

EXPLORING MOBILE MARKET PROGRAMS

Impact Report

July 2022



The Value of These Community Wellness
Initiatives at Increasing Healthy Food
Access Across the United States

Farmers' Truck™

Preface

Hunger, healthy food access, obesity, socio-economic disparities, and crippling healthcare costs. These issues are intricately related, and together, they cost American citizens trillions of dollars every year.¹

Health conditions that arise as a result of a poor diet and nutrition are largely preventable.² Yet as the cost of treating and preventing these conditions continues to rise, it's clear that more needs to be done to tackle this epidemic.^{3,4}

While there is no one-size-fits-all solution, many solutions do already exist. Unique and innovative approaches (many of which work hand in hand) that fit the needs of each city, county, and state already offer promising and tangible results.

The objective of this paper is to demonstrate the use and value of mobile market programs across the United States as one of those solutions. It highlights mobile market programs' effectiveness at addressing the issue of healthy food access in food deserts and food swamps across the country.

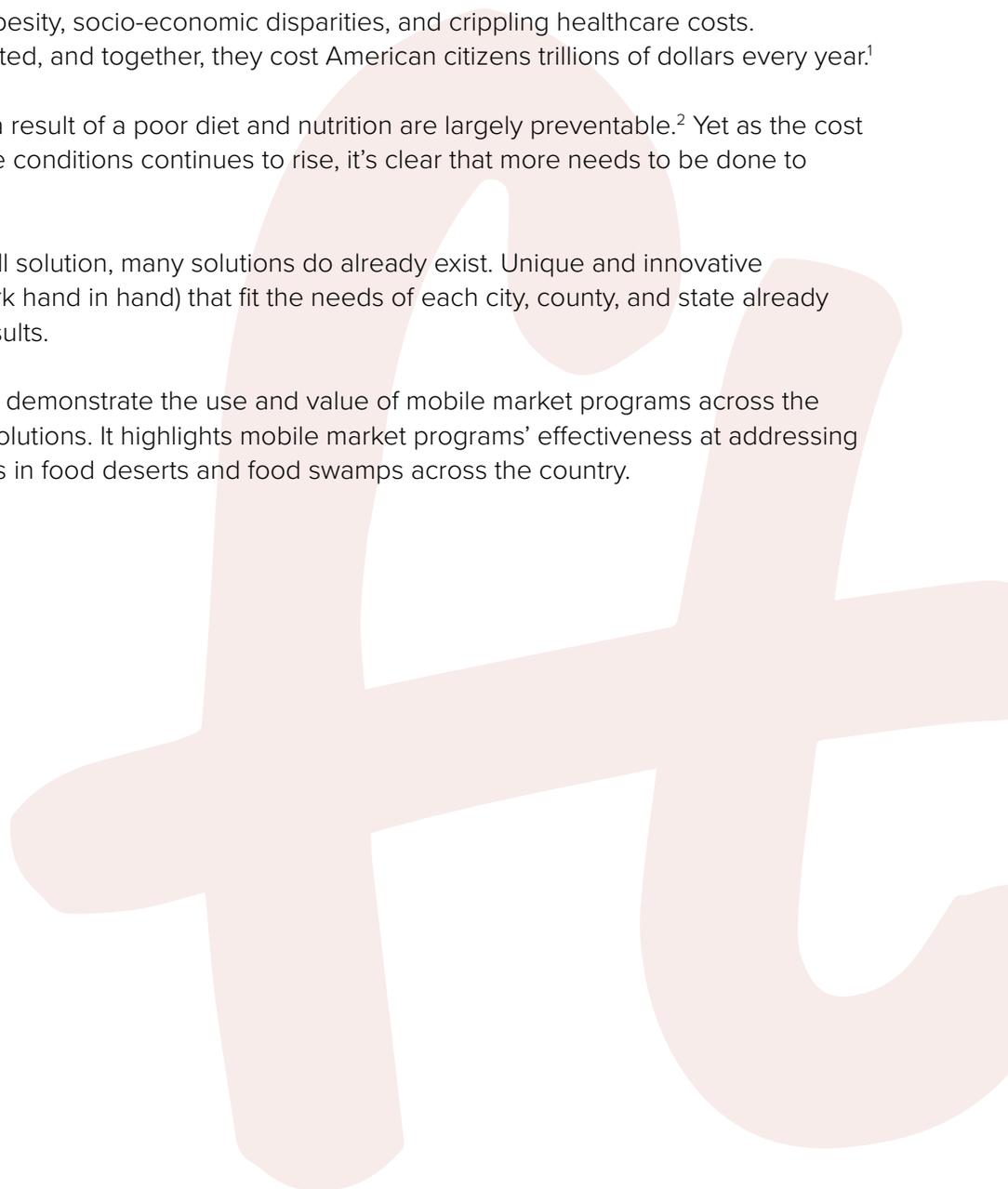


Table of Contents

| | |
|--|----|
| Introduction..... | 4 |
| The Problem With Hunger | 6 |
| Why Things Need to Change Now..... | 7 |
| One Piece of the Puzzle: Defining Mobile Market Programs | 13 |
| The Benefits of Mobile Market Programs | 16 |
| Challenges for Mobile Market Programs | 20 |
| Solutions to Address the Challenges | 21 |
| Conclusion | 23 |

Introduction

Let us introduce you to Robert and Marie who live in Fallon, Nevada.⁵ The couple was forced to retire early due to illness and disability. Having worked hard all of their lives, they never imagined that they'd find themselves having to choose between paying for medicine and paying for food. With barely \$300 left every month after paying the bills, they're forced to make some tough decisions. They found themselves only dreaming of enjoying fresh produce instead of being able to afford any.

Shiv, a young Nepalese immigrant, found himself having to choose between paying for his schooling and a roof over his head or buying groceries.⁶ As a teenager, he had emigrated to the United States alone, determined to make a better life for himself. While attending Bristol Community College in Fall River, Massachusetts as a full-time student, he worked at a local gas station to pay his bills. Learning English in college so he could further pursue his education meant making sacrifices. For Shiv, that meant going hungry: "It's hard to be a full-time student and save money because you have to buy books, clothes, pay rent."

86-year-old Doris resides in New Orleans, Louisiana.⁷ She survives on a small pension from her career as a telephone operator as well as social security. Doris lives by herself and has no family nearby to help her out. Oftentimes she finds it hard to make ends meet and to source healthy, affordable food for herself while living on a small fixed income.

Kamilah's husband, Earl, was hospitalized several years ago due to high blood pressure.⁸ The Antioch, California couple found it difficult to access healthy, affordable food that could help keep Earl's health in check and feed their four children. The closest grocery store was over 10 miles away and had prices that were often unaffordable for families living on limited incomes, such as Kamilah and Earl's family. As much as this family of six wanted to eat healthily, it was simply out of reach and, as a result, their quality of life suffered.

All too often, food access isn't a conscious act or a personal decision, but rather a result of the environments in which we live, work, and play. There are many external factors that affect food access and hunger for millions of Americans. The thing is that when millions of Americans aren't able to consume healthy food regularly, every single American pays the price, either directly or indirectly.

Poor nutrition causes a plethora of serious health issues whose spiraling effects are felt on our healthcare system, our economy, and our pocketbooks.⁹ Food access organizations, such as food banks and community-based initiatives (e.g., community gardens), play pivotal roles in helping to combat poor nutrition and increase food access. But it's simply not enough.

In some places, food is made more accessible, but it's usually unhealthy food or unaffordable. In other places, food is made more affordable, but unfortunately, it's not healthy food or it's not accessible to residents.

Many organizations are struggling to meet the growing demand within their communities to sufficiently satisfy all aspects of proper food access. Policymakers and lawmakers are beginning to recognize the disconnect as well.¹⁰ A greater push for finding and expanding upon innovative, grassroots, and alternative solutions is already taking shape across the nation.¹¹

Mobile market programs are one such approach that are proven to effectively increase food access in communities across the country. Given their unique nature, they can adapt to meet many needs and suit many organizational models.

By having one more solution to the problem of food access, community wellness programs, such as mobile markets, are proving to be the answer that many, including people like Robert, Marie, Shiv, Doris, and Kamilah, have been searching for.



The Problem With Hunger

Hunger is a term most people recognize and understand: when someone experiences a lack of food, they are hungry.¹² Hunger focuses more on caloric intake and the physical sensations that are caused because of an insufficient number of calories.

Simply addressing hunger, however, fails to take into account the bigger picture: the kinds of food we eat, how we get it, and the consequences of what happens when our food needs are not met. The idea behind solving just hunger has primarily been to give people more food (ie: more calories) so they no longer feel hungry. However, attempts at addressing hunger alone sometimes don't yield favorable, long-term results because they don't address the more overarching issue of food access. Hunger can be a result of poor food access, but not the other way around.

To really understand America's food inequities, it's best to examine the issue through the lens of food access.

