CLIENT CHOICE FOOD PANTRIES: BENEFITS AND BARRIERS

A Thesis
by
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Submitted to the Graduate School
at Appalachian State University
in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE

May 2020
Department of Nutrition and Healthcare Management

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Abstract

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Introduction: Research has shown that using a choice pantry method has the potential to improve client's nutrition status and improve self-efficacy. However, using this pantry method may not be feasible for many all food pantries. The purpose of this study was to identify effective strategies and potential barriers when offering a client-choice pantry.

Materials and Methods: Interviews were conducted with staff members from 7 client-choice pantries across the US. Interviews were conducted by phone or email and consisted of 11 questions regarding the logistics of how the pantry operates. Qualitative data was measured by the frequency with which each concern or benefit was mentioned, and answers were comparatively analyzed for consensus between researchers.

Results: All seven pantries food distributed based food distribution on household size. Over half the pantries utilized a shopping method. The primary benefits of the client choice model included personalization of food boxes, eliminating food waste, and a more dignified client experience. The main challenges reported were maintaining consistent inventory and reliance on volunteers.

Discussion and conclusions: Study results provided a confirmation of how client choice pantries work most effectively, reflecting the benefits and barriers identified through previous research. Overall, the study confirmed a widespread transition to the client choice method of food distribution and away from the traditional food box model. Future research should continue to explore strategies to overcome barriers for client-choice food pantries. The limitations of the study include the small sample size and the variety in pantries surveyed.

Keywords: Client-choice, Food Assistance, Food Pantry, Barriers

Acknowledgments

A sincere appreciation goes to my professor, Dr. Melissa Gutschall, for providing me with extensive support and guidance throughout both my undergraduate and graduate years; and my entire thesis committee for their knowledge and patience throughout this research. Further appreciation also goes to the staff at the Hunger and Health Coalition (HHC) in Boone, North Carolina for their collaboration in this study. Lastly, immense gratitude is given to my family and friends for being tremendously supportive and encouraging throughout both my schooling and research.

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CHAPTER 1: INTRODUCTION

Rural areas often experience high rates of food insecurity; in 2017, 11.8 million families in rural America experienced food insecurity[1]. The USDA defines food insecurity in two different levels: low "reports of reduced quality, variety, or desirability of diet, with little or no indication of reduced food intake" and very low food security "reports of multiple indications of disrupted eating patterns and reduced food intake"[2]. Food pantries and food assistance programs have been developed across the country to aid in reducing food insecurity. Studies have shown that with high rates of food insecurity come higher rates of chronic disease[3]. Households that experience food insecurity often rely on energy-dense and highly palatable foods that are highly processed, and heavy in sodium, sugar and/or refined carbohydrates[4]. Maintaining this diet leads to an increased risk of obesity, cardiovascular disease, hypertension, diabetes, and several other conditions. To combat this, food pantries have begun offering the client a choice of food rather than using the standardized food box model.

The client choice model offers clients an experience that more closely resembles grocery shopping. Pantries often have food displayed on shelves and clients can choose their items based on the number allowed by the pantry. The client choice model offers a more dignified experience by both empowering and improving the self-efficacy of clients and allowing them to choose foods appropriate for the prevention or management of diet-linked diseases. However, several issues may arise from using this model including problems maintaining a consistent supply, insufficient staffing, and lack of resources such as adequate building space or proper signage or shelving. Offering the client choice model would be ideal in all food assistance programs, however, overcoming the barriers has posed a challenge.

Hunger and Health Coalition, a food pantry in Boone, North Carolina, had recently made the change from operating as a food box pantry to a client choice pantry with the help of a previous graduate student. Shortly after the development of the pantry layout and procedures, Hunger and Health Coalition had to revert to their original food box method. Due to the lack of incoming donations, high client volumes, and lack of food supply, there was not enough food for clients to receive. This brought about the question of how other pantries have overcome these challenges to maintain the client choice model.

Little research has been conducted to determine if offering clients options is likely to change the pattern of disease and encourage more healthful food choices among clients. The benefits include not only the potential for better health but also long-term food security and improved self-efficacy regarding nutrition which can, in turn, lead to overall better outcomes for food-insecure families. Choice pantries operate by allowing clients to make active choices regarding their food which can improve autonomy. Traditional models do not promote this independence as clients are not role to have an active role in choosing their food or other issues related to food security. Finding the most effective methods for client-choice operation, can assist other pantries in making this change to their food distribution methods and providing better assistance to households in need. Data gathered will help provide effective strategies for developing and maintaining a client choice pantry. Questions will address obstacles such as maintaining a consistent supply and ensuring that every client gets a fair amount of food by setting limits for each client or family. Insights gained will help other pantries develop a clear picture of what steps they need to take in order to successfully operate as a client choice pantry.

Client-choice pantries can be operated in several ways, but the two main options are clients physically shopping in the pantry, or clients receiving a “menu” of options available and selecting what they want, similar to a restaurant drive-through window. There are benefits to each method; depending on the size and staff of the pantry, one method may better fit the

pantry. Both options allow the client to decide what food they want to bring home. Using an order form can reduce the amount of time clients spend in the pantry; volunteers can quickly fill a bag with the items the client has chosen. It may be the preferred method if the pantry has limited space that doesn't allow for good foot traffic flow. The shopping method more closely resembles a grocery store, therefore it may be more preferred by clients, as it feels more dignified. This method allows clients to see all their options and decide on different brands or flavors of certain foods and would better suit a pantry with a large space that allows clients to browse with a shopping bag or cart. This also can allow for flexibility in delivery orders for clients who may not have transportation to reach the pantry.

The goals of this study are to determine what strategies are most effective for operating a client choice pantry. Interviews were conducted with other pantries nationwide that are similar to Hunger and Health Coalition to determine which strategies could be implemented in other pantries who are converting from the antiquated pre-packaged food box method. The research will provide pantry directors with a solid framework to model their client choice pantry as well as effective strategies and tools to overcome barriers.

CHAPTER 2. LITERATURE REVIEW

According to the USDA, more than 37 million people in the United States experience food insecurity[5]. The link between food insecurity and chronic disease risk has been a recent popular discussion in the literature. Several studies have previously shown the "obesity-hunger paradox", highlighting a connection of food insecurity with weight gain and risk of obesity[6]. However, the etiology behind this connection is unclear. Binge eating or cyclical eating patterns may contribute; if an individual has inconsistent access to food, overeating may occur when welfare checks arrive, or food is in abundance, then food will become scarce as resources run out between checks. Emotional ties to food also can cause overeating; food is a source of comfort, so when food is available, individuals are at higher risk of overeating. The connection may just be solely related to the high reliance on energy-dense, high fat, processed foods that are known causes of obesity and other chronic diseases; specifically, type 2 diabetes. Studies have also shown that poverty and food restriction in the early stages of life will lead to an increased risk of obesity later in life[7]. One study showed that the risk of cardiovascular disease is higher among food-insecure households compared to food secure households [8]. Another study looked at food-insecure women and found that 37% of food-insecure women had a BMI classified as obese, compared to 26% of food secure women. When this data was controlled for other factors, the correlation was still present ($p=0.06$)[3].

Authors Seligel and Schillinger, 2010, proposed a cyclical model of food insecurity and chronic disease. This idea is centered around the cyclical pattern of having abundant resources available during one part of the year and being restricted during others. Individuals experiencing this pattern are overeating during times of ample food then forgoing food for

other needed resources. This binge-restriction pattern contributes to the increased disease risk through mechanisms of poor glycemic control, periods of increased visceral fat accumulation, and potential insulin resistance. The risk of hypoglycemic episodes is significantly increased as well as frequent reports of reducing or stopping medication intake to be able to purchase food. Diabetic food-insecure individuals also are proven to have worse glycemic control related to their inability to purchase healthful foods. All of these factors greatly impact the onset of chronic disease as well as the rate and pathway of further disease progression[9].

Many families experiencing food insecurity rely on energy-dense processed foods to meet their energy needs since they are less expensive than healthful foods such as fresh produce. A report from the Life Sciences Research Office, states that food insecurity exists "whenever the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways [e.g., without resorting to emergency food supplies, scavenging, stealing, or other coping strategies] is limited or uncertain". Since 1985, the gap in prices between healthy and unhealthy foods has widened dramatically. The prices of both have risen, however the prices of healthy fresh produce have risen significantly more than the prices of processed foods. A report from the USDA states in a span of 15 years, the price of soft carbonated drinks has increased by 20%, the price of oils by 35%, and the price of packaged sweets by 46%, compared to a 118% increase in the price of fresh fruits and vegetables[9]. A USDA study examined the correlation between changes in children's weight and food prices and found that increasing prices of healthful foods was positively correlated with weight gain in children. For example, a 10% increase in the price of dark green vegetables was associated with a 0.28% increase in BMI. This equates to 13% of annual BMI growth for an 8-year-old boy in the 85th percentile. A similar effect was seen with a 10% price increase in low-fat milk (0.35% increase in BMI). The opposite effect was seen with an increase in the price of sweet snacks: a 10% price increase of sweet snacks was associated with a 0.27% decrease in children's BMI.

