

**EMERGENCY FOOD, GARDENING,  
AND NUTRITION EDUCATION:  
A SURVEY OF MICHIGAN FOOD PANTRIES**

FEBRUARY 2, 2017

**MICHIGAN  
FITNESS  
FOUNDATION**

Emergency Food, Gardening, and Nutrition Education:  
A Survey of Michigan Food Pantries

Survey Design & Final Report:  
Michigan Fitness Foundation  
Lansing, MI

Survey Conducted by:  
Barna Group  
Ventura, CA

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\*ALL AFFILIATIONS LISTED WERE CURRENT AT THE TIME OF THE SURVEY.

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# EXECUTIVE SUMMARY

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This report highlights new findings from a statewide survey of emergency food providers conducted in federal fiscal year (FFY) 2014, introduced by a brief overview of Michigan Fitness Foundation (MFF) SNAP-Ed programming with emergency food recipients from federal fiscal year (FFY) 2010 through FFY 2014.

## History of MFF SNAP Nutrition Education (SNAP-Ed) with Emergency Food Providers (2010–2014)

- 2010 – MFF funds Gleaners’ Cooking Matters
- 2010 – “Grow Your Kids” Social Marketing Campaign pilot (four food banks)
- 2012 – Literature review
- 2013 – “Quick and Easy Squash Recipe Book” pilot (two food banks)
- 2013 – Food Safety Social Marketing campaign pilot (seven food banks)
- 2013 – USDA approves “Policy, Systems, and Environmental Change”
- 2014 – Mobile food pantry nutrition education pilot (one food bank)
- 2014 – Emergency Food, Gardening, and Nutrition Education: A Survey of Michigan Food Pantries

## 2014 Food Distribution, Gardening, and Nutrition Education Survey<sup>1</sup>

In 2014, MFF commissioned Barna Research (a division of Barna Group, Ventura California) to conduct a statewide formative evaluation survey of Michigan emergency food providers. The purpose of the evaluation was to answer the following questions:

1. What opportunities and barriers do emergency food providers face to providing fresh fruits and vegetables to emergency food recipients?
2. How willing and able are emergency food providers to implement specific policy, systems, and environmental changes to increase fresh produce availability and consumption?

## Methodology

Barna Group invited 2,962 individuals to participate in the survey via e-mail. Michigan Fitness Foundation partner organizations relayed the invitation to additional contacts. A hyperlink to the survey web site was embedded in each email. The distribution sample targeted all 83 Michigan counties. Online surveys were conducted from March 14 to April 29, 2014. Three hundred seventy-four (374) organizations responded to the survey. The results presented in this report are based on survey responses completed by 260 pantries representing organizations in 196 unique Michigan zip codes statewide. The sampling error for the online survey is plus or minus 5 percent at the 95 confidence level. Descriptive and inferential statistical data analyses were used to address formative evaluation questions.

## Key Findings<sup>1</sup>

### Most emergency food pantries are faith-based and have provided similar services for decades.

The vast majority of emergency food pantries (88%) are faith-based and provide food more than once a week (63%). One in four have been providing emergency food for more than 30 years and nearly seven in ten (67%) have been providing emergency food for more than 10 years. Among pantries which do garden, most began only recently; nearly three in five (59%) have gardened for four years or less and nearly 78% have done so for six years or less.

### Most emergency food pantries distribute at least some fresh produce.

At least nine in ten pantries (93%) receive at least some fresh produce from their sources, most commonly from regional food banks (58%) and individual gardeners (55%). One third of pantries receive fresh produce from local farmers (33%) and community gardens (25%). Only a few pantries (7%) do not accept fresh produce.

### **Emergency food pantries face significant barriers to increasing fresh produce distribution.**

Nearly nine in ten pantries (88%) are somewhat or very interested in accepting more donated produce from local gardeners, yet few (26%) actually request it. In fact, a greater number of pantries receive produce than actually ask for it. Why? On the supply side, lack of sufficient storage space (40%), particularly cold storage (50%), is the single greatest barrier pantries face to increasing fresh produce distribution. Other top barriers included not enough produce donors (29%) and lack of funding (26%). Pantries worry they are unable to keep produce fresh long enough to distribute. On the demand side, pantries reported that the people they serve like fresh produce (only 6% reported otherwise), yet 15% of pantries also reported that those they serve do not know how to use this produce, making it difficult to distribute even when available.

### **Gardening is not a common activity among emergency food providers, but those pantries which do garden reap the benefits.**

Fewer than one in ten pantries (8%) currently garden. Another eight percent have gardened in the past and nearly nine in ten (89%) have never gardened. Those which do not garden reported that lack of proper space for gardening (40%), lack of time (32%), and lack of expertise or training (23%) were major barriers.

Among pantries which do garden, over two-thirds (70%) do so to promote health and to increase overall food availability (70%). Nearly half (49%) garden to promote a sense of community.

Size and scope of pantry garden operations are diverse. Over one quarter of pantry gardens (29%) are less than 500 square feet; a third (32%) are between 501 and 2,000 square feet; and 16% are larger than 2,000 square feet. Yields range from less than 20 lbs of produce per year to about 5,000 lbs of produce per year. Most pantry gardens (86%) are producing vegetables – tomatoes, beans, cucumbers, summer squash, and sweet peppers are most common – while only 18% produce fruit. Herbs are also fairly common (42%).

Most gardens are operated by an organization that directly uses the produce (56%), and more than half give it directly to their constituents (53%). In many cases the constituents are directly involved in maintaining the garden.

**Few emergency food providers also provide nutrition education, but interest in doing so is high.**

Only one third of pantries (34%) currently distribute educational materials, the most common form of nutrition education cited. Even fewer distribute healthy recipes (27%) or promote healthy eating messages (25%).

However, interest in these activities is much greater than current participation. Almost two thirds of pantries (65%) are willing to distribute fruit and vegetable seeds and more than half are willing to accept and distribute food plants (59%). There is also strong interest in distributing healthy recipes (57%), promoting healthy eating messages (53%), giving out children's books on healthy eating (52%), and distributing educational materials (51%).

**Policy-based approaches to reducing hunger and improving nutrition are rarely used by pantries, but there is significant interest in these approaches.**

Only one in six pantries (17%) currently communicate with policymakers regarding hunger, food and nutrition-related topics. While nearly half (45%) of pantries are not interested in communicating with policymakers on these topics, over 1 in 3 pantries (34%) would be interested in doing so. (This amounts to nearly 1,030 pantries statewide).<sup>2</sup>

This interest should be considered in light of two other findings. First, very few pantries currently garden or offer nutrition education. Secondly (and perhaps as a result of the first consideration), very few pantries identified policy barriers to engagement in specific systems or environmental change activities. Pantries may or may not identify preexisting policy barriers if they seek to engage in garden-based systems and environmental change activities.

“

We're a small urban church so as yet we wouldn't have the facility to store amounts of fresh food for periods of time.

”

“

Mostly our challenge is getting the word out that we can accept more fresh produce.

”

“

Challenges include that the general public is used to donating food that is low in nutritional value because it is cheaper and easier to donate. Our pantries do not refuse donations of bad food because they don't want to lose or lessen donorship. Our pantries try to source healthy food, but oftentimes the pantry users do not want healthy items. We need education for donors, for pantry staff, and for pantry users on healthy food.

”



**OVERVIEW OF MFF SNAP NUTRITION EDUCATION  
(SNAP-ED) WITH EMERGENCY FOOD PROVIDERS**

# OVERVIEW OF MFF SNAP NUTRITION EDUCATION (SNAP-ED) WITH EMERGENCY FOOD PROVIDERS

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## Governor's Council on Physical Fitness, Health and Sports and the Michigan Fitness Foundation (MFF)

The Governor's Council on Physical Fitness, Health and Sports and the Michigan Fitness Foundation has been committed to improving the health of Michigan's citizens for over two decades. We seek to collaboratively address Michigan's most pressing health issues, change the status quo and build a healthier Michigan. With our statewide reach, we strive to meet people where they are and invest in local resources and locally-grown programs to develop sustainable capacity for improving health.

**Our Vision: Cultivate a culture of health to transform the status quo and improve the health of all Michiganders.**

**Our Mission: Inspire active lifestyles and healthy food choices through education, environmental change, community events, and policy leadership.**

## Supplemental Food Assistance Program Nutrition Education (SNAP-Ed)

The Supplemental Food Assistance Program (SNAP) is overseen by the U.S. Department of Agriculture (USDA) Food and Nutrition Service (FNS). It is the largest program in the domestic hunger safety net and offers nutrition assistance to millions of eligible low-income individuals and families across the country. The nutrition education component of SNAP (called SNAP-Ed) is designed to promote health and prevent diet-related chronic diseases (such as obesity and diabetes) by improving the likelihood that people eligible for SNAP will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the current Dietary Guidelines for Americans and the USDA food guidance, MyPlate.

FNS emphasizes the importance of targeting an identified segment of the SNAP-eligible audience; identifying the nutritional needs of the target audience and perceptions about changing behavior; and interacting with the target audience to test messages, materials, approaches, and delivery channels. States are expected to implement SNAP-Ed interventions using multiple approaches, including individual or group-based nutrition education; comprehensive multi-level interventions; and community and public health strategies to improve nutrition.

The Michigan Fitness Foundation (MFF), a SNAP-Ed Implementing Agency in the state of Michigan, works to achieve two primary behavioral outcomes among SNAP-Ed participants:

- Increased fruit and vegetable consumption
- Increased physical activity

MFF provides SNAP-Ed funding and backbone support to over 50 partner organizations statewide, equipping them to implement high quality, behaviorally-focused, and evidence-based SNAP-Ed programming. Special focus is given to the fourteen Michigan counties where the highest number of people eligible for SNAP reside. MFF SNAP-Ed currently reaches nearly four million Michigan residents. In 2014, MFF SNAP-Ed increased participants' fruit and vegetable consumption by 200,000 cups per day<sup>3</sup> and increased Michigan fruit and vegetable sales by \$36.5 million.

## History of MFF SNAP-Ed with Emergency Food Providers

All emergency food recipients are eligible to receive nutrition education through SNAP-Ed. As such, MFF and its partners have long partnered with emergency food providers to offer various forms of nutrition education. Over the past several years, the reach of these efforts has increased exponentially.

### FIGURE I

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See insert on page 15.

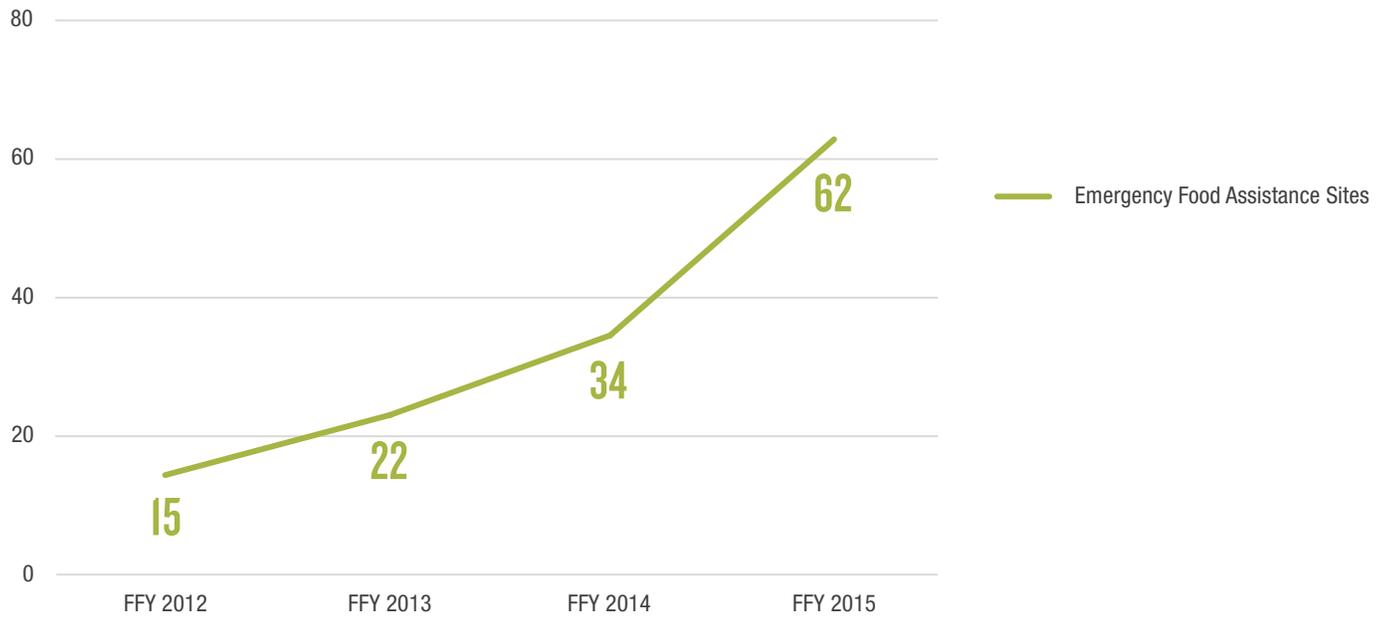
MFF has also undertaken concerted state-level leadership in efforts to improve the health and wellness of emergency food recipients. Some of these efforts are highlighted below:

#### 2010 – MFF Funds Gleaners' Cooking Matters™

In 2010, MFF began a partnership with Gleaners Community Food Bank of Southeastern Michigan to provide Cooking Matters™ at emergency food distribution sites and other community venues throughout Michigan. This nutrition education program connects families with food by teaching them how to prepare healthy, tasty meals on a limited budget. Courses serve eight to sixteen participants per session and require participants to complete six sessions as a condition of graduation. MFF's partnership with Gleaners continues, having reached 6,150 participants at over 465 unique sites between 2010 and 2015.

