

# Improving Health while Alleviating Hunger: Best Practices of a Successful Hunger Relief Organization

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## Abstract

**Background:** Food insecurity affects millions each year in the United States. Hunger relief organizations work to reduce hunger and food insecurity; however, the foods they provide are often unhealthy.

**Objective:** The objective of this article is to document the policy, systems, and environmental changes that Samaritan Community Center made to their programs in order to better serve Washington County and Benton County, Arkansas.

**Methods:** With the use of a case-study approach, researchers held 17 meetings with key members of the organization and conducted >30 h of observations to document policy, systems, and environmental changes and best practices for implementing those changes.

**Results:** Researchers identified emergent themes and grouped best practices in the following categories: 1) removing stigma and empowering clients, 2) incremental steps to increase access to healthy foods, 3) embracing multiculturalism, 4) donation policies and procurement, 5) collaboration is key, 6) organizational culture, and 7) challenges and resolutions.

**Conclusions:** Samaritan Community Center has successfully implemented and adopted new programs and practices in order to improve the health of their clients. To our knowledge, this is the first case study to document best practices for making policy, systems, and environmental changes by a hunger relief organization to improve the nutritional quality of foods provided to their clients. *Curr Dev Nutr* 2018;2:nzy057.

## Introduction

Food insecurity and hunger are persistent social and public health issues. Defined as inconsistent access to adequate food due to a lack of money or other resources, food insecurity affects millions in the United States (1). In 2016, 12.3% (15.6 million) of all households and 12.9% (41.2 million) of all individuals—including ~13 million children—in the United States struggled with food insecurity (1). Food insecurity has been linked to chronic diseases such as depression (2, 3), obesity (4), hypertension (5), and diabetes (6–8). The state of Arkansas has food insecurity rates that are significantly higher than the national average and the fifth highest in the United States, with 17.5% of the population struggling with food insecurity (1). Rates of obesity, hypertension, and diabetes are also significantly higher in Arkansas compared with national averages. Nationally, Arkansas has the third highest rate of obesity (35.7%) and the fourth highest rates of hypertension (39.3%) and diabetes (13.5%) (9).

Hunger relief organizations such as food banks, food pantries, and community meal programs strive to meet the food needs of vulnerable populations by offering free food and meals to food-insecure individuals. The number of people utilizing food pantries and community meal programs in the United States continues to increase because people are no longer using pantries and meal programs only for emergency food aid, but as one of their primary sources of food



**Keywords:** food insecurity, food pantry, hunger, nutrition, hunger relief organization, best practices

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Abbreviations used: PSE, policy, systems, and environmental; SCC, Samaritan Community Center; UAMS, University of Arkansas for Medical Sciences.

(10, 11). However, the foods that hunger relief programs offer are not always nutritious. The foods distributed by hunger relief programs are often processed foods with high amounts of salt, simple carbohydrates, and fat, which can exacerbate the health disparities of food-insecure individuals (12–15). Hunger relief organizations have begun initiatives to improve the nutritional quality of the foods they provide to their clients as a way to address health disparities and to increase health equity within food-insecure populations (16, 17).

With the use of a case-study approach, this article focuses on the implementation of policy, systems, and environmental (PSE) changes to improve the nutritional quality of the foods provided and best practices for implementing those changes. The case-study site is a multicomponent nonprofit organization, the Samaritan Community Center (SCC). The SCC has served northwest Arkansas since 1989, when it began providing donated clothing to families in need. After an overwhelming response to their initial efforts, SCC observed the need for additional services and has continued to expand their geographic reach, as well as the number and type of services provided. SCC now offers a range of programs through 4 physical locations in Washington and Benton Counties. These programs include 2 markets (food pantries); 2 cafés (community meal programs); weekend SnackPacks and annual backpack programs for children, resale stores, and health care advocacy and counseling services; 3 on-site social workers who connect clients with services that SCC does not provide; and the only free, full-service dental clinic in northwest Arkansas. SCC serves ~60,000 clients/y. Over the past 5 y, SCC has made several changes to their programs to better serve and improve the health of its clients. These efforts are aligned with the goals of the UN's 2030 Agenda for Sustainable Development and the US Department of Health and Human Services' Healthy People 2020, which include reducing hunger and food insecurity and improving nutrition to reduce rates of chronic diseases (18, 19).