The largest effect was an increase in the prices of sugar-sweetened carbonated beverages and fruit juices, which were associated with a 0.42% and 0.3% decrease in BMI respectively. This study supports a relationship between lower prices for soda, starchy vegetables, and sweet snacks and increased levels of child obesity. The effects of food prices were seen more consistently and had a larger impact in lower-income households as well, which is consistent with the economic theory that lower income households are relying more heavily on these energy-dense foods[10].

Individuals not experiencing food insecurity, must choose between healthier fresh options and processed, packaged foods, while food-insecure individuals who are reliant on food pantries typically do not have the option to purchase more expensive local produce. One study examined the perceived barriers to healthy eating in food pantry users and found several themes. One recurring theme was financial uncertainty; the Supplemental Nutrition Assistance Program (SNAP) benefits may not be adequate to sustain food supplies throughout the month, and participants were often more concerned with paying bills rather than choosing healthier options. Another highly mentioned obstacle was the higher costs of healthy foods, especially when energy-dense foods are available in bulk sizes and can be stored easily. Some of the other barriers included lack of time or transportation, rationing within the family, lack of proper kitchen equipment, and lack of nutrition knowledge or social support. Several older individuals reported having knowledge as to what foods were healthy and ways to prepare them however, younger participants or families with younger kids had more trouble with preparing vegetables. Despite all the mentioned obstacles, a majority of the participants reported that the food pantry was able to meet their needs[11].

Feeding America, the nation's largest food assistance network, provides an estimated 37 million individuals each year with emergency food assistance across the United States. In general, food pantries provide millions of families with resources they need to keep from going

hungry. Clients may utilize other programs such as SNAP to help feed their families as well. However, even with a growing number of food pantries and assistance programs such as SNAP and Special Supplemental Nutrition Program for Women's, Infants, and Children (WIC), the percentage of Americans experiencing food insecurity continues to rise. *Hunger in America* is the largest study of food insecurity and emergency food assistance. A 2017 study by the USDA found that 4.7 percent of American households have gotten food from food pantries[12]. Research suggests that individuals may be relying on food pantries for long-term relief rather than the original intended use of food pantries which was emergency food assistance. While government programs such as SNAP and WIC are provided for long-term food assistance, the eligibility requirements are strict and may not cover all those in need. Research suggests that 54% of food pantry users had utilized SNAP within 30 days of visiting the pantry; about 30% had received free or reduced school lunch within 30 days, and only 10% were receiving WIC benefits. One study showed that clients who have incomes below 185% of the federal poverty level were food pantry users for longer than 2 years[13].

While food pantries do provide individuals and families with food assistance, the dietary quality of the food provided is often poor. A meta-analysis from the Journal of the Academy of Nutrition and Dietetics found that the adequacy of the food provided varied depending on the pantry and depending on how many days it was intended to last. The supply of specific micronutrients, most notably vitamin A, vitamin C, zinc, and calcium was insufficient. While fruits and vegetables were given by nearly every pantry, they were mostly in the form of canned tomato sauce, canned produce, or juice[14]. Some argue that the original mission of food pantries was to provide short term emergency food assistance, which implies that it is not necessary to meet and sustain one's nutritional needs and requirements; however, with the percentage of Americans who rely on food pantries as the main source of household food, further thought is being put into how to increase nutritional adequacy of the food provided in food pantries.

Measurement tools have been developed to assess the nutritional adequacy of the food provided in food pantries and food banks. In 2012, after it was decided that there was no consistent measure or definition of "nutritious" to help guide pantries, Feeding America developed a tool called *Detailed Foods to Encourage (F2E)* (See Appendix B). This tool is a framework that aims to more accurately guide what foods should be offered, however, it is not required for food banks to adhere to this guideline. This tool has three main categories: foods to encourage (F2E), other foods, and non-food. A formula was developed to calculate the percentage of F2E received by a food bank (% F2E of food bank's food inventory = X / (Y+Z)), so the food bank can track how well they adhere to the guideline and which sources provide the most F2E[15]. From this tool, researchers began to develop an assessment tool for pantries to use to determine how they score based on the guidelines set in Feeding America's *Foods to Encourage*. The Nutrition Environment Food Pantry Assessment Tool (NEFPAT), looks at several aspects of the pantry including types of donors, strategies for increasing nutritious options, marketing and "nudges", plans for alternate eating patterns. Then the pantry is assigned a score classification: bronze, silver, or gold (See appendix C). This tool can be used by a food bank staff member to determine how the pantry operates to assess if the food bank can provide further resources to better the quality of food offered at the pantry. The NEFPAT was recently developed in 2018, and has not yet been in widespread use; however, this tool may be able to provide pantries with specific goals and objectives to improve their quality of service[16].

Several strategies have been implemented in different pantries in an effort to improve nutritional quality or steer clients toward making healthier choices. One study examined the use of disease-specific boxes, specifically "diabetes friendly" boxes that include options that are lower in sugar and processed carbohydrate foods, in three different pantries, as an effort to help control blood sugar levels and promote self-management. In pre-post comparisons of HgbA1c, participants had significant improvement in HgbA1c levels from baseline, and the

number of individuals who had very poor glycemic control (defined as A1c >9%) decreased. Intake of fruits and vegetables, self-efficacy levels, medication adherence, diabetes distress, and the trade-off between purchasing food or medicine all improved significantly from baseline measures[17]. Other pantries have focused more on education by hosting Cooking Matters classes or a implementing a guidance system for choosing foods. These food guidance systems come in many forms; Choose Healthy Options Program (CHOP) has a number ranking system where 1 indicates food to choose frequently, 2 is foods to choose occasionally, and 3 is foods to choose rarely. We Can! is a children's focused program with a similar approach; foods are broken into three categories: GO foods (choose anytime), SLOW foods (eat sometimes, less often), and WHOA foods (eat only occasionally or on special occasions), (See appendix D). The newer developed system is the SWAP system, Supporting Wellness at Pantries. It is a stoplight ranking system, where foods are assigned a color (red, green or yellow) depending on the frequency they should be eaten. The benefit of the SWAP system is that it does not rely on education, literacy, or language in order for the client to comprehend the system as the meaning of each color is generally understood by everyone. All these systems, each with their own variations, are aimed at helping clients increase their intake of nutrient-dense foods and discouraging frequent intake of processed carbohydrates and high fat foods. However, these interventions can only be utilized in pantries where the client shops for their own food. All these interventions can also be used to improve a client's self-efficacy regarding their ability to choose healthy options[18].

Many clients experiencing food insecurity may also be struggling with job security, low wages, education, healthcare, childcare, housing, or transportation which may lead to low confidence in their ability to be self-sufficient. Self-efficacy is what motivates individuals to make changes or pursue challenges that will eventually help them reach their goals. Client choice food pantries strive to improve the client's level of independence and confidence in

choosing healthier options and providing food for themselves and their families. This is achieved in multiple ways including marketing techniques, education sessions, written materials, and client-staff interactions. A study evaluating the effects of a client choice pantry model (Freshplace) compared to a traditional pre-packaged model showed that several factors including self-efficacy were improved in clients using choice pantries than those using traditional pantries. The Freshplace model has three main components: fresh produce, dairy and meat are available, and clients shop for themselves, clients. Clients must attend monthly case management meetings with a program manager where they receive motivational interviewing, and referral services are available for several programs (e.g., healthcare, social services, education, and housing). Clients visiting the client choice pantry showed increased fruit and vegetable intake at 3, 9, and 12-month follow-ups compared to no change in the control group. Client choice pantry users were also less than half as likely to experience food insecurity compared to the control group after only 3 months. Self-efficacy scores improved by an average of over 4 points in the experimental groups; households that were initially in the lowest income group had the greatest benefits in regard to self-efficacy scores[18]. Another study from 2016 aimed to determine if the client choice model (Freshplace) increased self-efficacy which in turn increased levels of food security. This study showed that higher? self-efficacy was correlated with lower levels of very low food insecurity. Participation in the Freshplace market intervention increased food security and self-efficacy levels at every quarter check-in. This model documents that with improvement in self-efficacy comes higher food security[19].

