COVID-19 Pandemic Food Security Response Strategy

Version 1

May 1, 2020

Executive Summary

The COVID-19 pandemic and the economic crisis triggered by critical response efforts have created a food access crisis in Montgomery County that our existing, decentralized food security resources are insufficient to address. The income disparities, high cost of living, and societal structures that resulted in an estimated 7% of the County's population experiencing food insecurity prior to March 2020 have deepened inequities in our local food system as unemployment, small business closures, and health disparities rise during the pandemic.

This Food Security Response Strategy outlines the initial strategies to both expand our current food assistance network, and build new capacity to connect residents to food assistance in the short-term response, while making investments in systems, programs, and partnerships that will last longer than this crisis. Ultimately, the County's response to the COVID-19 crisis is an opportunity to transform our local food system through a process led by resident voices and representation. Through our response we can create economic opportunities, highlight the diverse food traditions of our residents and local businesses, and promote environmental sustainability in order to foster a permanently resilient and equitable food system in Montgomery County.

The framework for our strategy is to **connect more food** - through a diverse sourcing strategy that bolsters local businesses and maximizes federal, state, philanthropic, and community funds - **to more people** by leveraging technology to efficiently connect residents to food in accessible, community-coordinated ways. Thirteen actionable strategies to achieve these two primary goals for the near-future response, each including estimated cost and high-level implementation considerations, are presented here. Right at this moment, thousands of Montgomery County residents are hungry and without the money, service information, transportation, or other resources needed to get food. There is an urgent need to achieve this critical goal of more food to more people as soon as possible, and we have the resources available to do so.

This Food Response Strategy sought the input, research, and feedback of more than 115 Task Force members, and was compiled over a two-week period to provide recommendations on how the County can meet the food insecurity challenges created by the COVID-19 pandemic. Food access is one component of a broader emergency response, and these recommendations should be incorporated as much as possible into a wraparound service model for residents. However, this document is merely the first step in a long-term effort to be adapted, amended, and informed in the months to follow through community engagement, operational planning, and resource development.

Summary of Recommendations

Montgomery County has an extensive food assistance distribution system, but with significant increased demand in services, more supply is needed to support that system. The capacity of the current distribution system needs to be increased to deliver **nutritious**, **culturally appropriate**, food items and meals that represent a healthy mix of protein, produce, and shelf-stable goods. The pandemic has caused a surge in both the number of food insecure individuals who cannot cook as well as a significant need to increase access to all types of food assistance. This increase in demand is coupled with a precipitous drop off in common sources of food donations, and increased uncertainty about the stability of the food supply chain.

- **More Food** will be provided in the form of:
  - Prepared meals contracted for from local sources;
  - Shelf-stable food and pantry items purchased and distributed through the food bank network;
  - Fresh foods from local sources like County farms and local wholesalers;
  - Community farming and victory gardening; and
  - Increased benefits access to existing programs.
- **To More People** leveraging modern technology to link residents, assistance providers, and delivery drivers.
  - Individuals facing food insecurity will be able to ask for help via an accessible web-portal in their native language, or via 3-1-1. Their requests will be screened to get food delivered to them from a "distribution hub".
  - Existing food assistance providers will be able to register as "distribution hubs" and indicate the type and quantity of food assistance they can provide.
  - New food assistance distribution hubs will be added to the system as needed to increase quantity or diversity, getting food from local businesses and suppliers.
  - For those residents who can afford food, but still need delivery assistance, local businesses will be able to register as delivery-assistance-only hubs, preparing or boxing food up for sale to be delivered for free.
  - Technology will facilitate contactless pick-up and delivery of food from these distribution hubs to local residents in need, or last-mile community food assistance programs who can safely distribute food at the neighborhood level.
  - The system is flexible, as it can accommodate the addition or removal of hubs, and resilient because it does not rely on any single point of failure.
- **Equity, communications and outreach** will be critical to response success.

A budget for the implementation of this strategy appears as **Appendix A: Budget.** Background on Culturally Appropriate Food Access in Montgomery County appears as **Appendix B.**

Contents

Introduction

The COVID-19 crisis has exacerbated the food access challenges for the 60,000+ residents in Montgomery County already experiencing food insecurity. In addition, 51,177 County residents filed initial unemployment claims between March 21 and April 25 as a result of the COVID19 pandemic, many of whom are experiencing food insecurity for the first time. Social distancing, health concerns, and changes in retail models have further limited food access for homebound seniors and residents with disabilities, people experiencing homelessness, and many other residents of our County.

The Food Security Task Force was created by the Office of Emergency Management and Homeland Security (OEMHS) to facilitate coordination and collaboration among government and non-governmental agencies, community organizations, and residents working to address the unique food security challenges created and exacerbated by the COVID-19 pandemic. Adapting the Incident Command System framework, the Food Security Task Force is led by a leadership team with representatives from Montgomery County Government and the Food Council. The Food Security Response Strategy development was launched by the Task Force on April 17, 2020 and incorporates the input of more than 110 representatives of County government and nonprofit agencies, philanthropists, food assistance providers, the Food Security Community Advisory Board, regional food system experts, entrepreneurs, farms and food producers, community organizations, and residents.

In developing this Food Security Response Strategy for the County, the following priorities have been established to maximize the impact of the dollars spent and support the long-term overall economic health of the County:

- Support small and Montgomery County-owned businesses;
- Create economic opportunity and promote job retention;
- Build equity in our local food system and economy;
- Strategically allocate resources to close gaps in services for specific populations and geographic locations;
- Maximize Federal and State dollars invested in the Montgomery County food system; and
- Develop sustainable systems that will support short- and long-term food access needs

Foundational Data

This Food Security Response Strategy assumes that an additional 30,000 residents will need food assistance following the COVID-19 pandemic, for a total of 95,000 residents needing support through enhanced operations of Food Assistance Providers. These numbers are based on the Feeding America estimates of a potential 47% increase of food insecurity throughout Maryland following the COVID-19 crisis, should unemployment rates increase by 7.6%.

## Potential Increased Long Term Food Insecurity

Feeding America has used its Map the Meal Gap study to predict the change in food insecurity based on projected changes to unemployment and poverty.[1] Feeding America produced three sets of projects they refer to as: scenario A, scenario B, and scenario C. "Scenarios A and B represent the same changes to unemployment and poverty that occurred during the Great Recession after one year and two years, respectively. … Scenario C represents a more severe possibility: if unemployment increases by 7.6 percentage points and poverty increases by 4.0 percentage points, 17.1 million more people will experience food insecurity."[2] According to Feeding America, "a recent Wall Street Journal poll of 60 economists predicted rates which, when considered across the year, are close to the unemployment rates assumed in Scenario C."[3] This Food Security Response Strategy takes a "hope for the best, but plan for the worst" approach, **using Scenario C as a guide.**

Table 1. Food Insecurity Projections by Scenario

	Scenarios		
	A	**B**	**C**
Unemployment rate increase (% pts)	1.1	4.5	7.6
Poverty rate increase (% pts)	1.5	2.6	4.0
Food insecurity rate increase (% pts)	1.3	3.3	5.3
Increase to number of food-insecure individuals	4.1 million	10.6 million	17.1 million

Source: Calculations by Dr. Craig Gundersen with data from the 2014 to 2018 Current Population Survey, December Supplement.

Figure 3. Food Insecurity Trends & Projections

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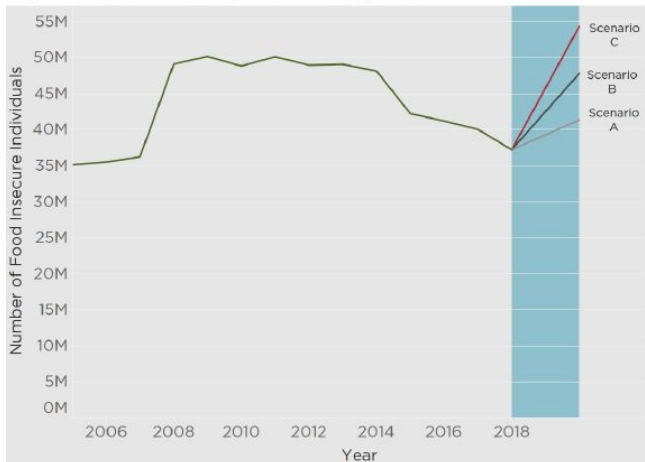
[1] **The Impact of the Coronavirus on Food Insecurity (Brief)**, Feeding America, available at https://hungerandhealth.feedingamerica.org/resource/impact-coronavirus-food-insecurity/
[2] Id. at 3.
[3] *The Impact of the Coronavirus on Food Insecurity: State-Level Estimates For the Overall Population*, Revised 4/20/2020, Adam Dewey, Emily Engelhard, Monica Hake, Dr. Craig Gundersen (Technical Advisory Group Member).

Feeding America Estimate of the Impact on Food Insecurity (FI): State Level Estimate for Maryland[4]				
Scenario	Projected FI Rate	Projected Additional FI people	Projected Total FI People	Change
A (Poverty +1.5, Unemployment +1.1)	12%	60,000	727,000	+9%
B (Poverty +2.6, Unemployment +4.5)	14.1%	183,000	850,000	+27%
C (Poverty +4.8, Unemployment +7.6)	16.7%	316,000	983,000	+47%

Potential Disruption of Supply Chain for Months

Food purchasing has greatly increased as retail donations have reduced by 75%.
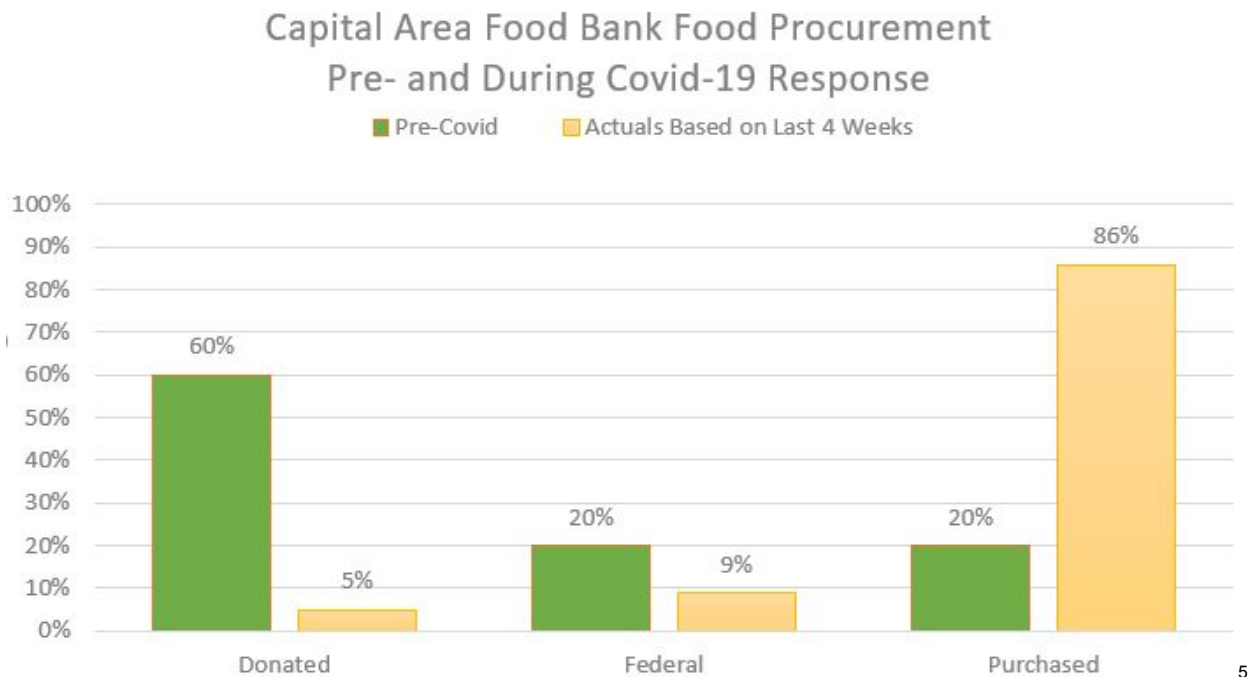
As an example, currently local area food assistance providers are facing a 75% decline in donated food overall. Food suppliers are indicating that diminished levels of donations will return eventually, although not to previous levels until November or December of 2020.

[4] Data From, *The Impact of the Coronavirus on Food Insecurity, fn 3.*
[5] Capital Area Food Bank, March 23rd - April 19th 2020 Inventory Receipts.

Increase in Demand Through Existing Programs

The COVID-19 pandemic has already resulted in increased demand for food assistance among Montgomery County residents, as shown by increased demand on existing providers and programs. For example, the Senior Nutrition Program operated by the Department of Health and Human Services traditionally provides both congregate and home delivered meals to residents who are over the age of 60 or have a serious illness. During the COVID-19 pandemic, the Senior Nutrition Program has ceased congregate meal distribution and is now providing all meals through delivery to further encourage social distancing measures among a high-risk population. The Senior Nutrition Program has seen a dramatic increase in meals requested since COVID-19 social distancing measures went into place, with the capacity of the program being reached in mid-April, resulting in a waitlist for residents to receive meals. Funds have already been allocated to enhance the Senior Nutrition Program distribution, so all residents that had been waitlisted began receiving services the week of April 27, with more spaces available should the demand continue to increase as expected.
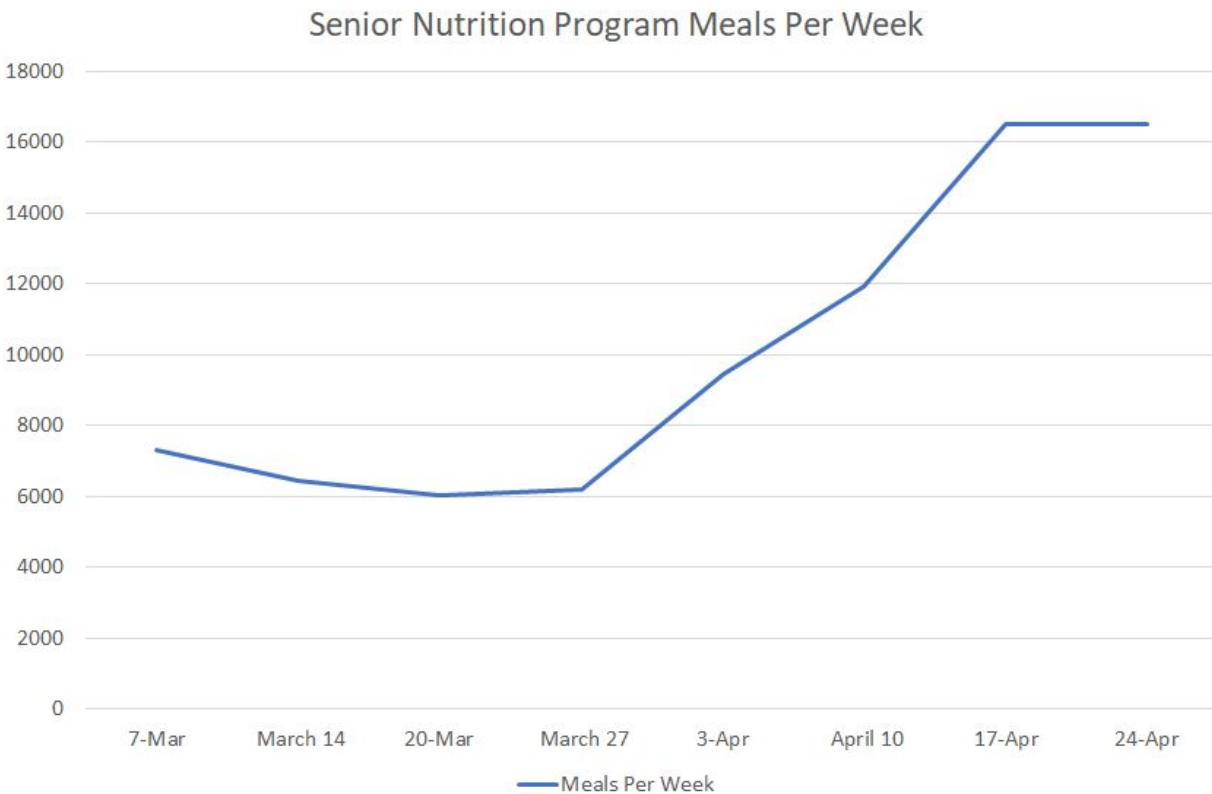
In addition to increased demand for the Senior Nutrition Program, the School Lunch program facilitated by Montgomery County Public Schools, has also seen a sharp increase in demand. The school lunch program saw an approximately 275% increase in demand from the week of March 20 to the week of March 27, with the higher level of demand persisting as the pandemic shutdowns continue.
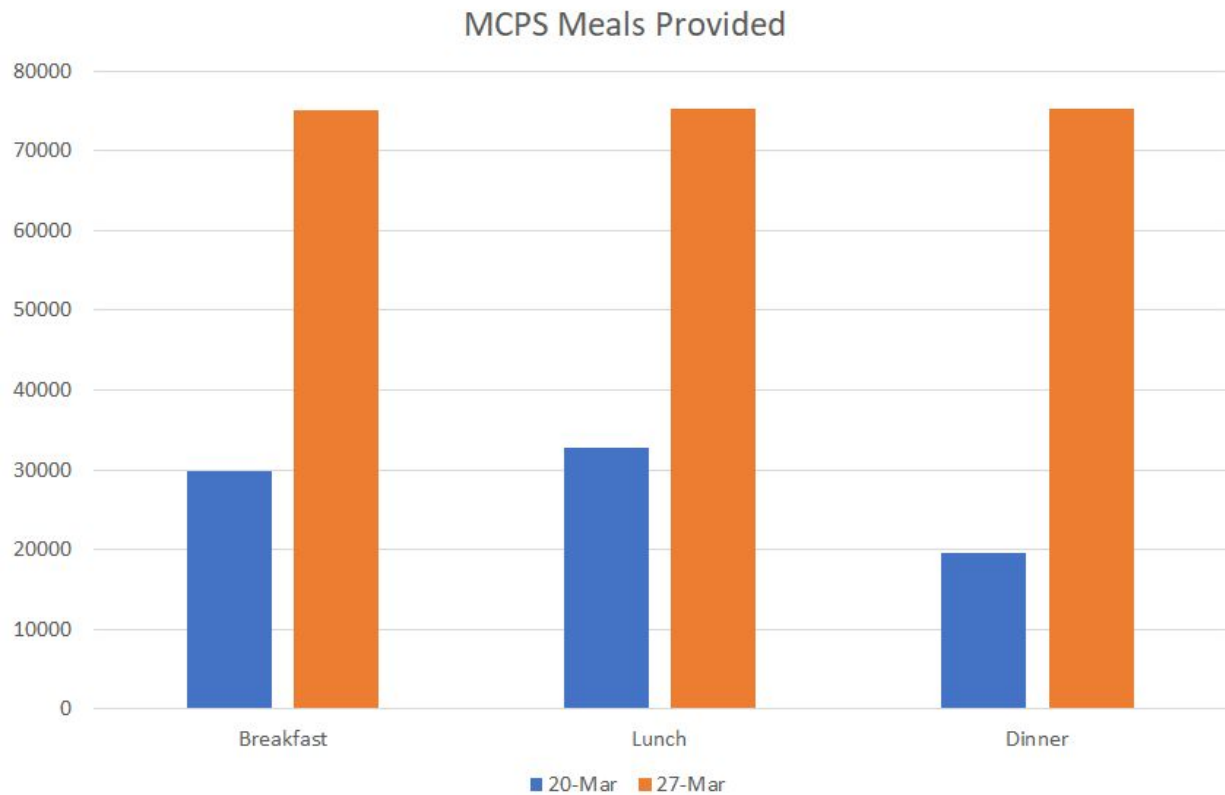
These increases in demand are not uniform across the county, with a higher volume of meals delivered in the red and yellow colored ZIP codes in the graphic below.
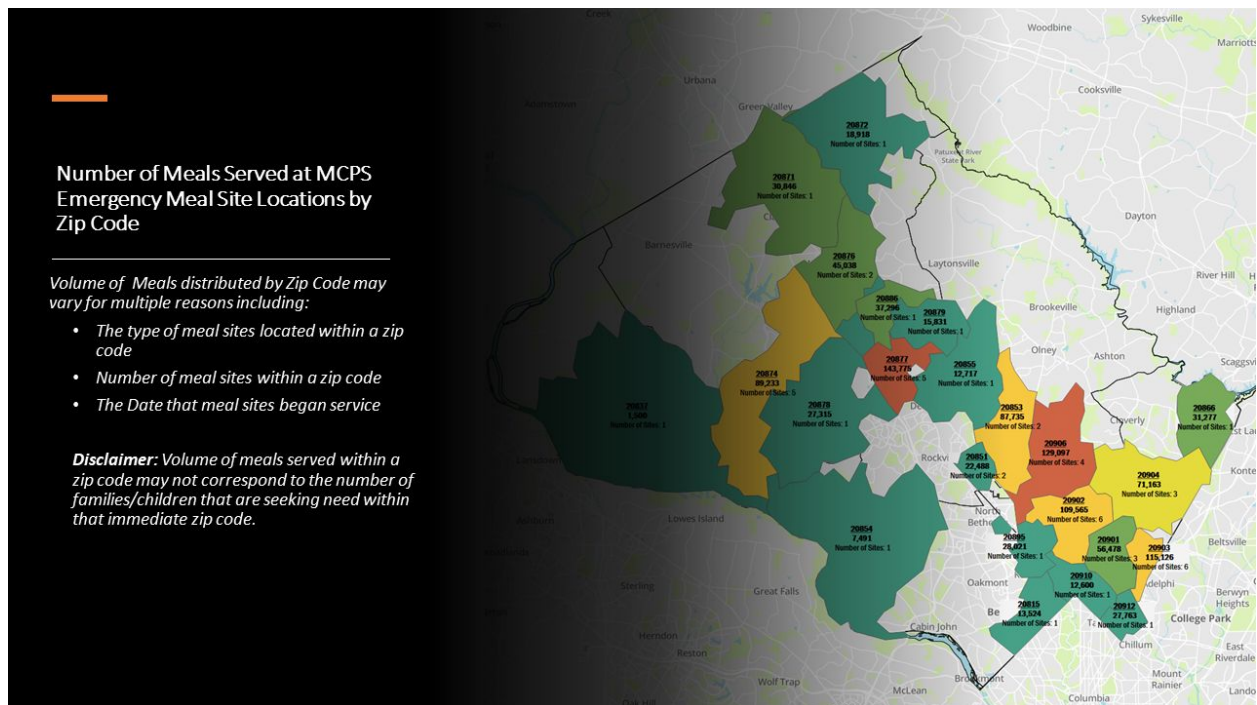
The Montgomery County Public Schools meals program provided 383,356 breakfasts, 386,333 lunches, and 373,172 dinners for a total of 1,143,572 meals between March 16 and April 20.

