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Approaches for Implementing Healthy Food Interventions in Settings With Limited Resources: A Case Study of Sodium Reduction Interventions in Emergency Food Programs Addressing Food Insecurity

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Abstract

Purpose: This study describes how recipients of the Centers for Disease Control and Prevention funded Sodium Reduction in Communities Program (SRCP) worked with emergency food programs to improve access to healthy food to address chronic conditions.

Design: SRCP recipients partnered with emergency food programs to implement sodium reduction strategies including nutrition standards, procurement practices, environmental strategies, and behavioral economics approaches.

Setting: SRCP recipients and emergency food programs in Washington County and Benton County, Arkansas and King County, Washington.

Subjects: SRCP recipient staff, emergency food program staff, and key stakeholders.

Measures: We conducted semi-structured interviews with key stakeholders and systematic review of program documents.

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Author Contributions

The authors would like to thank the participating SRCP recipients and emergency food programs for providing the data used in this study.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Institutional Review Board

This study was determined not research with human subjects by RTI International's Institutional Review Board.

Analysis: Data were analyzed using effects matrices for each recipient. Matrices were organized using select implementation science constructs and compared in a cross-case analysis.

Results: Despite limited resources, emergency food programs can implement sodium reduction interventions which may provide greater access to healthy foods and lead to reductions in health disparities. Emergency food programs successfully implemented sodium reduction interventions by building on the external and internal settings; selecting strategies that align with existing processes; implementing change incrementally and engaging staff, volunteers, and clients; and sustaining changes.

Conclusion: Findings contribute to understanding the ways in which emergency food programs and other organizations with limited resources have implemented public health nutrition interventions addressing food insecurity and improving access to healthy foods. These strategies may be transferable to other settings with limited resources.

Keywords

community interventions; emergency food programs; food banks; food security; health disparities; nutrition interventions; sodium reduction

Purpose

Populations experiencing food insecurity have higher rates of hypertension, obesity, and type 2 diabetes.[1–6] Food insecurity affected an estimated 11.8% of U.S. households (15 million households) in 2017 and remains a persistent public health problem that impacts low-income communities in rural and urban settings.[7,8] Emergency food programs (an umbrella term for food banks, food pantries, and congregate meal sites) provide food for food-insecure households, and the need for these organizations is becoming increasingly important because of the increase in the number of food-insecure households over the past 2 decades.[9] Emergency food programs receive a large amount of food from federal programs, but the majority of food is either donated or purchased by the programs. For example, in 2020, approximately 1.7 billion of the 6 billion meals provided by food banks (28%) was provided through federal programs.[10,11] Food received from federal program complies with Dietary Guidelines for Americans; food donations often heavily consist of shelf-stable items with large amounts of salt and simple carbohydrates.[12] This poses a challenge for addressing health disparities in chronic disease outcomes among populations that rely on emergency food programs as a primary food source, because addressing food insecurity with foods that are high in salt and simple carbohydrates may increase the risk of hypertension, obesity, and diabetes.[13–16]

Emergency food programs are increasingly including approaches to address chronic diseases such as hypertension and diabetes as part of their mission to address hunger and food insecurity. This development was sparked by the establishment of nutritional requirements federal and state food assistance programs must adhere to as well as growing attention among food advocates promoting access to healthier foods environment for people burdened with food insecurity.[17] In recent years, Feeding America, the largest private U.S. hunger relief organization and supplier to food banks, has promoted a movement to address food

justice defined as “communities exercising their right to grow, sell, and eat healthy food” and also addresses health disparities by removing obstacles to obtaining healthy foods for food insecure populations.[18,19] Some approaches to support long-lasting access to healthier foods in emergency food programs focus on making system-level changes such as modifying procurement practices to purchase lower sodium foods and adopting donation policies to accept healthier foods.[19] Yet, these approaches typically place additional burden on emergency food programs because healthier foods are often more perishable and require changes to food safety practices, distribution, and storage (such as additional refrigeration space).[20] For this case study, we examined how 5 emergency food programs were able to implement these approaches in low-resource environments and how they overcame implementation challenges when implementing sodium reduction strategies as part of the Center for Disease Control and Prevention’s Sodium Reduction in Communities Program (SRCP).

