(4).
3. Banerjee S, Radak T, Khubchandani J, Dunn P. Food insecurity and mortality in American adults: Results from the NHANES-linked mortality study. *Health promotion practice*. 2021;22(2):204-14.
4. National Academies of Sciences E, 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; 2019.
5. Council on Community Pediatrics, Committee on Nutrition. Promoting food security for all children. *Pediatrics*. 2015;136(5):e1431-e8.
6. American Academy of Family Physicians. The EveryONE Project Unveils Social Determinants of Health Tools 2018 [Available from: <https://www.aafp.org/news/health-of-the-public/20180109sdohtools.html>].
7. Feeding America. Addressing Food Insecurity in Healthcare Settings [Available from: <https://hungerandhealth.feedingamerica.org/explore-our-work/community-health-care-partnerships/addressing-food-insecurity-in-health-care-settings/>].
8. Feeding America. Toolkit: Partnering with Health Care to Impace Hunger and Health. 2019.
9. Hager ER, Quigg AM, Black MM, Coleman SM, Heeren T, Rose-Jacobs R, et al. Development and validity of a 2-item screen to identify families at risk for food insecurity. *Pediatrics*. 2010;126(1):e26-32.
10. United States Department of Agriculture. The Emergency Food Assistance Program 2022 [Available from: <https://www.fns.usda.gov/tefap/emergency-food-assistance-program>].
11. Texas Department of Agriculture. Texans Feeding Texans - Agricultural Surplus Grant Program 2022 [Available from: <https://www.texas-agriculture.gov/GrantsServices/TradeandBusinessDevelopment/SurplusAgriculturalProductsGrantProgram.aspx>].
12. United States Department of Agriculture. Texas State SNAP-Ed Program 2022 [Available from: <https://snaped.fns.usda.gov/state-snap-ed-programs/texas>].