In addition to the Senior Nutrition Program and School Lunch Program, there are non-profit food assistance providers throughout the County that have seen an increase in demand. Beginning the week of April 7, the Food Security Task Force began collecting data from the community food assistance providers in an attempt to measure the increase of demand. Many providers have participated in the Weekly Provider Capacity Snapshot Survey, however, there are often different providers responding each week and only a small portion of providers in the County submitting responses. The resulting information has provided a general sense on the increase of demand, but because there is no uniform way to collect and track clients seen by providers it is difficult to fully capture the level of demand experienced through the system.
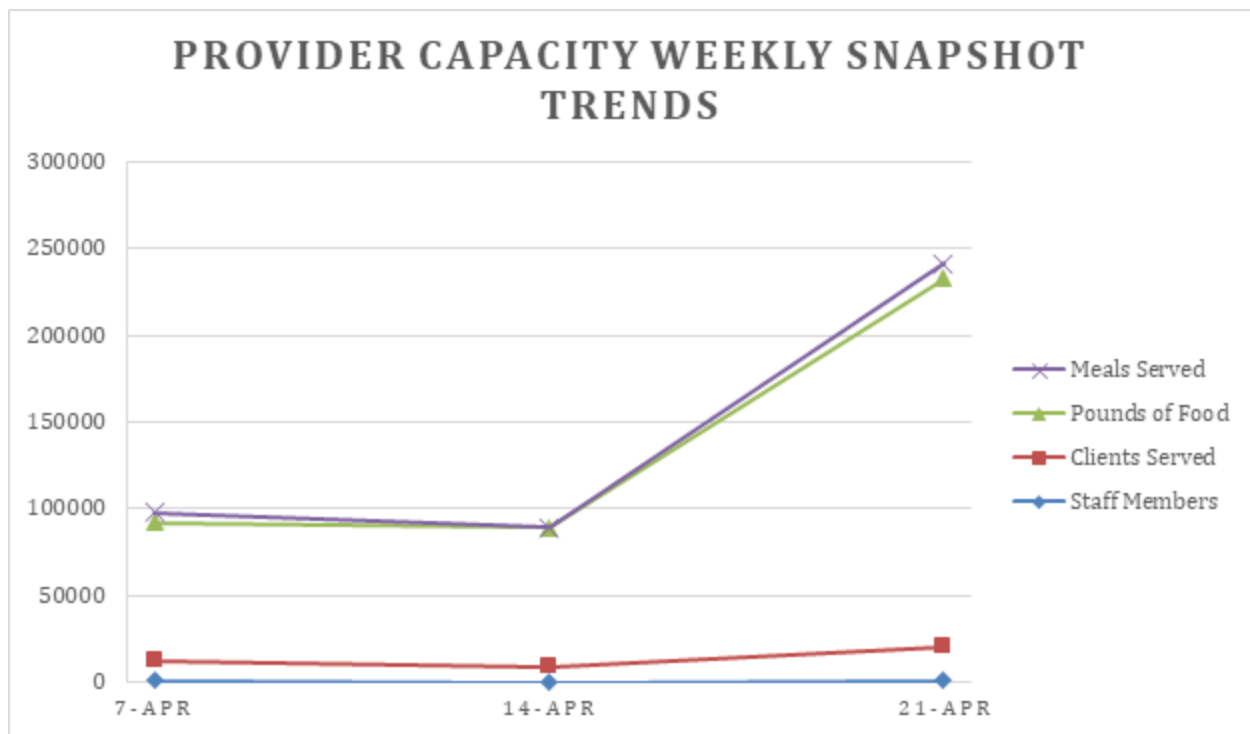
The Weekly Provider Capacity Snapshot has refined its measurements over time, and beginning in May will be better able to demonstrate the level of demand by individuals or by households, since there is not a consistent metric to track service across providers (e.g. some track households while others track the number of individuals).

More food…

Prepared Meals

The Coronavirus pandemic, and response thereto, has created a significant increased need for prepared meals. This includes individuals who are ill, or are taking care of someone who is ill, and/or have limited ability to cook, such as seniors, homeless people, or residents with disabilities. While some residents are able to access meals through restaurant delivery services, many residents lack the financial resources to purchase meals. Almost 55,000 children in Montgomery County depend on school meals. While schools are closed, children 18 and under are able to access free meals at 51 MCPS sites four days a week, however, these meals are not available to older family members and many families cannot access existing meal sites. Mass cancellations of special events and restaurant closures have resulted in significant decreases in food recovery of meals. To provide meals to residents on a dramatically greater scale than pre-pandemic service levels requires an efficient, centralized procurement strategy.

Contract with local caterers and restaurants. Montgomery County can meet this demand for meals by contracting with local area restaurants and caterers whose businesses have been greatly impacted by closures and cancelations. Buying meals from local providers not only ensures reliable in-county production and delivery of the meals, but also helps preserve and even create new jobs in the county. Moreover, local caterers and restaurants reflect the diverse cultural traditions of our County's population and sourcing from a variety of vendors will offer flexibility in order to provide culturally appropriate meals for residents.

Depending on the scale, nature, and location of the need for prepared meals, meals purchased from local caterers and restaurants could either: (1) provided directly to local food assistance providers for distribution, or (2) be provided using the distribution "hub" model described in detail below.

Cost and timeline. Meals can be purchased from local caterers and restaurants for $6.50 - $7 per meal. The County can establish procurement agreements with preselected vendors, potentially with fixed options and rates and a monthly invoicing schedule. 9,000 additional meals per day will likely be needed, which will have a cost over six month of $33,000,000. Meal production and distribution could be put in place very quickly, and likely be fully implemented in less than a week. Meal production can continue as long as there is a sustained need, at an appropriate level that will likely decrease as social distancing measures are eased and the number of quarantined and isolated households decreases.

Currently, MCPS is providing thousands of meals per day for children under 18 while schools are closed. This number has increased from around 12,000 meals per day in the first week of school closure to 55,000 meals per day in the week ending 4/24, resulting in more than a million

meals having been served since schools closed. Further data on any increased demand for school meals must be obtained from MCPS, as well as information on program expansion capability and resulting costs.

Although the specific demand for meals will likely decrease earlier than the overall demand for food assistance, extended school closures and the economic impact of this pandemic will likely mean long-term prepared meal needs for many Montgomery County households.

Shelf-stable Foods and Pantry Items

Shelf-stable foods are a particularly important component of food assistance resources when frequency of distribution is decreased to promote social distancing and supply chain disruptions are possible. Montgomery County's strong network of existing food assistance providers provides a reliable foundation for obtaining and distributing shelf-stable food. The current challenge is that this food distribution network is struggling under a massive **increase in demand** as food insecurity grows, and a substantial **decrease in the supply** of items typically donated by individuals and large organizations such as big-box grocers. These combined pressures mean that while the food distribution system is working, there is an urgent need to get more food into that system quickly while controlling costs.

The most cost-effective and efficient way to get more food into the system quickly is to leverage the existing infrastructure by making large-scale purchases of shelf-stable items through the Capital Area Food Bank (CAFB), for distribution to larger Montgomery County food assistance providers. These providers will serve as hubs capable of receiving, storing, and redistributing those goods to smaller community organizations and directly to residents. Ideally distribution hubs and their community partners will have sufficient food supply and operational resources to provide services to residents seven days a week. To supplement this procurement from the Capital Area Food Bank and diversify sourcing streams, the County can also purchase additional food from wholesalers and local ethnic grocery retailers for distribution out of these large provider hubs. These purchases would serve two purposes: (1) help meet the current need, and (2) build a reserve of goods to mitigate the risk of food supply chain disruptions that could occur in the months to come.

Building partnerships with local retailers is critical both to leverage private sector resources, connect with residents at trusted community locations, and increase the availability of culturally diverse foods in the assistance pipeline.

Cost and timeline. Currently, local food banks are estimating that to meet the increased level of food insecurity, they will need to surge their output of food by 20% or more. To meet that demand for six months and secure Montgomery County's place in the procurement pipeline, it will take roughly $1,000,000 to purchase 2 million pounds of food. Given the potential for significant variation in demand and the unstable nature of the current food supply chain, in addition to a large initial purchase to meet current demand, another $500,000 should be set aside to but build a reasonable stockpile of those goods that can be efficiently stored. Dry goods

storage and handling of that quantity of food at both hubs and distribution sites will cost an additional $500,000, which is why this response strategy recommends a total of $2,000,000 for the purchase of shelf-stable food and pantry items for distribution and stockpiling.

After six months, Montgomery County should assess the use of the food, the continued demand, and the potential need for additional purchases given food supply chain disruptions and donation levels.

Fresh Food From Local Sources

Produce, meat, and dairy are often the most sought-after items in the food assistance network. They are critical components of healthy diets, but often the most difficult type of food assistance to source, store, and deliver. In addition to increased sourcing of fresh foods from local wholesalers and ethnic grocers, Montgomery County should support a dramatic expansion of existing "farm to food bank efforts" aimed at buying fresh produce from local farms and local wholesale food distributors in this crisis. The market rate for high-quality farm products is typically too prohibitive for food assistance providers to accommodate in large volumes in their purchasing budgets. However, this crisis has left local farms and food distributors in financial strain and with excess capacity which instead of going to waste can be redirected to feed local residents. This strategy will preserve the economic sustainability of our local food producers,, increase the nutritional value of food consumed close to its harvest date, and reduce the negative environmental impact of long-haul food transport, while fostering long-term increased local food production and procurement, which are critical pillars of our County's long-term food system resilience.

Contract with local farms to supply produce. There are two main ways to obtain food from local farms: the County either directly, or indirectly through expanding a program like Farm to Food Bank at Manna Food Center, can (1) contract with a farm for scheduled, regular bulk purchase of produce and/or (2) buy excess or unsold produce from County farms at or near market rates. In either case, a local food assistance provider hub can receive the product from local farms and serve as the central distribution point to aggregate and distribute fresh produce to County food assistance partners and directly to residents.

Farms interested in a contracted sourcing relationship can enter into agreement with the County regarding prices, invoicing schedule, delivery, etc. with an assigned provider distribution hub. As the 2020 planting and growing season is actively underway, the County should act quickly to secure formal procurement relationships with local farms.

A separate fund should be established for last-minute purchase of surplus or unsold crop from local farmers at market rates. As pick-your-own and other traditional sales mechanisms for local farms are uncertain, and every growing season is unpredictable, it is likely that a number of County farms that do not want to commit to contract growing for the County would still benefit from a backup sales opportunity for their product at near-market rates, particularly if the product is sold for distribution to food insecure residents.

Purchase from local wholesalers and grocers. Similar to the process and reasoning outlined above for dry goods, the County can also purchase additional meat, produce, and dairy from wholesalers and local ethnic grocery retailers for distribution out of these large provider hubs.

Invest in regional initiatives connecting small business support to food security strategies.
The Mid-Atlantic Food Resilience and Access Coalition (MAFRAC) is a 501(c)3 organization that facilitates the procurement of local goods by non-profits. It was developed to cover the gap between local food producers' costs and the price that local nonprofits can afford to pay. County funds invested in this initiative could be earmarked to be directed to local producers in a cost-sharing partnership with local non-profits.

Capital Impact Partners is developing a strategy for a DMV-focused "Good Food Fund," aiming to equitably support food-focused entrepreneurs who typically have limited access to capital while integrating healthy food access and food sovereignty into the strategy.

Cost and timeline. The total estimated cost of food procurement, additional transportation and storage capacity is $**1,100,000** (details below). Fresh food can be purchased and delivered within a week, with more becoming available as contracts with farms are finalized.

Fresh food procurement will cost an estimated $950,000. This number is based on an estimate of $10,000 per month for contracted food purchase from ten different farms for 6 months, a $50,000 fund for unscheduled purchases of seconds or surplus crops, and an additional $300,000 should be set aside for purchases from local wholesalers and retailers who have fresh goods they are struggling to distribute due to the pandemic.

Expanding capacity of climate-controlled transportation resources is likely to cost $50,000, which includes 3 refrigeration trucks rented at $2000 per month for six months, plus additional amounts for drivers for those trucks and fuel costs.

Expanding fresh food storage capacity by adding refrigeration and freezer capacity at food assistance distribution centers will cost an estimated $100,000. This is based on an estimated cost of $6000 per commercial unit, with 6 distributors adding one refrigerator and one freezer, along with associated delivery and installation costs.

Worth noting is that the Montgomery County Alcoholic Beverage Service has some temporary capacity that is available while bars remain closed, but will become unavailable after social distancing measures are eased. Other fresh food storage options may exist at the County and regional level, including temporarily shuddered commercial capacity.

Victory Gardening & Community Farming

Provide resident access to yard and patio gardening supplies, space, and educational materials. Bulk purchase of gardening supplies by the County will increase cost efficiency and reduce supply chain challenges currently limiting individual purchases of these products. Supplies can be distributed at community and food assistance sites along with informational materials. The County can consider expanding programs like Growing Gardeners, a partnership of Master Gardeners and Manna Food Center, which provides food assistance participants with the materials and education to grow their own tomatoes, peppers, and herbs in pre-filled 5 gallon containers. Community garden plots in the County are currently full for Summer 2020, and the County should creatively explore additional food production locations, including private land shared by faith communities and other community sites, as well as fund staffing support for establishment and maintenance of additional new sites, as well as to ensure best practices in land management and social distancing.

Community-level sharing of home-grown produce, or central collection of excess home and community garden produce for distribution at a food assistance site, can be encouraged while practicing social distancing and food safety. Local gardeners can plant a few extra vegetables this spring and designate the additional produce for donation back to the community.

Cost and timeline. The estimated cost for expansion of community farming and gardening efforts is **$150,000**. Because many of these programs are already in place, these efforts can begin immediately.

Increased Benefits Access

Expanding County residents' use of Federal benefits at retail locations such as grocery stores and farmers markets increases the investment of Federal funds in our local economy while increasing access to nutritious food. Social distancing and best practices in both retail settings allow their continued operation as safe and reliable food access sites.

SNAP Outreach. According to Maryland Hunger Solutions, Montgomery County has the highest percentage of residents who are eligible, but not enrolled, for the Supplemental Nutrition Program (SNAP) in the State of Maryland. Federal COVID-19 relief packages feature numerous additional benefits for SNAP participants, but many County residents are hesitant to enroll due to concerns and misconceptions about SNAP eligibility. Four multilingual SNAP outreach workers with internet and phone access could be hired and trained to work remotely conducting phone screening and application support, and potentially onsite at food distribution locations if social distancing is possible. These Outreach Workers could be hired on a contract basis for 3-6 months and could be trained to do other outreach including census and healthcare enrollment as well. The estimated cost for additional SNAP Outreach workers for six months is **$55,000.**

Expanding Farmers Market Double Dollars. Many farmers markets in Montgomery County offer double dollar programs, matching each dollar spent (up to a set maximum) purchasing food with SNAP funds. These programs make access to nutritious, locally produced food more affordable while supporting local food businesses as well. The County should establish a fund for Montgomery County markets' Double Dollars programs, with an initial investment of **$75,000**, that could be used to match program funds leveraged by the Markets through the Maryland Market Money program or raised through philanthropic support and individual donations.

… to more people.

Leveraging Technology to Efficiently Scale

Residents who are unable to access food or prepared meals as a result of the COVID-19 pandemic and its resulting economic effects are located throughout the County, have varied transportation options, and have diverse food needs. Information on available food resources is often disconnected from other services, as well as difficult to find and language-inaccessible, for many residents. To address the challenges in connecting residents to food that is accessible and culturally and diet-appropriate, the Food Security Task Force proposes purchasing a web-based platform to coordinate and facilitate resident requests for assistance in accessing both groceries and prepared meals. Because of the myriads of challenges many residents face in traveling to receive food assistance, the technology solution contemplated here focuses on enhancing delivery mechanisms for residents to secure food assistance that is culturally appropriate.

In developing this platform, Montgomery County should draw on the best-practices and real-life-lessons of other communities who have tackled food insecurity challenges with similar solutions, including Washington D.C. and New York City. This platform will leverage proven, state-of-the-art, technology solutions to help Montgomery County scale its existing food assistance infrastructure to meet the massive fluctuations in demand created by the pandemic. In general, the process involves: **Web-based intake → Screening for Appropriate Services → Food Delivery.** A broad description of what such a platform and process would look like is provided in the sections that follow. This system will be designed to work alongside existing, smaller solutions (like the Chow Match program, for example), with direct technology integration where possible. It is not the intent of this Response Strategy to reinvent the wheel.

The total estimated cost of this web-based, accessible platform development and administration is $250,000 per year.

Platform Accessibility and Data Protection Requirements

The resident-facing platform must be web-based, mobile friendly, and accessible to devices and software used to support individuals with specific and/or functional needs. It should not require residents to download any external application. Additionally, it should be navigable in at least the top 10 languages spoken in the County so residents are able to interface with it in their written native language. Any data collected by the platform should be considered protected Personally Identifiable Information (PII) and only shared with external partners—such as food assistance providers—with the express consent of the resident.