Approach

This study stems from a larger mixed-methods evaluation from 2017 to 2018 of the 8 recipients funded by SRCP to assess recipient’s efforts to reduce sodium intake by helping to create healthier food environments through implementing (1) food service guidelines and nutrition standards (eg, including standards for sodium content for food provided), (2) procurement practices (eg, developing nutrition policies on types of food acceptable for donation), (3) meal and menu modifications (eg, replacing salt with herbs in recipes), and (4) environmental strategies and behavioral economics approaches (eg, changing the floor plan to highlight healthier food options).[21] The 8 funded recipients, including county and state health departments and a research university, implemented these sodium reduction strategies in 8 venues: worksites, hospitals, schools, early childhood education centers, higher learning institutions, restaurants, emergency food programs, and distributive/congregate meals. Each recipient chose 2 venues to focus their interventions.

Part of that initial evaluation included a case study evaluation to examine the implementation of SRCP. During the case study interviews with SRCP recipients and later inductive analysis of interviews, we learned of unique implementation challenges faced by emergency food programs and chose to explore those challenges in more detail. To identify common strategies and facilitators across programs, we used a comparative case study approach of 5 selected emergency food programs partnering with 2 SRCP recipients, where each emergency food program was considered a case. These were the only 2 SRCP recipients working with emergency food programs. We designed the study to include a combination of document reviews (eg, annual performance reports) and interview data to help understand how emergency food programs implemented sodium reduction strategies in these settings and what factors facilitated their efforts. This approach, wherein a case is defined by Stake (1995)[22] as a “bounded system,” can assess variation across organizations and describe diverse implementation models across multiple cases.

Setting

A total of 5 emergency food programs were selected to participate in the study based on the SRCP recipient’s recommendation. The populations served by these 5 programs

varied largely by geographical region. Table 1 includes the racial and ethnic breakdown of populations served in the 5 emergency food programs. The 2 emergency food programs working with University of Arkansas Medical Sciences (UAMS) in rural Arkansas serve predominantly lower-income white and Hispanic clients. The 3 emergency food programs working with Public Health Seattle & King County (PHSKC) in the urban Seattle area serve a more ethnically diverse clientele.

Participants

We used purposive sampling to select emergency food programs cases for the study. We asked recipient staff to identify programs that met the criteria of being small and lowresourced. We defined low-resourced environments as those emergency food programs with few paid staff, limited equipment such as refrigerators to store fresh food, and lack of physical space to display or store food. Implementation science frameworks emphasize the importance of having multiple facilitators for success, including committed leadership, adequate staffing and time, financial resources, champions (eg, individuals who advocate for a program within an organization), and organizational readiness.[23–26] By selecting low-resourced emergency good programs, we sought to better understand how these programs managed to implement changes with fewer of these facilitators for success. We selected emergency food programs working with UAMS which had congregate meals sites in Washington County and Benton County. From PHSKC, we selected 3 emergency food programs from a total of twelve that are food banks in south King County to participate in the study based on the SRCP recipient's recommendation. Having limited funding, these emergency food programs represent a patchwork of different types of resources to provide food and other needed services to clients, including staff and volunteers, federal and state funding and grants from private organizations, external partnerships with diverse organizations, donors, and community gardens and farms (Table 1). All 5 emergency food programs largely rely on partnering organizations, such as larger regional food banks, hunger relief agencies, and advocacy organizations for food donations and support for fundraising, advocacy, and nutrition policymaking. Corporate donations, private gifts, and federal and state funding through grants and emergency assistance programs provide additional resources for purchasing food and equipment and hiring staff.

Methods

To identify common strategies across emergency food programs, we used a comparative case study approach. We defined a case as the individual food bank, food pantry, or congregate meal site. We conducted 8 key informant interviews with 9 individuals that included 3 recipient staff UAMS and PHSKC and 6 staff from the 5 selected emergency food programs.

