

Lifting Up What Works®

PolicyLink



Access to Healthy Food and Why It Matters:

A Review of the Research



Access to Healthy Food and Why It Matters:

A Review of the Research

Judith Bell, MPA

Gabriella Mora, MPH

Erin Hagan, MBA, PhD

Victor Rubin, MCP, PhD

Allison Karpyn, PhD



Table of Contents

4	Preface
6	Introduction
9	Findings
19	Implications for Policy and Research
21	Appendix
22	References
35	Acknowledgments

Preface

The nation is abuzz with talk about good, healthy food, but for far too many people, and especially for those living in low-income communities and communities of color, healthy food is simply out of reach. Finding quality fresh food means either traveling significant distances or paying exorbitant prices for wilting vegetables and overripe fruit. With these burdens, it is no surprise that these same communities face the highest risks of obesity, diabetes, and other preventable food-related health challenges. Yet, these are the very communities that are driving the nation's population growth and upon whom the country's future will depend. What will America's future be like if we do not fix this problem and end these disparities?

In recognition of this, PolicyLink and The Food Trust^a have been working together over the past five years to advance policies to help entrepreneurs and food retailers build or expand stores in underserved communities. Bringing grocery stores to low-income underserved areas creates a healthier food environment that supports making healthier choices: having easy, regular access to grocery stores or other food markets that sell fruits, vegetables, produce, and other staples at affordable prices is necessary to eat the well-

rounded, nutritious diet essential for good health. Supermarkets and other retail outlets that sell healthy foods are also major contributors to strong, local economies. Supermarkets, for example, are often "economic anchors" that draw in the foot traffic to support additional stores. They not only create many local jobs, but also foster other commercial development and breathe new life into neighborhoods that have been disinvested for decades.

Successful advocacy by hundreds of organizations working to promote equity, health, entrepreneurship, and community development has helped bring over \$1 billion in resources to healthy food access projects across the country through the federal Healthy Food Financing Initiative and similar efforts in more than 10 states and localities. We have proudly helped to spark and support a virtual explosion of innovative healthy food retail projects in a vast number of urban, suburban, and rural low-income communities.

Research, of course, has been essential to both understanding the problem and developing effective solutions. And the research community has been thoroughly engaged with this issue. Over the past *three* years, at least 170 studies—more than in the previous two decades—have been published. These studies have examined what

^aIn most of this work, we have partnered with The Reinvestment Fund.

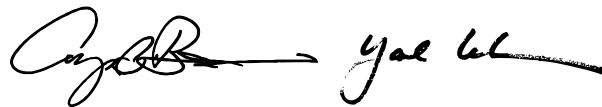
factors affect access to healthy food and its impact on individual and community health.

This report provides a current picture of the state of the research on food access, following up on our 2010 report, *The Grocery Gap: Who Has Access to Healthy Food and Why It Matters*. The presence of so many new and diverse innovations in healthy food retailing has provided researchers with more opportunities to examine the relationship between the “food environments” in which people live and their diets, as well as the relationship between food retailing and community economic development. The recent material also reflects researchers’ growing intentions and capacities to measure change over time in terms of better access to healthy food.

While much progress is being made to develop new models of food retailing that serve communities previously left out, the evidence continues to suggest that many families are underserved and that the problem is most pronounced for residents of low-income communities and communities of color. The research indicates that poor access to healthy food corresponds with poor nutrition and that new healthy food retail contributes to community economic development in tangible, positive ways.

Working together, we have seen that local leaders have the power to make a real difference. Leaders in many communities are crafting sustainable and authentic solutions to the grocery gap, creating healthier communities, and contributing to the nation’s health and well-being. We have also seen how supportive policy can generate solutions in communities with the impetus coming sometimes from local policymakers and other times from the state or federal level. Most recently, we have seen powerful combinations from all three levels leading to important innovations and new access to healthy food in low-income communities of color.

We offer this review in the hope that it supports the work of current food access champions and attracts new leaders to join in this remarkable time of community leadership, innovation, and lasting economic and health impacts.



Angela Glover Blackwell
Founder and CEO
PolicyLink

Yael Lehmann
Executive Director
The Food Trust

Introduction

Healthy food retailers—grocery stores; farmers’ markets; cooperatives; mobile markets; and other vendors of fresh, affordable, nutritious food—are critical components of healthy, thriving communities. As the country inches its way out of the Great Recession and seeks to grow a more sustainable and equitable economy, ensuring that healthy food is accessible to all is crucial. Without access to healthy foods, a nutritious diet and good health are out of reach. And without grocery stores and other fresh food retailers, communities are also missing the commercial vitality that makes neighborhoods livable and helps local economies thrive.