Food access takes into account the following five dimensions^{13,14}:

- 1 AVAILABILITY:**
The adequacy of the supply of healthy food.
- 2 ACCESSIBILITY:**
The location of the food supply and the ease of getting there, including time and distance.
- 3 AFFORDABILITY:**
The price of food and the perception of its worth.
- 4 ACCOMMODATION:**
How well food sources accept and adapt to residents' needs.
- 5 ACCEPTABILITY:**
Whether or not a given food supply meets residents' personal standards.

You can see how food access is a much more robust measure of how effective our food systems are at keeping us healthy. Trying to grapple with the hunger issue alone may produce favorable results in one or two dimensions, but not in all five.

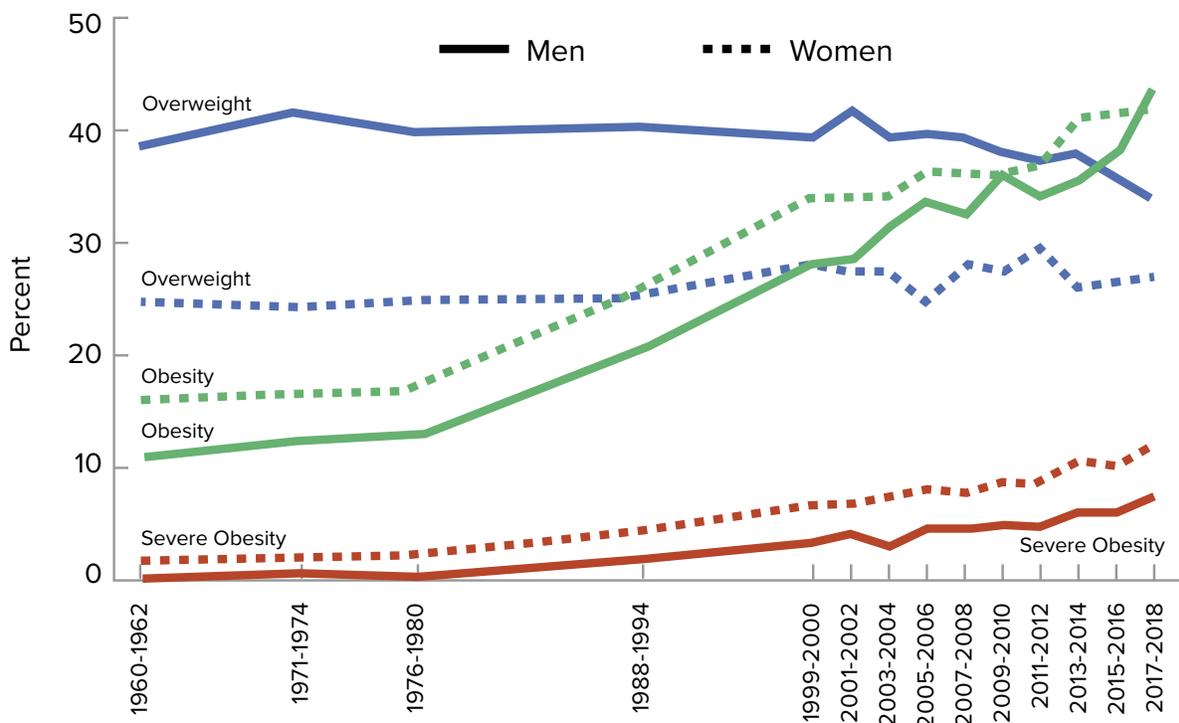
Why Things Need to Change Now

Pandemic notwithstanding, America’s healthcare crisis has reached a tipping point. Despite numerous efforts to improve nutrition and end hunger since the last White House Conference on Food, Nutrition and Health in 1969, some significant indicators show that not much has changed since then.

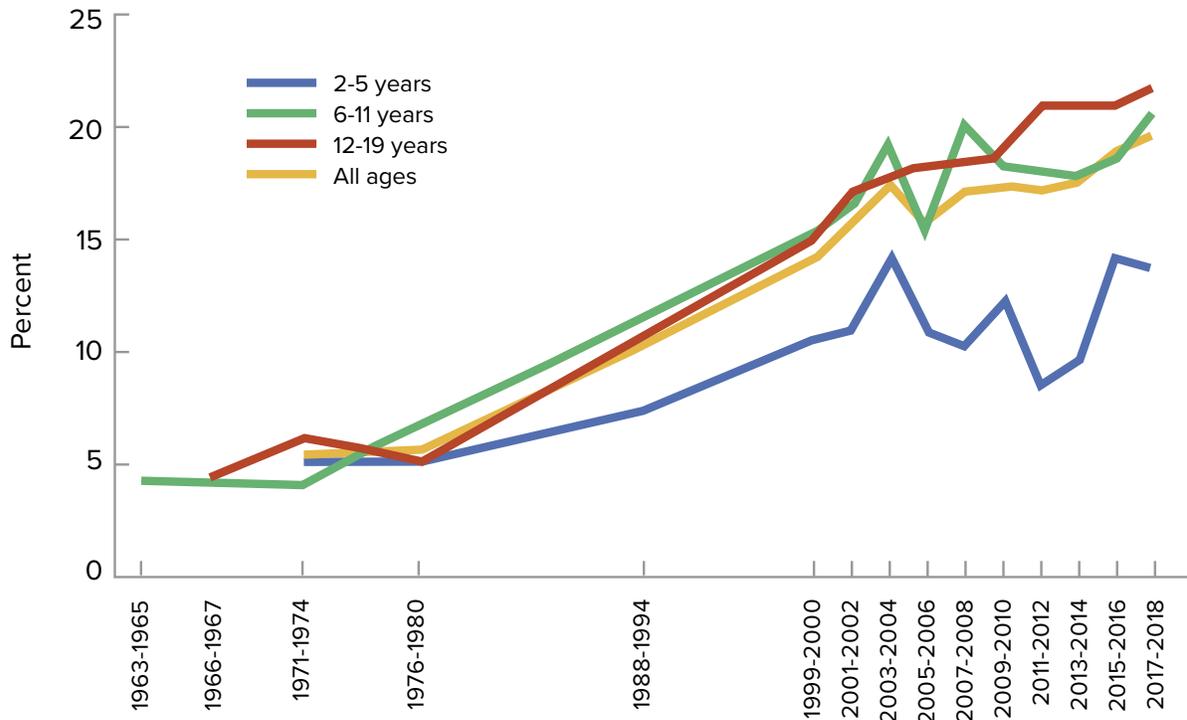
Obesity, Poor Nutrition, & Chronic Diseases Are on the Rise

“It is time we make real change,” President Joe Biden noted as he announced the White House Conference on Hunger, Nutrition and Health.¹⁵ President Biden said, “The COVID-19 pandemic was a stark reminder of the need for urgent, sustained action. As more Americans experienced hunger, we saw that diet-related diseases heightened the risk of severe COVID.” Indeed, approximately two-thirds of COVID-19 hospitalizations in the US were attributed to just four chronic conditions: obesity, diabetes, hypertension, and heart failure.¹⁶

Obesity has skyrocketed to include almost half of the adult population.¹⁷ The White House Task Force on Childhood Obesity set a goal of reducing the rate of childhood obesity to 5% by 2030.¹⁸ In 2010, at the time of their report to the President, the rate was 19.6%. Just over a decade later, it hasn’t budged.¹⁹



Fryar CD, Carroll MD, Aful J. Prevalence of overweight, obesity, and severe obesity among adults aged 20 and over: United States, 1960–1962 through 2017–2018. NCHS Health E-Stats. 2020.



Fryar CD, Carroll MD, Afful J. Prevalence of overweight, obesity, and severe obesity among adults aged 20 and over: United States, 1960–1962 through 2017–2018. NCHS Health E-Stats. 2020.

Obesity and poor nutrition are two of the main risk factors for chronic diseases.^{20,21} Chronic diseases are by far the largest contributor to healthcare spending, responsible for 90% or \$3.7 trillion in spending annually.²²

While these are not the only risk factors for chronic diseases, poor nutrition itself is attributable to costing our economy \$50 billion annually.⁹ Poor nutrition and poor health are a result of many complex factors, which together have resulted in the healthcare crisis we find ourselves in today. Our current healthcare spending accounts for nearly one-fifth of our GDP.¹

“To be responsible stewards of taxpayer resources, we must discern what works best to address hunger and food insecurity in our communities at the local, state, and federal levels.”

– *Congresswoman Jackie Walorski (R-IN).*²⁶

The impact of chronic diseases on our economy isn’t only felt in terms of healthcare costs. Perhaps the more shocking and telling statistic is the toll these diseases take in terms of lost productivity. In 2016, obesity-driven chronic diseases cost \$1.24 trillion in indirect costs because of lost economic productivity.²³

The indirect & direct costs associated with the treatment and care of diseases that are largely preventable (with proper nutrition, among other healthy behaviors) are costs that our economy and our citizens can no longer afford to overlook.^{24,25}

“It’s time for us to bring together experts and create a holistic, whole-of-government plan to end hunger and nutrition insecurity.”