One study examined the client perception of client choice pantries[20]. Researchers conducted focus groups and asked the following questions:

1. How long have you been coming to the pantry?
2. How has this pantry changed from the time that you started coming to what it does now?

3. What do you like about this new choice pantry system?
4. What don't you like about the new system?
5. What have you learned about healthy eating since you have been here?

Pantry users expressed three main benefits: the act of the choice (choosing what they like/want); the social benefits of choice (more personal experience, interactive learning, social support); and less waste (don't have to bargain to get what you want or have to throw away what you don't want/need). There were also some mentioned challenges including potential language barriers for Spanish speaking clients, longer waits, inconsistency of items available, and lack of understanding of nutritional concepts. Overall, clients interviewed preferred the choice model as opposed to the traditional model; they deemed that the benefits outweighed the potential challenges.

As research has shown, using the client choice model provides clients an opportunity to make healthier food choices and improve their self-efficacy regarding nutrition. However, little research has been done regarding the benefits and barriers to operating a client choice pantry. Food assistance programs often have limited funding and resources that may hinder them from operating a client choice pantry. The data collected in this study will help provide strategies to overcome these barriers and allow more pantries to convert to a choice model.

CHAPTER 3. METHODOLOGY

Study Design

Interviews were conducted with the director or a staff member from pantries across the US that are similar in size and hours of operation to HHC. Interviews were conducted by phone or email and consisted of 11 questions regarding the logistics of how the pantry operates (Appendix A). Following the interviews, data were analyzed to summarize interview content. The following is a list of the research questions addressed in this study:

1. What strategies are most effective for adopting a client choice pantry model?
2. What barriers and challenges must be overcome?
3. How can these barriers addressed or overcome?
4. What are the benefits of a client choice pantry model?
5. How is nutrition quality addressed with clients when using a choice pantry model?

Sample

Food pantries were selected based on their average number of clients served per week and weekly hours of operation; pantries were excluded if they operated less than 20 hours, less than four days per week, or served less than 100 clients per month. All pantries had to be run on a client choice model, however, the method in which they distribute food could vary. Pantries were selected nationwide in order to gather a wide variety of populations and demographics. Pantry staff were contacted to assess these factors and then asked if they would be willing to participate in an interview to assess the management and administration of the pantry.

Procedures

Pantries were contacted via phone and then asked to participate in an 11-question survey about their client choice pantry. Questions addressed aspects such as physical layout, staffing, budget, types of food offered, the number of clients served, and the specific methods for food distribution. The survey was conducted either over email or phone, whichever the pantry staff preferred. Participants were provided with a description of the study and participation in the interview constituted their consent. Data were transcribed during the interview process. A copy of the interview questions can be found in Appendix A.

Data Analysis

Phone interviews were recorded and transcribed. Data was then drawn from the transcribed interviews; both quantitative and qualitative and were reviewed and independently coded by two researchers. Qualitative data was compared for consensus and the most frequently mentioned information such as barriers experienced, benefits, strategies, etc. Quantitative data was converted into spreadsheets in order to calculate average and frequency data.

CHAPTER 4. RESULTS

Sample Characteristics

Seven total pantries were included in the final analysis. Of the seven pantries, four have always operated as a client choice pantry; the other three pantries transitioned from the traditional box distribution method. Length of time operating as a client-choice varied from 2 years to 10 years. The average hours of operation per week was 21 hours, with a range of 17 to 54 hours per week. The average monthly food budget varied widely between pantries, from $500 to $12,000, with an average of $3,416 per month. An estimated 1,862 people are served each month, with a range of 100 to 10,500 clients per month (see Table 1). Out of the seven pantries surveyed, all pantries distributed food based on family size. All but one pantry distributed food on a food group system, as opposed to a poundage system. While all pantries functioned on a client choice system, the methods of food distribution varied greatly including how many items a household can take, what items are frequently available, and how often clients can receive food. The major thematic areas identified in this research included management of client choice, sources of food donation, and supplementary services.

Population Sample

Table 1: Sample Characteristics

	Pantry A	*Pantry B*	*Pantry C*	*Pantry D*	*Pantry E*	*Pantry F*	*Pantry G*
Location	Albemarle, NC	Kent, OH	Durham, NC	Owego, NY	Fayetteville, AR	Corning, NY	Pembroke Park, FL
Monthly Budget	$2,300	$12,000	$500	$1,500	$1,700	$2,500	$25,000
Average Households Served Per Month	450	50 – 150	960	120-140	1,400	500	400
Hours of Operation (per week)	32	22.5	17.5	27	10	27	54
Client Eligibility Requirements	Proof of county residency	Proof of county residency	Proof of county residency	No requirements	Proof of University affiliation	Proof of county residency	Proof of county residency
Length of Choice Operation (Years)	Since Pantry Initiation	8	2	10	Since Pantry Initiation	Since Pantry Initiation	7
Frequency Clients Receive Services (number of days)	Pantry, 60 TFAP box, 30	30	Seniors, 30 Under 65, 90	21	2x/week	30	30

Management of Client Choice

Distribution Based on Family Size

Most pantries develop a system to distribute items based on the number of people in each household and considered several factors such as the number of households served, weekly hours of operation, and staff and volunteer work hours. For Pantry A, each household that comes through is given a certain poundage that they cannot exceed; for example, a family of one would receive 25 pounds of food, while a family of 5 or more would receive 55 pounds. The other six pantries in the sample use a method based on food groups, and clients receive a certain number of items in each food group. The amounts that are given and designated food groups vary by pantry. Pantry E based their distribution on the MyPlate food groups, so every client receives a certain number of grains, protein items, fruits, vegetables, and dairy items. Similar processes are used in other pantries, depending on what items clients often choose, what items are consistently in stock, and how often clients can shop. Most pantries rely on frozen meat as their main source of protein given to clients, and this is sometimes a deciding factor when creating household allotments. There are some exceptions to the household size rule; for example, most pantries will distribute some items for "free", meaning "take as much as you will use". This often includes produce, items that may be past their expiration date, or items that are donated in abundance.

Frequency Clients Can Receive Services

Many pantries interviewed allow clients to shop in the pantry every 60 days. However, some pantries had longer waiting periods, and some shorter. Pantry E allows clients to visit two times per week. Due to the unique nature of the campus-based services and abundance of resources that entails, this is unlikely to be a feasible model for most community-based

pantries. Pantry E also works with campus dining services where they receive food recovered from the dining hall kitchens, which is a large source of their food donations. With the consistent supply of prepared and perishable food, it allows them to offer food to clients more frequently. Another factor in determining the frequency of client services is how long the supply of food will last a client. Some pantries, such as Pantry B provide food to last three days and allow clients to return to the pantry in 30 days. Pantry F in Owego, NY provides clients with up to one week's worth of food, while also allowing clients to return to the pantry in 30 days. These guidelines are sometimes designated by the local Food Bank, and sometimes designed by pantry leadership.

Another common mentioned aspect of pantry management was client eligibility. The eligibility requirements from pantries varied; one standard requirement for all pantries was proof of residency in a county that the pantry serves, and this is not always the county in which the pantry is located. Proof of income may also be required; typically, this was examined in smaller pantries whose sources of supply are inconsistent. Pantry directors did not report that the eligibility requirements greatly impacted the food distribution model used in the pantry.

Request Forms

There were two reported methods of food distribution, a shopping system or an ordering system, where clients are fill out a request forms with the items they want, and a volunteer fills their order. Two pantries reported using request forms, and each had different methods of distribution. Pantry F reports that due to inconsistent inventory, they list available options on a white board in the pantry. Clients then make their selections and tell the staff, who then fill their bags with the items. *"Since what we have changes on quite a regular basis, we have a lot of the foods that get packed for them written on a big white board. They look at that white board and they decide"* says the director from Pantry F.

Five of the seven pantries interviewed reported using a shopping method. This implies that the pantry was set-up similarly to a grocery store, where clients take a shopping cart and walk through the aisles and choose their items off the shelves. These pantries generally had ample space and were set-up in a specific manner to help guide the client's selections. Each pantry has unique methods of displaying household sizes; Pantry D and Pantry B report that a volunteer will accompany the client through the pantry to help guide their choices and ensure they are choosing the correct number of items for their family size; generally, the volunteer escort will take the place of a "check-out" system. Another method would be having signage displayed throughout the pantry that illustrates to clients how many items they can take from each section of the pantry and monitor clients throughout their shopping experience or have a "check-out" system.