## Methods

To document the PSE changes SCC has made, as well as the best practices used when implementing those changes, the authors used a qualitative, single-site case-study method. Case-study research is an effective method of inquiry that is appropriate when investigating a phenomenon in a real-life context (20). Case-study research is most effective when asking “how” and “why” questions, and when the investigators are trying to understand the context of the phenomenon (20). The primary aim of this case study is to document PSE changes and best practices of SCC, with the goal of sharing those with other community organizations, public health practitioners, and researchers who are considering similar changes.

To gather information, the authors met with SCC staff and leaders during 17 meetings over a period of 2 y between June 2015 and June 2017 to discuss and document PSE changes and best practices. Meetings included key organization members, including the director of operations, in-kind donations coordinator, garden program coordinator, café program coordinator, SnackPacks for Kids program coordinator, and market program coordinator. In addition to these meetings, researchers spent >30 h observing SCC locations in 13 separate observations. With the use of qualitative thematic analysis, the research team identified

the following emergent themes and grouped the themes into best practices for making PSE changes: 1) removing stigma and empowering clients, 2) incremental steps to increase access to healthy foods, 3) embracing multiculturalism, 4) donation policies and procurement, 5) collaboration is key, 6) organizational culture, and 7) challenges and resolutions. The PSE changes and timeline for those changes are outlined in [Table 1](#).

## Best Practices

### Removing stigma and empowering clients

The SCC has made PSE changes in order to empower their clients and to remove the stigma commonly associated with utilizing community resources such as food pantries, soup kitchens, and community meal programs. The first change was focused on the naming of their services. SCC stopped referring to their services as food pantries, soup kitchens, or community meal programs; instead, they rebranded all of their services. They now refer to their food pantries as markets and to their meal programs as cafés.

They also made the decision to switch the traditional food distribution model in their markets to a client-choice model. The client-choice market allows their clients to choose their own food, rather than handing out standard, prepackaged bags, or boxes of food and goods. This method allows clients to choose only the foods they want or need at that time. Clients no longer take items that they cannot or will not eat. As a result, clients are able to avoid the foods they or their family do not like, foods they cannot eat for health reasons, foods they may already have at home, or foods they do not know how to prepare.

SCC adopted the client-choice model in one location in 2013. After observing its success, they converted to client choice in their other market location. The driving force behind the change was SCC's desire to “empower their clients.” As one staff member pointed out, “choice equals dignity.” Staff explained that the choice model allows clients to “save face” while utilizing a community resource, because “choosing items in the market feels more akin to shopping than receiving a handout.” The client-choice model promotes respect between clients and SCC staff and volunteers. Client choice also allows the staff and volunteers to spend more time educating clients. Rather than spending time preparing items in advance of clients' visits, staff and volunteers now spend more one-on-one time with each client discussing nutrition, healthy food options, and healthy cooking techniques. SCC leaders stated that client choice increases the morale of the clients, volunteers, and staff. Since making the switch to client choice, SCC has seen more clients returning to the market not only to get food but also to volunteer their time.

