Understanding the Impact of COVID-19 on People, Pantries and Practices in the Emergency Food System

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INTRODUCTION

The COVID-19 pandemic has had a profound impact on the emergency food system, challenging a system that was already operating with few resources. Food pantries developed strategies to meet surging need while navigating COVID-19 safety challenges and dramatic shifts in food supply. This report investigates how a set of food pantries in Metuchen and Edison, New Jersey, adapted to these circumstances. Our project has two main objectives: 1) Explore how food pantries in the Metuchen and Edison area that are part of the Metuchen Edison Assistance League (MEAL) coalition, modified their practices during the pandemic. 2) Share how pantries have responded to support their work into the future. These objectives are guided by three main research questions:

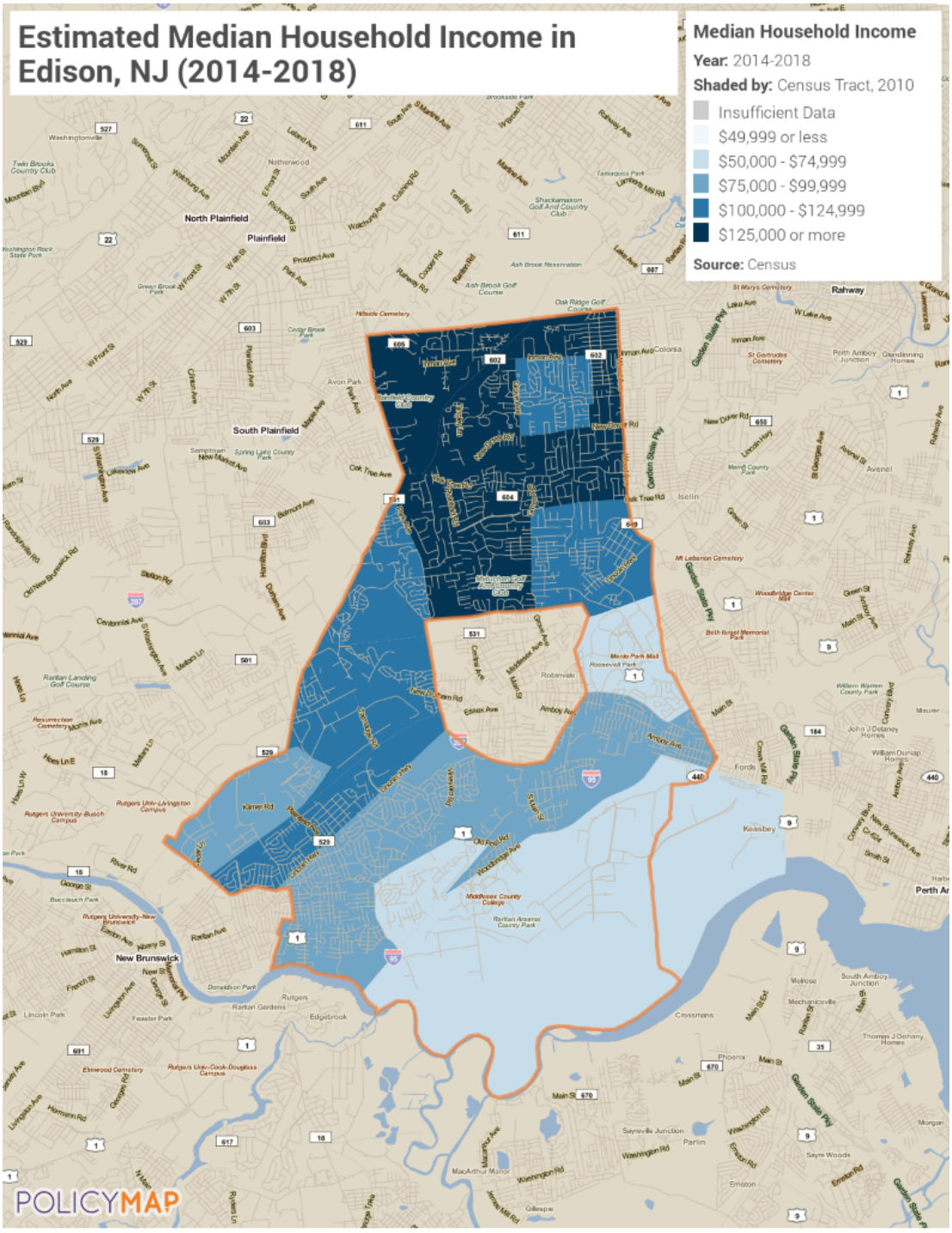
1. How has COVID-19 impacted the emergency food system?
2. How are food pantry directors helping to mitigate these effects currently?
3. What new actions can food pantry directors implement to help mitigate these effects?

To address these questions, our research consisted of an online search for data on food pantries, interviews with several food pantry directors, and focus groups with pantry directors and volunteers. To lay a foundation for our work, we completed a literature review of academic research and news articles to understand the emergency food system and issues facing it. The news articles helped us to understand how these issues have evolved since the start of the pandemic.

BACKGROUND: EDISON AND METUCHEN

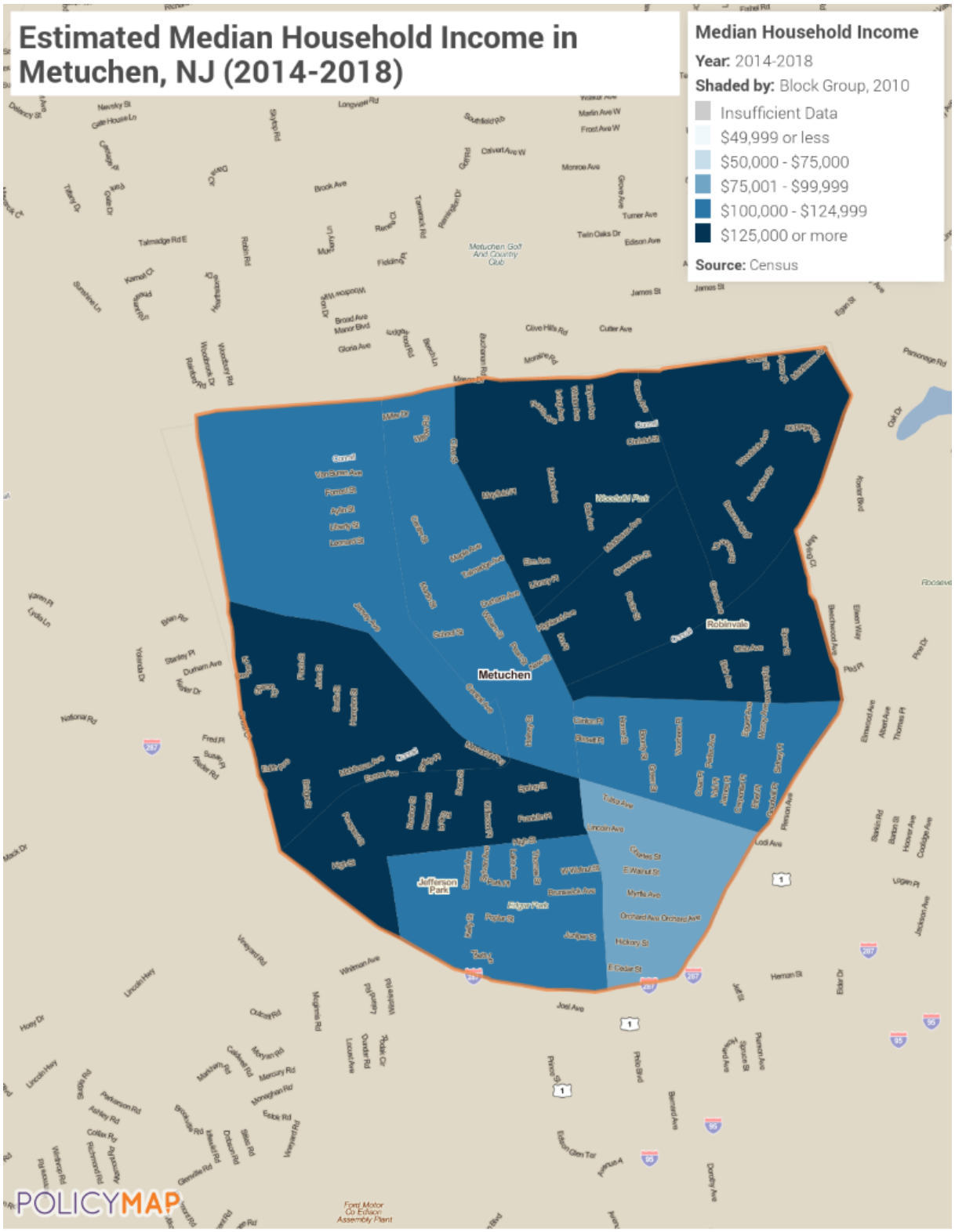
Located in the heart of Middlesex County, NJ, Edison and Metuchen have a unique relationship. The latter is surrounded on all sides by the donut-shaped Edison. Edison, with a population of over 100,000, dwarves Metuchen, which has fewer than 15,000 residents (*Edison, NJ Demographics and Population Statistics - NeighborhoodScout*, n.d.; *Metuchen, NJ - 08840 - Real Estate Market Data - NeighborhoodScout*, n.d.). Edison is one of the most racially diverse towns in New Jersey (election ballots are printed in Spanish, Hindi, Gujarati, and Punjabi) (*NJ DOS - Division of Elections - Vote By Mail*, n.d.). Edison is around 31.6% white; Metuchen is 72.42% white (*Metuchen, NJ - 08840 - Real Estate Market Data - NeighborhoodScout*, n.d.). Edison is more socioeconomically diverse than Metuchen which is wealthier (see Figures 1a and 1b) (*PolicyMap*, n.d.).

Figure 1a: Estimated Median Household Income from 2014-2018 in Edison, NJ



Source: PolicyMap

Figure 1b: Estimated Median Household Income from 2014-2018 in Metuchen, NJ



Source: PolicyMap

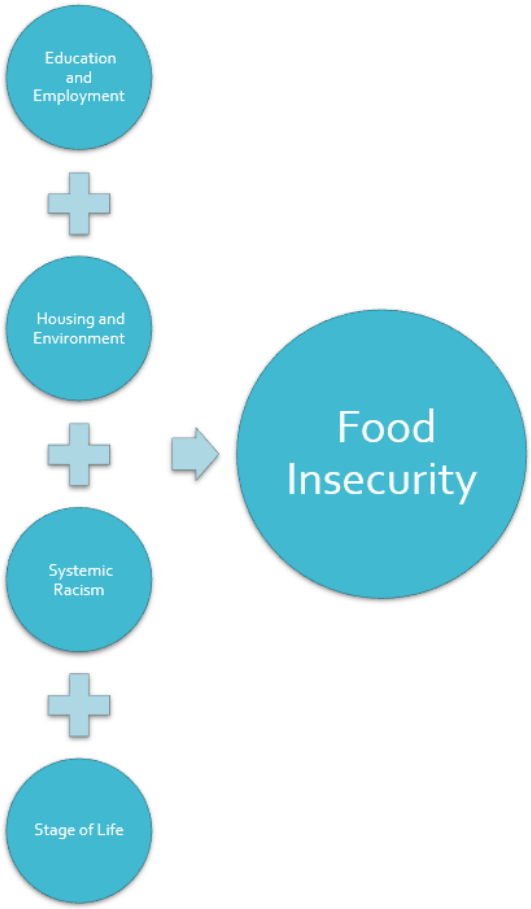
LITERATURE REVIEW

Roots of Food Insecurity: Socioeconomic Factors

Risk Factors

Food insecurity, defined as "a household-level economic and social condition of limited or uncertain access to adequate food" is a complex problem and can look very different across different contexts (Murthy, 2016, p. 1). Different circumstances can spur individuals or households to fall into food insecurity. Broadly, there are four root contributors to food insecurity: education and employment, housing and environment, institutional racial disparities, and stage of life (see Figure 2).