A graphic representation of how the platform will connect residents to resources is below:
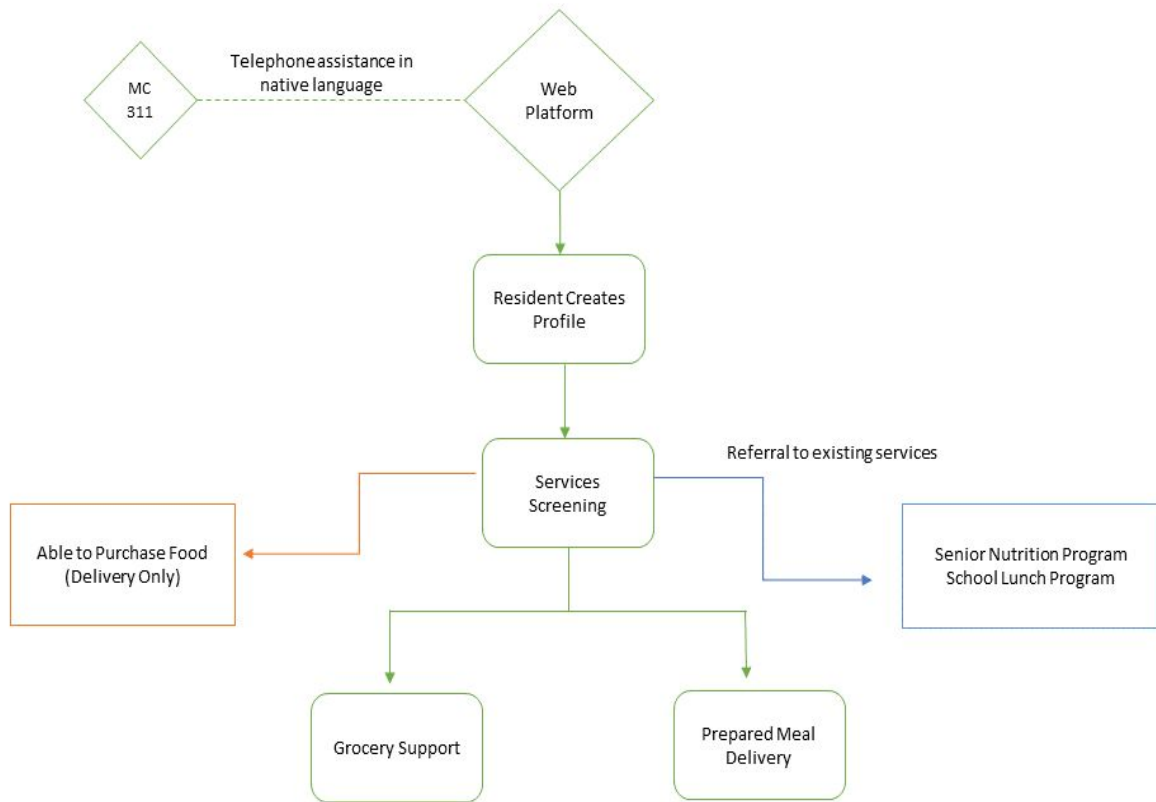
Resident Sign-up

The web-based platform will consist of a public facing website that any resident, regardless of immigration status, can directly access, or be directed to from the Montgomery County COVID-19 Resources page. Residents unable to access a computer or the internet will be able to call MC311 for assistance in their native language in filling out their sign-up application. This sign-up form will include an opportunity for individuals to specify if they need culturally specific meals or food boxes.

When a resident signs-up on the platform, they will create a basic household profile. This household profile will enable the users of the platform to track what services are provided to each household, the timeliness of the services, as well as receive resident feedback on the type of services provided. For the purposes of the Food Security Task Force, the platform is to determine what food resources a resident needs and to deliver food to them. This platform should be scalable to include other non-food services, such as Census referrals, should

Montgomery County decide to enhance the use of the platform beyond Food Assistance at a later date.

The household profile will capture the contact information for the head of household and ask basic screening questions to help connect the resident with services that are available through the County or its partners. By answering the screening questions, the system will identify what assistance the resident is eligible to receive and will automatically send the referral to the identified services.

For the avoidance of doubt, as in the case of Census completion, any personal information entered into the platform will be kept securely, and no information beyond that which is necessary to effect the delivery of food or services will be held or shared outside of the platform with any organization or government agency. Any citizenship questions asked in the screening will be used solely for the purposes of determining eligibility for services, and will be optional.

Services Screening

Once a resident completes their household profile, there should be a series of questions to help determine what services the resident needs. These questions should also help determine what existing programs the resident qualifies for, such as the Senior Nutrition Program.

At a minimum, the screening to determine the most appropriate food assistance should determine:
- Does the resident qualify for an existing food assistance program?
- If the resident does not qualify for an existing program, or demand on the existing programs exceeds capacity, does the resident need prepared meals or pantry items?
- Does the resident have the funds to purchase food and only need assistance in delivery?
- Does the resident have cultural, religious or dietary meal requirements? (e.g. Kosher, Halal, vegetarian).

Based on the answers provided by the resident, their assistance needs will be referred to one of several distribution hubs to complete the necessary services. For the purposes of this initial draft of the Food Security Response Strategy, the hubs would be focused on food items, but the system is designed to be scalable and would be able to incorporate distribution hubs of other items such as diapers, feminine hygiene products, and other consumables as needs arise.

Distribution Hubs

A distribution hub, in general, is a designated organization or facility that will coordinate delivery of a resource to the resident identified as needing the resource. Based on the screening process, the resident's order will be sent to the appropriate distribution hub to fulfill the order.

There should be no limit on the number of distribution hubs that can be registered within the web-based platform described above, but each distribution hub will need to register with the

platform and provide parameters of its level of service. Each hub will set the parameters of what services it offers, and the program will connect residents to the hubs closest to their residence geographically that provide the services they need. The distributions from hubs will occur daily, with resident orders submitted by close of business the evening before delivery.

As graphically shown in the logic tree above, the distribution hubs for food will be in one of three categories: existing programs, new programs, delivery only support. Each will be addressed in turn:

Existing Programs

Existing programs, such as the Senior Nutrition Program, already provide delivery services to residents. This connection will automate the referral process between the resident and the program, with the program distribution hub indicating how many additional residents can be accommodated within the program. Additionally, Food Assistance Providers that already provide delivery to residents can be registered as a distribution hub for their services through the platform.

For example, if a resident profile indicates that the resident is 70 years old and not already receiving meals from the Senior Nutrition Program, the resident will be connected with the Senior Nutrition Program hub to have the requisite food assistance delivered to the resident.

Expanding Delivery to New Programs

To address the recognized challenges residents face in reaching available food assistance, whether due to transportation challenges or health concerns, current providers and organizations that do not already provide delivery assistance will be able to register as a distribution hub so that the County will facilitate the delivery portion of the distribution. Existing Food Assistance providers will need to register as a hub on the platform and agree to provide timely information regarding their capacity to fulfill food assistance requests. This includes indicating the type and number of orders a distribution hub is able to fulfill, which will need to be provided at least 24 hours in advance of distribution in order to link residents appropriately with a provider.

For example, a resident profile is completed indicating that the household of two individuals ages 40 and 45. Based on the services screening, it is revealed that the household is not able to travel due to COVID-19 related exposure and do not have the resources to purchase food. However, they are able to prepare food at home and are only seeking grocery assistance. The resident request will be sent to one of the available hubs that provide pantry assistance. The following day a delivery driver will pick up the pantry goods from the distribution hub and take it to the household. Alternatively, if the same household were to indicate that they are unable to prepare food, the request would be sent to a hub that provides prepared meals.

As the operations begin, the Task Force will periodically assess whether there are sufficient hub providers to meet the community food needs. Should the need for new delivery options exceed the capacity of the current food assistance providers, the County will work with local businesses to establish new hubs for grocery and meal delivery in a manner that provides culturally appropriate food.

Delivery Only Support

Another challenge residents are facing is the delivery of food to their homes, even if they have the ability to purchase food. Specifically, this is a challenge for residents who frequent ethnic and specialty grocery stores within the County for a large portion of their food shopping. Many of these smaller grocers are unable to provide delivery options to residents. Additionally, many existing grocery delivery options have met or exceeded capacity and are unavailable to many residents who need assistance.

To address this challenge, Montgomery County restaurants and grocery stores will be able to register on the platform to be a hub. This registration will link them to residents who need delivery assistance, but have the financial means to purchase items themselves. Providers and community partners that register as a hub in this platform must have a process for residents to pay them directly for goods, as with the County support solely for the purpose of transporting items.

For example, a smaller grocer that serves a specific ethnic population may register as a distribution hub and indicate a defined list of packages available for purchase. Residents that indicate that they are financially able to purchase food, but are unable to leave their home due to quarantine measures, would then be connected to the existing grocery hubs based on the available ethnic and cultural options. The household would then select which of the defined packages they would like to receive and complete the payment with the grocer.

As with the other hubs, the resident request for support will be received by the close of business the day before delivery and will need to prepare resident orders. As soon as Maryland implements the Online SNAP pilot, any hub that accepts payment for food items must participate in the pilot to allow SNAP recipients to use their benefits to purchase food online.

All hubs will receive resident orders by the close of business the day before delivery is to occur, or at an agreed upon time over the weekend. The web-based platform will then identify the most efficient routes for delivery of goods from each hub and provide the hub a list of delivery routes for which they are to prepare items. The hub will then need to prepare the orders for each route the morning of the day of the delivery.

Food assistance providers and small community retailers serving as hubs will have additional storage, technology, business process, and personnel costs - this response strategy recommends that $200,000 be budgeted to help offset these costs.

Shoppers who are less tech savvy might need more education on how to best shop online. And the communications strategy contemplated in this plan should include information on how to shop on-line and others might need info and support on how to surmount some of the obstacles when living in multi-family dwellings (how to get the packages, theft, etc).

Delivery Drivers

The web-based application will be integrated with a number of delivery options, including existing County delivery and transportation options. The application will determine the most efficient routes for a driver to take from a hub to a residence. Drivers will gather the items for their route from a designated hub and deliver the items using contactless-delivery best practices. For example, on arriving at a residence, the delivery driver should leave the delivery at the door of the residence. The driver will then be able to denote a delivery completed through the web-based application and the resident will receive an automatic message by phone, email, or text notifying them that the delivery has arrived. The total estimated cost of delivery support is $720,000. This estimate assumes that drivers will be paid a minimum of $15/hour for 2,000 hours of work over six months.

Getting the word out.

A significant barrier to connecting residents to services is informing residents of the resources available to them through culturally competent, accessible methods. A communication strategy to reach all residents in one of the most diverse communities in the Country necessitates a communications program that provides strategic and diverse communication mechanisms in areas of the County most likely to have high levels of food insecurity based on existing zip code and demographic data and models.

Directed Messaging to Residents Likely to Experience Food Insecurity

Using existing food insecurity data in the County, including information gained from demands on current food assistance providers, the County will develop multi-language mailers that describe the resources available to food-insecure individuals. These mailers will be sent directly to all residents in the top 10 food insecure ZIP codes. This mailer will direct the residents to access the web-based platform and resident survey, as well as the existing County resources page and information.

Posters and Bus Advertisements

The County will develop a series of posters and Ride-on-Bus advertisements educating residents on the availability of food assistance resources. These advertisements and posters will be developed in coordination with the Office of Community Partnerships to promote the greatest accessibility throughout the County.

Digital Messaging

The County will develop media campaign branding to be used across social media platforms in multiple languages to promote the resources available. These digital advertisements will be sent to IP addresses located geographically in Montgomery County. The County has already created a WhatsApp account for Spanish speaking residents, and new WhatsApp groups should be created for other languages, which residents can sign up for through the web-based technology platform described above. The creation of a specific WhatsApp group relating to food assistance information and resources could also be explored.

Traditional Paid and Earned Media

The County should develop audio and video advertisements in several languages promoting the resources available. These advertisements should be distributed across local outlets throughout the County, with an emphasis on outlets that service non-English speakers. The County already has two radio shows in Spanish that go live weekly on 900AM, Radio America. One is "Montgomery Al Dia hosted by Lorna Virgili, Latino Liaison to the County Executive, and the other is "En Sintonia con el Concejo del Condado" hosted by Lilian Mass, Bilingual Communication Specialist for the County Council. These shows often have guests who are able to share important information and resources in Spanish to the Latino community. Another media opportunity is the recently created Corona TV on the County's PEG channel.

The total cost of this outreach and communications strategy is proposed to be $3,000,000 to support the development of artwork, language accessibility, and procurement of advertising space.

Community-level engagement and coordination

In a County as demographically and geographically diverse as ours, County-level strategies will never effectively identify and address the unique challenges and resources present in each of our neighborhoods. A strategy must be developed through extensive community engagement and representation and implemented with community-level leadership. This initial response strategy recommends both extensive continued community involvement in long-term strategy development and implementation as well as programmatic initiatives to formally embed community voice and leadership in the Countywide effort.

Community Partners Coordination

Many residents have strong connections and trusted relationships with non-governmental partners, faith-based organizations, and other community groups. The Task Force will work with the Office of Community Partnerships and build on the broader multicultural communication COVID-19 response efforts as well as Census outreach mechanisms to identify partners in the County community to serve as communications pathways to distribute materials to existing community partners for the partner to provide and distribute to the residents that they are

connected to. To enable these materials to be developed in collaboration with the partners, the Food Security Task Forces recommends that $250,000 be allocated to specifically support these efforts.

Community Food Resource Navigator Program

A Community Food Resource Navigators can be designed to build awareness of food insecurity issues and resources among residents in Montgomery County communities while also identifying and communicating neighborhood-level food access challenges. County residents, perhaps through a partnership with a local institution of higher education, will participate in a training program on eligibility for federal nutrition assistance benefits and available food assistance programs for residents. Following the training, Navigators will be paid contractors serving as embedded, trusted resources of information in our County's communities, reducing stigma, providing peer-to-peer support, and connectivity to a wide range of services. To fund this program, the Food Security Task Forces recommends that $250,000 be allocated to specifically support these efforts. Navigators will work closely with community partners, organizations, and food distribution sites and hubs, to identify resource and service gaps and communicate this information to coordination efforts at the hyper-local and County-levels.

Resident Survey

A brief, culturally competent survey for food assistance program participants should be developed and administered by multilingual County staff or trained volunteers at food assistance sites Countywide to gather data on food access challenges, culturally-appropriate food needs, and service barriers. In order to gather as much data as possible, surveys and administration guidelines should be provided to all food assistance providers for use at their sites. To fund this program, the Food Security Task Forces recommends that $500,000 be allocated to specifically support these efforts.

Applying an Equity Lens

Disasters like pandemics tend to exacerbate pre-existing inequities, and rapidly developed or scaled-up assistance programs, no matter how well intentioned, can fail to adequately address inequities or lead to inequitable results. For that reason, all programs created or recommended herein should be required to complete an equity impact statement, and have a mechanism for receiving and responding to community feedback. The web-portal contemplated above should include a form for community members to provide feedback, and should include a mechanism for following up with those served. Special attention should be paid in the food procurement and distribution process to providing culturally appropriate foods. When implementing the programs and initiatives recommended herein, the advice of the Chief Equity Officer, and the feedback of the Food Council's Food Security Community Advisory Board should be sought.

Measuring Progress

The Montgomery County Food Security Task Force Data Unit is currently the main body collecting and analyzing food security response data for the County. As such, this group will be responsible for collecting and analyzing data on success and impact of the strategies described in this document. One of the major challenges of crafting this response strategy was the lack of real-time data to support decision making. Two major gaps in current datasets are: (1) reliable information on how many meals have been prepared and delivered by the myriad providers working on food assistance, and (2) how many individuals are in need of food assistance but do not know how to get help, or are not getting enough help. The recommendations in this strategy to create a unified intake mechanism and distribution tracking platform capable of producing real-time will address the first of those problems. The recommendations on communications, outreach, and community engagement will address the second.

Weekly, data should be gathered about:
1. How many prepared meals are being served, and the anticipated demand for prepared meals the next week, to make decisions about the scale of operations.
2. The volume of shelf-stable and panty good items delivered and current inventory levels, to support ongoing procurement and distribution decisions.
3. The time it is taking to get food to individuals and their satisfaction with the delivery process, to make decisions about staffing, drivers, routes, and other logistics.
4. The demand for, and supply of, culturally appropriate foods to ensure that the overall system is meeting those needs appropriately.
5. The volume of food being provided by distribution hubs to make decisions about the scale of those operations, and the potential need to add or remove hubs.
6. The overall nutritional quality of the content delivered (specifically, the amount of fresh food provided), to support procurement and distribution decision-making.
7. The satisfaction of the community with the response strategies employed, to support decisions to update, change, or discontinue efforts.

Monthly, data should be gathered about:
1. The volume of shelf-stable foods in the system as a whole, to make decisions about long-term procurement and stockpiling strategies.
2. The volume of food wasted by the system, to address any gaps that might exist in storage, distribution, etc.
3. Economic tends likely to impact the demand in the coming months to support decisions about scaling the response.
4. Public health trends that are likely to impact the demand in the coming months to support decisions about scaling the response.
5. Relationships and contracting with farms to support decisions about scaling farm purchases in future months.

After three months, decisions about funding levels and operations beyond December 2020 should be carefully considered.

Next Steps

This Food Security Response Strategy is a "living document" that represents the best ideas, estimates, and inputs that could be gathered in the limited time afforded by this pandemic, and represents a balancing of the need to develop a response strategy quickly, with the need to seek broad input and feedback. As such, the budget numbers provided are "best guess" numbers from the contributors. It is the intention of the Food Security Task Force that as work continues and the situation evolves this document will grow to include additional feedback and higher levels of detail.

Following submission of this initial draft by the Task Force's Strategic Planning Unit to OEMHS on Friday May 1st, it will be shared with the County Executive and County Council in a timely manner to inform CARES Act, disaster relief, and other pandemic-related funding allocation decisions. This Response Strategy, along with a comprehensive summary of the detailed operational strategies developed by Task Force members, will be used to inform and build on the continued work of the Task Force's various units, and guide implementation by those units of the Response Strategy's recommendations. In addition, this draft of the Response Strategy will be communicated widely to the public (as soon as approval is received from the County Government), through email, social media and other physical and online channels, as well as to food assistance providers on the Food Council's weekly COVID-19 update call. Feedback will be gathered from community residents, agencies, nonprofits and food assistance providers through the use of an online survey as well as through email and telephone. This feedback will inform the continued updating of this initial draft of the Response Strategy, as community needs change, unique new challenges and opportunities for food access are identified, and the circumstances of the pandemic evolve. It is of paramount importance that the strategies identified by the Response Strategy are initiated and implemented quickly, in order to promote job growth and economic opportunity and address root causes to ultimately reduce and eliminate food insecurity in our County.

Summary

This Food Security Response Strategy sought the input, research, and feedback of more than 115 Task Force membersTask Force members compiled over a two-week period to provide recommendations on how to **connect more food to more people** during this crisis.

While Montgomery County has an extensive food assistance distribution system, the County is facing significant increased demand for food assistance during a period of dramatically decreased supply. The capacity of the current distribution system needs to be increased to

deliver nutritious, culturally appropriate, food items and meals that represent a healthy mix of protein, produce, and shelf-stable goods.

The Montgomery County Food Security Task Force believes that the response strategies laid out in this document will help support small and Montgomery County-owned businesses and create economic opportunities that promote job retention by buying food directly from local caters, restaurants, wholesalers, and farms. The strategies will build equity in our local food system and economy, and strategically allocate resources to close gaps in services for specific populations by implementing a flexible distribution hub model, strengthening existing community partnerships, and helping guarantee the availability of culturally appropriate food assistance. These strategies maximize Federal and State dollars invested in the County food system by making sure that individuals who need food assistance and qualify for Federal or State assistance (1) know that food assistance is available, (2) know how and where to ask for help, and (3) have their requests for help acted on quickly. The strategies in this plan also work to build sustainable systems that will support short- and long-term food access needs by making investments in systems, programs, and partnerships that will last longer than this crisis.

