AN EVALUATION REPORT: SENIOR FOOD-ASSISTANCE, RELATED PROGRAMMING, AND SENIORS' EXPERIENCES ACROSS THE FEEDING AMERICA NETWORK

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EXECUTIVE SUMMARY

Study Aim

In 2016, Feeding America, a national network of 200 food banks, partnered with Enterprise Rent-a-Car Foundation on a six-year investment to address senior food insecurity. This study was commissioned early in the partnership period to learn about seniors' needs and the different food-assistance programs being implemented across the network. The intention was to assess how food-assistance programming can, and does, align with seniors' needs, and to shed light on some of the ways in which programming that aims to increase seniors' access to or knowledge of nutrition and food-related services operate and benefit seniors. The study aimed to address two overarching questions:

- What are the needs of seniors being served by senior food-assistance programs in the Feeding America network?
- How are food-assistance programs that serve seniors meeting their needs?

The study used systematic qualitative methods to examine 17 programs in 9 states at food banks participating in the Feeding America Senior Hunger Network. The study team carried out semi-structured interviews at each site with food bank staff, agency partners, and seniors using programs, made observations, and conducted document reviews.

Findings

Program accessibility by seniors depended on their abilities in one or more of three categories. Personal mobility refers to the ability to lift or carry items (e.g., physical strength), ability to prepare food, ability to walk or stand (e.g., self-efficacy to leave house, run errands), and health status. Consumption of food refers to preferences, accessibility, affordability, and chronic disease and dietary needs. Access and use of transportation refers to being able to rely on own means of transportation, friends or family, and public or private services. Seniors' needs are largely based on types and degrees of ability, rather than age.

In designing and implementing senior-focused programs, food banks and their partners were often in the position of balancing reach against specificity (i.e., reaching more seniors as opposed to seniors with more specific needs) as a matter of resource availability and cost-effectiveness. Programs that achieved significant reach typically relied on food items donated by the US Department of Agriculture, but this limited the food banks' ability to customize food-assistance to specific needs of seniors; the Commodity Supplementary Food Program (CSFP) is the most prominent example. On the other hand, programs that prioritized specificity sacrificed reach to provide customized food mixes to sub-groups of seniors with specific needs, such as diabetes. Some programs invested resources in implementing mobile pantries or recruiting volunteers to overcome seniors' transportation constraints, which could limit a program's reach.

The food-assistance programs considered in this study fell at different points on the spectrum of reach and specificity, although nearly all programs attempted to meet seniors' needs on multiple levels. The food banks in this sample have developed several innovative features to increase the

responsiveness of programs to seniors' needs, ranging from modifications to existing programs to new programs entirely. Program modifications were the inclusion of produce and/or additional donated items with distributions, conducting senior-only distributions, updating non-perishable content to reflect senior preferences or dietary needs, and facilitating more home deliveries (via new partnerships or mobilizing more volunteers). New programs were senior-specific mobile pantries with tailored food offerings or grocery items, tailored nutrition-education services, and healthcare-based services.

Seniors reported that receiving food-assistance enabled them to budget, save, and stretch their food more easily throughout the month when accessibility and affordability of food were limited by finances, transportation, or both, which was the case for the majority of the seniors in the sample. Seniors highly valued receiving program services at their homes or sites that were regularly or easily accessible to them. The provision of fresh produce, where available, enabled many seniors to consume more fresh produce than they would otherwise be able to afford. Seniors' perceptions of food-assistance programming were overwhelmingly positive, and seniors across sites emphasized that they benefited from the services and wanted them to continue. A minority (typically less than one-third) of seniors at each site relied on food-assistance as a primary source of food.

The primary challenges to using services reported by seniors were related to content (i.e., the types and proportions of items provided by direct food-assistance programs) and the weight or maneuverability of food boxes. The majority of seniors in this sample received services at their residences or through senior-focused organizations, such as senior centers. Those who received services at other types of sites, particularly food pantries that did not offer senior-only distributions, described challenges with long waits, difficulty standing or carrying food, and accessing transportation.

The mix and proportions of juice, pasta, and dairy provided by many direct food-assistance programs (most notably the CSFP) may not be responsive to chronic health conditions, including diabetes. Regarding weight, even relatively mobile and self-sufficient seniors faced challenges in obtaining their boxes or bags, which weighed between 20 and 50 lbs, depending on the program. Some seniors reported leaving heavy items at distribution sites. Many of the distribution sites (including those operated by both food banks and agency partners) made efforts to assist seniors to their vehicles, and several were able to facilitate home deliveries on a limited basis. Seniors also reported challenges with maneuvering the boxes or putting away items at home. Some seniors relied on family or caregivers to assist them. Seniors without assistance typically needed to make multiple trips to their vehicles or put items away one at a time.

Seniors consistently and overwhelmingly recommended that the programs include more canned fruits and vegetables, more canned protein, and fresh produce or protein if possible. They also consistently suggested including more items that were simple to prepare or ready to eat, such as cereal or canned soups. Some seniors also suggested including other items that were expensive for them to purchase, such as cooking oil, spices, or condiments. A smaller

proportion of seniors across sites requested the inclusion of simple and quick to prepare recipes with their services.
Seniors who received food-assistance at food pantries or other sites where they had to pick up the boxes themselves typically recommended home delivery as a way to improve services. Even among seniors who had their own means of transportation, few had the physical strength to easily lift and maneuver the boxes or bags of groceries. Some pickup sites (typically the food pantries as opposed to senior centers) required long waits to receive services, sometimes outdoors, which was physically challenging for many seniors.

This study included several programs that aimed to increase the quality or diversity of seniors' diets through information or facilitating access to foods or services as opposed to the provision of specific foods. The nutrition education component of Michigan's Senior Mobile Pantry Program focused on proximate challenges to food and nutrition security, seeking to increase seniors' awareness of nutrition and health through the provision of nutrition education tailored to seniors' common dietary needs. New Jersey's Tower Gardens (hydroponic growing units installed at selected senior residences and centers) and Alabama's Double Up program in partnership with the Farmers Market Voucher Program sought to increase seniors' awareness of nutrition and health through facilitating access to fruits and vegetables while providing opportunities for social engagement. Initiatives to improve access to the Supplementary Nutrition Assistance Program (SNAP), including Alabama's Benefits Enrollment Center and Minnesota's SNAP Rural Outreach, sought to increase seniors' awareness of and enrollment in SNAP and other state or national-level benefits for which they were eligible. Both services also aimed to facilitate the enrollment process, which many seniors find lengthy or complicated, and overcome stigma associated with SNAP. California's Kitchen Collective provided 1-2 frozen vegetarian meals prepared at the food bank's kitchen facilities at monthly CSFP and Diabetes Wellness Program distributions.

Discussion and Implications

The societal benefit of providing food-assistance is that it helps prevent frailty in seniors (i.e., poor diet and nutrition and low physical function), thereby reducing likelihood of disability and consequent nursing home stays, hospitalizations, and high associated costs. Although the term hunger is often used in the Feeding America network, only a minority of seniors receiving food-assistance would have been overtly hungry without. The literature on frailty and food insecurity in seniors, and the central role of nutrition in frailty, supports that the programming provided by Feeding America is, and should be, targeted to seniors who are food-insecure even if not experiencing overt physical hunger.

Serving more seniors (reach) and serving more of the most vulnerable seniors (specificity) should not be a trade-off; specific needs should not compromise reach. A pressing question among service providers is how to reach more of the most vulnerable seniors. Addressing this question about both reach and specificity in the design and implementation of senior-focused programming necessitates a nuanced understanding of the types of needs and abilities common among the seniors being served. Service providers succeed when they are able to understand needs, target to the need of a group who will benefit, and

curate a mix of programs or programmatic features, based on the resources available to them, that can best respond to the need. Benefits are generated when seniors seek help and take up offered services. Intended benefits are immediate (e.g., improved diets and nutrition, reduced stress related to food insecurity), intermediate (e.g., reduced frailty and disability), and long-term (e.g., reduced nursing home and hospital stays and saving costs).

Recognizing the heterogeneity of needs that are largely based on abilities rather than age alone within the senior population and distinguishing between types of need and degrees of abilities can aid targeting, designing programs, and achieving program impact. The starting question that should shape considerations of program design, uptake, and benefit from the perspective of service providers is similar to the question that shapes it from the perspective of seniors: to what extent will seniors be able to use and benefit from the program? Given at least a tentative answer to this starting question, then considerations can be made as to what programming is possible and most warranted in terms of feasibility, logistics, resources, partners, implementation processes, targeting indicators, reach, achievable impact, and sustainability.

Inherent to making programming decisions are two further considerations. First, to what extent should food-assistance programs address a given individual's full need for food versus a partial need for food? Second, regarding reach, to what extent should food-assistance programs address fully the need for food in the population of seniors in a given location while attempting to take into account specificity of need? Feeding America potentially has a role to help address unmet need both through its programming and through advocacy and coordination to encourage and support others to contribute.

Food-assistance programming occurs in a complex landscape of multiple forms of assistance to seniors, reflecting the diverse needs that seniors have for social connectedness, medical care, transportation, instrumental assistance and caregiving at home, information, monitoring, etc. One important question for Feeding America and other organizations providing assistance to seniors is the extent to which, and how, they should articulate the programming they provide alongside other programming occurring in the same location. A second important question is, given how closely food is tied to physical and mental wellbeing of seniors, to what extent should Feeding America broaden the programming that its network provides to seniors from strictly food-assistance to assistance that address a broader set of social needs, including reducing social isolation.

1. INTRODUCTION

For at least four decades, concerted efforts in the US have been made to address the needs of seniors without adequate access to food. Programs that have specifically targeted seniors typically have focused on improving seniors' access to food and alleviating social isolation. The three primary models for addressing seniors' food needs have been congregate meals and home-delivered meals, both first authorized under the Older American Act in the 1970's and administered primarily through Area Agencies on Aging, and later the Senior Farmers Market Nutrition Program. Other programs used by seniors are the Supplemental Nutrition Assistance Program (SNAP) and commodity food distributions.

Over 4.8 million seniors are enrolled in SNAP, and they receive an average of $124 per month (USDA, 2017). Nearly 6 million seniors are eligible for SNAP, but are not enrolled. This is referred to as the "senior SNAP gap" (Feeding America, 2018). SNAP is an important resource for seniors given its current and potential reach. By contrast, the Commodity Supplemental Foods Program (CSFP), a federally-subsidized food-assistance program, reached nearly 630,000 seniors per month in 2017 (USDA, 2018). Feeding America serves 7 million seniors over the age of 60 (and an additional 6 million pre-seniors, or those aged 50-59) annually with a mix of programs, including CSFP, senior-focused SNAP assistance, and senior mobile and fixed pantries (Dys et al., 2015).

Currently, nearly 10,000 Baby Boomers reach the age of 65 each day. By 2050, the senior population is expected to double from the current number to 84 million, or 20% of the total population (Dys et al., 2015). Seniors' need for food security and nutrition assistance is likely to rise as the population of seniors increases. In 2016, nearly 8%, or 4.9 million, of all seniors were food-insecure, and an additional 3.7 million were marginally

food secure (Ziliak and Gundersen, 2018). In this shifting demographic landscape, understanding the needs of food-insecure seniors, their experiences with food security and nutrition services, and the types of programs and services that benefit seniors is warranted to inform decision-making and advocacy around senior-serving policies and programs, including the identification of potential synergies between different types of senior-focused services across varied geographies in the US.

In 2016, Feeding America, a national network of 200 food banks, received a 6-year grant from Enterprise Rent-a-Car Foundation to address senior food insecurity. The first grant period began in 2017 and was set as a baseline for learning about seniors' needs and different food-assistance programs across the network. Feeding America offered a competitive request for proposal (RFP) opportunity for its network of food banks to apply for one-year grants (February 2017 - January 2018) and awards that supported existing senior food-assistance programs across the US, some of which were relatively new and innovative pilots. Overall, 12 food banks were awarded grants in the range of $60,000 to $100,000 each, totaling a $1 million investment.

