Innovative Practices in Emergency Food Delivery

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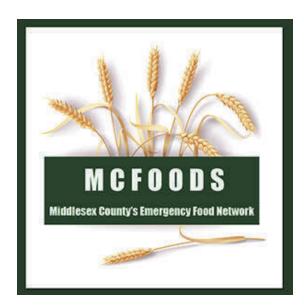**December 2019**

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Introduction

During the Fall 2019 semester, Middlesex County Food Organization and Outreach Distribution Services (MCFOODS), Unity Square community organization, and other partners engaged the Ralph W. Voorhees Fellows to research innovative food pantry practices. We focused on pantries that enable clients to choose their own food and pantries that use technology to improve operations. In the course of this research, two fundamental questions guided our methodology, analysis, and recommendations:

1. How do food pantries address enduring tensions to provide food that best meets the needs of people in the communities they serve?
2. What innovative practices do they employ to do so?

To answer these questions, we employed a comprehensive methodology. First, we conducted a literature review to understand the emergency food system and emerging trends and challenges. From the literature review and Internet searches, we identified 32 pantries that enable clients to select their own food or use innovative technology and gathered information about them. We then selected a subset of 21 that provided contact information to contact for interviews, and conducted semi-structured interviews with six pantry administrators. We used the interviews to identify trends, challenges, and innovations in emergency food provision.

We found that food pantries vary in their operations, challenges, and solutions and that client choice pantries, which improve client dignity, are organized in different ways. Additionally, we found that many pantries implement cloud-based systems to manage data, streamlining many day-to-day operations.

In this report, we discuss our review of literature regarding the emergency food system. We then explain the methods we used to obtain our data. Next, we provide an analysis of our data, focusing on insights gleaned regarding pantry structure, operations, use of client-choice approaches and technology. Finally, we provide recommendations for further research.

Literature Review

It is essential to contextualize this project within the current state of the US emergency food delivery system. The structure of that system and emerging trends as well as specific food pantry practices inform this research. This section provides a brief survey of research in these areas and a rationale for the methods, data, and conclusions that follow.

Structure of the Emergency Food System

At its core, this report's mission is to help address issues that contribute to food insecurity. Food insecurity can be defined as having limited availability of nutritionally adequate and safe foods (Bazerghi, McKay, & Dunn, 2016). Families that do not have access to bare essentials are food insecure and some rely on food pantries for support. Food pantries, food banks, and a host of other organizations are all part of the emergency food system.

Originally intended to meet short-term needs, the emergency food system has become a regularized hybrid system that Rosenthal and Newman (2019) call the public–private food assistance system (PPFAS). The PPFAS emerged in the 1970s as a nascent effort to respond to growing food insecurity. In the wake of increasing demand and the dismantling of the welfare state, the emergency food system, which includes food pantries and meal delivery programs, has grown dramatically. This shift has resulted in a diverse set of national and local actors who often struggle to address a large, systemic problem.

National public and private actors provide food sources, organizational capacity, and funding to the emergency food system. The federal Emergency Food Assistance Program (TEFAP) provides surplus food to food banks that distribute it to pantries. The national nonprofit organization Feeding America provides organizational support to food banks, pantries, and meal programs across the country. In addition to TEFAP, corporations supply food to organizations in the system. Actors operating in the local food system vary widely and the food distribution structure is different across geographical areas. Sources of food for pantries include regional food banks, partnerships with for- and non-profit organizations, and government programs at the state and federal level (Rosenthal & Newman, 2019).

In this complex public private emergency food system, a variety of organizations provide food directly to people at the local level, and food and funding often come with different sets of rules. As a result, food pantries operate under variable conditions (Rosenthal & Newman, 2019). In the next section, we explore some of the challenges that have emerged as this variety of public and private, national and local actors work together to aggregate and distribute food.

Challenges in Emergency Food Systems

Food pantry directors face many challenges in running effective organizations and programs. Major challenges include volunteer management, marketing, cultural diversity among clientele, nutrition, and social stigma. Here, we discuss these challenges and the efforts pantries are making to address them. These challenges are dynamic, and the solutions covered here continue to evolve as pantries incorporate them into their operations.

Volunteer Management

Staffing is one of the most persistent challenges for emergency food providers. Most providers are nonprofit service or religious organizations that rely on volunteers. Pantries often struggle with declining rates of volunteering (Eisner, Grimm Jr., Maynard, & Washburn, 2009). Pantries that depend on volunteers also contend with a set of challenges including high turnover, a lack of training, and language barriers between volunteers and clients. More specifically, a 2003 study identified five major reasons why volunteers do not return: 1) Not matching volunteer's skills with assignments, 2) Struggling to recognize volunteers contributions, 3) Not measuring the value of volunteers, 4) Lack of training and investing in volunteers and staff, and 5) Struggling to provide strong leadership (Eisner et al., 2009). These obstacles emphasize that training volunteers effectively is critical to the success of a pantry.

Marketing

Marketing their resources to clients is another challenge pantries face (Fong, Wright, & Wimer, 2016). A study of food pantries in New Brunswick, NJ found that most people became aware of food pantry services through word of mouth (Ralph W. Voorhees Public Service Fellows, 2015). Potential clients may not learn about pantries unless they come into contact with someone aware of their services. Some pantries address this by creating social media platforms and hosting community events ("GET INVOLVED | FOOD PANTRIES | BEAM," n.d.; "LunchBreak —Help for Today, Hope For Tomorrow," n.d.).