– *Congressman James P. McGovern (D-MA)*²⁶

Eating Healthily Versus Eating Affordably

Geographic areas termed “**food deserts**” and “**food swamps**” are closely related to food access and are worth noting.

Food deserts refer to areas that lack sufficient access to healthy, affordable food.²⁷

Food swamps, on the other hand, refer to areas where there’s a high proportion of unhealthy food sources (such as fast-food restaurants and convenience stores) compared to healthy food sources.²⁷

Food access is often closely tied to socio-economic disparities that exist in both rural and urban settings.^{28,29} The existence of food deserts and food swamps has created environments that make it exceedingly difficult for people to eat healthily and at an affordable price. The Centers for Disease Control and Prevention (CDC) points out:

“When healthy options are not available, people may settle for foods that are higher in calories and lower in nutritional value. People in low-income communities and some racial and ethnic groups often lack access to convenient places that offer affordable, healthier foods.”²⁸

In other words, our dietary patterns are heavily influenced by our food environment. Some US cities have enacted a tax on sugar-sweetened beverages. These strategies have shown favorable results in some cities and for some demographics.^{30,31} While strategies such as this can certainly dissuade people from consuming unhealthy foods, if unhealthy food is the only available option, as the CDC points out, people are still going to choose it. That’s why not only is disincentivizing unhealthy food needed, but so is making healthy food more accessible as well.

It is often said that sometimes the most expensive thing you can do is be cheap. Allowing cheap, unhealthy food sources to pervade our neighborhoods is costing individuals, their families, our economy, and society as a whole because of the costs associated with poor nutrition.

This correlation becomes especially clear when you use the USDA’s interactive food maps that are available on their website. Not only do they highlight the inequities that exist in our nation’s food systems, but they also serve as excellent resources for policy and decision-makers when it comes to planning and research purposes.

The USDA’s Food Access Research Atlas tracks low-income and low access to food throughout the US.³²

Their Food Environment Atlas is a much more comprehensive map that takes into account a greater number of factors that affect food access.³³

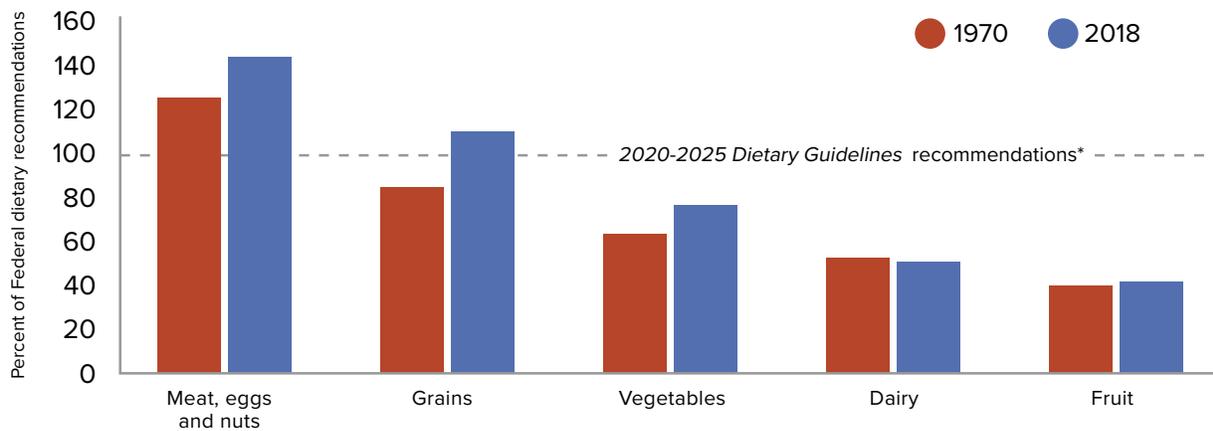
When using the food access dimensions described above (availability, accessibility, affordability, accommodation, acceptability), you’re given a much more practical and tangible framework for decision-makers to use to begin tackling this nationwide epidemic, but on a local, community-based scale. Because each community is different and has different needs, using the concept of food access allows you to create unique food programs and policies that are specifically tailored to your region.

Fruit & Vegetable Availability

The White House Task Force on Childhood Obesity set out to increase the availability of fruits and vegetables (F & V) within our food supply by 2020. F & V consumption was not in alignment with 2005 Dietary Guidelines. Their report to President Barack Obama stated, “consumption of fruit would have to increase by 132%, and consumption of vegetables would have to increase by 31%” from 2008 levels.¹⁸

Today consumption of F & V still falls short of current Dietary Guidelines. From 2008 to 2018, fruit consumption has actually declined by 6% and vegetable consumption has only increased by 4%.³⁴

Estimated average U.S. consumption in 1970 and 2018, compared with recommendations



*Based on a diet of 2,000 calories a day.

Notes: Loss-adjusted food availability data are proxies for consumption. Rice availability data were discontinued in 2010 and thus are not included in the grains group.

Source: USDA, Economic Research, Loss-Adjusted Food Availability Data and 2020-2025 Dietary Guidelines.

Food Assistance

Food assistance programs, like the Supplemental Nutrition Assistance Program (SNAP), help feed millions of Americans every year. Even though SNAP is the country’s “most important and effective anti-hunger program”³⁵ it’s not without its shortcomings.

Certain segments of the population aren’t eligible for SNAP, or have strict limitations imposed upon them, even though they and their families might greatly benefit from it. Some college students, immigrants, unemployed adults without children, and people with drug felony convictions are prime examples.^{36,37}

The SNAP application process can also pose difficulties for some people, especially seniors and those with language or mobility barriers. For example, the online application process can be lengthy and complicated for seniors who aren’t familiar with the internet or inaccessible for those who don’t have access to a computer or internet connection. Having to travel long distances to an enrollment office can easily inhibit seniors with mobility issues or who lack accessible transportation. As a result, millions of seniors who are eligible for SNAP aren’t enrolled in the program.^{38,39}

Just as applying for SNAP poses difficulties for many people, one in six people who are eligible for SNAP don't participate in the program.⁴⁰ This can be attributed to difficulties with the application process as well as the stigma of receiving food assistance. Some research has labeled stigma as a “fundamental cause of health inequalities.”⁴¹ Researchers cite, “stigma, which results from stereotyping, is an attribute or characteristic that is ‘deeply discrediting’ in a relationship and affects how we see ourselves as well as how we see and treat other people.”⁴¹ Stigmatization and the feeling of shame from asking for or needing help deter some people from accessing assistance programs. This translates to millions of Americans who are missing out on food assistance that could provide them with much-needed nutritional benefits.

Stigma doesn't only affect food assistance program enrollment numbers. It can also affect SNAP participants who continue to be hindered by negative feelings and perceptions of reaching out for help. Visiting a food bank for the first time or the fear of being seen in public seeking food assistance can be too much for some.^{42,43}

Being aware of and addressing these barriers to food assistance has the potential to positively impact healthy, affordable food access for millions of people, benefiting both their mental and physiological health.

Rising Costs and Tight Budgets

The threat of another recession coupled with rising inflation, and food and fuel costs have created many uncertainties around the globe.⁴⁴ Yet these are just more reasons why we all need to closely examine where our money is being spent. Finding more efficient ways of doing business is crucial to becoming a more resilient economy and country.

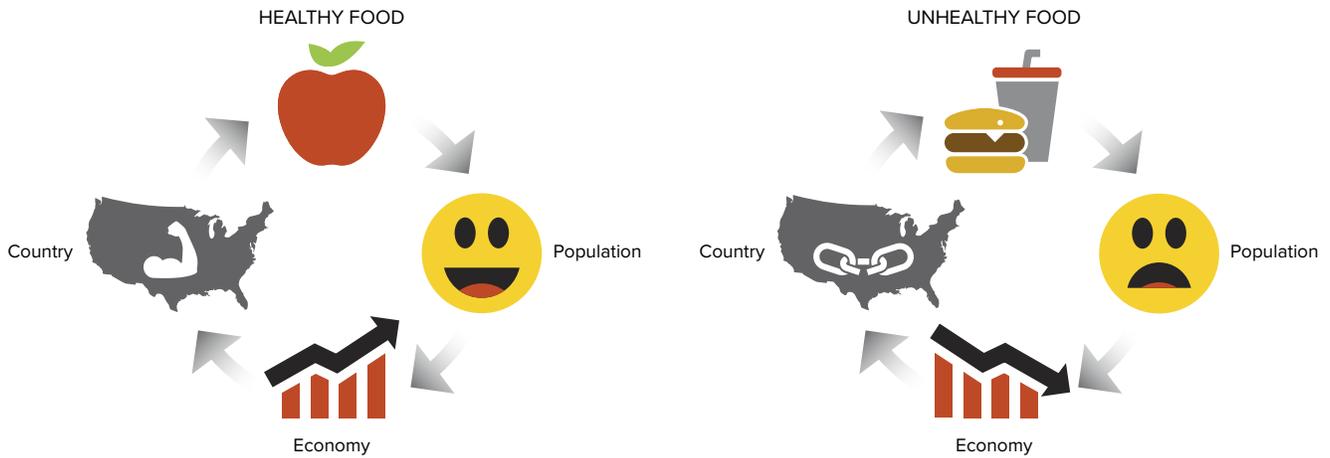
The White House Task Force on Childhood Obesity addressed the topic of spending and financial constraints faced by all levels of government:

“Times are tough, and federal, state, local, and family budgets are all feeling squeezed. But a great deal can be accomplished without significant expenditures, and some steps may ultimately save money. While many of the recommendations in this report will require additional public resources, creative strategies can also be used to redirect resources or make more effective use of existing investments.”¹⁸

A similar approach can be adopted today by focusing on community-based wellness programs, such as mobile market programs. Local initiatives shorten the food supply chain, helping to reduce fuel costs associated with the transportation of food, and they temper the uncertainty of rising food costs associated with current global food supply issues. A shorter, more direct food supply chain allows for greater control of its variables by all stakeholders.