Figure 2: Major Root Contributors to Food Insecurity



These factors are not mutually exclusive and often occur concurrently. Moreover, it is vital to understand that these factors not only cause people to fall into food insecurity, but work to perpetuate continued food insecurity, effectively trapping people in a perpetual and self-reinforcing situation.

Education/Employment

Education and employment are two interconnected factors that affect socioeconomic status and upward mobility. Therefore, these factors are inversely correlated with the likelihood of food insecurity. As education and employment increase, the chance of food insecurity decreases. First, education plays a large role in determining what kinds of employment are possible, and therefore income levels (Coleman-Jensen, 2017). Moreover, higher education is often expensive, which in turn is an obstacle for people of limited economic means (Coleman-Jensen, 2017).

As wages for jobs obtainable without higher education have fallen, the share of "working poor" has grown, in which people often work full-time or more, but struggle with basic needs. People in this situation often find themselves in a no-win scenario, in which they make just enough money to *not qualify* for federal food assistance programs such as SNAP, but are unable to afford adequate food for themselves and their families. This group is one of the most frequent users of the emergency food system (Byker Shanks et al., 2019). This dependence can also result in overreliance on ultra-processed foods, which are more frequently available through pantries. Today, most food-insecure households are employed (Santhanam, 2020). As the pandemic has continued to affect employment possibilities, an increasing number of families who were employed find themselves unemployed or underemployed, causing them to become food insecure (Arango & Kenneally, 2020).

Housing/Environment

Where people live and how affordable housing is in their area contributes to food insecurity. In terms of location, many lower income areas are also food deserts. Food deserts are areas with limited access to healthy and affordable food (or even a grocery store) (Dutko et al., 2012). These issues are compounded by lack of affordable housing: The cost of rent for many people is such that they cannot easily afford both rent and adequate food supply, exacerbating food insecurity (Kirkpatrick & Tarasuk, 2011).

Racial and Ethnic Identity Disparities

There is also strong indication that food insecurity is inequitably distributed along racial lines, particularly among non-Hispanic black and Hispanic households. These households are more likely to suffer from food insecurity, even when controlling for the influence of social and

economic factors (Odoms-Young, 2018). This means that even when taking things like income and education-level into account, people from traditionally marginalized racial backgrounds are *still* more likely to be food insecure.

Stage of Life

Certain age cohorts, specifically children/adolescents and elderly people, are at higher risk for food insecurity. The pandemic has only made these groups more vulnerable, with children who depended on sources of food like free or reduced-cost school lunches losing these benefits while distance learning at home (Foy, 2020). Moreover, there has been a sizeable population of 5.5 million seniors aged 60 and older experiencing food insecurity as of 2017 and this has increased due to unemployment and financial setbacks (Mazzella, 2020; Ziliak & Gundersen, 2019). Those who are past retirement age are also more likely to depend on fixed incomes or otherwise limited non-employment-based income, which constrains their financial resources and ability to respond to disruptions (Strickhouser et al., 2014).

Under current circumstances, elderly people are also more vulnerable to viral exposure and severe complications of COVID-19. Many times, elderly people rely on delivery programs and senior centers for meals, but because of a nationwide shortage of volunteers and COVID-19 induced limitations, the pandemic has rendered them even more likely to suffer from food insecurity (Mazzella, 2020).

During the COVID-19 pandemic, many families who were previously financially stable are now facing food insecurity, at least temporarily, while those who were already food insecure are facing amplified challenges (Wolfson & Leung, 2020). This situation is particularly alarming, since beyond the pressing issue of hunger that stems from food insecurity, there are further consequences in the short- and long-term that must be considered.

Consequences

Short-Term Consequences

Short-term consequences are often indicators of larger problems in food insecurity. Tradeoffs in decisions related to acquiring food and nutrition on a day-to-day basis bring immediate short-term relief, but also consequences.

Households suffering from food insecurity often find themselves making difficult and pressing decisions. People using food banks and pantries may be struggling to pay rent, student loans, car payments, phone bills, credit card bills, food, medical care, or other bills (Miller, 2020). Under these circumstances, people may find themselves choosing whether to pay for rent or food, because they cannot afford both.

Difficult circumstances often cause people to develop coping strategies to mitigate the effects of food insecurity. Examples include (1) choosing between fulfilling food and nonfood demands, (2) food stretching and substitution, and (3) consuming cheaper quality and expired foods (e.g. using water in place of milk with cereal) (Hadley & Crooks, 2012). Individuals and families can find themselves making tradeoffs in the short-term in the form of nutrition and health. Thus, these tradeoffs can exacerbate food insecurity as it perpetuates malnutrition and unhealthy habits in these populations.

In fact, food insecurity can be a stressor that leads to many short-term health consequences. Within the household stress pathway, acute symptoms of poor mental health and domestic violence has increased, especially since stay-at-home orders went into effect as a result of the COVID-19 pandemic (Leddy et al., 2020). Within the behavioral pathway, coping behaviors as aforementioned can lead to malnutrition and nutrient deficiency (Leddy et al., 2020). Within the inflammatory pathway, increases in various known inflammatory markers (e.g., C-reactive protein) are thought to be as a result of various environmental stressors with social distancing and risks of viral exposure during the COVID-19 pandemic (Leddy et al., 2020).

Long-Term Consequences

Long-term consequences tend to be the result of protracted food insecurity and can be more severe than some short-term consequences. These consequences can also arise due to the accumulation of many short-term consequences. Of particular note are consequences in terms of health. Health is fundamental to sustaining the ability to work, make money, think critically, and pursue other basic elements of one's livelihood. Health can be affected through three primary pathways: household stress, behavioral, and inflammatory pathways (Leddy et al., 2020).

Long-term health consequences mainly include underlying chronic illness, chronic stress, and eating disorders. Within the household stress pathway, inactivity and lack of exercise due to financial responsibilities can lead to the development of cardiovascular and diabetes-related conditions (Leddy et al., 2020). Within the behavioral pathway, the aforementioned coping behaviors can lead to long-term health outcomes of chronic illness progression and recurrence (Leddy et al., 2020). Within the inflammatory pathway, long-term dietary patterns can lead to chronic diseases (Leddy et al., 2020). Moreover, there are negative physiological and psychological outcomes related to chronic stress experienced during protracted poverty and food insecurity. Some of these effects manifest cognitively, further compacting decision-making ability and the capability to plan in the face of severely constrained time and resources (Starecheski, 2014).

In addition to commonly understood consequences like chronic illness or chronic stress, eating disorders, related to binge eating, dietary restraints, and anxiety, are also likely long-term effects of food insecurity (Stanford, 2020). These health consequences can also influence future generations, as seen with risks of delayed development among children in food-insecure households (*Hunger & Food Insecurity in America | Feeding America*, n.d.).

Furthermore, long-term consequences of food insecurity include the perpetuation of cyclic poverty. The cycle of poverty is the continuation of poverty from generation to generation. There is a strong correlation between poverty and household food insecurity, where the incidence of food insecurity increases as income-to-needs ratio (i.e. poverty) decreases (Strickhouser et al., 2014). This is an indicator that food insecurity goes hand-in-hand with poverty. Families suffering from food insecurity and poverty must focus on the most basic needs, like rent and food, leaving no residual resources to help escape poverty. Thus, food insecurity's effects coupled with continuous poverty can continue to impede people's abilities to break out of the cycle.

Structure of the Emergency Food System

As the public sector has continued to diminish its presence in addressing social welfare and food insecurity and its related issues, private individuals and institutions have taken emergency action to fill this gap (Rosenthal & Newman, 2019). Rosenthal and Newman refer to the system that has emerged as the Public Private Food Assistance System (PPFAS).

The Public Private Food Assistance System

The Public Private Food Assistance System (PPFAS) is a complex and precarious network operating to tackle food insecurity in the United States as well as a hallmark of the deterioration of federal social welfare programming over the past six decades (Rosenthal & Newman, 2019). Although there are a variety of governmentally administered programs at the federal (e.g., SNAP or TEFAP), state, and local levels, the delivery and coordination of food assistance within the United States involves a patchwork of both public and private stakeholders. This includes corporations, religious and non-profit community organizations, universities, and individuals (Rosenthal & Newman, 2019). The lack of universality leaves room for major discrepancies in all aspects of food assistance, ranging from differences in both who receives the food to who is responsible for distributing it. Additionally, disparities can arise based on local dynamics which may lead to overlap of populations served, but also can allow other households to fall through the cracks (Rosenthal & Newman, 2019). Some groups may not have pantries close to them, or others may not know that services exist. For example, undocumented immigrants who do not qualify for federally funded programs may not be able to access the resources they need from

community partners that are privately funded. Additionally, the onus of tackling hunger and the responsibility of direct distribution is in most cases passed from the government to community organizations and nonprofits with significantly smaller budgets and capacity.

The PPFAS' role in the context of the American social services system has burgeoned over time. At the time of its inception in the 1960s, it was a volunteer-run, acute effort with the aim of addressing emergency situations where publicly subsidized programs fell short (Rosenthal & Newman, 2019). Over the last half-century, the decimation of American welfare programs (e.g., during the Reagan Revolution in the 1980s), with various anti-poverty initiatives all but gutted, followed by the Clinton administration's termination of the Aid to Families with Dependent Children (AFDC), served as the final nail in the coffin (Potts, 2016). This continued shrinking of social assistance programs coupled with the lack of other aspects of a social safety net, including universal healthcare and access to affordable housing, have led to an increased reliance on and institutionalization of the PPFAS as a keystone system that feeds millions each year (Rosenthal & Newman, 2019).

At the nexus of the public and private sectors, the web of the PPFAS highlights the unique connection between locally administered emergency food programs and the overarching governance policies that affect them (Rosenthal & Newman, 2019). Additionally, despite the inevitable challenges of bureaucratic limitations and hierarchal practices that are characteristic of governmental programs, the scope of the PPFAS is broader than food, as many of the stakeholders involved have found innovative ways to design programs centered around health education, provision of nutritional foods, and poverty alleviation (Rosenthal & Newman, 2019).

Over time, the emergency food system, which started as individual actors trying to help where they could, has grown into a highly complex web of entities on a variety of scales. Flows of food and other resources move between a variety of actors and through various paths before ending up at pantries, which are the main point of distribution to clients. Food flows from a variety of sources ending up either directly at food pantries, or more frequently, at food banks, which manage aggregation of large quantities of food before distributing to individual pantries (Gregg, 2014; Ralph W. Voorhees Public Service Fellows, 2015). These flows include sources like the federally administered (The) Emergency Food Assistance Program (TEFAP), and analogous state food programs, which work to distribute surplus food, but also have eligibility requirements that necessitate tracking certain client information (Ralph W. Voorhees Public Service Fellows, 2015).