# FIGURE I

## Growth of MFF SNAP-Ed with Emergency Food Providers



### 2010 – “Grow Your Kids” Social Marketing Campaign Pilot

In 2010, MFF also began piloting additional models which could be scaled to reach Michigan’s 3,000+ pantries and nearly two million emergency food recipients. To directly support healthful shopping and cooking practices, the 2010 “Grow Your Kids” social marketing campaign provided sixty thousand (60,000) shopping bags with kitchen utensils, recipes, and children’s activities to emergency food recipients statewide. About 10,000 of the shopping bags also included a “MyPlate” precursor (paper plates with food groups and healthy portion sizes). Nearly 100% of evaluation respondents reported they would use the intervention materials and more than 75% indicated that campaign materials would help their family eat more fruits and vegetables.<sup>4</sup>

### 2012 – MFF Literature Review

In order to continue incorporating evidence-based practices into its programming, MFF performed a literature review on food insecurity and fruit and vegetable consumption, hunger coping mechanisms, and nutrition education with emergency food recipients in 2012. Among other key findings, consensus in the literature was that emergency food recipients desire simple recipes which feature numerous ways to prepare commonly-distributed emergency foods.

### 2013 – “Quick and Easy Squash Recipe Book” Pilot

MFF’s 2013 “Quick and Easy Squash Recipe Book” Pilot was designed to increase emergency food recipients’ consumption of a targeted vegetable (winter squash) and end-of-month food security status using a simple recipe book, USDA Core Nutrition Messages, and refrigerator thermometer reinforcement item. A third-party evaluation of the pilot was conducted across four local food pantries (two intervention, two control) using the 10-item Fruit and Vegetable Screener (i.e. “All Day Screener”) developed by the National Cancer Institute (NCI)<sup>5</sup> and the 10-item USDA Adult Food Security Survey module.<sup>6</sup>

Findings showed that the overall fruit and vegetable consumption of emergency food recipients who received the intervention did not differ significantly from emergency food recipient control groups one month after distribution. However, significant increases in consumption of individual foods (the primary objective of the pilot) were observed for intervention participants. These included: 100% juice; French fries or fried potatoes; cooked dried beans; tomato sauce; and food mixtures that include vegetables (the category representing squash).

In addition, the household food security status of emergency food recipients who received a squash recipe book and refrigerator thermometer increased significantly compared to emergency food recipient control groups one month after distribution. Overall, the evaluation revealed that simple, targeted recipes were an effective means of improving *both* participants' consumption of specific pantry foods *and* end-of-month food security status, thereby meeting both public health and anti-hunger goals.

### 2013 – Food Safety Social Marketing Campaign Pilot

In 2013, MFF conducted the “Food Safety Social Marketing Campaign” pilot to determine the viability of large-scale refrigerator thermometer and nutrition education distribution for improving produce storage and consumption among emergency food recipients. The campaign bolstered food banks’ efforts to address hunger by helping emergency food recipients keep their fruits and vegetables safe and fresh longer. A third party evaluator distributed a brief survey to emergency food recipients during April and May, 2013. Potential respondents were given a thermometer in order to determine whether their refrigerator could keep food at safe temperatures (at or below 40 degrees Fahrenheit). The survey included four questions about thermometer use, refrigerator temperature, how often food was thrown out, and whether respondents would eat more fruits and vegetables if they could safely extend the shelf life.

Seventy-five percent (75%) of respondents used the thermometer to test their refrigerator temperature; over nine percent (9.4%) of respondents reported that their refrigerator was above safe temperatures; and of those who indicated their refrigerators were not at safe temperatures, 34% reported that they never threw out food, indicating the risk that unsafe food was being consumed. Over 94% of respondents agreed that their family would eat more fruits and vegetables if they could be stored safely for a longer period of time in their refrigerator. The evaluation suggested that limited or unreliable cold-storage negatively impacts fruit and vegetable consumption among some emergency food recipient households.

### 2013 – USDA SNAP-Ed Guidance Encourages “Policy, Systems, and Environmental Change” approaches.

In 2013 USDA FNS expanded the scope of allowable SNAP-Ed activities beyond direct, behavior-focused nutrition education to include policy, systems, and environmental (PSE) changes which improve access to fruits and vegetables as well as increase their consumption.<sup>7</sup> Beyond encouraging individual behavior change, PSE changes seek to make the healthy choice the easiest choice for low-income families where they “live, learn, work, and play”. This regulatory change set the stage for more comprehensive approaches to help food insecure families improve their diets.

## 2014 – Mobile Food Pantry Nutrition Education and Social Marketing Pilot with Gleaners Community Food Bank of Southeastern Michigan

In 2014, MFF partnered with Gleaners to provide *Michigan Harvest of the Month™* nutrition education, recipe cards, tastings, and kitchen colanders to clients at eight (8) different mobile food pantry distributions where fresh produce was readily available but difficult to distribute. Produce items featured in two different recipes were made available to pantry clients, who were encouraged to select this produce from the distribution line. Social marketing “sandwich boards” with the USDA Core Nutrition Message “They learn from watching you. Eat more fruits and vegetables and your kids will too!” were also displayed at one pantry.

One thousand nine hundred (1,900) families attended the eight (8) mobile pantry distributions. Of these, 1,125 families participated in the recipe tastings. Clients’ overall reaction was positive and the tastings were deemed a success. While client preferences did differ between sites, a majority of survey respondents across all sites “loved” each of the recipes and intended to prepare them at home. All of the featured produce was distributed. An even greater positive reaction was noted at the pantry where social marketing sandwich boards were displayed during the tastings and used to reinforce the nutrition educators’ healthy eating messages. Based on the success of this pilot, the model is now being brought to scale by Michigan’s emergency food bank network with separate funds. MFF is also considering continued SNAP-Ed investment in the model.





# 2014 FORMATIVE EVALUATION SURVEY

## 2014 FORMATIVE EVALUATION SURVEY

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### Why Formative Evaluation?

MFF is committed to conducting rigorous and ongoing evaluations at all stages of its programming. Formative Evaluation usually occurs up front and provides information used to shape the features of an intervention during the development stages. It may also be used to test the feasibility of implementing a previously developed intervention in a new setting. All evaluation results are reported to collaborators and the state and federal government, and are being used to shape ongoing efforts to better serve low-income families throughout Michigan.

### Survey Design and Methodology

In 2014, MFF commissioned the Barna Group of Ventura, California to perform a formative evaluation with Michigan emergency food providers, communities of faith, and gardening organizations statewide which answered the following questions:

1. What opportunities and barriers do emergency food providers face to providing fresh fruits and vegetables to emergency food recipients?
2. How willing and able are emergency food providers to implement specific policy, systems, and environmental changes to increase fresh produce availability and consumption?

Where appropriate, survey questions were aligned with industry-standard survey questions from Pew Research Forum, Barna Group Research, and Feeding America.

A total of 2,962 people were invited by Barna Group and MFF Partners to participate in the online survey. Responses were collected from March 14 to April 29, 2014. Three hundred seventy-four (374) organizations completed the survey, which represents a sampling error of +/- 5 percent at the 95% confidence level.



# EVALUATION FINDINGS

## EVALUATION FINDINGS<sup>1</sup>

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ONLY DATA FOR ORGANIZATIONS WITH EMERGENCY FOOD PANTRIES (TRADITIONAL, CLIENT CHOICE, OR MOBILE) ARE CONVEYED IN THIS REPORT. NUMBERS ARE ROUNDED TO THE NEAREST WHOLE NUMBER, WHERE APPROPRIATE.

### Respondent Characteristics / Organizational Attributes

#### Emergency Food Distribution Models

Among organizations providing emergency food, over half (57%) operated traditional (bagged or boxed) food pantries, nearly half (45%) operated client choice food pantries, and nearly one in five (18%) served as host sites for mobile food pantries. (Organizations were able to select one or more service types.)

## FIGURE 2

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See insert on page 24.

#### Number of Years Providing Emergency Food

One in four pantries (25%) have been providing emergency food for more than 30 years and nearly seven in ten (67%) have been providing emergency food for more than 10 years.

#### Number of Years Gardening

Of pantries which do garden, most began only recently; nearly three in five (59%) have gardened for four years or less and nearly 78% have done so for six years or less.

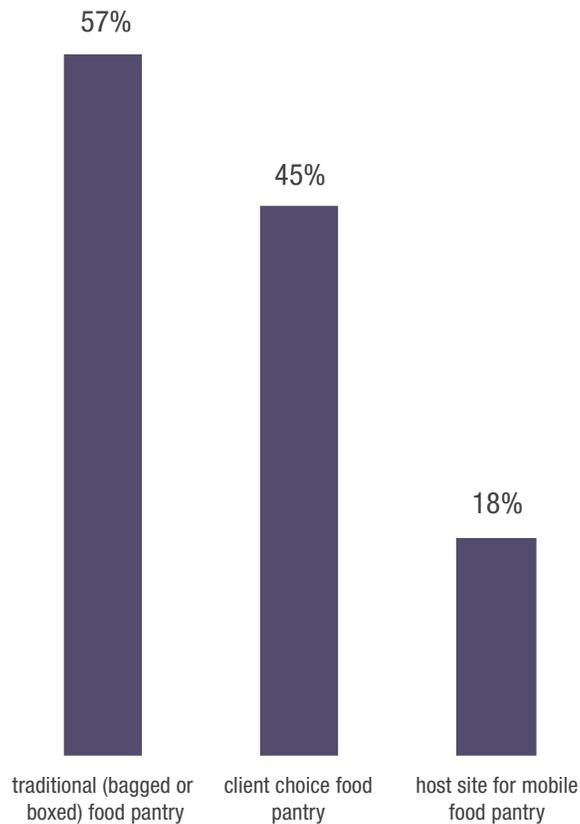
## FIGURE 3

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See insert on page 25.

## Emergency Food Distribution Models

Which of the following best describes the food-related work of your organization?  
(Check all that apply.)



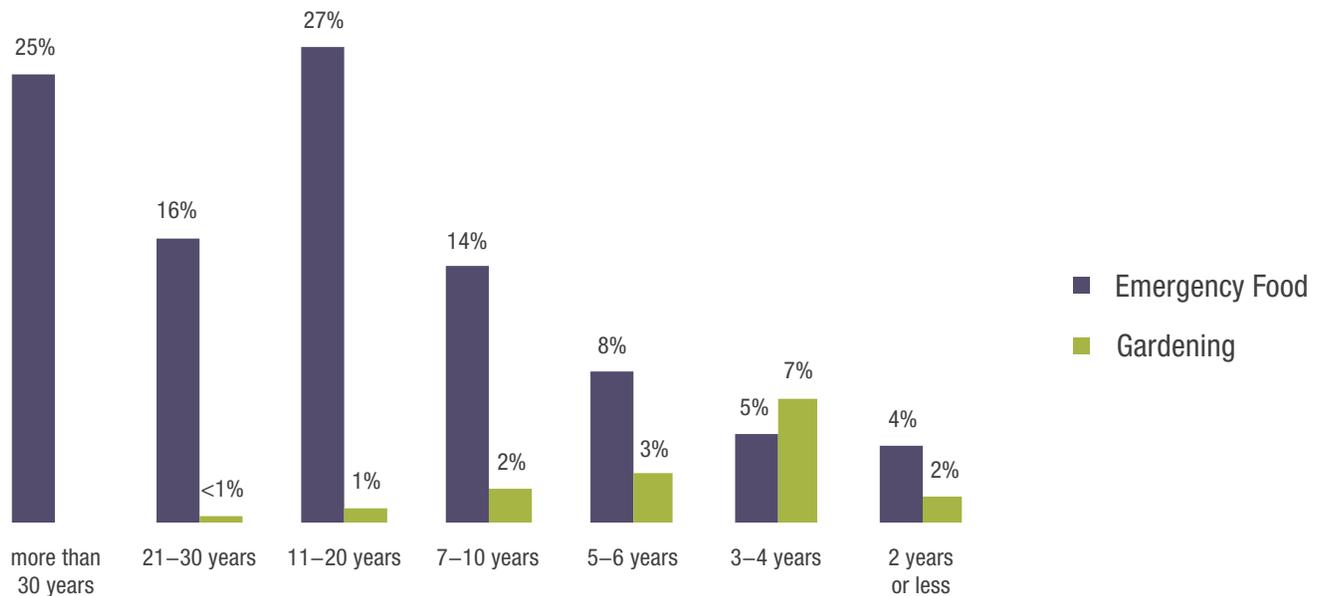
total respondents (pantries) = 260

**FIGURE 3**

## Longevity of Emergency Food Provision and Gardening Among Pantries

How long has your organization been gardening?

