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Food Bank-Healthcare Partnerships in Texas: Cultivating Sustainable Partnerships with Population Health Impact

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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 these partnerships. Interviews with staff from all 21 food banks in Texas were conducted and a report entitled *Food Bank-Healthcare Partnerships in Texas: Cultivating Sustainable Partnerships with Population Health Impact*, was released in May 2022 summarizing findings from the interviews and providing recommendations to cultivate sustainable partnerships with population health impacts. A major finding of those interviews was that these partnerships were not being evaluated or partners failed to evaluate because the goals of their project did not match the evaluation metrics they were tracking.

This Evaluation Guide was developed to help current and future food bank healthcare partnerships develop goal-oriented evaluations that help move their partnerships forward. This guide aims to provide practical guidance to food bank and healthcare personnel on how to evaluate their partnerships. This guidance was created with a focused lens on the types of partnerships seen in Texas and draws on interviews with food banks and recommendations presented in *Food Bank-Healthcare Partnerships in Texas: Cultivating Sustainable Partnerships with Population Health Impact*.



SUMMARY OF FINDINGS FROM INTERVIEWS WITH TEXAS FOOD BANKS

Types of 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:

1. Food insecurity screening and referral to standard food bank resources
2. Emergency food distribution at or near a healthcare 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

These are not mutually exclusive categories. For example, a partnership may provide emergency food distribution at a clinic and referrals to other food bank resources. Each of these partnership types are described in greater detail in the *Potential Evaluation Measures* section, along with potential evaluation measures for each type.

Reasons for Partnering

Each food bank had their own perspective on partnering with healthcare, yet there were three frequently suggested reasons why food banks wanted to partner with health care:

- Opportunity to expand access to more populations facing food insecurity (most frequently mentioned reason)
- Would help to facilitate an overall shift towards being more health-supporting as an organization
- Belief in the underlying premise that such partnerships can support health

Given the emphasis food banks placed on the idea that healthcare partnerships are an important way to reach new populations, measures related to reach are emphasized in this resource.



Challenges to Evaluation

All food banks expressed interest in evaluating their partnerships, but interviews suggested that food banks were uncertain how to get started or what to measure. They also felt pressure to demonstrate that the partnership led to measurable health outcomes. In fact, food bank staff generally responded to questions about partnership evaluation as though equating evaluation with measuring health impacts.

Additional barriers to evaluation included:

- Barriers to individual-level data-sharing (patient privacy)
- Unwillingness to burden healthcare or clients with unnecessary data collection
- Mismatch between what is being provided and anticipated outcomes (i.e., health outcomes)
- Not knowing what to measure or how to measure the potential partnership effects
- Data analysis limitations – not having time or expertise to conduct analysis

The challenge of individual-level data sharing was widely mentioned by food banks as a barrier to evaluation. Therefore, this guide specifically highlights evaluation strategies that do not require individual-level data sharing.



EXISTING RESOURCES TO SUPPORT PARTNERSHIP DEVELOPMENT

The evaluation plan is one component of an overall partnership development plan. The following two resources provide valuable guidance for developing food bank – healthcare partnerships:

Feeding America: Hunger + Health Toolkit – Food Bank-Health Care Partnerships

Feeding America released a toolkit in January 2022 that serves as a foundational guide for food banks working to build partnerships with healthcare organizations within their communities to improve food security and wellness among individuals (Smith et al., 2022). This guide is available to all food banks of the Feeding America network, or upon request. This resource is well designed, thorough, and from the perspective of food banks. Content focuses on assessing readiness and capacity for forming partnering with healthcare organizations, as well as key considerations for developing an action plan and preliminary steps to developing an evaluation strategy. To build on the evaluation information provided in the tool kit, this resource extends the focus on evaluation of food bank-healthcare partners.