As the PPFAS has developed at varying levels of formality and across different scales, stakeholders on multiple levels have worked to improve the way that food-insecure populations interact with the food system. One of the most prominent recent changes has been the movement toward *client choice*.

Goals of a Choice System

Within the context of the PPFAS, the most substantial recent effort to improve the system is through the implementation of *client choice*. The client-choice food pantry model goes beyond simply fulfilling the food needs of clients, working to promote client dignity and self-efficacy (Martin et al., 2016). Client-choice pantries are characterized by allowing food to be selected by clients rather than providing food in pre-packaged bags or boxes, as food pantries have historically done. While the overall goal of food pantries is and has been to provide food to those in need, there are persistent issues of quantity, nutritional quality, and food waste (Simmet et al., 2017). Additionally, many pantries would like to do more, working to address the underlying causes of food insecurity. An overarching goal of the client-choice model is to move beyond food provision, to increase the amount of healthy food for clients, decrease food waste, and cater more specifically to clients' needs, all the while promoting dignity and self-efficacy. While the client-choice model still has its own challenges, an increasing number of food pantries are shifting from the traditional pre-packaged model of food distribution to the client-choice model (Remley et al., 2010).

Food Waste

In the pre-packaged model, clients must accept the food provided regardless if it is their preference or caters to their needs. Perceived risk of offense to the pantry and other clientele is raised if a client decides he or she does not want an item and wishes to return it (Remley et al., 2010). This not only contributes to food waste if the client decides to throw away the food item, but also may not fulfill a client's dietary needs or restrictions. For instance, if a client is lactose intolerant but receives milk, but is either unable to return it to the pantry or fears offending the pantry, he or she is forced to accept it regardless. Thus, the client is not only involuntarily contributing to food waste but may also be unable to meet daily nutritional requirements.

Nutrition/Cultural Sensitivity

Another facet of the pre-packaged model is that it often fails to address the individual needs of clients, whether these are nutritional, preference, religious, or cultural. The client-choice model offers clients the opportunity to choose foods that cater to their specific needs and wants. Religious restrictions and cultural practices of clients are unable to be catered to by traditional pantry models. Since clients themselves are choosing the food items they want, their needs, restrictions, and practices are accounted for in a choice system. Many pantries also have pantry volunteers/staff available to walk with clients as they "shop." They often provide nutritional assistance, recipe ideas, and food preparation advice to clients to not only increase pantry-client interaction, but also to steer clients to select more nutritionally rewarding food items (Remley et al., 2010).

Self-Efficacy

The client-choice model furthers client self-efficacy as clients can control the types of foods they want and to an extent, the amount needed. This system reduces feelings of dependency on food pantries, both through giving clients agency over the process and by increasing interaction with volunteers who can help eliminate stigma (Remley et al., 2010). Food insecure individuals' ability to take an active role in basic aspects of their lives increases confidence and dignity, also helping to address other issues related to their food insecurity (Poppendieck, 1999). The traditional food pantry model, in its efforts to maximize efficiency, unintentionally neglects the basic elements of human dignity and self-efficacy, which the client-choice model aims to address (Poppendieck, 1999). Therefore, prioritization of client needs and interests above the efficiency of pantry operations is vital to decrease food insecurity among food pantry clientele (Martin et al., 2016).

Challenges

Nonetheless, the client-choice model is not without challenges, most notably in terms of the space required for implementation, need for additional staff, catering to cultural relevancy, and longer waiting times. Many pantries, while they want to start employing the client-choice model, are unable to because of limited space available to operate one (Ralph W. Voorhees Public Service Fellows, 2015; Remley et al., 2010). A significant draw of choice style pantries is the ability for clients to walk through "aisles" and pick out their food. Nonetheless, if a pantry only has a small storage room in which to keep food, there is no possibility of having clients browse efficiently and effectively. Thus, only pantries that have larger spaces can utilize the client-choice model.

Secondly, client-choice pantries require more volunteers than the traditional pre-packaged box pantry (Ralph W. Voorhees Public Service Fellows, 2015). Client-choice emphasizes providing clients with a volunteer to "shop" with them, providing nutritional advice and building pantry-client rapport. This process necessitates more volunteers, which pantries may not have. More hours of labor and availability are essential to client-choice, and at smaller pantries, pantries with a small volunteer base, or pantries with an unreliable volunteer base, employing client-choice is a significant challenge.

Moreover, regardless of whether a pantry is utilizing the pre-packaged or client-choice model, there remains the issue of clients not understanding how to prepare and cook a certain food, especially if it is not culturally relevant to them (Remley et al., 2010). Client-choice pantries that have workers/volunteers interact closely with clients may have better results as the workers/volunteers can provide food preparation guidance; however, culturally relevant food preparation information is uncommon in pantries, not to mention that it is not a standard to

have pantry workers/volunteers provide food preparation and recipe tips. Cultural relevance remains a barrier to adequate nutritional access for clients.

Finally, choice models also experience significantly longer waiting times which is attributed to the choice-model itself being more time consuming (i.e., “shopping” as opposed to a readymade package for pickup). Additionally, waiting times can be exacerbated by client-pantry language barriers and pantry volunteer shortage. Especially considering that many food insecure individuals utilize the services of multiple pantries, this could be a considerable hindrance to clients (Remley et al., 2010).

Impact of Pandemic

COVID-19 is a highly contagious infectious disease caused by a novel coronavirus. People around the world have had to use social distancing and quarantines in order to slow its spread. At the start of the pandemic in March 2020, schools and offices closed and moved to virtual formats whenever possible. These closures and restrictions immediately and deeply impacted the emergency food system, as well as pantry operations and plans.

Socioeconomic Risk Factors

Social distancing has changed the way that food pantries operate. Most pantries began to use car drive-through lines instead of allowing clients to pick their own foods to promote social distancing (Kulish, 2020). Unfortunately, not everyone has a car to use in these lines either due to lack of access or due to their location in an urban area with comprehensive public transportation (Abou-Sabe et al., 2020).

The pandemic also created strains on volunteers who serve at food pantries as many food pantries are run by seniors who have retired. Seniors are considered high-risk for COVID-19, so many felt unsafe continuing to volunteer in their regular capacities (Abou-Sabe et al., 2020).

Many students across the nation rely on free or reduced-price breakfast and lunch, so school closures created larger clientele bases for food pantries (Kulish, 2020). Some school districts began delivering meals to students to mitigate this issue (Kinsey et al., 2020).

During normal times, families facing food insecurity tend to adopt complex shopping habits to make ends meet, including using public transit, going to multiple pantries or stores for the best deals, and using one person’s subscription to a club store like Costco or Sam’s Club (Kinsey et al., 2020). These approaches have been made harder due to social distancing precautions (Kinsey et al., 2020).

Flow Through the PPFAS

Food prices skyrocketed nationally at the beginning of the pandemic, so pantries had to pay higher prices than normal for food (Kulish, 2020). Grocery stores were being cleared by a panicked public and so food pantries were not able to rely as much on end-of-day donations of unsold foods from grocery stores (Abou-Sabe et al., 2020). Additionally, restaurants and other food business closures decreased the amount of leftover food donated to food pantries (Friedersdorf, 2020).

Client Choice

Based on guidelines from the Centers for Disease Control, choice pantries should take extra precautions when COVID-19 rates in the community are high since they effectively function as grocery stores (CDC, 2020). As mentioned previously, many pantries transitioned to car drive-through lines (Kulish, 2020). The change to the car pickup model has essentially eliminated the grocery store-like choice model. Dietary restrictions and cultural preferences are not prioritized in order to accommodate for this return to the pre-packaged distribution model. All these trends combined have greatly strained food pantries and the emergency food system.

Policy and Innovation During COVID-19

Following abrupt changes that occurred during the COVID-19 pandemic, various components of the emergency food system, due to changes ranging from national policies to one-time programs implemented as pilots by local food pantries, were forced to adapt to step up to the challenge.

Delivery Changes

Pantries across the country have been adapting to the COVID-19 pandemic, and the unexpected huge strain that followed skyrocketing demand and changes in food supply, in a variety of different ways. The entire emergency food system is an amalgamation that can differ widely across pantries and regions, making it more difficult for people to access under normal circumstances (Rosenthal & Newman, 2019). Despite the lack of universality, pantries have shifted to put safety and efficiency first, while also accommodating the sudden influx of pantry clients, including those from demographics that had never received any kind of prior assistance (Stewart & Heisler, 2020). These programs range from the informal and temporary to complete, policy-backed overhauls. Some of the pantry-specific protocols implemented in terms of changes to food delivery include drive-through pick up programs, where prepackaged boxes are placed into clients' vehicles, mobile food pantries, where food is brought to less accessible clients or communities, and direct deliveries via programs such as "Meals On Wheels" to clients who are seniors or disabled (Carson, 2020).

Outside of the traditional food pantry model, other community-driven approaches to combatting food insecurity have sprouted across the country. These include redistribution programs for school-based food, ranging from the Bus Stop Delivery programs arranged in places like Michigan or New York, to "Grab'n'Go" pick-up of an academic week's worth of food in South Carolina, to a public-private partnership facilitated by the USDA that has been providing, in limited scope, ingredient packages for meals that children should be able to prepare without additional supervision (Dunn et al., 2020). Lastly, more informal mutual aid groups have been popping up, especially around urban areas, such as New York City, where community members have been organizing to assist each other via free breakfast programs, grocery deliveries, and other services (Lawrence, 2020).

On a broader scale, from a policy standpoint, various measures were implemented that directly and indirectly supported clients adversely impacted by the uncertainty, unemployment, and general havoc wreaked by COVID-19 pandemic. Further policy-based relief programs were proposed, but at the time of this report's writing, have not been approved. The Families First Coronavirus Act granted over $100 billion in relief for families across the United States (Dunn et al., 2020), providing much needed economic assistance, which could be utilized for needs outside of food, as well as including specific provisions for nutrition assistance programs (Dunn et al., 2020). This legislation allowed states to request waivers for criteria and enables states to provide additional temporary, emergency benefits to households already enrolled through the Supplemental Nutrition Assistance Program (Dunn et al., 2020).

Pandemic SNAP

The Pandemic Supplemental Nutrition Assistance Program (SNAP) implemented emergency expansion procedures to any household with children who already qualified for free or reduced school meals, criteria for which thresholds vary around the country (Dunn et al., 2020). This initiative had a few limitations, and households were ineligible to qualify for Pandemic SNAP, if for example there are undocumented individuals in the household, or they already were served by the Child and Adult Care Food Program (Dunn et al., 2020). While researchers agree that Pandemic SNAP was an important and necessary intervention, they also acknowledge the possible negative health implications (Dunn et al., 2020). While school meals are required to align to strict nutrition standards, SNAP lacks restrictions on the types of foods one can purchase, leading to possible detrimental diet decisions, and a negative impact on children's health (Dunn et al., 2020). As Dunn et al. explains, "This shift may also lead to increased weight gain, particularly among racial and ethnic minorities and overweight children, since there is evidence that these children tend to gain weight more quickly during the summer than during the school year" (2020, p. 2).