Pantry C was the only pantry who reported using a color-coding system for distributing items; families were put into a certain color group based on the number of people in the household and throughout the pantry, there are color-coded signs that show how many items families of each color group can take. This method may be useful in a pantry where many clients have a low literacy level, or where staff members or volunteers are limited and cannot accompany clients and direct their choices. The benefit of this approach is that it is the most similar to a grocery store experience, which can improve client satisfaction levels and provide a more dignified experience for the client. However, this model also requires a "check-out" system, where a volunteer must weigh or count the items the client selects to ensure they are within the allotted amount, or a volunteer to assist the shopper as they walk through the pantry to ensure they are receiving the correct amount. It also can appear limiting to a client as they shop since they can see other shoppers who are able to take more items, compared to a food box system where everyone is provided with the same number of items, regardless of household size. Another unique system is used in the Pantry A, where clients are allowed to

choose any item if they do not exceed their allotted poundage of food. Pantry A was the only pantry to report having a staffed check-out station where clients weigh their box of food. Perishable items such as produce or fresh bread, and items from the "free shelf" which are most often items in abundance, do not count toward the total weight.

At Pantry D, volunteers deliver to elderly and disabled clients once per month, operating on a choice system. *"A volunteer's set-up with basically three homes that every month they will call and tell our volunteers that they need a delivery…and they would just bag it up and they would send it. What we did, just in the last month, was we created forms that have all our choices on them. We had our volunteers call and say 'we just want to survey you, what you would like, do you prefer peas or carrots, or does it matter? Do you have a dietary restriction? When one of our volunteers comes and says, 'I'm delivering to these people, can you bag it up?' our volunteers can just pull their sheet and know right away what that person is going to want; so, we are actually sending bags that are going to be used. It's what someone is actually going to eat."*

Physical Layout

Of the pantries using the shopping method, only one of the pantries reported specifying shelves to certain health needs. Most interviewees mentioned that clients who have allergies or health needs are knowledgeable about choosing appropriate items without the need for designated shelving. Most pantries did report setting aside certain items that clients may request, such as gluten-free items, nut-free peanut butter, etc. The layout of a pantry depends on whether the pantry is using the shopping or ordering method for distribution. The size and shape of the pantry also plays a role, as far as how much shelving can fit and direction of traffic flow. Since every pantry space is unique, the layout differed greatly with all the pantries interviewed. For order form pantries, the staff reported having limited space, or a limiting building shape, which moved them to use the order forms. In Pantry E, the assistant director

reported having a long narrow room where the food was stored, small enough that navigating a shopping cart would be difficult and would not be able to fit multiple clients at one time. *"(Shelves are) divided by food group and food variety…laid out in the same order as our request form…"* Pantry E assistant director says, *"when a volunteer gets a request form, they follow a horseshoe pattern around the pantry, so everyone moves the same way with our limited space."*

For pantries utilizing the shopping method, layouts varied, however they all had space for clients to maneuver shopping carts. They also have the liberty to organize items according to nutritional value to promote healthier choices in pantries, although no staff member directly mentioned this benefit. Pantry C mentions having dessert available on the last table, which could nudge clients to take more of the healthier options like protein and fruits or vegetables, and less of dessert items. *There's like a horseshoe around the rest of the building with shelves with my canned goods. So, we have two vegetable shelves, one peanut butter shelf, one cereal shelf, one miscellaneous shelf, one canned fruit shelf, and one rice shelf, one pasta shelf, and one dessert shelf. So, they go around that semi-circle, so we have two tables with bread in the middle. So, they go around, the last shelf is the dessert and they grab that and the bread and then go on out"* says the director from Pantry C.

Pantries may also choose to organize the pantry to emphasize certain health conditions or diet-linked diseases, such as having certain shelves contain low-sodium foods, gluten-free options, sugar-free, etc. This helps clients with certain allergies or diet-linked diseases easily select food that fits their lifestyle. Pantry managers also may also hold back certain specialty items that clients may be inclined to take, but don't need. Free or miscellaneous shelves were mentioned in most pantries as well, where items such as clothing or expired canned goods may be placed for the client to pick-up. Often, these items do not count toward the total weight or number of items allotted.

Pantry Software

In order to receive food, local food banks require pantries to report statistics regarding the number of clients served, the number of meals served, how many items were moved, etc. Pantries often rely on tracking software to generate these statistics to send to the food banks. Of the pantries interviewed, four mentioned using pantry tracking software. The two software programs mentioned were PantryTrak and PantrySoft. The main uses for these programs are minimizing paperwork, tracking clients and services provided, and offering an easier check-in process. When a client first visits the pantry, they complete demographic information, so at all subsequent visits, their information is already recorded. This also allows the pantry to track how often a client visits since many pantries only allow clients to visit every 30 days.

Source of Donations

The main source of donations for all pantries interviewed was the local food bank, and all pantries interviewed have an on-going partnership with the local food bank. Pantries place orders a few times per month, which supplies the bulk of the food available to clients. This food is often very inexpensive, usually less than a dollar per pound. The only pantry unique in this partnership was Pantry G. This pantry operates directly out of a food bank; therefore it is run by the food bank staff. Because of this, they are able to share resources directly rather than having to make scheduled purchases like a typical pantry. A common service food banks may also provide to the pantries they partner with is The Emergency Food Assistance Program or TEFAP. This program provides food free of cost to low-income Americans; food from this program is distributed in pantries, but in addition to this, food banks and local private donors provide food which allows the pantries to distribute additional food or serve a larger population. Pantries may allow clients to receive both general foods as well as a TEFAP box. Food from the TEFAP program varies, however, it is generally shelf-stable foods such as canned or boxed goods. Food

bank's purchasable goods are similar; however, they may be able to provide perishables in addition.

The next most commonly mentioned sources of food supply were grocers and churches. Many pantries have connections with local grocery stores, such as Aldi, Walmart or Ingles, where the pantry will collect items that are past their expiration date, day-old baked goods, or other miscellaneous items that haven't sold in the store. Pick-ups from local grocers are often done at least one time per week. The most common items received from these pick-ups include day-old baked goods such as loaves of bread, pastries, etc., and fresh meat or produce that has reached its "sell-by" date. The pantry will place the meat in the freezer upon receiving an order to maintain its freshness. Churches were also highly mentioned as a main source of supply. Local churches commonly will have on-going food drives dedicated to a specific food pantry. These drives can be very effective in helping to maintain a consistent supply of food. "*…churches will do stuff. They will do it on an on-going basis, like they may have a pantry corner…we try to focus it on something in particular. 'They need cereal, or they need tuna'; stuff that might be expensive for us to buy, even from the food bank"* Pantry F states. Local churches also may contribute extra food and supplies, serve hot meals, or send extra volunteers to the pantry during the holiday seasons.

Food drives and private donors were also mentioned several times during interviews. Some specific food drives mentioned included the mail carrier drive, boy and girl scouts' drives, and school drives. These drives bring in large amounts of food all at once, mostly canned goods. These can be greatly beneficial to the pantry, but are not sustainable long term, since there are sometimes shortages when no drive is actively being conducted.

Supplementary Services

Pantries also often offer other services in addition to food assistance. For example, clients may be able to register for SNAP or WIC services, get a hot meal, or visit with a social worker. All seven pantries interviewed mentioned offering some form of supplementary services. The most commonly mentioned services were cooking demonstrations and "free" items. In Pantry D, volunteers select a food item that isn't being chosen by clients and prepare a meal using that food. They print out recipe cards, give samples of the meal, and make bags of the ingredients that they hand out to clients when they shop for food as an additional item onto their groceries. This not only benefits the client, as they receive extra, but it also helps the pantry move items that aren't readily taken. The recipes sometimes include specialty items that are rare finds in the pantry, like ketchup, or certain seasonings. Another example of this is a pantry who offers a Cooking Matters class on a regular basis. Very little research has been done to evaluate the effectiveness and equity of distribution methods of food in choice pantries.

"Free" items were also given out at half the pantries. The items given varied from pantry to pantry. Two of seven pantries did mention that bread or bakery items were offered as a "free" item, or that clients could return to the pantry before their allotted food distribution day to pick up extra bread and bakery goods, and two pantries offered "free" produce as well. While this is offered because these foods are highly perishable and frequently are in abundance in the pantries, it can lead to excess intake of processed carbohydrates or discourage clients from choosing healthier options such as fresh produce. For example, Pantry D allows clients to come as often as they would like to receive bread, baked goods, and fresh produce since the pantry has an abundance and these items are highly perishable. Other items included personal goods such as hygiene items, toiletries, clothes, or even pet supplies. The items are often seasonal as well, so a church may gather some winter coats or firewood for a specific pantry

during colder months. Pet supplies are more difficult to obtain, but some pantries offer pet food and other necessities to families as they have it available.