Appendix A: Budget

Six Month Budget to Execute Food Security Strategy	
Prepared Meals	$ 33,000,000
Shelf-stable Foods and Pantry Items	$ 2,000,000
Fresh Food From Local Sources	$ 1,100,000
Victory Gardening & Community Farming	$ 150,000
SNAP Outreach	$ 55,000
Double Dollars Fund	$ 75,000
Web-based, Accessible Platform Development & Administration	$ 250,000
Distribution Hub Onboarding & Training	$ 200,000
Delivery Support	$ 720,000
Communications & Outreach	$ 3,000,000
Community Partner Coordination	$ 250,000
Community Food Resource Navigator Program	$ 250,000
Resident Survey	$ 500,000
TOTAL	$ 41,550,000

APPENDIX B: Culturally Appropriate Food Access in Montgomery County

(Begins on next page)

Culturally Appropriate Food Access in Montgomery County

Gap Analysis and Action Plan Report

Montgomery County Food Council
American University Capstone Team

Laurel Booth, Camille Bridger, Kayla Gangemi, Abhishek Patel, Michael Sprague, Lorraine Twohey-Jacobs

April 30th, 2018

Acknowledgments

The success of our project relied heavily on guidance and assistance from many partners. We not only give credit to those listed below, but also to the stakeholders who participated in our surveys. The farmers, food assistance providers, and citizens of Montgomery County did not merely generate data and guide us to the further resources; they served as steadfast reminders of the ongoing battle to claim the right to food. We are continuously inspired by their unwavering determination.

Amanda Nesher, Food Security Programs Manager, Montgomery County Food Council

Heather Bruskin, Executive Director, Montgomery County Food Council

Jenna Umbriac, Director of Programs & Policy, Manna Food Center

Food Recovery and Access Working Group (FRAWG) members, Montgomery County Food Council

Dr. Jolynn Gardner, Director of Public Health, Department of Health Studies, American University

Table of Contents

Introduction

Nutrition and prosperity are inextricably linked. As such, society attempts to ameliorate food insecurity in multiple ways: benefits programs such as the Supplemental Nutrition Assistance Program (SNAP), private charities, and civil society initiatives such as food banks. Many such food assistance programs exist in Montgomery County, Maryland. Some food security stakeholders have coordinated under the stewardship of the Montgomery County Food Council (MCFC) to form working groups and address five specific aspects of food insecurity: Food Recovery and Access, Food Economy, Food Literacy, Environmental Impact, and finally, the Food Security and Food Action plans. Included in the Food Recovery and Access Working Group's (FRAWG) objectives is to evaluate the supply and demand for culturally appropriate foods amongst foreign born populations within Montgomery County. In this endeavor MCFC partnered with a team of Public Health consultants from American University (AU), who accepted the task as part of their senior capstone, following a project proposal created by MCFC and Dr. Jolynn Gardner from AU (see Appendix A).

Methods

The capstone team conducted a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis and organizational overview of MCFC (see Appendix B). The SWOT analysis and MCFC project proposal informed the team's VMOSA (Vision, Mission, Objectives, Strategies, and Action Plan) and Logic Model (see Appendix C), which provided guidelines for the project's activities.

The capstone team conducted both primary and secondary research. Much of the primary research took place in the form of informal interviews through phone calls and surveys. Lists of questions for food assistance providers, food assistance recipients, and local grocers were created through collaboration of the capstone team and edits from Dr. Jolynn Gardner at American University and Amanda Nesher and Catherine Nardi from MCFC.

Food assistance provider contacts were provided by Amanda Nesher at MCFC and Jenna Umbriac at Manna Food Center (see Appendix D). Members of the MCFC FRAWG listserv were also contacted. Contacts responded to questions over the phone, through a Google form survey, or through Qualtrics. A total of n = 16 responses were received from providers. Questions and responses for food assistance providers are recorded in Appendix E.

Food recipient answers were collected in person through survey administration at Silver Spring Christian Reformed Church food bank. A total of n = 7 responses were collected, one in Spanish and six in English. Questions and responses for food assistance recipients are recorded in Appendix F.

Grocer contacts were identified based on the Johns Hopkins University Maryland Food System Map (see Appendix D). The capstone team took a randomly generated sample, n = 15, of the 61 groceries classified as "international foods" by the Hopkins map. Two of the businesses were closed and one was listed under an invalid number, therefore the capstone team reached out to survey 12 grocers. No grocer responses were obtained; barriers are detailed in the limitations section. Questions for grocers are recorded in Appendix G.

Simultaneously, the capstone team conducted secondary research on the population of Montgomery County. The Self Sufficiency Standard tool provided an introduction to the largest foreign born populations in the county and where the largest need (geographically) exists in the county. To gain more insight about these foreign born populations in the county, the team researched common food ingredients and recipes from the countries of origin. Additionally, the team conducted a literature review of research and strategies used to address food insecurity and culturally appropriate food access in other communities in the US. Results from the primary and secondary research were synthesized to inform our gap analysis and action plan for MCFC.

Montgomery County Demographics

Montgomery County is a geographically large and diverse county located in Maryland, adjacent to Washington, DC. The county is one of the wealthiest counties in the United States, spans across nearly 500 square miles, and has a population of over 1 million (U.S. Census Bureau 2017). However, significant barriers to food access prevail, particularly for foreign-born populations and ethnic and racial minorities.

Montgomery County is a relatively food secure area; 6-8% of the population was food insecure in 2015 (Johns Hopkins, 2018). However, one third of the population is foreign born, this population is especially vulnerable to food insecurity. Looking at the population of Montgomery County, the most common countries of origin include: El Salvador, China, and India (Montgomery County Food Security Plan, 2017).
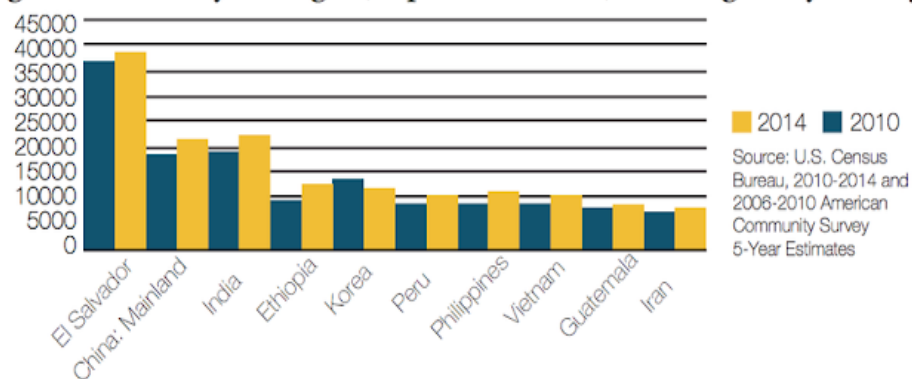
Figure 1: Foreign Born Country of Origin (Top 10 Countries) in Montgomery County for 2010 and 2014 (*Montgomery County Food Security Plan*, Montgomery County Food Council, 2017, p.14.)

The Self Sufficiency Standard is a tool developed by Montgomery County's Community Action Agency and CountyStat. This tool details the demographics of those in the county who fall below the Self Sufficiency Standard (SSS). SSS is a measurement of how much income a family needs to be able to sustain themselves with expenses, including food costs. Burden varies across different regions of the county, as well as by world area of birth (Self Sufficiency Standard, 2016). 59% of householders born in Latin America and 56% of householders born in Africa are below the SSS (Self Sufficiency Standard, 2016). Countries of origins with the highest rates of householders living below the SSS are El Salvador, Ethiopian, Peru, and the Philippines; over 40% of householders born in each of those countries are below the SSS (Self Sufficiency Standard, 2016). In certain regions of the county, these percentages are even higher. See Appendix H for graphs of percent below SSS by area of Montgomery County, World area of birth, and countries of origin.

Percent Below SSS by Top 10 Countries/Places of Origin

Country	Percent
El Salvador	74%
India	6%
China	26%
Ethiopia	64%
Korea	18%
Peru	54%
Vietnam	42%
Philippines	49%
Iran	29%
Taiwan	8%

Figure 2: Percent Below SSS by Top 10 Countries/Places of Origin in Montgomery County (*Community Action: Self-Sufficiency Standard & the Interactive Self-Sufficiency Standard*, Montgomery County Government, 2018.)
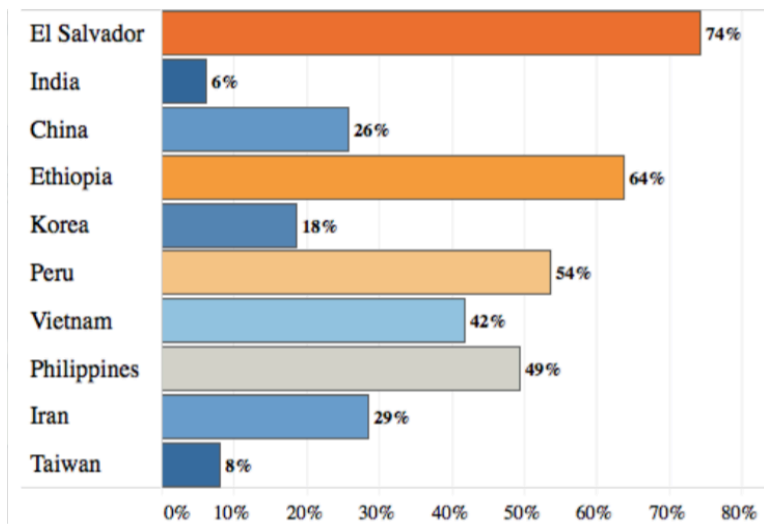
Literature Review

Vulnerability of immigrant/foreign born populations

Among food insecure populations, significant numbers who face additional barriers are foreign born. One study concluded that food insecurity rates among immigrant families can be nearly triple that of non-immigrant families (Hofferth, 2004). However, specific ratios of foreign born representation among the food insecure population vary by geographic location. A recent study of immigrant families based in San Diego, CA by Greenwald (2017) examined the difference between immigrant and non-immigrant households in terms of food insecurity. In their study, there was no significant difference in food insecurity between populations; the study found that immigrant families were more likely to use food assistance services such as SNAP and food pantry assistance than non-immigrant families. Food insecurity in immigrant families was found to continue over time. Household size and poverty level are predictors of food insecurity (Greenwald, 2017). Similarly, Anderson, *et al*., (2016) found that households with food insecure children were more likely to be recent immigrants. MCFC has recognized the need to connect with the foreign born populations to achieve its mission of providing food security to the county as a large portion of the county is foreign born (Montgomery County Food Security Plan, 2017).

Difference by culture

Different populations use various strategies to access traditional or desired foods. In a study conducted by Tang (2017), when it came to accessing traditional foods, word of mouth networking was the most efficient method noted among the target group of Eritrean mothers. The research team found that multicultural groups in the Edmonton community discussed where to buy preferred products such as organic or halal meat. Similarly, word of mouth was the marketing approach most successful in marketing East African specific food baskets to local populations (Washington Food Coalition, 2012). The Filipino population in the Tang study sought to maximize traditional food access by planting traditional foods in community gardens. The study noted these efforts to maintain traditional connection to the food but also admitted that the local Canadian options of more processed foods and inorganic meat were also blended into the diet over time (Tang, 2017). While national origin and years spent in the US were not valid predictors of food insecurity in the Greenwald study; national origin did impact dietary choices particularly in terms of fruit and vegetable intake (Greenwald, 2017). This is a natural reflection that dietary practices differ by cultural background due to traditional practices and available ingredients.

Differences in diet are also important to consider when discussing first and second generations of foreign born individuals. A 1995 study examined dietary shift between generations of Mexican-American women and found significant decline in the quality of diet (specifically a decrease in vitamins A and C, folic acid, and calcium) in the second generation. This decline is due to the adoption of a diet that resembled white non-Hispanic women, despite significant increases in education and income status (Guendelman & Abrams, 1995). Similarly, a study of Asian immigrants found that higher education level as well as greater English ability was found to increase acceptance of American diet practices. The study also noted changes in diet pre and post immigration and found an increase in cholesterol (particularly in saturated fats), a decrease in carbohydrate and fiber consumption. American diet practices such as incorporating butter and cheese may have been responsible for the fat increase, while limited access to culturally familiar noodles and bean products are expected to be responsible for the decrease in carbs and fiber. The most missed available product was fresh fish (Yang, 1996). A cross sectional analysis of Korean American Women born in both Korea and the US revealed that compared to Korean-born women, American-born women experienced increased fat intake level and lower levels of carbohydrates, vitamin C, beta-carotene, and sodium consumption.

American-born women ate less vegetables and fruits than those born in Korea (Park, 2005). This further supports evidence of dietary shifts upon immigration.

Food Profiles Research
As indicated in the Montgomery County demographics section, El Salvador, India, China, Peru, and Ethiopia make up a large percent of the foreign-born population in Montgomery County. Moreover, a high percentage of those from El Salvador, Peru, and Ethiopia live below the SSS. This suggested to the capstone team that these populations may make up a large percent of the population that food assistance providers serve. Therefore, the capstone team conducted preliminary research on common foods and diets in those countries.
- *El Salvador Food Profile:* Pupusas and tamales are the staples of El Salvadorian food. Other key ingredients in their diets include: maize, meat (pork and chicken), beans, and plantains. (Visit El Salvador, 2018)
- *India Food Profile:* Millet is the staple of diets in India. Other common foods include: rice, lentils, and a variety types of beans. (Toppa, 2015)
- *China Food Profile:* Both rice and noodles are staples of their diet. Pork, soy, and eggs are the major protein sources, while various vegetables like chinese cabbage and eggplant. (China Highlights, 2018)
- *Peru Food Profile:* Chicken, pork and fish are the main protein sources in Peru. Potatoes, maize, and beans are also cornerstones of Peruvian diets. (Dunnell, 2017)
- *Ethiopia Food Profile:* Injera, chicken, rice are major staples of Ethiopian cuisine. Cabbage and Chili Peppers are also common parts of meals. (Noll, 2017)

Barriers to food assistance
Language barriers are one of the most frequently cited limitations for participation (Greenwald, 2017; MCFC 2017). Similarly, there is a lack of knowledge around eligibility and opportunity to access services, which includes federal assistance for non-food related services as well such as health insurance and housing assistance (Altman & Becker, 2015; Greenwald, 2017). Cultural stigmas around receiving assistance can produce shame which is an additional barrier (Tang, 2017; Greenwald, 2017). Further barriers include difficulty for non-Christian recipients to utilize food access resources through religious organizations, or do pickup at churches (Greenwald, 2017). Fear about legal status is another barrier (Altman & Becker, 2015). These barriers have all been noted as barriers that continue for the target population in the Montgomery County Food Security Plan 2017 (Montgomery County Food Security Plan, 2017).

Limitations of food assistance reach
Beyond the limitations that prevent eligible populations access, food assistance providers face further limitations. Food assistance programs such as SNAP and WIC have limitations in the types and quality of foods they are able to provide; these programs provide mostly shelf stable foods, and tend to have limited fresh and healthy options (Greenwald, 2017). Among the food security programs described in the Greenwald study, food pantries were rated as least convenient and least likely to provide healthy and high quality food by survey respondents. Key informant interviews with food assistance providers suggest that the stigma of waiting in public to be served reduces utilization and satisfaction with these outlets (Greenwald, 2017). Being presented with unfamiliar foods or unfamiliar packaging are additional challenges to newcomers. Specific challenges include difficulty transitioning to using new cooking utensils (such as can openers), and transitioning from fresh to frozen produce and meats (Tang, 2017). Concerns also revolve around if the meat is halal (Greenwald, 2017).

<u>Concerns of providers</u>
Provider concerns frequently revolve around funding and sustainability, as many programs are grant based or rely on the changing political scene for funding (Greenwald, 2017; Edwards 2014). Providers also are concerned about the dietary changes seen in some populations, away from fresh foods towards processed foods of a typical American diet (Greenwald, 2017). Providers also have noted a lack of traditional foods to be a concern in establishing food security and thus have incorporated access to traditional foods into their definition of food security (Tang, 2017; Wilson, *et al*., 2016).

<u>Implementation recommendations from the literature</u>
Methods to decrease these barriers include further outreach. Community engagement helps to develop culturally appropriate interventions, in particular using culturally adapted outreach materials and language accessible materials for recruitment and retention (Bender, 2013). Connecting with specific cultural groups with high risks of food insecurity can be facilitated by identifying a community navigator; this strategy was found to be effective in a Canadian study conducted by the Edmonton Multicultural Coalition to evaluate success of their community garden program among three "ethnocultural communities" (Tang, 2017).

In a compilation of best practices among Washington State food providers, the Asian Counseling and Referral Service was noted for being particularly successful in its approach to providing culturally appropriate foods such as tofu, soy milk, ramen, fish and rice. While these are not common products in the donation stream the provider makes an effort to purchases them specifically. Additionally bilingual staff, who cover over 30 languages, and who are representative of the community serves provide this agency with an extra advantage to increase community engagement and accessibility. The agency also has adopted a client choice model to decrease the foods thrown away and better the experience of food assistance (Washington Food Coalition, 2012)

Similarly, the Lifelong AIDS Alliance provided outreach to the East African community by developing a special foods bag that includes staples of the traditional diet such as injera (flatbread) along with fruits, vegetables and proteins. The special foods bag was a success due to the partnership with local Ethiopian grocery store which helped identify and donate the culturally specific foods. Success has spread through the community via word of mouth (Washington Food Coalition, 2012).

A 2014 analysis determined trends and best practices among food distribution systems and was conducted to guide philanthropic investment in North Carolina. By researching four food banks in North Carolina, one in Georgia, one in Maryland, one in Minnesota and two in New York, key areas of need were identified in order as: financial support, quantity of food and cold storage. Additionally, barriers included: recruitment and coordination of volunteers, fundraising assistance, transportation of food, need for equipment and facilities, staff and volunteer training and development, technology, engagement of the board members, quality of foods, coordination and connectivity of programs, navigating rules and regulations (Edwards, 2014).

General best practices were identified, those that pertain to this project's mission are: Enhance coordination through geographic zoning. Increase the amount of fresh foods and proteins received and distributed by increasing farmer and farmers market partnerships. Facilitate client choice pantries. Develop mobile food pantries to reach out to hard to serve populations. Encourage cash donations to purchase the needed and desired foods (Edwards, 2014). Some of the practices are already in process amongst the MCFC partners such as Manna Food Center.

Further Recommendations Specific to this Project from the Edwards study include:
- Develop positive relationships with grocery chains and large corporate chains to donate goods. In addition, build relationships with trucking companies. (Second Harvest Food Bank of Metrolina; Charlotte NC)
- Have Food Banks partner closely with Food Pantries to increase community engagement and cultural competency. Local community members may be pathways to future donors. (Food Bank of Central and Eastern North Carolina; Raleigh, NC)
- Engage with the community by facilitating culinary training programs and community kitchens, as this is a way to promote food access, nutrition and share skills. (Inter-Faith Food Shuttle; Raleigh, NC)
- Expand capacity to receive fresh foods as they are more popular in grocery stores and will likely be donated at higher rates. (Second Harvest of South Georgia; Valdosta, GA)
- Engage the community and make food more accessible to recipients from different cultures by offering cooking demonstrations. (Maryland Food Bank; Baltimore, MD)

Research Recommendations

Groups of leading organizations and concerned citizens tackling food insecurity work together to implement community food security strategies. Community food security extends beyond access to affordable foods to include safe, nutritious, and culturally appropriate foods (Wilson, *et al.*, 2016). Many of the research methods employed by other counties include surveys, key informant interviews and Geographical Information System (GIS) mapping.

When collecting data on residents' access to food, previous research strategies involved surveying individuals at several locations throughout neighborhood, including senior centers, community association meetings, WIC sites, and other popular areas (Smith, *et al.*, 2009). Researchers performed key informant interviews with emergency food assistance agencies, including regional food banks, local pantries, school gardens, mobile markets, and food cooperatives, on their knowledge of recipients' food preferences, access to healthy, culturally appropriate and affordable food, among other key topics (Wilson, *et al.*, 2016). In addition, food and hunger committee stakeholders were contacted regarding research on community food security, through semi-structured interviews or surveys (Wilson, *et al.*, 2016). Research methods have also involved surveying consumers at grocery stores and other various food providers on food preferences, access, and affordability (Jackson and Union County, 2011). Finally, researchers also interviewed food assistance recipients regarding their food shopping habits, food consumption habits, transportation methods, and access to cooking and storage facilities (Jackson and Union County, 2011).