Pandemic EBT

Likewise, the Pandemic Electronic Benefit Transfer program allowed for the monetary value of school meals to be distributed as reimbursements to families with children enrolled in free or reduced-priced school meals, around states such as Mississippi (Leib et al., 2020). Similar to the Pandemic SNAP, Pandemic EBT was restricted to households with children who already pre-qualified for free or reduced school meal programs, which would not be able to accommodate for children in households with financial situations that had abruptly changed during the pandemic (Leib et al., 2020). This program provided $250-450 per child to replace meals that would have been provided either free-of-charge or at a reduced cost. This relief program expired as of September 30th, but could be revived if Congress votes to extend it (Leonhardt, 2020).

CARES ACT

Additionally, the Coronavirus Aid, Relief, and Economic Security (CARES) Act was passed in March and provided support financial support for both households and corporations. There were, however, several hurdles which limited its scope and implementation, causing delays and likely having a heightened impact on economically vulnerable populations (Stevenson, 2020). Under the CARES Act's jurisdiction, the Emergency Food and Shelter Program (EFSP) provided around $200 million to organizations serving people experiencing hunger or homelessness (Stevenson, 2020). Other federal programs included a $1200 tax benefit to all adults, $500 to all children living in households making under $100,000, and bolstered unemployment benefits by an additional $600 per week (Dunn et al., 2020). Much like the CARES Act, these resources provisioned during COVID-19 have been helpful, yet insufficient to support the most vulnerable populations who were affected the most drastically by COVID-19. Another aspect that many of these federal policies overlooked, to an extent, was the unique need for assistance that students may have, both at the university level (as many undergraduate students may be listed as dependents on their parents' tax returns) and the K-12 level.

Coronavirus Food Assistance Program 1 and 2

In April 2020, two months into the COVID-19 Pandemic, the United States Department of Agriculture, and its Farm Service Agency, rolled out a new initiative, the Coronavirus Food Assistance Program (CFAP), seeking to both alleviate farmers facing financial struggles and lessen the burden of food insecurity in communities across the nation, including in New Jersey (*Coronavirus Food Assistance Program | Farmers.Gov*, n.d.). Through the "Farmers to Families Food Boxes" program, the United States government sought to purchase fresh produce, dairy, and meat products from American farmers and distributors, and then supply packaged, family-sized boxes to community organizations, such as food pantries or non-profits to provide to their

clients. Several rounds of purchases of subsidized food have been purchased and distributed thus far, with over $3.634 billion dollars worth of food funneled into the local distribution systems. These efforts were supplemented in September 2020 by subsequent Coronavirus Food Assistance Program 2 (CFAP2), which is an expansion of the original program and provides additional financial support to famers and producers for marketing expenses (*Coronavirus Food Assistance Program | Farmers.Gov*, n.d.).

CDC Guidelines for Food Pantries and Distribution Sites

As of September 15th, 2020, the Centers for Disease Control & Prevention provided a guide for food distribution with considerations and suggestions for providing food to people with limited access to it otherwise. The mission of these guidelines was to assist "managers of food pantries and distribution sites [to] take special precautions to help staff, volunteers, and clients stay safe while continuing to prioritize the respect and dignity of clients" (CDC, 2020). Considerations discussed include adaptation of food distribution method, staggering staff and client presence at the facility (to minimize spread) and screening of everyone at the pantry regularly for symptoms. For delivery-based, onsite, and choice distribution, different guidelines are provided, with each suggestion or criterion emphasizing the importance of safety and infection prevention (CDC, 2020).

DATA AND METHODS

We acquired data through: background research, interviews, meeting observation, and focus groups. First, we performed in-depth internet research to find information about the food pantries that we interviewed. Prior to interviewing each pantry director, we researched the pantry on social media, news sites, and pantry websites. The information available varied widely by pantry, with some having active social media pages and others having a simple webpage with hours of operation. We gleaned as much information as we could find to better inform our interview questions and save time during interviews.

Next, we interviewed pantry directors to obtain first-hand information about each pantry's operations and current problems. We conducted six in-depth interviews (IDIs) in which we asked pantry directors in the MEAL coalition to tell us about their experiences during the pandemic. For these IDIs, we utilized an interview protocol that provided structure but facilitated in-depth conversation that allowed for the opportunity for follow-up questions and deeper exploration of topics that came up during the interview. The main topics covered in the interviews were changes in food aggregation and distribution, changes in volunteers, and changes in clientele. The six pantry directors interviewed were, in order of interview date, as follows:

- Pastor James Krombholz, St. Paul's Lutheran Church
- Enriqueta Williamson, St. Francis Cathedral
- Joan Naraine, New Beginnings Church of the Nazarene
- Sarah Teti, First Presbyterian Church
- Amanda Lyons, Middlesex County College
- Melissa Mascolo, Middlesex Interfaith Partners with the Homeless (MIPH): Amandla Crossing & Imani Park

Two more pantry directors participated by filling out questionnaires based on the interview protocol to ensure we collected the same data. The two pantry directors who participated via questionnaire were, in order of participation date, as follows:

- Ed and Denise Wilkens, Community Presbyterian Church
- Raquel Landero, Edison Housing Authority

Finally, we conducted two focus groups to allow pantries to collectively discuss the issues they were facing and solutions they were implementing. The focus groups were structured as a dialogue between pantry directors to facilitate networking and collaboration. We hoped to find common themes and challenges through these focus groups. The first focus group had approximately ten participants. The second had one participant and therefore became an interview. In addition to focus groups, we observed two pantry meetings. The first observation was of a meeting with pantry coordinators and volunteers run by Pastor James Krombholz. The second was of a MEAL coalition meeting run by Sarah Teti.

FINDINGS

Changes in Food Aggregation

Most of the pantries use food banks like the Middlesex County Food Organization and Outreach Distribution Services (MCFOODS) and the Community FoodBank of New Jersey (CFBNJ) to get the bulk of their food. Many pantries also rely on donated food. Some pantries shop at grocery/ bulk stores to supplement the donations, and the amount and price of these purchases have increased during the pandemic. Some pantries have volunteers pick up food from the food banks, while others get it delivered to the food pantry. Those who accept donations generally have bins at the entrance of a host organization like a religious organization or the near the food pantry. Many use their own vehicles to pick up food or religious institution-owned vans. The volunteers must be healthy enough to lift large boxes and feel comfortable traveling together

during the pandemic. The Middlesex County College pantry has employees from the College who pick up the food and drop it off at the pantry. Prior to the COVID-19 pandemic, food pantry volunteers visited MCFOODS or the Community FoodBank of New Jersey once every other week to pick up food. Now, those same volunteers visit the food banks at least once a week and sometimes twice a week to keep up with increased demand. Food pantries have seen an increase in donations. Donors have been extremely generous during these times, and pantries have seen an increase in monetary donations. Table 1 shows a breakdown of the ways that each food pantry interviewed aggregates their food.

Table 1: Modes of Food Aggregation, March-November 2020

Pantry	MCFOODS	Purchase from Store	Community Food Bank of NJ	Donations/ Food Drive
St. Paul's Lutheran Church	X	X	X	X
St. Francis Cathedral	X			X
New Beginnings Church of the Nazarene	X		X	
First Presbyterian Church	X	X		Yes, directly from families
Middlesex County College	X			X
MIPH: Amandla Crossing and Imani Park	X			Get food from First Presbyterian
Edison Housing Authority	X			
Community Presbyterian Church	X			X

Storage is one of the main issues in food aggregation and it was an even bigger challenge during the pandemic with so much food flowing into pantries. Many pantries require additional space to socially distance and to store excess food. Some took over additional rooms currently vacant due to the pandemic, and some are concerned that they may have difficultly adjusting post-pandemic as they return to their original storage capacities. Pastor James (Jim) Krombholz from St. Paul's Lutheran Church said that they have more space to store some of their surplus of food donations because the main buildings of the church are not being used for in-person services. The storage situation is unsustainable, according to Pastor Jim, because, when they do go back to having in-person services, they do not know what they will do with the extra food. Similarly, multiple pantries are having issues with food storage. Most of these pantries are small and do not have access to chest freezers or commercial fridges. For example, Enriqueta Williamson from St. Francis Cathedral and Sarah Teti from First Presbyterian explained that their pantries only accept non-perishable food because they lack space to store perishable items.

Melissa Mascolo from Making It Possible to End Homelessness (MIPH) and Ms. Teti from First Presbyterian have gotten creative in how they are getting food and other resources. Ms. Mascolo was able to obtain masks for her clients and volunteers by finding a group of women on Facebook called “Masks by the Bay.” Ms. Teti and a few other pantries post on Facebook to let people know what foods they need and can get food directly from their communities.

Some pantries have increased the amount of food they purchase during the pandemic. Those who could not increase purchases meticulously planned or gave out less food. St. Paul’s Lutheran Church’s food pantry collaborated with chain restaurants to get extra food such as frozen food and bread. Surprisingly, many pantries were not running low on inventory at the time of interview and instead were receiving ample food and or monetary donations. Most have dedicated volunteers who help to sort and manage their food inventory and they may purchase food items if the pantry is running low. Often, there can be a disconnect between the foods pantries receive, foods pantries want to receive, and foods that clients want. Table 2 shows foods that pantries want to receive and foods that clients want to receive.

Table 2: Items that Pantries and Clients Want

Name of Pantry	Items pantries want and are not receiving	Items clients want
St. Paul's Lutheran Church	fresh fruits and vegetables	brand name cereals
St. Francis Cathedral	none	soups, tuna fish, veggies, fruits, beans, and sauces
New Beginnings Church of the Nazarene	none	laundry detergent
First Presbyterian Church	bread, fresh fruits and vegetables	mac & cheese, coffee, cake mix, pancake mix
Middlesex County College	protein (canned meat, tuna), peanut butter, oils, tomato sauce, pricier items	NA
MIPH - Amandla Crossing & Imani Park	none	fresh food
Community Presbyterian Church (CPC)	NA	NA
Edison Housing Authority	NA	fresh produce, dairy products, canned foods, and dry foods

Pantries try to reduce food waste in a variety of ways. St. Francis Cathedral donates to St. Vincent De Paul food pantry in Perth Amboy when they have more food than they can distribute or store. Many pantries try to turn away items they cannot use so they do not end up as waste. At St. Paul’s Lutheran Church, less popular or less traditional items can be put into a “grab bag” of miscellaneous items for clients to take before leaving. Middlesex County College’s pantry offers extra food items to campus employees who are experiencing food insecurity.

Changes in Food Distribution

The means by which MEAL pantries distribute food to their clients has drastically shifted since the beginning of the COVID-19 pandemic, with each pantry implementing different changes, but with the same overall mission: to serve their clients to the best of their abilities while being safe. These changes are summarized in Figure 3.

Figure 3: Summary of Changes in Distribution of Food during COVID-19

Pantries have also had a renewed focus on the efficiency of their distribution methods as they seek to address the increase in demand for food assistance due to the COVID-19 pandemic. Table 3 displays the change in clients served before COVID-19 and currently.