We developed semi-structured interview guides using a deductive process in which we first identified emerging themes from the initial SRCP implementation evaluation and then used those themes to structure our inquiry around key domains of the Consolidated Framework for Implementation Research (CFIR): the outer setting (eg, the social context) and inner setting (eg, leadership, staffing, resources, and champions) and intervention characteristics (complexity and adaptability).[27] CFIR provides a consistent set of implementation science constructs that are useful for categorizing and understanding implementation strategies and

the factors to be effective. We tailored the interview guides for each respondent based on review of program documents and analysis of interview transcripts from the main SRCP implementation evaluation. Program documents, such as annual performance reports, which detail recipient activities and achievements, helped us identify specific questions for each interview based on what strategies were being implemented and what activities had been conducted. Transcripts from earlier interviews were used as data sources in our analysis and to identify gaps in information about implementation and challenges recipients experienced implementing SRCP strategies in their settings. The interview guides included the following sections: rationale for participating in SRCP; selection of SRCP strategies; managing resources and implementation challenges; gaining staff and leadership buy-in; and institutionalizing SRCP practices. Interviews lasted approximately 30 min, were recorded with the permission of the interviewees, and transcribed for analysis. Participants provided informed verbal consent for the interview. Participants did not receive any incentives to participate in the interviews. Prior to conducting interviews, the project staff received a designation of not human subjects research from the reviewing RTI International's Institutional Review Board.

For data analysis, we used a hybrid deductive-inductive approach, which centered on analyzing emerging themes from recipient and emergency food program partner documents and interviews. To analyze the textual and interview data, we used a deductive approach by coding interview transcripts for each emergency food program using an analytic matrix to categorize information and examples of key constructs.[28] The matrix outlined categories for coding data that included factors each emergency food program considered when selecting SRCP strategies, the strategies that aligned most closely with the organizational structure and could be adapted, strategies for mobilizing resources for implementation and adapting to limited resources, and strategies for sustaining implementation. Within these categories in the matrix, we also documented relevant CFIR constructs. During the inductive phase of the coding process, we compared the matrices by category across emergency food programs, highlighting similarities and differences among the cases to identify emergent themes. In the findings section, we present these themes and describe how they align with the CFIR constructs used to organize our inquiry.

Results

Selected SRCP recipients worked with emergency food programs to develop effective approaches for implementing sodium reduction strategies in settings with limited resources with the goal of improving health. SRCP recipients provided technical assistance, training, and supplies such as kitchen items, lighting, and shelving to support emergency food programs in making environmental and policy changes to increase their clients' access to healthier foods. In this section, we present themes that describe how emergency food programs implemented SRCP strategies, how these practices aligned with CFIR concepts, and how these concepts influenced implementation in these low-resource settings. There were 4 themes that emerged from the inductive analysis: (1) building on the external and internal settings; (2) selecting strategies that align with existing processes; (3) implementing change incrementally and engaging staff, volunteers, and clients; and (4) sustaining changes. We provide detail on each theme below.

Building on the External and Internal Setting

Studies based on CFIR highlight how the external setting (eg, the economic, political, and social context) and the internal setting (eg, organizational culture and values) have significant influence on the effective implementation of a program or intervention.[29] The inner setting of an organization in particular can affect how individuals perceive the importance of an intervention and the extent to which they are committed to making change.[30–32]

Emergency food program staff and SRCP recipients perceived that the external context created supportive conditions for the adoption of SRCP. Several interviewees in this study referenced the national movement toward food justice to address health equity, led by Feeding America and the Food Research Action Center, as an influence on their work to increase access to healthy foods. According to emergency food program staff and SCRP recipients, this national movement provided the conditions for emergency food programs to implement SRCP, because it created a larger conversation and supportive climate for reducing sodium.

> I think most of the whole food bank industry has been shifting over the past… 15 years maybe from the idea that we're just providing calories to the idea that we need to, to be a little more mindful about the kinds of food that we're providing, which coincides with a lot of the research that has come out about, you know, health disparities with those who are food insecure versus those who are not.
>
> - Emergency Food Program Staff

> …I think that a lot of the new [food bank] staff is also coming in with more of a lens of health equity, and "How do we meet the needs of all the different people who are coming to the food bank?"
>
> -SRCP Recipient Staff