How long has your organization been providing emergency food?



total respondents (pantries) = 260

## Faith Affiliation

The vast majority of food pantries (88%) responding to the survey were faith-based. A majority of pantries were affiliated with Christian denominations, mainly Evangelical Protestant (38%), Mainline Protestant (23%), and Catholic (22%). With the exception of ecumenical/interfaith (7%), other (3%) and unaffiliated (2%), few organizations representing other religions responded to the survey.

## FIGURE 4

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See insert on page 27.

## FIGURE 5

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See insert on page 28.

## Organization's Location

Survey results were obtained from pantries in 196 unique zip codes throughout Michigan. Respondents were distributed across rural, small town, small city, outer suburban, inner suburban, and inner city neighborhoods. Small town (31%) and inner city (20%) pantries had the highest representation among respondents.

## FIGURE 6

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See insert on page 29.

## FIGURE 7

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See insert on page 30.

## **Pantry Faith Affiliation (General)**

**Is your organization faith-based or affiliated with a religious institution?**



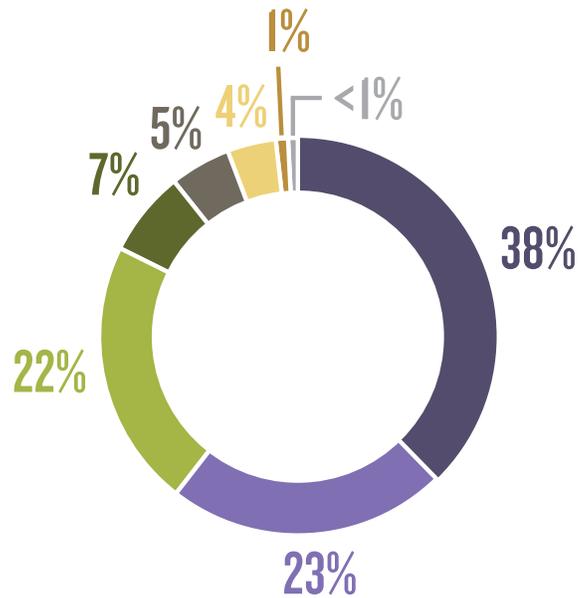
**Said Yes**

**total respondents (pantries) = 260**

**FIGURE 5**

## Pantry Faith Affiliation (Specific)

Which best describes your organization's religious affiliation?

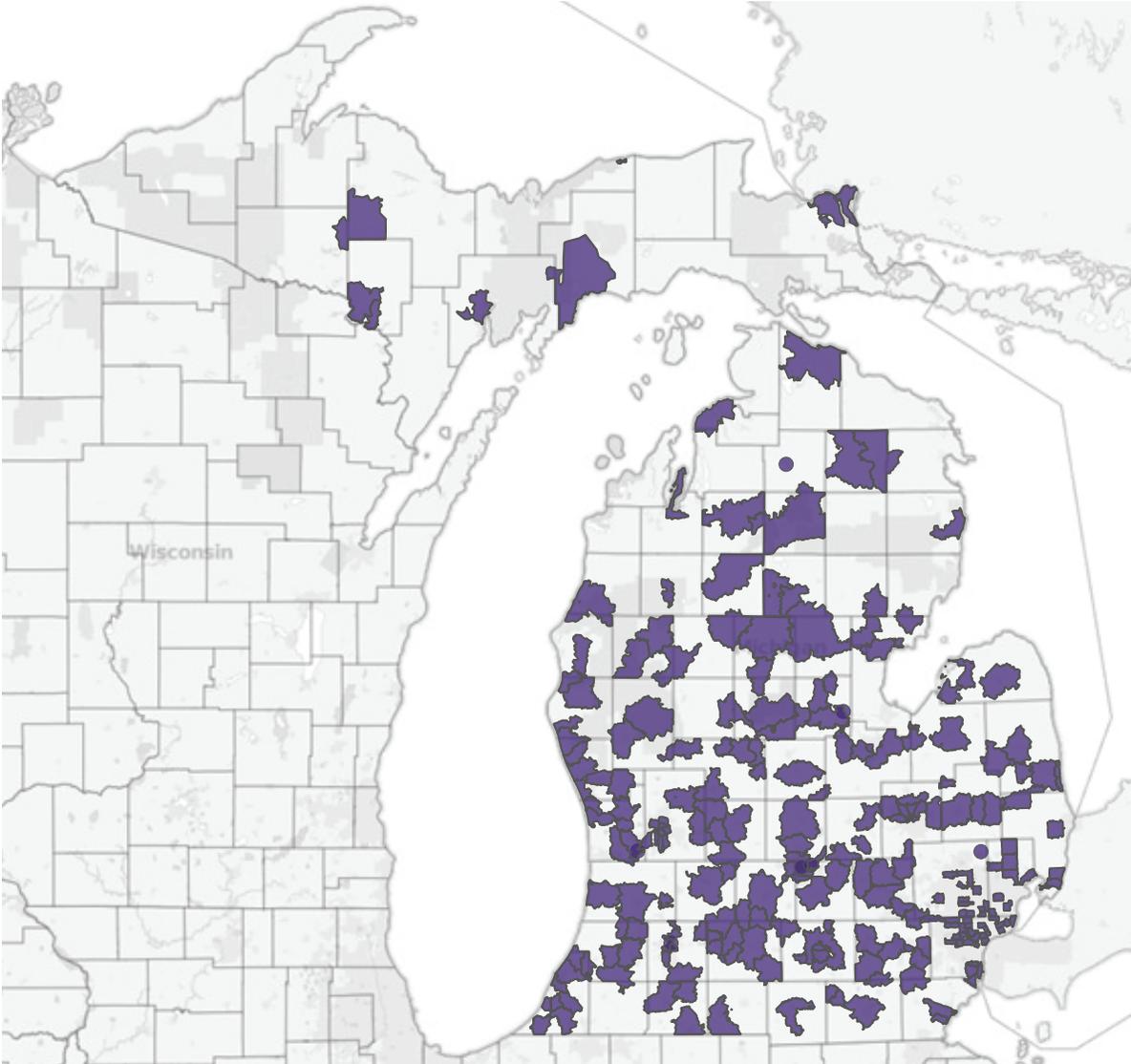


- Christian (Evangelical Protestant)
- Christian (Mainline Protestant)
- Christian (Catholic)
- Ecumenical / Interfaith
- Christian (Historically Black Protestant)
- Other or Unaffiliated
- Christian (Orthodox)
- Native American Religion

**total respondents (pantries) = 260**

**FIGURE 6**

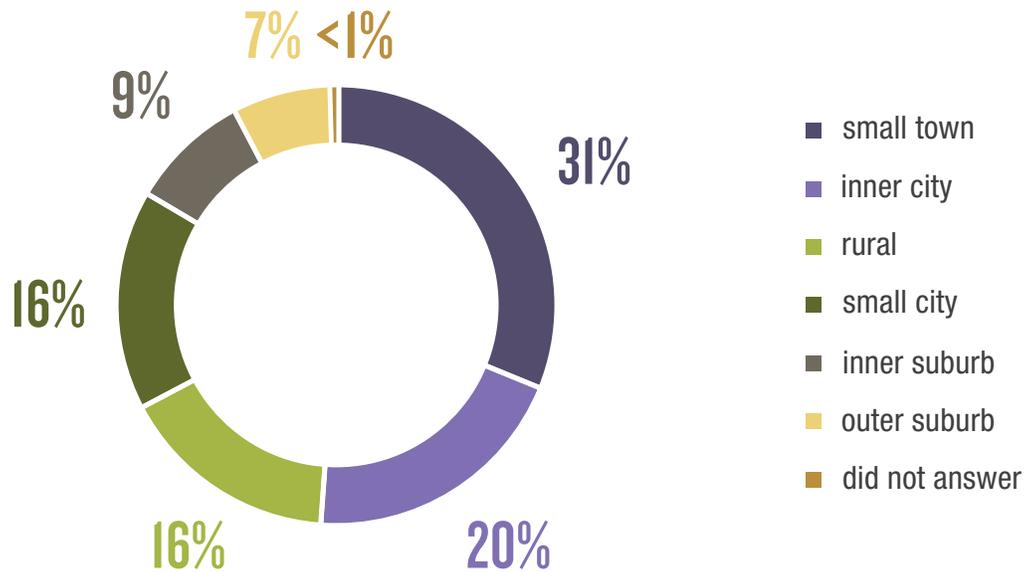
# Respondent Distribution by Zip Code



**FIGURE 7**

## Pantry Locations

Which of the following best describes the neighborhood where your organization is located?



total respondents (pantries) = 260

## Emergency Food Distribution Trends

### Frequency of Emergency Food Distribution

Most pantries (63%) provided food at least once a week. The frequency with which pantries distribute emergency food is fairly evenly distributed; roughly one quarter (27%) distribute food multiple times per week, weekly (24%), or monthly (21%). Fewer pantries distribute food daily (12%) or “other” frequencies (15%), e.g. bi-monthly.

### FIGURE 8

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See insert on page 32.

### Number of Client Households Served

Over half of all pantries (54%) serve 50 or fewer households per distribution. Three quarters of all pantries (76%) serve 100 or fewer households per distribution.

### FIGURE 9

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See insert on page 33.

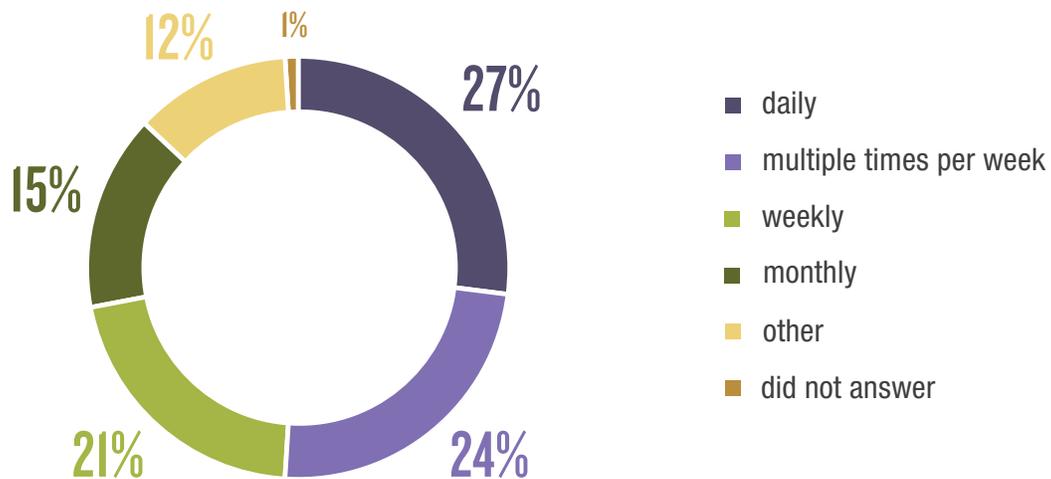
### Amount of Food Distributed

Over half of all pantries (56%) distribute 50 or fewer bags/boxes of food per typical distribution. Seven in ten pantries (70%) serve 100 or fewer bags/boxes of food per typical distribution.

**FIGURE 8**

## Frequency of Emergency Food Distribution by Pantries

How frequently does your organization provide meals and/or bags or boxes of food?