Table 3: Number of Clients Served before COVID-19 and Currently

Name of Pantry	Clients Served Per Month pre-COVID-19	Clients Served Per Month now
St. Paul's Lutheran Church	30-40 clients	200 clients
St. Francis Cathedral	NA	20-30 clients
New Beginnings Church of the Nazarene	100 clients	200-225 clients
First Presbyterian Church	60-80 clients	120-160 clients
Middlesex County College	100 students	150 students
MIPH - Amandla Crossing & Imani Park	46 apartments	46 apartments
Community Presbyterian Church	NA	35 Edison households
Edison Housing Authority	80 families	120+ families

With safety concerns paramount, pantries have taken a variety of measures to ensure that distributing food is as safe as possible. Diane Hutchins from Aldersgate Outreach Community Center, a close neighbor to the MEAL pantries, reported that they leave food obtained from the New Jersey Community FoodBank in an outdoor shed for several days to ensure no virus remains on surfaces/packaging before distribution. There are several disparities amongst pantries in terms of specific policies that have been instituted. The most widely reported change is that pantries have overwhelmingly shifted from client-choice to pre-packaged models, which has led to a loss of client involvement in nutritional decision-making that the former afforded.

Tastes of the Holidays

The food pantries in the MEAL Coalition have gone above and beyond to make the holidays special for their clients. For some pantries, curating holiday packages is an annual occurrence. St. Paul's Lutheran Church distributes Thanksgiving gift cards and baskets for the largest households they serve. New Beginnings pantry provides over 100 Thanksgiving boxes to Lindeneau Elementary School for households with food insecure children. Other pantries have innovated through community partnerships to spread holiday cheer, including the Imani Park and Amandla Crossing alliance with the Metuchen Baseball League, which has sponsored Thanksgiving meals for 46 families. The Community FoodBank of NJ has a Turkey and Roasters program that distributed over 25,000 turkeys to families in need in 2019 (TapInto Hillside Staff, 2019).

Similar to these new, varied attempts to make the process of food distribution as contactless and safe as possible, the foods and food distribution methods have adapted too. Pantries have reported decreases in inventory of certain types of food. They experienced a meat shortage when supply chains were disrupted nationwide and they depended more on non-perishable foods. They have also increased their distribution of essential non-food items that have become increasingly precious during the pandemic including diapers, paper towels, toilet paper and other basic hygiene items.

While the pre-packaged distribution model mostly meant that every client received the same bundle of food items, some pantries had a higher capacity for accommodating client cultural or health preferences than others. Some pantries did this informally. First Presbyterian Church's pantry volunteers yelled through their client's car windows to determine if they would like a vegetarian option, in which case they would not load meat or poultry into their trunks. At other pantries, such as New Beginnings, volunteers were prepared to provide food for different household sizes by creating different levels of pre-packaged boxes, curated for 1-2, 3-4, and 5-6 person households.

There were two exceptions to the strict adherence to the pre-packaged model. Ms. Hutchins reported that Aldersgate had invested in large tables and canopies in order to set up

distribution outdoors, with clients proceeding through a line in which they indicated to volunteers whether they wanted certain items. They started with one canopy and table and have since expanded to four. They additionally planned to look into outdoor heaters to see if this approach could be sustained during the winter. Raquel Landero of the Edison Housing Authority reported that their pantry continued to operate as a choice pantry, setting up stations on tables in a common room during pantry hours, requiring masks, and severely restricting the number of clients who could be in the room at a time.

All pantries reported coordinating home deliveries on a case-by-case basis. They reported several challenges. Due to logistical difficulties, pantries reported that home deliveries were usually designated only for a few clients with special circumstances, including clients from vulnerable populations, such as elderly clients or clients with disabilities. Table 4 summarizes the availability of delivery and emergency requests.

Table 4: Emergency Modes of Food Distribution

Name of Pantry	Offers Delivery	Responds to Emergency Calls/Requests?
St. Paul's Lutheran Church	Yes	Yes
St. Francis Cathedral	No	Yes
New Beginnings Church of the Nazarene	Yes	Yes
First Presbyterian Church	Yes	NA
Middlesex County College	Yes	NA
MIPH - Amandla Crossing & Imani Park	Yes	Yes, within housing program
Community Presbyterian Church	NA	NA
Edison Housing Authority	NA	NA

Role of Communication

Communication, both between pantries and with clients, has taken on an increasingly crucial role in pantries adapting to the novel problems brought on by the pandemic. Pantry-to-pantry collaboration and communication helped to devise and spread solutions to common problems. The MEAL coalition has met virtually multiple times over the course of the pandemic to share their practices and how they have changed. Two of the pantries (St. Francis Cathedral and New Beginnings Church of the Nazarene) indicated that they had not had as much interaction in terms of seeking input from the other MEAL pantries, which might present an opportunity for increased communication and idea-sharing. Additionally, the coordinator of the Middlesex County College pantry, Amanda Lyons, has actively reached out to many pantry groups via personal connections and Facebook, and she believes these are great communities that she has

learned a lot from while setting up her pantry. This close collaboration and communication has allowed pantries to share ideas with each other during pressing times to adapt and become more accessible to their clientele.

Communication between food pantries and their supply sources, specifically food banks, has also been critical. Jennifer Apostol from MCFOODS has been sending out daily emails on topics varying from food availability to resources for housing and mental health, which reach many pantries in the area. Prior to the pandemic, these messages came out only once a week. Pantries universally indicated how important this information was to them, eagerly anticipating these messages each day.

Communication with external organizations has also proven invaluable. The partnership forged between MCFOODS and LogistiCare, made possible because of LogistiCare's contract with the State of New Jersey, has provided a novel avenue of food distribution and a potential channel to increase accessibility. Communication between pantries during our focus groups made other pantries aware that they, too, could take advantage of this program, leading to more deliveries to people in need.

Transportation

MCFOODS and LogistiCare, the largest non-emergency medical transportation company in the U.S.A. and a contracted vendor for NJ Medicaid participants (*MCFOODS and LogistiCare Partner to Make Food Deliveries to Residents in Need*, 2020), worked with one another during the pandemic. LogistiCare is contracted with the State of New Jersey to transport Medicaid eligible members to their health and other care appointments, but the lower appointment volume during the COVID-19 pandemic prompted the State partnership with LogistiCare to adapt to include food delivery to recipients in need. Taking advantage of this program allowed MCFOODS to deliver food packages to food insecure clients. With Ms. Teti's suggestion to seek the help of LogistiCare in the first focus group, Ms. Lyons was recently able to use the delivery service for at least 10 students through the Middlesex County College food pantry. MIPH at Amandla Crossing and Imani Park have collaborated with both First Presbyterian Church and LogistiCare to provide both grocery delivery on a regular basis (once every 2 weeks) and on an emergency basis.

Beyond traditional means of communication, social media, specifically Facebook, has become a primary tool that pantries use to reach out to their respective communities. Pantries' uses for Facebook are summarized in Figure 4.

Food and monetary donations, holiday programming in anticipation of Thanksgiving or other holidays, prepared meals, and wish lists have all been posted on Facebook via one or more pantry-related Facebook pages.

One example of a wish list post is displayed from the Community Presbyterian Church in Metuchen, NJ in Figure 5. Facebook has been invaluable for communicating with the community for more specific items that could not be obtained through MCFOODS or MEAL partnerships. Social media can also be used to live stream day-to-day operations of the pantry and special events, as New Beginnings Church of Nazarene has reported doing. Having a clear social media strategy and harnessing the potential of existing popular social media sites and apps can help increase outreach and awareness, especially when there are none already in place for MEAL.

Figure 4: Ways that Pantries Utilize Facebook

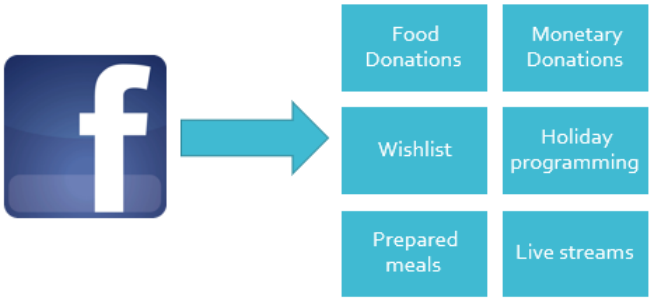


Figure 5: Example Facebook Post from Community Presbyterian Church

Table 5 shows the websites and social media pages for pantries interviewed. Most pantries that do have a social media presence use the social media pages of the larger organization they belong to, like the Facebook pages of the churches or social media accounts of student organizations. Only First Presbyterian Church has a dedicated social media page for the pantry itself. Additionally, almost all the pantries have a website with basic information like hours of operation and links to donate. Only MIPH does not have a website, presumably because it does not need one given that it serves a static population.

Table 5: Social Media Presence

Name of Pantry	Website	Social Media
St. Paul's Lutheran Church	http://www.stpauls-edison.org/food-pantry.html	Facebook for church (some posts about pantry)
St. Francis Cathedral	https://www.stfranciscathedral.org/	no
New Beginnings Church of the Nazarene	http://newbeginningsedison.org/NB_food_pantry.html	Facebook for church (some posts about pantry)
First Presbyterian Church	https://fpcweb.org/dev/get-involved/community-service/food-pantry/	Facebook for the pantry
Middlesex County College	https://www.middlesexcc.edu/student-life/food-pantry/	no - periodic posts on student organization pages
MIPH - Amandla Crossing & Imani Park	no	no
Community Presbyterian Church	https://cpcedison.org/	Facebook for church (some posts about pantry)
Edison Housing Authority	no	no - call blasts and texting service used instead

A challenge that comes along with the loss of client choice is the lack of interaction. With the packaging-and-pickup model, many pantry coordinators have noted that they, along with volunteers, have lost the chance to interact with clients. Joan Naraine of New Beginnings Church noted that client traffic has become a lot faster through the pickup model. Overwhelmingly, pantry coordinators would like to return to client choice or optimize the existing model to offer client choice when possible. Beyond allowing food choices, they want to know their clients. Food distribution currently is faster, but less personal.

Pastor Jim of St. Paul's Lutheran Church noted the value of being able to build relationships even with COVID-19 related circumstances. It could be as simple as starting a (socially distanced!) conversation with a client. Resuming conversations even while abiding by social distancing measures can help pantry staff to better understand the hardships of pantry clients, especially given the many socioeconomic stressors both pre-pandemic and post-pandemic.

Amanda Lyons of Middlesex County College used a simple questionnaire to try and understand her clients' backgrounds and feedback beyond impersonal student ID numbers. While one might think of a questionnaire as a cold, scientific document, Ms. Lyons was able to use this information to get to know her clients when traditional means were not available. This knowledge allowed her to make better choices to meet their specific needs. Critically, it also made her feel closer to the people she so deeply cared about helping. Being able to find innovative ways for pantry staff members to interact with clients will help pantries to understand their clients as people and not just clients.