In addition to awarding grants to food banks during 2017, Feeding America commissioned a team at the University of South Carolina to carry out qualitative research, as part of the Enterprise-funded initiative. Goals and learning objectives for this study were developed in partnership with the Feeding America team using data from their network and guidance from their six-year strategy. The research team interviewed food bank personnel and their agency partners (i.e., the variety of agencies with whom food banks partner to facilitate food distribution or outreach) with the purpose of leveraging lessons learned from and experiences of food bank grantees and their partners in operating senior hunger program models to inform future national strategies and advocacy efforts. Additionally, researchers interviewed seniors facing food insecurity and participating in food-assistance programs. The research presented in this report synthesizes the key findings and lessons learned regarding the experiences and perspectives of seniors and service providers in various geographic and community contexts across the US.

This report is organized around two overarching questions:

- What are the needs of seniors being served by senior food-assistance programs in the Feeding America network?

- How are food-assistance programs that serve seniors meeting their needs?

These two questions frame the analysis of programs and feedback provided in this report, and highlight two main issues that will be addressed throughout the report: where senior food-assistance programs succeed in meeting the needs of seniors, and how programs potentially could improve.

The primary goal of this report is to provide a systematic, qualitative assessment of how food-assistance programming can, and does, align with seniors' needs. A secondary goal is to shed light on some of the ways in which other types of programming (i.e., programming that aims to increase seniors' access to or knowledge of nutrition and food-related services) operate and benefit seniors.

2. METHODS

The Feeding America team and a research team based at the University of South Carolina selected 9 of the 12 food bank grantee sites to participate in this study and a sample of 17 different senior hunger program models to assess. At 5 of the 9 sites, multiple programs were assessed (see Table 1).

The 9 sites were selected to attain geographic diversity, which is correlated with diversity in senior population considering characteristics such as race, ethnicity, and life experiences.

- The 17 program models were selected with the following in mind: a) future opportunity for scaling models beyond one food bank, b) feasibility of data collection for programs, and c) balancing study of newer and more innovative models with mature and/or traditional programs, reaching many seniors.

- 12 of the 17 programs provided direct food-assistance (e.g., CSFP and mobile pantry programs). The remaining 5 programs provided other forms of assistance with the goal of increasing the quality or diversity of seniors' diets (e.g., SNAP outreach initiatives).

Overall, the program models selected for the study highlight the direction of some food banks. Increasingly, Feeding America network members show an interest in designing programs that address seniors' needs by building relationships with healthcare partners and/or including food specific for seniors' diets in distributions. These types of efforts and program models will be described later in the report.

Between June and September 2017, data collection was carried out by 3 data collectors based at the University of South Carolina. Each data collector visited 3 sites, where they carried out semi-structured, qualitative interviews with food bank staff and a sample of agency partners and seniors at each site during two-week visits (Table 1). Food banks identified agency partners and a sample of senior clients prior to the data collector's arrival. Data collectors also carried out observations and document collection, Interviews were audio-recorded and the recordings were transcribed verbatim.

Researchers at the University of South Carolina completed analysis and reporting between September 2017 and March 2018 with input and feedback from the Feeding America team. Analysis involved document review, coding interview transcripts for themes, and use of matrix displays. Researchers created site-specific summaries, followed by synthesis and comparison of program information and synthesis across sites of senior experiences. During the analysis phase, the goals and research questions addressed in this report were refined and linked with appropriate methods and outputs (Table 2).

This research used primarily qualitative methods. The sampling was purposive, selecting sites, programs, providers, and seniors to capture the range of activities and experiences rather than attempting to represent the average. Therefore, the quantitative statistics that are reported are indicative rather than strictly representative of the population studied.

Table 1. Sites, programs, number of interview, and agency partners represented in the sample.

Site	Program(s)	Seniors	Food Bank Staff (total interviews)	Agency Partners (total interviews)	Agency partners represented
Alabama – Community Food Bank of Central Alabama	• Senior Mobile Pantry • Hospital Pantry Program • Benefits Enrollment Center (BEC) • Farmers Market Vouchers	14	2	5	Mobile Pantry: church-based pantry (1); community center (1) Hospital Pantry: Geriatric clinic (1) BEC (2; considered food bank staff) Farmers Market Vouchers (2)
California – Redwood Empire Food Bank	• Senior Basket (CSFP) • Diabetes Wellness Program (DWP) • Kitchen Collective (KC)	24	12	5	CSFP/DWP: senior center (2); senior residence (1) CSFP/DWP + KC: senior center (1); Catholic Charities (1)
Michigan – Gleaners Community Food Bank	• Senior Mobile Pantry (with nutrition education)	23	3	5	Senior residence (2; different residences) Senior center associated with residence (1) Volunteers (2)
Minnesota – Second Harvest Heartland	CSFP SNAP Rural Outreach	8	2	6	CSFP: senior daycare (1); church drop-site (2) CSFP + SNAP: United Community Action Program (1) SNAP: senior center (1)
Montana – Montana Food Bank Network	• Mail-A-Meal	12	6	2	Community drop-site coordinators (2)
New Jersey – Food Bank of South Jersey	• Therapeutic Food Pantry (TFP) Tower Gardens	23	7	5	TFP: Home healthcare (1); Dialysis center (1) Tower Gardens: Senior residence (2); senior center (1)
Pennsylvania – Chester County Food Bank	Senior Box Program	10	1	6	Food cupboards (2; different cupboards) Senior residences (2; different residences) Senior Centers (2; different centers)
South Carolina – Lowcountry Food Bank	• Meals on Wheels/Silver Plate Pilot	14	9	4	Senior Center (4; all from the same center)
Texas – Central Texas Food Bank	• CSFP • Healthy Options Program for the Elderly (HOPE)	19	5	5	CSFP: Senior Center (2); Housing Authority (1) HOPE: Housing Authority (1); Food Pantry (1)
Total	17	147	47	43	

Table 2. Summary of research questions, methods, and outputs.

Goal	Research Topics	Data (source)	Analysis	Outputs
Create body of knowledge about existing programs designed to serve seniors	Program models being implemented Food and non-food services provided by different delivery models Steps for delivery and who are participants	Program documents Semi-structured qualitative interviews (food bank staff and agency partners) *Resource Intensity Questionnaires distributed to food banks November 2017	Recorded interviews were transcribed Research team developed code list for service providers and seniors from original evaluation questions Interviews coded using NVIVO 10 qualitative analysis software Thematic analysis inductive of feedback from Feeding America team	Final Report with data repository (April 2018) Powerpoint deck for general use (April 2018) Visual displays (April 2018) Conference abstracts (American Society for Nutrition 2018; Gerontological Society for America 2018) Academic articles (Summer 2018) Presentations (SCHNAC call, October 2017, Design Impact workshop January 2018, strategic meeting with FA evaluation and programs team, March 2018)
Become informed by and better understand the daily experiences of seniors who access services	Needs and priorities of seniors Benefits from programs Challenges and barriers that seniors face in accessing services Senior responses to challenges Satisfaction with services Which seniors have potential to benefit from which services Increasing access Where getting other services	Semi-structured qualitative interviews (seniors)		
To learn and examine the successes and challenges of delivering programs and providing services to seniors	Experiences in serving seniors Main successes Achieving successes Challenges providers face How to respond to challenges Reach of programs How create new programmatic responses to needs	Semi-structured qualitative interviews (food bank staff and agency partners)		

3. WHAT ARE THE NEEDS OF SENIORS BEING SERVED BY SENIOR FOOD-ASSISTANCE PROGRAMS?

Seniors, as outlined by the USDA, are citizens older than the age of 60 and their needs are varied and diverse, as influenced by many factors. The seniors in the sample for this study represented a racially and geographically diverse set of perspectives and experiences (Table 3). At each site, seniors ranged from 60 to 85+ years of age. One program (Healthy Options Program for the Elderly, or HOPE) included pre-seniors i.e., those 55 and older. Seniors were asked about their experiences at home with obtaining, preparing, and consuming food; priorities, needs, and challenges in general; food security; and experiences with accessing and using senior food-assistance programs.

We conducted a synthesis and thematic analysis of responses, and from this analysis developed a framework for understanding how common experiences translate into needs that can be addressed by programs distributed through the food banks and agency partners. This framework also sheds light on the abilities and limitations of seniors that influence the extent to which they can interact with and benefit from food-assistance programming, thereby providing the context for service providers to more effectively target subgroups of seniors with different needs (or better understand the variation in experiences and needs among the seniors they already serve).

This framework is organized by three overarching categories of abilities, within which seniors' types and degrees of ability vary: 1) personal mobility, 2) consumption of food and 3) access and use of transportation. Within each category, we describe the abilities and limitations, and degrees therein discussed by seniors across sites. Seniors' abilities within these categories influence not only the extent to which they need food-assistance, but the extent to which they can interact with and benefit from programs, thus highlighting opportunities to enhance program accessibility from both a targeting and design point of view in order to achieve greater impact. These categories are outlined below:

> ***"I used to be able to do everything, but my age has caught up with me. [...] Mama used to tell us that, 'Wait 'til you get older.' Mama was right."***
>
> -Senior from Texas (HOPE)

1) Personal mobility (Table 4).
   - 1a) ability to lift or carry items (physical strength)
   - 1b) ability to prepare food
   - 1c) ability to walk or stand (self-efficacy to leave house; run errands)
   - 1d) health status

2) Consumption of food (Table 5).
   - 2a) preferences
   - 2b) accessibility
   - 2c) affordability
   - 2d) chronic disease and dietary needs

3) Access and use of transportation (Table 6).
   - 3a) own means of transportation
   - 3b) friends or family
   - 3c) public or private

Table 3. Demographic information of seniors by site.

Site	# Interviews	% Female	Ethnicity
Alabama	14	100	64% African American; 36% Caucasian
California	24	79	4% African American; 42% Caucasian; 33% Hispanic; 8% Eritrean; 8% Vietnamese; 4% Portuguese
Michigan	23	74	48% African American; 42% Caucasian; Arabic: n=3
Minnesota	8	88	63% Caucasian; Also represented: Hmong, Ethiopian, Eastern European, and Hispanic
Montana	12	63	100% Caucasian
New Jersey	23	70	22% African American; 48% Caucasian; 30% undisclosed
Pennsylvania	10	70	50% African American; 50% Caucasian
South Carolina	14	73	93% African American; 7% Caucasian
Texas	19	81	19% African American; 37% Caucasian; 26% Hispanic; 15% Vietnamese; 3% Italian
Total	147	77	

Table 4. Framework for needs of seniors: Personal mobility.

Categories of abilities	Physical Strength	Preparing food			Walking or standing	Health status	
Abilities	Lifting and carrying items	Physical strength or dexterity	Cognitive or gross motor skills	Knowledge	Self-efficacy to leave the house, run errands, and access public transportation if necessary	Chronic illness	Transitory illness, accident or injury
Range of abilities	Can manage on their own	No issues		Knowledgeable of cooking for self or dietary restrictions	No issues	No or limited challenges to mobility or lifestyle	
	Has trouble but can still manage	Some issues/can prepare simple foods		Limited knowledge of cooking for self or dietary restrictions	Some issues	Some challenges to mobility and lifestyle modifications, but manageable	
	Requires assistance	Cannot cook		Lacks knowledge or cooking for self or dietary restrictions	Cannot walk or stand and requires assistance	Debilitating or significant challenges to mobility; requires significant lifestyle modification	

Table 5. Framework for needs of seniors: Consumption of food by seniors.