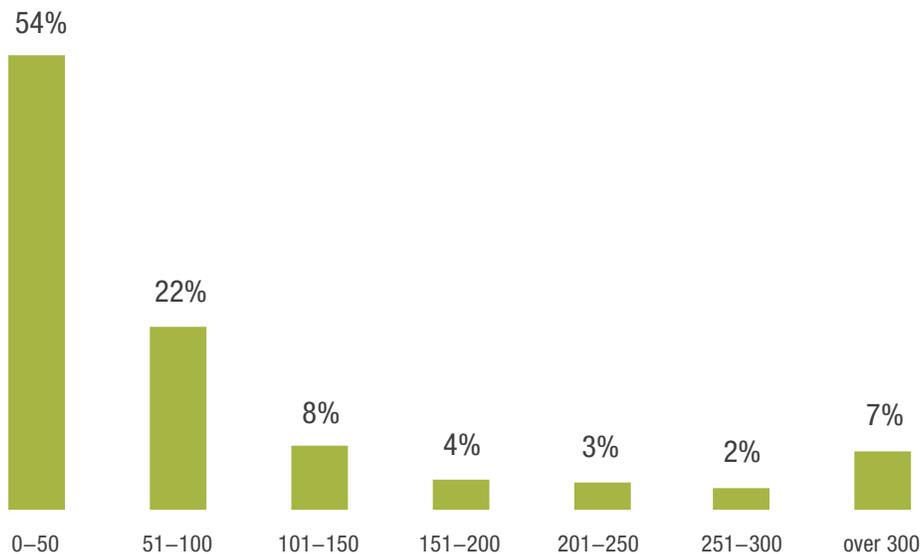


total respondents (pantries) = 260

## FIGURE 9

### Number of Client Households Served by Pantries per Distribution

About how many different persons or households does your organization serve at a typical distribution?



total respondents (pantries) = 247

## FIGURE 10

---

See insert on page 35.

### Client Profile

On average, nearly half (48%) of clients across pantries access emergency food 11-12 times per year, consistent with findings of other industry-standard reports.<sup>8</sup>

Three in five clients (60%) were female, on average, across pantries. The median and mode percentages of clients who were female was also 60%, suggesting that more women are present than men at a typical Michigan pantry.

On average across pantries, one in five (20%) of clients were children ages 5-17 and over half were (54%) were adults ages 18-59. One quarter of clients (25%) were seniors over age 60.

On average across pantries, half of clients (49%) belonged to families with children.

(PLEASE NOTE: ANSWERS TO THESE DEMOGRAPHIC QUESTIONS ONLY ADD UP TO 100% WITHIN INDIVIDUAL RESPONSES, NOT ACROSS RESPONSES.)

### Fresh Produce Requests vs. Receipts

While this survey did not ask respondents to quantify how much fresh produce they receive, nine in ten pantries (93%) receive at least some amount of fresh produce from their sources, most commonly regional food banks (58%) and individual gardeners (55%). One third of pantries receive fresh produce from local farmers (33%) and one quarter (25%) received fresh produce from community gardens. Only a few pantries (7%) do not accept fresh produce. Fewer than four in ten pantries (38%) actually request fresh produce from any source. In addition, fewer pantries request produce than actually *receive* it, across all potential sources.

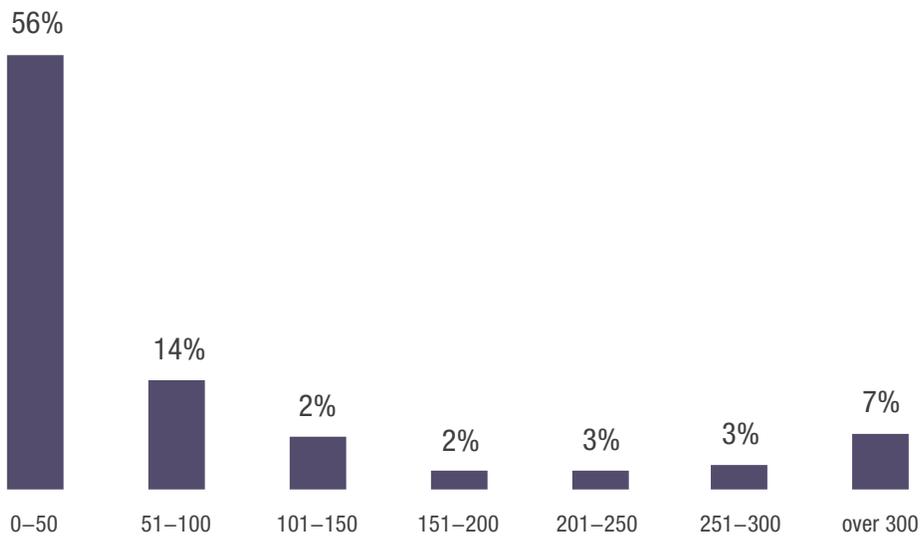
## FIGURE 11

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See insert on page 36.

### Amount of Food Distributed by Pantries per Distribution

About how many meals and / or bags or boxes of food are provided at a typical distribution?

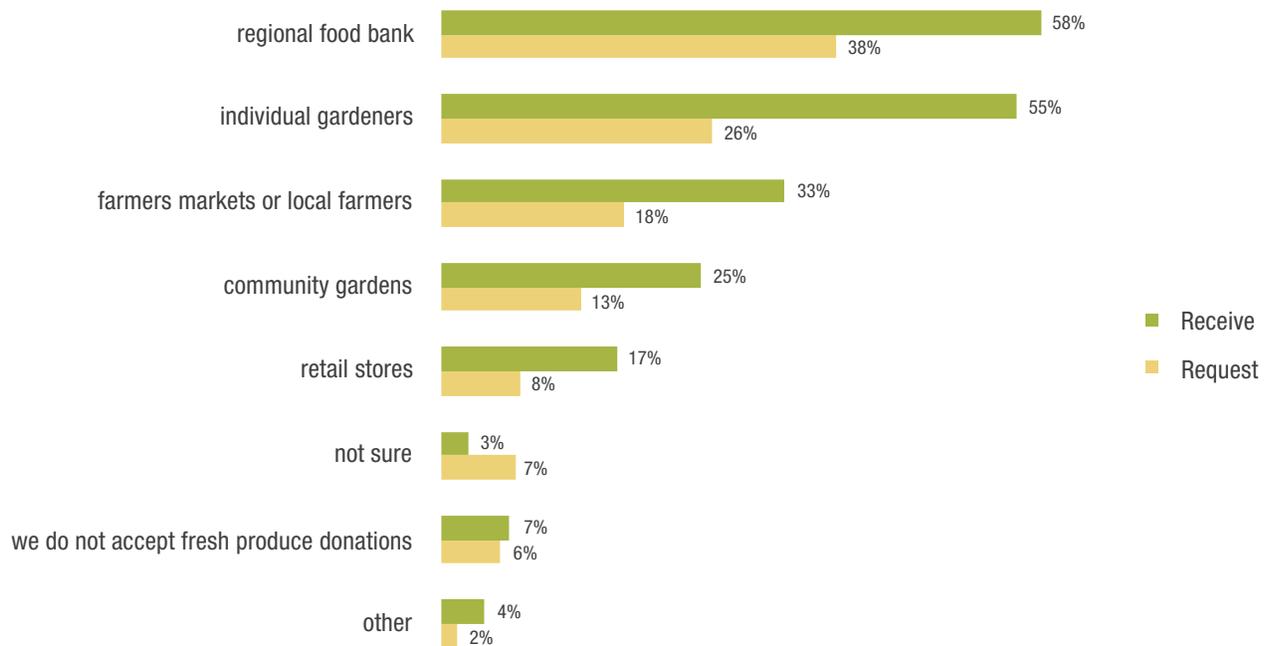


total respondents (pantries) = 229

**Pantry Produce Requests vs. Receipts, by Source**

Does your organization receive fresh produce donations from any of the following sources? (Check all that apply.)

Does your organization specifically ask for fresh produce donations from any of the following sources? (Check all that apply.)



**total respondents (pantries) = 260**

## Barriers to Accepting and Distributing Fresh Produce

### Supply-Side Barriers

Pantries report several perceived barriers to accepting and distributing more fresh produce. The greatest barriers are “supply-side” barriers related to insufficient physical infrastructure, namely cold storage (50%) and storage space (40%), followed by not enough produce donors (29%) and lack of funding (26%).

### Demand-Side Barriers

Only six percent of pantries reported that their clients did not like fresh produce. Over one in seven (15%) reported their clients did not know how to use fresh produce. In open-ended survey responses, numerous pantries also cited clients’ inability to prepare fresh produce.

## FIGURE 12

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See insert on page 38.

## Gardening Trends

### Gardening Prevalence

Unlike accepting and distributing of fresh produce, gardening is not a common activity among pantries. Fewer than one in ten pantries (8%) currently maintain a garden; another 8% have gardened in the past; and nearly nine in ten (89%) have never gardened.

## FIGURE 13

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See insert on page 39.

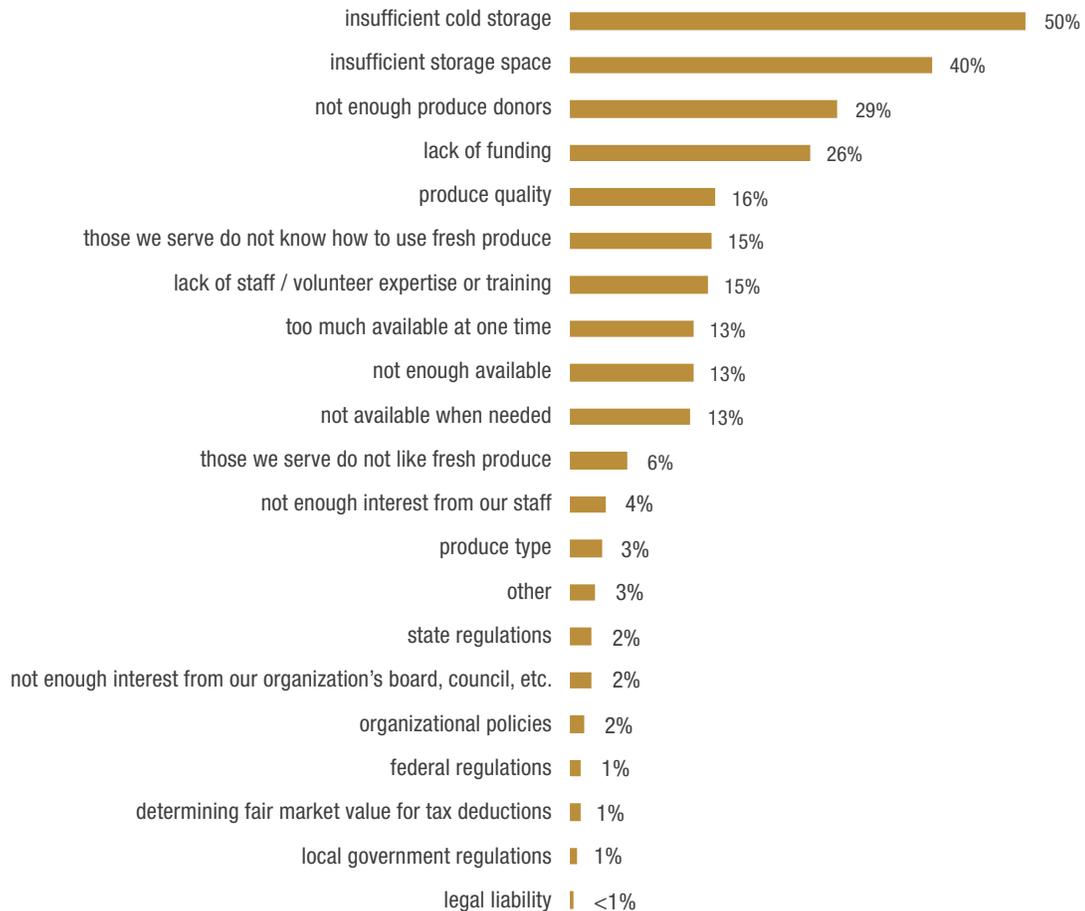
## FIGURE 14

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See insert on page 40.