Texas Safe Babies: Working with Healthcare Guide

Texas Safe Babies has created a guide entitled, “Working with Healthcare Guide.” This guide was created out of data collected for this project, Cultivating Food Bank-Healthcare Partnerships, as well as other Texas Safe Babies projects. The guide covers a wide range of topics that are helpful when beginning to work with healthcare such identifying types of partnerships, the importance of mapping out partnership responsibilities, as well as identifying readiness among partners and training needs to support the partnership. This guide will be the most helpful for food banks in the very initial stages of identify what kind of healthcare partnership would be the most appropriate for them. It is available upon request from Texas Safe Babies.



PLANNING AND EVALUATION TOOLS FOR FOOD BANK – HEALTHCARE PARTNERSHIPS

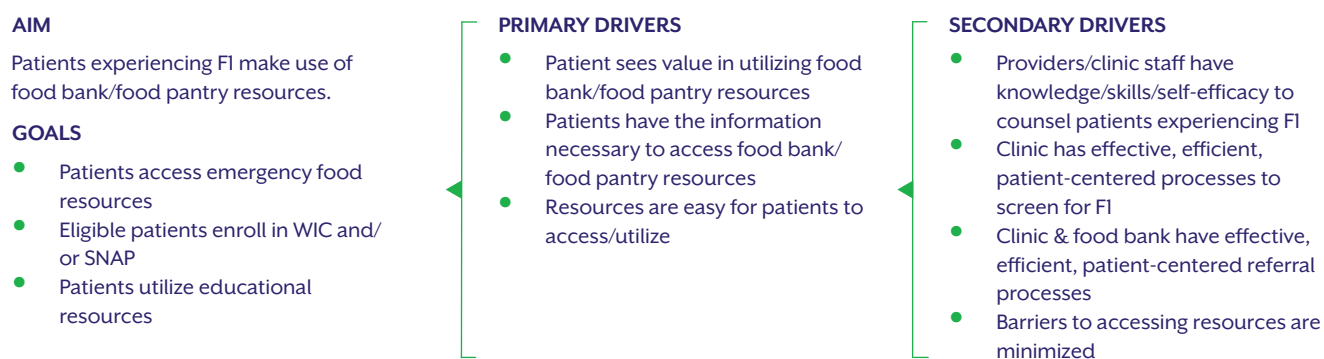
This guide incorporates two widely used tools for planning and evaluation of public health interventions, the RE-AIM Framework and the driver diagram. The RE-AIM Framework is a model that has been used in variety of settings to improve the adoption and sustainable implementation of evidence-based interventions in a variety of settings. A driver diagram is a tool to illustrate partnership goals and *key drivers* that your partnership seeks to influence. This guide offers suggestions for using both of these tools in planning and evaluating food bank – healthcare partnerships.

Driver Diagrams: A Tool for Planning and Implementation Evaluation

A driver diagram is a tool to illustrate the relationship between partnership goals and key drivers - important contributing factors - that your partnership seeks to influence (Bialek, Moran, Kirshy, 2015). A simple driver diagram for a screening and referral partnership is shown in Figure 1. Note that each of the secondary drivers in the sample driver diagram is multifaceted. Driver diagrams often include a more detailed list of secondary drivers. This sample is meant as a starting point for conversation in your partnership. Resources on developing and using driver diagrams are given in the additional resources section.

During the planning process, a driver diagram can help partners get on the same page, identify points of intervention, and determine activities that each partner will take address the identified drivers. It can also help your partnership monitor ongoing implementation, quality improvement efforts, and establish measures of implementation (see RE-AIM section below) to include in your evaluation plan. Partnerships do not need to create measures for every driver. You may choose to focus on just 1-2 that are important to each partner and are practical to measure.

Figure 1. Sample Driver Diagram: Healthcare Food Insecurity (FI) Screening and Referral Partnerships



The RE-AIM Framework

The RE-AIM Framework (RE-AIM, 2022) aims to guide the planning and evaluation of interventions according to five key dimensions, described below in terms relevant to food bank – healthcare partnerships:

1. Reach: the absolute number, percentage, and/or characteristics of people who are engaged or participate in some way
2. Effectiveness: the extent to which partnerships impact participants
3. Adoption: number and percentage of settings and/or staff who participate
4. Implementation: the extent to which the partnership is operating as intended
5. Maintenance: the sustainability of the partnership over time

Each of the RE-AIM dimensions can be valuable elements of an evaluation plan. It is not necessary to include them all. Partners can discuss which dimensions are most relevant to their partnership and practical to measure. Examples of measures for the different dimensions for each type of partnership identified through interviews with food banks are provided later in this guide.