### Incremental steps to increase access to healthy foods

The link between food insecurity, obesity, and chronic diseases such as hypertension and diabetes has been well established (4–8). In response to the co-occurrence of food insecurity and health disparities among low-income communities, SCC implemented a Healthy Foods Initiative to focus efforts on alleviating hunger and food insecurity while also reducing health disparities by providing access to healthy foods in their markets and cafés. The Healthy Foods Initiative was conceived

**TABLE 1** Timeline of healthy changes within the Samaritan Community Center

Healthy change milestones	Description	Date of adoption
Chefs hired	Full-time and part-time chefs hired at both café locations.	May 2012
SnackPacks removed juices	The SnackPacks for Kids program replaced juices with fruit cups in the weekly food bags.	August 2012
Mercy Medical Center Nutrition Services analysis of SnackPacks	The SnackPacks for Kids coordinator worked with the clinical nutrition manager in Nutrition Services for Mercy Medical Center in northwest Arkansas to develop guidelines for items to include in SnackPacks.	January 2013
Healthy Foods Initiative envisioned	A full-staff strategic planning retreat was held where staff agreed that moving toward a full-scale Healthy Foods Initiative was a shared goal among all programs.	March 2013
Salads introduced in cafés	The café coordinator began working with the chefs to incorporate salads into the menus. The salads have since begun to include healthier greens such as kale, spinach, romaine, and butter lettuces grown in the on-site garden.	April 2013
SnackPacks removed high-fat snacks	The SnackPacks program removed high-fat and -sugar cereal bars, oatmeal cookies, and cheese and crackers in exchange for cereal bowls, cheese sticks, and whole-wheat animal crackers.	May 2013
First market converted to client choice	The Rogers market converted to a client-choice model after researching the concept and visiting other client-choice pantries in Arkansas.	June 2013
Second market converted to client choice	The Springdale market transitioned to a client-choice model after the successful implementation of the model in Rogers.	September 2013
Healthy recipes translated into cookbooks	The market coordinator partnered with Feed Communities and the University of Arkansas for Medical Sciences to translate recipes and compile healthy cookbooks in Marshallese and Spanish for market clients.	January 2014
Sweetened beverages removed from cafés	Both café locations replaced juice and sweet tea with water and unsweetened tea.	April 2014
Fruits and vegetables expanded	The markets began purchasing fruits and vegetables on a weekly basis to supplement shelf-stable items.	June 2014
Healthy cooking classes	The café coordinator partnered with the University of Arkansas Expanded Food and Nutrition Education Program to provide healthy cooking classes to clients and chefs.	June 2014
Garden planted	The on-site garden began through an Arkansas GardenCorps service year. The GardenCorps member was hired on as a full-time staff member and expanded the garden.	September 2014
SnackPacks replaced fruit snacks	SnackPacks replaced the fruit snacks with fruit snacks made with real fruit juice.	January 2015
Healthy proteins increased	The markets received a grant to purchase eggs, yogurt, and ground turkey.	March 2015
Sweet desserts removed	Daily cakes, cookies, and donuts were replaced with fresh fruit for dessert.	January 2016
Apple orchard planted	The garden coordinator was gifted funding to plant a memorial apple orchard.	March 2016
Changes to breakfast foods offered in markets	The markets stopped purchasing pancake mix and began purchasing oatmeal.	June 2016
Nutrition classes	The market coordinator partnered with the University of Arkansas Expanded Food and Nutrition Education Program to provide health and nutrition classes to clients and volunteers.	September 2016
Markets removed cakes and pastries	The markets removed cookies, cakes, and pastries from the shelves and moved them to another part of the building.	January 2017
Cafés stopped free salting	Café chefs ended the practice of free salting during meal preparation.	February 2017
Cafés removed salt shakers	Both café locations removed salt shakers from the dining tables.	February 2017
Blueberry and blackberry patches planted	SnackPacks for Kids received a grant to grow fresh berries to be included in SnackPacks.	April 2017
Standardized low-sodium recipes	Cafés reduced the amount of sodium in meals by using standardized recipes.	April 2017
Food-labeling intervention	The Springdale market piloted a food-labeling intervention nudging clients to select healthier options from the market.	September 2017

and implemented after strategic planning/visioning sessions (discussed further in a subsequent section).