Cultural Differences

Pantries may find cultural differences between pantry staff and clients and within client populations. There may be language barriers and different food preferences. Items that are familiar to clients may not be available, and clients may not know how to use (or find palatable) items that are. Moreover, volunteers or staff may not be able to communicate with clients in their native language. Some pantries bridge cultural gaps by engaging volunteers and staff who are bilingual (Remley, Zubieta, Lambea, Quinonez, & Taylor, 2010).

Nutrition

Food pantries find it difficult to meet client nutritional needs. Pantries face a number of challenges providing fresh produce and processed packaged foods that meet a variety of dietary, often health-related, restrictions. It is also challenging for clients, especially those who lack pantry and cooking space, to turn a sometimes eclectic selection of pantry foods into family meals. Some pantries offer programs that provide nutritional education and/or cooking classes. These programs help clients learn how to use items available in the pantry. Pantries provide

information through newsletters, cell phone apps, and cooking demonstrations at pantry sites. Food pantry clients that receive nutrition and cooking education consume more fruits and vegetables than those who do not (Clarke et al., 2011).

Some food banks and pantries have expanded the distribution of fresh produce and continue to build their capacity to do so through pantry gardens and other efforts. Some pantries have restructured the physical presentation of items to encourage clients to select healthier options. For example, Sharing Life Community Outreach in Texas uses a method called "nudging" to encourage clients to select foods. It makes certain foods look more appealing, easier to reach, places them prominently, and provides signs that explain their benefits. Sharing Life increased the selection of brown rice and whole wheat pasta by 30% using this nudging technique (Collins, 2016).

Stigma

Finally, the stigma associated with visiting a pantry is a major challenge that clients face. Clients often feel ashamed and reticent to seek help, therefore hesitating to use pantries. Pantries can tackle this challenge by creating a space that is welcoming, trauma informed, and focused on dignity and respect (Fong et al., 2016).

The challenges highlighted here, along with a host of others, amount to a sometimes-uphill battle for pantries in their mission to combat food insecurity. Nevertheless, several trends have emerged in recent years to address these challenges and make additional inroads against hunger. Some of these trends are discussed below.

Emerging Trends in the Emergency Food System

Here, we provide background information on two major trends unfolding in emergency food delivery. First, we focus on how pantries use client choice approaches that allow clients to select their own items when they visit pantries. Next, we investigate how pantries and partner organizations use technology to manage food inventories, client records, and complete federal and state reporting requirements.

Client Choice

Many pantries have found it worthwhile to employ a system wherein clients have the power to select their own items. Such systems deliberately diverge from the traditional food pantry model of providing pre-packaged foods. Evidence suggests that these choice systems improve client dignity and allow increased agency for clients. Moreover, choice systems can reduce food waste, since clients will not take items that they will not use (Food Bank of East Alabama, 2011). Moreover, choice systems necessitate more contact between volunteers and clients, which can

create stronger relationships between the two groups. Together, these factors may make clients feel more welcome in pantries (Remley et al., 2010).

Freshplace is a program that spearheads the implementation of client choice in multiple organizations. Founded by Foodshare, Chrysalis Center, and the Junior League of Hartford, this program focuses on identifying root causes of food insecurity to induce a "paradigm shift" in the emergency food system. This shift is intended to move from piecemeal interventions against specific symptoms of food insecurity to the promotion of holistic, long term solutions (Freshplace, 2014). Client choice is one of the core elements of the program and is the essential piece around which Freshplace envisions holistic solutions being developed.

Using Technology

Pantries and food banks are adopting information technology including GPS tracking, logistics software, and database management to address a variety of needs. For food banks, information systems are making distribution of food faster through computer scheduling and food item tracking (Evans & Clarke, 2010). Technology is also improving the client-facing experience by generating customized recipes and food use tips. Food banks are leading the current wave of technology adoption to improve their own operations and help food pantries (Tibbits, 2009).

For example, the Athena Project provides food banks with systems to manage inventory and track funding, volunteers, and deliveries via GPS. Second Harvest Food Bank uses Exact Macola logistics software to help manage the more than 30 million pounds of food it delivers each year. Second Harvest uses this software to control the flow of food coming into its warehouses, prevent spoilage of foods, and track food delivery (Tibbits, 2009). Pantries use The IT, Quick! Help for Meals which enables them to determine household needs and cooking preferences for each visitor and create a set of recipes and food tips on the spot in a customized, small booklet for each client (Evans & Clarke, 2010). Using software presents its own challenges as these applications require knowledge, hardware, and training (Evans & Clarke, 2010). Regional food banks and coalitions are beginning to provide access to this technology along with training and continuing support which are critical to successful implementation.

The context provided in the above section, which covered the structure of the emergency food system, the challenges food pantries face, and emerging trends in client choice and technology use, sets the stage for the project undertaken in this report. This information informed our approach, research methodology, and interpretation of results. We now turn to a discussion of this approach and methodology.