More Than Nutrition

In addition to the increased demand for food items, pantries are also responding to increased demand for non-food items. Middlesex County College pantry distributed grocery gift cards instead of food during the summer when students were not in school and not able to travel to the pantry. Several interviewees indicated that monetary donations offer the most flexibility for pantry coordinators to buy items that are in short supply. Two volunteers at St. Paul's Lutheran Church reported that many clients need laundry detergent, which the pantry is aiming to distribute weekly to clients who ask for it. Most pantries accept diapers and hygiene products (e.g., dental care products, laundry detergent, cleaning supplies). Depending on donations and availability, pantries enjoy including snack bags and treats to help make the process more fun for children, who might not be able to understand the circumstances. These processes tie into how food pantries serve as key stakeholders in their respective communities by being able to connect clients with resources beyond food, especially in pandemic-related circumstances. In Table 6, we detail the miscellaneous items distributed and needs of the interviewed pantries.

Table 6: Miscellaneous Non-Food Items Distributed to Clients

Name of Pantry	Non-food Items
St. Paul's Lutheran Church	Grab bags of unique items (e.g., popped lotus seeds), laundry detergent, diapers
St. Francis Cathedral	Laundry detergent, toothpaste, shampoo, deodorant, cleaning supplies, coffee
New Beginnings Church of the Nazarene	Hygiene products, lotion, toothpaste, toilet paper, laundry detergent
First Presbyterian Church	Diapers, toiletries, face masks, general hygiene products
Middlesex County College	Toiletries, hygiene products, diapers
MIPH - Amandla Crossing & Imani Park	School supplies
Community Presbyterian Church	Housing assistance
Edison Housing Authority	Financial support for other needs

Changing Faces of the Pantry

A significant change in pantries has been the clientele base, with all pantries reporting an increase in new clients (except MIPH which serves a static population). However, many pantries do not have information regarding the background or status of these new clients because at the height of the COVID-19 pandemic, most pantries could not record extensive demographic information. When pantries were able to get information on clients, it was typically simple questions that allowed for workers to obtain a broad overview of their clients: e.g. "Where are you coming from?" and "How many people are in your household?" During the height of the pandemic, multiple pantries stated that they did not require proof of residence to receive food and decided to distribute to whomever had need. Now, pantries are experiencing a slight downturn in their number of clients and are reporting more consistent numbers of households served. Therefore, some pantries are beginning to restart registration for clients.

Food in Translation

Edison and Metuchen are located within Middlesex County, one of the most diverse counties in New Jersey and the country. Despite the robust immigrant population, language barriers are often an overlooked issue related to communication with clients. Clients who have Limited English Proficiency may face unique challenges, such as difficulties following new COVID-19 guidelines, identifying what foods are being distributed, and interacting with pantry volunteers. These challenges have been addressed in unique ways, such as using the Google Translate application, which enables translation of audio in a variety of languages in real-time. This application allows clients and pantry staff to communicate more effectively and efficiently, while overcoming the obstacle of misunderstanding each other and needing a live translator.

Another important finding was that some new clients were coming from outside the towns that pantries typically serve, although the number of clients coming from further away has been steadily decreasing. Pantries found themselves serving a wider range of clients from unexpected regions inside and outside of New Jersey. For example, both the Edison Housing Authority and First Presbyterian Church reported serving people coming from Elizabeth, which is located about 40 minutes away from Edison. Additionally, New Beginnings Church of the Nazarene stated that they had recently been serving a group of people who travelled all the way from New York once a month. Both pantries reported an uncertainty as to why people from increasingly further locations have been utilizing their pantries, although there is speculation regarding the potential lack of access to emergency food services in those areas.

Additionally, the duties of volunteers and how pantries utilize volunteers have also changed. Many pantries had previously employed the client-choice model, and as previously mentioned, have returned to the pre-packaged model. Therefore, volunteers have experienced a change in

duties. Volunteers no longer can walk side-by-side with clients and offer help and advice like recipe ideas and nutritional information as they did before. Currently, most volunteers are relegated to sorting, packaging, and putting food in the trunks of people's cars. This change is due to pantries' strict adherence to social distancing guidelines, which has led to decreased staffing capacity, decreased client interaction, and an increase in work-related burdens for the few remaining staff and volunteers that are keeping pantries open and operating.

Heavy Lifting

Ms. Teti indicated that she had to take on a huge burden because she was often not able to find volunteers who could lift heavy things or who could access and/or drive a vehicle to move supplies around. Therefore, she had not been going to MCFOODS even though her pantry could use the additional food. Luckily, she recently found a volunteer who will be going to MCFOODS, but many pantries are still grappling with this challenge.

The burden of increased labor and concern about safety during the pandemic is exacerbated by the demographics of the volunteers, since many are high-risk for contracting COVID-19. Volunteers are predominantly retired senior citizens, and some have pre-existing conditions. The changing faces of the pantry have brought to light many challenges that pantries face daily and will continue to face, especially considering that the pandemic has shown no signs of stopping.

Vulnerable Populations

According to the pantries we interviewed, there are subpopulations within their clientele that are especially vulnerable, particularly people who are suffering from housing insecurity. These issues are most pronounced among individuals experiencing homelessness, whether temporarily or chronically. Regardless of the reason behind their circumstances, providing food to homeless populations is more complex than simply distributing a bag of rice coupled with a can of beans, as they may not have the tools or access to heat needed to cook, clean, or even open the items being distributed by pantries. Instead, they have a unique need for prepackaged, ready-to-eat, or pre-made food. Food that requires extensive preparation is not feasible in many cases.

Moreover, during COVID-19, it has been more difficult to ensure safety while distributing pre-cooked meals. Despite these difficulties, New Beginnings Church of the Nazarene's food pantry is attempting to recreate the pre-cooked, heated meals it used to provide to people struggling with homelessness or housing insecurity. During the MEAL meeting we observed, food pantry directors and volunteers were asked about what resources are available for homeless populations. The response was a unanimous sense of sadness. The reality is that there are many

hurdles to providing a sustainable support network to this population and obstacles for pantry directors to distribute resources that they might need.

CONCLUSIONS

Food pantry directors, volunteers, and staff have demonstrated incredible resilience, adaptability, and tenacity in maintaining their crucial aid to the community during the stress of the COVID-19 pandemic. Many different methods emerged by which food pantries and the emergency food system adapted effectively to the pandemic. Relatively quickly, they were able to provide clean and safe environments in which volunteers can work and in which clients can pick up food. By shifting to drive-through lines and enforcing sanitation and mask-wearing, pantries ensured the safety of people serving and using the food pantry. Food banks, like MCFOODS and the Community Food Bank of New Jersey, developed more frequent newsletters and increased timings for pantry volunteers to pick up food to meet the increased demand. Pantry directors partnered with new organizations, such as restaurants and school lunch distribution sites, for new modes of food aggregation. Many pantry directors also noted a sustained level or an increased level of donations and generosity from the community. Other noteworthy specifics include flyers asking clients to return foods they do not anticipate using to reduce food waste, partnerships with LogistiCare to deliver food, an online questionnaire to understand the needs and background of the client base and wish lists on social media or Amazon. While the COVID-19 pandemic presented challenging times this year, the MEAL Coalition and member pantries remained and continue to remain resilient in terms of practices and serving respective clients.

This project focused primarily on pantries within the townships of Edison and Metuchen within Middlesex County, New Jersey. The results are intended specifically to inform the future of the MEAL coalition, but should apply more broadly as well. Additionally, the importance of collaboration between and among pantries is underscored in finding ways to adapt to different circumstances, especially during the height of the COVID-19 pandemic. Moreover, these findings will be used as part of a larger effort to aggregate information to serve as a framework for various stakeholders in the PPFAS for growth, understanding, and improvement for the future.

Opportunities for MEAL Coalition Growth

The MEAL coalition has made tremendous strides towards adapting to the COVID-19 pandemic, especially as a new coalition. What follows are recommendations for the coalition as it continues to plot its future.

Reaching Out to Vulnerable Populations

The first opportunity involves reaching out to more vulnerable populations. Working relationships like the one between MCFOODS and LogistiCare, in which MCFOODS took advantage of LogistiCare's pivot to emergency food delivery during the pandemic, provide an example of building infrastructure for better delivering food and necessities. This pandemic-related program could be a steppingstone towards increasing accessibility of various pantries. Elderly people, those who have medical disabilities, and those who lack means of transportation are examples of people will benefit from increasing accessibility.

Communication and Partnerships

The MEAL coalition could also be strengthened by increased communication and partnerships between pantries and with community organizations and stakeholders (e.g., interfaith, housing agencies, soup kitchens, etc.). Within the focus groups, we captured examples of how collaboration and communication can lead to better practices and solutions during emergency situations and long-term operations. Increased communication and partnerships and networking can lead to innovative practices within and between member pantries of the MEAL coalition.

Social Media Outreach

Social media outreach is one useful method of increasing communication and partnerships. The MEAL coalition currently has no official social media presence as a group, even though some of its constituent organizations have varying degrees of presence. The MEAL Coalition is a new entity and much of their time and resources have been concerned with adapting to COVID-19, while also trying to cultivate their identity and mission. This has left little bandwidth to focus on a social media strategy but leaves a future opportunity that deserves attention.

Creating a social media presence will help MEAL to reach more clients and find new donors. The MEAL Coalition could create a consolidated social media space for all member pantries and stakeholders. Our suggestion is to create an unpaid social media intern position that reports to Sarah Teti. This intern could create and maintain accounts on popular social media such as Instagram, Facebook, Twitter, and/or TikTok. This intern would attend the monthly coalition meetings and get updates from the pantries. They will collect any flyers and fill any gaps in communication by creating flyers. These social media accounts can feature the different organizations with updated hours, locations, and specific operating procedures, like providing identification upon arrival. Other posts could include events and programming such as food drives. The intern can also create a logo for MEAL to help with branding of the coalition. Part of

the internship position can be to train a new intern when there is turnover, so that this role is sustainable and continues even as interns come and go.

A social media presence is integral to accommodating the changing landscape of communication and reaching the widest range of clients, donors, and potential partners. With the changing faces of clients, creating a social media presence will help reach clients who are new to needing these resources. MEAL would be able to connect more easily with both existing and newer stakeholders, hopefully resulting in more partnerships and expansion of the MEAL network. With new partnerships, the hope is to also increase fundraising. If individual pantries would like to create their own social media accounts, the MEAL Coalition can link them on their own social media page or account. Maintaining a social media presence would expand the reach of the coalition and complement existing communication strategies.

Streamlined Resource Coordination

The MEAL Coalition, as it is now, consists of a group of food pantries and MCFOODS. Clients who use these respective food pantries come from socioeconomically diverse backgrounds. Therefore, reasons for using a pantry can range from temporary unemployment to chronic homelessness. Either staffing or involving individuals who could take care of non-nutrition related needs would be beneficial for clients. Specifically, we recommend involving at least one social worker who works with low-income housing, an individual who works with homeless populations, a healthcare professional, a SNAP case worker, and an individual who works in the community (e.g., a teacher). Of course, the coalition does not have the capacity to employ any such people at the moment, but it would be an excellent start to begin to develop a network of such people who could be reached on a referral basis. Managing these relationships under the umbrella of the coalition, as opposed to on a piecemeal basis for each pantry, could maximize the potential of MEAL as a network to link clients with the resources they need the most. Even being able to help a client make the right phone call could make a world of difference. The MEAL Coalition is new and expanding, so involving individuals from different professional backgrounds can help streamline both pantry-to-client pantry-to-pantry resource coordination.