Moreover, the challenge of access to healthy food has been a persistent one for communities of color. Beginning in the 1960s and 1970s, white, middle-class and working-class families left urban centers for homes in the suburbs, and supermarket chains went with them, leaving many inner-city neighborhoods with few or no full-service markets—often for decades. Limited access to healthy food also plagues many rural communities and small towns, where population losses and economic changes have diminished food retail options. Even in agricultural centers where fruits and vegetables are being grown, residents may not have a retail outlet nearby. Many of the communities that lack healthy food retailers are also oversaturated with fast-food restaurants, liquor stores, and other sources of inexpensive, processed food with little to no nutritional value. For decades, community activists have organized around the lack of access to healthy foods as an economic, health, and social justice issue.

Healthy food retailers can generate significant economic stimulus by serving as anchors for further commercial revitalization, creating local jobs, generating tax revenues, and capturing local dollars within the community, among other economic and community development outcomes.^{1,2} For example, it is estimated that 24 new jobs are created for

every 10,000 square feet of retail grocery space,³ so a very large market can generate between 150 and 200 full- and part-time jobs.¹ Attracting and incentivizing new or improved healthy food retail in communities of color and low-income, urban, and rural communities is an important component of a comprehensive strategy to revitalize disinvested areas by improving health and economic outcomes in the places that need it most.

As concerns have grown over the worsening obesity epidemic, access to healthy and affordable food has moved to the forefront of community, civic, and policymakers’ agendas. A shared recognition of the role that healthy food access plays in promoting stronger local economies, vibrant neighborhoods, and healthy people has sparked support for different projects and initiatives, bringing an array of approaches from grocery stores to farmers’ markets, mobile markets, food hubs, and community gardens.

Even as recognition of the problem is growing and progress is being made, between 6 and 9 percent of all U.S. households are still without access to healthy food. Nearly 30 million people live in low-income areas with limited access to supermarkets (defined as the closest store being more than a mile away).⁴ The problem is particularly acute in low-income communities of color. People living in these neighborhoods must either make do with the foods available in smaller local stores, which are very often less healthy and more expensive, or spend nearly 20 minutes traveling to the nearest large retailer or even more time in rural communities where a full-service grocery store may be more than 20 miles away.⁵

There has been a proliferation of innovative approaches to bringing healthy food retail into underserved communities in recent years. The best-known large-scale innovation is the highly successful Pennsylvania Fresh Food Financing Initiative—a statewide public-private effort that helped develop

or improve 88 supermarkets, smaller independently owned grocery stores, farmers' markets, and other fresh food outlets in underserved urban communities, small towns, and rural areas throughout Pennsylvania. Launched in 2004, the initiative leveraged more than \$190 million in healthy food retail projects over six years and is responsible for creating or retaining more than 5,000 jobs in Pennsylvania communities.^{6, b} This program has so far been adapted and funded in six other states and cities, bringing much-needed financial resources and development know-how to communities seeking to improve healthy food access. Several more jurisdictions are in the process of starting funding for similar initiatives.

The federal Healthy Food Financing Initiative (HFFI), established in 2011, has, in three years, distributed more than \$500 million in grants and tax credits to improve access to healthy food in communities across the country. The President has proposed to expand the program further in 2014. In total, more than \$1 billion in private capital has already been leveraged to support an array of different projects and approaches—not only full-scale grocery stores but also consumer co-operatives, farmers' markets, mobile markets, and food hubs. Thousands of jobs have been created, and hundreds of thousands of people have new access to healthy food.

The local and state-level efforts confirm that support for healthy food retail can come in many forms and that new models are emerging at a fast pace. Improving offerings at corner stores and bodegas, starting or expanding farmers' markets and mobile markets, enhancing community gardens and other forms of urban agriculture, and initiating new forms of wholesale distribution through food hubs are among the promising strategies that bring economic and health benefits to neighborhoods. The local economy, development resources, community leadership and support, political will, and other factors determine what is possible and viable.

In 2010, PolicyLink and The Food Trust published *The Grocery Gap: Who Has Access to Healthy Food and Why It Matters*, a comprehensive review of the previous two decades' worth of food access research. The review found overwhelming evidence that access to healthy food was particularly limited for low-income communities, communities of color, and rural

communities. The research also suggested that access to healthy food corresponds with a good diet and lower risk for obesity and other diet-related chronic diseases. A third, more emergent, theme in the literature was that new and improved healthy food retail in underserved communities creates jobs and helps to revitalize low-income neighborhoods.

Given the proliferation of research since the 2010 *Grocery Gap* publication, it was determined important to systematically review the new studies and reevaluate the evidence base. This new report does that, providing an up-to-date summary of what is known about access to healthy food and why it matters. The majority of the evidence continues to support—or strengthen—three primary findings:

- Accessing healthy food is still a challenge for many families, particularly those living in low-income neighborhoods, communities of color, and rural areas.
- Living closer to healthy food retail is among the factors associated with better eating habits and decreased risk for obesity and diet-related diseases.
- Healthy food retail stimulates economic activity.

While most of the newer research continues to point to positive health and economic impacts, some contradicting results have also surfaced. As this report documents, however, the majority of research still indicates that in order for people to improve their diets they need to have convenient access to good quality, healthy food.