Methods and Data

We used a multi-stage process to identify organizations for study. Our initial phase included a wide search for pantries that use client choice and/or technology through web searches and our literature review. We used the results of this search to identify pantries that use innovative practices that aligned with our project mission (e.g. client choice, using technology to manage data, corporate volunteering, volunteer training programs, etc.). This process produced a dataset of 32 pantries, from which we contacted pantries that a) had contact information available, and b) had a unique program we wanted to learn more about. We conducted semi-structured interviews with pantries that responded to our requests, resulting in six completed interviews. We then aggregated and analyzed the results of these interviews to shed light on trends in emergency food delivery innovation.

Before presenting our results, we note that the pantries we interviewed were mostly larger, in urban areas, and had the resources to employ paid staff. These pantries tend to have more time and resources, which allowed them to answer questions and entertain interview requests. We acknowledge, therefore, that our results may not capture problems that affect many of the smaller, entirely volunteer-run pantries that make up much of the emergency food system. Nevertheless, many of our results suggest solutions that can help at a variety of scales.

Interview Instrument

We constructed an interview protocol which was approved by the Rutgers University Arts and Sciences Institutional Review Board. This protocol included questions about basic pantry characteristics, operations, and challenges pantries face, as well as solutions to these challenges. We present an overview of the pantries we interviewed, including their location, whether they use client choice, and any technologies they employed in Table 1.

Table 1: Pantries Interviewed

Pantry Name	Location	Client Choice	Technology
Arm in Arm	Trenton, NJ	Yes	Apricot
Eureka Choice Pantry	Eureka, CA	Yes	Oasis Insight, Volgistics
Xavier Mission	New York, NY	Yes	Plentiful app, Salesforce
Jewish Family and Children's Service of Greater Mercer County	Princeton, NJ	Yes	N/A
CUMAC	Paterson, NJ	Yes	PATH system
Love Center Food Pantry	Millersburg, OH	Yes	Pantry Trak

Data Aggregation, Analysis, And Presentation of Findings

To understand how pantries solve common problems, we categorized the data we obtained and analyzed the results. This analysis generated findings about the structure and operations of pantries, the persistent challenges they face, and innovative practices they implement. These findings are presented in the following sections, which first discuss pantry operations and structure and then turn to emerging trends and innovative practices.

Nuts and Bolts: Pantry Structure and Operations

We first focus on pantry structure and operations, especially on serving clientele needs, staffing and volunteer management, funding and food sources, and social services that pantries offer. The structure of food pantries varies based on their size and the funding they receive. Under a client choice approach, pantry clients can choose the food they need instead of receiving a predetermined package of food. There is no singular client-choice model, as pantries develop operational procedures to fit their unique needs. Table 2 demonstrates the variety of scales on which the pantries we interviewed operate.

Table 2: Pantry Scale Information

Name	Clients Served Per Month	Pounds of Food Served Per Month
Arm in Arm	1,800 households (across 3 pantries)	9,500 from donations (does not include purchased food)
Eureka Choice Pantry	1,200-1,300 households	Not found
Xavier Mission	130-150 households	Not found
Jewish Family and Children's Services of Greater Mercer County	60 clients	Not found
CUMAC Pantry	4,000-4,100 clients	158,333 (from 2018, includes all food processed through warehouse, not just pantry)
Love Center	2,300 clients	50,000

Clientele Needs

To better understand client needs, many pantries survey their clients at the beginning or end of a client's visit. For example, Arm in Arm, a food pantry based in New Jersey, surveys clients at the beginning of their visit and stores this information in a database to track information about

the client, including demographic information. This practice helps Arm in Arm to identify important information about clients and find ways to serve their unique needs. Having this information has helped Arm in Arm create competitive grant applications to fund programs to obtain more produce and culturally diverse foods. Keeping track of client needs can help pantries tailor their operations to meet these needs, including considerations such as when to be open and how often. Table 3 shows the various operating times and frequencies of the pantries we interviewed.

Table 3: Pantry Operating Times

Name	Days open per week	Mornings	Weekend	Evening
Arm In Arm	4	green	red	red
Eureka Choice Pantry	3 and 4 twice a month	green	red	red
Xavier Mission	Choice pantry: 1 day every month Emergency pantry: 5 days/week	green	green	red
Jewish Family and Children's Services of Greater Mercer County	2 days for 2 weeks	green	red	green
CUMAC	5 and 6 once a month	green	green	red
Love Center Food Pantry	3	green	red	red

Client needs can also be addressed by hosting an exploratory focus group. With the help of a psychologist, CUMAC conducted a focus group with pantry users to understand client needs. CUMAC used this information to inform their development of a client choice approach and to create a more welcoming environment for pantry users.

Staffing and Volunteer Management

Volunteers are integral to food pantry operations. A persistent issue for food pantries is meeting the need for multilingual volunteers. Additionally, client choice models often require more volunteers than non-choice models. The pantries that we interviewed had the benefit of having at least one paid staff member, which makes operations, including volunteer management, more

feasible. Table 4 details the number of volunteers and staff at each of the pantries we interviewed. Some of the roles that volunteers may take in a client choice model include supervisor, shopping assistants, food bagging, stocking, and a surveying intake representative who surveys clients during their visit. Some pantries have delivery drivers for clients who are unable to make it to the pantry, but this is largely based on funding and the extent of how far the pantry is able to reach to provide for their clients.