Internally, staff from all emergency food programs noted that their organization's commitment to providing healthy foods, core values, and culture regarding promoting dignity and respect for clients supported their choice to engage in SRCP. Emergency food program leaders wanted to be involved in SRCP despite limited resources, because it aligned with their mission and goals for moving away from the social service mentality of a commodity program towards an approach that emphasizes empowerment and individual choice. Emergency food program staff reported that they were concerned with the health conditions and risk factors facing their clients, including hypertension and heart disease, and reported that participating in SRCP was a natural way of improving access to healthy foods for these populations. This finding aligns with CFIR and other studies that show that having committed and involved leaders is a key component of successful implementation.[33,34]

> We don't fix them something that we wouldn't eat ourselves … if you're feeding the public, you want to do more than just fill their stomachs, you just want to do something that's going to be relatively healthy for them.
>
> -Emergency Food Program Staff

> … you sit in our kitchen and you see [clients] with congestive heart failure, high blood pressure, blood sugar issues so I think that … definitely factored into our decision to pursue the sodium reduction.
>
> -Emergency Food Program Staff

Involvement in SRCP was also an effective way for emergency food program leaders to advance strategic relationships with external stakeholders such as corporate donors and health agencies to better serve their clients. Prior to SRCP, several emergency food programs were already working with partners to increase access to healthy foods and SRCP served as an opportunity to build on this work.

> …our food pantry receives weekly donations from, basically, Walmart and Sam's. Their produce that they did not sell, or they're not going to sell, or whatever, so we get a weekly delivery from them.
>
> -Emergency Food Program Staff

Selecting Strategies to Align With Existing Processes

Although the emergency food programs wanted to use SRCP as an opportunity to work towards creating an equitable food environment, emergency food programs still reported resource constraints (eg, limited funding, staff capacity, space, and equipment) that impacted their ability to implement SRCP strategies. For example, emergency food programs had limited resources to purchase lower-sodium foods and had to rely on food donations. Lack of space and equipment such as shelving, refrigeration, and electrical wiring also affected programs' ability to store fresh items such as produce. Therefore, emergency food programs and recipient staff focused on SRCP strategies that could be more easily incorporated into existing processes or practices.

The 2 congregate meal emergency food programs chose approaches that aligned with the availability of foods and the type of space they had to store, prepare, and distribute food. They focused on feasible changes to recipes with donated food such as reducing added salt and butter, adding more herbs and spices, and diluting chicken broth and salad dressings to lower the sodium content. The 2 congregate meal emergency food programs had access to community gardens either at their location or with a partner organization, so they integrated fresh produce alternatives when feasible. They also looked at the overall sodium content of a meal and tried to selectively pair meal components to balance the sodium level.

> Our church also has a community garden. We're really ramping up our community garden and just trying to get more fresh, real, whole foods, to people.
>
> -Emergency Food Program Staff

> A lot of it is in the preparation. We use as much fresh as we can. And of course, that is not something we are able to do often. But more likely if we have a higher sodium item, like we're in chicken country. If we have a breaded chicken tenders, that's what we're having, then we would have a salad and you know another low sodium vegetable or starch to go with it.
>
> - Emergency Food Program Staff

The 3 food pantry emergency food programs focused on behavioral economics strategies vs meal and menu modifications. Prior to SRCP, members of the Southern King County Food Coalition wanted to improve distribution by instituting a grocery store model that would allow more choice for clients and promote dignity by providing a more traditional grocery shopping experience. This approach aligned closely with the emergency food programs mission and desire to address health disparities in this setting.

> And we wanted to get rid of that [the standard approach to food distribution], because it's so painful for people already who don't want to be at a food bank. And now they have to sit in this gross waiting room, and wait for their banana box, that they then have to haul home and try to hide from their neighbors, and it was really undignified and not very respectful.
>
> - Emergency Food Program Staff

> …some of the things that were negative was there was that feeling that the volunteer was giving somebody their food and watching them. So we tried to take those away. Our volunteers switched roles into just being helpers and not distributors of food.
>
> -Emergency Food Program Staff

It was important to consider these strategies within the confines of limited resources such as space and equipment and the types of food available. Strategies focused on low-cost solutions, such as prominently displaying produce and using produce stands rather than bags. As one staff member noted, the new process changed how people shopped; they went for fresh produce first and filled their bags with that before reaching the higher-sodium canned items.