When identifying and researching food suppliers, previous studies have employed research methods including GIS mapping of food deserts (Luke, 2015) and food providers/retailers (Grauel & Chambers, 2014). Researchers often followed up on GIS mapping by canvassing streets to identity food stores by site (Smith, *et al.*, 2009). Researchers asked residents during data collection of any nearby food stores. This instance of community engagement is important in truly understanding and addressing the assets and needs found within communities. Finally, researchers surveyed grocery store managers in order to understand consumers' access to food and any perceived barriers (Jackson and Union County, 2011).

Additional Research Resources

The Community Food Assessment (CFA) conducted by the Jackson and Union County CFA Team provided a good example of a survey tool for consumers/recipients and a survey tool for grocery store managers (Jackson and Union County, 2011). The survey may act as a template for future research on food assistance providers' knowledge of and recipients' access to culturally appropriate food. Furthermore, many research methods found in the literature were based off the U.S. Department of Agriculture's Community Food Security Assessment (CFSA) toolkit (Cohen, *et al*., 2002). The USDA CFSA includes guides for profiling community food resources and materials for assessing community food security, including household food security, food resource accessibility, food availability and affordability, and community food production resources. This appeared to be the foundational "gold standard" for community food security research methods. Depending on the scope and focus of future studies, combinations of these research strategies may be employed to gain the appropriate data needed.

Survey and Interview Findings

Food Assistance Providers Survey Results

The capstone team created a survey to be administered to food assistance providers in Montgomery County. Respondents to the survey play a variety of roles in food assistance provision in Montgomery County. Most of the organizations have a food pantry open once a month or on a weekly basis. The food pantries were either mobile or stationary. Many organizations said they engage with the community to learn about their food needs. Some of the other respondents were not traditional food assistances providers, such as the Maryland National Capital Park and Planning Commission, which provides public land and park space for people to grow their own food, and the Montgomery Department of Health and Human Services, which provides grants to non-profit organizations to do food recovery and provide food assistance to community members dealing with food insecurity.

Questions in the survey asked about: the providers' experiences providing food, including culturally appropriate foods; the barriers providers faced in accessing and distributing foods; providers' perspectives on food assistance recipients' desires for culturally appropriate foods and barriers to access; and providers' knowledge of the foreign born people within their food assistance recipient population.

Seven of the sixteen questions were highlighted for further analysis and are presented below. The complete survey and answers for food assistance providers can be found in Appendix E.

Question 5: What barriers do your clients encounter in accessing culturally appropriate food?
- ❖ Many providers listed clients' lack of financial resources as a barrier to accessing culturally appropriate food.
- ❖ Providers also noted distance to markets that carry cultural foods and limited means of transportation as barriers.
- ❖ Some providers noted that when foods are donated, the donors often do not account for culturally appropriate food.

Question 6: What are the most common (3-5) foreign-born populations that you serve?
- ❖ *South and Central America (17)*: Hispanic, not specified (5), Latino, not specified (4), Guatemala (2), El Salvador (2), Caribbean (2), Central America (1), Haiti (1)
- ❖ *Asia (11):* Asian, not specified (3), Vietnamese (3), Chinese (3), Pacific Islands (1), Korea (1)
- ❖ *Africa (8):* African, not specified (6), African American (1), Ethiopia (1)
- ❖ *Europe (2):* Romanian (1), Caucasian, not specified (1)
- ❖ *Middle East (2):* Middle East, not specified (1), Kosher (1)
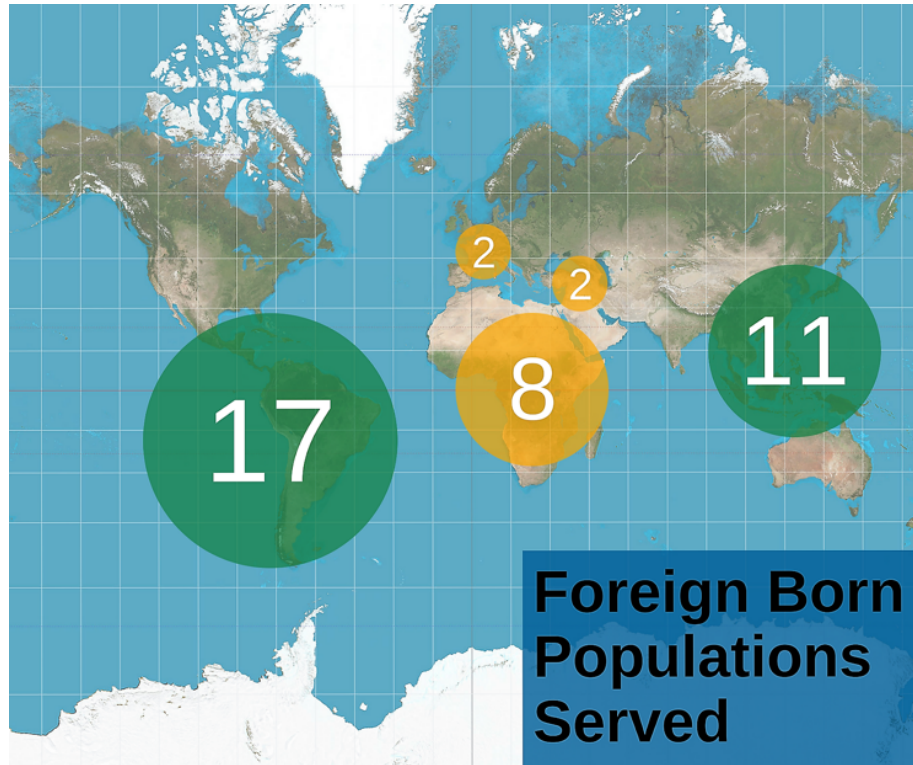
Figure 3: Most Common Foreign Born Populations as Indicated by Food Assistance Providers in Montgomery County from Survey Results for Question 6

Question 7: What percentage of your clients are foreign born?
  ❖ Percentages ranged from 35%-70%

Question 9: What types of food are in highest demand? (In order of highest demand).
  ❖ *Fresh fruits (8):* Fresh fruit, not specified (7), watermelon (1)
  ❖ *Vegetables (10):* Vegetables, not specified (6), tomatoes (2), onions (1), potatoes (1)
  ❖ *Cereal Grain (13):* White rice (5), beans (3), corn (2), cereal (2), white bread (1)
  ❖ *Meat and Fish (6):* Meat, not specified (4), fish, not specified (1), sardines (1)
  ❖ *Dairy (2):* Dairy Products, not specified (1), Milk (1)
  ❖ Peanut Butter (2)
  ❖ Silverware (1)
  ❖ Bottled Water (1)
  ❖ Frozen Meals (1)
  ❖ Pupusas (1)
  ❖ Cooking oil (1)

Figure 4: Most Demanded Foods as Indicated by Food Assistance Providers in Montgomery County from Survey Results for Question 7.

Question 10: What types of traditional/cultural foods are in highest demand? (In order of highest demand).

- ❖ *Fresh fruits (3):* Fresh fruit, not specified (2), jackfruit (1)
- ❖ *Vegetables (6):* Fresh vegetables, not specified (2), greens (1), sweet potato (1), onions (1), corn leaves (1)
- ❖ *Grain (11):* Rice (4), corn (2), beans (2), specialty breads (1), massa flour (1), chipilin (1)
- ❖ Pupusas (1)
- ❖ Lamb (1)
- ❖ Ensure (1)
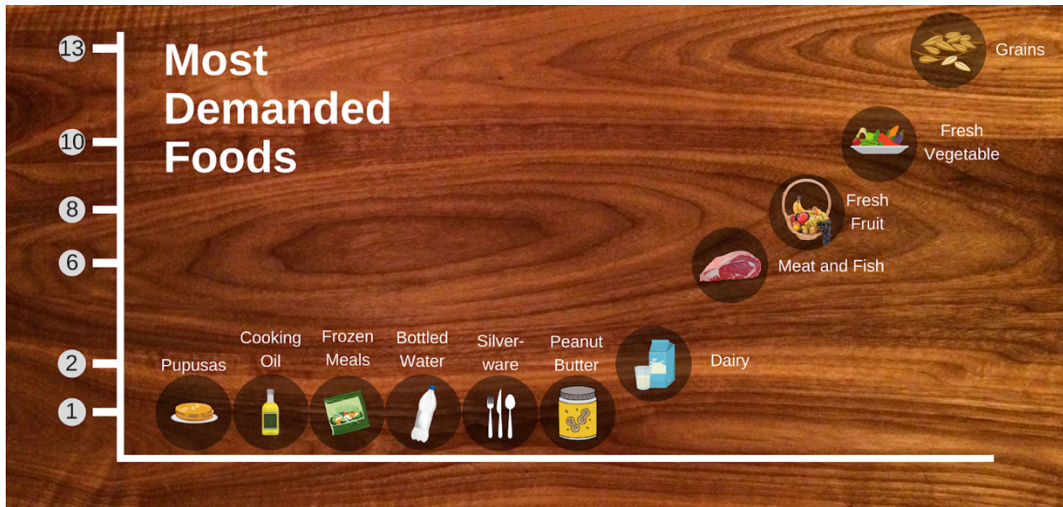- ❖ Cooking Oil (1)
- ❖ Baby formula (1)

Figure 5: Most Demanded Traditional/Cultural Foods as Indicated by Food Assistance Providers in Montgomery County from Survey Results for Question 7.

Question 11: Are some foods requested, but not easy for your organization to obtain?
- ❖ Meats
- ❖ Tropical fruits/ fresh fruits and vegetables
- ❖ White rice
- ❖ Dried beans

Question 14: What are the barriers you experience in accessing, storing, and distributing culturally appropriate foods?
- ❖ Financial: lack of funding/cost of food
- ❖ Lack of storage

As evidenced by figures 4 and 5, there is large overlap between food assistance providers' most demanded foods and most demanded cultural foods. Moreover, food assistance providers indicated that high demand items from both of these lists prove difficult to obtain.

Overall, some of the biggest barriers for providers included financial issues, i.e. being unable to afford certain foods that their clients might request, a lack of storage (specifically refrigeration and shelving space). In addition, providers that relied on donations often found that donated foods did not meet the preferences or requests of their clients. These findings are consistent with previous literature on food assistance providers' challenges.

To mitigate some of the stigma surrounding seeking food assistance, one provider suggested congregate meals as an opportunity to engage with the community and promote access to culturally appropriate foods.

Food Assistance Recipients Survey Results
The food profile of some of the most common countries of origin in the county provided the capstone team with information on what culturally appropriate food is wanted in the county. To supplement this research, the capstone team conducted in-person interviews with food assistance recipients at Silver Spring Christian Reformed Church (SSCRC) food pantry. SSCRC food pantry currently opens once a month and relies on donations (from Capital Area Food Bank, and Manna Food Bank), and small grants to obtain the items they offer. All of the results recorded were from participants born outside of the United States. Questions in the survey were informed by secondary research, and asked about: identity; food consumption habits; food preferences; access to food retailers/providers; and barriers to accessing culturally-appropriate food in particular.

Eight of the twelve questions were highlighted for further analysis and are presented below. The complete survey and answers for food assistance recipients can be found in Appendix F.

Question 1: Where were you born?
- ❖ Africa (Nigeria) (3)
- ❖ Africa (Cameroon) (2)
- ❖ Africa (Sierra Leone)
- ❖ Central America (Guatemala)

Question 4: What food do you eat most often?
- ❖ Rice (3)
- ❖ Chicken (2)
- ❖ Fish

- ❖ Cornmeal
- ❖ Beans (dried) (2)
- ❖ Fruits (bananas, oranges, lemons, etc.)
- ❖ Cassava leaf
- ❖ Plantains
- ❖ Macaroni and Cheese
- ❖ Vegetables (broccoli, cauliflower, corn, potatoes, etc.)

Question 5: Where do you normally go to purchase or receive groceries?
- ❖ The local grocery store (3)
- ❖ Silver Spring Christian Reformed Church food pantry (4)
- ❖ Red Apple Farmers Market (Takoma Park, Maryland)
- ❖ La Mart (Silver Spring, Maryland)
- ❖ Giant Food
- ❖ H-Mart
- ❖ Other local food pantries

Question 6: Does one or more of these locations meet your cultural/traditional food preferences?
- ❖ Yes (4)
- ❖ Somewhat (2)
- ❖ No (1)

Question 7: How long does it take you to travel where you normally purchase/receive food?
- ❖ Less than 30 minutes (3)

Question 8: Do you travel to another location for cultural/traditional foods? What is the name of this location?
- ❖ The local grocery store(s) (2)
- ❖ Red Apple Farmers Market (Takoma Park, Maryland)
- ❖ La Mart (Silver Spring, Maryland)
- ❖ H Mart (various locations, Maryland)

Question 9: If you travel to another for cultural/traditional foods, how long does it take you to get there?
- ❖ Less than 30 minutes (3)

Question 10: Are there any traditional/cultural foods that you want that are difficult for you to get? Which ones?
- ❖ Rice
- ❖ Chicken
- ❖ Meat
- ❖ Fish
- ❖ Eggs
- ❖ Milk
- ❖ Beans (dried)
- ❖ Black eyed beans
- ❖ Red palm oil
- ❖ Corn meal
- ❖ Asian foods
- ❖ Salt

Many of the foods that recipients indicated as difficult to obtain are generally considered to be staples. These foods are common across multiple foreign-born populations. Moreover, these findings mirror the foods indicated as most in demand as determined by providers.

Recipients also mentioned a necessity for foods that may be considered more unique to specific cultures, including:
- ❖ Corn meal
- ❖ Plantains
- ❖ Black eye beans
- ❖ Red Palm oil
- ❖ Cassava leaves
- ❖ Asian foods

When asked about recipients' travel time to where they obtain regular groceries and cultural/traditional foods, all indicated travel time was less than 30 minutes. However, only three responses were gathered.

Gap Analysis

This gap analysis looks at the population of Montgomery County Maryland and considers the access to culturally appropriate foods, specifically for food insecure individuals and communities. In order for the gap of resources/opportunities to be determined, the capstone team looked at what is currently wanted by the community and what is currently available in the community. The gap analysis thus, looks at the 'gap' between what is wanted and what is available in the county.

What is Wanted
As previously discussed in survey results, there are various foods that appear to be in greatest demand from foreign-born food assistance recipients. Many of these foods can be considered staple foods/ingredients in many cultures. Based on survey results from food assistance providers and recipients, foods in greatest demand from these populations include rice, beans, fruit, vegetables, corn meal, meat, chicken, fish, eggs, fresh milk, salt and cooking oil.

It is important to note that according to the survey results from food assistance providers and recipients, fresh foods were in higher demand than canned foods but were less available at locations where recipients go to purchase or receive food. These requests were made for produce the majority of the time (fruits and vegetables). However, it is interpreted that fresh meat, chicken, fish and eggs would be preferred to processed varieties of these foods as well.

Additionally, many survey responses reported that specific kinds of food items are often in short supply or not made available at food assistance sites. These foods are: white rice, dried beans, tropical fruits (e.g. jackfruit) and vegetables, cornmeal and masa flour (to make pupusas, etc.).

What is Available
Looking at the common foods in the major cultures represented in Montgomery County, and the responses from food bank recipients, many of the foods requested are widely available in stores. Particularly staple foods that the recipients mentioned as culturally appropriate, such as salt, meat, and cooking oil. Some of the rare culturally appropriate foods listed are available at smaller international food stores, and even some at large grocery stores. There are 61 grocery stores in the county that are labeled as selling 'international food.' according to the Johns Hopkins University Maryland Food System Map. These stores are where many of the foods listed could be purchased. The capstone team found through a food recipient interview that palm oil was very rarely available, even in international grocery stores.

With many of these foods being sold in stores in the county, the issue appears not to be necessarily having or finding the foods the recipients want, but having it available in a convenient and affordable location. The food banks in the area struggle to get access to the culturally appropriate food for their recipients, despite the foods being sold nearby.

Another way culturally appropriate foods can be available in the county is through congregate meals. The Montgomery County Senior Nutrition Program provides funding for congregate meals for seniors in the county. In one interview that the capstone team conducted, the program manager said that the groups that apply for the congregate meals are ethnic groups, and that they purchase meals from local culturally appropriate restaurants for their communities. The groups who have used this funding include: Korean, Chinese, Kosher, and Vietnamese.

What is Wanted but not Available

There are gaps between what is wanted and what is currently available and accessible to food insecure communities in Montgomery County. The biggest gap appears to be the lack of access to foods that are staple foods/ingredients in many cultures. While white rice, poultry, fish, meat, eggs, and salt may not be what comes to mind as culturally appropriate food, from our research these are the types of foods that are the most in demand across many different cultures. Also, a variety of fresh fruits and vegetables are consistently listed by food assistance providers as highly demanded but low in availability. Securing these staples for food pantries and other affordable platforms would fill a major gap in this situation.

Another gap is finding ways for food pantries to have access to the more unique requests for food recipients. Foods like palm oil, jackfruit, and cassava leaves seem to be impossible for many in the community to get at all. Finding ways to secure these types of items as often as possible, even if it is just occasionally would be a big improvement. It seems that getting a hold of these items is very challenging for food banks, which is why once they can get access to these items, they should be given distributed strategically, possibly to choice pantries where they will go to only those who truly want them.

Why these are not Available

Significant barriers exist, which explain some of the gaps in food access that are prevalent in Montgomery County. As presented by food assistance recipients who participated in the survey, often times individuals must travel to more than one location to attain culturally appropriate foods. As noted by food assistance providers, lack of funds to be able to store dry staple foods or afford refrigeration of fruits and vegetables may prevent providers from being able to offer foods highest in demand. Moreover, food assistance providers rely on donors, who do not always have the foods most in demand. This may be particularly relevant for more unique cultural foods that may be in high demand in some locations but not others. Plans to mitigate these barriers and others are included in the Action Plan on page 24.

Limitations

As described in our Methods section, this endeavor was based in primary and secondary research. The limitations incurred by the survey component of this phase are addressed here in order to inform future efforts.

Food Assistance Provider Survey Limitations
The survey that was administered to food assistance providers (e.g. county food banks, and public agencies) produced a sample size of 14 respondents. Of the 16 questions asked by the survey for food assistance providers, seven questions did not produce a response from at least one participant. Certain questions asked were not relevant to the stakeholders participating which accounts for some of the non-response.

In addition, although the survey was sent to 26 food assistance organizations and the entire FRAWG listserv, only 13 responses occurred. There were some difficulties for some in accessing the initial format of the survey, which was a Google Survey. The survey was converted to Qualtrics, which the capstone team thought would warrant many more responses, but only seven came in within our collection period. The lack of response may have been due to "survey fatigue", a term used to describe exhaustion experienced by many food assistance providers who have been asked to respondent to a multitude of surveys. Many of the food assistance providers receive surveys from various other organizations and groups which can be taxing and lead to issues with the quality and quantity of responses. Additionally, the initial provider survey may have been too long. In the future, a shorter, more concise survey may help reduce survey fatigue.

Many organizations seemed eager to participate, but often wanted the capstone team to visit the food assistance location. Due to scheduling and transportation conflicts on all parts, it was difficult for such visits to occur. In the future, face-to-face encounters and visits with food assistance providers may lead to better quality responses and more responses from various organizations.

Finally, due to many of the blank responses on many of the questions in the survey, it is possible that the capstone team did not reach out to the most appropriate sources. Certain survey participants may not have felt knowledgeable on all of the subjects asked about. While it is important to gain diverse perspectives on the issue from a variety of partners, the areas of overlap on these perspectives may be small. Additional research and networking to appropriate respondents may be necessary.