Breaking the Cycle

“Despite the progress made, America is grappling with a hunger crisis and now faces a second crisis—one of nutrition insecurity—that is plaguing our nation and hindering the success of our nation's youth as a result of decades-long policy failures in our food system,” states Senator Cory Booker (D-NJ).⁴⁵



Senator Mike Braun (R-IN) echoes those sentiments: “The time has come to address our nation’s food insecurity with a bipartisan, commonsense approach.”⁴⁵

The compounding effects of low healthy food access, poor nutrition, and increasing healthcare costs take a massive toll on our economy, our productivity, and our strength as a nation. Millions of people who live and work in unfavorable food environments, such as food deserts and food swamps, and who struggle with healthy food access, face an increased risk of being diagnosed with chronic diseases.⁴⁶ Chronic diseases cost our economy trillions of dollars to treat every year, which includes Medicare/Medicaid spending and private insurance costs.²² These costs are passed on to the consumer and to taxpayers. Some people are unable to work as a result of their chronic condition. This results in lost productivity for the economy and lost or reduced income for the individuals and their families. It’s easy to see how hunger and food access affect each and every American, albeit directly or indirectly, and why it’s time to search for alternative solutions, and to strengthen and expand current initiatives that are working—such as mobile market programs—as it’s clear the status quo hasn’t been working.¹¹

The good news is that mobile market programs aren’t the status quo.

Collectively we all lose when people are denied the opportunity to lead healthy lives. In the current global climate, we can’t afford to let things get worse before they get better. Improving food access is an important piece of the puzzle in the quest to achieve a strong economy and a strong healthcare system.

The good news is that mobile market programs aren’t the status quo. Their innovative and creative approaches to increasing food access capitalize on the unique needs of the regions they serve and promote healthy eating in places where before that wasn’t an option. Mobile markets are an effective part of a multi-faceted approach for many communities and organizations tackling low food access.

Let’s further explore what mobile market programs are, their impact and benefits, the challenges facing current mobile market programs, and where they fit into the food access puzzle.

One Piece of the Puzzle: Defining Mobile Market Programs

What Is a Mobile Market?

Perhaps the best way to describe a mobile market is that it is a farmers' market on wheels. There are many other terms used to describe them as well. Some common terms include:

- Mobile farmers' market
- Mobile food pantry
- Mobile produce market
- Mobile fruit and vegetable truck
- Mobile grocer

Whatever you choose to call them, the primary goal of a mobile market is to bring fresh produce to communities impacted by low food access.⁴⁷

Many mobile market programs expand upon that model by offering additional products that support proper nutrition as well. They not only target food deserts, but also food swamps.

In Greeley, Colorado, for example, the Weld Food Bank describes its mobile market program as “a refrigerated beverage truck delivering fresh produce, dairy products, meat, bakery, and dry goods directly to hungry people in high-need areas.” Their mobile food pantry, as they call it, distributed 3 million pounds of food across Weld County in 2020-21. That number was up 15% compared to before the COVID-19 pandemic.⁴⁸

Mobile market programs are community-driven wellness programs. There are many different operational and organizational models. No matter the model or structure of a mobile market program, because they are community-driven, they contribute to healthier, stronger communities and people. These are benefits we will explore in the next chapter.

Some examples of the types of organizations that operate mobile markets:

- Food banks ([The Food Bank of Northwest Indiana](#))
- Community councils ([Dotte Mobile Grocer](#))
- Urban farms/community gardens ([West Sacramento Urban Farms](#))
- Local farms ([Rainbow Harvest](#))
- Food-focused non-profit organizations ([Arcadia Mobile Market](#))
- Healthcare Centers ([Virtua's Eat Well Mobile Farmers Market](#))
- Any other type of organization that is dedicated to improving food access

How Do Mobile Market Programs Work?

Mobile markets come in all shapes and sizes, however, they are usually in the form of either a bus, [truck](#), or trailer. Some offer a walk-in shopping experience, while others are pop-up-style tent markets. Mobile market programs operate on a variety of schedules and at a variety of locations. They generally operate on a weekly or monthly basis. Some markets can operate year-round, while others shut down during the winter months. Schedules and services adapt to what the community needs and where that need exists.

The Food Bank of Northern Nevada visits “more than 45 sites throughout Reno/Sparks, as well as rural northern Nevada and eastern California.”⁴⁹ How did they come up with their schedule? They used free and reduced school lunch numbers to target areas with children and families in need. Because of their mobile market program, “nearly a third of the food distributed to clients each month is fresh produce.”⁴⁹ In 2020-21, the food bank delivered more than 2 million meals through their Mobile Harvest market alone.⁵⁰

Mobile markets target seniors’ living centers, schools, Head Start and SNAP for Women, Infants, and Children (WIC) centers, health centers, underserved neighborhoods, and more.^{51,52} Some even carry out food box home delivery. In 2020, FeedMore WNY out of Buffalo, New York, delivered 69,044 emergency food boxes through their mobile market. They also distributed just shy of 3 million pounds of food across four counties.⁵³

Due to vast differences in operational models, it is difficult to get an accurate estimate of the number of households or people mobile markets affect. Rather, taking a look at sales, the number of transactions, and the amount of food sold or delivered year-over-year paints a more accurate picture of the success of individual mobile market programs.

Because mobile markets deliberately target areas in need, many of them offer multiple forms of payment, plus a variety of discounts and incentives to make it easier for people to purchase the food they need at affordable prices.

Programs generally involve community partners such as health centers, religious organizations, and community councils, among others, making it much easier for them to operate and for residents in need to access food in familiar, nearby places. The Foodbank of Santa Barbara County’s mobile market, for example, holds market events at churches, community centers, and seniors’ centers around the county.⁵⁴

find the farm market



| FeedMore WNY Farm Market Schedule | |
|-----------------------------------|--|
| Today | Tuesday, July 19 |
| | 9:00am Valley Community Center |
| | Wednesday, July 20 |
| | 9:00am Westminster Commons |
| | 11:00am Our Lady of Victory - Lackawanna |
| | Thursday, July 21 |
| | 10:30am East Aurora Senior Center |
| | 12:30pm Cheektowaga Senior Center |
| | Friday, July 22 |
| | 10:00am Moot Senior Center |
| | 12:00pm Clarence Senior Center |
| | Tuesday, July 26 |
| | 12:00pm New Hope Baptist Church |
| | Wednesday, July 27 |

Events shown in time zone: Eastern Time - New York 

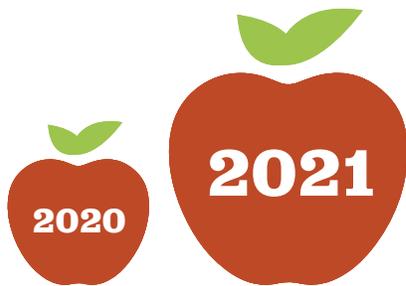
Source: feedmorewny.org/programs-services/farm-market

As you can see, mobile markets are, by their very nature, adaptable to the unique needs of their community. They provide food access organizations with a flexible, practical, and effective tool to address low food access. One of their most beneficial features is that they bring healthy food directly to where people live, work, and play. That plays a pivotal role in addressing one of the main barriers to food access: being able to physically access healthy food.

The Increasing Demand

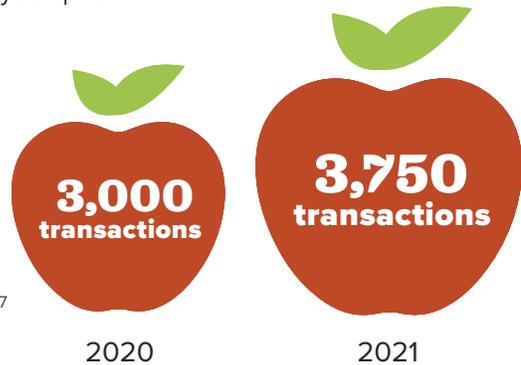
Is there a need for mobile markets?