The first health-focused PSE changes took place in one of the SCC cafés. Initially, SCC began offering café clients a salad with their meal. SCC then began making additional incremental changes to their café's meals by implementing healthy food substitutions. These food substitutions included eliminating unhealthy desserts such as cakes and pies and offering fresh fruit as a replacement. Further PSE changes included removing salt shakers from all of the dining tables in an effort to reduce the amount of sodium that their clients consume. SCC also made changes to the beverages offered in the café. They removed

sugar-sweetened beverages, including juices and sweet tea, and replaced them with water and unsweetened tea. One of the biggest changes in the cafés was the switch from using volunteer chefs to hiring a full-time chef and part-time chefs at each café location. For several years SCC relied on volunteers to cook all of the meals in the cafés. The meals were based on what the volunteers knew how to prepare and were often high in sodium, fat, and carbohydrates. With full-time chefs on staff, the cafés standardized their menus to include healthier, more nutritious meals.

SCC also partnered with the University of Arkansas for Medical Sciences (UAMS) as part of a CDC sodium-reduction program to reduce the amount of sodium in the meals that they serve. Sodium-reduction

**TABLE 2** Sodium reduction in café meals by café location and total<sup>1</sup>

	Baseline, mg	Follow-up, mg	Change, %
Rogers			
Sodium per meal offered	1339.5	299.0	-77.7
Sodium per meal served	1310.1	312.9	-76.1
Springdale			
Sodium per meal offered	1411.2	1097.4	-22.2
Sodium per meal served	1402.7	1067.1	-23.9
Total			
Sodium per meal offered	1375.4	698.2	-49.2
Sodium per meal served	1360.3	743.4	-45.4

<sup>1</sup>Values are means or percentages. Note that “meal offered” refers to the average sodium content of all meals appearing on the menu; “meal served” refers to the weighted average sodium content of all meals served, accounting for the number of meals served each day.

efforts have been focused on creating standardized purchasing lists with a focus on low-sodium foods and modifying and standardizing menus and recipes to reduce sodium. In addition, the chefs no longer engage in the practice of free salting (where salt is added during meal preparation without measuring) and instead focus on using low-sodium spices and fresh herbs to add flavor to meals. As a result of these efforts, the SCC cafés have significantly lowered the sodium content of their meals (Table 2 presents aggregate results and results by location). Across both locations, the sodium content of meals offered (all meals on the menu during observations) decreased by 49.2% from 1375.4 mg at baseline to 698.2 mg at the 1-y follow-up. The sodium content of meals served (i.e., accounting for the number of meals served to clients during observations) decreased by 45.4% from 1360.3 mg at baseline to 743.4 mg at the 1-y follow-up.

PSE changes were also made in the markets to promote healthy foods. Similar to the meals served in the café, the markets stopped offering high-fat, sugary treats and desserts. PSE changes also included systematically replacing less-healthy foods with more nutritious options. For example, SCC phased out purchasing pancake mix and replaced it with oatmeal and began offering whole-grain bread instead of white bread. In addition, SCC began offering eggs to market clients in order to provide a healthy source of protein and increased the amounts of other lean proteins offered. The markets and cafés also began offering more fresh fruits and vegetables. The markets began making weekly purchases of fresh produce from a local vendor. Additional fresh fruits and vegetables, such as organic tomatoes, peppers, radishes, lettuce, spinach, kale, and carrots, have been made available through SCC's new on-site garden, apple orchard, berry patch, and greenhouse. SCC also receives donations of fresh produce from local nonprofit farms, supermarkets, individual gardeners, and the Northwest Arkansas Food Bank. In addition, the markets implemented environmental-choice architecture to encourage the selection of healthy foods by placing fruits and vegetables at eye level on the shelves and moving all sugar-sweetened desserts to a table in a separate part of the SCC building.