> Before we renovated, our produce area was outside, around the back corner of the food bank, and it often got overlooked because people had already gone through the line, and they were just ready to get out of there.
>
> - Emergency Food Program Staff

These themes are consistent with the constructs of adaptability and complexity in CFIR that highlight how interventions need flexibility so elements, structures, and systems can be adapted to the organization and circumstances.[26,27] Having adaptable interventions with minimal complexity makes implementation more feasible[35,36]; however, having such interventions in low-resourced organizations is particularly important because low-resourced organizations cannot easily accommodate interventions that require additional staffing and infrastructure changes.[37]

Implementing Incrementally and Engaging Staff, Volunteers, and Clients

When implementing sodium reduction strategies in emergency food programs, staff noted that they needed to consider volunteer and staff capacity. Because these settings had limited staff and relied on volunteers, SRCP strategies had the potential to add burden to an already over-burdened system. For example, the 2 emergency food programs with congregate meal sites had limited capacity to develop lower-sodium recipes because they relied mostly on volunteers to prepare food. Therefore, program staff had to consider ways to help volunteers

change existing recipes, address long-held practices of using higher-sodium items such as bouillon and chicken broth to enhance taste, and recruit more volunteers to prepare vegetables and other produce.

> But sometimes, over the winter especially, when we were making a lot more soups and stuff, we have one guy in particular who was really kind of heavy-handed with bullion, so we had to talk about that and back off that a little bit.
>
> -Emergency Food Program Staff

To ensure that SRCP strategies, such as meal modification and behavioral economics approaches worked within these settings, SRCP recipients and emergency food program staff focused on implementing small changes gradually and actively engaging staff and volunteers in the process. This approach is consistent with CFIR and previous studies that have shown effective implementation are more likely when organizations implement goals that are incremental and specific.[38,39] Emergency food programs differed though in that they had to develop small changes that worked with a variety of different front line people (ie, volunteers) where there was sometimes turnover or changes in commitment and roles. These changes included using volunteers to greet customers and to assist customers with finding products.

> We had volunteer feedback sessions. So, we would get the group of volunteers together…to share what our plans were and open it up to ask what their questions are, if they had any feedback, if they had concerns…and collect as much feedback from them as we could.
>
> - Emergency Food Program Staff

Testing or piloting interventions on a small scale also promotes successful adaptation of an intervention by allowing individuals to build on their experience and reflect on changes.[31,40]

UAMS provided examples to emergency food program staff and volunteers about how small changes can be feasible, such as adding half the salt to the recipe, and asked for staff and volunteer input on the changes. They also reinforced how gradual changes could help prevent pushback from clients.

> We had to tell them examples of how we could make these changes feasible for their environment. I think it can be daunting. There's kind of a thought out there that an organization like a university or people in public health are gonna come in and wanna make these massive sweeping changes, and they're gonna be really difficult and really … We try to emphasize small changes add up over time.
>
> - Emergency Food Program Staff

In King County, emergency food program staff actively involved volunteers before rolling out behavioral economic strategies by including them in decisions regarding changes in the floor plan and distribution process that would impact their roles and responsibilities in the food pantry. They also used a "trial and error mentality," where they would test changes and gather feedback from volunteers, staff, and clients that they would use to refine or reset the change. One emergency food program planned on making one larger change each month

(eg, moving the checkout location) to allow for a period to get feedback from volunteers and clients and make adjustments based on their input.

> We wanted to get everybody involved in that process and take ownership and pride in the change which really helped because we've changed little things along the way and any change has always been really difficult and so we wanted everybody to be in process.
>
> - Emergency Food Program Staff

Engaging volunteers not only helped to address staff and volunteer capacity, it also helped with gaining buy-in and willingness to implement the new changes. This finding is consistent with studies in other settings that have shown how having an organizational climate with collective learning and reflection among organizational team members and leaders creates a sense of buy-in that can facilitate successful implementation.[30,32,41]

Sustaining the Changes

Emergency food programs reported that staff and leadership changes made implementing SRCP strategies challenging and also led to concerns about the sustainability of SRCP strategies when institutional knowledge of the changes implemented to reduce sodium could be lost. Emergency food programs adopted several approaches to institutionalize these changes. Institutionalizing changes is a common concept in the implementation literature that occurs through establishing new knowledge and skills, having adequate strategic resources ensuring strong leadership and partner support, and instituting policies and procedures.[32]

For SRCP, staff at all 5 emergency food programs reported using some of the standard approaches that many organizations use to ensure interventions are maintained over time. These approaches included training staff and volunteers, establishing guidelines and procedures for menu modifications, and creating nutrition policies regarding the types of foods that are purchased and donated.