The proliferation of local efforts to provide access to healthy food has drawn attention to the factors that can determine the impact of these innovations, including transportation access and the quality, price, and cultural appropriateness of the offerings. As more studies of local circumstances are published, a more complete picture is emerging of the realities for people living in low-income urban neighborhoods, communities of color, and rural areas with limited access. There is also more clarity about what happens to purchasing, consumption, health outcomes, and the local economy when access changes. The following summary of the state of the research can inform *policymakers*, advocates, researchers, philanthropic organizations, and others in identifying, designing, and implementing strategies to ensure all people have access to healthy food.

^bIn addition to state legislative leadership, the initiative arose from the work of Pennsylvania-based nonprofit organizations including The Food Trust and The Reinvestment Fund, with strong support from the food retailing industry.



Findings

The field of healthy food access research has benefited from rapid growth and wider attention in the last three years. The result of this increased scrutiny and documentation is a more well-rounded understanding of the problems and the emergence of a literature that describes impacts at both the individual and community levels. The results from the review of the literature are organized by the three main findings described in the introduction and elaborated upon in this section.

1. Accessing healthy food is a challenge for many families, particularly those living in low-income neighborhoods, communities of color, and rural areas.

An overwhelming body of evidence over 20 years indicates that accessing affordable, high-quality, and healthy food is a challenge for many families; this challenge is most pronounced in low-income neighborhoods of color.^{4, 7-170} Recent national-scale studies conducted by the United States Department of Agriculture's Economic Research Service (USDA ERS) and The Reinvestment Fund have found that 25 to 30 million Americans—about 9 percent of the total population—are living in communities that do not provide adequate access to healthy food retailers, such as supermarkets or grocery stores, within a reasonable distance^c from their home.^{4, 142} Both

^cThe Reinvestment Fund (TRF) considers a "reasonable distance" to be one that is "comparatively acceptable" to the distance traveled by residents in well-served areas. TRF defines "comparatively acceptable" as the distance that residents of well-served areas (block groups with incomes greater than 120 percent of the area's median income) travel to the nearest supermarket. The USDA defines "reasonable distance" as the presence of a supermarket within one mile of a person's residence.

studies found that the populations living in these communities are more likely to be low-income and to be people of color.

Where Are Food Deserts Located?

In an effort to help identify the communities that can most benefit from targeted resources and strategies to improve healthy food access, the United States Department of Agriculture (USDA) and The Reinvestment Fund have developed and launched free data sources that assist in the identification of areas lacking healthy food access, or food deserts.¹⁷¹ The Food Access Research Atlas (USDA) and PolicyMap (The Reinvestment Fund) both, with varying levels of complexity, visually depict gaps in healthy food access across the country.

From 1990 through February 2013, many studies have documented how low-income communities and communities of color have less access to healthy food than higher-income and less diverse communities.

- A national cross-sectional study found that low-income, urban neighborhoods of color have the least availability of grocery stores and supermarkets compared with both low- and high-income white communities.¹⁷²
- A 2012 comprehensive review of published literature about the role of the retail food environment in shaping racial, ethnic, and socioeconomic disparities in obesity risk concluded that the retail environments of communities of color lack accessibility to healthy food, while the opportunities to purchase processed, convenience foods and alcohol are great.¹⁰⁰
- In an assessment of nearly 1,200 residents in Baltimore, Maryland, white, college-educated, and higher-income households have significantly higher availability of healthy food options

Predominantly African American neighborhoods and low-income neighborhoods had the smallest increase in food store availability and the greatest reduction in the number of available grocery stores.⁹⁵

compared with black, less-educated, low-income households.⁹⁹

- In New York City, one-third of all predominantly black census tracts and one-third of the lowest-poverty tracts lack walking or subway access to supermarkets. Further, of all neighborhoods in the city, the predominantly black neighborhoods have the lowest access to healthy food.¹⁵⁸
- A study examining the relative changes in availability of various food stores by race and socioeconomic status, from 1997 to 2008, found that predominantly African American neighborhoods and low-income neighborhoods had the smallest increase in food store availability and the greatest reduction in the number of available grocery stores.⁹⁵

Not only is access lacking in low-income communities and communities of color, but disparities exist in the quality, variety, quantity, and price of healthy foods as well.^{107, 109, 112, 113, 123, 129, 168, 170} Together, the barriers inhibiting access to fresh foods and the plethora of inexpensive fast-food outlets can make it more difficult for people living in low-income neighborhoods and communities of color to eat a healthy diet.¹⁵⁹

- In an assessment comparing low- and high-income food environments in Kansas City, Kansas, and Kansas City, Missouri, low-income neighborhoods have less availability and lower-quality produce than higher-income neighborhoods.¹⁶⁸
- Supermarkets serving African American communities in Pittsburgh, Pennsylvania, are perceived by residents to offer produce and meats of poorer quality than branches of the same supermarkets serving white neighborhoods.¹⁰⁷ Women in a low-income African American community in Chicago, Illinois, reported numerous environmental

barriers to acquiring healthy food, including store availability and upkeep; food availability, placement, and quality; high food prices; and safety concerns, among other issues.¹⁰⁹