Categories of abilities	Preferences	Accessibility (distinct from transportation)	Affordability	Health condition-related dietary needs		
Abilities	Knowledge (history, experience, perceptions of healthy eating, ethnicity to some extent)	Selection of affordable grocery stores/farmers markets	Dietary diversity	Diabetes	Hypertension	Other (including transitory illness)
Range of abilities	Varies by individual Note that Hmong, Ethiopian, Eritrean, Vietnamese, Eastern European, and Hispanic seniors all expressed strong preferences for fresh produce over canned.	One or more affordable options within accessible range; easily able to budget and plan meals and maintain relatively diverse diet with sufficient healthier options, (e.g., produce, whole grain, lean protein canned or fresh)	Ability to plan, budget, and access affordable grocery stores enables relatively diverse diet (regular consumption of variety of healthier options)	No issues, condition under control; can afford and prepare right foods for health		
		Fewer or less optimal options within accessible range; interferes with ability to plan or budget to some extent; challenge to consistently afford healthier options	Intermittent or limited ability to afford or access items comprising a diverse diet	Some difficulty in meeting dietary needs for condition; affordability, access, or preparation issues		
		Few affordable options within accessible range; limited ability to easily budget or plan; cannot afford healthier options	Inability to afford healthier options comprising a diverse diet	Cannot afford or access the right foods for their health; controlling condition is a significant challenge		

Table 6. Framework for needs of seniors: Access and use of transportation by seniors.

Categories of abilities	Own means	Friends or family	Public or private (e.g., taxis)			
Abilities	Affordability of gas, insurance, and/or maintenance	Consistency in availability	Safety	Availability or convenience	Affordability	Self-efficacy or personal mobility
Range of abilities	No challenges	No issues; can be reliant without concern for consistency	No issues			
	Affordability is a concern	Some issues; can access frequently enough to largely meet needs but encounters occasional limitation	Some issues, but not prohibitive to consistent use			
	Difficulty affording; restricts use of vehicle	Frequent or chronic issue with consistency; has trouble meeting needs	Unable to use public or private transportation due to significant challenges in one or more of the characteristic issues			

Table 7. Number and percentage of self-reported diabetes and hypertension among seniors in the sample.

Site (total)	Self-reported diabetes	Percentage	Self-reported need for low-sodium diet	Percentage
Alabama (15)	5	33	2	13
California (24)	8	33	3	13
Michigan (23)	6	26	4	17
Minnesota (6)	4	67	1	17
Montana (12)	6	50	0	0
New Jersey (23)	4	17	1	4
Pennsylvania (10)	5	50	1	10
South Carolina (14)	4	29	2	14
Texas (19)	9	47	5	26
Total	51	35	19	14

3.1 Personal mobility: Physical strength, ability to prepare food, ability to walk or stand, health status

The category of personal mobility is organized into four sub-categories: physical strength, the ability to prepare food, the ability to walk or stand, and health status (Table 4). These sub-categories capture the range of abilities and limitations that emerged as important in seniors' ability to access programming, both within the home and in engaging with the program at distribution sites.

Physical strength

The majority of seniors participating in direct food-assistance programs (i.e., those that provided boxes or bags of food) had difficulty lifting and carrying heavy boxes or bags. Some required assistance in their homes to unpack and put away groceries as well. A smaller proportion of seniors could not manage boxes or bags of food on their own, relying on proxies (e.g., friends, family, home health aides) or volunteers. Seniors who received assistance from volunteers to put boxes or bags of groceries in their cars, for example, had to make multiple trips to bring the food inside their homes or had to ask for assistance from friends or family.

Ability to prepare food

Many seniors in the sample were limited in their ability to cook or unable to cook. Common causes of cooking limitations were: weakness and fatigue, vertigo or dizziness, chronic pain that made standing or sitting for periods of time difficult, arthritis or numbness in the hands that made tasks like lifting pots or pans or chopping difficult, inability to withstand exposure to heat for a length of time, and occasionally memory problems that made cooking dangerous.

Physical strength

"When I know I'm going to the food pantry I'll bring either my wheelchair or my little walker right there that we don't have to lift. […] Well, we have to lift it from the bus but other than that. […] that [HOPE] bag of canned goods, that's a heavy bag. […] I just don't have the strength no more. […] I used to be able to do everything, but my age has caught up with me. […] Mama used to tell us that, 'Wait 'til you get older.' Mama was right."

– Senior from Texas (HOPE)

Although the majority of seniors expressed a preference for fresh produce, choosing foods that were easy to prepare (cereal, sandwiches, or canned soups) was the practical consequence of limitations on their cooking abilities. Given limitations, many seniors preferred foods they could microwave. Some reported that they prepared large amounts of food at one time and froze portions they could easily microwave, or they consumed leftovers for several days. Others sought canned soups or stews or frozen meals. Easy-to-prepare fresh foods, such as salads and fruit, however, were strongly preferred when available.

Although most of the seniors knew how to cook, they described changes over time that required new knowledge or skills they did not necessarily possess. For example, some seniors did not know how to cook for one person, or were disinclined to do so, after cooking for a family most of their lives. Several seniors noted that their appetites,

physical abilities, and dietary needs also changed over time, requiring new ingredients and preparations with which they may not be familiar. Many seniors suggested that food-assistance programs aim to provide simple, responsive, and easy to prepare recipes to help them make better use of the items provided.

A few seniors mentioned that they lacked functional stoves or other kitchen equipment and could not afford to replace them.

Ability to prepare food

"Well, I'm handicapped so preparing my foods is a challenge. I sit on a bar stool or either in my walker to prepare foods and to wash my dishes. Sometimes it's a little challenging, depends on what I'm cooking because I'm scared to death that I'm going to get burnt by grease or something because I'm sitting in that chair. [...] I only cook sometimes because sometimes my back and my body won't let me cook."

- Senior from Texas (CSFP)

"[I am able to cook], but I don't feel so I'll burn my fingers or if I cut, I'll cut myself. [...] I don't feel with my hands. [...] ...it's been diabetic neurotropy in my hands goes about to here and the same way with my feet, it goes like up to mid-calf. I drop a knife in the kitchen the one day and it hit my foot and I never even knew it. It's something you learn to deal with, it's a fence..."

- Senior from New Jersey (Tower Garden)

Ability to walk or stand

Seniors' abilities to walk or stand related to their self-efficacy to leave their homes and perform different activities without assistance, such as running errands, cleaning, cooking, or waiting in line. Some seniors reported no issues with any of these activities, some reported conditional challenges—e.g., they could typically carry out these activities without assistance but may be limited by mobility constraints or occasional weakness or fatigue—and some were unable to perform these activities and required caregivers.

Ability to walk or stand

"Well, I guess through the years I've taught myself to do some things. A lot of things I thought I couldn't do I've learned to do, but I like the idea of being independent. [...] going to the store by myself is sort of like an outlet for me, because our apartments are not that big. [...] I have a stool in my kitchen. And I get out of my chair, I sit on my stool to wash my dishes and I sit on my stool to cook."

- Senior from Michigan who is wheelchair-bound

Health status

Seniors reported a wide range of conditions that impact mobility, both chronic and short-term. Diabetes was the most prevalent, followed by hypertension. Other conditions were: cancer, chronic pain from previous injuries or inflammatory conditions such as arthritis, rheumatoid arthritis or fibromyalgia, weakness or fatigue, vision problems, memory problems, injury resulting from

falls or accidents, gastrointestinal diseases, stroke, cardiovascular disease, dental diseases, dizziness/vertigo, neuropathy, circulatory issues, respiratory diseases, and chronic obstructive pulmonary disease.

Health Status

"My son do my shopping for me. [...] I'm on disability and I need help. [...] It's just that I can't stand too long. [...] My back and my legs start hurting. [...] As far as cooking, I cook every day. I don't have no problems. [...] I cook and I sit here and watch my food when I get tired or when I start hurting. [...] I have high blood pressure. I'm a diabetic, I get sleep apnea, I get depression, and I think that's it. [...] It's a lot, isn't it? [...] I bet you there's something else that I'm forgetting. Oh, I've got Paget disease. That's in my back. That's what's caused the pain."

- Senior from Michigan

3.2. Consuming food: Preferences, Accessibility, Affordability, Health Condition Related Dietary Needs

This category is organized into four subcategories that capture most of the experiences related to consuming food: personal preferences, accessibility, affordability, and health condition-related dietary needs (Table 5).

Preferences

Personal preferences were important considerations in seniors' engagement and satisfaction with programming. Almost all seniors across sites expressed a preference for fresh produce and protein over canned items, but had difficulty consistently accessing and/or affording these items. Seniors across sites expressed an overwhelming preference for fresh items over canned or other non-perishable items, although they emphasized the important role non-perishables play in helping them to stretch their food throughout the month.

Knowledge helps to shape seniors' consumption patterns. Many seniors described eating healthily (i.e., eating plenty of fresh foods) as important to them, particularly in light of the ways in which they were taught to eat as children and/or the ways they worked to feed their own families. Many seniors across sites mentioned that they coped with low fixed incomes and/or food insecurity by using knowledge on budgeting, meal planning, and preparation they had gained over their lifetimes or from their parents or grandparents. This type of resilience was frequently referenced with regard to questions about food security; some seniors would not self-identify as food-insecure because, despite constraints in income, personal mobility, or access to transportation, they knew how to "shop intelligently", "make do", and "stretch" their resources.

Preferences

"...I like to make food. Before I would [...] make for two or three people or five people or four people. Now, it hurts you a little bit because you have to make it only for one person, me."

- Senior from Texas (HOPE)

Accessibility

Accessibility of foods related to the extent to which resources like grocery stores, farmers markets, or other places to purchase food were accessible for seniors. Groceries were typically more accessible to seniors when there were one or more affordable options within an accessible range. "Accessible range" could refer to driving distance, walking distance, or convenience to public transportation routes, depending on the abilities and transportation options available to the senior. Seniors could be restricted in accessing the foods they preferred, that were better for their health, or that fit within their budget by a lack of affordable options within their accessible range. Seniors may also be restricted in terms of what they could carry, if walking distance or public transportation routes determined their accessible range. The accessibility of grocery venues had implications for seniors' ability to plan meals and budget effectively, and for how much value they could obtain from their SNAP benefits.

Affordability

Affordability represented an important constraint on the types of foods seniors were able to consume. One participant in a group interview noted that "there's no nutrition that poor people can afford." For many seniors, the priority when purchasing food was that it was on sale, which could enable them to buy in bulk and help them stretch it further. In particular, several seniors noted that they tended to purchase meat (the most expensive item for many seniors) on sale and in bulk, which they would freeze and portion out. The nutritional value (or their perceptions of such) and personal preferences had lower priority for many in choosing which foods to purchase.

Accessibility

"We can get milk and eggs at our local grocery store, but most of your produce and stuff, we'll go to Forsyth or Hardin or Billings. And Forsyth is 30 miles, Hardin's 50, and Billings is 75."

- Senior from Montana

"For me, I happen to have a car, so I will go when I really need to, but a lot of the seniors where I live can't ... they don't drive anymore. You can see I have all kinds of apparatus in my leg, so I have metal parts in my leg ... lower leg and knee and then I have the same thing in my shoulder. I can't walk three blocks, even if it's three blocks I can't walk and get groceries and bring them home. I'd be in pain for days, and I'd be tired and they're in the same shape. Getting the fresh foods is a lot more difficult..."

- Senior from California (CSFP/Senior Basket)

"Since I got sick I haven't been able to drive so getting to the store is usually tough to get a ride. Usually once a month and when I do I try to buy whatever I need, if I can for the month. [...] the hardest part is getting meat, and eggs because the only place we can really go to is the Heritage, and it's so darn expensive there. ...if I have to go to the doctors or something I have medical transport. [...] Other than that they don't take you to the supermarket or any places like that. So it's pretty much where ever my son can walk to, to get stuff."