> We also quit taking in donations from a lot of the restaurants. Just so we could manage the sodium levels better, and you know try to start from raw meat when we can.
>
> - Emergency Good Program Staff

However, these standard approaches faced significant challenges in emergency food programs because of their reliance on donated foods. Programs needed to consider the implementation of standardized nutrition policies in light of donor relationships, because they could risk losing donations if they wrote and enforced a strict policy. They prepared policies to satisfy donors while sticking to principles as much as possible and crafted messages to donors about nutrition policies in a way that would not cause a negative reaction or withdrawal of existing donor support. For example, emergency food programs prioritized seeking out healthy foods but not refusing less-healthy options from donors. Programs noted the important partnership that they had with big box stores and a large chicken manufacturing company that provided them weekly with much needed food supplies. To counter less-healthy options like breaded chicken with healthier options like salad to reduce

the overall sodium content of the meal. SRCP recipient staff provided training and technical assistance on how to develop and adopt nutrition policies that included language on the types of foods acceptable for donation. In addition, they built in processes for routinely revisiting the policy with staff and other stakeholders to ensure it met their needs to address access to healthy foods and maintain donor relations.

Across the emergency food programs, staff also recognized the need for donor education as part of creating these policies to maintain the support of existing donors.

> So less of a policy where it's like, "We will bring in foods that meet these nutrient levels," and more aspirational around, "If we have the funds, and how are we gonna craft our messaging, and it's gonna be towards bringing in healthier foods," but not actually saying, "We're gonna refuse any donations of certain products."
>
> - Emergency Food Program Staff

Tailoring the policies to accommodate donors' needs while maintaining use of and preference for lower sodium items is consistent with the CFIR construct of adaptability. Further, in this setting, adapting the intervention also supported implementation effectiveness and ultimately longer-term sustainability.[37,42]

Conclusion

Evaluation results showed that despite the limited resources of emergency food programs, they can implement sodium reduction interventions by building strategies that focus on key implementation science constructs in the internal and external setting to support implementation. We found that emergency food programs implementing SRCP managed their limited resources while improving access to healthy foods by building on the external and internal settings; selecting strategies that align with existing processes; implementing change incrementally and engaging staff, volunteers, and clients; and sustaining changes. These strategies aligned with CFIR implementation constructs that apply in higher-resourced organizations as well, yet also differed. For example, emergency food programs drew upon supportive external and internal setting for implementation success, but also used SRCP to leverage stakeholder support. Similar to other implementation settings,[42,43] having an adaptable and minimally complex intervention promotes success, but emergency food programs differed from other settings in that they also had to consider and accommodate for limited staffing and reliance on volunteers.

Additionally, like in other settings, pilot testing and making gradual changes supported implementation of SRCP strategies,[44,45] but emergency food programs also had to consider ways to gain buy-in from a large group of volunteers that had ongoing turnover.

Although this study focused on emergency food programs, these approaches may be valuable for other under-resourced organizations interested in pursuing public health interventions to improve access to healthy foods among the populations they serve. For example, domestic violence agencies or refugee service organizations could consider adopting flexible healthy donation policies to support wellness among their clients. Additionally, other settings with limited staff can consider using strategies like making

small incremental changes and gaining buy-in of staff and volunteers to address challenges in implementing public health interventions.

This study had several limitations. These findings reflect only five cases in two very different geographic locations and are meant to be illustrative and not generalizable. Moreover, because of emergency food program staffs' busy schedules, we were limited by the amount of time available to interview each participant. To reduce the burden for participants, interviews were kept to <30 min, which may have restricted the depth of information we could glean from individuals. We supplemented interviews with document reviews to reduce burden while also obtaining more information.