Rural Food Access

Lack of access to healthy foods in rural communities, especially within Native American reservations, is a significant concern.^{24, 32, 35, 36, 39, 47, 50, 54, 55, 75, 80, 95, 135, 138, 173-181} In rural areas, 10 miles is typically considered an acceptable distance to travel to a grocery store, supermarket, or other retail food outlet. However, it is not uncommon for the closest grocery store to be much farther away, and people living in low-income, rural communities typically have the farthest distances to travel to access healthy food.⁵

- A national study identified nearly 8 percent of the total rural population in the United States as living in communities lacking access to healthy food, and nearly 35 percent of those lacking access are also low income.¹⁴²
- One study evaluating the food accessibility on 22 Native American reservations in Washington State observed physical and financial barriers to accessing healthy food: 15 reservations do not have an on-reservation supermarket or grocery store, yet the cost of shopping at off-reservation supermarkets is about 7 percent higher than the national reference cost.¹⁸²
- On one reservation in South Dakota, nearly 40 percent of families with young children experience hunger and food insecurity.^{183, d}

^d Food insecurity is defined by the USDA as follows: “Food insecurity—the condition assessed in the food security survey and represented in USDA food security reports—is a household-level economic and social condition of limited or uncertain access to adequate food.”²⁶³

Other considerations associated with accessibility—such as perceptions of quality, price, and preference—may also be more pronounced in rural areas where the density of food retail outlets is much lower than in urban areas. Even if a rural community’s access is not considered limited based on the standard geographic definition, residents may still experience challenges meeting their dietary needs and preferences. For example, two separate studies conducted in rural areas in Maine tell a different story about the rural food landscape.

- A study assessing proximity to fresh food retail within a rural community in Maine found that most residents are within acceptable distances (defined as within 10 miles) of stores offering healthy food options, although these stores may not be supermarkets.¹⁸⁴
- A qualitative study examining the rural food environment in Maine found that cost, travel distance, and food quality are all factors that emerge as influential in rural, low-income families’ efforts to get food and families often travel up to 80 miles to purchase affordable, high-quality food.¹⁰⁵

Transportation

Lack of transportation to grocery stores presents a serious problem for many people. About 2.1 million households do not own a vehicle and live more than one mile from the nearest supermarket. While this figure has been improving (down from 2.4 million households in 2006), the lowest vehicle ownership occurs among low-income people, further exacerbating the challenges to accessing healthy food in low-income communities.⁴ Although rural residents generally tend to have higher rates of vehicle ownership, lack of access to reliable transportation in rural communities can pose an acute added barrier

for accessing healthy food given the lack of transit systems in most rural areas.^{47, 55, 105, 180, 181, 185}

Similar studies have looked at the impact of transportation in urban, low-income communities as well.^{14, 15, 36, 74, 112, 113, 128, 139, 140, 181, 186} Lack of transportation is frequently cited as a barrier to accessing a full-service supermarket or grocery store, and recent results have reinforced an older body of literature, including congressional reports.^{127, 148, 153, 169, 187}

School Settings

While research has more frequently examined access to healthy food relative to the home, some recent studies have sought to explore the food environment around schools.^{156, 188-190} The food environment in many low-income urban communities often comprises primarily convenience stores and smaller markets. Convenience stores located in close proximity to middle and high schools represent an important—yet predominantly unhealthy—source of food for youth, and can have a substantial impact on diets regardless of the quality of food provided in schools.

- The findings of two studies indicate that students in low-income, urban neighborhoods in Oakland, California, and Minneapolis, Minnesota, have greater access to convenience food sources around their schools, lower access to healthy snack options, and greater access to unhealthy snack options compared with their counterparts in more affluent areas.^{189, 190}
- Conversely, students in higher-income neighborhoods have less access to convenience food sources compared with students attending low-income schools, and when they do, their options are healthier.¹⁸⁹

Convenience stores located in close proximity to middle and high schools represent an important—yet predominantly unhealthy—source of food for youth, and can have a substantial impact on diets regardless of the quality of food provided in schools.

CHALLENGES OF ACCESS //

nearly
30 million

live in low-income areas with limited access to supermarkets.⁴

one-third

of all predominantly black census tracts in New York City lack walking or subway access to supermarkets.¹⁵⁸

RURAL FOOD ACCESS //

nearly
8%

of the total rural population in the United States live in communities lacking access to healthy food.⁴

nearly
35%

of those lacking access are also low income.¹⁴²

15 out of 22

Native American reservations in Washington State do not have an on-reservation supermarket or grocery store.¹⁸²

2. Living closer to healthy food retail is associated with better eating habits and decreased risk for obesity and diet-related diseases.