In addition to these strategies, SCC partnered with UAMS to implement a food-labeling pilot intervention in the Springdale market based on the National Heart, Lung, and Blood Institute's Go, Slow, Whoa Foods tool (21). The labeling system uses a green, yellow, and red “traffic light” to encourage clients to select healthier options by identifying foods that should be eaten anytime (Go/green), sometimes

(Slow/yellow), and rarely (Whoa/red). To document the effectiveness of this intervention, UAMS staff conducted bag audits (i.e., recording every food item selected by the clients) at preintervention and 6 wk postintervention. Complete nutritional information for each food item was recorded from the items' Nutrition Facts labels. Results of paired-samples *t* tests showed the mean number of servings of fresh fruits and vegetables distributed per household member increased significantly between preintervention and postintervention (10.94 compared with 16.73;  $P < 0.001$ ) (Table 3 presents pre- and postintervention results by household member and by 2000 kcal).

The weekend SnackPacks for Kids program, which provides a weekly supplemental bag of food items to >6000 children facing weekend food insecurity, began implementing healthier food items in August 2012. Initially, fruit juices were swapped for fruit cups to increase nutritional value, as well as the satiety of the SnackPacks. The SnackPacks program also removed high-fat and high-sugar items, such as marshmallow and rice cereal bars, oatmeal cookies, and cheese and crackers, and replaced them with whole-grain cereal bowls, shelf-stable milk, and whole-wheat animal crackers. These changes were followed by replacing the fruit snacks with real fruit leather. The SnackPacks program has also received a grant to plant blueberry and blackberry patches to be included in the weekly SnackPacks during the summer months.

It is important to note that the changes in SCC's programs were iterative and were implemented over a period of 4 y. As one staff member pointed out, you have to take baby steps to avoid alienating clients, volunteers, and staff. Making changes to programs requires planning, implementing on a small scale, then evaluation before extending throughout the organization.

### Embracing multiculturalism

Between 2000 and 2016, northwest Arkansas saw a significant increase in minority populations, especially in the Hispanic and Marshallese communities (Marshallese are a Pacific Islander community from the Republic of the Marshall Islands). During this period, the Hispanic population increased by 192.6% and 174.9% in Benton and Washington Counties, respectively (22–25). In addition, the Marshallese population in Benton and Washington Counties increased by 586.1% and 356.6%, respectively (22–25). Currently, there are ~75,000 Hispanic community members and ~8000 Marshallese community members in Washington and Benton Counties (23, 25). According to SCC's client intake data, of all clients served in their 2 markets, ~30% are Hispanic and ~10% are Marshallese. As these communities continue to experience rapid growth, SCC has taken steps to ensure that they are able to serve an increasingly diverse community.

SCC implemented several PSE changes to meet the needs of the large number of Hispanic and Marshallese clients. First, SCC began to focus on recruiting and hiring Spanish/English and Marshallese/English bilingual volunteers and staff members. SCC translated all of their signs to include English, Spanish, and Marshallese languages as a way to assist clients in navigating their facilities. In addition, SCC translated their programs' informational materials into both Spanish and Marshallese. In partnership with a local nonprofit organization, Feed Communities, SCC translated a health-focused cookbook into Spanish and Marshallese to show how to prepare the healthy—but potentially unfamiliar—foods that are available in the markets.

**TABLE 3** Bag audit Nutrition Facts label analyses of food distributed at preintervention and 6 wk postintervention, by household member and by 2000 kcal<sup>1</sup>