Table 4: Number of Volunteers and Staff at Interviewed Pantries*

Pantry Name	# of Volunteers Per Month	# of Paid Staff
Arm in Arm	80/week = about 320 a month	20
Eureka Choice Pantry	45/week = about 180 a month	16
Xavier Mission	45/week = about 180 a month	5
Jewish Family and Children's Services of Greater Mercer County	40/week = about 160 a month	2
CUMAC Pantry	2000 a year/12 = 167 volunteers a month	21
Love Center	70 volunteers, overall	1

*Some of these organizations are larger non-profit organizations

Funding and Food

Local foundations and corporate grants are the main sources of funding for food pantries that we interviewed. Some pantries pursue grants to support new initiatives. For example, Arm in Arm received a grant to launch a mobile food pantry in addition to its regular activities. The majority of pantry budgets are prioritized for food and day-to-day operations. For smaller pantries, like Jewish Family & Children's Service of Greater Mercer County, their choice to provide healthier options and kosher food increases their expense.

Pantry food can come from a few different sources. Pantries obtain donations from food drives hosted by corporations or community organizations and receive free or reduced-cost food from regional food banks. Some of this food comes from government programs like TEFAP (The Emergency Food Assistance Program) and CSFP (Commodity Supplemental Food Program), which are federal programs, or from state programs. Foods from these sources require pantries to track clients and food distribution. Additionally, governmental programs set rules for how much food pantries can receive in set periods of time, often related to the number of people they serve. Food from non-governmental programs has fewer restrictions, which gives pantries some flexibility.

Other Services

Food pantries offer not only emergency food services, but also social services to serve clients' wide range of needs. These services may include health screenings, nutrition programs, employment assistance, referral services, and programs to combat homelessness by offering aid to clients who need help paying utilities and bills. Some pantries also offer shelter for clients under emergency conditions like extreme heat and cold.

  Among the pantries we interviewed, we found a few notable services. Xavier Mission runs the Life Skills Empowerment Programs (LSEP) which provides life-skills training, mentoring, trauma-informed group support, and supportive services to homeless individuals, homeless veterans, and returning citizens. These services are integral to these pantries. With increased funding and budgeting provided to such initiatives, it helps the pantry's surrounding community.

Looking Forward: Emerging Trends and Innovative Practices

Client Choice Practices

Providing a Dignified Experience

Client choice pantries can provide a more dignified client experience than traditional pantries. We find that some of the most prominent outcomes of using client choice are related to improvements in client respect and dignity. For example, CUMAC, a pantry located in Paterson, NJ ran a psychologist-led focus group with clients and found that using client choice makes clients feel more respected and human. This finding led the pantry to transition to client choice in September 2019. The core purpose of the client choice model is to place greater emphasis on client respect. Christine Bowman of the New York-based Xavier Mission pantry explained that people who require emergency food assistance often have their agency and choices stripped from them. Providing choice at food pantries provides a sense of control for clients. Additionally, pantries who implement client choice find that the relationships between volunteers and clients are stronger, largely due to more personal interactions between the two groups (Xavier Mission, Love Center, CUMAC, Food for People, Arm in Arm). Underscoring this closeness are instances where former pantry clients volunteer at the pantry once they no longer require the services (Xavier Mission, WSCAH). At WSCAH former clients serve on the board, helping to make decisions and better understand client needs and experiences.

Client Choice Approaches Vary by Pantry

Every client choice approach functions in a unique way to meet the needs of the pantry. Pantries use different solutions to manage space, train volunteers and display food. Some pantries have a large permanent space for their pantry with shelving, aisles, and large-scale refrigeration. These

pantries often provide grocery carts and look similar to grocery stores (e.g. CUMAC, Arm in Arm). Pantries with less space or those that have to share space often use a table layout, displaying food on tabletops. For example, the Xavier Mission located in New York City runs their pantry out of a high school cafeteria the second Saturday of each month. This practice requires mobile equipment and stock and they use tables instead of shelves. Each table has food from different food groups and clients can shop from the options laid out on tabletops.

Another way to employ client-choice is a *window model*. In this model, clients can view the pantry stock available and tell pantry staff/volunteers what items they want. The pantry then bags the items for clients. Additionally, pantries may use an *inventory list model* where clients are given a written list of pantry stock and they write down their selection to be bagged for them (Akron-Canton Regional Foodbank, 2012). These two models are ideal for pantries who lack sufficient room to display food or host more than one person for shopping at a time. These structures also provide a way for pantries to cater to clients who have limited mobility and cannot physically shop and carry their groceries.

It is difficult to generalize client choice pantry structures, because each pantry is different. For example, pantries with smaller physical locations may still follow a supermarket style setup with shelving if they also have the staffing and resources to open their pantry for enough hours to provide appointments (JCFS).

Client-choice pantries often have a designated waiting room or area. This is a space separate from the food area where client information is processed and resources are provided to clients. Waiting areas can enhance clients' experience by creating a community space where media is available, education about social services are provided, and recipes are shared and even sampled. This area helps client choice pantries manage increased customer wait times imposed by spatial constraints of a choice model. At Arm in Arm and Food for People, meals are prepared using pantry ingredients and are taste-tested by clients in the waiting room. This is a pleasant experience and can inform people about useful and healthy cooking practices.

Volunteer management is an important consideration for client choice pantries and impacts the client experience. Some pantries have a volunteer shopping assistant who guides each pantry user through the shopping experience (Arm in Arm, CUMAC). Other pantries have volunteers stationed at strategic locations to provide information and guidance. At Xavier Mission, where the pantry uses a tabletop setup, one volunteer is stationed at each table. Pantries may take a more hands-off approach like Food for People's Choice, where they rely on posted signage to inform people about the quantity of food items they may choose and provide volunteer assistance during the shopping process only by client request.