Based on recipients and provider responses about access to culturally appropriate foods, it was noted that many staple foods (such as many of the foods mentioned that recipients wanted: fresh fruits, vegetables, meat, chicken, beans, rice, etc.) are found in many different cultures. It may be important to expand the focus of future surveys, and when asking about preferred foods follow up with specific fruits and vegetables.

The new survey aims to address the issues encountered in the initial provider survey.

Food Assistance Recipient Survey Limitations
The partnership with MCFC facilitated direct survey distribution to food assistance providers. However, MCFC has less direct contact with food assistance recipients which may have contributed to our low number of responses.

Achieving comprehensive responses from both food assistance recipients and providers proved challenging as the team faced time-constraints. With regard to food assistance sites, due to the fact that many food pantries are seldom open (i.e. once a month), the number of opportunities for information-collection from recipients was minimal. Thus, a lack of resources preventing food pantries from being open on a more frequent basis was also identified as a limitation to informing our gap analysis, as well as the food-insecure residents of Montgomery County.

The survey for food assistance recipients was administered in-person at the Silver Spring Christian Reformed Church food bank on two occasions. In total, this survey produced a sample size of seven respondents. This survey was administered in English or Spanish when appropriate. Of the twelve questions asked by the survey for food assistance recipients, eight questions did not produce a response from at least one participant. The survey was modified once within this time, and some questions were subsequent to questions preceding, which accounts for a portion of the non-response.

Perhaps, an alternative method to obtain insight from food assistance recipients in the future would be more effective. However, we suggest that the method with which information is obtained from food assistance providers and recipients be as consistent as possible. With regard to limitations of administering surveys in-person and verbally, language-barriers should be expected.
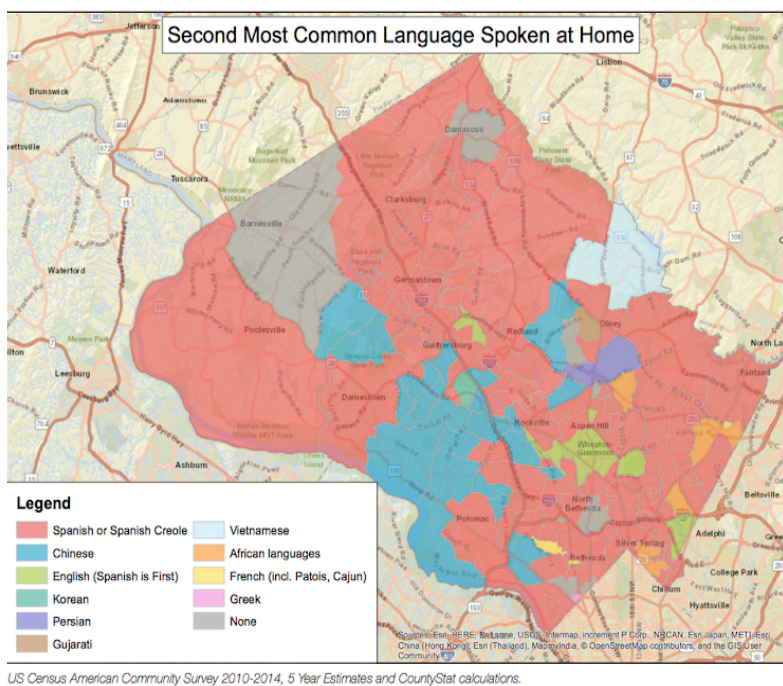
Figure 6: Second Most Common Language Spoken at Home for Residents of Montgomery County (*Montgomery County Food Security Plan*, Montgomery County Food Council, 2017, p.13.)

Finally, the administration of the survey to a population unfamiliar to the administrators was limiting. A result of this mutual lack of familiarity and trust between surveyor and those surveyed was that respondents were reluctant to answer questions. An important factor which may have contributed to this limitation is the nature of questions asked. For example, question 11 from the food assistance recipient survey (are there any other barriers you've experienced in assessing culturally appropriate foods?) was adapted for the new survey tool in response to observed

hesitation towards discussing individuals' personal experiences with food insecurity. Moreover, for future methods it may be more effective to have food assistance providers, and/or on-site volunteers conduct this inquiry.

The new survey aims to address the issues encountered in the initial recipient survey.

<u>Grocer Limitations</u>
The capstone team faced significant difficulty engaging our sample of grocers. Difficulty in accessing this population was also mentioned as a challenge among food assistance providers. It is likely these limitations occur because grocery stores are busy areas and management is restricted in their availability to meet with researchers. Additionally, store employees may be concerned about the legality of meeting with food assistance providers. Finally, language differences continue to be a possible barrier, and care should be taken to have bilingual translators administering surveys. Similar to food assistance providers, grocers may also present survey fatigue.

Action Plan

The action plan below synthesizes information from the capstone team's literature review, survey and interview findings, gap analysis, and limitations; the plan recommends actionable items for MCFC to follow in order to mitigate barriers to culturally appropriate food access, improve research strategies, and connect with both food assistance providers and recipients. When appropriate, the plan references sections from MCFC's 5 Year Security Plan (2017) recommendations for Years 1-3.

Strategy 1 - Engaging Providers	Corresponding FYSP Recommendation
Recommendation 1.1 - Further research on food assistance providers • Administer the new survey to expand knowledge on barriers to obtaining culturally appropriate foods. Identify foods in highest demand. Identify existing best practices and suggestions for improvement from the perspective of food assistance providers. • Prioritize in-person meetings with food assistance providers and grocers when possible. • To maximize partner responses, administer the survey to all MCFC FRAWG and other working groups members during meetings.	
Recommendation 1.2 - Improve storage capacity for both shelf stable and fresh foods • Concerns of the Montgomery County food insecure population mirror concerns found in the literature surrounding access to fresh fruits, vegetables, and meats; to meet demand, expand refrigeration/freezer access for food assistance providers. • Consider partnerships to increase storage opportunities; partnerships with universities, refrigeration vendors, and the hospitality industry may result in donations of excess fridges and freezers. • The demand for shelf stable foods (rice and beans) indicate further need for storage spaces for these bulk products.	5.1: Strengthen Food Assistance Infrastructure
Recommendation 1.3 - Increase quantity of both shelf stable and fresh foods through connections with grocers and farmers in Montgomery County • Strategize ways to increase accessibility and patronage of international/small grocery stores through promotion of stores that accept food assistance benefit programs (ex. SNAP).	7.2: Retail Food Businesses 12.2: Increase Availability of Locally Produced Fruits, Vegetables, & Meats

• Reach out to grocers in person with multilingual survey tools; translate the survey into additional languages as needed. • Encourage equitable distribution of healthy, fresh foods through improved communication and transportation networks with regional farmers. • Strategize with providers and MCFC working group members on best practices for obtaining more shelf stable foods that are most in demand as determined by providers and recipients. • Set aside funds to purchase difficult to obtain, culturally traditional foods as determined by best practices found in the literature.	
Recommendation 1.4 - Mitigate transportation barriers • While our recipient survey results did not indicate transportation as a significant barrier, the limited sample size and contradictory literature and findings of the FSYP indicate continued need for expanded transportation services. • Consider feasibility and expansion of mobile food distribution systems to impact isolated communities.	10.2: Invest in New Transportation Resources and Access Programs
Strategy 2 - Engaging Recipients	
Recommendation 2.1 - Further research on food assistance recipients • Administer survey included in next section. • Engage community members themselves and food assistance providers in distributing the survey; better to come from volunteers than "bureaucracy of MCFC", may reduce stigma, improve trust, decrease language barrier, and in turn increase responses. • Gain information on where (geographically) different populations have the most need in order to provide those specific pantries with those foods so that waste is reduced (also related to GIS mapping).	3.1: Increase Education and Outreach Mechanisms
Recommendation 2.2 - Expand community engagement strategies • Encourage community centers and food assistance providers to host congregate meals to increase access culturally appropriate meals; this may benefit recipients by fostering a sense of community within and between ethnic groups. • Promote the cultivation of traditional foods in existing community food gardens to empower residents to meet their own needs and build community within and between ethnic groups.	8.2: Enhanced Communication Strategies for Connecting with Food Insecure Residents & Support Providers 11.2: Increase Outreach Network & Capacity

• Create a community advisory board of food assistance recipients and cultural community organization representatives.
  ○ Promote a dialogue between recipients and providers about prioritizing what foods are most needed and the feasibility of obtaining these items.
  ○ Use community knowledge of local resources to engage previously unknown existing traditional food providers in donation of traditional foods.
  ○ Promote sharing of recipes that blend available products and traditional cooking practices and flavors.
	12.1: Increased Home & Community Gardening Opportunities

Strategy 3 - Strengthening Partnerships and Communication within FRAWG	

Recommendation 3.1 - Maximize use of existing data tools
• Synthesize data from the tools below to aid in the creation of strategies to reduce food insecurity.
  ○ Johns Hopkins University Maryland Food System Map: includes research on supermarkets, local markets, farmers markets, and international food stores in the county.
  ○ The FoodStat tool: includes information on population distribution, public transportation routes, the number of children on free and reduced meals, the number of elderly people who are food insecure, and the locations of grocery stores and restaurants.
	1.2: Create County FoodStat for Data Collection and Annual Updating

Recommendation 3.2 - Facilitate clearer data collection and sharing procedures • Share existing datasets between providers in a centralized location (such as a Google drive file); this may reduce survey fatigue among food assistance providers. • Announce emerging research projects (specifically surveys and recipients interviews) to MCFC working group members; this may reduce redundancy among research projects conducted and reduce survey fatigue among food recipients. • Explore options for data presentation in GIS format; identify geographic areas where the greatest need for certain items exists. ○ Allow GIS mapping to inform recommendations for redistribution of culturally appropriate foods to high demand areas.	8.1: Centralize Data Sharing and Collection

Strategy 4 - Redefining "Culturally Appropriate Food Access"	
Recommendation 4.1 - Prioritize access to foods that are requested across many foreign born populations. • Interviews revealed many 'culturally specific' items requested by both providers and recipients. Moreover, there was significant overlap among items requested across different foreign born populations (i.e. rice and beans and fresh produce). • Maximize benefit to many foreign born populations through provision of commonly needed items such as fresh fruits, vegetables, and shelf stable foods; follow recommendations in strategies 1 and 2.	12.2: Increase Availability of Locally Produced Fruits, Vegetables & Meats
Recommendation 4.2 - Work to meet culture-specific food needs • Use GIS mapping, recipient research, and census tract demographic information to locate areas of food insecure foreign born populations who share demands for culturally specific foods. ○ Recognize that different locations have different needs. • Partner with farmers, international grocers, and foreign born community leaders to provide these foods to areas with high demand for specific food products.	12.3: Increased Production of Culturally Diverse Crops 3.4: Increase Availability of Culturally Appropriate Food Assistance

Recommendation 4.3 - Broaden the "culturally appropriate" message
• Expect and accommodate dietary diversity. The interviews conducted by this project found that recipients eat and want a variety of foods both from their cultural background, but also foods from the standard American diet and other cultures' cuisines. Dietary diversity should be expected due to acculturation and the availability of affordable ingredients.
    ○ Provide cooking demonstrations using a variety of traditional flavors or dishes to increase community knowledge about how to use ingredients.
    ○ Provide simple recipe booklets that offer multiple recipes that use the same ingredients, prepared differently; could reduce waste, increase familiarity with certain food items, and promote diversification of diet practices.
    ○ Support congregate meals, which may provide further platforms for food assistance recipients to eat traditional foods as well as try new foods.
• Consider using terms alternative to "culturally appropriate foods" when marketing to foreign born populations. "Traditional cultural foods" may be a less prescriptive term.
	3.4: Increase Availability of Culturally Appropriate Food Assistance

Strategy 5 - Funding strategies	
• Dedicate intended expense outlook funds allocated from FYSP (pg. 157 & 148) for 'Culturally Appropriate Foods' to achieve strategies 1-4. • Include this report and subsequent findings from suggested research as a justification for seeking additional funding via grant applications, local government funding, and partnerships with private foundations.	4.1: Strengthen Grant making Processes: County and Private Foundations

New Survey Tools

Below are two survey tools designed and modified from the previous surveys indicated in Appendices E and F. These surveys are intended to be distributed to food recovery providers and recipients in Montgomery County through paper format or phone calls. They can also be put into online survey software such as Google Forms, Qualtrics, or Survey Monkey.

<u>Survey for Providers</u>

1.   Email Address: _____

2.   Name of Organization: _____

3.   Describe your organization's efforts in providing access to foods in Montgomery County:

_____
_____

4.   Do you make any specific efforts or have any experience in providing *culturally appropriate foods*? _____

_____
_____

5.   What barriers do your clients encounter in accessing food in general? _____

_____
_____

6.   What barriers do your clients encounter in accessing *culturally appropriate foods*?
_____

_____

7.   What are the most common (3-5) foreign born populations that you serve? (Please try to be as specific as possible, for instance, provide country of origin)
_____
_____

8.   What percentage (approximately) of your clients are foreign born? _____
_____

9.   What types of food are in highest demand? _____

_____
_____

10.   What types of traditional/cultural foods are in highest demand? _____

_____

_____

11.	Are some foods requested, but not easy for your organization to obtain? Please name them. _____

_____
_____

12.	What foods would you like to be able to offer in greater quantities? _____

_____
_____

13.	What are the barriers you experience in accessing, storing, and distributing culturally appropriate foods? _____

_____
_____

14.	Would you be interested in partnering with Montgomery County Food Council to work on ensuring foreign born populations have access to culturally appropriate foods?

_____

_____

15.	Is there any additional information relevant to this topic that you would like to provide?

_____

_____

<u>Survey for Recipients (English)</u>

1.   Where were you born? _____

2.   Do you identify with a country or culture outside of the United States?

                 Yes   No

- *If yes [name a country or culture]:*

    - _____
    - _____

3.   Please list specific foods within each category that are normally included in your diet (*If you do not normally consume foods within a category, you may leave it blank*):

- Red Meat (example: beef)

    1. _____
    2. _____

- White Meat (example: chicken)

    1. _____
    2. _____

- Fish (example: trout)

    1. _____
    2. _____

- Vegetables (example: collard greens)

    1. _____
    2. _____

- Fruits (example: pineapple)

    1. _____
    2. _____

- Grains (example: white rice)

    1. _____
    2. _____

- Legumes/Beans (example: lentils)

    1. _____

2. _____

    o   Oils (example: olive oil)

1. _____

2. _____

    o   Herbs/Spices (example: cilantro)

1. _____

2. _____

    o   Others

1. _____

2. _____

4.   How often do you eat traditional foods that come from this culture or country outside of the US? (1-2 times a week, 3-4 times a week, every day) _____

_____
_____

5.   Where do you normally go to purchase or receive groceries? _____

_____

1. Does one or more of these locations meet your cultural/traditional food preferences? (None, At least one, More than one, All) _____

6.   How long does it take you to travel where you normally purchase/receive food? (Less than 30 minutes, Approximately 1 hour, Approximately 2 hours, More than 2 hours)

_____
_____

7.   Do you travel to another location for cultural/traditional foods?

          Yes   No

    o   *If yes*:

i.   What is the name of this location? _____

ii.   How long does it take you to get there? _____

8.   Are there any traditional/cultural foods that you want that are difficult for you to get?

Yes   No

o   If yes: Please list specific foods within each category that are difficult for you to get
(If you do not have difficulty finding foods within a category, you may leave it blank):

1. Red Meat (example: beef)

    ▪   _____

2. White Meat (example: chicken)

    ▪   _____

3. Seafood (example: trout)

    ▪   _____

4. Vegetables (example: collard greens)

    ▪   _____

5. Fruits (example: pineapple)

    ▪   _____

6. Grains (example: white rice)

    ▪   _____

7. Legumes/Beans (example: lentils)

    ▪   _____

8. Oils (example: olive oil)

    ▪   _____

9. Herbs/Spices (example: cilantro)

    ▪   _____

10. Others

    ▪   _____

9.	Which food assistance programs have you or your family used in the past year (*check all that apply)?*

- ☐ None
- ☐ Food Pantry
- ☐ WIC
- ☐ SNAP/Food Stamps
- ☐ Free and reduced price meal programs (FARMS) (National School Lunch Program, Maryland Meals for Achievement Program, MCPS Summer Food Service Program, etc.)
- ☐ Child and Adult Care Food Program (CACFP)
- ☐ Farmers' Market Nutrition Program (FMNP)
- ☐ The Emergency Food Assistance Program (TEFAP)
- ☐ Senior Brown Bag Program
- ☐ Senior Nutrition Program (Congregate Meals, Meals on Wheels, etc.)
- ☐ Other: _____
- ☐ I don't know

10.	Is there any other information you'd like to share?

Survey for Recipients (Spanish)

1. ¿Dónde nació usted? _____

2. ¿Usted se identifique con algún país o cultura afuera de los Estados Unidos?
   Sí   No
   1. Si su respuesta fue afirmativa:
       1. ¿Cual país o cultura (o múltiple)?
       2. _____

3. Por favor, indique los alimentos específicos dentro de los siguentes categorías que normalmente están incluidos en su dieta (*si no consuma ningún alimento dentro de alguna categoría, puede dejarlo en blanco*):

a.   Carne roja (ejemplo: res)
                1. _____
                2. _____
b.   Carne blanca' (ejemplo: pollo)
                1. _____
                2. _____
c.   Pescado/Mariscos (ejemplo: trucha)
                1. _____
                2. _____
d.   Verduras (ejemplo: col rizada)
                1. _____
                2. _____
e.   Frutas (ejemplo: piña)
                1. _____
                2. _____
f.   Granos (ejemplo: arroz blanca)
                1. _____
                2. _____
g.   Legumbres/Frijoles (ejemplo: lentejas)
                1. _____
                2. _____
h.   Aceites (ejemplo: aceite de oliva)
                1. _____
                2. _____
i.   Hierbas/Especies (ejemplo: cilantro)
                1. _____
                2. _____
j.   Otros
                1. _____
                2. _____

4. ¿Con qué frecuencia come comida tradicional de su país o cultura afuera de los Estados Unidos? (1-2 veces por semana, 3-4 veces por semana, diariamente) _____
_____
_____

5.	¿Donde se va usted para comprar o recibir alimentación?_____
_____
_____

1.	¿Esto(s) lugare(s) cumple(n) con sus preferencias culturales/tradicionales para la comida? (ninguno, por lo menos uno, más que uno, todos)
_____
_____

6.	¿Cuánto tiempo tome usted para llegar donde normalmente compra/recibe comida? (menos que 30 mins., aproximadamente 1 hora, aproximadamente 2 horas, más que 2 horas)_____
_____

7.	¿Usted se vaya a algún otro lugar para encontrar alimentos tradicionales/culturas?
Sí   No

a.	*Si su respuesta fue afirmativa*:

1.	Como se llama este lugar?_____
2.	¿Cuánto tiempo tome para llegar allí? (menos que 30 mins., aproximadamente 1 hora, aproximadamente 2 horas, más que 2 horas)
_____

8.	¿Hay ciertos alimentos tradicionales/culturales que usted se siente un dificultad accediendo?
Sí   No

1.	*Si su respuesta fue afirmativa*: Por favor, indique los alimentos específicos dentro de los siguientes categorías que son difíciles para que usted consiga (*si no tiene dificultad para encontrar ningún alimento dentro de alguna categoría, puede dejarlo en blanco*):
1.	Carne roja (ejemplo: res)
1.	_____
2.	_____
2.	'Carne blanca' (ejemplo: pollo)
1.	_____
2.	_____
3.	Pescado/Mariscos (ejemplo: trucha)
1.	_____
2.	_____
4.	Verduras (ejemplo: col rizada)
1.	_____
2.	_____
5.	Frutas (ejemplo: piña)
1.	_____
2.	_____

6. Granos (ejemplo: arroz blanca)
    1. _____
    2. _____
7. Legumbres/Frijoles (ejemplo: lentejas)
    1. _____
    2. _____
8. Aceites (ejemplo: aceite de oliva)
    1. _____
    2. _____
9. Hierbas/Especies (ejemplo: cilantro)
    1. _____
10. Otros
    1. _____
    2. _____

9. Cuales programas de asistencia alimentaria ha utilizado usted o su familia en este año?
☐ Ninguna
☐ Banco de Alimentos
☐ Mujeres, bebés y niños (WIC)
☐ Programa de Asistencia de Nutrición Suplementaria (SNAP/Food Stamps)
☐ Comidas gratis y reducidas (FARM)
☐ Programa de alimentos para el cuidado de niños y adultos (CACFP)
☐ Programa de Nutrición del Mercado de Granjeros de WIC (FMNP)
☐ El Programa de Asistencia de Alimentos de Emergencia (TEFAP)
☐ Programa Bolso Marrón Mayor (Senior Brown Bag Program)
☐ Programa de nutrición para personas mayores
☐ Otras: _____
☐ No se¿

10. Hay más información que usted desea compartir

Appendices

American University Public Health Capstone Project
Spring Semester 2018

The Organization
The Montgomery County Food Council (MCFC) is an independent nonprofit bringing together a diverse representation of stakeholders to improve the environmental, economic, social and nutritional health of Montgomery County, MD through the creation of a robust, local, sustainable food system.