The facilitators for implementing strategies to improve access to healthy foods in populations served by organizations with limited resources include building on the external setting (eg, social context) and internal setting (eg, organizational culture); selecting strategies that align with existing processes; implementing change incrementally and engaging staff, volunteers, and clients; and sustaining changes. In today's environment with the rise of the COVID-19 pandemic, more individuals are utilizing emergency food programs to obtain food including those who may be at increased risk for severe illness from the virus due to underlying chronic conditions such as diabetes, obesity and heart disease.[46] Having access to healthy foods is even more important in the current environment to ensure high risk groups can manage their chronic disease conditions.[47] However, emergency food programs relying on food donations or small budgets often opt to rely on shelf-stable items with large amounts of salt and simple carbohydrates, which can increase the risk of hypertension, obesity, and diabetes.[13–16] Therefore, these findings may be of increased importance as emergency food programs seek to improve population health while addressing food insecurity for a growing population.[46]

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So What?

What is Already Known on This Topic?

Food insecurity and lack of access to healthy foods contribute to burden of disease.[48] Emergency food programs are often a main food source for food-insecure populations and are increasingly working to reduce health disparities.[9] Effective implementation of programs involves more than having resources and includes committed leadership, organizational champions, and organizational readiness.[24–26]

What Does This Article Add?

This study explored how implementation of programs to improve access to healthy foods can be accomplished with limited resources. Understanding how organizations can provide healthy foods with limited resources has the potential to impact vulnerable populations who are often served most by these organizations.

What are the Implications for Health Promotion Practice or Research?

This study suggests facilitators for implementing strategies to address health disparities in organizations with limited resources may include building on the external setting (eg, social context) and internal setting (eg, organizational culture); selecting strategies that align with existing processes; implementing change incrementally and engaging staff, volunteers, and clients; and sustaining changes. Understanding how emergency food programs and other organizations with limited resources can implement public health nutrition interventions to address food insecurity and improve access to healthy foods may enhance services to populations with increased risk of hypertension, obesity, and diabetes among the populations they serve. These strategies for making sustainable changes to improve population health among vulnerable populations may help address these challenges in other settings with limited resources.

Table 1.

Overview of Emergency Food Programs.

Name (location)	Services provided	# served	Populations served	Resources: staff and volunteers	Resources: SRCP partners	Other resources
Organization A (WA)	Food pantry	Annual served duplicated individuals 52,675 19,848 household visits	White/Caucasian 29% Black/African American 19% Hispanic 17% Other 14% Unknown 8% Asian 6% Pacific Islander 5% Native American 1%	2 staff; 10-person volunteer board of directors	Local public health department Local food coalition Regional food bank	Donations
Organization B (WA)	Food pantry Congregate meal site	46,000 individuals in 2018 fiscal year	Other 38% White/Caucasian 33% Black/African American 12% Asian 4% Native Hawaiian/other Pacific Islander 3% Unspecified 10% Biracial/multi-racial 1% American Indian/Alaska Native <1%	6 staff; 150 volunteers	Local public health department Local food coalition Regional food bank State cooperative extension Corporate donors	Donations
Organization C (WA)	Food pantry Mobile food pantry Home delivery program After hours delivery program	57,989 individuals (19,569 families) in 2017 fiscal year	Hispanic 28% White/Caucasian (non-Hispanic) 23% Asian 22% Other multi-racial/race unknown 12% Black/African American, other African 11% Native Hawaiian/Pacific Islander 2% American Indian/Alaska Native 1%	11 staff (6 full-time); large team of volunteers	Regional food bank Non-profit organization Local food coalition	Donations On-site garden Community gardens Scheduled volunteer maintenance projects
Organization D (AR)	Congregate meal site Food pantry	100–380 per week	White 42%[1] Hispanic 34% Marshallese 20% Black 4%	1 staff; 10–12 volunteers	Regional food bank University medical center Church Corporate donors Local culinary institute	Community garden located at partner church
Organization E (AR)	Congregate meal site Food pantry Weekend child food program Health care services	Congregate meal program: 300 per week Food pantry: 43,052 per year Snack packs for kids: 6,000 per week Health program: 60,000 clients per year	White/Caucasian 42% LatinX/Hispanic 41% Pacific Islanders/Marshallese 11% Black/African American 2% Multi-racial 1% Other 3%	3 on-site social workers; additional volunteer support Donations staff person	Regional food bank University medical center Corporate donors Regional medical center	Onsite garden Donations

[1]Based on meals served on July 14, 2021