When clients have the power of food choice, pantries need to decide how to impose limits on how much clients can take. Pantries often delineate food limits based on family size and

communicate requirements to clients in different ways. One option is to use a *choice card* which states the number of items a client can pick, often per food group. A card is given to each shopper (JCFS, Westside). Another option is for pantries to rely on posted signage that clients can see as they walk through different sections of the pantry (Food for People). Still, other pantries require volunteers to know and communicate this information with clients as they guide them through the shopping experience.

Implementing and Iterating: How Pantries Adapt Models from Other Pantries

Food pantries that want to use client choice often find significant guidance from speaking with and visiting existing choice pantries. Organizations are usually eager to provide insight on their experience. CUMAC toured the Chrysalis Center in Hartford, Connecticut, which operates under the Freshplace model, in preparation for launching their choice-based pantry which launched in September 2019. This approach provides a client choice experience by appointment to members[1] of the pantry, and pursues a holistic approach to emergency food by providing individualized case management to members (Freshplace, 2014).

As Food for People looked into implementing client choice with their Eureka Choice Pantry, they visited West Side Campaign Against Hunger in New York City. This pantry offers many best practices, having operated as a choice pantry since 1993. The organization regularly provides assistance to food pantries interested in client choice, including tours of their facility, examples of the forms they use, advising on pantry structure and equipment, and the practices they follow after over two decades of experience[2] (West Side Campaign Against Hunger, 2015).

Pantries that implement client choice approaches understand that the process requires learning from trial and error. Pantries adjust policies, procedures and structures as issues arise and they receive feedback from clients. Food for People has dealt with balancing client dignity with integrity when deciding the level of supervision to put into the shopping process. Previously, they had a "check out" at the end of the pantry to ensure that the correct quantity of food was chosen. They found, however, that clients felt self-conscious and untrusted under this system, so they eliminated the "check out" step. Currently, their pantry trusts the client to follow the direction of pantry signage and take the allocated quantity of food. This system is not perfect. Ultimately, client choice implementations vary and fit the unique needs of each pantry. Research and communication with other pantries can help a pantry implement its first client choice system but it will require testing and client feedback to improve.

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[1] The Freshplace model specifies the word "member" to refer to those who use its services.

[2] Interested pantries can contact their Food Director at 212-362-3662 x126 or info@wscah.org.

Common Obstacles and Considerations

Pantries using client choice face many obstacles. Client choice generally requires more physical space to display food choices and host shopping clients and additional volunteers. Moreover, client choice may limit the number of clients who can be served at any one given time, requiring appointment managing systems. Pantries may have to increase their hours and staffing to manage additional appointments.

When Food for People's Choice Pantry transitioned to a client choice model, they went from two half-days of operation to almost four full days of operation to serve the same number of clients because their space allows for only four to five shoppers at one time. The Freshplace model combines a client choice experience with expansive social services, but places a cap on the number of people the program can serve, limiting membership to families within a geographical boundary and in a certain timeframe (Freshplace, 2014).

Pantries have also discovered technology-driven solutions to manage scheduling. Xavier Mission in NYC uses an application called Plentiful, which allows the pantry to schedule appointments with clients. These appointments can be made with the client directly through the app or via text message. Prior to implementation of the app scheduling was a major issue for the organization, creating an unwelcoming environment with long lines and tension between clients to gain earlier access to the pantry. Using this app eliminates the need for lines and provides a platform to book pantry appointments that is easy for clients and the pantry to use.

Technology

Food Pantries are adopting software and technology to manage daily processes and reporting. These systems reduce manual paper reporting and improve data management. Pantries identified client intake, appointment scheduling, inventory management, and volunteer management as the areas where technology-based solutions are most useful. Most of the programs that food pantries use are developed for nonprofits, and some are developed specifically for food pantries. These programs are therefore tailored to the needs of these entities, are easy to learn, and are affordable.

Many programs have different potential uses that can be adapted to specific needs of the pantry. Such programs include Link2Feed, Oasis Insight, PantryTrak, FoodStar (deprecated), Food Bank Manager, and Apricot. Some programs have one or two specific functions. The Plentiful app addresses client scheduling, while Volgisitics addresses volunteer management. Food pantries also use software that was not specifically designed for nonprofits to help manage pantry data. If a pantry has a subscription to the Microsoft Office suite, they can use Excel or Access to host and analyze data. Zoho is a free online program that can meet similar needs. The Google suite is another option for free office productivity programs. Additionally, Salesforce, a

widely used platform in the private industry for client tracking, offers a nonprofit version of their product that is available at a reduced cost.