## Barriers to Accepting and Distributing Fresh Produce Among Pantries

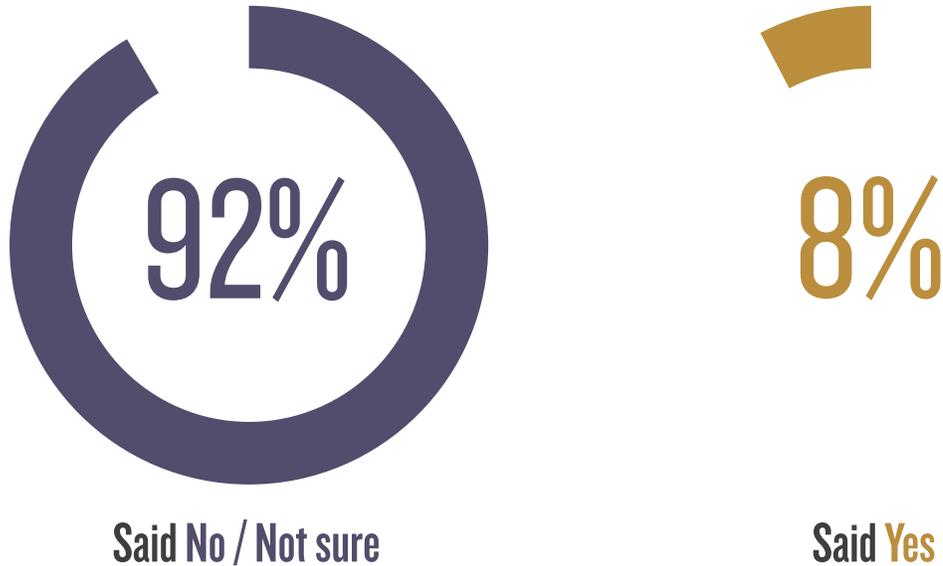
Which of the following are the biggest challenges your organization faces to accepting and distributing fresh produce? (Choose up to three.)



**total respondents (pantries) = 260**

## Gardening Prevalence Among Pantries (Present)

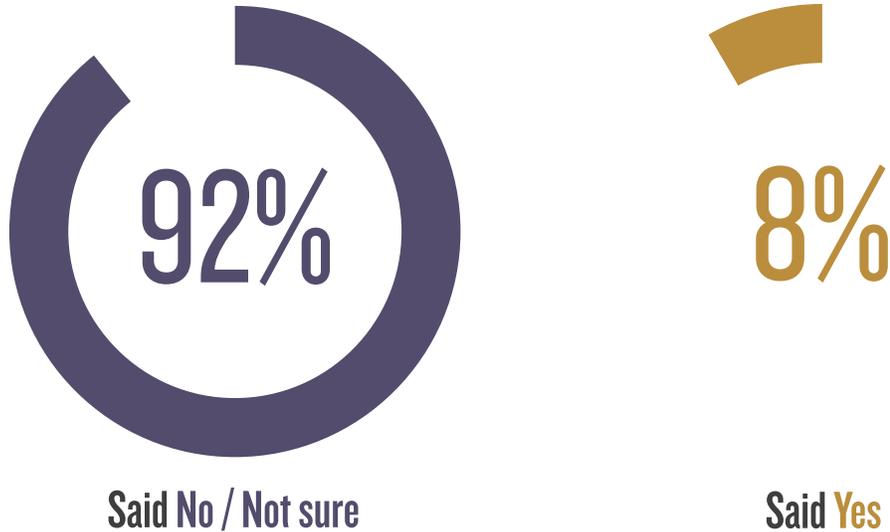
Does your organization have or maintain a garden?



total respondents (pantries) = 235

## Gardening Prevalence Among Pantries (Past)

Has your organization had or maintained a garden in the past?



total respondents (pantries) = 214

“

We don't have a very large storage area for fresh produce. It would have to be distributed soon after receiving to avoid spoilage, etc. Some of the clients would not know how to prepare or process some of the fresh produce items. They would have to be given instructions and recipes with some of the produce varieties.

”

“

Preservation of fresh and perishable items. Items [from the food bank] are usually near end of useful life. Inadequate storage space and equipment. Also clients cannot always identify items or know how to keep, prepare or use items.

”

“

- 1) We don't have a lot of extra refrigerator storage.
  - 2) Our clients are only somewhat interested in fresh produce.
- ”

### Motivations for Gardening

Among pantries which do garden, over two-thirds (70%) do so to promote health and to increase overall food availability (70%). Nearly half (49%) of pantries which garden do so to promote a sense of community. Most gardens are operated by an organization that directly uses the produce (56%).

### FIGURE 15

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See insert on page 43.

### Garden Size

Size and scope of pantry garden operations vary widely. Over one quarter of pantry gardens (29%) are less than 500 square feet; a third (32%) are between 501 and 2,000 square feet; and one quarter (24%) are larger than 2,000 square feet.

### FIGURE 16

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See insert on page 44.

### Types of Produce Grown

Most pantry gardens (86%) produce vegetables – tomatoes, beans, cucumbers, summer squash, and sweet peppers are most common – while only 18% produce fruit. Herbs are also commonly grown (42%).

### FIGURE 17

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See insert on page 45.

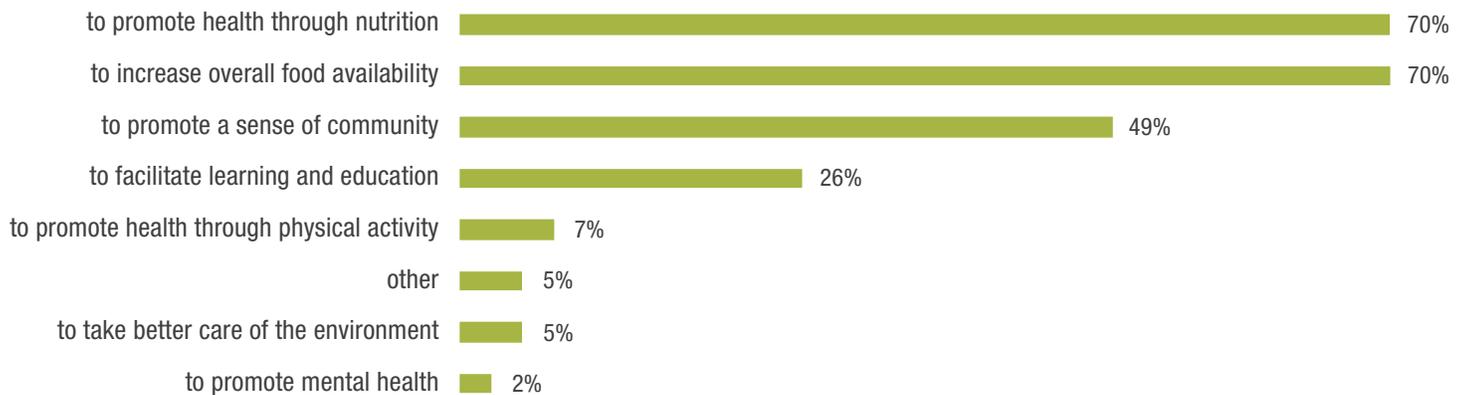
### FIGURE 18

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See insert on page 46.

## Motivations for Gardening Among Pantries

Which of the following are the most important reasons that your organization gardens?  
(Choose up to three.)

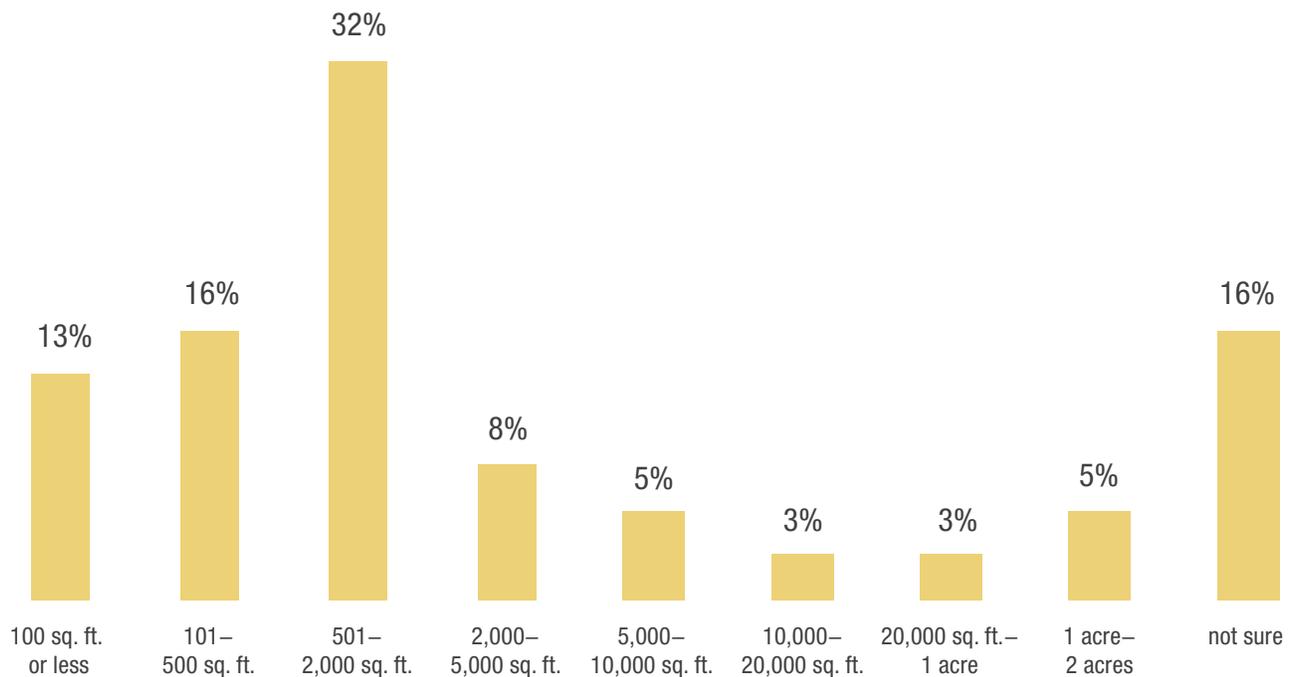


total respondents (pantries with gardens) = 43

**FIGURE 16**

## Pantry Garden Size

What is the approximate total area of your garden or gardens?

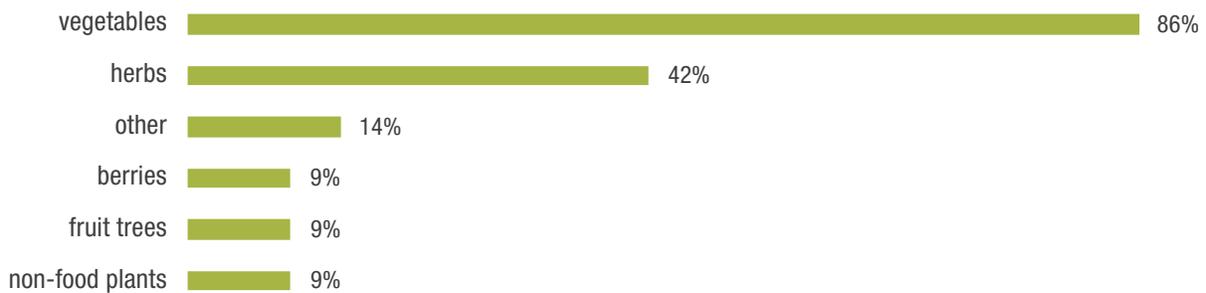


**total respondents (pantries with gardens) = 43**

**FIGURE 17**

## Plants Grown by Pantries

Which of the following will be grown in your organization's garden(s) this year?  
(Check all that apply.)