Food pantries often have partnerships with local soup kitchens, so clients may get referred to the soup kitchen when they are visiting the pantry and vice versa. Some pantries are tied with larger organizations such as faith-based organizations and offer both the food pantry and the hot meal in the same location; the hot meal generally does not impact the amount of food the individual receives from the pantry.

Outside services may also be available to pantry clients. Very few pantries have staff available that can sign up clients for SNAP and WIC services, however, some pantries have these staff members available during certain days of the week or month. Services will be advertised to clients, and they can meet with the representative to check their eligibility for SNAP or WIC services, and sign-up if they are eligible.

SNAP application assistance and healthcare assistance were only offered at one pantry. Nutrition education was available at six of the seven pantries, most commonly in the form of signage or educational handouts available to clients. Some other mentioned sources of nutrition education included Cooking Matters classes, SNAP education, and access to a dietitian through the local food bank.

Table 2. Summary of Pantry Attributes

Pantry	*A*	*B*	*C*	*D*	*E*	*F*	*G*
Shopping Method	✓	✓	✓	✓			✓
Supplemental Services	✓	✓	✓	✓	✓	✓	✓
Nutrition Education		✓	✓	✓	✓	✓	✓
Allow Allergen/Diet Substitutions	✓	✓	✓	✓	✓	✓	✓
Allergen/Diet Specific Shelves				✓			
Distribution by Food Group		✓	✓	✓	✓	✓	✓
Distribution based on Family Size	✓	✓	✓	✓	✓	✓	✓

Benefits of Client-Choice Pantries

Eliminating Waste

The main benefit of implementing a client choice pantry is that clients can choose items that they are likely to eat. In the food box method, clients are usually provided with a standard box of items, based on what is available in the pantry. Directors did not directly comment on their experience with food waste in the pantry, however, it was commonly mentioned that families are happy with the amount of food they receive and are able to substitute any item that they dislike or cannot eat due to allergies or conditions. *"…A lot of times before we were seeing that families would come in and say for example, they get a can of pork, and a lot of people don't eat pork. So, they would take the items out of their bag and leave it on the counter or table. So, now that we have the choice pantry, they're able to get exactly what they want, well from what we have available"* states the director from Pantry B.

Catering to Client Allergies and Diseases

All seven pantries mentioned allowing clients to make substitutions for items in order to accommodate their needs. For example, one of the main staples given to households is a fresh meat product, however, a client may be able to substitute this item for extra beans or peanut butter if they choose not to have meat. *"If I see someone that someone has a peanut allergy, I might have some almond butter or something else in my office, so I would go ahead and give that to them,"* says the program manager at Pantry C. Gluten-free items were also kept in stock in most pantries and clients were able to substitute general items for gluten-free items if necessary. Three of seven pantries also mentioned setting aside specialty items such as nut-butters, low-sodium canned goods, and nutritional drinks in order to give these to clients who need or request them specifically. These were often long-term clients; the staff was aware of their special needs and accommodated them as much as possible. Only one pantry mentioned

having a "healthy food" shelf where low-sodium, no added salt, sugar-free, and gluten-free goods were provided.

Dignified Client Experience

One of the main benefits that clients may experience from a client choice model compared to a food box model is a more dignified experience. Although pantry directors did not specifically comment on the client experience, directors reported high levels of client satisfaction while using the client choice model. In the choice model, clients have more autonomy is choosing what food they receive, as opposed to the food box model which could be seen as demeaning, since staff was dictating clients' food choices. *"…There haven't really been any problems, its more advantageous for us to have a choice pantry…"* Pantry B reports.

Challenges of Client Choice Food Pantries

Inventory

One of the main challenges to maintaining a successful client choice pantry is securing a consistent inventory of highly requested food items. By allowing clients to choose the items they prefer, certain items may be taken more frequently than would be distributed in food boxes. This challenge was commonly mentioned by pantry directors and staff. At Hunger and Health Coalition, this barrier led to a reversal of the client choice pantry method, back to the standard food box system. Inventory in the pantry became very sparse and the items that clients most preferred were not available.

Out of seven pantries, five mentioned having trouble keeping an adequate supply on the shelves throughout the year. The only two pantries who mentioned having no significant problems with supply were Pantry G and Pantry D. Of the five mentioning issues with keeping supply, each pantry had unique struggles. Two pantries mentioned having trouble keeping up

with demand during the summer months. "*It can get a little bit slow over the summer. Sometimes we have to spend money to stock our shelves over the summertime. We get a whole lot of donations, of course, at the end of the year with people doing Thanksgiving and Christmas type things. And schools do drives, things like that, so over the summer when they're not in session, we don't get as much…we usually get more attention at the end of the year"* says the director from Pantry A. Pantry F also mentioned that they struggle during the summer months, but more from an influx of customers due to school break and parents relying more heavily on the pantry to support their family.

The order form system may also be difficult for a pantry if they do not have a consistent inventory. For example, if a pantry allows a family to select two fresh or frozen portions of meats, the pantry should be able to supply this to the family every time they visit or have a substitute of equal value available. Some pantries have strategies to combat this. Pantry F reports having a whiteboard in the main lobby where they list what options are available for each food group. For example, families that come in are given a frozen portion of meat, but the meat options available may change from week to week depending on what was donated. Using a tool that can be updated frequently keeps the opportunity for the shopper to have a choice, but also allows for more variation in pantry supply.

Reliance on Volunteers

All seven pantries relied mainly on volunteers to run and organize the pantry. Pantries generally reported having two or three paid staff members; commonly these positions included a program manager, assistant director or manager, and warehouse manager. Much of the labor was delegated to volunteers, however, the number of volunteers used by each pantry varied greatly. Directors commonly mentioned relying on a core group of consistent volunteers who worked frequently or regularly in the pantry, as opposed to frequent turnover of volunteer positions. Only one pantry reported using an application-based system, where volunteers apply

to one position, and if they are accepted, they are expected to come to work their shift every week for the duration of their contract, which in their case, is a semester. Volunteer roles differed between pantries, but the main positions included stockers, receptionists or greeters, and "packers" who compiled boxes based on client order forms. Generally, pantries used less than 10 volunteers in the pantry at one time, most often reporting between five to eight core volunteers, depending on how many families the pantry served on average, and what other services they offered.

Table 3. Most Frequently Mentioned Benefit of Client Choice Pantries

Benefits	Number of Mentions
Personalization of Food Received	7
Eliminating Waste	5
Dignified Client Experience	4

Table 4. Most Frequently Mentioned Barriers to Client Choice Pantries

Barriers	Number of Mentions
Maintaining Consistent Inventory	6
Reliance on Volunteers	7

CHAPTER 5. DISCUSSION

Research has shown that the main benefits of utilizing a client choice pantry model are a sense of dignity for clients and their families, higher satisfaction with the food they are able to choose, less waste and ultimately less cost of food provided, greater opportunities for volunteer and clients to interact, and more social, supportive relationship opportunities. The information collected from pantry director interviews in this study reflects these same benefits. One main finding from these interviews is the widespread transition to a client choice model from the tradition food box model. Multiple pantry directors reported their local food bank required or greatly encouraged the pantries to transition to a client choice model and offered assistance in order for the transition to go smoothly.

This research helped identify some of the main factors which influence how pantries are best operated, including sources of donations, management of client choice (physical layout, distribution based on family size, use of order forms, tracking software, and frequency clients can receive services), and supplementary services. Sources of supply are one of the main influencers of the operation of a pantry, as this greatly impacts the consistency of the inventory available to clients. Every pantry included in this study was supported by a larger area food bank which functions as the main source of food supply, funding, and administrative assistance. More specialty items such as fresh produce or bakery items are often "rescued" from local grocers or shops who donate to the pantry; these types of donations are often on-going partnerships, so pantry staff can rely on this as a consistent flow of inventory. Specialty drives such as boy scouts or mail carrier drives are inconsistent in timing and amount of donations, therefore pantry staff would not be advised to rely on these as a source of constant inventory.

Depending on how many sources of supply the pantry relies on, and how often donations are given to the pantry dictates how often clients can receive services and how many items clients are allowed to receive in a pantry visit.