While mobile markets aren't the magic bullet to ending food access issues, they do offer a much-needed helping hand to organizations and local officials who have been struggling to find ways to increase food access in their communities, and who've recognized that more needs to be done.



About Fresh, which serves neighborhoods across Boston experienced a **69% increase in healthy food transactions** at their Fresh Truck mobile market in 2021 compared to the year prior.⁵⁵

Arcadia's Mobile Market, based in Northeast Washington, DC experienced a marked increase in its sales as well. They had 3,750 transactions in 2021 compared to just under 3,000 in 2020.⁵⁶ Even before the pandemic, they saw a \$21,905 increase in sales in 2019 compared to 2018.⁵⁷



As the perfect storm of inflation, rising fuel and food costs, global instability, and the national healthcare crisis brew, so too has the hunger crisis.⁵⁸ Many pandemic-related relief measures, such as the increase in SNAP benefits, are also coming, or have already come, to an end.⁵⁹ Food relief organizations are feeling the pinch. They have realized the need to approach hunger and food access in different ways. For some of them, a mobile market program could be that missing piece of the puzzle.

The Benefits of Mobile Market Programs

Perhaps the most significant benefit of mobile market programs is that, unlike many other types of food retailers, they focus on addressing all five dimensions of food access.⁶⁰ This is what makes them such an attractive community wellness program for so many organizations. When you think about other food retailers, in terms of food access and not just hunger, the majority concentrate on only one or two dimensions, such as availability or accessibility, for example.⁶¹

While farmers' markets do offer a variety of fresh fruits and vegetables (F & V), they face barriers to farmer participation because of the time and workers needed to staff their booths.^{61,62} Increased competition among farmers' markets and grocery stores has led to a perception of high prices at farmers' markets, not to mention limited hours of operation and location constraints. Not everyone can make it to their local farmers' market.

The very existence of food deserts and food swamps is a result of a lack of supermarkets and grocery stores, especially among low-income minority populations, sufficient enough to meet residents' needs. These are two sides of the same coin. The presence of grocery stores, convenience stores, and even supermarkets does not necessarily translate to an increase in the F & V that meets all of the dimensions of food access. These types of food retailers account for the majority of our caloric intake, but unfortunately, they have also been shown to have no positive effect on F & V consumption.⁶¹ In some cases, the introduction of a supermarket into a neighborhood has even been linked to a decline in F & V consumption.^{61,63,64} These food retailers exist for profit, so they generally focus their efforts on selling processed, unhealthy, packaged foods they can sell en masse to maximize profit margins. There is very little incentive for them to increase the accessibility of F & V.

The proliferation of dollar stores in recent years has also been a cause for concern in many communities and further highlights the fact that not all food retailers are created equal. When supermarkets and grocery stores shut their doors, dollar stores are quick to take their place. The trouble is that most dollar stores do not offer fresh produce, further contributing to the growing number of food deserts across the country.^{65,66}

Conversely, mobile market programs have had the greatest success with all five dimensions of food access, which is important given the situation America finds itself in today.^{61,62}

AVAILABILITY & ACCESSIBILITY:

Mobile markets focus primarily on providing F & V directly to places they're needed the most by hosting market events at convenient locations where people naturally gather, making fresh produce both more available and accessible.

AFFORDABILITY:

Because mobile markets aren't profit-driven, the products they sell are generally at or below fair market value to ensure that F & V are affordable, especially for those on limited and fixed incomes.

ACCOMMODATION:

Mobile market programs accommodate their customers by offering different forms of payment (including SNAP/EBT and cash) and a convenient schedule that can change to accommodate residents' needs.

ACCEPTABILITY:

Offering locally-grown organic produce is what most mobile markets aim for. Many of the organizations that have mobile market programs support local food supply chains and can offer the freshest produce possible from local farms. Acceptability also takes into account whether or not the foods offered are the types of foods people want to eat. Is it recognizable to customers? Is it culturally relevant? By talking with their customers about what they want to see offered at the mobile market, they can ensure they're providing foods their community members actually want to eat.

Fruit & Vegetable Consumption

Several studies comparing the types of food retailers to F & V consumption have shown that mobile markets are proven to increase F & V consumption.^{47,63,67} This is especially true for SNAP participants as there are often reduced-price incentives offered by mobile markets. Programs such as "Double Up Food Bucks," WIC incentives, discounts, and two-for-one specials for SNAP participants go a long way toward making their benefits last longer.⁶⁸ Increasing F & V availability and consumption also translates to an increase in people who prepare their own meals and rely less on potentially unhealthy pre-packaged and restaurant food. The Chester County Food Bank in Pennsylvania found that 63% of their customers were cooking more after shopping at their mobile market.⁶⁹

The Benefits to Food Access Organizations

For organizations that focus on food access, mobile market programs offer other benefits as well.

- **Lower overhead/startup costs & resources:** Having a brick-and-mortar location can be quite costly to acquire and upkeep. Sometimes just finding a suitable location can be difficult. The CDC encourages the use of mobile market programs for this reason, stating, “because mobile food initiatives are generally less resource intensive than other healthier food retail approaches, public health practitioners may seek to implement them when funding is limited or when longer-term initiatives are just getting underway.”⁷⁰
- **Flexibility:** This goes hand-in-hand with being able to meet the dimensions of food access — being flexible is a must if a mobile market is to be successful. When food access organizations are unable to address all five food access dimensions with broader programs, a mobile market is the answer. Mobile markets cater their operations to adjust to changing needs within their area of operation and in consultations with their customers.

The Dotte Mobile Grocer’s refrigerated shelving keeps food cool enough to meet food safety standards, which was increasingly important as the USDA Farmers to Families program shifted to include meat and dairy in addition to fruits and vegetables.

The Benefits to Residents

Many mobile market programs offer ancillary services that complement their food access goals. Some of those include:

- **On-site cooking demonstrations:** Gives shoppers an opportunity to try out new foods before they buy and learn how to use the products sold at the mobile market. ([Local Motive Mobile Farmers’ Market - Feast Down East](#))
- **Nutrition education:** “Nutrition education helps families get the best nutrition for their budget.” — Food Bank of Northern Nevada⁵⁰
- **SNAP application/screening assistance:** The SNAP application process can be cumbersome for some people. Several mobile markets offer help to customers which makes the process go a little smoother. ([Farm Market - FeedMore WNY](#))
- **Healthcare services:** Allows customers convenient access to free healthcare services like diabetic eye exams and flu shots. ([Makin’ Groceries Mobile Market - Second Harvest Food Bank](#))

The Benefits to the Community

Stigma plays a part in food assistance that can't be overlooked. Mobile markets give people a chance to get the nutritious food they need in a welcoming, inclusive environment that is more akin to a farmers' market than a food bank. The mobile market vehicles and setup are usually brightly colored, and staffed by friendly, helpful workers who create a fun environment that's full of positive energy. They reduce the negative feelings associated with seeking assistance and foster dignity.

Socializing is another benefit to mobile market programs. By shopping outdoors in a community gathering place, people who might not otherwise have the opportunity to socialize are able to chat with their neighbors while waiting in line to shop or watching a cooking demonstration. This aspect can be particularly helpful for seniors who experience difficulties with mobility and live in isolation.

Mobile markets offer a means to create shorter local food supply chains. Direct-to-consumer chains strengthen communities and the food supply chains themselves. They encourage increased economic activity within the community by supporting local farms and farmers, providing jobs, and by keeping more money within the community. Having stronger local food systems means that we are less reliant on the global food system and more resilient in times of global food shortages and crises.⁷¹ As Roberta Cosentino, the Fresh2You Mobile Market manager puts it, "we've learned very clearly that regardless of income level, people want to support local agriculture, want to know where their food is coming from and that there's no shortage of demand for local produce."⁷²

Challenges for Mobile Market Programs

Financial

Like many food assistance organizations and programs, mobile markets require outside financial support. This comes in the forms of grants, donations, and public and private funding. While mobile markets do generate revenue and are less cost-prohibitive than brick-and-mortar retailers, the cost to run these programs does add up. Purchasing a vehicle, vehicle maintenance, buying produce, paying staff, and fuel are the biggest financial considerations.⁷³ Funding allows programs to focus on food access and not profit margins.

Regulations

Certain local bylaws, policies, and other regulations can limit mobile market operations, which naturally, inhibit the success of these programs. Because mobile markets are a relatively new concept, some pre-existing laws don't account for their existence or the way they operate. Even something as basic as how to categorize mobile markets (they aren't food trucks and they aren't farmers' markets) can cause confusion. Parking bylaws, zoning regulations, and vendor permits can restrict a mobile market's hours of operation, location, and right to sell goods in certain areas (such as near schools and in parks).^{62,70} For some, food handling regulations and permit rules restrict their ability to hold cooking demonstrations, which serve as a valuable tool in encouraging healthy eating habits and self-reliance.⁷³

Solutions to Address the Challenges

The impact and success of mobile markets outweigh the costs and challenges of the programs. Investing in mobile markets and mitigating their barriers to operating in low food access areas is a move that contributes to reducing healthcare costs and improving the nutrition of millions of Americans.