- Senior from New Jersey (Therapeutic Food Pantry)

The most common issue was that protein and fresh produce, particularly fruit, were simply too expensive to afford regularly. These items are also perishable, which can make them more challenging to stretch, and usually require at least some preparation, which can be a limitation for many seniors.

In this sample, 94 out of 137 seniors, or 69%, discussed SNAP during the interview. (SNAP was not discussed in the remaining interviews, although this does not indicate their SNAP enrollment status.) Among those who discussed SNAP, 60 seniors, or 64%, were enrolled in SNAP. Of those enrolled, 27% reported that the service was beneficial and provided an important supplement to their grocery budget. About one quarter (28%) of seniors reported receiving the minimum or close to the minimum SNAP benefits ($16). While it was unclear why these seniors received the minimum, the majority of them noted that the benefits were somewhat helpful but their need was largely unmet. Two programs designed to increase senior SNAP enrollment were included in this sample and are described in section 6.

Affordability

"I always eat less. I always do. [...] But I don't try to do a lot of activities or anything because I might be too weak. I'll do it, and then I might get sick or I get weak and I get tired. [...] Right now, I eat one meal a day. I haven't ate this morning. I ate last night, and it was about 9:00. So I won't eat no more 'til probably 3:00 or 4:00. Then I won't eat no more again. I bought me tea bags. I buy me some sugar. [...] Okay, there's 24 bags of tea. Okay, I've got 24 days, but I use that tea bag twice, so I'm stretching it out, and use my sugar, make me a pitcher of iced tea, and I drink that. I probably have two or three glasses a day. The rest of it's water so I can stay full."

- Senior from Michigan

"I don't worry about [running out of food] because there's always bread and peanut butter. [...] You know, when you've been in this situation, like we're all low income, we learn that, you know, like there's bread and peanut butter, so I don't worry about. I just make sure that I've got some on hand. [...] I usually keep 20 or $30 in my wallet towards the end of the month, 'cause that's normally when I run out. And I have been known to order from Domino's pizza. [...] 'Cause I can make a pizza last for days. Just one slice for breakfast, or lunch, whatever. So if I get to that point, you know ... I don't worry."

- Senior from Pennsylvania

Health condition-related dietary needs

Diabetes was the most commonly reported health condition in this sample, with around one-third of seniors self-reporting as having either diabetes or prediabetes (Table 7). Many of these seniors mentioned the need to stay away from juice, refined carbohydrates, and sodium. Several also mentioned that their doctors had advised them to lose weight to improve diabetes or other conditions. Hypertension was also relatively common and many seniors were on low-sodium diets.

Diabetes presents additional considerations around affordability and dietary needs. Many seniors living with diabetes noted that they felt the need to consume more produce and lean proteins in order to manage their health, but were unable to afford these items. One senior noted that she had problems controlling her blood sugar because she had both too little food and not enough of the right foods, including produce and protein.

Other dietary challenges resulting from health conditions or transitory illness were reported less frequently. Seniors mentioned sensitivities or intolerances to gluten, dairy, nuts and seeds, acidic foods, or spices. A few seniors also noted that they could not have citrus due to their interaction with certain medications. Many seniors also reported diminishing appetites due to a variety of conditions. One senior noted that he was on a liquid diet following a surgical procedure; transitory dietary needs due to illness or surgical procedures and the need for food-assistance during this time were discussed to a limited extent within this sample but merit further investigation.

Health condition-related dietary needs

"... I am borderline diabetic, and I do have high blood pressure. And I don't always get the kind of food to help me with my diet because of being able to afford it, because the better foods are more quality. They cost a lot more. So sometimes you kinda settle for the cheaper value."

- Senior from Alabama (Benefits Enrollment Center/Farmers Market Vouchers)

"I like the sweets, but then we can't afford the things that I can really benefit from. Being on dialysis, with my health being the way it is, I need to start eating the right food because they talk to me about it all the time. But, just like I told them, if you was in my shoe, what can you do? If I eat a little something, then that's all that matters. If it's not good for me, well then, I got to eat. [...] So we all going to pass away sooner or later anyway, so what difference would it make?"

- Senior from South Carolina

"I cut down eating a lot. I used to weigh a lot more, 130 pounds more. [...] Now being here, eating more of potatoes, and carbs, pasta, and bread, I gained weight back, 20 to 25 pounds. That's got me stressing out, because I don't want to go back to 340 pounds anymore. I'm 240 and I'm miserable over it right now, but that's with my disability and my neuropathy, I have tendinitis, and I've got gout in both of my feet."

- Senior from Texas (HOPE)

3.3 Access and use of transportation

Nearly half of seniors in this sample did not have their own transportation (Table 6). Some had reliable friends or family who could provide transportation regularly or as needed, although more seniors within this group did not have consistent access to transportation through their social networks and obtaining rides was a persistent challenge.

Limited access to transportation impacted seniors' abilities to obtain food. If they could not consistently obtain a ride to the grocery store, for example, their budgeting and meal planning process could be interrupted, or they could find themselves in the position of running out of food and being unable to obtain more. If they lived in an area where walking or public transportation was either their only option or an alternative to obtaining a ride from friends or family, they were limited in purchasing by what they could carry, and for some seniors this challenge was compounded by mobility issues. The lack of transportation or limited access to transportation also restricted seniors' ability to choose where they shopped, which could pose significant challenges to their budgeting. For example, being able to shop at discount or bulk stores enabled several seniors in the sample to more easily budget, stretch, and make better use of their benefits from SNAP, whereas without transportation options, some seniors were restricted to shopping at nearby stores that were more expensive.

Some seniors could take advantage of public or private transportation, although access to or the availability of public transportation varied by location. Several seniors in South Carolina, for example, reported that their neighborhood was not served by public transportation. One senior in California, who was blind, reported that safety concerns prevented her from using public transportation.

Seniors living in rural areas typically needed to have their own transportation, but those in California and Montana reported challenges in affording gas or insurance. The relatively extreme rurality in Montana, for example, required some seniors in the sample to drive over 100 miles each way to obtain affordable groceries or attend medical appointments.

Summary

From the perspective of seniors, program accessibility depended on seniors' abilities in one or more of three categories: personal mobility, consuming foods, and access and use transportation. Recognizing the heterogeneity of needs (largely based on abilities) within the senior population and distinguishing between types of need and degrees of abilities can aid targeting, designing programs, and achieving program impact.

Access and use of transportation

"...I am handicapped in one, legally blind in one eye...a year and a half ago, I discovered that I have cancer. I have a whole host of things. I live alone. All my babies, my children, my grandchildren, everybody's in New York, so I am totally dependent on neighbors and friends to help me out, to have a support system. [...] I'm told I'm a strong woman. I'm this. I'm that. I'm not anything. I'm just trying to survive. That's all I'm trying to do. I'm not proving anything to anyone. I'm trying to stay alive, stay in good health, stay in good health."

- Senior from South Carolina

"...I shop in Marshall and for a reason, because these small towns [grocery stores] are way too high and on a fixed income you can't afford it. [...] This area has been designated a high risk area as far as aging people getting the food for their diets. [Marshall, Minnesota is] about 22 miles, 23. [...] for people who have eye issues, or whatever, other kinds of issues as we age, it's a real problem. And on a fixed income, and they can't drive, and they're afraid to use the county transit and that too is expensive. Then they're locked into here, and therein is the problem."

- Two seniors from Minnesota (CSFP/NAPS)

4. HOW ARE FOOD- ASSISTANCE PROGRAMS THAT SERVE SENIORS MEETING THEIR NEEDS?

> ***"...if a partner is not passionate there's nothing you can do to get them to get on board. You can try all the angles as much as you can...and reach those seniors we can."***
>
> -Food Bank staff member

Based on study of 17 program models across the Feeding America network, it was apparent that there is no one-size-fits-all model that meets the needs of a diverse senior population, and service providers often have to make trade-offs. Service providers tend to balance reach against specificity when designing senior-specific food-assistance programs. The primary questions around designing programs and targeting seniors—do we try to serve more seniors (reach), or do we try to serve more of the most vulnerable seniors (specificity)?—appear at opposite ends of a spectrum of programs that service providers navigate based on the resources available to them and how they perceive seniors' needs. Service providers typically perceive a tradeoff between reach and specificity: to achieve one requires sacrifices to the other. Reach is typically achieved by targeting a broad swathe of seniors based on age and/or income, such as CSFP; specificity is achieved by including additional criteria or replacing or expanding upon the commonly-used age and income criteria with such conditions as: ability to cook, homebound or transportation-limited, health status, special dietary needs, and location (e.g., urban, rural), and living situation (e.g., congregate, subsidized). These common program targeting criteria can be aligned with the framework of needs identified by seniors (Table 8).

The table shows that, in simplified terms, income alone does not convey the diversity of seniors' needs. Rather, seniors' needs are largely based on types and degrees of ability as discussed in the preceding section. Therein is the tension between reach and specificity: as a matter of resource availability and cost-effectiveness, programs that prioritize reach typically rely on USDA-donated food items, limiting their ability to customize food-assistance to specific needs of seniors, and therefore do not typically feature additional targeting criteria. On the other hand, programs that prioritize specificity sacrifice reach and cheaper or more cost-effective strategies to procure food to provide customized food mixes to sub-groups of seniors with specific needs, such as diabetes. Other considerations are putting more resources toward overcoming seniors' transportation constraints by conducting home deliveries, mobile pantries, or establishing and maintaining partnerships with senior residences and centers instead of requiring self-pickup. Even among programs that prioritize specificity, there are often tradeoffs in focusing on different needs (e.g., prioritizing home delivery over customized food mixes).

Table 8. Program targeting criteria and alignment with senior needs.

Program targeting criteria	Personal mobility				Consuming food**			Access and use of transportation		
	Strength	Preparing food	Walking or standing	Health status	Accessibility	Affordability	Health-related dietary needs	Own	Friends or family	Public or private
Income						✔				
Homebound	✔		✔	✔	✔			✔	✔	✔
Specific health conditions		✔ *		✔			✔			
Cooking abilities		✔		✔ *			✔			
Location (urban/rural or congregate living)					✔			✔	✔	✔

*Programs targeting specific health conditions may or may not involve cooking abilities and vice versa (e.g., Meals on Wheels Silver Plate provides pre-prepared meals whereas California's DWP and both healthcare-based programs in the sample provide raw materials).
**Note that *preference* as a sub-category of consuming food is not included in this or the subsequent tables about program design. The food-assistance programs in this sample would (by and large) attempt to account for preferences in determining program content, but food bank procurement strategies are not typically flexible enough to be responsive to preferences on a continuous basis. Most food banks make use of USDA MyPlate concepts in addition to Feeding America's Foods to Encourage to determine program content (except for Montana's Mail a Meal, which explicitly incorporated senior feedback in efforts to update their content; California's Kitchen Collective is another exception and is given further consideration in Part 6).

The food-assistance programs considered in this study fall at different points on the spectrum of reach and specificity, although nearly all programs attempt to meet seniors' needs on multiple levels (Figure 1). Information on eligibility criteria and procurement strategies are included in this figure to highlight some tradeoffs made between reach and specificity. For example, the USDA-donated items used for CSFP represent little-to-no-cost to food banks to procure, but typically result in limited control over inventory. On the other hand, purchasing food enables greater control but may push the limits of a food bank's purchasing power. Pennsylvania food bank staff members, for example, transitioned from offering the CSFP to developing their own Senior Box program to address the shortcomings they perceived with the CSFP, specifically the high administrative burden of the program, its relatively narrow income criteria (130% of the federal poverty line), and its lack of responsiveness to seniors' dietary needs. After transitioning, they were able to maintain their caseload, but noted that they were keenly interested in seeking other funding opportunities, including grants and new donors, to sustain the program. They also mentioned an interest in seeking corporate sponsorships to offset their food procurement costs.