MCFC's vision is to cultivate a vibrant food system in Montgomery County that consciously produces, distributes, and recycles food, making it accessible to all residents while promoting the health of the local food economy, its consumers, and the environment. The organization is an active participant in urban and rural policy and process change, leading the way to a more healthful and sustainable community by bringing together producers, retailers, consumers, and educators in a coordinated effort to address the broad range of issues surrounding food and food sourcing in our county. MCFC engages constituents with the local food system through job opportunities, volunteer projects, and purchasing practices, and educates Montgomery County residents and institutions to promote a greater awareness of the entire food cycle: where food comes from, where it ends up, and its social, environmental, and economic impacts.

The activities of the MCFC are accomplished primarily through our Working Groups, led by Council Members and populated by concerned residents with a shared commitment to making a positive impact in our food system. These subcommittees develop and execute initiatives, support policies, and facilitate partnerships connected to their specific goals. MCFC's four Working Groups are Environmental Impact, Food Economy, Food Literacy and Food Recovery and Access.

Background
In early 2017, MCFC co-led the creation of the Montgomery County Executive's 5-Year Food Security Plan (www.montgomerycountymd.gov/foodsecurity), which outlines the path towards building a Montgomery County in which all people have access to safe, sufficient, and nutritious food, with dignity. The Plan (FSP) offers extensive recommendations to guide future research, analysis, funding, and policy actions to work toward enhancing food security in Montgomery County.

One of the key findings of the FSP is that food insecure foreign born people can experience difficulty accessing culturally appropriate foods via food assistance programs. Food assistance services of all sizes are striving to increase supplies of culturally appropriate food for a growing foreign born population. Current resources, however, do not meet current demand. As such, MCFC's Food Recovery and Access Working Group has identified increasing access to culturally appropriate foods in Montgomery County as one of their key goals.

The Project
For this project, the AU Capstone Team is asked to conduct a needs assessment to strengthen our understanding of the need for and the barriers to culturally appropriate food access in Montgomery County, and to develop strategies and action plans to mitigate these barriers.

1. Conduct research to develop a better understanding of (1) the countries of origin represented by the Montgomery County immigrant population and where within the County they reside; (2) the food preferences by country of origin for these immigrant populations; and (3) the locations of greatest demand for these specific ethnic food types. Research findings should describe what types of foods are needed and where in the County they are needed.
2. Conduct research to explore where culturally appropriate foods are currently available around the County for purchase by retail consumers.
3. Using data gathered in previous MCFC surveys on what culturally appropriate food assistance is currently provided and what foods are desired by clients but not accessible, the students will develop a new survey to capture any additional data needed in order to have a comprehensive view of the current state of culturally appropriate food assistance in the County.
   - MCFC staff will administer the survey created by the student team, and provide them with the data collected for synthesis into their findings.
4. Prepare a gap analysis that synthesizes the findings from steps 1-3 above. This analysis should describe the gaps that currently exist in Montgomery County between the demand for culturally appropriate foods (types and locations) and the foods that are currently available to the populations at risk for food insecurity.
5. Recommend strategies and action plans to mitigate the gaps identified in step 4 above. Strategies and action plans may include (but are not limited to) recommendations on:
   - The education programs and tools that would enable food assistance providers and nutrition educators to better understand the culturally diverse dietary needs of residents in Montgomery County;
   - The resources needed to help educate donors on the importance of culturally appropriate and nutritious foods;
   - Strategies to increase the availability of culturally appropriate foods through increased donations and food recovery from farmers and ethnic and international grocery stores.
   - Strategies to more effectively distribute culturally appropriate foods by geographic region in Montgomery County.

Final Deliverable
A substantive report that provides:
- Analysis of the *need* for culturally appropriate foods in Montgomery County
- Description of the *availability* of culturally appropriate foods in Montgomery County, both through retail locations and through food assistance providers

- Analysis describing the gaps between residents' needs and availability of culturally sensitive foods
- Recommendations for strategies and action plans to mitigate these gaps
- Recommendations for future research on this topic

<u>Project Liaison</u>
The project liaison will be Heather Bruskin, Executive Director of the Montgomery County Food Council. Additional support will be provided by MCFC staff and the Food Recovery and Access Working Group.

Questions about the project can be addressed to Heather Bruskin at hbruskin@mocofoodcouncil.org or 806-395-5593.

Organization Overview

Mission/Goals of Organization

The Montgomery County Food Council's (MCFC) mission is "to bring together a diverse representation of stakeholders in a public and private partnership to improve the environmental, economic, social and nutritional health of Montgomery County, Maryland through the creation of a robust, local, [and] sustainable food system." (Montgomery County Food Council: About, 2017).

The individual goals contained within the mission of MCFC manifest in four existing public and private partnerships which are officially recognized as "Working Groups". Each working group is tasked with a specific priority: Food Recovery and Access, Food Literacy, Food Economy, and Environmental Impact. Whilst it is important to remain mindful of MCFC's various goals, this project focuses specifically on the goals and objectives of the Food Recovery and Access Working Group (FRAWG). FRAWG's mission is "to support the increased recovery of, equitable access to and advocacy for more healthful food for Montgomery County residents" (MCFC: Priorities, "Food Recovery and Access", 2017). More specifically, FRAWG has been working to produce and provide more culturally appropriate food for foreign born populations in Montgomery County. This is in addition to their goals of increasing access to nutritious locally-produced food for all food insecure populations in the county, disseminating information, promoting other local stakeholders with similar food access goals, and bolstering food recovery efforts.

In the pursuit of their goals, MCFC has thus far achieved two of their specific objectives. Namely, the development and distribution of a Food Assistance Resource Directory which is a living archive of all hunger relief resources and emergency food providers in the county. In addition to contributing critical input to the Montgomery County Food Security and Action Plan (MCFSAP), which aims to strategically reduce food insecurity over a period of 5-years. Food Insecurity specifically being defined in the MCFSAP as "the state of being without reliable access to a sufficient quantity of affordable, nutritious food".

The Community/ Groups or purpose Served

According to the Five Year Food Security Plan (MCFSAP 2017), MCFC aims to serve 77,780 county residents (7% of the population) who are experiencing food insecurity, with particular attention to the 33,000 children who are food insecure. Its goal is to reduce the 7% to 5.5% by year three of its five year plan. Tackling food insecurity in the county involves working with several vulnerable demographics including children, the elderly, people living with disabilities, people living below the self-sufficiency standard, and foreign born residents.

This project will deal principally with the rapidly expanding population of foreign born residents, although it should be noted that there is crossover between priority groups. Existing data indicates that the largest ethnic groups living in Montgomery County come from El Salvador, mainland China, India, and Ethiopia. Additionally, it should be noted that East Asian residents make up the largest minority group of Seniors, a group which experiences additional burdens when it comes to food access and poverty. Foreign born community members live most commonly in census tract areas: East County, Silver Spring/Takoma park, Wheaton/Glenmont, Aspen Hill, Rockville and Gaithersburg (MCFSAP, 2017).

The MCFSAP identified that food insecure foreign born residents face barriers of access which include: limited English proficiency which reduces knowledge about and access to existing services; concerns about immigration status which may prevent or discourage individuals and families from seeking services; high rates of poverty (estimated at 50,000-60,000 residents at or below 150% of the poverty line); difficulty using accessible foods and food literacy information which may promote foods that are not culturally familiar; and a lack of resources to provide culturally familiar foods to residents. The Five Year Plan acknowledges that further work should be done to particularly to reach out to African and Asian foreign born residents.

In previous scholarship on foreign born and immigrant communities noted for their vulnerability to food insecurity with similar findings to the MCFSAP. One study in Georgia noted that immigrant families are twice as vulnerable (39%) to food insecurity as U.S. born families (Gravitt & Ares, 2011) and listed barriers of language fluency, issues of trust and misunderstanding of eligibility requirements for food service. These issues as well as greater likelihood of economic hardship, and reduced likelihood of using social service assistance were noted in a 2014 report on Hunger and Food Security by RTI International. Likewise, Greenwald and Zajfen (2017) identified feelings of shame for accepting free foods, lack of eligibility knowledge, scarcity of traditional foods and distribution of foods to non-Christian populations through churches as additional barriers in their foreign born sample population from Southern California. All studies note that there are significant difference in the needs of different immigrant populations and note the necessity to not consider immigrant groups as a homogenous entity - a takeaway which is evident in the MCFSAP which highlights cultural sensitivity and respect as key considerations in serving foreign born resident.

Basic Details
MCFC is a non profit organization focused on addressing issues surrounding food and hunger in the county. The council is made up of two full time employees, one part time employee, an intern, and many volunteers. The two full time employees, Heather Bruskin and Amanda Nesher, serve as the Council's Executive Director and Food Security Programs Manager, respectively. Massa Cressall serves part time as the Development and Communications Manager, while an intern assists with communication duties. Additionally, the rest of the 25 food council members are volunteers from various stakeholder positions in the area.

The food council is mainly funded by the county government, including funding through the Montgomery County Department of Health and Humans Services and grants from other departmental funds. The council also receives private sector funding for some areas of its work, but currently not for the food security working group. The food council also receives donations from individuals and businesses.

The food council does not have its own facilities, but through collaborative organizations such as Bethesda Green and the Montgomery County government, they are able to hold meetings and events when needed. The organizations the food council collaborates with also provide them with other resources including printed handout materials and other information.

Since 2014, numerous MCFC stakeholders have held listening sessions and focus groups with food insecure communities throughout Montgomery County, which contributed to further assessments on the availability of foods throughout the area. These preliminary measures informed resources including the Montgomery County Food Access Report (2015). Following the completion of their initial projects, MCFC launched the 5-year Food Security and Action Plan (MCFSAP). The MCFSAP compiles existing resources and a series of recommendations that

serve as a guide for policymakers and community organizations in Montgomery County to enhance food security (2017).

MCFC states Food Recovery and Access as one of their major priorities, and dedicates one of four respective working groups known as FRAWG to this issue (2018). Of the recommendations presented by the MCFSAP, the furthering of research (in the areas of education, the availability of foods, and redemption of food assistance programs), and the establishment of a network will equip FRAWG's strategies to increase the availability of culturally appropriate food assistance. The MCFSAP presents baseline data from a stakeholder meetings, listening sessions and online surveys. Thus, the collection of further data will inform staff on the specific foods are that are needed, the location of communities relative to distributors, and how food assistance programs can leverage increased access to these foods.
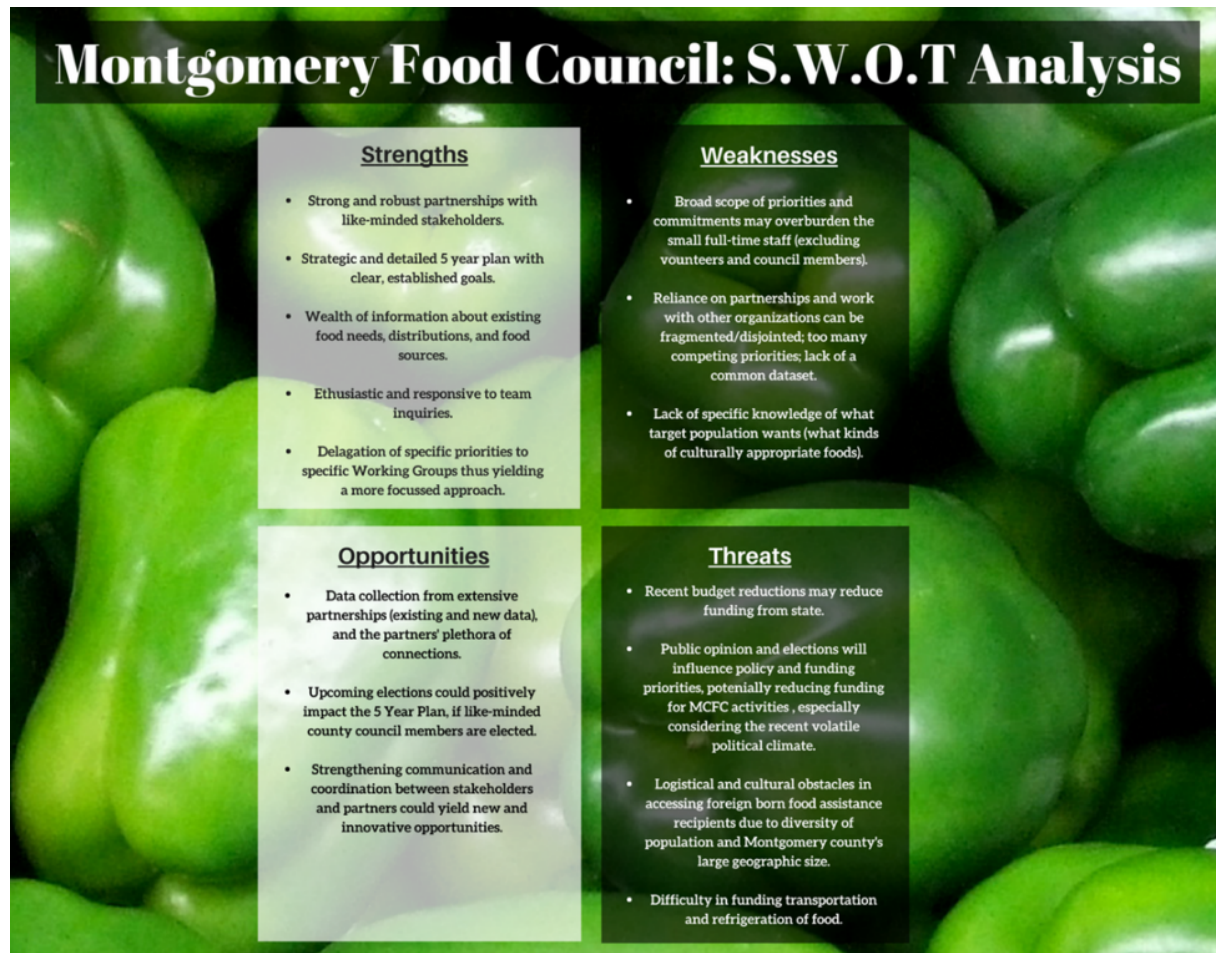
Current Challenges
MCFC faces challenges pertaining to organizational capacity, funding, and logistics of food distribution and data collection. MCFC has a small, dedicated staff, that relies heavily on the collaboration of council members in working groups. This presents a challenge for MCFC in that its success and ability to address food-related issues in the county is dependent on the efforts, funding, and drive of its many partners. MCFC is also in the process of applying for 501(c)-3 status, meaning they must remain politically neutral, despite the fact that upcoming state and county elections could have a significant impact on local food policy and MCFC funding. Finally, because MCFC serves a large geographic area and large population, it faces challenges in ensuring food is appropriately transported, refrigerated or stored, and distributed to residents. For the same reason, collecting data on program success and provision of culturally appropriate food proves difficult.

Summary of Project
This project aims to increase MCFC's knowledge about preferences and availability of culturally appropriate foods to the food insecure Montgomery County foreign born population. The capstone team will be responsible for conducting research based on qualitative interviews and existing data to identify the countries of origin of the immigrant population, determine food preferences of those immigrant populations, and locate key geographic areas of demand for specific cultural foods. Additionally, the students will reach out to local grocers to establish where culturally appropriate foods are currently available within the county. Project deliverables will include a gap analysis of the need and availability of culturally appropriate food, and will provide further recommendations for research and steps to take to alleviate the current burden of food insecurity in the foreign born population. Furthermore, the capstone team will build a survey tool based on their findings designed to further organizational knowledge of the problem, the organization may administer this survey after the project has ended.

SWOT Analysis

Montgomery Food Council: S.W.O.T Analysis

Strengths
- Strong and robust partnerships with like-minded stakeholders.
- Strategic and detailed 5 year plan with clear, established goals.
- Wealth of information about existing food needs, distributions, and food sources.
- Ethusiastic and responsive to team inquiries.
- Delagation of specific priorities to specific Working Groups thus yielding a more focussed approach.

Weaknesses
- Broad scope of priorities and commitments may overburden the small full-time staff (excluding vounteers and council members).
- Reliance on partnerships and work with other organizations can be fragmented/disjointed; too many competing priorities; lack of a common dataset.
- Lack of specific knowledge of what target population wants (what kinds of culturally appropriate foods).

Opportunities
- Data collection from extensive partnerships (existing and new data), and the partners' plethora of connections.
- Upcoming elections could positively impact the 5 Year Plan, if like-minded county council members are elected.
- Strengthening communication and coordination between stakeholders and partners could yield new and innovative opportunities.

Threats
- Recent budget reductions may reduce funding from state.
- Public opinion and elections will influence policy and funding priorities, potenially reducing funding for MCFC activities , especially considering the recent volatile political climate.
- Logistical and cultural obstacles in accessing foreign born food assistance recipients due to diversity of population and Montgomery county's large geographic size.
- Difficulty in funding transportation and refrigeration of food.

Strengths
MCFC has a dedicated team of council members and volunteers, who have a variety of interests, skills, and stakeholder positions within the county. Together, council members are passionate and motivated to address specific food-related issues in the county through their four working groups. Similarly, the food council benefits from their partnerships with many food banks and food assistance organizations. Additionally, they have a clearly developed Five Year Plan and laid out goals for each year, reflecting their intensive research on existing food needs, distributors, and food sources in the county. Finally, MCFC team has open communication with the capstone team, connecting the capstone team with a variety of resources beneficial to the project.

Weaknesses
As a council of community stakeholders, MCFC is inherently collaborative in its functions. By way of this, MCFC's Working Groups rely on their members as advisors on the council's initiatives, as well as resources for corresponding data and capacity-building. Although MCFC is divided into four Working Groups with respect to their priorities, each of these Working Groups comprise of various members that represent a range of community organizations whose interests align (2018). Therefore, while MCFC provides a platform for collaboration, it is also critical that MCFC maintain an organized system for the direct integration of these inputs in the

development of MCFC initiatives. Hence, having a limited staff may limit MCFC's ability to maintain a consistent agenda among its members. Additionally, the first of FRAWG's challenges in conducting research may be the scope of the data that is needed. The second challenge may be including data from partner organizations in such a way that it is coherently represented as a resource for the development of FRAWG's initiatives. In this effort, the creation of a database or an evolving tool would facilitate next steps in FRAWG's agenda.

Opportunities
MCFC has many opportunities given their existing partnerships and collaborations in the county. Their partnerships with other organizations can provide them new and existing data that may help guide their actions and goals of the working groups. Moreover, these partners have vast connections across the county to other food banks and food assistance programs. One example of this is Manna Food Center, which is heavily involved in the food recovery and access working group, and functions both as a food bank and food distributor.

Upcoming elections in the county and state provide an opportunity for the food council. If elected county council members could prioritize food-related issues in their platform and positively impact the five-year plan by assisting MCFC in achieving immediate and long term goals.

MCFC has an opportunity to further benefit from their connections with stakeholders and partners by utilizing available resources. In the scope of the capstone project, knowledge of multicultural food distributors in the area will certainly prove useful. Moreover, MCFC may stand to benefit from additional connections with culturally diverse grocery stores and food providers throughout the county, which could provide additional data for the current capstone projects and future MCFC projects in the future.