Defining and Measuring Effectiveness

The dimension that is often thought of first when it comes to evaluation is *effectiveness*. Effectiveness is the most challenging dimension to assess. Food bank staff generally assumed that evaluating effectiveness meant assessing whether the partnership was reducing food insecurity, increasing diet quality, or improving health outcomes. Answering such questions requires resources, processes, and expertise that are not readily available to food banks or their healthcare partners. These questions are best answered through funded experimental or quasi-experimental research studies. Many such studies have already been conducted, and others are underway. For example, positive impacts of SNAP enrollment on food security and health are well-established, and evidence demonstrating impacts of screening and referral to produce distribution on food security and health is growing (Cavaliere, 2021).¹

While research studies are underway to measure and understand partnership impacts on food security, diet quality, and health outcomes, the partnerships can and should work to assess their effectiveness at connecting target populations with resources. If the partnership has not succeeded in connecting target populations with food bank resources, it will not impact food security, diet quality, or health. Establishing a meaningful and practical measure of effectiveness may not be possible for all partnerships. However, an evaluation focused on other RE-AIM dimensions can still yield valuable information for partners, funders, and others engaged in similar work.

¹For a recent summary of the existing evidence demonstrating impacts of food bank and healthcare partnerships on food security, diet quality, and health outcomes, see Cavaliere, B. N., Martin, K. S., Smith, M., & Hake, M. (2021). Key Drivers to Improve Food Security and Health Outcomes: An Evidence Review of Food bank - health care partnerships and Related Interventions. Available at: <https://hungerandhealth.feedingamerica.org/resource/food-bank-health-care-partnerships-evidence-review/>



CONSIDERATIONS FOR ASSESSING PARTNERSHIPS

Have goals of the partnership been co-defined?

All partnerships should agree upon goals and those goals should be clear between partners. This co-development of goals will ensure that both partnerships understand the intentions and reasons behind partnering with each other, the capacity of each partner, as well as provide accountability for partnership involvement. Identification of goals will also provide a roadmap for evaluation of the partnership.

Particular attention should be given to partnership goals and objectives that are realistic and measurable. Together, the food bank and healthcare should critically discuss what direct, realistic change their partnership may bring to clients. For example, if a partnership has a primary goal providing a healthy food box to individuals and families that are experiencing food insecurity; a realistic goal might be to increase access to emergency food resources for families experiencing food insecurity. It would not be reasonable to measure individual level biomarkers, such as glucose level or BMI with this kind of partnership, given that its goal is not to impact individual level health outcomes.

Which data needs to be shared?

Food banks consistently report that data sharing across organizations is difficult and at times, impossible due to various issues including lack of staff time manage data specific to the partnership at either organization, limited expertise in data management, or patient privacy concerns. Nevertheless, food bank-healthcare partnerships can develop evaluations without sharing personal or private data.

Primarily, food banks and healthcare organizations should consider measures that will indicate effectiveness and reach within their own organizations. This requires no individual-level data sharing between organizations and will provide each organization with measures important to their own goals. For example, a food bank can determine the number of boxes that are delivered to clients at a pop-up food distribution, while a healthcare partner can determine the number of screenings that were completed. These measures would let both partners how many new clients they were able to reach through the pop-up distribution with health screenings.

When possible, data sharing at the aggregate-level (i.e., at the level of the clinic, pantry, or food bank) can help provide deeper measures of evaluation without the need for individual-level data. To aggregate data at the clinic or pantry level, attention needs to be given to how referrals and connections are made between organizations.