	Preintervention (n = 96)	Postintervention (n = 90)	Test of significance, t (df)	Difference between pre- and postintervention
Nutrients distributed per household member				
kcal/household	21,119.77 ± 5407.52	20,734.88 ± 9986.02	0.33 (184)	—
Members of household, n	4.33 ± 2.22	4.19 ± 2.37	0.43 (181)	—
kcal	6578.25 ± 4539.86	6851.11 ± 5653.03	0.36 (181)	—
Protein, g	253.18 ± 173.31	256.00 ± 215.68	0.10 (181)	—
Sodium, mg	9005.82 ± 6617.85	9524.55 ± 10,015.29	0.42 (181)	—
Total carbohydrates, g	953.32 ± 649.52	1162.26 ± 994.91	1.69 (181)	—
Dietary fiber, g	127.34 ± 96.40	135.84 ± 97.64	0.59 (181)	—
Sugars, g	141.08 ± 106.00	260.12 ± 208.98	4.88 (181)**	—
Total fat, g	216.02 ± 155.51	174.66 ± 159.43	1.78 (181)	—
Saturated fat, g	46.72 ± 36.69	39.23 ± 44.98	1.24 (181)	—
trans Fat, g	0.003 ± 0.3	0.14 ± 0.45	2.85 (181)*	—
Cholesterol, mg	826.83 ± 612.42	767.74 ± 638.07	0.64 (181)	—
Fresh fruit and vegetables, servings	10.94 ± 7.80	16.73 ± 13.65	3.54 (181)**	—
Nutrients distributed per 2000 kcal				
Protein, g	76.53	74.32	—	−2.21
Sodium, mg	2748.92	2717.50	—	−31.42
Total carbohydrates, g	292.44	344.88	—	52.44
Dietary fiber, g	39.10	41.36	—	2.26
Sugars, g	42.47	76.92	—	34.45
Total fat, g	65.33	49.39	—	−15.94
Saturated fat, g	13.88	11.06	—	−2.82
trans Fat, g	0.00	0.04	—	0.04
Cholesterol, mg	240.95	217.66	—	−23.29
Fresh fruit and vegetables, servings	3.26	4.83	—	1.57

<sup>1</sup>Values are means ± SDs or means unless otherwise indicated. \**P* < 0.01, \*\**P* < 0.001.

### Donation policies and procurement

Like many nonprofit organizations that provide food aid, SCC relies primarily on in-kind donations. As a result, it is often very difficult for hunger relief organizations to turn down food donations of any kind, even when those foods are of low nutritional value. SCC explained that making changes to their programs required them to make some difficult changes to their donation system and policies, particularly with the food donations they would accept. Staff members commented that they shifted from away from the mindset of “anything is better than nothing” to focus on providing every person the healthiest food possible. Food drives are now focused on healthier items, with specific requests for items like peanut butter or canned vegetables. SCC explained their desire for healthier foods to their larger food vendors and donors such as Wal-Mart, Sam’s Club, the Northwest Arkansas Food Bank, Harp’s, and Nestlé. SCC worked with each of these organizations to explain their new healthier-food policy. This process involved several one-on-one conversations with vendors and often required turning down some donations and/or negotiating for healthier options from the vendors. As one SCC staff member pointed out, “even though it may feel foolish to turn down donations, especially for smaller organizations, sometimes you just have to say no thank you.” SCC tries to find creative ways to continue relationships with food vendors who previously provided unhealthy foods. In order to do this, they may accept only certain items offered by donors and vendors. For example, they continued to accept granola bars from a local pastry company but no longer accept pastries or cakes.

### Collaboration is key

A large factor that SCC credits for their success is their commitment to collaborating with other local organizations. SCC believes that to make the biggest impact in the lives of their community, they must coordinate efforts with other organizations in the area. Staff worked to identify the days and times in which other organizations offer their services, so that they can tailor their programs to best meet the needs of the community and provide times and services to fill the gaps in the community. For example, SCC’s markets and cafés are open on different days at each location on the basis of the needs of each community and the times when other services are not available in the area. In addition, when SCC has a surplus of certain food items or receives a donation that they do not have space for, they reach out to other hunger relief organizations in the area to share these resources.