Obesity and overweight affects two in every three adults and one-third of children ages 6 to 19. These rates are even more striking for children of color, with more than half of Hispanic and African American children classified as overweight or obese. For the first time in history, American children are projected to live shorter lives than their parents.¹⁹¹⁻¹⁹³ The dire circumstances and projections have created urgency about the need to reduce obesity rates and widespread interest in changes in food environments. Healthy food access has been recognized by national agencies and associations including the Centers for Disease Control and Prevention (CDC), the Institute of Medicine (IOM), and the American Heart Association (AHA) as a necessary strategy to reduce obesity and improve the public’s health. While not the sole solution to the complexities of the obesity epidemic, access to nutritious and affordable food is an important factor enabling community residents to make easy, healthy choices about their diets.

More than 75 studies in the past three years have examined the direct health impacts of access to healthy food on diet and on the risk of obesity or overweight, as measured by fruit and vegetable consumption and body mass index (BMI)^e respectively.^{8, 10, 16, 17, 24, 27-30, 34, 37, 45, 46, 49, 51, 76-78, 80, 83, 84, 94-96, 100, 101, 106, 110, 120, 128, 131, 137, 159, 175, 187, 188, 194-237}

The latest research both reinforces and challenges previous research outcomes. Healthy eating and positive health outcomes were associated with access to healthy food in the following studies.

- A study of nearly 600 rural seniors found that increased distance to the nearest supermarket or other healthy food retail outlet is associated with decreased daily consumption of fruits and vegetables.²⁰⁰

^e Body mass index (BMI) is a calculation of an individual’s weight-for-height ratio. According to the Centers for Disease Control and Prevention (CDC), BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.²⁶⁴

- Another study examining the relationship between healthy food access and produce consumption in a large metropolitan area found that better geographic accessibility to multiple grocery stores is associated with increased fruit and vegetable consumption. The model utilized in this study predicted that an additional 10 stores located within a mile of a person’s residence would correspond with a 15 percent increase in the likelihood of eating four or more servings of fruits and vegetables per day.²⁰⁸
- A study using a sample of national, secondary data found that lower produce prices, higher fast-food prices, and greater access to supermarkets are related to increased fruit and vegetable consumption and lower BMI, especially among low-income teenagers.⁹⁵
- A study of nearly 4,000 adults living in New Orleans found that each additional supermarket in a participant’s neighborhood is associated with reduced risk for obesity, while fast-food and convenience store access are predictive of greater odds of obesity.⁹⁴
- Data from more than 300 food stores and more than 1,200 telephone interviews in one region found that higher-quality food environments—not specific food retail types—are associated with a decreased risk of obesity and overweight.²⁰²

While numerous studies support a direct connection between access to healthy food, a healthy diet, and health outcomes, there is also a smaller body of studies with findings that question the strength of that connection.

- A study assessing the density of both healthy and unhealthy food retail in relationship to childhood obesity risk found that low-income neighborhoods of color have greater access to all sources of food retail (both healthy and unhealthy) as measured by the number of outlets of all kinds. This measure of proximity does not independently explain weight gain over time in this sample of elementary school-aged children. The author concluded that accurate understanding of the ease of access requires better measurement of transportation and store inventories, and that factors such as pricing and the “psychology of food purchase patterns” can influence childhood obesity.¹⁹⁹

TRANSPORTATION //

2.1 million

households do not own a vehicle and live more than one mile from the nearest supermarket.⁴

ECONOMIC IMPACT OF HEALTHY FOOD //

\$540 billion

in grocery store sales in 2011, translated to a...

\$50 billion

payroll for two million Americans working in food retailing.²⁴¹

13,780

jobs were directly created by the food industry, generating...

\$3 billion

in economic activity in Vermont.¹¹⁹

150-200

full- and part-time jobs can be generated by a large retail grocery market.¹

ECONOMIC IMPACT OF HEALTHY FOOD //

Every \$5.00

in new SNAP benefits generates...

\$9.00

in local spending at supermarkets, grocery stores, and other approved SNAP-accepting retailers.^{253, 254}

\$1 billion

of SNAP benefits generates anywhere from...

8,900-17,900

full-time-equivalent jobs.²⁵⁶

- A 2012 analysis of 19,000 children and adolescents in California found no relationship between the home and school neighborhood food environments and youth diet quality. This exploratory study was the first to examine the impact of neighborhood food environments using BMI and measures of dietary intake from a statewide health interview survey, an approach limited by relatively low response rates, small sample sizes, and reliance on self-reporting. These researchers also recommended examination of other factors that can influence food purchasing and would sharpen the measurement of access.¹⁸⁸
- A 2011 systematic literature review reported that mixed associations were found between greater accessibility to supermarkets or grocery stores and fruit and vegetable consumption, with five out of six studies showing no association between the two measures.¹⁹⁵

Studies showing mixed results are reminders that community-level factors influencing healthy eating, such as distance to the store, or the prevalence of fast-food outlets, will have different degrees of salience to distinct local populations. In one published report, contrasting results were observed for different types of communities. A county-level analysis of metropolitan areas, utilizing a national data set of individual behaviors, found that as distance to a supermarket increased, consumers are less likely to eat five or more servings of fruits and vegetables per day and are more likely to be obese. However, this study also found that distance to the supermarket has no associations with obesity or fruit and vegetable consumption in nonmetropolitan (e.g., rural and small town) areas.⁹⁶