Collaboration Is Key

Collaboration with officials, decision-makers, organizations, and the local community is a key factor to their success. With the right tools, knowledge, and planning, mobile market programs are an effective tool for creating healthier communities. In Western New York, for example, FeedMore WNY, in partnership with Congressman Brian Higgins (D-NY), announced earlier this year that the Double Up Food Bucks program will now be available at their mobile markets thanks to funding being awarded through the USDA's Gus Schumacher Nutrition Incentive Program.⁷⁴ Community partnerships such as this allow much-needed funds to be distributed where the need is greatest.

Illinois SNAP-Ed teamed up with community organizations and local food banks across the state to help in starting and maintaining mobile market programs in 3 communities identified as having low access to fresh produce. SNAP-Ed assisted with funding, marketing, nutrition education, and language barriers to ensure that these programs were reaching the right people and recognized the impact and the continued need for such programs in these areas.⁷⁵

Many municipalities work closely with mobile market operators to facilitate access to locations and reduce barriers to operation. Having local leaders actively show support for mobile markets helps build residents' trust and garners support for these programs, especially when entering new neighborhoods. Having staff and volunteers from the neighborhoods they visit also helps to instill trust.⁶⁰ When mobile market programs have buy-in from local leaders and residents, the level of service and satisfaction improves quickly.

Dotte Mobile Grocer in Kansas is run by the community itself. The council that operates it is made up of residents and local health partners—the people who understand the community's needs most.

Financial Assistance

Providing support to mobile market programs by making grants and other funding opportunities more accessible can help with startup costs and ease operational costs. Some things to consider are:

Grant/funding eligible cost considerations. Do they allow for:

- Fuel costs
- Vehicle acquisition
- Vehicle maintenance
- Wages
- Purchasing goods

The factors above account for a considerable amount of a mobile market's operating budget. In times of economic uncertainty, such as the world is experiencing today, they are even more pronounced.

Local regulations and permits

- Some cities and municipalities provide incentives for healthy food vendors by offering reduced-cost or even free permits.
- Are subsidies made available to help cover operational costs, such as fuel?

Financial sustainability is something many mobile market programs aspire to. Being financially sustainable allows organizations to further scale their operations and have a greater social impact. Support from external sources helps get them there faster.

Regulatory Assistance

Examining existing local policies and bylaws, and whether or not they support or hinder mobile market programs to operate, is critical to their success.⁶¹ Consider adopting new laws and policies to support mobile markets which allow vendors to operate with fewer restrictions on location, parking, and hours of operation.^{18,62} Increasing the number of permits made available for such vendors has proven successful as well.

The Green Carts initiative in New York City oversaw the implementation of a program designed to increase the availability of fresh fruits and vegetables in underserved neighborhoods. The partnership between several government departments and local non-profits ensured the availability of additional permits for vendors selling only fresh produce in these areas. They also provided training, marketing, and technical assistance to ensure the sustainability of the Green Carts. Everyone involved in the project cited collaboration, innovation, and continued support by all stakeholders as instrumental in its success.⁷⁶

Recognizing the uniqueness of mobile markets, understanding their barriers to operation, and assisting them in overcoming those barriers benefit entire communities and support their wellness.

Conclusion

Remember Robert and Marie, Shiv, Doris, and Kamilah? They all credit their local mobile market programs with being able to source and consume more nutritious foods.

Robert no longer has to choose between taking his medication and eating healthily.⁵

Shiv credits the on-campus mobile market with helping him succeed in college. He received a scholarship to pursue a degree in chemical engineering and also volunteered at the very market that helped him in times of need.⁶



Shown in this photo is Shiv. Photo credit: Nicolaus Czarnecki.

Doris visits the monthly mobile market held at her church and says it's a blessing for her and for people just like her who are on fixed incomes.⁷

After switching to a plant-based diet with the produce they were able to purchase at their local mobile market, Kamilah's husband Earl lost 90 lbs. She says the mobile market has the best prices and the best produce for miles, and even her kids love eating a plant-based diet now too.⁸

Imagine a time when every family that wants to eat fresh, healthy food is able to do so. How would that impact your community, your state, and the country? Mobile market programs can help make that vision come to life. They are part of the answer—an essential tool that has been proven to address all five dimensions of food access head-on. Mobile markets work in tandem with other food access methods to help everyone achieve proper nutrition and lead healthier lives. When every citizen can flourish, the entire nation flourishes—it's a win-win. Establishing and supporting mobile market programs in your community and your state through collaboration, support, and communication with food access champions and citizens is critical to their success. With these innovative programs in place, we can change the health outcome of millions of Americans living in underserved communities.

About The Farmers' Truck

We empower community champions to address the lack of fresh food access in their communities.

We do that by providing a proven, human-centered design, mobile market vehicle that is accessible for NGOs. We take care of product design, manufacturing, delivery and so much more. We even help them raise funds to launch their program. We're always tinkering with tools and services to support their work.

We connect communities together, play a role in building these channels around mobile market programs and advocate balancing financial sustainability with their social impact.

All that through the lens of a social enterprise where we aim to do good and be good (financially). People, planet, and prosperity – In that order.

If there's a need, a mobile farmers' market might very well be the answer.

To learn more about The Farmers' Truck, our products, and our services, visit thefarmerstruck.com or email: info@thefarmerstruck.com.

Farmers' Truck™

The Farmers' Truck Inc.

644 Main St, # 400,
Moncton, NB E1C 1E2
Canada

Farmers' Truck USA Inc.

6077 Coffee Rd 4, # 330,
Bakersfield, CA 93308
USA

www.thefarmerstruck.com

References

- 1 U.S. Centers for Medicare & Medicaid Services [CMS]. (2021). *National Health Expenditure Data – Historical*. Retrieved from: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical#:~:text=U.S.%20health%20care%20spending%20grew,trillion%20or%20%202412%2C530%20per%20person>
- 2 World Health Organization [WHO]. (2020). *Healthy Diet*. Retrieved from: <https://www.who.int/news-room/fact-sheets/detail/healthy-diet>
- 3 Holman H. R. (2020). The Relation of the Chronic Disease Epidemic to the Health Care Crisis. *ACR open rheumatology*, 2(3), 167–173. <https://doi.org/10.1002/acr2.11114>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7077778/#acr211114-bib-0003>
- 4 Waters H., Graf M. (2018) “The Cost of Chronic Diseases in the U.S.” Executive Summary, Milken Institute, Pg 4. Retrieved from: <https://milkeninstitute.org/sites/default/files/reports-pdf/Chronic-Disease-Executive-Summary-r2.pdf>
- 5 Food Bank of Northern Nevada. (2021). *STORIES OF IMPACT: ROBERT & MARIE*. Retrieved from: <https://fbnn.org/stories-of-impact-robert-marie/>
- 6 The Greater Boston Food Bank [GBFB]. (2020). *YOUR SUPPORT HELPS STUDENTS LIKE SHIV THRIVE*. Retrieved from: <https://www.gbfb.org/2020/03/04/support-helps-student-like-shiv-thrive/>
- 7 Second Harvest Food Bank. (2020). *Impact Report 2019 & 2020*. Pg 13. Retrieved from: https://no-hunger.org/wp-content/uploads/2022/02/SHFB-Annual-Report-FY19_20.PRESS_.pdf
- 8 Fresh Approach. (2017). *GIVE HEALTH: BY GIVING FAMILIES ACCESS TO AFFORDABLE PRODUCE*. Retrieved from: <https://www.freshapproach.org/give-health-by-giving-families-access-to-affordable-produce/>
- 9 Jardim TV, Mozaffarian D, Abrahams-Gessel S, Sy S, Lee Y, Liu J, et al. (2019) Cardiometabolic disease costs associated with suboptimal diet in the United States: A cost analysis based on a microsimulation model. *PLoS Med* 16(12): e1002981. Retrieved from: <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002981#abstract0>
- 10 Bipartisan Policy Center [BPC]. (2022). *BPC Food and Nutrition Security Task Force Applauds Announcement of Conference on Hunger, Nutrition, and Health*. Retrieved from: <https://bipartisanpolicy.org/press-release/bpc-food-and-nutrition-security-task-force-applauds-announcement-of-conference-on-hunger-nutrition-and-health/>
- 11 National Conference of State Legislatures [NCSL]. (2015). *Hungry for Solutions*. Retrieved from: <https://www.ncsl.org/research/human-services/hungry-for-solutions.aspx>
- 12 Food and Agriculture Organization of the United Nations [FAO]. *Hunger and food insecurity*. Retrieved from: <https://www.fao.org/hunger/en/>
- 13 Yenerall, J., You, W., & Hill, J. (2017). Investigating the Spatial Dimension of Food Access. *International journal of environmental research and public health*, 14(8), 866. <https://doi.org/10.3390/ijerph14080866>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5580570/#B10-ijerph-14-00866>
- 14 Caspi, C. E., Sorensen, G., Subramanian, S. V., & Kawachi, I. (2012). The local food environment and diet: a systematic review. *Health & place*, 18(5), 1172–1187. <https://doi.org/10.1016/j.healthplace.2012.05.006>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684395/>
- 15 health.gov. *White House Conference on Hunger, Nutrition, and Health*. Retrieved from: <https://health.gov/our-work/nutrition-physical-activity/white-house-conference-hunger-nutrition-and-health>
- 16 National Institutes of Health [NIH]. (2021). *Most COVID-19 hospitalizations due to four conditions*. Retrieved from: <https://www.nih.gov/news-events/nih-research-matters/most-covid-19-hospitalizations-due-four-conditions>
- 17 Fryar CD, Carroll MD, Afful J. Prevalence of overweight, obesity, and severe obesity among adults aged 20 and over: United States, 1960–1962 through 2017–2018. *NCHS Health E-Stats*. 2020. Pg 1. Retrieved from: <https://www.cdc.gov/nchs/data/hestat/obesity-adult-17-18/overweight-obesity-adults-H.pdf>
- 18 White House Task Force on Childhood Obesity Report to the President. (2010). *Solving the Problem of Childhood Obesity Within a Generation*. Pg 8, 54, 59. Retrieved from: https://web.archive.org/web/20110625042136/http://www.letsmove.gov/sites/letsmove.gov/files/TaskForce_on_Childhood_Obesity_May2010_FullReport.pdf
- 19 Centers for Disease Control and Prevention [CDC]. *Childhood Obesity Facts. Prevalence of Childhood Obesity in the United States*. Retrieved from: <https://www.cdc.gov/obesity/data/childhood.html>
- 20 Centers for Disease Control and Prevention [CDC]. *Obesity Basics*. Retrieved from: <https://www.cdc.gov/obesity/basics/index.html>
- 21 National Center for Chronic Disease Prevention and Health Promotion [NCCDPHP]. *About Chronic Diseases*. Retrieved from: <https://www.cdc.gov/chronicdisease/about/index.htm>