Technology

Some pantries use different pieces of software, notably Microsoft Excel, for uses such as tracking inventory, but there is no software setup across the MEAL coalition to seamlessly share data. The possibility of creating such a uniform database, along with coalition-wide training will help to streamline communication among member pantries of the MEAL coalition. This could both streamline operating protocols and help with resource sharing. Some pantries in neighboring towns use Oasis Insight, which they report as being very easy for both clients and

volunteers to use, as well as making it possible to take on management and reporting tasks that would be impossible by other means (https://oasisinsight.net).

Maintaining Consistent Donations

Throughout the pandemic, while most of the pantries noted the generosity of respective communities for various donations, most donations were sporadic. Examples included both monetary donations and non-monetary donations such as masks and food. Monetary donations afford pantry staff the flexibility to buy resources they need for their respective pantries. To help obtain more consistent donations, engagement with donors should be prioritized in ways such as follow up emails, acknowledgments on public postings, and thank you notes. Most of the volunteers are nearing their capacity in terms of responsibilities, so this task may be better outsourced to an intern. The use of social media campaigns and events, as previously mentioned, can also be a way to maintain consistent donations through public engagement. Increasing engagement with donors, be it monetary or non-monetary, will aid in the sustainable operations of pantries for the long-term future. Also, related to the social media and technology strategies above, the coalition could also consider a presence on Venmo or another similar service that could allow for seamless and instant donations to be received by the coalition, though additional investigation would be required to ensure any reporting or other legal requirements are met.

Future Role of the MEAL Coalition

The role of the MEAL Coalition could potentially expand in the future. The MEAL Coalition's primary goal is to help the Edison and Metuchen areas address food insecurity, but it could expand to other complementary areas of assistance for Metuchen and Edison residents. For member pantries, some of the more successful pantry leaders within either the MEAL Coalition or similar coalitions within the US could run workshops on various practices that helped them set up and run successful pantries. A few topics that could be addressed include streamlining technology to track inventory and client information, optimizing client choice, and practices that pantries used to adapt to the COVID-19 pandemic. Additionally, the MEAL Coalition could potentially work towards increasing outreach efforts, especially within social media, and increasing partnerships. Social media platforms can be used to promote various agencies and stakeholders and highlight their invaluable work to enable a sense of belonging and inclusion within the MEAL Coalition. In short, the MEAL Coalition has the potential to expand its network and capabilities for the betterment of the PPFAS within Metuchen and Edison.

Action Plan

An action plan could be devised to document learned lessons from the COVID-19 pandemic to be used in similar emergencies in the future. The pandemic revealed five major challenges that a similar disruption could bring up again: 1) limited options to obtain food, specifically at the beginning of the pandemic, 2) significant increase in clients visiting pantries, 3) limited infrastructure to deliver food, 4) burden on staff and volunteers, and 5) implementing safety procedures and precautions.

Pantries could handle such challenges that come along with future emergencies through an action plan that involves both preventive and creative practices. Pantries could make sure that they are stocked with PPE (Personal Protective Equipment) in case of future emergencies for the safety of both clients and staff. The MEAL Coalition could also potentially plan emergency sources of food supply for member pantries.

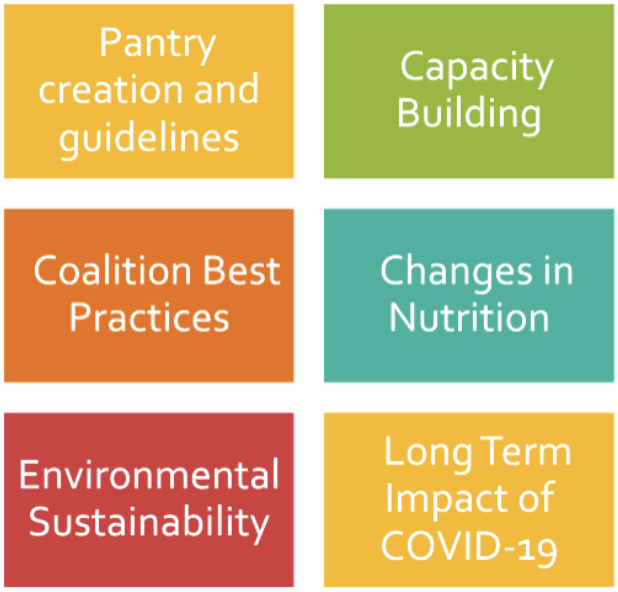
Besides preventative measures, creative solutions will be an ongoing part of how pantries will adapt to unpredictable circumstances. There were many creative solutions different pantries had for aggregating food in the height of the pandemic such as posting wish lists on social media and St. Paul's Lutheran Church partnering with local restaurant chains. Likewise, an innovative opportunity was found with using LogistiCare to help distribute food to clients who could not go to pantries in-person.

While we suggest a few solutions from what we have learned during interviews and focus groups, we recognize solutions may vary depending on factors such as how a pantry operates and the size of its respective community. Besides the COVID-19 pandemic, some of these preventive measures and innovative solutions may work for other emergencies too. Thus, it would be helpful to have a consolidated and comprehensive emergency action plan handbook that includes more exemplary solutions and preventive measures – such as those previously covered – based on the input of MEAL Coalition member pantries.

Future Directions for the Voorhees Center

This project was only able to scratch the surface of what could be learned about practices both during the pandemic and beyond, and there remain many topics, issues, and questions that were beyond the scope of this project. We have provided a list of future directions that the Voorhees Center and future Voorhees Fellows may pursue in the future that can strengthen New Jersey's emergency food systems. These directions are summarized in Figure 6.

Figure 6: Potential Topics of Interest for the Voorhees Center's Further Work



First, determining how and why pantries are founded in local communities is often overlooked in terms of pantry research, but it has potential to provide meaningful insight into the populations served, the people behind pantries, and resources available in an area. Additionally, understanding how pantries decided on their own guidelines during the COVID-19 pandemic can help pantries now and, in the future, how to decide and implement rules and regulations specific to their pantry's needs. Where did they obtain relevant information? What resources did they utilize to determine how to continue pantry operation? As such, what is gathered from such research need not pertain to pandemics specifically, and wider-reaching applications of this may be for pantries to use in any emergency.

A more long-term research question would be to investigate the lasting impacts the COVID-19 pandemic has had on the pantry system and the emergency food system as a whole. As of now, the COVID-19 pandemic has yet to cease, and many pantries have only re-opened recently, which does not allow enough time to measure and evaluate long-term impacts. This is particularly important since in order to improve pantry operations during and after a period of national instability, both short-term and long-term effects must be considered.

As mentioned, vulnerable populations such as children and those affected by homelessness are particularly at risk when encountering food insecurity and accessing food pantries. Assessing the effectiveness of how pantries work to increase accessibility to vulnerable populations is vital to help other pantries better reach these populations.

There is exciting potential for environmental sustainability to become a core tenet of local emergency food systems, and the PPFAS as a whole. The clearest first steps might be assessing ways that food pantries can become more environmentally friendly, using tactics such as reducing packaging or food waste, and partnering with local farmers. During the COVID-19 pandemic, the Farmers to Families program created a bridge between local producers and community organizations. This program was mutually beneficial, allowing for farmers' products

to directly help local food-insecure households, while farmers received much-needed assistance from the federal government. Creating a broader partnership and strengthening these ties on a permanent basis has extensive potential.

In New Jersey, the organization Sustainable Jersey also certifies and incentivizes municipalities for taking actions that reduce their carbon footprint, and employ "green" practices, including several surrounding food insecurity, such as creation of community gardens or "Buy Fresh, Buy Local" campaigns (*Sustainable Jersey - About*, n.d.). They are also organizing a food pantry action program, which gives municipalities a chance to meaningfully partner with food pantries or places establishing a food pantry, beginning in January of 2021. This program will look to provide transportation, storage, space, staff, etc., while also formalizing the process and further legitimizing the work of food pantries. The principal goal of Sustainable Jersey is to institutionalize partnerships between municipalities and food pantries, allowing for a chance at consistent and constant support from local governments.

Understanding the tactics and evaluating the strategies of other coalitions of food pantries can assist the Voorhees Center in making the work done by the MEAL Coalition more robust. Although a lot of research may be done considering the work conducted by individual pantries or partner organizations, there is still more to be understood about the best practices employed by coalitions both big and small, ranging from massive networks, such as the Greater Philadelphia Coalition Against Hunger, or the more localized Feeding New Brunswick group. This information can assist MEAL in adapting and evolving further.

Due to the changes that occurred in what kinds of foods were able to be distributed, or even available, during the COVID-19 pandemic, further research could potentially surround ways to maintain good nutritional practices during a pandemic. Dietary concerns unfortunately often did not take center stage in COVID-19 emergency food system decision-making, and it is likely that poorer nutritional outcomes have arisen since the start of the pandemic in food insecure populations. This may be attributed to both logistical changes, including the shift towards pre-packaged distribution in lieu of client choice, and decline in availability of fresh produce or perishable food, as well as policy shifts, such as Pandemic-EBT replacing school-based lunches (which is demonstrated to lead to worsened nutrition in children) (Leib et al., 2020).

In closing, we hope that the above information across the various sections can serve as a sort of menu for pantries, coalitions, researchers, and others involved in creating the future of Metuchen, Edison, and all of its neighbors' interconnected emergency food system. Needs differ across actors and contexts, and not all of the suggestions we provide will make sense for everyone. Nevertheless, we hope that this report serves as a starting point for a sustained and

successful effort to grow the MEAL coalition and make a difference in the communities that it touches.

REFERENCES

Abou-Sabe, K., Romo, C., McFadden, C., & Longoria, J. (2020, April 8). *COVID-19 crisis heaps pressure on nation's food banks*. NBC News. https://www.nbcnews.com/news/us-news/covid-19-crisis-heaps-pressure-nation-s-food-banks-n1178731

Arango, T., & Kenneally, B. A. (2020, September 3). 'Just Because I Have a Car Doesn't Mean I Have Enough Money to Buy Food.' *The New York Times*. https://www.nytimes.com/2020/09/03/us/food-pantries-hunger-us.html

Byker Shanks, C., Weinmann, E., Holder, J., McCormick, M., Parks, C. A., Vanderwood, K., Coburn, C., Johnson, N., & Yaroch, A. L. (2019). The UnProcessed Pantry Project Framework to Address Nutrition in the Emergency Food System. *American Journal of Public Health*, *109*(10), 1368–1370. https://doi.org/10.2105/AJPH.2019.305292

Carson, J. (2020, May 18). *Innovation in Food Access Amid the COVID-19 Pandemic | Carsey School of Public Policy | UNH*. https://carsey.unh.edu/publication/innovation-food-access-COVID-19-pandemic

CDC. (2020, April 30). *Communities, Schools, Workplaces, & Events*. Centers for Disease Control and Prevention. https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/food-pantries.html

Coleman-Jensen, A. (2017, February 21). *Parental Employment, Education, and Disability are Factors in Food Insecurity among Children*. https://www.usda.gov/media/blog/2013/07/09/parental-employment-education-and-disability-are-factors-food-insecurity

Coronavirus Food Assistance Program | Farmers.gov: Resources for Farmers and Producers. (n.d.). Retrieved November 22, 2020, from https://www.farmers.gov/cfap1

Dunn, C. G., Kenney, E., Fleischhacker, S. E., & Bleich, S. N. (2020). Feeding Low-Income Children during the Covid-19 Pandemic. *New England Journal of Medicine*, *382*(18), e40. https://doi.org/10.1056/NEJMp2005638

Dutko, P., Ploeg, M. V., & Farrigan, T. (2012). Characteristics and Influential Factors of Food Deserts. *Economic Research Report*, *140*, 36.