Studies questioning the extent to which the availability of healthy food impacts eating behaviors and overall health reveal that access is embedded in a complex set of relationships and factors in which the presence of a store is a necessary factor, but not necessarily the only factor, to ensure healthy eating. A more complete understanding of the impacts of access can be obtained by including assessments

of additional factors that influence the ability of neighborhood residents to eat healthy diets. These factors include the following:

- **Transportation options:** The overwhelming majority of people travel by car to shop for groceries, but some people use public transportation or walk, and a better understanding could be gained about the reliability and feasibility of the modes of transportation people use to access healthy food. For example, a February 2013 town hall call-in survey of 127 Detroit city residents found that 22 percent of participants identified lack of transportation as the primary limitation to providing healthy food to their families.¹⁶⁹
- **Quality and price of produce and other healthy food options:** Some studies looking at the relationship between the food environment and health outcomes use the simple presence of a store as a proxy for the availability of healthy foods. However, without a store assessment, this sort of analysis does not take into account the quality or price of the foods stocked in these stores. For example, a study of low-income, urban, food-desert consumers of color living in Detroit found that consumer income plays a significant role in determining purchasing behaviors and that increasing income or lowering price leads to increased fruit consumption.¹²⁹
- **Cultural appropriateness of neighborhood food choices:** A store will have appeal and relevance in meeting its community’s needs if it stocks the foods in which the shoppers are interested at reasonable prices and treats them with respect. There is a need for more research regarding how the unique economic conditions, history, and cultural mix of neighborhoods affect food availability.²³⁸ Recent efforts in many cities to bridge the cultural gaps between small-store owners and residents of different ethnicities suggest that more successful healthy retailing can be attained when these issues are addressed directly.

ECONOMIC IMPACT OF HEALTHY FOOD (CONT'D) //

\$190 million

has been leveraged in healthy food retail projects by the Pennsylvania Fresh Food Financing Initiative since 2004, with...

5,000

jobs for Pennsylvania communities.^{6,b}

500

new farmers’ markets per year could yield as many as...

13,500

jobs over a five-year period.²⁵¹

Additionally, to gain a more complete understanding of community food access, it may be appropriate to take into consideration the perceived access of healthy food within a community, as well as the availability of healthy foods near other places in the community besides their homes where people commonly spend significant amounts of time, such as work and school.^{239, 240}

Equality in healthy food access is paramount. Lack of access, in addition to other influences, inhibits healthy eating. As new strategies to improve access to healthy food are implemented more widely, there will be many opportunities to better analyze and understand their impact and their interaction with all of the factors that contribute to improving diet and health.

3. Healthy food retail stimulates economic activity.

Improving health outcomes is not the only reason for increasing access to healthy food retail in disinvested communities. An equally important motive is the role of healthy food retail outlets as drivers of economic activity. Even during times of economic downturn and amid threats to established business models, the supermarket and grocery store industry is a powerful economic entity that can create jobs and stimulate growth. The recent growth in attention to healthy food retail has generated robust findings documenting the scale and impact of the industry, in general, and new innovations, in particular.

- In 2011, grocery sector sales exceeded \$540 billion, and more than two million Americans were employed on a payroll of more than \$50 billion across the country.²⁴¹
- The economic potential of individual stores is significant—it is estimated that 24 new jobs are created for every 10,000 square feet of retail grocery space created.³ Given that the average supermarket ranges from 20,000 to 50,000 square feet in size, one new store in that size range could generate between 48 and 120 new, local jobs.³ Supermarkets with unionized workers offer living wages and benefits in private sector jobs that do not require a college degree.

The economic impacts of a supermarket or grocery store in a community are not limited to jobs and income earned. Home values, for example, increase with improved accessibility to neighborhood retail, including grocery and other food retail outlets.²⁴²⁻²⁴⁴

- In Philadelphia, home values near new grocery stores increased from 4 to 7 percent. Local tax revenues also receive a boost from healthy food retailers: a single store in Philadelphia generated a \$540,000 increase in local tax revenue.²⁴⁵

Local access to healthy food retail also prevents “leakage” within the local economy by ensuring dollars spent stay within the community rather than outside of it. “Drill down” analyses by the nonprofit group Social Compact, as well as studies by other market analysts for a host of central cities, have quantified the potential for cutting down on this leakage through new local retail outlets. Outcomes usually show that the local purchasing power is greater than what had been previously estimated. These studies have supported the development of many new commercial projects in low- and moderate-income communities.^{60-71, 73, 140, 246, 247}

- A nationwide study found that residents living in communities lacking healthy food retail entities, such as supermarkets, spend \$1,120 annually on food outside of their neighborhood.¹⁴²

Healthy food retail development also creates substantial indirect and induced effects, based on the extent to which the activities of one industry are linked to other industries within the local economy. Supermarkets and grocery stores generate direct effects on the economy through the activities related to operation, management, packaging, and shipping. Indirect impacts then occur when these activities require purchases of goods and services, such as building materials from local or regional suppliers; induced impacts occur when the workers involved in direct and indirect activities spend their wages in the community.