- 22 National Center for Chronic Disease Prevention and Health Promotion [NCCDPHP]. *Health and Economic Costs of Chronic Diseases*. Retrieved from: <https://www.cdc.gov/chronicdisease/about/costs/index.htm>
- 23 Waters H., Graf M. (2018) *America's Obesity Crisis: The Health and Economic Costs of Excess Weight*, Milken Institute, Pg 16. Retrieved from: https://milkeninstitute.org/sites/default/files/reports-pdf/Mi-Americas-Obesity-Crisis-WEB_2.pdf
- 24 Willett WC, Koplan JP, Nugent R, et al. Prevention of Chronic Disease by Means of Diet and Lifestyle Changes. In: Jamison DT, Breman JG, Measham AR, et al., editors. *Disease Control Priorities in Developing Countries*. 2nd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2006. Chapter 44. Co-published by Oxford University Press, New York. Retrieved from: <https://www.ncbi.nlm.nih.gov/books/NBK11795/>
- 25 National Center for Chronic Disease Prevention and Health Promotion [NCCDPHP]. *8 Strategies for a Healthy Spring*. Retrieved from: <https://www.cdc.gov/chronicdisease/index.htm>
- 26 MCGovern.house.gov. (2021). Press Releases. *McGovern, Walorski, Booker, Braun Introduce Bipartisan Bill to Convene a White House Conference on Food, Nutrition, Hunger and Health*. Retrieved from: <https://mccgovern.house.gov/news/documentsingle.aspx?DocumentID=398766>
- 27 Cooksey-Stowers, K., Schwartz, M. B., & Brownell, K. D. (2017). Food Swamps Predict Obesity Rates Better Than Food Deserts in the United States. *International journal of environmental research and public health*, 14(11), 1366. <https://doi.org/10.3390/ijerph14111366>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5708005/>
- 28 National Center for Chronic Disease Prevention and Health Promotion [NCCDPHP]. *Poor Nutrition*. Retrieved from: <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/nutrition.htm>
- 29 Duke Green Classroom. (2017). *Health and Socioeconomic Disparities of Food Deserts*. Retrieved from: https://sites.duke.edu/lit290s-1_02_s2017/2017/03/04/health-and-socioeconomic-disparities-of-food-deserts/
- 30 Lee, M. M., Falbe, J., Schillinger, D., Basu, S., McCulloch, C. E., & Madsen, K. A. (2019). Sugar-Sweetened Beverage Consumption 3 Years After the Berkeley, California, Sugar-Sweetened Beverage Tax. *American journal of public health*, 109(4), 637–639. <https://doi.org/10.2105/AJPH.2019.304971>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6417561/>
- 31 John Cawley, David Frisvold, Anna Hill, David Jones, The impact of the Philadelphia beverage tax on purchases and consumption by adults and children, *Journal of Health Economics*, Volume 67, 2019, 102225, ISSN 0167-6296, <https://doi.org/10.1016/j.jhealeco.2019.102225>. Retrieved from: <https://www.sciencedirect.com/science/article/abs/pii/S0167629618309494?via%3DIihub>
- 32 Economic Research Service U.S. DEPARTMENT OF AGRICULTURE [ERS USDA]. *Food Access Research Atlas*. Retrieved from: <https://www.ers.usda.gov/data-products/food-access-research-atlas/>
- 33 Economic Research Service U.S. DEPARTMENT OF AGRICULTURE [ERS USDA]. *Food Environment Atlas*. Retrieved from: <https://www.ers.usda.gov/data-products/food-environment-atlas/>
- 34 Economic Research Service U.S. DEPARTMENT OF AGRICULTURE [ERS USDA]. *U.S. diets remain out of balance with Federal recommendations*. Retrieved from: <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail?chartId=101348>
- 35 Center on Budget and Policy Priorities. (2022). *A Closer Look at Who Benefits from SNAP: State-by-State Fact Sheets*. Retrieved from: <https://www.cbpp.org/research/food-assistance/a-closer-look-at-who-benefits-from-snap-state-by-state-fact-sheets#Alabama>
- 36 Center on Budget and Policy Priorities. (2022). *A Quick Guide to SNAP Eligibility and Benefits*. Retrieved from: <https://www.cbpp.org/research/food-assistance/a-quick-guide-to-snap-eligibility-and-benefits#:~:text=Gross%20monthly%20income%20E2%80%94%20that%20is,2022%20is%20%241%2C830%20a%20month>.
- 37 The Network for Public Health Law. (2020). *Effects of Denial of SNAP Benefits on Persons with Felony Drug Convictions*. Retrieved from: <https://www.networkforphl.org/resources/effects-of-denial-of-snap-benefits-on-convicted-drug-felons/>
- 38 Feeding America. (2016). *Seniors Not Receiving Critical Federal Benefits*. Retrieved from: <https://www.feedingamerica.org/about-us/press-room/seniors-not-receiving-critical-benefits-051816>
- 39 Keith-Jennings, B., Llobera, J., & Dean, S. (2019). Links of the Supplemental Nutrition Assistance Program With Food Insecurity, Poverty, and Health: Evidence and Potential. *American journal of public health*, 109(12), 1636–1640. <https://doi.org/10.2105/AJPH.2019.305325>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6836787/>
- 40 United States Census Bureau. (2021). *Access and Eligibility for Supplemental Nutrition Assistance Program Varies County by County*. Retrieved from: <https://www.census.gov/library/stories/2021/02/demographic-snapshot-not-everyone-eligible-for-food-assistance-program-receives-benefits.html>
- 41 Bublitz, M.G., *Journal of Business Research*, <https://doi.org/10.1016/j.jbusres.2018.12.027>. Pg 4. Retrieved from: https://www.hungertaskforce.org/wp-content/uploads/2019/02/Food-Access-for-All-Journal-of-Business-Research_2019.pdf