Specifically, each organization needs to be able to identify where the client/patient is coming from. By assessing measures at the aggregate, partners can better identify if their efforts are succeeding. For example, a clinic can assess what percentage of the patients they refer are connecting with food bank resources. Once the partnership has been established, clinic-level measures can be used as part of quality improvement efforts in the clinic and at the food bank.

Is an external evaluator needed?

Some questions may be better answered using research studies or experimental design. These kinds of questions such as the impact of a program on specific health outcomes, on long-term behavior change, or efficacy of the partnership likely need expertise that is beyond the scope of a food bank or healthcare partner. If these are important questions for the partnership, an external evaluation or research partners should be considered to appropriately answer these questions.



POTENTIAL EVALUATION MEASURES FOR (TEXAS) PARTNERSHIPS

Potential evaluation measures are organized by type of partnership (see section on “types of partnerships in Texas for more details) and by RE-AIM framework dimensions. Some of the examples given could be considered a measure of more than one dimension. Consider the framework as a tool to help your partnership generate ideas for meaningful implementation measures. You do not need to include every dimension or put each measure in the “correct” bucket.

1. Pop-up mobile 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. In these types of partnerships, both the food bank and the health care partners may set goals related to reaching new clients/patients. Potential evaluation measures for each RE-AIM dimension are listed in Table 1.

Table 1. Example Evaluation Measures for Partnerships offering Pop-up Events in Community Settings

RE-AIM DIMENSION	EXAMPLE MEASURES/THINGS TO MEASURE
Reach	<ul style="list-style-type: none"> • Total number of participants at the pop-up distribution • Number of participants by zip code or other target population characteristics • Number of referrals to primary care/chronic disease management programs/emergency services
Effectiveness	<ul style="list-style-type: none"> • Number of participants that received emergency food • Number of participants that received health screenings • Number of vaccines given by type • Number of new food bank clients that attended pop-up distribution and later connected with other food bank resources (e.g., SNAP enrollment assistance) • Number of new primary care patients or chronic disease management program participants referred through the pop-up distribution



Table 1. Example Evaluation Measures for Partnerships offering Pop-up Events in Community Settings

RE-AIM DIMENSION	EXAMPLE MEASURES/THINGS TO MEASURE
Adoption	<ul style="list-style-type: none"> • Number of healthcare partners or other community partners who provide services or resources at the pop-up events • Community partners that promote event
Implementation	<ul style="list-style-type: none"> • Cost of pop-up events (time or money) per participant • Consistency of services or resources offered at each pop-up event (e.g., vaccinations available) • Adequate staffing to participant ratios (wait-time for resources) • Qualitative feedback from participants on their experiences and suggestions for improvement • Number of pop-up events • Number and/or qualitative description of promotional activities prior to event • Types of health services offered (screenings, vaccinations)
Maintenance	<ul style="list-style-type: none"> • Partnership length • Sustainable funding sources secured

2. Food insecurity screening and referral to food bank resources

In this type of partnership, food banks provide training to health care partners on hunger, food insecurity, and food bank resources, including emergency food through food pantries, education classes, and assistance enrolling in benefits programs such as SNAP. Healthcare partners then incorporate screening and referral processes into their workflows. These partnerships may establish goals related to connecting patients with food bank resources. (See Figure 1 for an example driver diagram for this type of partnership.) Some potential evaluation measures for each RE-AIM dimension are listed in Table 2.

As an example of impactful, aggregate-level data, if the referral process allows the food bank to identify which healthcare partner referred a client was referred by a specific healthcare partner, clinic-level measures of effectiveness can be calculated. For example, percentage of patients connected to SNAP benefits can be measured if both healthcare partner and food bank document how many patients/clients referrals are received vs. completed and where they came from. If that percentage varies by clinic, quality improvement efforts can be applied to narrow the gap across clinics.