Edison, NJ Demographics and Population Statistics—NeighborhoodScout. (n.d.). Retrieved November 22, 2020, from https://www.neighborhoodscout.com/nj/edison/demographics

Foy, N. (2020, October 2). *Research identifies link between food insecurity and unengaged learning*. https://www.utsa.edu/today/2020/10/story/uei_food_insecurity_2020.html

Friedersdorf, C. (2020, May 6). *Food Banks Can't Go On Like This*. The Atlantic. https://www.theatlantic.com/ideas/archive/2020/05/food-banks-cant-go-like/611206/

Gregg, S. R. (2014, August 14). A nurse's guide to food banks, food pantries, and soup kitchens. *American Nurse Today*. https://www.americannursetoday.com/nurses-guide-food-banks-food-pantries-soup-kitchens/

Hadley, C., & Crooks, D. L. (2012). Coping and the biosocial consequences of food insecurity in the 21st century. *American Journal of Physical Anthropology*, *149 Suppl 55*, 72–94. https://doi.org/10.1002/ajpa.22161

Hunger & Food Insecurity in America | Feeding America. (n.d.). Retrieved November 8, 2020, from https://www.feedingamerica.org/hunger-in-america/impact-of-hunger

Kinsey, E. W., Kinsey, D., & Rundle, A. G. (2020). COVID-19 and Food Insecurity: An Uneven Patchwork of Responses. *Journal of Urban Health : Bulletin of the New York Academy of Medicine*, 1–4. https://doi.org/10.1007/s11524-020-00455-5

Kirkpatrick, S. I., & Tarasuk, V. (2011). Housing Circumstances are Associated with Household Food Access among Low-Income Urban Families. *Journal of Urban Health*, *88*(2), 284–296. https://doi.org/10.1007/s11524-010-9535-4

Kulish, N. (2020, April 8). 'Never Seen Anything Like It': Cars Line Up for Miles at Food Banks. *The New York Times*. https://www.nytimes.com/2020/04/08/business/economy/coronavirus-food-banks.html

Lawrence, E. (2020, July 26). *"Love And Solidarity": Amid Coronavirus, Mutual Aid Groups Resurge In New York City*. NPR.Org. https://www.npr.org/sections/health-shots/2020/07/26/895115149/love-and-solidarity-amid-coronavirus-mutual-aid-groups-resurge-in-new-york-city

Leddy, A. M., Weiser, S. D., Palar, K., & Seligman, H. (2020). A conceptual model for understanding the rapid COVID-19–related increase in food insecurity and its impact on health and healthcare. *The American Journal of Clinical Nutrition*. https://doi.org/10.1093/ajcn/nqaa226

Leib, E., Donahue, S., & Scott, E. (2020). COVID-19 Response: Feeding Mississippi Children During School Closure. *Delta Directions: Publications*. https://egrove.olemiss.edu/deltadirections_pub/32

Leonhardt, M. (2020, September 18). *'No excuse for inaction': Experts urge Congress to extend program providing free school replacement meals for kids*. CNBC. https://www.cnbc.com/2020/09/18/experts-urge-congress-to-extend-program-providing-free-meals-for-kids.html

Martin, K. S., Colantonio, A. G., Picho, K., & Boyle, K. E. (2016). Self-efficacy is associated with increased food security in novel food pantry program. *SSM-Population Health*.

Mazzella, R. (2020, May 31). *How Covid-19 Is Impacting Food Insecurity For Older Adults*. Forbes. https://www.forbes.com/sites/nextavenue/2020/05/31/how-covid-19-is-impacting-food-insecurity-for-older-adults/

MCFOODS and LogistiCare partner to make food deliveries to residents in need. (2020, April 20). http://www.middlesexcountynj.gov/News/Pages/MCFOODS-and-LogistiCare-partner-to-make-food-deliveries-to-residents-in-need.aspx

Metuchen, NJ - 08840—Real Estate Market Data—NeighborhoodScout. (n.d.). Retrieved November 22, 2020, from https://www.neighborhoodscout.com/nj/metuchen

Miller, T. (2020, April 8). How Food Banks Are Adjusting to Protect Against COVID-19 and a Demand Surge. *D Magazine*. https://www.dmagazine.com/frontburner/2020/04/how-food-banks-are-adjusting-to-protect-against-covid-19-and-a-demand-surge/

Murthy. (2016). Food Insecurity. *Public Health Reports*, *131*(5), 655–657. https://doi.org/10.1177/0033354916664154

NJ DOS - Division of Elections—Vote By Mail. (n.d.). Retrieved November 22, 2020, from https://www.state.nj.us/state/elections/vote-by-mail.shtml

Odoms-Young, A. M. (2018). Examining the Impact of Structural Racism on Food Insecurity: Implications for Addressing Racial/Ethnic Disparities. *Family & Community Health*, *41*(Suppl 2 FOOD INSECURITY AND OBESITY), S3–S6. https://doi.org/10.1097/FCH.0000000000000183

PolicyMap. (n.d.). PolicyMap. Retrieved November 30, 2020, from https://www.policymap.com/

Poppendieck, J. (1999). *Sweet charity?: Emergency food and the end of entitlement*.

Potts, M. (2016, October 13). *The American Social Safety Net Does Not Exist*. https://www.thenation.com/article/archive/the-american-social-safety-net-does-not-exist/

Ralph W. Voorhees Public Service Fellows. (2015). *A Study of Food Pantries in New Brunswick, NJ*. Ralph W. Voorhees Center for Civic Engagement.

Remley et al., D. T. (2010). Spanish-and English-speaking client perceptions of choice food pantries. *Journal of Hunger & Environmental Nutrition*. https://doi.org/10.1080/19320240903574387

Rosenthal, A., & Newman, K. (2019). Beyond the Shadow State: The Public–Private Food Assistance System as Networked Governance. *Urban Affairs Review*, *55*(5), 1433–1455. https://doi.org/10.1177/1078087418763551

Santhanam, L. (2020, September 11). *1 in 10 Americans don't have enough food. The pandemic is making things worse*. PBS NewsHour. https://www.pbs.org/newshour/health/1-in-10-americans-dont-have-enough-food-the-pandemic-is-making-things-worse

Simmet, A., Depa, J., Tinnemann, P., & Stroebele-Benschop, N. (2017). The Nutritional Quality of Food Provided from Food Pantries: A Systematic Review of Existing Literature. *Journal of the Academy of Nutrition and Dietetics*, *117*(4), 577–288. https://doi.org/10.1016/j.jand.2016.08.015

Stanford, F. C. (2020, August 17). *Food insecurity, COVID-19, and eating disorders*. Harvard Health Blog. https://www.health.harvard.edu/blog/food-insecurity-covid-19-and-eating-disorders-2020081720777

Starecheski, L. (2014, July 14). *This Is Your Stressed-Out Brain On Scarcity*. NPR.Org. https://www.npr.org/sections/health-shots/2014/07/14/330434597/this-is-your-stressed-out-brain-on-scarcity

Stevenson. (2020). *2020 CARES Act – $400 Million for FEMA Federal Assistance Programs | GovWin IQ*. https://iq.govwin.com/neo/marketAnalysis/view/2020-CARES-Act--400-Million-for-FEMA-Federal-Assistance-Programs/4125?researchTypeId=1&researchMarket=

Stewart, N., & Heisler, T. (2020, October 20). 1.5 Million New Yorkers Can't Afford Food. Pantries Are Their Lifeline. *The New York Times*. https://www.nytimes.com/interactive/2020/10/20/nyregion/nyc-food-banks.html

Strickhouser, S., Wright, J. D., & Donley, A. M. (2014). *Food Insecurity Among Older Adults*. AARP Foundation. https://www.aarp.org/content/dam/aarp/aarp_foundation/2015-PDFs/AF-Food-Insecurity-2015Update-Final-Report.pdf

Sustainable Jersey—About. (n.d.). Retrieved December 7, 2020, from https://www.sustainablejersey.com/about/

TapInto Hillside Staff. (2019, November 4). *Community FoodBank of New Jersey to Distribute 25,000 Turkeys and Roasters to Food Pantries, Soup Kitchens Across the State*. TAPinto. https://www.tapinto.net/towns/hillside/sections/giving-back/articles/community-foodbank-of-new-jersey-to-distribute-25-000-turkeys-and-roasters-to-food-pantries-soup-kitchens-across-the-state

Wolfson, J. A., & Leung, C. W. (2020). Food Insecurity and COVID-19: Disparities in Early Effects for US Adults. *Nutrients*, *12*(6). https://doi.org/10.3390/nu12061648

Ziliak, J. P., & Gundersen, C. (2019). *The State of Senior Hunger in 2017*. Feeding America. https://www.feedingamerica.org/sites/default/files/2019-06/The%20State%20of%20Senior%20Hunger%20in%202017_F2.pdf

APPENDIX

List of Pantries Interviewed

Name of Pantry	Location	Name of Interviewee	Pantry Organization
St. Paul's Lutheran Church	Edison	Pastor James Krombholz	Part of faith based organization
St. Francis Cathedral	Metuchen	Bidgie Williamson	Part of faith based organization
New Beginnings Church of the Nazarene	Edison	Joan Naraine	Part of faith based organization
First Presbyterian Church	Metuchen	Sarah Teti	Part of faith based organization
Middlesex County College	Edison	Amanda Lyons	Part of local community college
MIPH - Amandla Crossing & Imani Park	Edison	Melissa Mascalo	Part of interfaith nonprofit organization
Community Presbyterian Church (CPC)	Edison	Ed and Denise Wilkens	Part of faith based organization
Edison Housing Authority (EHA)	Edison	Raquel Landero	Part of housing agency, two sites

Hours of Operation and Clients Served

Name of Pantry	Hours of Operation	Clients Served
St. Paul's Lutheran Church	Wednesdays and Thursdays, 10 AM - 12 PM	Anyone
St. Francis Cathedral	Monday-Thursday, 9 AM - 1 PM	Parishioners and Housing residents
New Beginnings Church of the Nazarene	Fourth Saturday, 10 AM - 3 PM	Anyone
First Presbyterian Church	Wednesdays and Thursdays, 9 AM - 11 AM	Anyone
Middlesex County College	2 hours on Thursdays	Middlesex County College students
MIPH - Amandla Crossing & Imani Park	Once a week	Housing residents
Community Presbyterian Church (CPC)	Tuesdays and Thursdays 9-11am	Edison residents
Edison Housing Authority (EHA)	Third Thursday of each month, 10am-12pm	Anyone