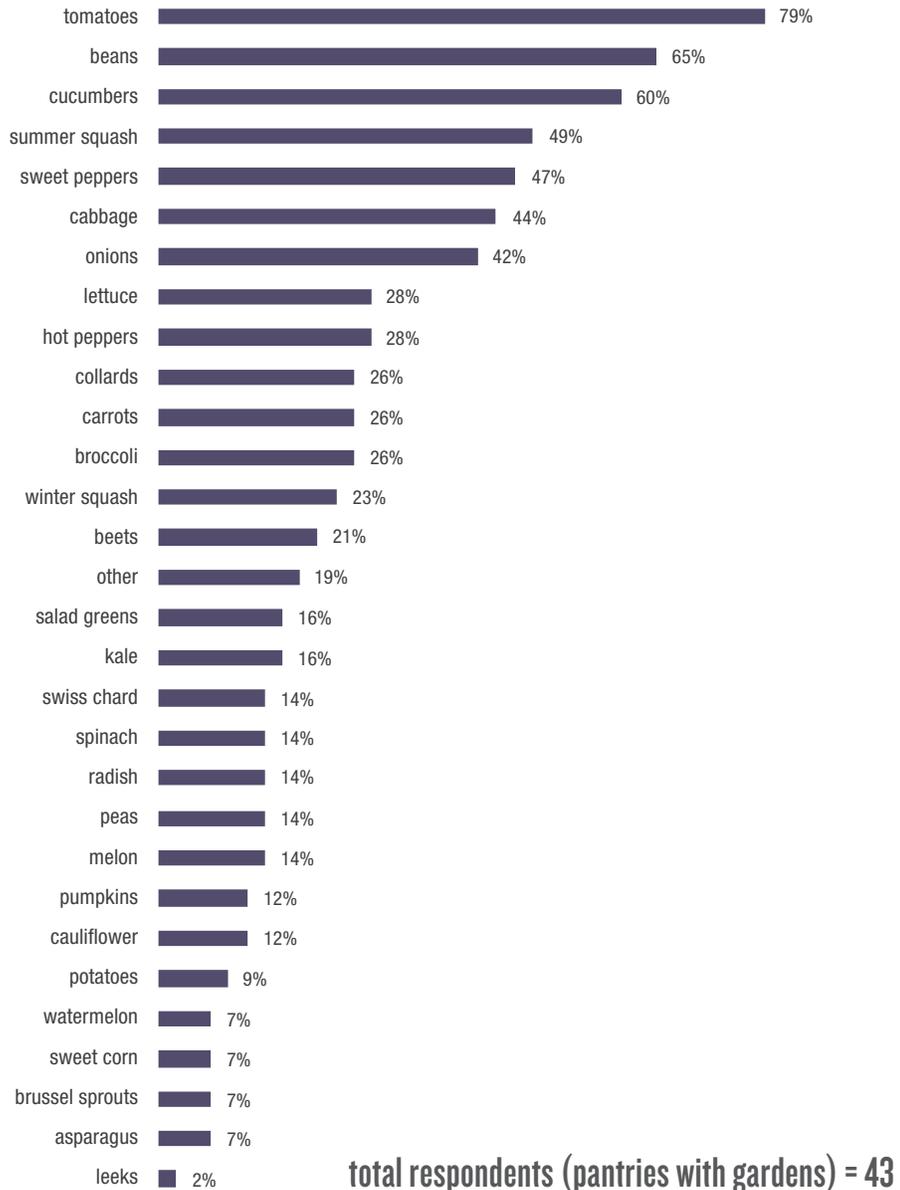


**total respondents (pantries with gardens) = 43**

**FIGURE 18**

## Vegetables Grown by Pantries

Which of the following will be grown in your organization's garden(s) this year?  
(Check all that apply.)



## Produce Yields

Pantry garden yields range from less than 20 lbs of produce per year to about 5,000 lbs (2.5 tons) of produce per year.

## Distribution of Garden Produce

Most organizations operating both pantries and gardens use the produce directly in the organization's pantry, shelter, or soup kitchen (78%), and one third give it directly to their constituents (33%). Eleven percent donate the produce to a different pantry, shelter, or soup kitchen. In many cases the constituents are directly involved in maintaining the garden.

## Gardener Profile

(PLEASE NOTE: ANSWERS TO THESE DEMOGRAPHIC QUESTIONS ONLY ADD UP TO 100% WITHIN INDIVIDUAL RESPONSES, NOT ACROSS RESPONSES.)

Volunteer gardeners were more prevalent than gardeners employed by the organization operating the food pantry.

On average across pantry gardens, a majority (54%) of gardeners were low-income. The median percentage of regular pantry gardeners who are low-income was 80%, suggesting that more pantry gardens than not are tended almost entirely by low-income individuals.

Within most pantry gardens, gardeners were evenly split between men (50%) and women (50%). Across pantry gardens, however, more women (68%) gardened, on average, than men.

On average across pantry gardens, one quarter (24%) of gardeners were children ages 5-17 and one quarter (26%) were adults ages 18-59. Over one third of gardeners (35%) were seniors over age 60.

On average across pantry gardens, half of gardeners (49%) belonged to families with children.

## Barriers to Gardening

### Barriers to Gardening

Pantries which do not garden cited numerous barriers to doing so. The top three reported barriers were: lack of proper space for gardening (40%), lack of time (32%), and lack of proper staff/volunteer expertise or training (23%). Aside from space, very few pantries reported other natural/physical barriers to gardening (suitability of land or climate, access to water, etc.). Very few pantries (1% or less ) cited organizational, local, state, or federal regulatory barriers to gardening.

## FIGURE 19

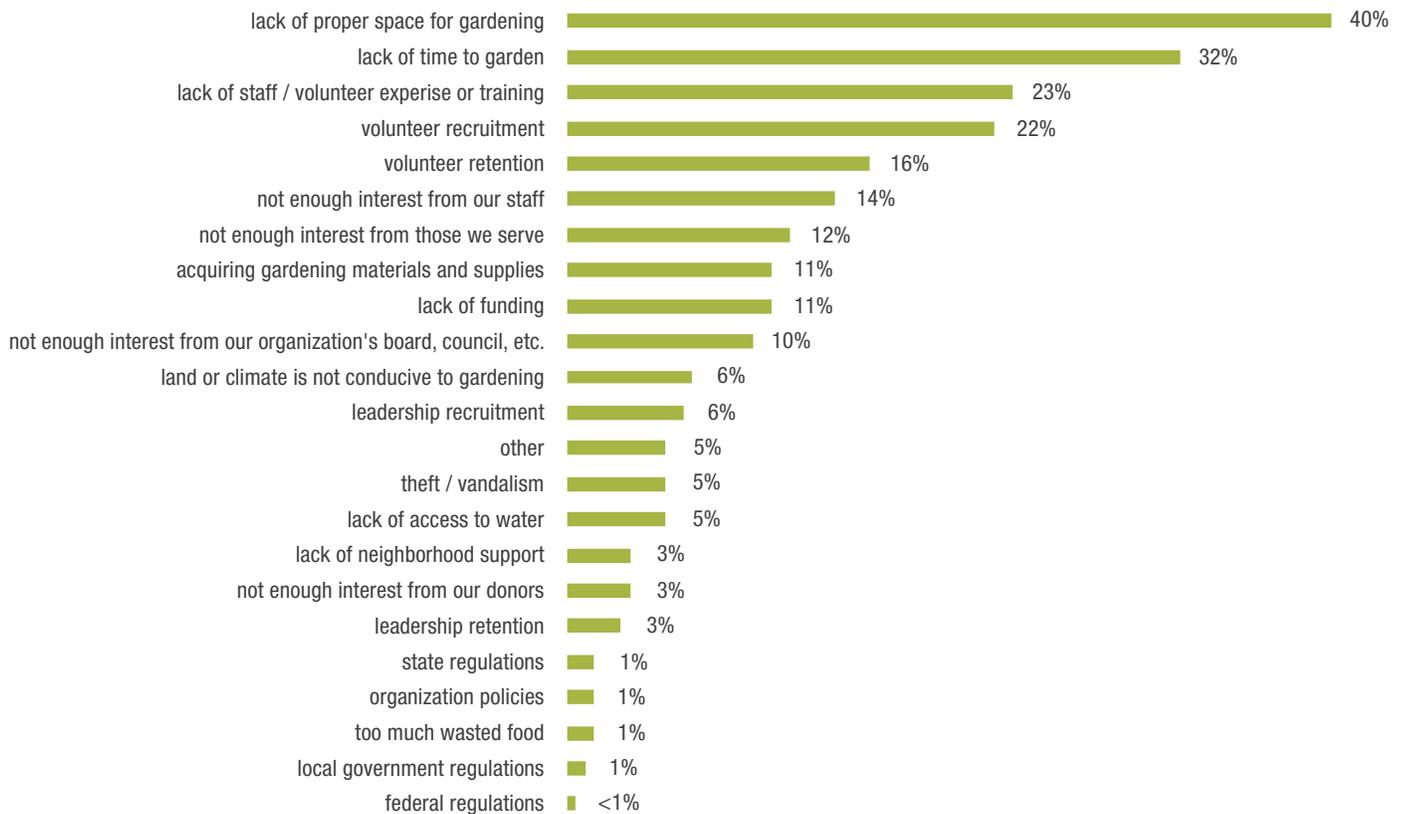
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See insert on page 49.

**FIGURE 19**

## Barriers to Gardening Among Pantries

Which of the following are the biggest challenges your organization faces to having a garden?  
(Choose up to three.)



**total respondents (pantries without gardens) = 217**

\*NUMBERS DO NOT ADD TO 100% DUE TO MULTIPLE RESPONSES PER RESPONDENT.

“

We have no property—operate out of donated space. Volunteers with limited time and skills.

”

“

Lack of funding, lack of land in immediate vicinity, lack of volunteers with gardening experience.

”

“

The garden has been great—it’s just been difficult to get people to take the produce.

”

“

During the summer months we plant a garden which is available to any client of ours who is willing to participate in its maintenance and which teaches them gardening tips and allows them to have fresh produce... We also distribute what we grow in our pantry.

”

## Policy, Systems, and Environmental Change

### Engagement in Specific Policy, Systems, and Environmental Change Activities

Engagement in specific policy, systems, and environmental change activities is low among pantries. Aside from distributing educational materials (34%), less than one third of pantries participate in any of the activities listed in the survey.

### Interest in Specific Policy, Systems, and Environmental Change Activities

Pantry interest in policy, systems, and environmental change activities is much greater than current participation. Almost two thirds of pantries (65%) are willing to distribute fruit and vegetable seeds and more than half are willing to accept and distribute food plants (59%). There is also strong interest in distributing healthy recipes (57%), promoting healthy eating messages (53%), giving out children's books on healthy eating (52%), and distributing educational materials (51%).

## FIGURE 20

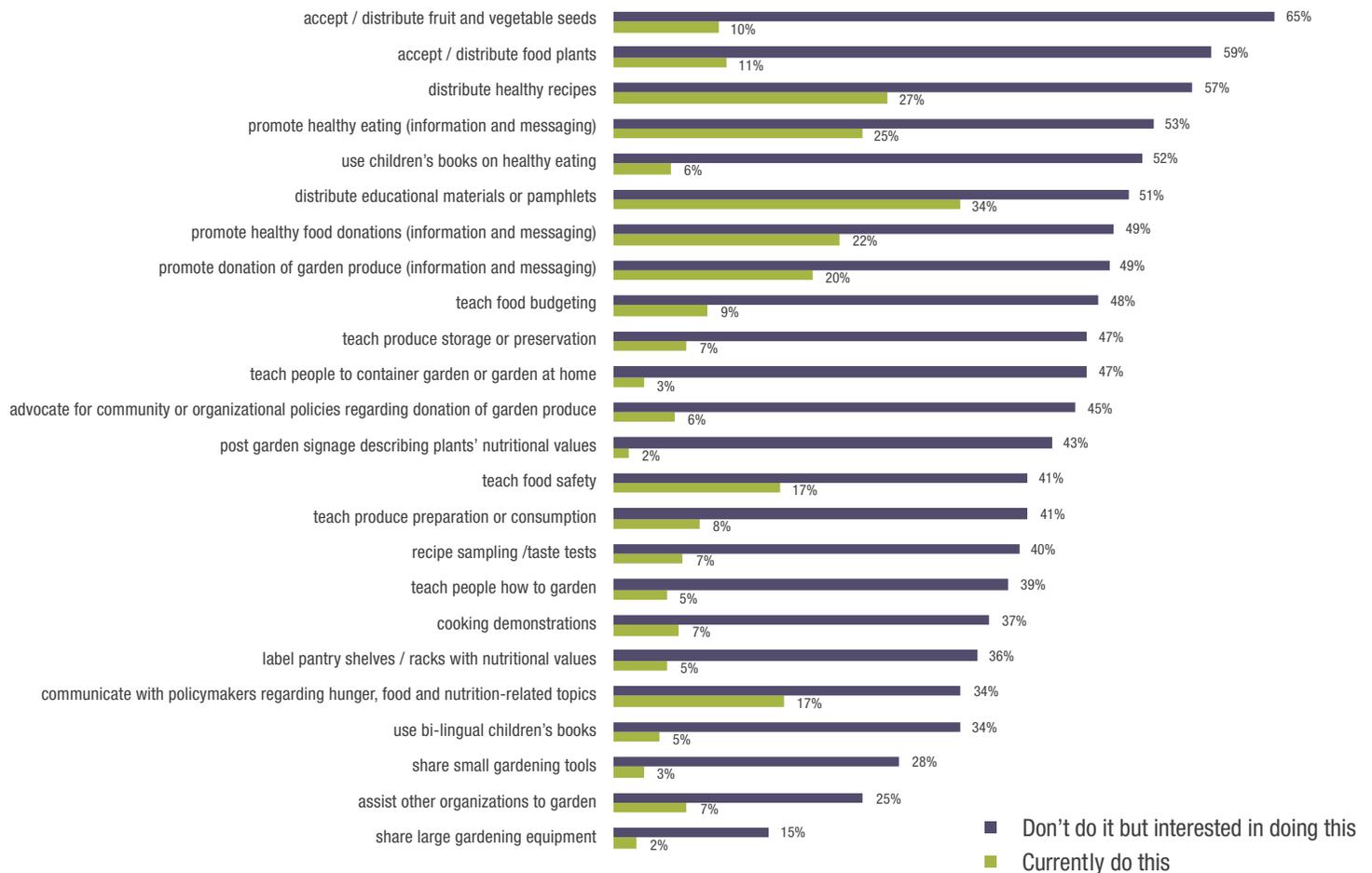
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See insert on page 52.