Table 2. Example Evaluation Measures for Screening and Referral Partnership

RE-AIM DIMENSION	EXAMPLE MEASURES/THINGS TO MEASURE
Reach	<ul style="list-style-type: none"> • Total number of patients screened for food insecurity in healthcare settings • Number of patients indicating an interest in food bank resources • Number of new food bank clients referred by healthcare by zip code or other target population characteristics
Effectiveness	<ul style="list-style-type: none"> • Number of new food bank clients referred by health care settings • Number of food bank clients referred by healthcare who complete a SNAP application • Percentage of clinic patients identified as food insecure that access emergency food resources • Of the clients referred by healthcare that enroll in a food bank nutrition education class, percentage who complete the series
Adoption	<ul style="list-style-type: none"> • Number of health clinics that agree to partner with the food bank • Number and/or of providers/staff trained to assess food insecurity and make referrals • Characteristics of participating clinics • Percentage of clinics in an FQHC organization participating in the partnership • Percentage of clinics invited to participate in the partnership that agreed
Implementation	<ul style="list-style-type: none"> • Provider/staff self-efficacy to assist food insecure patients¹ • Number and/or percentage of patients screened for food insecurity during annual visits (or whichever visits clinic planned for screening to occur) • Qualitative feedback from participants on their experiences with screening or accessing food bank resources; suggestions for improvement
Maintenance	<ul style="list-style-type: none"> • Number of clinics that have been partnering with the food bank for over six months • Sustainable funding sources secured

¹ Example self-efficacy questions: I am confident in my ability to engage patients in a conversation about food insecurity; I am confident that I can connect patients to food resources in our community



3. Food distribution at or near healthcare site

This type of partnership 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.

These types of partnerships may establish goals related to connecting patients with food bank resources, particularly emergency food resources. The healthcare partner may have goals related to connecting with new patients, who are coming to access the food resources, but individuals may also need to be connected with healthcare services. Some potential evaluation measures for each RE-AIM dimension are listed in Table 3.

Table 3. Example Evaluation Measures for Partnerships Providing Food Distribution at/near Healthcare Setting

RE-AIM DIMENSION	EXAMPLE MEASURES/THINGS TO MEASURE
Reach	<ul style="list-style-type: none"> • Total number of patients screened for food insecurity in healthcare settings • Number of patients receiving emergency food resources by zip code or other target population characteristics • Number of clients accessing emergency food resources that are not clinic patients (i.e., community members)
Effectiveness	<ul style="list-style-type: none"> • Number of health food bank clients referred by healthcare who complete a SNAP application • Number of patients experiencing food insecurity that did not meet eligibility requirements to participate in food bank programs (i.e., The Emergency Food Assistance Program, TEFAP) • Percent of clinic patients identified as food insecure in the clinic setting that access onsite emergency food resources • Of the clients referred by healthcare that enroll in a food bank nutrition education class, percent who complete the series



Table 3. Example Evaluation Measures for Partnerships Providing Food Distribution at/near Healthcare Setting

RE-AIM DIMENSION	EXAMPLE MEASURES/THINGS TO MEASURE
Adoption	<ul style="list-style-type: none"> • Number of health clinics that agree to provide onsite or near site emergency food distribution • Number of clinics that become partner agencies (food pantries) • Number and/or of providers/staff trained to assess food insecurity and make referrals • Characteristics of participating clinics
Implementation	<ul style="list-style-type: none"> • Provider/staff self-efficacy to assist food insecure patients • Number and/or percentage of patients screened for food insecurity during annual visits (or whichever visits clinic planned for screening to occur) • Qualitative feedback from participants on their experiences with screening or accessing food bank resources; suggestions for improvement
Maintenance	<ul style="list-style-type: none"> • Number of clinics that have been partnering with the food bank for over six months • Sustainable funding sources secured

4. Specialty programs developed for patients referred by healthcare with specific health conditions

These partnerships have a specific focus on providing support for patients with, or at risk for, a chronic disease, such as diabetes mellitus (Type II 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”), and *nutrition-based education classes* with food resources provided at each session. Some potential evaluation measures for each RE-AIM dimension are listed in Table 4.

Partnerships that specifically to help patients better manage a chronic condition are the ones that are most likely to have a measurable impact on health in the short term, and therefore may choose to include health-related effectiveness measures in an evaluation. Partnerships that do want to evaluate health outcomes should plan for adequate time to establish data sharing agreements and processes, as assessing health outcomes will require sharing individual-level data between partners.