- In Vermont, the food industry directly created 13,780 jobs in the state and generated \$3 billion in state economic activity. Combining direct jobs and spending, indirect activities, and induced impacts, which include construction, Vermont’s food industry is responsible for about 15 percent of the state’s overall economy.¹¹⁹

Healthy Food = Good Business

Businesses are also starting to recognize the benefits of promoting healthy products. Small and large companies are demonstrating that what is good for the health of families is also good for business. For example, New Seasons Market, a chain based in Portland, Oregon, has spurred local economic development throughout the food system, as they give priority to local farmers, sourcing a third of their products from the “home grown” region of Oregon, Washington, and Northern California.²⁴⁸ Walmart has cut the costs of fruits and vegetables to its consumers by \$2.3 billion over the past two years and is reporting increased sales of fresh produce.²⁴⁹

Although they utilize a different business model than full-service grocery stores, farmers’ markets carry unique social and economic implications as well by keeping consumer dollars within regional economies; adding community vibrancy through the building of social capital; supporting small, local businesses; and preserving regional farmlands.²⁵⁰ Farmers’ markets also bring jobs to communities, albeit often seasonal employment opportunities. A comprehensive economic analysis of the impact of farmers’ markets estimates that 500 new markets per year could yield as many as 13,500 jobs over a five-year period.²⁵¹

Governmental food benefits for low-income consumers, spent at retail outlets, represent another dimension of local economic impact. Studies have quantified the economic effects of the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). These programs can be essential to the viability of some stores and make a significant difference in aggregate purchasing power in the poor neighborhoods that are most likely to lack healthy food. SNAP and WIC—together representing approximately an \$85 billion public investment in 2012—make a significant, positive impact on the local economy through the circulation of benefit dollars.²⁵²

- Every \$5 in new SNAP benefits generates \$9 in local spending at supermarkets, grocery stores, and other approved SNAP-accepting retailers.^{253, 254}

- An increase in the national SNAP participation rate by five percentage points would generate an additional \$2.5 billion in new economic activity nationwide.²⁵⁵
- One billion dollars of SNAP benefits generates anywhere from 8,900 to 17,900 full-time-equivalent jobs.²⁵⁶

More recently, SNAP participants have gained access to farmers’ markets across the country. Between October 2010 and September 2011, SNAP sales at farmers’ markets nationwide topped \$11.7 million.²⁵⁷ In Rhode Island-based Greenmarkets, expanding SNAP purchases to include farmers’ markets resulted in an increase in SNAP sales from \$1,000 in 2005 to more than \$500,000 in 2010.¹¹⁸

Fruit and vegetable coupon programs—like Philly Food Bucks, New York City’s Health Bucks or Michigan’s Double-Up Food Bucks—aim to increase the consumption of fresh local produce by increasing the purchasing power of SNAP users and promoting repeat visits. The economic success of coupon incentive programs has been significant and evaluation results are showing increased consumption of fruits and vegetables.

- An evaluation study conducted on the Philly Food Bucks program found a 335 percent increase in SNAP sales over an 18-month period, which directly increased farmers’ sales.²⁵⁸
- The introduction of the Double-Up Food Bucks program in Detroit, which matches SNAP benefits spent at participating farmers’ markets up to \$20, resulted in a 368 percent increase in SNAP spending at Eastern Market. Across all participating markets, a total of \$1.3 million in SNAP and Double-Up Food Bucks tokens were redeemed between August and October 2011.^{259, 260}

The growth in purchasing produce demonstrates a pent-up demand for fresh fruits and vegetables among low-income consumers at a time when unemployment and poverty in low-income communities of color remains exceptionally high.



Implications for Policy and Research

The evidence published in the last two decades, and the past three years in particular, shows that access to healthy food continues to be a critical factor for improving both the physical and economic well-being of communities. Especially at the local level, examples abound describing how a new grocery store serves as the lifeblood for a struggling rural town, or offers a fresh start in employment for a previously incarcerated person; how a farmers' market is fostering social cohesion in a neighborhood where racial tensions used to prevail; or how a new full-scale grocery store is bringing new economic vitality to a low-income, urban community of color that had lacked access for decades. Healthy food access is about improving economic and community health. It is about investing in the people and places that have been left behind. It is about providing access to basic community services and creating economic opportunity. Above all, it is about better health.