## FIGURE 20

### Pantry Engagement and Interest in Policy, Systems, and Environmental Change Activities (Specific)

For each of the following activities, please tell us if your organization currently does it, would be interested in doing it, or would not be interested.



total respondents (pantries) = 260

“

If we knew that we had a steady supply, we could allocate more shelf space for the produce. We could maybe put a story in the local paper asking for produce from local gardeners.

”

“

Education on use of healthy produce and foods is the most feasible. Climate controlled areas would be helpful, but this is cost and space prohibitive at the moment.

”

“

If there were someone who might consider coming and preparing these awesome veggies for us to taste. We have access to a kitchen and all one would need is to prepare food for tasting and keep it fresh on site.

”

## Interest in General Policy, Systems, and Environmental Change Activities

While current participation in policy, systems, and environmental change activities is low among pantries, interest is much higher. Eighty-eight percent (88%) of pantries are somewhat or very interested in accepting donated produce from local gardeners to distribute to low-income families and 71% are interested in providing nutrition education to low-income families. Over half of pantries (52%) are somewhat or very interested in equipping families to grow fresh produce at home. By comparison, pantries were least interested in growing produce to distribute to low-income families. Nonetheless, this still represented over one third of all pantries (37%).

### FIGURE 21

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See insert on page 55.

## Communications

### Communications Channels

Word of mouth was by far the most common method pantries used to connect with their community (83%), followed distantly by posters and fliers (48%), internet/web-sites (43%) and e-mail (41%).

### FIGURE 22

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See insert on page 56.

### Social Media Use

Over one third of pantries (36%) report using no social media. Half (50%) of pantries report using Facebook, followed by “other” (15%), Twitter (8%), and YouTube (8%).

### FIGURE 23

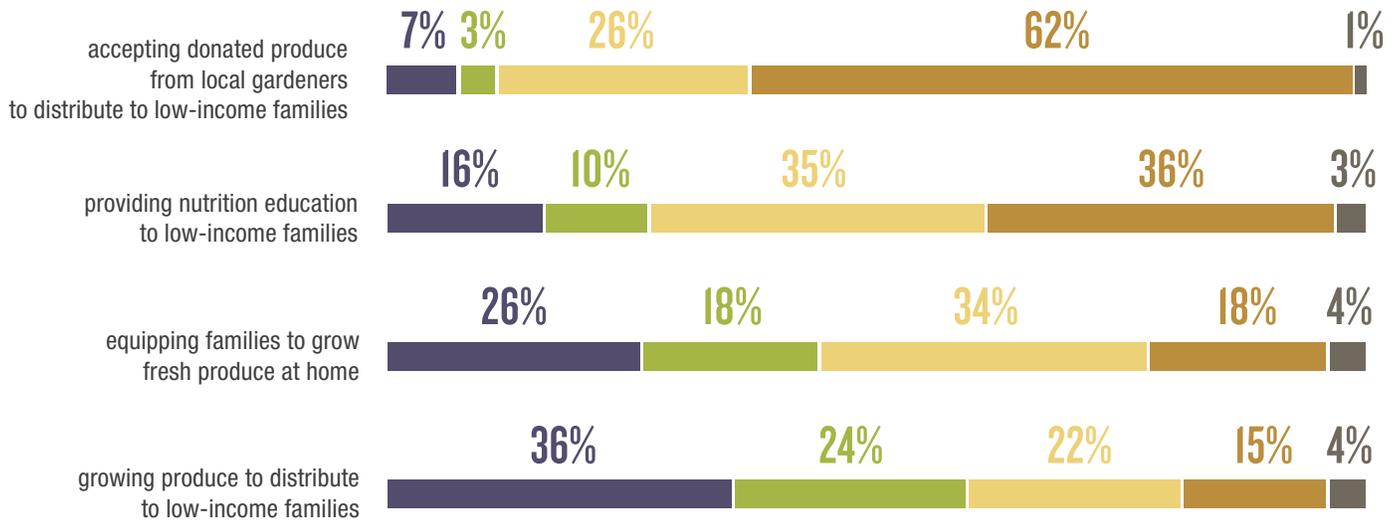
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See insert on page 57.

**FIGURE 21**

## Pantry Interest in Policy, Systems, and Environmental Change Activities (General)

How interested is your organization in the following?



\*Numbers do not add to 100% due to rounding within response categories.

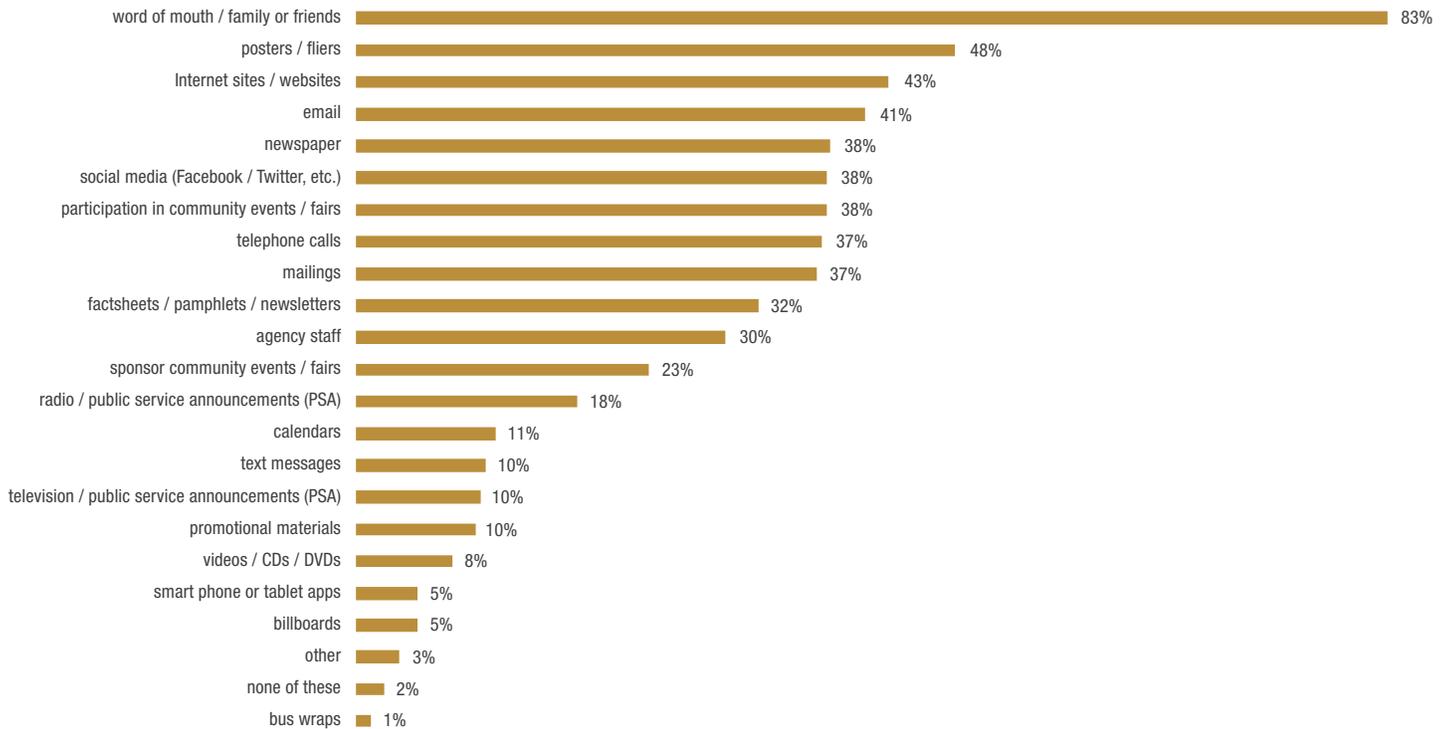
- not at all
- not too
- somewhat
- very
- did not answer

total respondents (pantries) = 260

**FIGURE 22**

### Pantry Communications Channels

Which of the following does your organization use to connect with your community? (Check all that apply.)

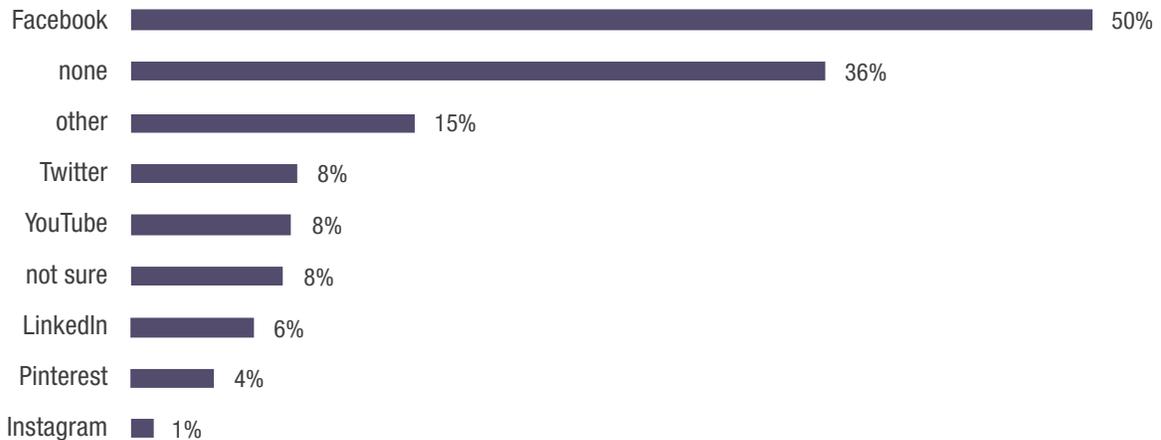


**total respondents (pantries) = 260**

\*NUMBERS DO NOT ADD TO 100% DUE TO MULTIPLE RESPONSES PER RESPONDENT.

## Social Media Use Among Pantries

Which of the following does your organization use? (Check all that apply.)



**total respondents (pantries) = 260**

## Communication with Local, State, and Federal Policymakers

Only one in six pantries (17%) currently communicate with policymakers regarding hunger, food and nutrition-related topics. While nearly half (45%) of pantries are not interested in communicating with policymakers on these topics, over 1 in 3 pantries (34%) would be interested in doing so. (This is roughly 1,030 pantries statewide).<sup>2</sup>

## Leadership, Organizational Capacity, and Other Services

### Formal Training of Organization Leadership

Pantries most often reported that someone on their leadership team had formal training in education (42%) or food preparation / cooking (38%). Fewer than 27% of pantries had leadership team members with formal training in any of the other areas listed in the survey. Least represented among leadership teams were formal training in gardening / agriculture / horticulture (18%) and kinesiology (2%). Over one in ten pantries (11%) had no leadership with formal training in fields related to nutrition, health, and wellness.

## FIGURE 24

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See insert on page 59.

### Additional Services Offered

In addition to emergency food assistance, organizations operating pantries most commonly provided information and referral (36%), clothing (35%), and utility bill assistance (27%). Over one in five pantries (21%) provided no services other than emergency food assistance and six percent (6%) were not sure.