Other examples of programs with greater specificity that are generally able to address more (or more specific) needs, but reach fewer seniors, are California's Diabetes Wellness Program and Montana's Mail-a-Meal (Figure 1). At the relatively extreme end of specificity, New Jersey's Therapeutic Food Pantry has the capacity to customize to a large extent due to the small number of patients served. Several food banks

Pennsylvania's Senior Box Program

"...we [raised] the income level from 130% of poverty, which was CSFP, to 150% of poverty, which is TEFAP, so that it was now in sync for our food providers at the food cupboard level [...] a great sigh went across the county as these food providers no longer had to say to one elderly person, "Oh, I'm sorry you're over by eight dollars or seven dollars or twenty-three dollars, [...] diabetic seniors don't need two 64-ounces of juice but these big things that were in CSFP that did three things: A) It was an incredible amount of sugar and juice going into a senior, even for a full month. B) They were really heavy. They added five pounds of weight to the box. C) Over the last 12 months the bottles were cheaper and cheaper and cheaper so we were busting the bottles in our warehouse [...] The two pounds of low, 2% fat cheese, we as a food bank felt that we did not want to distribute the cheese because the requirements on the cheese was so stringent with CSFP. [...] Oversight of the cheese was extremely debilitating to the agencies. [...] It saved us a lot of money and a lot of wear and tear at the pantry level and at the senior center level and at the senior housing site level by eliminating the cheese. It also now lowered the box from being 30 or 32 pounds per box to about 25, [...] It also meant now that there was no time constraint in the distribution process.

- Food Bank staff member

with greater reach, however, have included features that enhance core programming. Minnesota's CSFP is an example of a program with substantial reach, with nearly 10,000 seniors enrolled. It is also a mature program and the food bank has been able to enhance the service with the provision of fresh produce and other donated perishables and mobilize 62 volunteers to conduct over 150 home deliveries each month. California's Senior Basket (CSFP) distributions include fresh produce, and supplemental, in-house produced, frozen, vegetarian meals to seniors are provided through an initiative called Kitchen Collective at select distributions.

Program design

Food banks have developed a number of innovative features to increase the responsiveness of programs to seniors' needs, ranging from modifications to existing programs to new programs entirely. Tables 9a and 9b summarize the key design features of each program.

Modifications

- Include produce with distribution
- Conduct or facilitate senior-only distributions
- Update non-perishable content to reflect senior preferences or dietary needs
- Facilitate more home deliveries (via new partnerships or mobilizing more volunteers)

New programs

- Senior-specific mobile pantries with tailored food offerings [or grocery items]
- Tailored nutrition-education services
- Healthcare-based services

Some activities require minimal to no additional resources to implement, such as New Jersey's Therapeutic Food Pantry assigning fewer than 10 regular volunteers to pack fewer than 50 additional boxes per week. On the other hand, an initiative like California's Kitchen Collective requires in-house (or access to) commercial kitchen facilities, which the food bank opted to include when building their new facility. Adjusting existing programming or creating new programming may also require new inputs, such as money or fundraising effort, time, staff, training, space, vehicles, new volunteers, additional outreach, intensification of existing partnerships, or the establishment of new partnerships. Depending on the existing capacities of the food bank, their ability to leverage existing resources, and their fundraising capabilities, these could represent anywhere from minimal to significant outlays of resources. Below, we summarize strategies and experiences of food banks in implementing both modifications and new programming.

Modifications

Produce: Acquisition, nutrition education, quantity

- Procurement strategies varied across food banks. Pennsylvania's food bank operated their own farm, purchased produce at state auctions, and received donations. Other food banks used state purchasing programs or donations.
- Experiences from Michigan's Senior Mobile Pantry, which provides 10 lbs of fresh produce per month to seniors, suggest that it is important to think about the types of produce provided to seniors. For example, citrus interacts with many common medications. Spicy foods may be difficult for many seniors to consume, such as jalapeno peppers. Some types of produce

may be unfamiliar to many seniors, such as rutabagas, or require certain preparations to make it more edible or digestible for seniors. Tailored nutrition education and recipe demonstrations delivered with the mobile pantries helped to address some of these challenges.
- Relative quantity and variety of produce is another important consideration. Many seniors live alone or with a partner, but may find it difficult to consume 10 lbs of potato, cabbage, onions, or apples in a month.

Senior-only distributions
- An agency partner in California introduced senior-only distributions, noting that their previous strategy of conducting senior program distributions concurrent with general distributions had led to friction between non-seniors and seniors. Senior-only distributions gave seniors enough time to complete the process of checking in and receiving their box and produce, and reduced the wait time for the general distribution. In contrast, seniors receiving the Healthy Options Program for the Elderly (HOPE) at a food pantry in Texas that distributed multiple programs during the same limited operating hours reported hours-long waits which many seniors found difficult to physically withstand, particularly without indoor space available in which to wait.

Updating non-perishable content to reflect senior preferences or dietary needs
- Pennsylvania ended its participation in the CSFP and replaced it with a box that they designed. Montana updated their box content to better reflect senior preferences. Both food banks rely on purchased foods and listed affordability as a challenge to sustaining these changes. Both food banks were interested in finding ways to solicit corporate sponsorships or other means of providing tailored content that meets seniors' dietary needs and preferences.

Facilitating more home deliveries
- Food banks had a variety of strategies to conduct more home deliveries. Some recruited volunteers to carry them out; others partnered with senior-serving agencies, including Meals-on-Wheels, senior daycares, and senior residences. Some of the partner agencies were themselves able to facilitate home deliveries—a few seniors with greater mobility constraints reported that boxes were brought inside their apartments. In the case of CSFP, several food bank staff members and agency partners implementing the program recommended that seniors designate proxies (i.e., a person formally designated by the senior who can pick up the box on their behalf) to address the need for home deliveries.
- Montana's Mail-a-Meal program highlights an innovative strategy to reach very rural and underserved areas: home delivery via UPS. The food bank noted that while the need was great and they did not plan to stop home deliveries for existing clients, the cost of one home delivery was close to the cost of shipping a pallet of 30 boxes to a drop site via their logistics partner company. As such, their plans for expansion focused on finding more community partners who could facilitate drop-sites and/or home deliveries in underserved areas.

Figure 1. Reach and specificity for senior food-assistance programs.

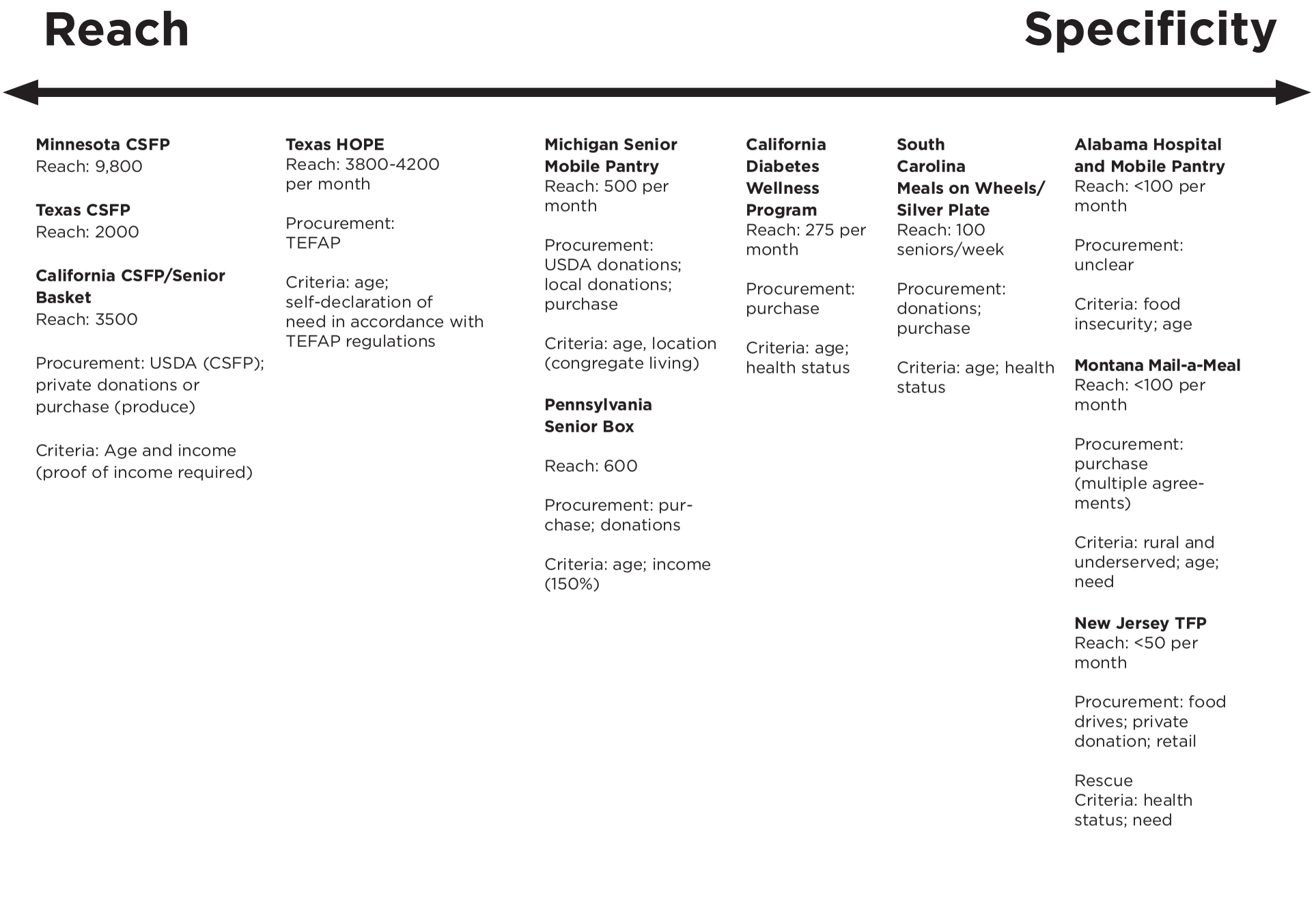

Table 9a. Key design elements of food-assistance programs (highest reach to highest specificity, left to right), continuing in Table 9b.

Design elements		Minnesota CSFP (9500)	Texas HOPE (3800-4200)	California CSFP (3500)	Texas CSFP (2000)	Pennsylvania Senior Box (600)	Michigan Senior Mobile Pantry (500)
Mode of delivery	Home						Yes
	Pickup						
	Mixed	primarily pickup	Primarily pickup	Yes	Yes	Yes	
Food mix	Prepared meals						
	Non-perishables		15-20 lbs		30 lbs		
	Mix of perishable and non-perishable	30 lbs non-perishables; produce offered when available)		30 lbs non-perishables plus produce		25 lbs non-perishables plus produce	10 lbs produce, 5 lbs non-perishables
Targeted to specific dietary or other health conditions			Attempt made to provide Foods to Encourage when possible			Attempt made to provide Foods to Encourage (and accommodate senior preferences) when possible	Attempt made to provide Foods to Encourage when possible

Table 9b. Key design elements of food-assistance programs (highest reach to highest specificity, left to right), continued from Table 9a.