The most impactful factors in client-choice pantry success are the management techniques utilized. One major subtheme mentioned by pantry staff was the distribution style of pantry: shopping or order form. Depending on the sources of supply and the physical space in the pantry, staff can decide which better suits their pantry and client population. This study found that pantries with limited space, but fairly consistent inventory operate well using an ordering method. One mentioned challenge of this method was inconsistent inventory impacting availability of items listed on the order sheet. One method used to overcome this barrier is to use a white board to write in what items are available each week. Pantries utilizing the shopping method appear to function better if the layout allows for clients to maneuver through the pantry easily and has good traffic flow. Distribution based on family size was also mentioned by every pantry, although amounts and methods varied. An example of this could be using a color-coding system for various family sizes to guide client choices.

The limitations of this study include the small sample size. Although these pantries were distributed nationwide, the small sample cannot accurately represent the large variety of food pantries that exist nationwide. The information gathered provides only a small look at the barriers that pantry administration faces when developing and running a client choice food pantry. More research is needed to further investigate these barriers and what techniques can be used by pantry staff to run more efficiently. Another limitation of this study was the large variety in the pantries surveyed. While there were inclusion and exclusion criteria for selecting pantries to participate, there were still a significant number of differences in the methods of pantry management which caused difficulty collecting comprehensive data. This could also be considered a benefit of the study, as each pantry is unique in its population served and available

resources; these differences make it difficult to find one management method that will be reproducible by all client choice food pantries. Collecting data from a variety of pantries is more representative of the pantry population and can help pantry staff better understand potential barriers they could face in the future.

This study provides a look into the operation of client choice food pantries, including their benefits, challenges, and possible solutions. Overall, the results suggest that benefits of client dignity, elimination of food waste, and individualized food boxes outweigh any of the barriers and that creative solutions may help address those barriers. There seems to be a fine balance between the number of clients served, the number of volunteers available, food supplies, and physical space. A modified client choice method using an ordering system may be a compromise for pantries where space is limited, yet independent shopping with a check-out system may work best for pantries with less volunteer labor. The consistency in benefits and challenges mentioned by pantry staff should reassure other directors that facing these obstacles is common. The benefits and challenges concluded from this study are similar to those mentioned in previous literature, however more research should be done on the potential cost-saving mechanisms of the choice pantry as that element was not assessed in this study. This investigation provides some insights on the factors to be considered by individual pantries when planning and implementing a client-choice food distribution method.

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APPENDIX A. INTERVIEW QUESTIONS

1. What are your hours of operation?
2. How many families do you serve?
3. Have you always operated as a client choice?
    a. If not, how long?
    b. What struggles have you seen, if any, since converting to client choice?
    c. Do you have trouble keeping an adequate supply of food on the shelves?
        i. If not, what method do you use to ensure an even supply of food over the weeks and months?
        ii. If yes, what is your plan to combat these struggles?
4. Do you have a budget for the pantry?
    a. If so, how much?
    b. Are you spending roughly the same amount each month?
5. What are your sources of supply for your pantry?
6. Do you tier levels of food available based on family size?
    a. If so, has that been successful?
        i. Would you mind sharing your method?
            1. If not, why not?
7. How do you work with clients with food allergies?
8. Do you have a section tailored for diet linked diseases?
    a. If so, please share layout?
9. How do you organize your pantry?

a. Physical layout

b. Intake procedures

c. Check-out procedures

10. Do you have dedicated pantry staff?

    a. How many?

    b. What positions/jobs?

    c. Volunteer roles?

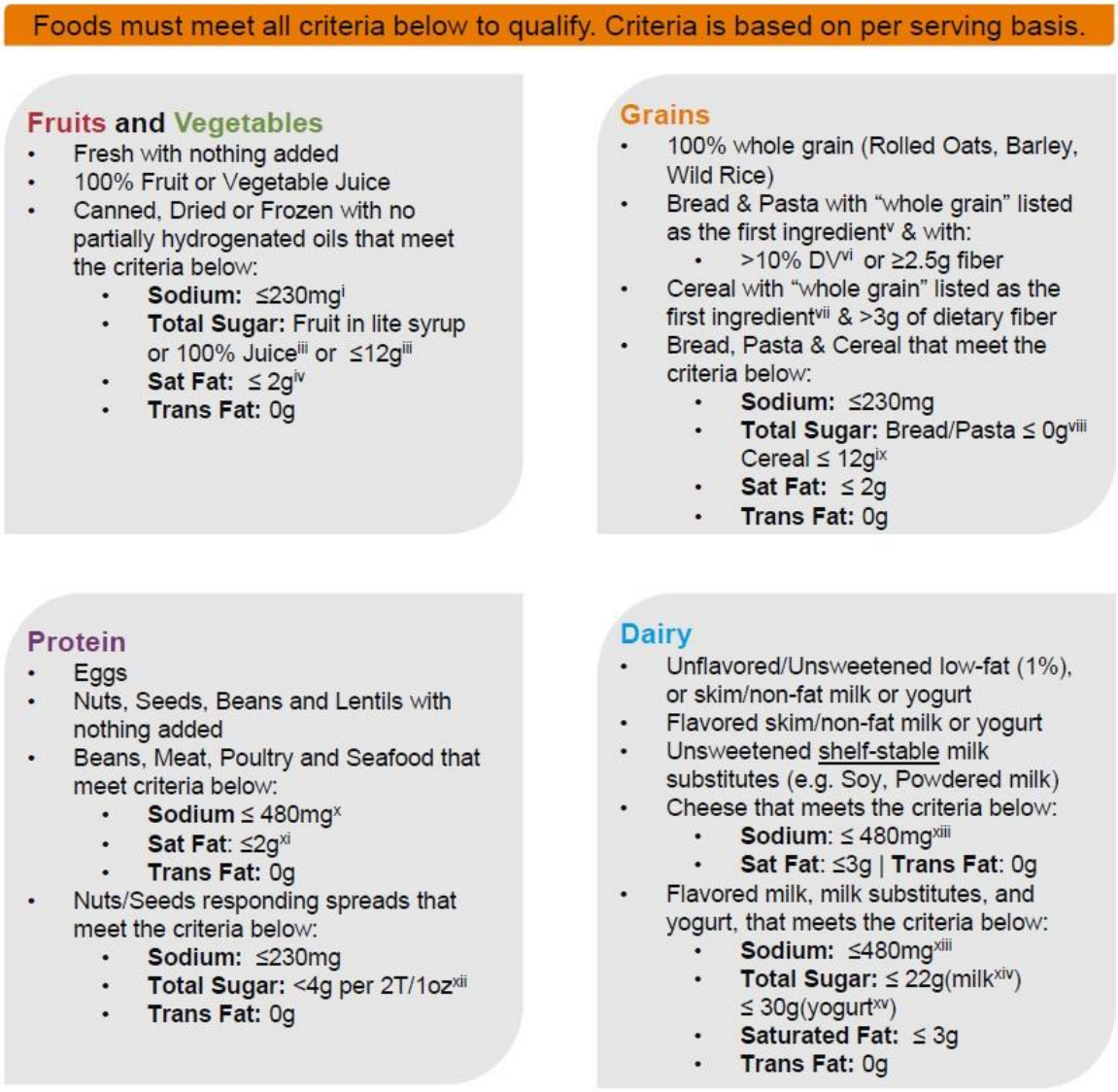
        i. How are these laid out?

11. Do you have any nutrition education materials or opportunities within your pantry? (volunteers, “personal shoppers”, signage, handouts, etc.)

APPENDIX B. DETAILED FOODS TO ENCOURAGE (F2E)

Detailed Foods to Encourage (F2E)

The Detailed Foods to Encourage (F2E) framework was designed to more accurately evaluate and describe the nutritional contributions of the food categories in food banks' inventories. This framework below serves as the Feeding America national office recommendation, not requirement, for network food banks. Below are the qualifications required for the product categories to be listed within our Foods to Encourage



APPENDIX C. THE NUTRITION ENVIRONMENT FOOD PANTRY ASSESSMENT TOOL (NEFPAT)

Nutrition Environment Food Pantry Assessment Tool (NEFPAT)

Directions: This assessment tool is meant to provide perspective on the nutritional environment of the food pantry. Evaluations will be made using both objective observations as well as questions to be asked of pantry staff/volunteers (items marked with a *). Please make your assessment based on observations made during the food pantry's food distribution services.