All of the pantries we interviewed used some kind of software to manage data in some capacity. Cloud-based systems developed specifically for nonprofits were most frequently employed. Arm in Arm uses Apricot, a cloud-based database system geared toward case management. It tracks clients, volunteers and services and can generate reports. Apricot offers four different plans catering to different nonprofit sizes and requests ("Social Solutions Global | Apricot Essentials—Nonprofit Software | Social Solutions," 2019). Love Center Food Pantry uses PantryTrak software to track client information and demographics. This program is provided to them through the Akron Canton Food Bank and is a client registration database being developed by the Mid-Ohio Foodbank. Pantry managers are driving the development of this program and it is now being used by over 700 pantries nationwide ("PantryTrak—Food Pantry Tools," n.d.). The Eureka Choice Pantry uses Oasis Insight to track client intake information. This program has additional capabilities to assist with government program data and inventory management. It is designed with food banks as the primary audience and is useful for food pantries as well. Eureka also uses Volgistics, a cloud-based volunteer management system to track and schedule volunteers. Xavier Mission uses the Plentiful App to manage scheduling client appointments. To keep track of client information, Xavier Mission uses Salesforce. CUMAC uses PATH system, an internal application developed for the Community Food Coalition and used by pantries in Passaic County. PATH manages client data and inventory.

Pantries described many benefits to implementing a cloud-based data system. These systems are encrypted to offer increased security and allow data to be backed up in the cloud. Such systems provide protection from security threats and the possibility of lost data due to hardware, network, or user error. Systems that are designed specifically for nonprofits or food pantries are easy to learn and make data processing and analysis much quicker. Arm in Arm views having a database system like Apricot as essential. This helps them understand important information about their clients like eligibility and housing and helps them survey clients to provide better services, such as preferred and needed food items. Also, Arm in Arm relies on this database to generate reports for grant applications and required reporting. Some pantries use off-the-shelf solutions like the Microsoft or Google productivity suites. For example, Jewish Family & Children's Services of GMC relies on Microsoft Access and Excel to track client information.

Pantries address client concerns about data security in two ways. If possible, pantries will not record sensitive information or will make client responses voluntary. This precaution is dependent on the information that the pantry requires to determine client eligibility, which is based on pantry policy and may also be dependent on the pantry's food and funding sources.

Government programs and certain grants require more detailed client information. Some pantries have adjusted policies to alleviate client concerns regarding documentation. Eureka Choice Pantry uses the cloud-based data tool Oasis Insight and receives USDA commodities. Xavier mission receives grants from the Food Bank of NYC, as well as food from TEFAP (The Emergency Food Assistance Program). Using the Plentiful app and the cloud-based software package Salesforce, this pantry records the fact that they have seen required sensitive documents but does not maintain any copies. CUMAC uses an internal application to collect client data but does not record sensitive information. This pantry requires income verification and a form of identification for every person shopping.

Most pantries move from paper records to digital records to increase efficiency and save time. Table 5 provides an overview of the technology pantries are using and the problems they address. Cloud-based data storage systems with analytic capabilities, especially those designed for nonprofit use, have proven useful.

Table 5: Technology Use in Emergency Food Delivery Systems

Program	Issue Addressed	Description	For More Information	Pricing	Pantry User
Apricot	Client intake, volunteers, services	Cloud-based case management system designed for nonprofits to store and analyze data.	https://www.socialsolutions.com/software/apricot/	NA	Arm in Arm
Plentiful app	Appointment scheduling	App to schedule client appointments directly or through text.	https://www.plentifulapp.com/	Free	Xavier Mission
PantryTrak	Client intake	Cloud-based system designed by food pantry managers from Mid-Ohio Foodbank to document client intake. Can generate reports.	https://secure.pantrytrak.com/ Mark Mollenkopf, 614-317-9450.	Free	Love Center
Oasis Insight	Client intake, inventory	Cloud-based system designed for food banks and partnering agencies to document data and run reports.	https://oasisinsight.net/	$20 and up	Eureka Choice, CFBNJ
Volgistics	Volunteer management	Cloud based volunteer management system.	https://www.volgistics.com/	$9 and up	Eureka Choice
PATH system	Intake, inventory	Internal software developed for the Community Food Coalition, used by pantries in Passaic County. Manages client data and inventory.	N/A	Internal	CUMAC
Salesforce	Intake, inventory	Primarily hosts client data and can manage inventory data, cloud based.	http://www.salesforce.org/nonprofit/serve/	Reduced for nonprofit	Xavier Mission
Link2Feed	Client intake, inventory	Manages client data, SNAP, CACFP & SFSP and inventory. Designed by and for food banks and food pantries.	https://www.link2feed.com/	NA	NA
FoodBank Manager	Client intake, inventory	Cloud based technology for data management, designed for food banks and pantries.	foodbankmanager.com	$25 a month	NA
Pantry Soft	Client intake	Cloud based or desktop software to manage client data	pantrysoft.com	From $35 a month	NA
Athena Project	GPS tracking, scheduling, inventory	National computer network to automate services.	NA	NA	NA
IT Quick! Help	Nutrition, cultural needs	Creates customized recipes and food information for pantry clients.	NA	NA	NA

Technology is not a panacea that will solve every problem in emergency food delivery, but there are applications to help alleviate problems. We also found that technology, as well as other solutions, saw a boost in effectiveness when supported by partnerships between emergency food delivery organizations. The next section briefly addresses the emerging trend of emergency food delivery organizations to form coalitions, combining resources to address persistent problems.

Coalitions

We asked all of the pantries we interviewed about their participation in coalitions and three out of six participate in coalitions. The coalitions predominantly serve two purposes: policy advocacy and resource pooling.