Design elements		California DWP (275)	South Carolina Mow/Silver Plate (100)	Mail-a-Meal (64)	Alabama Hospital Pantry and Mobile Pantry (<100)	New Jersey Therapeutic Food Pantry (<50)
Mode of delivery	Home		Yes	1/3 receive boxes via UPS; 2/3 receive via drop site		
	Pickup				Hospital Pantry: typically pickup at clinic; home delivery if needed	
	Mixed	Yes			Mobile Pantry: mostly pickup	Pickup at clinic or hospital and home delivery
Food mix	Prepared meals		Yes			
	Non-perishables			50 lbs	10-15 lbs for Hospital Pantry; 30-35 lbs for Mobile plus 7 lb protein pack	30 lbs
	Mix of perishable and non-perishable	~30 lbs non-perishables plus produce		Yes		
Customized for specific dietary or other health conditions		Type 2 diabetics and pre-diabetics	Silver Plate is designed to be responsive to most dietary/health concerns	Attempt made to procure Foods to Encourage/ meet preferences when possible	Both provide Foods to Encourage; Mobile Pantry includes supplemental 7-lb protein pack	Customization possible; implemented at some sites

New programs

Senior-specific mobile pantries with tailored content

- Michigan provided mostly produce to seniors at their residences with an additional 5 lbs of non-perishable items (e.g., oatmeal or canned tuna).
- Alabama provided a 7-lb supplementary protein pack with the 30 lbs of regular contents (modeled on CSFP).

Tailored nutrition education

- Michigan offered tailored nutrition education in the form of recipe demonstrations, tastings, and one-on-one "health conversations" with a nutrition educator at mobile pantry distributions, many of which were tailored to the specific contents of the pantry.
- Other food banks, including New Jersey's Therapeutic Food Pantry and Pennsylvania's Senior Box program, offer recipes and health information with the boxes.

Healthcare-based services

- New Jersey and Alabama initiated partnerships with healthcare providers to provide food-assistance to vulnerable seniors. Lessons from these and other partnerships are provided in greater detail in the section below.

Mail-a-Meal

"...we took a look at those counties that are underserved [according to MPIN estimates] or not being served by any partner agencies that we're aware of, and quite frankly, some of them are so small, we're talking about maybe 15 people that meet the eligibility guidelines for being a person in need. So how do we best serve them? Do we try to develop a pantry there for those 15 people or more? Or do we find some other more pointed program that can serve them? And Mail A Meal is pretty much one of those. We also find that a lot of these counties lack the infrastructure. They're very rural, very isolated. They don't have anybody who would be able to establish a pantry. They're also too far for us to be able to do a mobile food pantry. You know, if it takes us six hours to get to a location to do an hour, hour and a half food distribution to 15 people, is that really the best way to serve not only our organization but them? So that's the other issue that we ran into with some of those extremely remote [areas], and of course they don't have access to grocery stores, and even if they do have SNAP."

- Food Bank staff member

Partnerships

Regardless of existing capacities and resources, most sites reported committing a relatively large proportion of staff time to managing relationships with partners. The programs with greater specificity (i.e., Michigan's Mobile Pantry, Alabama's Hospital Pantry, Montana's Mail a Meal, South Carolina's Meals on Wheels, New Jersey's Therapeutic Food Pantry) sought particular partnerships that would enable them to reach their respective target seniors. Programs with greater reach (CSFP; HOPE; Pennsylvania Senior Box) featured a wider variety of partnerships and modes

of distribution, including senior-focused partners such as residences, centers, and daycares, but these did not comprise the majority of partnerships.

Partnerships with healthcare providers

Two programs in this sample partnered with healthcare providers, including Alabama's Hospital Pantry (partnering with a university-based health system) and New Jersey's Therapeutic Food Pantry (partnering with a number of affiliates within a healthcare system, including a home healthcare agency and a dialysis clinic). From both agency-provider and food-bank perspectives, these relationships appear to be the most intensive (relative to the reach of the program) in terms of time and effort required to successfully implement the services. Addressing food insecurity and providing food-assistance in a healthcare context may represent a learning curve for partners, and they may need to adapt or develop their own processes for outreach and distribution. The needs of patients may also shift, patients may only require assistance for a brief period, or they may have special dietary needs that they are unable to afford to meet for a specific period of time. As observed in the case of the Therapeutic Food Pantry, food banks need to be proactive in communicating with service providers to ensure that the programs remain functional and relevant in the context of potentially shifting need of patients.

Communication between the food bank and the healthcare provider is key, but buy-in on the part of the healthcare provider, from frontline staff to executive decision-makers, is also, if not equally, important. Healthcare providers need to be motivated to integrate the food-assistance services into their operations and ensure that staff or frontline workers are consistently screening for need and following up with patients, which can take additional and potentially uncompensated time. The healthcare providers included in this study found the ability to offer food-assistance to their patients to be rewarding. In these cases, much of the relationship management involved maintaining clear, consistent, and open communication as needs and caseloads shifted on a monthly basis. One could assume that among newer (or potentially less-committed) healthcare provider partnerships, more time would be put towards outreach to promote buy-in, training of healthcare providers, and follow-up until a satisfactory implementation process is established.

Advantages of these partnerships include:

- These partnerships are particularly good for reaching seniors with specific needs who may also be highly vulnerable or homebound due to health conditions and otherwise may have not been reached by the emergency food system.
- There is also the potential to work with these partners to collect more specific data on use of food-assistance as it relates to health outcomes.

Limitations of these partnerships include:

- Healthcare providers have relatively high constraints on capacity and time, and the provision of food-assistance is not likely to be a priority. Therefore, reach likely will be limited with these partnerships.
- These programs may rely on frontline staff (e.g., nurses, social workers, or physical therapists) for outreach and implementation, who also face significant capacity and time constraints

in carrying out their primary roles and may be unable to successfully or consistently take on the additional work of screening for and delivering food-assistance. Depending on the size of the service provider, there may be multiple levels of administration through which to navigate before engaging with frontline workers to screen for and potentially deliver services. These administrative concerns may create a number of points at which communication, implementation, monitoring, and follow-up can falter.

Therapeutic Food Pantry

"In terms of "right partner," I mean it's just like anything. [...] We do try to talk to hospitals and tell them about this program if they're not passionate, then it's okay. We'd rather have those hospitals that is gonna be passionate it's just within that person that's willing to take that on. And you can't really dictate who is and who isn't. We ask, "Well can we speak to the nurses?", 'cause sometimes, for example, it's the director that runs that home care, but she might be passionate, but she's not the one delivering the foods. It's the nurses, the home care nurses. So you have to make sure that you speak with all individuals that will be hands on with the program. [...] But bottom line, if a partner is not passionate, there's nothing you can do to get them to get on board."

- Food Bank staff member

Table 10. Key program design elements aligned with senior needs.

		Senior Needs									
		Personal mobility				Consuming food			Access and use of transportation		
Program design elements*		Strength	Preparing food	Walking or standing	Health status	Accessibility	Affordability	Health-related dietary needs	Own	Friends or family	Public or private
Mode of delivery	Home	✔ ***		✔	✔	✔			✔	✔	✔
	Pickup								✔		
Food Mix	Prepared meals	✔	✔	✔	✔		✔	✔ **			
	Non-perishables****					✔	✔	✔ **			
	Mix of perishables and non-perishables****					✔	✔	✔			

*These design elements were identified by seniors as important to their ability to use and benefit from programs.
**Many programs providing prepared meals or non-perishables to seniors are responsive to common dietary needs, but should not assume all.
***Home delivery can circumvent some issues with strength, but seniors still have to be able to put away items and in congregate living situations they still have to find a way to bring items to their apartments (carts or volunteers may be made available).
****The provision of non-perishable and perishable items was most often in the form of ~30 lbs of non-perishable, mostly raw materials (i.e., items that required some preparation as opposed to ready-to-eat items). This format presented challenges in several respects, which are given further consideration below.

Table 11. Food-assistance programs aligned with senior needs.

	Senior Needs									
	Personal mobility				Consuming food			Access and use of transportation		
Food Assistance Programs	Strength	Preparing food	Walking or standing	Health status	Accessi-bility	Affordability	Dietary restrictions	Own means	Friends or family	Public or private
Alabama Hospital Pantry			Yes	Yes	Yes	Yes	Foods to Encourage	Seniors primarily pick up at clinic	Yes	Yes
Alabama Mobile Pantry			Partially*		Yes	Yes	Yes	Yes	Partially*	Partially*
California Diabetes Wellness Program			Partially*	Yes	Yes	Yes	Provides diabetic-friendly foods	Yes	Partially*	Partially*
California Senior Basket			Partially*		Yes	Yes	Partially; offers pro-duce	Yes	Partially*	Partially*
Michigan Senior Mobile Pantry			Yes; primarily distrib-uted at senior resi-dences		Yes	Yes	Provides mostly pro-duce and Foods to Encourage		Yes	Yes

Table 11. continued

	Senior Needs									
	Strength	**Preparing food**	**Walking or standing**	**Health Status**	**Accessibility**	**Affordability**	**Dietary restrictions**	**Own means**	**Friends or family**	**Public or private**
Minnesota CSFP			Partially*		Yes	Yes	Partially; offers produce	Yes	Partially*	Partially*
Montana Mail-a-Meal					Participants determined by location in under-served area	Yes	Attempts to provide Foods to Encourage and meet preferences	Purpose of program is to overcome challenge of rurality; nearly all home deliveries via UPS or community drop-site facilitator.		
New Jersey TFP			Provides 30 lbs non-perishables to patients following a hospital stay to overcome personal mobility and/or transportation limitations during the recovery period.		Provides support post-hospital stay	Yes	Contents of boxes are customizable	Typically provides home deliveries for patients recovering from a hospital stay for a limited period of time.		
Pennsylvania Senior Box	Partially; reduced weight of box by 5 lbs		Partially*		Yes	Yes	Provides mostly Foods to Encourage and produce	Yes	Partially*	Partially*
South Carolina MoW/ Silver Plate	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Texas CSFP			Partially*		Yes	Yes		Yes	Partially*	Partially*
Texas HOPE			Partially*		Yes	Yes		Yes	Partially*	Partially*
* - indicates that home deliveries (for homebound seniors or those without their own means of transportation) represent a smaller share of the modes of delivery.										

5. FOOD-ASSISTANCE PROGRAMS: SENIOR PARTICIPATION, BENEFIT, AND FEEDBACK

> ***"I probably couldn't pick that box up if I was healthy...And I definitely can't lift it now."***
>
> ***- Senior from Texas (CSFP)***

Achieving positive outcomes among seniors requires their full participation in programs and that programs provide a meaningful benefit. The seniors' needs framework summarizes the needs, abilities, and limitations commonly experienced by seniors in this sample. Two key design elements—food mix and mode of delivery—can be mapped onto seniors' needs to highlight where alignment occurs (Table 10). The two design elements featured in this table are highlighted here because seniors most frequently described their engagement with programming (i.e., the extent to which they can access, use and benefit from programming) in terms of the mode of delivery and the food mix. Building on Table 10 and the program design features summarized in Tables 9a and 9b, Table 11 provides a breakdown of the food-assistance programs included in this research and the combinations of needs that they address.

Strengths of food-assistance programs

Most of the programs seek to reach more homebound or transportation-limited seniors by providing at least a subset of distributions at senior residences or by facilitating home deliveries through other means, although nearly all sites have a goal of reaching more homebound seniors. Many of the programs also provide or consistently attempt to provide Foods to Encourage (whole grains, vegetables, fruits, dairy, lean proteins), and several are able to offer fresh produce with distributions. The provision of large quantities of non-perishable items, as is the format of most of the food-assistance programs, helps seniors overcome challenges with accessing and affording food, and feedback from seniors suggests that receiving this food enables them to budget, save, and stretch their food more easily throughout the month when they are limited by finances, transportation, or both. The provision of perishable items, specifically fresh produce, enabled many seniors to consume more fresh produce than they would otherwise be able to afford. Seniors' perceptions of food-assistance programming were overwhelmingly positive, and seniors across sites emphasized that they benefited from the services and wanted them to continue. A minority (typically less than one-third) of seniors at each site relied on food assistance as a primary source of food.