Threats
The external threats that face MCFC come mainly from funding sources and logistics. The food council's funding predominantly comes from government agencies and grants that are evaluated and awarded yearly, this make the MCFC's long term goals reliant on fluid funding. This instability is particularly notable in the coming year, as Montgomery County is holding elections and public opinion and policy toward food security as a priority may change. In addition to it being an election year, another threat for the council's funding is that Montgomery County is experiencing budget cuts and hiring freezes due to the county's large debt. This makes sustainable funding from the county government even more of a challenge.

Logistical issues also threaten the success of the food council. Montgomery County is a large, diverse county which presents logistical issues for the relatively small food council. Collecting data across the county on cultural food preferences from food assistance recipients is a difficult task due to the size and diversity of the county, which include language barriers. Similarly, one issue that combines funding and logistical threats is the transportation and storage of refrigerated food. There is a shortage of refrigerated transportation and storage areas for the food collected by distributing organizations. This makes it difficult to accept refrigerated foods and distribute them across the county where they are needed.

Additionally, while the food council action group has twenty-five volunteers, managing their collaborations, the large number of partners are a potential logistical and political challenge. There are many partners and food distributors in the county that present logistical issues when moving materials and donations between organizations. Also, with the large number of food

security focused organizations, there is a lack of connection between them at times, as awareness of what each organization is doing and has available can be missing. This threatens each of the council's organizations, but also the target population's ability to know what is available and get the food that they need.

Montgomery County Food Council AU Capstone Project VMOSA & Logic Model

VMOSA

Vision: To ensure all residents of Montgomery County (MC) have access to a wide variety of nutritious and culturally appropriate food; thereby increasing their overall health and well-being, thus helping the community prosper.

Mission: To provide Montgomery County Food Council (MCFC) with comprehensive information on residents' countries of origin, culturally appropriate food preferences and needs, current culturally appropriate food availability, and recommendations in order to strengthen MCFC's understanding of the need for and barriers to culturally appropriate food access in MC. The capstone team will develop strategies and action plans to mitigate these barriers.

Objectives:	Strategies:	Action Plan:			
		Parties Responsible & Collaborators:	**Strategy Completion Date:**	**Resources:**	**Challenges:**
1. By April 12th, 2018: Collect and compiled information on the current need for culturally appropriate foods amongst the food-insecure and foreign born population of	Draft email template to food assistance stakeholders, send out email	Abhishek Edits from Amanda	Email draft to Amanda by Feb 26th Send to stakeholders by March 9th	Master document of stakeholder contacts "Race and Ethnicity by Site" (Manna Food Center)	MC is geographically large and demographically diverse Cannot ensure that a diverse group of stakeholders respond to emails or are

MC: countries of origin, food preferences, geographic location 2. By April 12th, 2018: Collect and compile information on the current availability of culturally appropriate foods in MC, both through retail locations and through food assistance providers.	Conduct preliminary research on the countries of origin of MC residents and culturally familiar foods of these countries	Capstone team	March 22nd	MCFC's Food Assistance Resource Directory (FARD) Food Recovery and Access Working Group's (FRAWG) Healthy Food Availability Index (HFAI)	interested in speaking to the team Language barriers between food distributors, volunteers, and/or recipients of food
	Draft interview questions, which may differ by stakeholder (distributors, farmers, volunteers, etc)	Kayla, Michael Edits from Amanda	Email draft to Amanda by March 22nd		
	Schedule dates to meet with stakeholders (or speak on the phone)	Capstone team	Stop interviews/ data collection by April 12th		
	Individually collect information from phone calls/interviews with stakeholders	Capstone team	Ongoing until April 12th		
	Draft findings/observations in shared google doc	Capstone team	Ongoing until April 12th		

3. By April 19th, 2018: Provide analysis describing the gaps between residents' needs and availability of culturally sensitive foods as determined by objective 1 and 2.	Compile information from phone calls/interviews	Capstone team	Begin by April 5th Complete April 19th	MoCo Census Data Community Action Agency and CountyStat interactive Self Sufficiency Standard tool MC Food Access Report (2015): PDF (pp. 190-2017)	Gap analysis can only be holistic and is based on the quality of responses from stakeholders Needs analysis will be mostly derived from food bank volunteers and providers, not recipients
	Review additional census data and interactive Self Sufficiency Standard tool provided by MCFC	Capstone team	Ongoing until April 19th		
	Draft written summaries detailing findings	Kayla, Laurel	Begin April 12th Complete April 19th		
	Draft graphics from data	Abhishek, Kayla	Begin April 15th Complete April 19th		

4. By April 19th, 2018: Recommend strategies and action plans to mitigate gaps illustrated in objective 3.	Refer back to gap analysis	Capstone team	Begin April 12th Complete April 19th	Retailers in the county that sell food from other cultures Action plans from other counties/ areas	MCFC has limited organizational and funding capacities MCFC serves a geographically large, and diverse population (MC) MCFC currently has no established partnerships with retail grocery stores
	Review previous strategies counties have used to mitigate barriers in providing culturally competent food	Laurel, Rainey	Begin March 19th Complete April 19th		
	Design action plan based on information obtained in previous strategies for objective 4	Capstone team Edits from Amanda	Begin March 19th Complete April 28th		
5. By April 23rd, 2018: Recommend future research on the topic of culturally appropriate food provision in MC.	Review previous strategies/research counties have conducted to address provision of culturally appropriate foods	Michael, Camille	Begin March 19th Complete April 28th	Literature compiled in objective 4 Potential partnerships	Recommendations will be dependent on the success of supporting project pieces

	Construct survey for MCFC to administer to fill remaining information gaps	Rainey, Michael Camille	Begin March 26th Complete April 28th	discovered in stakeholder interviews	
6. By April 30th, 2018: Provide final deliverable to MCFC that compiles results from objectives 3-5.	Compile all content	Capstone team	By April 28th		
	Final Review	Capstone team members individually Send to Amanda	April 29th		
	Final Compilation and submission of project	Laurel, Abhishek	April 30th		

MCFC-AU Capstone Team
LOGIC MODEL

Situation

MCFC has identified providing culturally appropriate food for foreign born and food insecure populations as an integral step in their 5 years strategic plan. However, they realize that they do not possess key information about the current availability and demand for culturally competent food in Montgomery County. Our mission is to provide sufficient context to MCFC and aid them in their aforementioned endeavor.

Inputs

Capstone Team

MCFC Team

FRAWG Committee members

Jenna from Manna

Montgomery County Census data

Community Action Agency and CountyStat interactive Self Sufficiency Standard tool

American University Library databases

Activities

Interview key stakeholders: farmers, food distributors and assistance providers, volunteers

Review existing data on the countries of origin of Montgomery County Residents

Research the strategies other organizations have used to mitigate barriers and address provision of culturally competent food

Develop a new survey that MCFC can use to further understand the scope of culturally appropriate food concerns in Montgomery County

Outputs

Final Report Including:

1.
Needs Assessment

2.
Gap Analysis

3.
Recommendations and action plans to mitigate gaps

4.
Recommendations for future research: (i.e. survey)

Outcomes

To provide MCFC with comprehensive information on:

1.
Residents' countries of origin,culturally appropriate food preferences and needs

2.
Current culturally appropriate food availability

3.
Recommendations in order to strengthen MCFC's understanding of the need for and barriers to culturally appropriate food access in Montgomery County

4.
Develop strategies and action plans to mitigate these barriers.

Impact

To ensure all residents of Montgomery County have access to a wide variety of nutritious and culturally appropriate food; thereby increasing their overall health and well-being, helping the community prosper.

52

Appendix D - Stakeholder Contact Directory

The link below is to a google sheets directory; the directory includes a list of variety of stakeholders in food access in Montgomery County, the Johns Hopkins Maryland Food Systems Map grocers, and the FRAWG member contact list.

Stakeholder Contact Directory
https://docs.google.com/spreadsheets/d/1RwNZvyx95HAmre0V3awC5P3fxqORuz5rYVS2Pgzs GKI/edit?usp=sharing

Appendix E - Original Survey Questions and Results for Food Assistance Providers

1. Email Address
2. Goal/Mission of Organization
3. Describe your organization's efforts in providing access to foods in Montgomery County
4. Do you make any specific efforts or have any experiences in providing culturally appropriate foods?
5. What barriers do your clients encounter in accessing culturally appropriate foods?
6. What are the most common (3-5) foreign born populations that you serve?
7. What percentage (roughly) of your clients are foreign born?
8. Do you know of any other locations in the area where recipients often receive/purchase food?
9. What types of food are in highest demands?
10. What types of traditional/cultural foods are in highest demand?
11. Are some foods requested, but not easy for your organization to obtain? Please name them.
12. What foods would you like to be able to offer in greater quantities?
13. Who are your food suppliers?
14. What are the barriers (broadly) you experience in accessing, storing, and distributing culturally appropriate foods?
15. Would you be interested in partnering with Montgomery County Food Council to work on ensuring foreign born populations have access to culturally appropriate foods?
16. Is there any additional information relevant to this topic that you'd like to provide?

These questions and results are included in google sheets link on tabs "Provider Questions" and "Provider Answers"
https://docs.google.com/spreadsheets/d/1fpuV9RWgnS9tpHLEuvY-t2Lj6ONUqB3-76tKYBNzOO0/edit?usp=sharing

Appendix F - Original Survey Questions and Results for Food Assistance Recipients

English Version

1. Where were you born?
2. Do you identify with a country or culture outside of the United States? Which one (or multiple)?
3. How often do you eat traditional foods that come from this culture or country outside of the US? (1-2 times a week, 3-4 times a week, every day)
4. What foods do you eat most often?
5. Where do you normally go to purchase/receive groceries?
6. Does this location meet your cultural/traditional food preferences?
7. How long does it take you to travel where you normally purchase/receive food?
8. Do you travel to another location for cultural/traditional foods? What is the name of this location?
9. If you travel to another location for cultural/traditional foods, how long does it take you to get there?
10. Are there any traditional/cultural foods that you want that are difficult for you to get? Which ones?
11. Are there any other barriers you've experienced in accessing culturally appropriate foods?
12. Is there any other information you'd like to share?

Spanish Version

1. ¿Dónde nació usted?
2. ¿Usted se identifica con algún país o cultura afuera de los Estados Unidos?
3. ¿Con que frecuencia come comida tradicional del país o cultura afuera de los Estados Unidos?
4. ¿Cuales comida(s) come usted, o su familia, por la mayoría de tiempo?
5. ¿Donde se va usted para comprar o recibir comida?
6. ¿Esto(s) lugare(s) cumple(n) con sus preferencias culturales/tradicionales para la comida?
7. ¿Cuanto tiempo toma usted para llegar donde normalmente compra/recibe comida? (menos que 30 mins., aprox. 1 hora, aprox. 2 horas, más que 2 horas)
8. ¿Usted vaya a algún otro lugar para encontrar alimentos tradicionales/culturas? Como se llama este lugar?
9. ¿Si usted respondió <<si>> por la pregunta anterior, cuanto tiempo toma para llegar allí? (menos que 30 mins., aprox. 1 hora, aprox. 2 horas, más que 2 horas)
10. ¿Hay ciertos alimentos tradicionales/culturales que usted se siente un dificultad accediendo? ¿Cuales son?
11. ¿Hay otras barreras que usted encuentra en accediendo alimentos culturales, o los que usted prefiere?
12. ¿Hay mas información que usted desea compartir?

These questions and results are included in google sheets link on tabs "Recipient Questions (English)" , "Recipient Questions (Spanish)", and "Recipient Answers":
https://docs.google.com/spreadsheets/d/1fpuV9RWgnS9tpHLEuvY-t2Lj6ONUqB3-76tKYBNzOO0/edit?usp=sharing

<u>Appendix G - Original Survey Questions for Grocers</u>

English Version

1. What is the name of your organization?
2. How many people do you serve in a week?
3. What types of food are in highest demand?
4. You were listed as a "international foods" grocery store in the Johns Hopkins Food Systems map - do you agree that your store could be categorized as such?
   - If yes:
     - i. Which cultures/populations do you serve?
     - ii. Are there culturally specific foods that you get many requests for?
     - iii. Which distributors do you purchase these items from?
     - iv. Do you know of other locations in the area where recipients often receive/purchase these food items?
     - v. Are there culturally specific foods that you have in excess?
1. Have you ever donated to a food assistance organization? Or would you be interested in doing so?
2. Would you be interested in partnering with MCFC to help with food assistance in MC?

Spanish Version

1. ¿Que es el nombre de su tienda/organización?
2. ¿Cuantas personas, mas o menos, sirven en total por una semana?
3. ¿Puede nombre los alimentos específicos que están en mayor demanda?
4. Su tienda/organización está enumerado como "alimentos internacionales" en una mapa de sistemas de alimentación organizado por la Universidad Johns Hopkins. ¿Están de acuerdo que su tienda/organización puede ser considerado como tal?
   - Si su respuesta fue si:
     1. ¿Qué o cuales población(es) (por ejemplo, identificada por su(s) país(es) de origen) sirven?
     2. ¿Hay alimentos culturales que sus clientes piden mucho?
     3. ¿Usted(es) puede(n) proveer los nombres de los distribuidores de que compra estos artículos?
     4. ¿Conoce otros sitios locales donde gente normalmente reciben/compran estos mismos artículos?
     5. ¿Hay alimentos específicos que usted(es) normalmente tiene(n) en exceso? Puedes nombrarlos?
2. ¿Ustedes han hecho donaciones de alimentos a organizaciones de asistencia alimentaria (como un banco de alimentos)?
3. ¿Le interesaría involucrar más con el Consejo Alimentaria de Montgomery County para avanzar la seguridad alimentaria?

These questions are included in google sheets link on tabs "Grocery Store Questions (English)" and "Grocery Score Questions (Spanish)"

https://docs.google.com/spreadsheets/d/1fpuV9RWgnS9tpHLEuvY-t2Lj6ONUqB3-76tKYBNzOO0/edit?usp=sharing
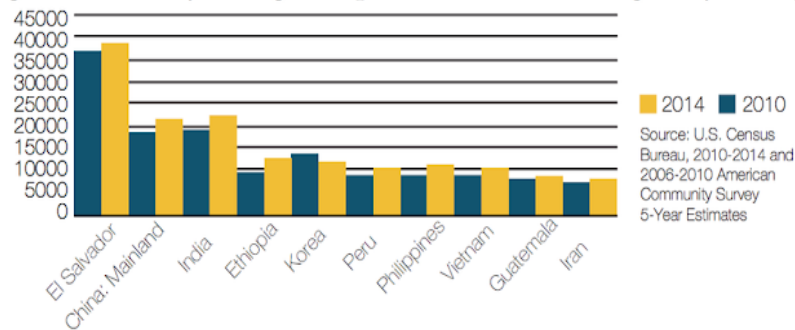
Figure 1: Foreign Born Country of Origin (Top 10 Countries) in Montgomery County for 2010 and 2014 (*Montgomery County Food Security Plan*, Montgomery County Food Council, 2017, p.14.)
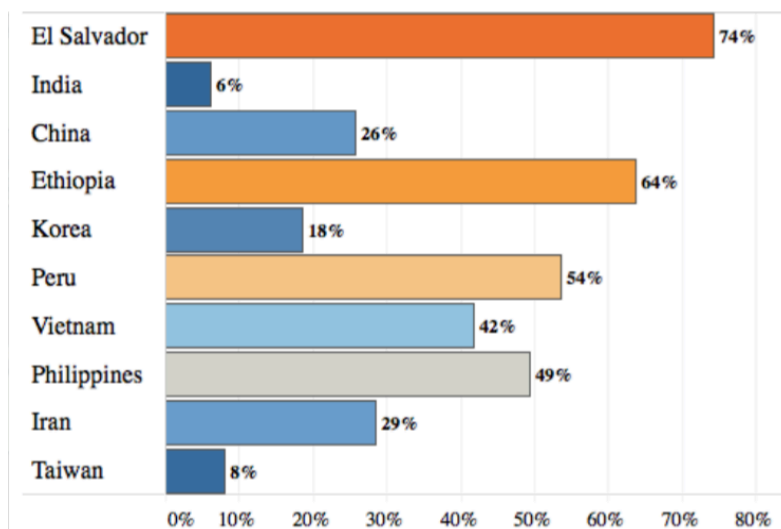

Figure 2: Percent Below SSS by Top 10 Countries/Places of Origin in Montgomery County (*Community Action: Self-Sufficiency Standard & the Interactive Self-Sufficiency Standard*, Montgomery County Government, 2018.)
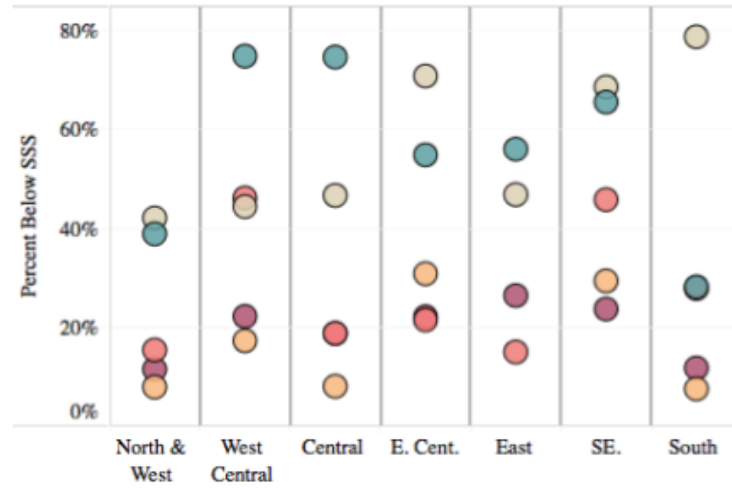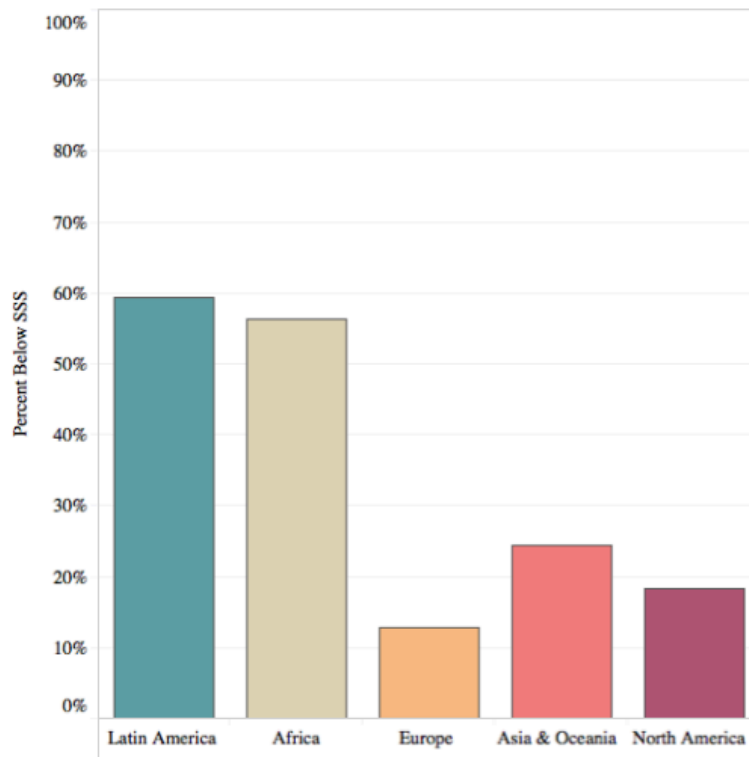
Figure 3: Percent Below SSS by area in Montgomery County and World Area of Birth (*Community Action: Self-Sufficiency Standard & the Interactive Self-Sufficiency Standard*, Montgomery County Government, 2018.)

Figure 4: Graph of Percent Below SSS by World Area of Birth (*Community Action: Self-Sufficiency Standard & the Interactive Self-Sufficiency Standard*, Montgomery County Government, 2018.)

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