Food for People's Eureka Choice Pantry, for example, is a member of California Food Policy Advocates, Food Research and Action Center, and other coalitions. These organizations share, at least in part, a commitment to improving public policy as it relates to food security on the state and federal levels and to equipping partners and member organizations with resources to advocate and mobilize. Similarly, the California Association of Food Banks operates as an advocacy and community service organization. It maintains a robust operation that includes capacity to provide expert testimony on food policy, advocate for legislation related to hunger in California and in the United States, and a range of other functions that empower member organizations to engage with the public policy process and impact public opinion on issues related to hunger.

CUMAC Pantry located in Paterson, NJ is a member of the Community Food Coalition with other organizations in Passaic County. CUMAC views the coalition as a way for organizations to make sure they are a part of the conversations happening in the emergency food system and can share best practices with each other. A focus of the coalition used to be food distribution as CUMAC served as a food warehouse that distributed food to pantries in the county. However, the role of the warehouse has shifted, and the focus of the coalition is expanding to include conversations about more issues and solutions.

Discussion and Conclusion

The focus of this report was on innovative practices employed by food pantries to better serve clients in the extant structure of the emergency food system. We were especially interested in pantries that allow clients to choose their own food and in those using information technology. While our interview sample size was small, consisting of six pantries, and represented pantries with greater resources, many of the themes we discovered are widely applicable.

The findings suggest that choice models are an effective measure in ensuring dignity for vulnerable community members and that design and operations of such models are enhanced

with the use of technology. Though there are several persistent challenges associated with the operation of choice food pantries, namely space/traffic management and fully meeting community needs, the pantries we interviewed drew on different physical structures and volunteer engagement approaches as well as technology (e.g. apps that enable virtual appointments and inventory tracking) to mitigate or overcome these challenges.

The examples of client choice models and technological solutions found through our literature review and interviews can help pantries anticipate possible challenges. However, our research confirmed that the challenges, regulations and community conditions that pantries face varies from pantry to pantry, so there is no one solution or best practice regarding innovative practices in the emergency food system. Though not the focus of our research, we also found that systematic policy and societal changes are necessary to combat root causes of food insecurity.

Our research revealed that food pantries learn valuable information that greatly aids pantry planning and decision-making when pantries communicate with other pantries. This communication was essential for pantries transitioning into client choice approaches. Based on the value of inter-pantry communication and our limited ability to research coalition building, we recommend that partnerships and coalition building be examined closely in further research. It would be valuable to learn how coalitions are formed and structured, and what existing coalitions have been able to achieve.

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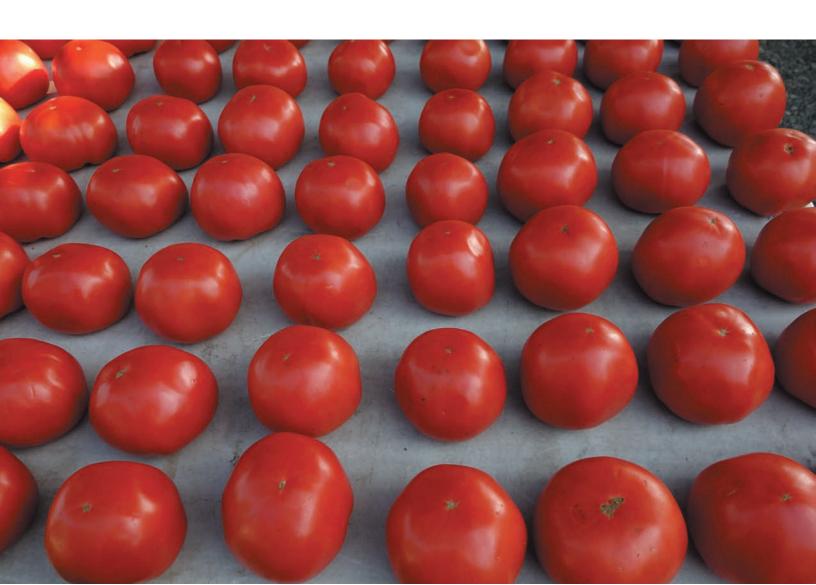Social Solutions Global | Apricot Essentials—Nonprofit Software | Social Solutions. (2019). Retrieved November 18, 2019, from Social Solutions Global | Social Solutions website: https://www.socialsolutions.com/software/apricot-essentials

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Appendix A. List of Pantries

Name	Interviewed?	Location
People's Pantry	No	Toms River, NJ
Arm in Arm	Yes	Trenton, NJ
Manna Food Project	No	Petoskey, MI
Christian Community Center	No	Dallas, Texas
Reaching out Community Services Inc.	No	Brooklyn, NY
Community Market of the Food Bank of East Alabama	No	Opellika, Al
Loaves and Fishes	No	Florence, Al
Love Center Food Pantry	Yes	Holmes County
Interfaith Food Pantry and Resource Center	No	Morris Plains, NJ
Interfaith Food Pantry of the Oranges	No	Orange, NJ
Rauschenbusch Metro Ministries (RMM)	No	New York, NY
Food for People's Choice Pantry	Yes	Eureka, CA
Bed-stuy Campaign Against Hunger	No	New York, NY
Golden Harvest Food Pantry	No	Brooklyn, NY
Franklin Food Bank	No	Somerset, NJ
New York Common Pantry	No	New York, NY
St. John's Bread and Life	No	New York, NY
Westside Campaign Against Hunger	No	New York, NY
St. Mary's Food Pantry	No	Pompton Lakes, NJ
Portland Open Bible Community	No	Portland, OR
Lunch Break	No	Red Bank, NJ
Flat River Outreach Ministries	No	Lowell, MI
Beam Food Pantry	No	Jacksonville Beach, FL
Middle Tennessee - Second Harvest Food Bank	No	Nashville, TN
Beverly Bootstraps	No	Beverly, MA
Xavier Mission	Yes	New York, NY
Jewish Community Center of Washington Heights	No	New York, NY