Senior benefits:

"All of this food is usable, it will forestall the $30 crisis of the end of the month [...] Saves me gas, now that I don't have to go shopping. And energy. It's just lovely that it's delivered.

- Group interview with multiple seniors living in congregate housing in Texas (CSFP)

"... if worse comes to worse, I can live out of that box if I have to. [...] it has the fruit and it has the milk. The milk I think is really key and the juices. Those are the key things. At least you know your getting something tasty and something nutritious.[...] if I didn't have the car and it didn't have ... didn't have the program, I don't know what ... I probably ... it would be very hard. [...] [receiving the box once a month is enough] because I fill in with vegetables."

- Senior from California (CSFP/Senior Basket)

"[HOPE is] what I depend upon, you know? A lot. I've already said, if it wasn't available and there was not enough cash some months, at the end of the month, I would be concerned."

- Senior from Texas

I couldn't feed my family and [the Senior Box] leaves me with extra money to pay my bills. Electric, telephone, water bills, stuff like that it leaves me with extra money to do that."

- Senior from Pennsylvania

"I have never gone hungry because this project that you all have here, you might not know the depth in which it reaches, and what it means to a lot of those seniors. My diabetes is under control now."

- Senior from California (Diabetes Wellness Program)

"The box that came, I was just flabbergasted, it was just things that not only diabetics but in general, that it's not fattening and it's not loaded with all these carbs and it's a wide variety of foods."

- Senior from Montana

" [...] if it wasn't for [the program] I'd be like I always do. Skip a few meals and stuff like that. I don't skip many meals now, I don't have to, since I've been getting that box, which will probably be on my doorstep when I get home."

- Senior from Montana

"[the nutrition educator] listen to everybody and she sit down and talk to them. She's caring. That means a lot. It goes a long ways. A lot of older people need someone to listen to them."

- Senior from Michigan

"I don't have a whole lot of feelings in my hands, anymore. And I get real tired-like, short of breath. I'm on dialysis, got my leg amputated. So it's- I got a whole lot going on. I mean a whole lot going on. And sometimes trying to prepare a meal is very hard for me. You know? So with the Meals on Wheels, all I got to do is put it in the microwave, and I got a meal."

- Senior from South Carolina

Gaps in service provision

The most common model of food-assistance is to provide large quantities of non-perishable and perishable raw materials on a monthly basis that are based on MyPlate concepts. This model assumes a relatively high degree of mobility and self-efficacy among the seniors served, including:

- They are physically, cognitively, and functionally equipped to prepare food for themselves;*
- They are physically strong enough and able to lift and maneuver heavy boxes;*
- The majority of them have the self-efficacy and access to transportation needed to attend distributions (as home deliveries only make up a subset of most program delivery methods);*
- They have no significant health conditions that impact either their mobility or dietary needs.

**An alternative assumption is that the senior has a caregiver or someone else who can perform one or more of these functions for them.*

As observed within the programs studied, food-assistance programs typically do well to address seniors' needs in the categories of food consumption (affordability and availability) and transportation, but fewer programs address seniors' needs with respect to personal mobility and dietary restrictions. The seniors in this sample experienced a fairly high prevalence of diabetes or other health conditions requiring dietary restrictions or physical mobility constraints or both, which were not necessarily addressed by the food-assistance programs.

The prevalence of diabetes and mobility issues in this sample may not be reflective of all low-income seniors. The assumptions listed above may be true for a proportion of seniors served by food-assistance programs, and the general food-assistance model characterized by the assumptions listed above may represent a good fit for many seniors. The takeaway should be that age and even income alone do not adequately capture the range of needs within the senior population, and the issues for program uptake and benefit raised by dietary restrictions, personal mobility, and the overlap of two or more needs may represent significant gaps in service provision. Therefore, service providers should assess the needs among their target populations to determine feasible and responsive programmatic solutions (or the degree to which they are on track to meeting these needs).

In the section below, we highlight the specific challenges seniors with dietary restrictions, mobility constraints, or both face in using food-assistance programs.

Challenges using the services

The most common issues in using the programs were the weight of the boxes or bags, and the contents. Transportation in relation to use of services was less consistently described as a challenge as the majority of seniors receiving some form of food-assistance in this sample (excluding those who receive information or access-focused services) received the program at their residences, a potential limitation of this sample. Mode of distribution was also less frequently described as a challenge given that many seniors in the sample received services at their residences or

Challenges using the service (weight)

"There's a lot of people that have difficulty maneuvering, that can't walk very well. [...] They can get around in their houses. They can maybe go up and down their ramps or their stairs, but to schlep one of those boxes from all the way down here back to where they live, that's a problem."

- Senior from California who coordinates CSFP home deliveries to several seniors in a neighborhood (CSFP/Senior Basket)

"I take my [HOPE] grocery bags and put a few at a time and put them in those bags because I can't lift that whole big bag. [...] There'd be no way I could just pick that thing up and, you know, [walk] it in there."

- Senior from Texas (HOPE)

"Depending if you have a ride, or you're on public transportation like [a private transportation service], you're going to have a problem, because not just unloading [HOPE grocery items] into boxes and then getting it to the curb and loading it on [...] with me, I have the [rheumatoid arthritis] in my spine, and arthritis. The drivers [on public or private transportation], like I said, they're really useless to help us disabled older people that can't do it. Literally, I have to take a few steps and pick up the boxes, and put it back down, and put it on [the bus]. Some of the people from the food pantry, some of the men there, they'll really nice about helping loading them on [the bus]."

- Senior from Texas (HOPE)

"Oh, I could not pick that box up. I probably couldn't pick that box up if I was healthy, I'd need a dolly or something. I couldn't get that box. And I definitely can't lift it now."

- Senior from Texas (CSFP)

"Oh, [Housing authority staff are] real nice, they'll have [the CSFP box] on a dolly and the guy say, "I'll guide it," and I'll just open the door and say, "Just sit it there." "Okay, thank you." [...] "See ya'll next time." [...] I'll drag it all the way over there and it goes to the closet. [...] I'll drag it. Kick it with my feet over. [...]It's kind of heavy. [...] Kick it with my feet, push it all the way to the pantry."

- Senior from Texas (CSFP)

senior centers they were already attending, although seniors reported physical and transportation-related challenges at some food pantry distributions that were not senior-specific.

Regarding weight, even relatively mobile and self-sufficient seniors faced challenges in obtaining their boxes or bags and maneuvering them at home due to the weight. For example, the CSFP box weighs 30 lbs, Pennsylvania's Senior Box weighs 25 lbs, and Montana's Mail-a-Meal box weighs 50 lbs. Many of the distribution sites attempted to provide volunteer assistance to help seniors to their vehicles (or carts if the distribution site was a residence), or attempted to facilitate door-to-door deliveries for seniors who were homebound and physically incapable.

Challenges using the service (content)

"What you're putting in these boxes are not always for restricted diets. [...] It's a very high carb, simple carb. That's a major thing. And at our age, we need a higher protein for muscle and healing. [...] With the spaghetti, and the rice, and that type of thing. That's a high carb, and for diabetics it's a no-no [...] there's a lot of people that are on medication that acidic [foods], just makes the medication go kaput. [...]it is more a box for a family than it is for seniors. If you look at the products that are in there, it is not an elder box."

- Senior from Texas (CSFP)

"They give you always there are two big bottles of juice that is 30 or 40% sugar, or whatever it is. It's empty calories [...]The canned vegetables, and the spaghetti, and things like that, I'm just not okay with. [...] I think it's just empty calories. I just don't think it's good quality [...] Especially for seniors that usually sometimes need a little better food."

-Senior from California (CSFP/Senior Basket)

Interviewee: "I am diabetic, I've also got heart problems, so you have to watch your intake in salt and stuff. Interviewer: In the past few months, did it ever happen to you that you couldn't afford the right foods you need for your diabetes to keep it under control?

Interviewee: Yes, every month, every month it does. You know you can only get so much with $53 [in SNAP benefits]. You can't get a whole lot of food for the month because you need every different category. In order to keep my sugar stable, like I said the last week, week and a half my sugar kind of goes up and down, up and down because it's not enough there. I just thank God for what I do have. [...] I'm going to tell you the last week or week and half there's a lot of times you go hungry because there's just nothing, pasta is gone. I used to use rice, that goes real quick too."

- Senior from New Jersey (CSFP)

"But I guess because we're getting the box, the 50 pounder, then we get the food bank, the pantry, and then we get [CSFP], I guess they figure SNAP is out of the question. Which would help us a lot 'cause we could get certain things with that that we can't buy, with SNAP if we had it. [...] They said we're over the limit by $11, something like that. [...] I can't really say I have a lot of concerns. [...] Like I say, just going and getting [groceries]. Yeah, [diabetes is] the number one deal. I have to eat right, and sometimes I can't. Just the way it is. I mean I'm not gonna starve to death."

- Senior from Montana

Regarding content, seniors described an array of preferences with respect to certain items (e.g., loves oatmeal, hates corn and beef stew). Some commonly included items were repeatedly mentioned as challenges, however, including:

- Large quantities of powdered milk, which many seniors noted they could not use (due to sensitivities or volume) or did not like. Shelf-stable milk was more popular as seniors tended to prefer the taste to powdered milk and could use it within a reasonable timeframe.
- Juice – some seniors enjoyed receiving juice, particularly cranberry or orange, which some felt was healthy for them. Many seniors were unable to use the large quantities of juice they received, however, due to diabetes. Some reported sharing this item with their children or grandchildren or removing it from the box at distribution sites.
- Pasta or rice – Many seniors could not consume the relatively large amounts of pasta or rice provided in some programs due to diabetes.
- Canned items that were not low-sodium or low-sugar, although most seniors knew they could wash the canned items to remove excess salt and sugar.

Insights and recommendations

Seniors consistently and overwhelmingly recommended that the programs include more canned fruits and vegetables, more canned protein, and fresh produce or protein if possible. They also consistently suggested including more items that were simple to prepare or ready to eat, such as cereal or canned soups. In this regard, canned vegetables, fruits, and protein were often considered simple to prepare. Some seniors also suggested including other items that were expensive for them to purchase, such as cooking oil, spices, or condiments.

The food banks included in this study made concerted efforts to offer "Foods to Encourage," which include relative proportions of certain items in addition to the particular mix and are reflective of USDA's MyPlate concepts. Several food banks also either offer CSFP or model their box contents on the CSFP, which also aligns with MyPlate concepts. Senior feedback suggests, however, that the mix and proportions of items provided (specifically the relative abundance of juice, pasta, and dairy, items that are typically bulkier and less usable (a characteristic challenge of CSFP), may not be responsive to diabetic dietary concerns (a problem that is compounded when seniors with diabetes or other chronic health conditions, otherwise unable to afford the right foods for their health, and rely to a large degree on food-assistance) or general preferences and patterns of use and consumption among seniors.

Seniors who received programs at food pantries or other sites where they had to pick up the boxes themselves typically recommended home delivery as a way to improve services. Even among seniors who had their own means of transportation, few had the physical strength to easily lift and maneuver the boxes or bags of groceries. A few pickup sites (typically the food pantries as opposed to senior centers) frequently required long waits to receive services, sometimes outdoors, which was physically challenging for many seniors.