SCC works closely with local businesses and churches to recruit volunteers to work in the markets, cafés, and garden. SCC leveraged these partnerships when preparing for their switch to a client-choice model. Staff reached out to Wal-Mart and United Way to secure all of the fixtures and shopping carts they needed to accommodate clients in the newly designed client-choice markets. The SnackPacks for Kids coordinator worked with Mercy Medical Center of Northwest Arkansas to analyze the nutritional content of the SnackPacks and to develop guidelines for items to be included that would help improve the nutritional value of the SnackPacks. SCC also partners with Mercy to provide free health care services to their clients, including health screenings (blood pressure and blood glucose checks), flu vaccinations, and health care referrals to their local free clinic.

SCC has also worked with the University of Arkansas's Expanded Food and Nutrition Education Program to provide healthy cooking and nutrition classes to café and market clients, staff, and volunteers. As discussed previously, SCC has partnered with UAMS nutritionists and researchers to improve the nutritional quality of the foods served in their cafés and markets and to develop nutritional interventions. This type of collaboration opens avenues for stronger community relationships and helps build a stronger hunger relief network in the area.

### Organizational culture

SCC staff emphasized the “client-first” culture of the organization and the role that this culture has had in their success with making health-focused PSE changes. The concept of putting clients first was championed by the executive director and has been adopted widely throughout the organization. There was no member that the authors spoke with who did not share the vision—from the board, to staff and volunteers. After the first discussions about a transition to client-choice markets, the board and staff held a strategic vision and planning retreat and drafted a plan that focused on “giving clients the most dignified experience possible by giving them choice and providing them with healthy foods.” This is continually reinforced with staff and volunteers through SCC's mission: to help the hurting and hungry of northwest Arkansas. One motto that researchers heard repeated and paraphrased from several members throughout the organization was, “We want to provide clients with the highest levels of dignity and respect.” Several members extended this sentiment, with one staff member stating, “Our goal is to provide the same level of fresh and organic food that we would feed our own families.” It became evident that SCC's staff, board members, and volunteers equated providing healthy food with showing love and respect to their clients.

In addition to the focus on client dignity as a primary motivator, the organization was permeated by a “can do, will do” culture. The organization does not hold to the idea of “this is the way we have always done things.” When asked if they had advice for other organizations who may have considered making these types of changes, one staff member declared, “Just do it. Not everyone will agree with the changes that you're making, but in the end it will be better for everyone, especially the clients.”

### Challenges and resolutions

SCC faced significant challenges while implementing their Healthy Foods Initiative. Initially, market volunteers struggled to understand their new roles in a client-choice pantry. All market volunteers had to be retrained to co-shop with the clients after changing to the client-choice model. This process took significant amounts of time and patience of SCC staff and leadership. Furthermore, SCC staff and leadership had to communicate repeatedly with their volunteers, as well as their clients, why these changes were taking place and the importance of making health-focused PSE changes for their clients.

Food waste was a significant challenge that had to be addressed during the implementation of SCC's PSE changes. When fresh produce was provided in large quantities from the on-site gardens, there were items that the clients did not know how to use, such as turnips and beets. Often, these items would remain on the market shelves until they could no longer be distributed. Because the SCC cafés and markets

are only open Monday through Thursday, some of the produce that was harvested on Thursday afternoons did not last until the following week when the cafés and markets reopened. It took time for the garden coordinator, café coordinator, and market coordinator to develop a schedule that provided produce that the market clients wanted and that the café chefs could use before it spoiled. In addition, direct-from-store produce donations, which are often at the end of their shelf life, take a large amount of volunteer and staff time to sort and divide. This creates extra work for both staff and volunteers and often adds to the waste produced by SCC. The benefits of having fresh produce outweigh these challenges, but some organizations may not have access to the amount of staff and volunteers necessary to sort, clean, and distribute large amounts of fresh produce before it spoils.