- 42 Maryland Food Bank. (2021). *Experiencing the Stigma of Food Assistance for the First Time*. Retrieved from: <https://mdfoodbank.org/news/experiencing-the-stigma-of-food-assistance-for-the-first-time/>
- 43 Food Research & Action Center [FRAC]. (2021). *To End Hunger, We Must End Stigma*. Retrieved from: <https://frac.org/blog/endhungerendstigma#:~:text=Stigma%20Impacts%20Program%20Participation,as%20well%20as%20internalized%20shame.>
- 44 Cable News Network [CNN]. (2022). *Biden says recession is not inevitable but acknowledges economic pain: 'This is going to be a haul'*. Retrieved from: https://www.cnn.com/2022/05/23/politics/biden-says-recession-not-inevitable/index.html?utm_source=npr_newsletter&utm_medium=email&utm_content=20220527&utm_term=6766624&utm_campaign=money&utm_id=4979294&orgid=566&utm_att1=money
- 45 Booker.senate.gov. (2021). *Booker, Braun, McGovern, and Walorski Introduce Bipartisan, Bicameral Bill That Would Convene a White House Conference on Food, Nutrition, Hunger and Health*. Retrieved from: <https://www.booker.senate.gov/news/press/booker-braun-mcgovern-and-walorski-introduce-bipartisan-bicameral-bill-that-would-convene-a-white-house-conference-on-food-nutrition-hunger-and-health#:~:text=%E2%80%9CDespite%20the%20progress%20made%2C%20America.failures%20in%20our%20food%20system>
- 46 Christian A. Gregory, Alisha Coleman-Jensen. *Food Insecurity, Chronic Disease, and Health Among Working-Age Adults, ERR-235, U.S. Department of Agriculture, Economic Research Service, July 2017. Pg 12*. Retrieved from: <https://www.ers.usda.gov/webdocs/publications/84467/err-235.pdf?v=449.3>
- 47 County Health Rankings & Roadmaps. *Mobile Produce Markets*. Retrieved from: <https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/mobile-produce-markets>
- 48 Weld Food Bank. Annual Report 2021. Pg 11. Retrieved from: <https://weldfoodbank.wpengine.com/wp-content/uploads/2021/10/Digital-Annual-Report-2021.pdf>
- 49 Food Bank of Northern Nevada Distributing Food. <https://fbnn.org/who-we-are/programs-services/distributing-food/>
- 50 Food Bank of Northern Nevada. Annual Report 2020-2021. Pg 6. Retrieved from: <https://fbnn.org/wp-content/uploads/2022/05/2020-21-Annual-Report-Final.pdf>
- 51 The Open Door Mobile Market. <https://foodpantry.org/mobile-market/>
- 52 GoFarm Community Food Access. <https://www.gofarm.org/mobilemarket>
- 53 FeedMore WNY. 2020 Annual Report. Pg 7. Retrieved from: <https://www.feedmorewny.org/wp-content/uploads/2021/11/FeedMore-WNY-Annual-Report-2020.pdf>
- 54 The Foodbank of Santa Barbara County Mobile Farmers' Market. <https://foodbanksbc.org/programs/other-programs/mobile-farmers-market/>
- 55 About Fresh. 2020 & 2021 Annual Reports. Retrieved from: <https://www.aboutfresh.org/who-we-are/>
- 56 Arcadia's Mobile Market. 2021 Review. Pg 7. Retrieved from: [http://www.arcadiafood.org/sites/default/files/files/Arcadia%20Impact%20Report_PRINT_Feb2022%20\(1\).pdf](http://www.arcadiafood.org/sites/default/files/files/Arcadia%20Impact%20Report_PRINT_Feb2022%20(1).pdf)
- 57 Arcadia's Mobile Market. 2019 Report. Pg 1. Retrieved from: <http://arcadiafood.org/sites/default/files/files/Mobile%20Market%202019%20General%20Report.pdf>
- 58 Feeding America. (2022). *Feeding America Calls for Action as Hunger Crisis Worsens*. Retrieved from: <https://www.feedingamerica.org/about-us/press-room/hunger-crisis-worsens>
- 59 Public Broadcasting Service [PBS]. (2022). *States scale back food stamp benefits as prices soar*. Retrieved from: <https://www.pbs.org/newshour/nation/states-scale-back-food-stamp-benefits-as-prices-soar>
- 60 Hsiao, B., Sibeko, L., Wicks, K., & Troy, L. (2018). Mobile produce market influences access to fruits and vegetables in an urban environment. *Public Health Nutrition*, 21(7), 1332-1344. doi:10.1017/S1368980017003755. Retrieved from: <https://www.cambridge.org/core/journals/public-health-nutrition/article/mobile-produce-market-influences-access-to-fruits-and-vegetables-in-an-urban-environment/19DBEC4855EB255DEE6689D6A03224E4>
- 61 Hollis-Hansen, K., Vermont, L., Zafron, M. L., Seidman, J., & Leone, L. (2019). The introduction of new food retail opportunities in lower-income communities and the impact on fruit and vegetable intake: a systematic review. *Translational behavioral medicine*, 9(5), 837–846. <https://doi.org/10.1093/tbm/ibz094>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8679116/>
- 62 Hsiao, Bi-sek J., "Mobile Produce Markets: A Strategy for Increasing Access to Fruits and Vegetables Among Low Income Urban Residents" (2016). Masters Theses. 423. Section 5.10 The Potential of Policies to Support Mobile Produce Markets. Pg 40, 81. Retrieved from: https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1445&context=masters_theses_2

- 63 Leone, L. A., Tripicchio, G. L., Haynes-Maslow, L., McGuirt, J., Grady Smith, J. S., Armstrong-Brown, J., Gizlice, Z., & Ammerman, A. (2018). Cluster randomized controlled trial of a mobile market intervention to increase fruit and vegetable intake among adults in lower-income communities in North Carolina. *The international journal of behavioral nutrition and physical activity*, 15(1), 2. <https://doi.org/10.1186/s12966-017-0637-1>. Pg 2, 6. Retrieved from: <https://ijbnpa.biomedcentral.com/track/pdf/10.1186/s12966-017-0637-1.pdf>
- 64 Dubowitz, T., Ghosh-Dastidar, M., Cohen, D. A., Beckman, R., Steiner, E. D., Hunter, G. P., Flórez, K. R., Huang, C., Vaughan, C. A., Sloan, J. C., Zenk, S. N., Cummins, S., & Collins, R. L. (2015). Diet And Perceptions Change With Supermarket Introduction In A Food Desert, But Not Because Of Supermarket Use. *Health affairs (Project Hope)*, 34(11), 1858–1868. <https://doi.org/10.1377/hlthaff.2015.0667>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4977027/>
- 65 Eater. (2022). *As Dollar Stores Proliferate Food Deserts, Some Communities Push Back*. Retrieved from: <https://www.eater.com/23026173/dollar-store-general-food-deserts>
- 66 Institute for Local Self-Reliance (ILSR). (2022). *Dollar Store Restrictions*. Retrieved from: <https://ilsr.org/rule/dollar-store-dispersal-restrictions/>
- 67 Gary-Webb, T. L., Bear, T. M., Mendez, D. D., Schiff, M. D., Keenan, E., & Fabio, A. (2018). Evaluation of a Mobile Farmer’s Market Aimed at Increasing Fruit and Vegetable Consumption in Food Deserts: A Pilot Study to Determine Evaluation Feasibility. *Health equity*, 2(1), 375–383. <https://doi.org/10.1089/heaq.2018.0003>. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6301430/>
- 68 Rummo, P.E., Lyerly, R., Rose, J. et al. The impact of financial incentives on SNAP transactions at mobile produce markets. *Int J Behav Nutr Phys Act* 18, 26 (2021). <https://doi.org/10.1186/s12966-021-01093-z>. Retrieved from: <https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-021-01093-z>
- 69 Chester County Food Bank. FY2021 Impact Report. Pg 7. Retrieved from: <https://chestercountyfoodbank.org/wp-content/uploads/2021/11/CCFB-FY21-IMPACT-REPORT-1.pdf>
- 70 National Center for Chronic Disease Prevention and Health Promotion [NCCDPHP]. *Healthier Food Retail: An Action Guide for Public Health Practitioners - Chapter 5*. Pg 88, 92. Retrieved from: <https://www.cdc.gov/nccdphp/dnpao/state-local-programs/pdf/healthier-food-retail-guide-chapter-5.pdf>
- 71 United Nations Industrial Development Organization (UNIDO). *Short Food Supply Chains For Promoting Local Food On Local Markets*. (2020). Pg 3. Retrieved from: <https://suster.org/wp-content/uploads/2020/06/SHORT-FOOD-SUPPLY-CHAINS.pdf>
- 72 Chester County Food Bank. *A Fresh Take on Our Fresh2You Program for 2018*. (2018). Retrieved from: <https://chestercountyfoodbank.org/category/fresh2you/>
- 73 Kasprzak, C.M., Lally, A.E., Schoonover, J.J. et al. Operational challenges that may affect implementation of evidence-based mobile market interventions. *BMC Public Health* 22, 776 (2022). <https://doi.org/10.1186/s12889-022-13207-8>. Pg 5. Retrieved from: <https://bmcpublichealth.biomedcentral.com/track/pdf/10.1186/s12889-022-13207-8.pdf>
- 74 *Congressman Higgins Announces \$3 million In USDA Funding Awarded To Field & Fork Network*. (2022). Retrieved from: <https://higgins.house.gov/media-center/press-releases/congressman-higgins-announces-3-million-in-usda-funding-awarded-to-field>
- 75 U.S. Department of Agriculture (USDA) SNAP-Ed Connection. *Mobile markets continue to improve food access for Illinois families*. (2022). Retrieved from: <https://snaped.fns.usda.gov/success-stories/mobile-markets-continue-improve-food-access-illinois-families>
- 76 Office of Disease Prevention and Health Promotion (ODPHP). *Pushing Produce in New York City’s Neighborhoods: The Green Carts Initiative*. Retrieved from: <https://www.healthypeople.gov/2020/law-and-health-policy/bright-spot/pushing-produce-in-new-york-city>