Date: _____ Name of Assessor: _____

Name of Food Pantry: _____

Address & City: _____

Number of **Individuals** Served Per Month by Food Pantry*: _____

How close is the pantry to the closest public transit access point (in miles)?

_____

Pantry Days/Hours of Operation: _____

Does the pantry restrict which audiences can access its services (i.e. by Zip code or for students-only)?

☐ Yes ☐ No

Contact Name & Details: _____

Additional Pertinent Information:

Types of Donors* (Optional):	Provides Funds	Provides Food
Food Bank	☐	☐
Faith-Based Organization	☐	☐
Non-Profit Organization	☐	☐
Government	☐	☐
Private Donor	☐	☐
Commercial Business	☐	☐
Community Group	☐	☐
Other (Please Specify):	☐	☐

Objective 1: Increase Client Choice for Nutritious Options

Strategies:
☐ 1.1. Clients may choose which types of F2E they'd like to take*
☐ 1.2. Has established nutrition policy used for purchasing food for clients*
☐ 1.3. Clients are able to come to the pantry for food more often than once per month*
☐ 1.4. Encourages nutritious donations (i.e. by distributing a list of suggested items or asks donors not to provide certain foods) *
☐ 1.5. Food Pantry is listed on AmpleHarvest.org website (if not, seeks donations from local gardeners/farmers or community gardens) *
☐ 1.6. A policy is in place for proper food safety*
☐ 1.7. Pantry hosts a "shopping style" distribution (set up like a grocery store)
☐ 1.8. Food pantry offers items from each of the five food groups (fruits, vegetables, grains, protein, dairy)
Number of Strategies Utilized: _____
Notes:

Objective 2: Market & "Nudge" Healthful Products

Strategies:
☐ 2.1. Recipes featuring F2E are available to clients*
☐ 2.2. Offers food samples to clients*
☐ 2.3. MyPlate or other healthy eating materials that promote F2E are visible (i.e. posters, flyers, window stickers, etc.)
☐ 2.4. Displays/hangs supporting materials for an F2E (such as shelf talkers/shelf tags, nutrition information, etc.)
☐ 2.5. Includes at least one F2E item in a bundle to display items together as a meal (i.e. beans and rice)
☐ 2.6. F2E are stocked to appear "abundant"
☐ 2.7. Majority of F2E are displayed/angled to be viewed easily from the eye-level of an average client

☐ 2.8. At least one F2E item is within eyesight upon entering the pantry during distribution
Number of Strategies Utilized: _____
Notes:

Objective 3: Provide Various *Forms* of Fruits and/or Vegetables

Mark off each type as you see them, below:
☐ 3.1. Fresh
☐ 3.2. Canned (Any type, no rust and minimal dents)
☐ 3.3. Canned (Fruit in lite syrup or juice or ≤12 g Sugar, **or** Vegetables with ≤230 mg Sodium and ≤2 g Sat. fat)
☐ 3.4. Frozen (Any type, no frostbite)
☐ 3.5. Frozen (≤12 g Sugar, ≤230 mg Sodium, & ≤2 g Sat. fat)
☐ 3.6. Dried (any type, no mold and packaging intact)
☐ 3.7. Dried (≤12 g Sugar, ≤230 mg Sodium, & ≤2 g Sat. fat)
☐ 3.8. Juice (100% fruit juice)
Number of Options Available: _____
Notes:

Objective 4: Provide Various *Types* of Fruits and/or Vegetables

Mark off each color type as you see them, below:
☐ 4.1. Red, if >2 types then additional ☐
☐ 4.2. Yellow/Orange, if >2 types then additional ☐
☐ 4.3. White or Tan/Brown, if >2 types then additional ☐
☐ 4.4. Green, if >2 types then additional ☐
☐ 4.5. Blue/Purple, if >2 types then additional ☐
Number of Options Available: _____

Notes:

Objective 5: Promote Additional Resources*

Strategies:
☐ 5.1. Provides information on SNAP, WIC, Senior Farmers Market coupons or other low-income resources*
☐ 5.2. Provides nutrition education to clients (i.e. by partnering with Extension or other sources of expertise) *
☐ 5.3. Distributes Medicaid/affordable health care information*
☐ 5.4. Provides employment assistance information*
☐ 5.5. Provides other educational/self-improvement resources*
☐ 5.6. Has onsite garden or other gardening resources*
☐ 5.7. Promotes or provides health screenings (blood pressure, glucose, BMI, etc.) by partnering with local organizations*
☐ 5.8. Promotes or provides mobile markets during the summer months*
Number of Strategies Utilized: _____
Notes:

Objective 6: Plan for Alternate Eating Patterns

Strategies:
☐ 6.1. Provides food pantry volunteers with nutrition education*
☐ 6.2. Utilizes Commodity Supplemental Food Program (CSFP) to provide food tailored for low-income elderly clients*
☐ 6.3. Has labeled sections for specific foods (i.e. gluten-free, dairy--free, no/low sodium, vegetarian or no-prep- required)
☐ 6.4. Provides diverse options for protein (i.e. tofu, beans, fish, peanut butter)
☐ 6.5. Provides culturally diverse foods (Kosher, Halal, ethnic cuisines)
Number of Strategies Utilized: _____

Notes:

Total for Objective 1: _____

Total for Objective 2: _____

Total for Objective 3: _____

Total for Objective 4: _____

Total for Objective 5: _____

Total for Objective 6: _____

Total of Ratings: _____

Range: 0 – 47

Score Classifications:

Bronze: 0 – 15

Silver: 16 – 31

Gold: 32 – 47

Overall Comments:

Modified From:

Feeding America. "Detailed Foods to Encourage." *Healthy Food Bank Hub*. Last modified July 2015. http://healthyfoodbankhub.feedingamerica.org/resource/foods- to-encourage.

APPENDIX D. WE CAN! GO, SLOW, WHOA FOODS

We Can! GO, SLOW, and WHOA Foods

Use this chart as a guide to help you and your family make smart food choices. Post it on your refrigerator at home or take it with you to the store when you shop. Refer to the *Estimated Calorie Requirements* to determine how much of these foods to eat to maintain energy balance.

- **GO Foods**—Eat almost anytime.
- **SLOW Foods**—Eat sometimes, or less often.
- **WHOA Foods**—Eat only once in a while or on special occasions.

Food Group	GO (Almost Anytime Foods)	SLOW (Sometimes Foods)	WHOA (Once in a While Foods)
	Nutrient-Dense ←	→	Calorie-Dense
Vegetables	Almost all fresh, frozen, and canned vegetables without added fat and sauces	All vegetables with added fat and sauces; oven-baked French fries; avocado	Fried potatoes, like French fries or hash browns; other deep-fried vegetables
Fruits	All fresh, frozen, canned in juice	100 percent fruit juice; fruits canned in light syrup; dried fruits	Fruits canned in heavy syrup
Breads and Cereals	Whole-grain breads, including pita bread; tortillas and whole-grain pasta; brown rice; hot and cold unsweetened whole-grain breakfast cereals	White refined flour bread, rice, and pasta. French toast; taco shells; cornbread; biscuits; granola; waffles and pancakes	Croissants; muffins; doughnuts; sweet rolls; crackers made with *trans* fats; sweetened breakfast cereals
Milk and Milk Products	Fat-free or 1 percent low-fat milk; fat-free or low-fat yogurt; part-skim, reduced fat, and fat-free cheese; low-fat or fat-free cottage cheese	2 percent low-fat milk; processed cheese spread	Whole milk; full-fat American, cheddar, Colby, Swiss, cream cheese; whole-milk yogurt
Meats, Poultry, Fish, Eggs, Beans, and Nuts	Trimmed beef and pork; extra lean ground beef; chicken and turkey without skin; tuna canned in water; baked, broiled, steamed, grilled fish and shellfish; beans, split peas, lentils, tofu; egg whites and egg substitutes	Lean ground beef, broiled hamburgers; ham, Canadian bacon; chicken and turkey with skin; low-fat hot dogs; tuna canned in oil; peanut butter; nuts; whole eggs cooked without added fat	Untrimmed beef and pork; regular ground beef; fried hamburgers; ribs; bacon; fried chicken, chicken nuggets; hot dogs, lunch meats, pepperoni, sausage; fried fish and shellfish; whole eggs cooked with fat
Sweets and Snacks*		Ice milk bars; frozen fruit juice bars; low-fat or fat-free frozen yogurt and ice cream; fig bars, ginger snaps, baked chips; low-fat microwave popcorn; pretzels	Cookies and cakes; pies; cheese cake; ice cream; chocolate; candy; chips; buttered microwave popcorn
Fats/Condiments	Vinegar; ketchup; mustard; fat-free creamy salad dressing; fat-free mayonnaise; fat-free sour cream	Vegetable oil, olive oil, and oil-based salad dressing; soft margarine; low-fat creamy salad dressing; low-fat mayonnaise; low-fat sour cream**	Butter, stick margarine; lard; salt pork; gravy; regular creamy salad dressing; mayonnaise; tartar sauce; sour cream; cheese sauce; cream sauce; cream cheese dips
Beverages	Water, fat-free milk, or 1 percent low-fat milk; diet soda; unsweetened ice tea or diet iced tea and lemonade	2 percent low-fat milk; 100 percent fruit juice; sports drinks	Whole milk; regular soda; calorically sweetened iced teas and lemonade; fruit drinks with less than 100 percent fruit juice