The introduction of fresh salads in the cafés also led to a high amount of waste by the clients. On the basis of feedback from the clients, the cafés began serving ranch dressing with the salads, effectively decreasing the waste of the salads. Café clients also complained to SCC volunteers and staff about no longer having access to sweet tea or salt shakers. Staff and volunteers noticed that some of the café clients began to bring in their own sugar and salt to add to their tea and meals. Salt shakers were not reintroduced in the café dining areas, but staff ultimately agreed to provide clients with 1 sugar packet per cup of tea upon request.

When the SnackPacks program began the switch to healthier items, students rejected a number of them, including whole-grain raisin bran cereal, soy butter, and dried tropical fruit mix. Staff noticed that these items were being returned to SCC in large numbers via school-based food drives. It took a number of trials, but SCC staff were able to find whole-grain cereals and a dry fruit leather that the students liked.

### Discussion

As more and more people in the United States come to rely on emergency and supplemental food aid (10, 11), hunger relief organizations such as SCC are leading the fight against food insecurity and hunger. SCC was successful in implementing PSE changes to best serve their community by providing healthy foods. Although many national organizations such as Feeding America promote healthy changes and have tips for making healthy changes in hunger relief organizations, to our knowledge no studies have detailed the exact steps undertaken to improve the quality of food provided through hunger relief organizations. This article adds to the literature by detailing PSE changes implemented at the organizational level to better meet the needs of diverse food-insecure communities. It also adds insight into the organizational culture that supported the changes.

### Limitations and strengths

Although case-study research is a valuable empirical method of inquiry, this study is limited to a single, large hunger relief organization in northwest Arkansas, therefore limiting its generalizability. This case study focused on PSE changes and the best practices for making those changes and does not provide client-level outcome data or cost-effectiveness data. Other organizations planning to make similar PSE changes should consider collecting robust pre- and postintervention data to better evaluate the impact of the changes on

client health and the cost-effectiveness of individual and cumulative PSE changes.

Many of the PSE changes and best practices identified in the results are overlapping and interrelated, and therefore could potentially be included in >1 thematic category. Furthermore, some of the PSE changes and best practices would not have been possible without the others, because they complement and feed into one another. These PSE changes are specific to one organization rather than a set of standards or guidelines that must be adopted by all hunger relief organizations. However, SCC's PSE changes and best practices for serving their community healthy foods remain a successful model for other organizations to learn from and emulate.

### Future plans

SCC plans to continue its dedication to their Healthy Foods Initiative going forward. SCC has planned a major expansion of their garden program to include a second location. This will increase the amounts and varieties of fresh produce that will be available to clients in their markets and cafés. SCC is working with UAMS' registered dietitian and nutrition and dietetic technician, registered to provide more training focused on healthy food preparation and cooking techniques. SCC plans to conduct taste testing events with local schools to identify new products that could be included in their SnackPacks. SCC also plans to make additional changes to SnackPacks to reduce the sodium content. SCC staff are currently considering more product replacements, including replacing packages of ramen with canned tuna or canned chicken. Meanwhile, SCC staff will place nutrition education stickers on the ramen packages, encouraging clients to use only half of the seasoning packet. This simple nudge has the potential to drastically reduce the amount of sodium consumed by SnackPack participants. Finally, SCC plans to improve their client data tracking in order to better document the positive effects that their health-focused PSE changes are having on their clients.

### Conclusions

Overall, the implementation of SCC's Healthy Foods Initiative took a lot of time, tenacity, and experimentation to find the balance of health-focused changes to their programs that would benefit clients and that clients would accept and appreciate. Hunger relief organizations hoping to make similar changes to their programs should be encouraged by the successes of SCC. Although some organizations may lack the necessary resources or infrastructure to accomplish major PSE changes (e.g., switching a pantry to client choice, building a greenhouse, making weekly purchases of large amounts of produce), there are numerous examples of best practices (e.g., creating health-focused donor policies, collaborating with local universities or health care organizations, no longer distributing sugary, high-fat desserts) that could be adopted to help improve the health of their food-insecure clients.

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