Jewish Family and Children Services of Greater Mercer County	Yes	Princeton, NJ
Mother Hubbard's Cupboard	No	Bloomington, IN
CUMAC Pantry	Yes	Paterson, NJ
Princeton Crisis Ministry	No	Princeton, NJ
Foothills Community Church	No	Arvada, CO

Appendix B. Semi-Structured Interview Protocol

Interviewee:
Interviewee address:
Interviewee phone:
Interviewee email:
Interviewers:
Interview Location:
Date:

Introduction and Rapport-Building:
- Can I confirm your name and title?
- How long have you volunteered or worked with this food pantry?
  - Has your involvement changed over time?
- Could you provide a brief overview of the history of your food pantry?
- Do you accept federal/state funding or food?

Innovative practices being employed in emergency food pantry delivery
  A. Structure/Operations
- How often is your food pantry open (weekly/monthly basis, daily times)?
- Can you give me an idea of the size of your pantry?
  - How many clients do you serve on a weekly/monthly basis?
  - How many pounds of food do you serve on a weekly/monthly basis?
  - How would you describe the physical space of your pantry?
- What types of clients do you generally serve at your food pantry (languages, age, family size, ability, etc.)?
  - Are there any restrictions in terms of who can use the pantry (income, residency, ID, etc.)?
  - How do you understand the needs of your clients?
    - Example: cooking capabilities, cultural diets, dietary restrictions, homelessness, families, languages,
- Is it run by paid staff or volunteers or both?
  - What functions do volunteers perform? Paid employees (if applicable)?
  - How are volunteers trained and managed?
  - How many volunteers do you use in an average week? How does this shift throughout the year?

- - - Do many of your volunteers live in the community that you serve?
      - Do your volunteers speak the language(s) of your clients?
- What are your pantry's main funding sources?
  - What are the biggest needs and demands on your budget?
  - Where does your funding primarily go?
- What are your pantry's food sources?
  - Federal, State, corporations, donations, other...
- Can you describe the basic structure of your organization?
  - Non-profit, religious, other?
  - Independent or organizational affiliation?
  - Vision/mission?
  - Objectives?
- Do you offer other social services?
  - If so, what types of services do you offer? (referrals, SNAP, housing, weatherization, employment, education)
- Is the pantry a member of any coalitions or groups?
  - What kinds of organizations make up the coalition?
  - What are the coalition's goals?
  - How does the coalition communicate between members?
  - How does the coalition interact with players outside of the pantry network (government, corporations..)
  - How does the coalition help or support organizations like you?
- Can you walk me through the process of what happens when someone comes to your food pantry?

Pantry schedule and distribution of food
- How do you manage busier times when distributing food?
- Storage of food:
  - How is food organized in your pantry?
  - Do you provide fresh produce?
    - Where do you keep it?
    - How long do you store it?
    - What happens if it spoils?
  - What happens to the food that is not used?
  - Do you receive many donations? Too little donations? How do you manage having an excess amount of donations?

- ○ Is there refrigeration and freezer storage capacity?
    - ▪ If yes, is it sufficient (how many, what kind)?
- Do you have enough food to meet client demand, or do you run out of supply?
    - ○ Are there limits to how much food clients can take?
- How do people usually get to your pantry?
    - ○ Do you deliver food to people who cannot access the pantry?

PERSISTENT TENSIONS
- Can you describe some historical or persistent challenges, obstacles, or issues that your pantry has experienced?
    - ○ Have you been able to identify solutions to these issues? If so, what were they?
- How do you help clients meet their nutritional needs?
    - ○ Do you provide people with information or programs concerning nutrition?
    - ○ Are there dietitians or nutritionists available at your pantry or as referrals?
- How do you help potential clients find out about your pantry?
- How do you ensure that clients feel a sense of dignity when using your pantry?
- What are some innovative or creative practices you're using in your pantry?

Choice (if applicable)
- What are some challenges and difficulties involved with operating a client choice model?
    - ○ What obstacles did you face when implementing client choice?
    - ○ What obstacles or challenges persist?
- How has incorporating the client choice model changed the structure or functioning of your pantry?
    - ○ Volunteer management
    - ○ Physical space utilization
    - ○ Food acquisition
    - ○ Etc etc
- If not client choice pantry, have you considered adopting a client choice model?
    - ○ What barriers prevent you from utilizing a client choice model? (other models?)

Technology
- How do you organize information relating to pantry operations and clients?
- Does the pantry utilize technology to assist with operational functions?
    - ○ [if yes:] Why did you adopt (the above) technology?

- ○ [if yes:] How have your operations changed since implementing the above technology?
  - ■ How has it changed how you interact with clients?
  - ○ [if no:] Why not?
- Would you like to see technological solutions (or additional tech solutions) brought to your pantry?

Final Questions
- What do you wish was different about the way the emergency food system works?
- Is there anyone that you'd recommend we interview (pantry/coalition)?

Rutgers

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