6. PROGRAMS PRIORITIZING AN INCREASE IN QUALITY AND DIVERSITY OF SENIORS' DIETS

> ***"We took food that was donated... we added value to it. We actually make it better than what it was when it came in."***
>
> - Food Bank staff member

This study included several programs that aimed to increase the quality or diversity of seniors' diets through information or facilitating access to foods or services as opposed to the provision of specific foods. These programs focused on a wide range of information and access-related services. The nutrition education component of Michigan's Senior Mobile Pantry Program focused on proximate challenges to food and nutrition security, seeking to increase seniors' awareness of nutrition and health through the provision of nutrition education tailored to seniors' common dietary needs. Other services focused on more downstream issues: New Jersey's Tower Gardens (hydroponic growing units installed at selected senior residences and centers) and Alabama's Farmers Market Voucher Program sought to increase seniors' awareness of nutrition and health through facilitating access to fruits and vegetables while providing opportunities for social engagement. SNAP access initiatives, including Alabama's Benefits Enrollment Center and Minnesota's SNAP Rural Outreach, sought to increase seniors' awareness of and enrollment in SNAP and other state or national-level benefits for which they were eligible. Both services also aimed to facilitate the enrollment process, which many seniors find lengthy or complicated, and overcome stigma associated with SNAP.

The majority of seniors who engaged with either the nutrition education or the Tower Gardens enjoyed the opportunity to connect with each other and learn about the given topic. The Farmer's Market Vouchers were appreciated, but most seniors agreed that a higher value or greater frequency of distribution would be more helpful. It was more difficult to gauge seniors' satisfaction with SNAP outreach services from this sample. For some, their engagement ended at the screening process. One senior, however, reported that the Alabama Benefits Enrollment Center had helped her successfully apply for and receive SNAP benefits, which she had repeatedly failed to do on her own.

California's Kitchen Collective program provides food-assistance, but differs from the primary food-assistance programs described in the preceding section in that it provides 1-2 frozen, prepared vegetarian meals to seniors monthly at select CSFP and Diabetes Wellness Program distributions. The meals are prepared at the food bank using both purchased and donated produce by a chef-led team of volunteers. They are intended to provide balanced nutrition without excess sodium or spices. Seniors' reactions were mixed—some found them useful, responsive to their health needs,

Minnesota SNAP Rural Outreach

"... Sometimes it can be challenging. When I go to a senior a site [...] I'll just say "Maybe [SNAP] isn't for you at this time but we're going to go through what it does." And then I explain the qualifications and I'm like "Who do you know, do you have a neighbor, do you have a son that lost their job. [Seniors] have to know they're helping someone. [...] One of the challenges is [...] They won't take [SNAP information] in front of each other. So now I make sure everybody gets a packet. [...] And then I make sure they know the timeframe. The average person I think still is nine months on SNAP. So it's not like it is for life, but it's gets you through those times, or keeps you in your house, or eat fresh and local. [...] I think our challenges is just that stigma [...] Nothing against the county, but [seniors will] say "I don't have to go that welfare office then." [...] So if the seniors don't have to go into the court house, it's amazing how much faster [...] They do not want to go into that office [...] Informing [seniors], "Hey, we'll mail [the SNAP application] for you, we can do a phone call, we can do whatever." [...] That's really made a difference when they don't have to go there. [...] They come in here and we just meet in this room or one of the offices. It's very private. [...] It's a safe place for them to come."

- Agency partner implementing Minnesota's SNAP Rural Outreach

and interesting, while others found them less appealing or useful. The food bank was considering some options to make the services more responsive to seniors' needs and preferences, including partnering with

California's Kitchen Collective

We buy let's just say $1.5 billion worth of food, and we give it away. Everybody can do that [...] Walmart does that. [...] There's nothing to that, and so we don't really feel that proud of that. [...] what's really cool about the Kitchen Collective is that we took food that was donated that had some value to it, but we added value to it. We actually make it better than what it was when it came in.

- Food Bank staff member

senior daycares or focusing on a few popular dishes such as soups.

7. DISCUSSION

Needs

The framework of needs developed from the data in this study, while consistent with prior studies of how program providers (Lee and Frongillo, 2001; Lee et al., 2005a) and seniors (Wolfe et al., 2003) conceptualize needs, extends our understanding of the heterogeneity of senior needs. The concept of need refers to a gap between an existing and a desired state (Lee et al., 2005a). Program providers in New York State understood food and nutrition problems of seniors in terms of aging and environmental conditions leading to changes in function; which have consequences for food use, affordability, accessibility, and stores; ultimately leading to not eating properly in terms of insufficient meal consumption, compromised meal quality, socially unacceptable meals, and difficulty to follow special diets (Lee et al., 2005a). Two concepts in the scientific literature, food insecurity and frailty, are useful even if not fully capturing the holistic thinking of providers and seniors.

Food insecurity in the US "refers to the social and economic problem of lack of food due to resource or other constraints...Food insecurity is experienced when there is (1) uncertainty about future food availability and access, (2) insufficiency in the amount and kind of food required for a healthy lifestyle, or (3) the need to use socially unacceptable
ways to acquire food. Although lack of economic resources is the most common constraint, food insecurity can also be experienced when food is available and accessible but cannot be used because of physical or other constraints, such as limited physical functioning by elderly people or those with disabilities" (National Research Council, 2006). Some closely linked consequences can be part of the experience of food insecurity: physical hunger, worry and anxiety, feelings of alienation and deprivation, distress, and adverse changes in family and social interactions. That is, food insecurity has both nutritional and non-nutritional consequences. Furthermore, food insecurity is a marker of other conditions that are adverse for seniors. For example, a recent study with multiple large national US datasets found that the best single predictor of very low food security among older-adult households was unmet medical needs (Choi et al., 2017).

Frailty is a "biologic syndrome of decreased reserve and resistance to stressors, resulting from cumulative declines across multiple physiologic systems, and causing vulnerability to adverse outcomes" (Fried et al., 2001). Frailty results from a cycle of poor nutrient intake, loss of muscle mass, low muscle strength, reduced physical work capacity, poor physical performance, and reduced physical activity (Fried et al., 2001). Inadequate dietary intake and poor nutrient intake are important components of frailty (Bartali et al., 2006a, 2006b, 2008). Therefore, one aim of food-assistance to seniors is to improve their nutrient intake at an early stage of frailty, before changes in body composition, biochemical markers, and their consequences become clinically evident and hard to reverse. That is, the societal benefit of providing food-assistance is that it helps prevent frailty (i.e., poor diet and nutrition and low physical function), thereby reducing likelihood of disability and consequent nursing home stays,

hospitalizations, and high associated costs.

Although the term hunger is often used in the Feeding America network, only a minority of seniors receiving food-assistance would be overtly hungry without it. The literature on frailty and food insecurity in seniors, and the central role of nutrition in frailty, supports that the programming provided by Feeding America is, and should be, targeted to seniors who are food-insecure even if not experiencing overt physical hunger.

Programming

Service providers succeed when they are able to understand needs, target to the need of a group who will benefit, and curate a mix of programs or programmatic features, based on the resources available to them, that can best respond to the need (Lee et al., 2005b, 2005c, 2008). Benefits are generated when seniors seek help and take up offered services. Intended benefits are immediate (e.g., improved diets and nutrition, reduced stress related to food insecurity), intermediate (e.g., reduced frailty and disability), and long-term (e.g., reduced nursing home and hospital stays and saving costs).

This study highlights innovative food-assistance programs that aim to meet seniors' needs on multiple levels. Food banks developed a number of creative solutions to addressing senior food insecurity, from establishing specific types of partnerships with senior-serving agencies to augmenting or adapting existing services to better meet the needs of their target populations. Not only do these programs address service gaps among the growing population of food-insecure seniors, they generate insights that can be used to grow and improve upon the past four decades of ideas and best practices for addressing senior food insecurity across the US. In light of the shifting and growing demographic of low-income seniors in the US, this study also provides a framework to align seniors' needs and abilities with programmatic responses in order to enhance program uptake and benefit among the seniors they serve.

Programming to seniors' needs frequently requires new or enhanced inputs to purchase tailored content or education or to facilitate home deliveries or mobile pantries to senior-serving organizations. The food banks in this sample were skilled at leveraging existing resources with the assistance of the Enterprise Rent-a-Car Foundation grants to enhance senior food-assistance programs or introduce new programs.

Making services accessible to seniors is a primary focus of senior-specific programming. From the perspective of seniors, accessibility of services depended on seniors' abilities in one or more of three categories: personal mobility, consuming foods, and access and use transportation. Seniors' needs are diverse and complex, and not primarily dependent on their age. Rather, needs depend to a large extent on differing types and degrees of ability. Recognizing the heterogeneity of needs within the senior population and distinguishing between types of need and degrees of abilities can aid targeting, designing programs, and achieving program impact.

Service providers typically balance reach against specificity when designing senior food-assistance programs. Aligning seniors' needs with program features suggests rethinking the common perception that there is a choice to be made between serving more seniors (reach) and serving more of the most vulnerable seniors (specificity) and the

assumption that programming necessarily sacrifices one for the other. Rather, the great variation of need and ability among the senior sample, and the ways in which these needs and abilities impacted their ability to engage with programming, points to the idea that program impact should be thought of in terms of uptake and benefit instead of more traditional indicators such as numbers

of seniors enrolled, or number of meals distributed.

8. IMPLICATIONS

Aligning food-assistance programming to need for food

The starting question that should shape considerations of program design and uptake —and ultimately, program benefit— from the service-provider perspective is similar to the question that shapes it from the senior perspective: to what extent will seniors be able to use and benefit from the program? Under this overarching question are a number of more specific questions, such as:

- Can most of the seniors in the program eat the food that is provided? How much of it?
- How many seniors will be able to prepare it, if it requires preparation?
- Does it increase the quality of their diet?
- Can they receive the program services at a place and time and in a format that does not present a significant or prohibitive physical, logistical, or financial toll?

Given at least a tentative answer to this starting question, then considerations can be made as to what programming is possible and most warranted in terms of feasibility, logistics, resources, partners, implementation processes, targeting indicators, reach, achievable impact, and sustainability. Inherent to making decisions regarding these considerations are two further questions.

First, to what extent should food-assistance programs address a given individual's full need for food versus a partial need for food? The answer to this question may depend on where the individual senior falls in the framework of need. For example, an individual senior with HIV or diabetes in particular may benefit by programming that assures that her or his full daily need for food is met because of the close relationship between food and management of these diseases. Other seniors may benefit from being provided one meal a day but may not benefit from more than one meal.

Second, regarding reach, to what extent should food-assistance programs address fully the need for food in the population of seniors in a given location while attempting to take into account specificity of need? Documenting unmet need in a population is challenging, but experiences of providers working with the senior population provide certainty that the prevalence of unmet need for food is great because the existing patchwork of programming does not have sufficient resources to reach them. Some portions of the population may be difficult to reach, either because of their location (e.g., rural) or their reluctance or inability to make use of assistance (e.g., unable to use Internet). Feeding America potentially has a role to help address this unmet need both through its programming and through advocacy and coordination to encourage and support others to contribute.

Going beyond focus on need for food

Food-assistance programming occurs in a complex landscape of multiple forms of assistance to seniors, reflecting the diverse needs that seniors have for social connectedness, medical care, transportation, instrumental assistance and caregiving at home, information, monitoring, etc. One important question for Feeding America and other organizations providing assistance

to seniors is the extent to which, and how, they should articulate the programming they provide alongside other programming occurring in the same location. A second important question is, given how closely food is tied to physical and mental well-being of seniors, to what extent should Feeding America broaden the programming that its network provides to seniors from strictly food-assistance to assistance that address a broader set of social needs, including reducing social isolation. For example, from a workshop organized by Feeding America in Austin, TX in January 2018, many ideas emerged about leveraging food-assistance programs or potential partnerships to support emotional wellbeing and mental health. Service providers cited the socio-emotional benefits of programs like Meals on Wheels, and forwarded questions about how such benefits could be made more explicit or tangible in other program models. These ideas demonstrate that service providers intuit the potential of food-assistance and other food-assistance-oriented programs to act as an inflection point to improve the wellbeing of seniors, even if clear mechanisms and paths to do so are not yet fully articulated or systematically documented. Nonetheless, the momentum to explore these possibilities was evident among service providers, and may represent an important new direction for senior food-assistance programming.

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