*Though some of the foods in this row are lower in fat and calories, all sweets and snacks need to be limited so as not to exceed one's daily calorie requirements.
**Vegetable and olive oils contain no saturated *or trans* fats and can be consumed daily, but in limited portions, to meet daily calorie needs. (See Sample USDA Food Guide and DASH Eating Plan at the 2,000-calorie level handout)

Source: *Adapted from CATCH: Coordinated Approach to Child Health, 4th Grade Curriculum, University of California and Flaghouse, Inc., 2002.*

APPENDIX E. PANTRY E INITIATION AND ORDER FORMS

3-Day Supply Guide

* Take dietary restrictions, appliances available, and other requests into consideration

Family of:	1	2	3	4	5	6
Canned Meat	**1**	**1**	**2**	**2**	**3**	**3**
Peanut Butter	**1**	**1**	**1**	**1**	**1**	**1**
Canned Vegetables	**2**	**3**	**5**	**6**	**8**	**9**
Pasta/Tomato Sauce	**1**	**1**	**1**	**2**	**2**	**2**
Canned Beans	**1**	**2**	**2**	**2**	**3**	**3**
Dry Beans	**1**	**1**	**1**	**1**	**2**	**2**
Canned fruit	**1**	**1**	**2**	**2**	**3**	**3**
Rice	**1**	**1**	**2**	**2**	**3**	**3**
Pasta	**1**	**1**	**1**	**2**	**2**	**2**
Macaroni and Cheese	**1**	**2**	**2**	**3**	**3**	**4**
Ramen Noodles	**1**	**2**	**3**	**4**	**5**	**6**
PACK SHACK	**1**	**2**	**3**	**4**	**5**	**6**
Soup	**1**	**2**	**2**	**2**	**3**	**3**
Snacks/MISC Items	**1**	**2**	**3**	**4**	**5**	**6**
Jelly	**1**	**1**	**1**	**1**	**1**	**1**
Cereal/Oatmeal	**1**	**2**	**2**	**3**	**3**	**4**

*For families of 4 or more boxes of cereal, bags of pasta, and family sized canned food may be a better option.

Check the serving sizes on items.

Food Pantry Request Form

Weight of Bag(s):

University ID: _____ Date: _____

Number of People in Household: Adult(s) _____ Child(ren) _____

Dietary Restrictions or Allergies? _____

I have access to (check all that apply): __ Stove Top __ Oven __ Microwave __ Can Opener __ Running Water

__ Check here if this is your **first time** in the pantry. If so, please complete a **First Time Application** form.

__ Check here if you have **moved** in the past week? If so, please complete a **Housing** form.

Please select which of the following items you will use. **Some items may not be available**.

PROTEIN:

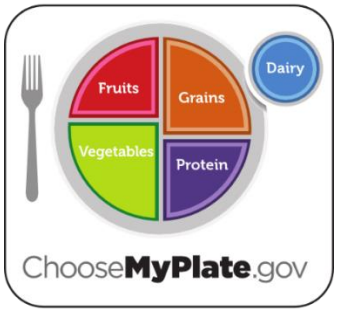
- Canned Tuna
- Canned Chicken
- Vienna Sausages
- Peanut Butter (creamy or crunchy)
- Black Beans
- Kidney Beans
- Pinto Beans
- Chili Beans
- Pork-N-Beans
- Black-Eyed Peas
- Great Northern

VEGETABLES:

- Green Beans
- Carrots
- Corn
- Mixed Vegetables
- Peas
- Tomatoes
- Tomato Sauce
- Potatoes
- Creamed Corn
- Other

FRUITS:

- Peaches
- Pears
- Pineapple
- Mixed fruit



GRAINS:

- Rice
- Pack Shack Rice Meals
- Pasta
- Mac N Cheese
- Ramen (beef, chicken, other)
- Crackers
- Cereal
- Oatmeal
- Granola Bars

MISCELLANEOUS:

- Chicken Noodle Soup
- Tomato Soup
- Broth
- Meat Soup
- Cream Soup
- Vegetable Soup
- Chef Boyardee
- Jelly
- Snacks (fruit gummies, chips, etc.)

PERSONAL HYGIENE:

- Laundry Detergent
- Soap/Body Wash
- Deodorant
- Shampoo/Conditioner
- Toothbrush/Toothpaste

EXTRA ITEMS: (please limit to 5 items):

_____

_____

FIRST TIME APPLICATION

Information provided will be used only by our pantry and only for funding and research purposes; it will not disqualify anyone from using our services. ALL personal information will be kept **confidential**.

General Information

First Name: _____

Last Name: _____

Ethnicity: _____

Gender: _____

University ID Number: _____

E-mail: _____

Birth Date: _____

Birth Country: _____

University Affiliation

Select all that apply:

☐Undergraduate ☐Staff
☐Graduate ☐Faculty
☐International ☐Affiliate
☐Hourly Worker

Are you employed? Yes No

If yes, how many hours per week? _____

Highest Level of Education Completed:

_____

Household Information

Address: _____ City: _____ Zip: _____ State: _____

County: _____ Country: _____

What type of housing do you currently have?

☐ Renting ☐ Living with family/friends (no rent)
☐ Owning ☐ Living with family/friends (some rent)
☐ Section 8 Housing ☐ No permanent address
☐ On Campus ☐ Other:

How many people live in your household? _____

How many people in your household are employed: _____?

For *every* person in your household, please list date of birth, gender, and relationship to you. Do not include yourself:

Household Member	DOB	Gender	Relationship
1			
2			
3			
4			
5			

For any additional members please list their information on the black space at the bottom of the form.

Does anyone in your household have any food allergies or dietary restrictions? If so, please list them:

Do you wish to designate a proxy? A proxy is someone who may pick up orders in the pantry under your name. Please list the First Name, Last Name, and Phone Number of any proxies you wish to designate:

_____

Do you currently receive SNAP benefits? (Supplemental Nutrition Assistance Program): ☐ Yes ☐ No
If not, would you be interested in applying for SNAP? ☐ Yes ☐ No

Acceptance of Free Food and Waiver of Liability

By my signature I acknowledge receipt of free food from the University of Arkansas Full Circle Food Pantry. I understand this is a gift and not a reoccurring obligation by the University of Arkansas or the Volunteer Action Center. I further understand and agree that by accepting this donated food I freely and voluntarily, with full knowledge, hold harmless and in no way liable or responsible for the quality, condition or packaging of the food, the University of Arkansas, its officers, agents, employees, students, volunteers, and food suppliers.

Signature_____ Date_____

APPENDIX F. PANTRY F REQUEST FORMS

Date:_____ New Client:_____ Established Client: _____ Client Since:

Are you, the card holder, a veteran? Yes No

Community Food Pantry: Daily Intake Form

Name:_____ Age: _____

Address: _____ City: _____ Zip Code: _____

Telephone Number: _____ Number of Persons in Households:_____

List names and ages of all people in the household below:

1. _____ 6. _____

2._____ 7._____

3. _____ 8. _____

4. _____ 9. _____

5. _____ 10. _____

Do you receive food stamps?

What is your monthly income?

I am in need of TEFAP food. My information can be shared with other agencies._____

(Client Signature Needed) _____

Receptionist: Please make sure all of the above information is filled in by the client, or you.

VITA

Martina Wood is a native of Waxhaw, North Carolina. She is the daughter of Barry and Carmen Wood. She graduated from Marvin Ridge High School in 2015. Martina continued her education at Appalachian State University, where she earned a Bachelor of Science in Nutrition and Foods in May 2018. She continued her education by pursuing a Master of Science in Nutrition and Dietetics from Appalachian State University, graduating in May 2020. She plans to pursue a career as a Registered Dietitian working in a clinical setting.