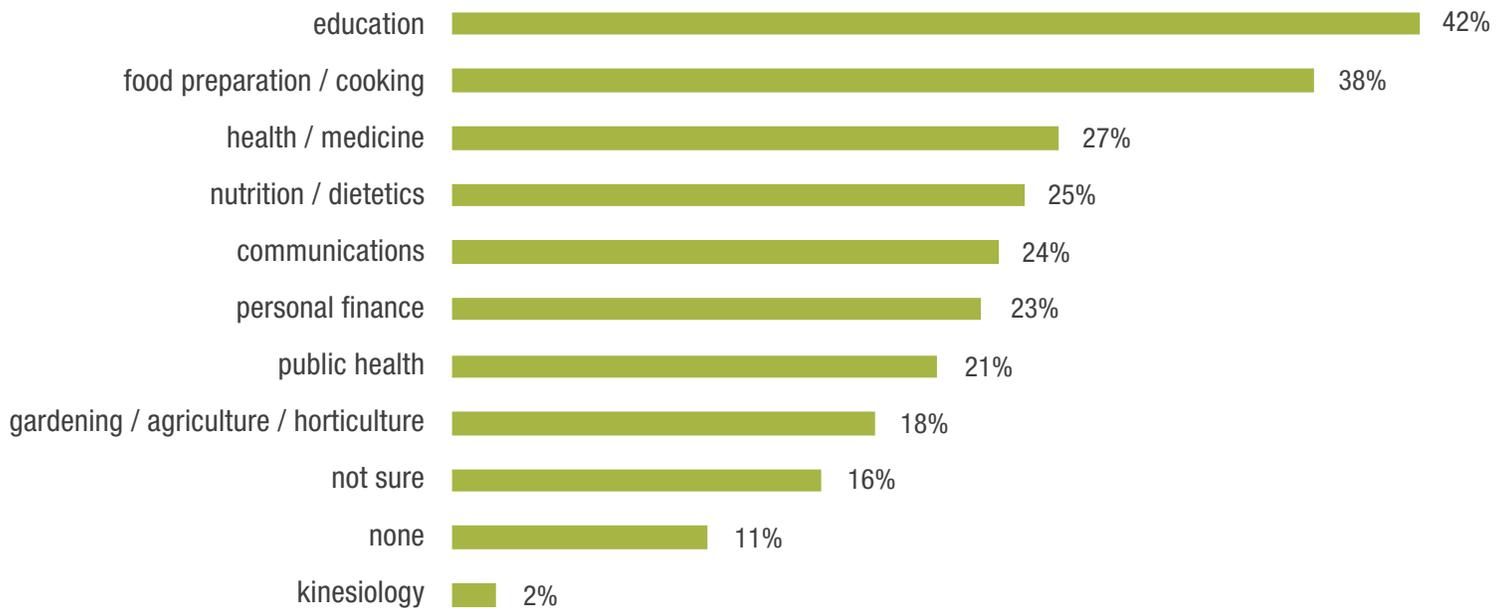
## FIGURE 25

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See insert on page 60.

## Formal Training of Organization Leadership Among Pantries

Thinking about your leadership team, in which of the following areas has someone on your leadership team had formal training? (Check all that apply.)

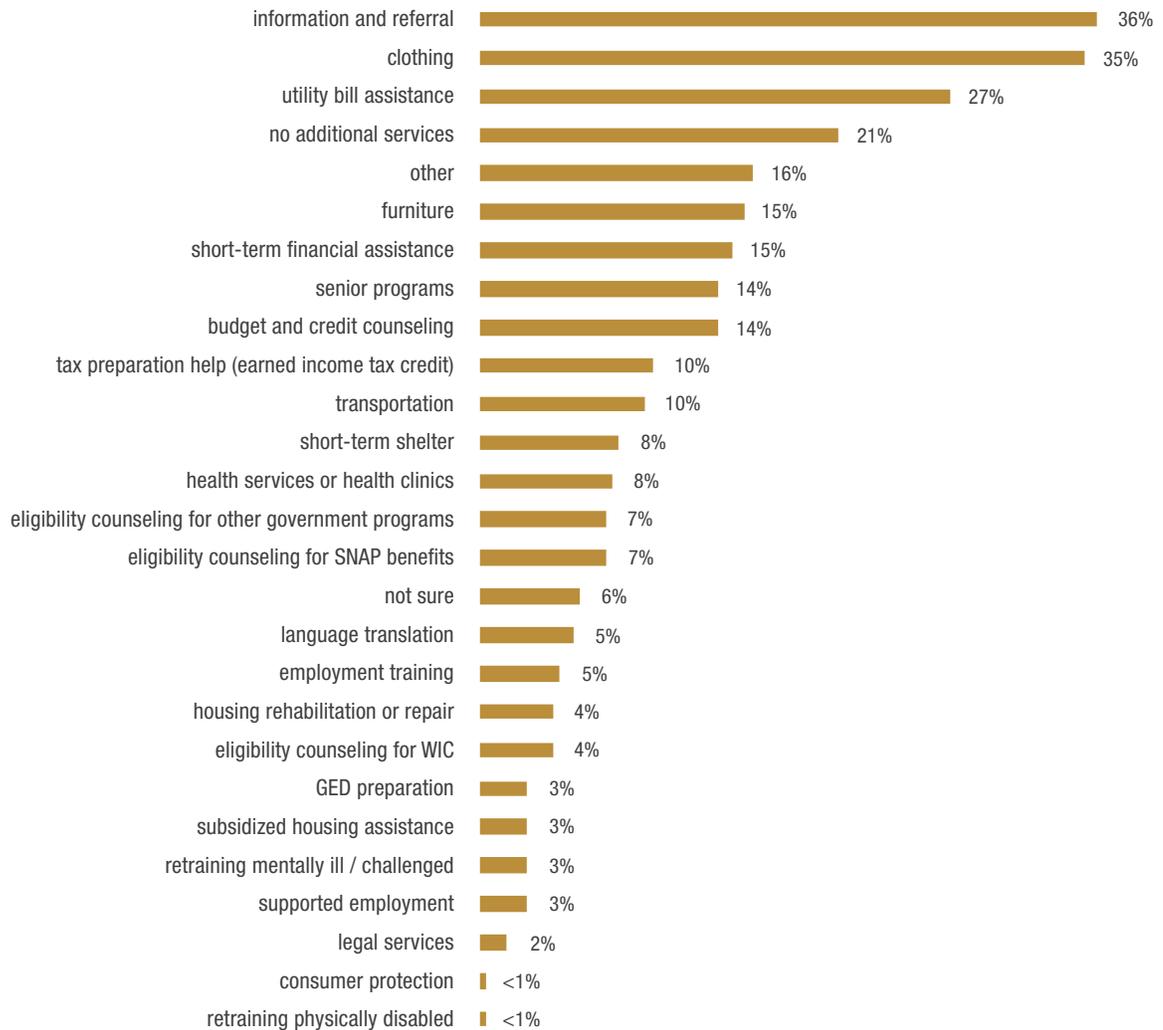


total respondents (pantries) = 260

**FIGURE 25**

## Additional Services Offered by Organizations with Pantries

Which of the following services does your organization offer on a regular basis?  
(Check all that apply.)



**total respondents (pantries) = 260**





# RECOMMENDATIONS

## RECOMMENDATIONS

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THE FOLLOWING RECOMMENDATIONS CAN HELP STAKEHOLDERS WISHING TO IMPROVE THE DIETS OF CURRENT EMERGENCY FOOD RECIPIENTS. EACH RECOMMENDATION WILL BENEFIT FROM, IF NOT REQUIRE, MULTI-DISCIPLINARY COLLABORATION:

### Measure What You Hope to Manage and Achieve.

Although at least nine in ten pantries (93%) reported distributing at least some quantity of fresh produce, this statistic masks what many also reported in qualitative responses – that this selection was often limited, irregularly available, undesirable (e.g. poor quality), unfamiliar, or otherwise unpalatable to recipients. Concerted efforts to increase the quantity, quality, overall variety, and cultural/physiological-appropriateness of food provided to current emergency food recipients are therefore necessary (e.g. leafy greens in addition to cucumbers and tomatoes; ethnic vegetable varieties; softer produce for recipients with poor dentition; low-sugar, high fiber vegetables for diabetics, etc.). Such qualitative dimensions are not captured by the quantitative process indicators and metrics (e.g. “pounds per person in poverty”) widely used by emergency food programs. On the other hand, these qualitative dimensions feature prominently in true outcome indicators such as “food security,” as defined by both the U.S. Department of Agriculture and the Food and Agriculture Organization (FAO) of the United Nations:

- “Food security is access by all people at all times to enough food for an active, healthy life. [It] includes at minimum: [1.] The ready availability of nutritionally adequate and safe foods and [2.] assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies.)”<sup>9</sup>
- “Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.”<sup>10</sup>

### Know Your Stakeholders.

Most emergency food pantries are faith-based (88% of our study sample and 69-80% of others').<sup>11-12</sup> Many have provided emergency food for decades and represent faith traditions which have provided food to the hungry for centuries, if not millennia. Yet nearly 89% of pantries report that they would be “significantly” or “devastatingly” impacted without the low- or no-cost food from regional food banks that were founded since the 1980s.<sup>11</sup> In short, local organizations are reliant on a supply chain which is not intrinsic to the work. Concerted efforts to engage these organizations in sustained policy, systems, and environmental change activities may provide a more compelling vision of “success,” with corresponding metrics, than emergency food relief. Interventions should be developed and communicated not only according to established food systems and public health theories of change, but in partnership with the faith community and according to religious frames of reference. Such partnerships afford stakeholders numerous alternative narratives beyond “feeding the hungry” (e.g. “satisfying the hungry with good things;” ensuring food is “‘fit’ for consumption”, etc.) as a framework for outcome-focused systems change and evaluation.

### Advocate In Support of Federal Nutrition Programs.

The relatively low percentage of pantries (17%) engaged in any form of policy advocacy is concerning, given that emergency food supplies and consumer demand are intimately linked to changes in programs authorized and funded by Congress (e.g. SNAP, formerly food stamps, and TEFAP, The Emergency Food Assistance Program). All told, “only 1 in 20 bags of food assistance comes from a charitable organization” – federal nutrition programs provide the rest.<sup>13</sup> Because the impact of federal nutrition programs on local communities is orders of magnitude greater than that of local pantries, stakeholders are well-advised to prioritize and support increased policy engagement among the nearly one in three Michigan pantries (over 1,030 statewide)<sup>2</sup> who are interested in this approach.

### Provide Targeted Nutrition Education and Social Marketing at Point of Pickup.

On the demand side, most pantries reported that their clients like fresh produce (only 6% reported otherwise). However, 15% of pantries also reported that clients do not know how to use this produce, making it difficult to distribute even when available. Only one in three pantries (34%) engage in the most commonly-cited form of nutrition education to address this barrier (distributing educational materials). Even fewer promote healthy eating messages (25%) or distribute healthy recipes (27%). Yet many are interested. Equipping organizations to provide targeted nutrition education and social marketing at the point of pickup should improve organizations' ability to distribute fresh produce and improve recipients' resulting dietary quality.

### Consider Alternative, Just-In-Time Distribution Models.

On the supply side, lack of sufficient storage space, particularly cold storage (50%), is the single greatest barrier pantries face to increasing fresh produce availability. Nearly nine in ten pantries are interested in accepting more produce, yet few (26%) actually request it, worrying they are unable to keep it fresh long enough to distribute.

While there are no panaceas, there are many promising practices to achieve the results many organizations struggle to obtain through their emergency food pantries. Just-in-time, market-based food distribution models such as subsidized Community Supported Agriculture (CSA), for example, may better suit organizations' needs – they do not require investment in additional cold-storage capacity or vertical integration of charitable operations (i.e. growing, processing, packaging, and distributing produce onsite). They also afford similar opportunities to integrate nutrition education, albeit in an environment more conducive to successful outcomes.

Subsidized CSAs offer numerous social and ecological benefits.<sup>14</sup> Low-income CSA shareholders consume a greater number and variety of fruits and vegetables than non-CSA shareholders, a major litmus for improvement in overall dietary quality and the prevention of diet-related chronic disease.<sup>15-24</sup> CSAs are participatory – shifting decision-making power to shareholders; communal – leveraging the buying power of the community or congregation to meet the needs of shareholders at all food-security and socio-economic statuses; farmer-run – leveraging the time and expertise of local producers while allowing organizations such as faith communities to focus more effort on their primary missions; and market-based – offering positive returns on investment and multiplier effects to local economies. Were even one percent of Michigan's 4.2 million congregants to purchase CSA shares from local farms, this would amount to \$8-14 million in interest-free operating capital per growing season to farmers statewide.

### Vertically Integrate Operations to Include Food Production, Where Feasible.

“Vertical integration” of operations to include food production is beneficial, but not viable, for most organizations operating emergency food pantries. Fewer than one in ten pantries (8%) currently garden, citing numerous barriers. Nonetheless, nearly two in five pantries (37%) are “somewhat or very interested” in growing produce to distribute to low-income families. These organizations may benefit from start-up technical assistance which appeals to pantries' three major motivations to garden: 1. promoting health through nutrition (70%), 2. increasing overall food availability (70%) and 3. promoting a sense of community (49%) and by addressing pantries' four major barriers to gardening: 1. lack of proper space (40%), 2. lack of time (32%), 3. lack of staff/volunteer expertise or training (23%), and 4. volunteer recruitment (22%).

A close-up photograph of vibrant green, rounded leaves, likely from a succulent or similar plant. The leaves are covered in numerous small, clear water droplets, giving them a fresh and dewy appearance. The lighting is soft, highlighting the texture of the leaves and the glistening water. The background is slightly blurred, creating a shallow depth of field.

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## REFERENCES

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