Table 4. Example Evaluation Measures for Specialty Programs for Patients with or at Risk for a Chronic Disease

RE-AIM DIMENSION	EXAMPLE MEASURES/THINGS TO MEASURE
Reach	<ul style="list-style-type: none"> • Total number of patients screened for food insecurity in healthcare settings • Number of patients participating in the program by zip code
Effectiveness	<ul style="list-style-type: none"> • Number of participants that completed all components of the program • Number of participants connected with primary care for chronic disease management • Percent of patients given a “food prescription” that pick up the food • Percent of participants that report changes in positive health behaviors
	<ul style="list-style-type: none"> • Percent of participants that report increased nutrition knowledge • Percent of participants that experienced changes in health outcomes (e.g., HbA1c, blood pressure) • Percentage of patients referred to the program that accessed other food bank services
Adoption	<ul style="list-style-type: none"> • Number of health clinics that agree to partner with the food bank • Number and/or of providers/staff trained • Percent of clinics in an FQHC organization participating in the partnership • Percent of clinics invited to participate in the partnership that agreed • Characteristics of participating clinics
Implementation	<ul style="list-style-type: none"> • Provider/staff self-efficacy to assist food insecure patients • Number and/or percentage of patients screened for food insecurity during annual visits (or whichever visits clinic planned for screening to occur) • Qualitative feedback from participants on their experiences with screening or accessing resources; suggestions for improvement • Number of missed healthcare appointments by participating patients
Maintenance	<ul style="list-style-type: none"> • Food bank becoming an accredited diabetes education program • Sustainable funding sources secured (e.g., reimbursement for diabetes education through Medicaid)



CONCLUSION

Those involved in food bank – healthcare partnerships desire meaningful, logistically practical ways to evaluate their partnerships. For most partnerships, an evaluation focused on assessing the extent to which new clients were reached and the effectiveness of efforts to connect individuals with resources is appropriate and realistic. Partnerships that target patients with chronic diseases may also include measures related to health behavior changes or biometric markers in their evaluation plan. Such evaluations would benefit from including external consultants or establishing an academic partnership to assist with data collection and analysis.



INCLUDED REFERENCES

1. Bialek, R., Moran, J., Kirshy, M. (2015). Using a Population Health Driver Diagram to Support Health Care and Public Health Collaboration. Institute of Medicine of the National Academies.
2. Cavaliere, B. N., Martin, K. S., Smith, M., & Hake, M. (2021). Key Drivers to Improve Food Security and Health Outcomes: An Evidence Review of Food bank - health care partnerships and Related Interventions. Available at Available at: <https://hungerandhealth.feedingamerica.org/resource/food-bank-health-care-partnerships-evidence-review/>.
3. RE-AIM. (2022). Improving Public Health Relevance and Population Health Impact. Resource and Tools. Available at <https://re-aim.org/resources-and-tools/> Accessed March 22, 2022.
4. Smith, M., Hager, J., Simmons, T., Kandlur, R. (2022). Toolkit: Food Bank – Health Care Partnerships. Health + Hunger, Feeding America, January 2022. Available to Feeding America partners and upon request to nutritionteam@feedingamerica.org.
5. Mandell, D. (2022) Working with Healthcare Guide. Texas Safe Babies. Available upon request to txsafebabies@utsystem.org.

RELATED RESOURCE

Cates, S., Blitstein, J., Hersey, J., Kosa, K., Flicker, L., Morgan, K., and Bell, L. Addressing the Challenges of Conducting Effective Supplemental Nutrition Assistance Program Education (SNAP-Ed) Evaluations: A Step-by-Step Guide. Prepared by Altarum Institute and RTI International for the U.S. Department of Agriculture, Food and Nutrition Service, March 2014. Available at: <https://snaped.fns.usda.gov/library/materials/addressing-challenges-conducting-effective-supplemental-nutrition-assistance>