Comprehensive equity-oriented approaches are needed to improve health

Compelling evidence suggests that healthy food access is an important component to improving health outcomes. After years of battling an obesity crisis—with food environments that make unhealthy food fast, cheap, and easy to find and physical environments that make regular exercise difficult—small decreases in childhood obesity rates are finally being achieved in a handful of cities, regions, and states across the country, including 11 communities of different types extensively documented by the Robert Wood Johnson Foundation in 2013.²⁶¹ All of these places attribute their progress to broad sweeping and comprehensive reform across multiple sectors: policy and environmental changes such as regulating the types of foods and beverages available in schools and government work sites, building new pedestrian

and bicycle routes, improving the purchasing power of consumers with vouchers for fresh produce at farmers' markets, implementing financing initiatives to attract grocery stores and other healthy food retailers, providing nutrition education to children and adults, and a plethora of other healthy community strategies. The research compiled for this report reinforces the experiences of these places—a comprehensive approach is the key to achieving the greatest impacts.

In addition to aggressively scaling up comprehensive strategies that are working, special attention needs to be paid to communities of color. In the places that have seen improvements in health outcomes, only in Philadelphia have trends improved for both white children and children of color.²⁶¹ In New Mexico, for example, there was a 5.3 percent decrease in obesity among third graders, yet rates were still highest among American Indian students (30%) compared to Hispanic students (22.7%) and white students (15.2%).²⁶² Previous experience tells us that resources must be targeted to those communities most in need to alleviate long-standing inequities. New focused research may also help us understand why these differences are occurring. Emerging evidence suggests that the greatest benefit is reaped from interventions to address access in places where the need is greatest. For example, Philadelphia, which saw these improvements across racial lines, employed a citywide approach called Get Healthy Philly that included nutrition education and wellness activities in every school, a robust network of community farmers' markets, fitness initiatives, community gardening, a network of over 600 corner stores (bodegas) selling healthier options, and more grocery stores in areas of need through the Pennsylvania Fresh Food Financing Initiative. The city has embraced a comprehensive, equity-oriented approach to healthy eating and active living.

In the places that have seen improvements in childhood obesity health outcomes, only in Philadelphia have trends improved for both white children and children of color. The city has embraced a comprehensive, equity-oriented approach to healthy eating and active living.²⁶¹

Strategies should focus on those most in need—low-income people and communities of color

Strategies designed to improve access for low-income people and communities of color can result in benefits for the broader community. Healthy food financing opportunities incentivize improved access in communities where healthy food has been limited, create jobs, and produce wide-reaching economic benefits. The federal Healthy Food Financing Initiative (HFFI) is leveraging its impact with programs in states and metropolitan areas and with resources from financial and philanthropic institutions. Further, the flexibility of the HFFI approach, with its reliance on locally generated projects, supports innovative and diverse strategies to improve access and advance sustainable approaches, such as supermarkets, co-ops, farmers' markets, or smaller grocery stores. Programs, like SNAP and WIC, also benefit the broader community by producing specific economic benefits for individual stores and creating broader economic stimulus across regions. The evidence suggests that these initiatives should be continued and expanded.

Policymakers can also use many other tools to attract and promote healthy food retail, including land use planning and zoning, economic development, tax credits, and other incentives, as well as strengthening the purchasing power of consumers by enhancing and expanding nutrition assistance. The federal New Markets Tax Credit, in particular, has proved to be a powerful tool with more than \$400 million used to support larger-scale healthy food retail projects. Localities can also help healthy food retailers overcome barriers to market entry by providing publicly owned land at low or no cost, identifying and marketing sites for retail development, and providing technical assistance and affordable financing to small stores so that they can make capital improvements.

Research is critical to understanding how healthy food can be accessed by all

As all of these innovations proceed, they should be accompanied by well-crafted, culturally sensitive, creative, and rigorous research that produces actionable information and insights about healthy food access. Tracking and evaluating the implementation of the diverse strategies referenced in this report will help policymakers and program and community leaders tailor and improve these strategies, measure their impacts, and influence future policy decisions. And, no matter how large the sample for a future study of healthy food access may be or how precise the measurements of food intake or body mass index, it will be important to be able to look closely at variables associated with *local food environments* to more thoroughly understand people's experiences. Local "lived experiences," qualitative store assessments, and consumer inquiries should be highly considered when assessing the local food environments and, ultimately, the building blocks of healthy communities. As the development of healthy food retail continues to dramatically expand, particularly in low-income communities of color, new models in financing, format, and pricing hold great promise for bringing access to healthy food to all.

Conclusion

Even as progress is being made to improve access in urban neighborhoods and rural communities, millions of Americans are still struggling to put healthy food on the table, making efforts to address gaps in access as essential as ever. Action must be taken across all levels—local, state, regional, and federal—to leverage resources and target efforts to the places with the greatest need. Improving access to healthy food remains a pivotal catalyst to revitalize neighborhoods and improve community health and vitality for all.

Appendix

Methods

In 2010, PolicyLink and the Food Trust published a first-of-a-kind review of food access research in the United States, *The Grocery Gap: Who has Access to Healthy Food and Why It Matters*. The report assessed 132 studies related to healthy food access published between 1990 and 2009. Inclusion criteria for research contained in the *Grocery Gap* were as follows:

- Related directly or indirectly to identifying disparities in access to food retailers or healthy food, and the relationship between food retail and health.
- Either included original research on these topics or reviewed other studies.
- Conducted in the United States.
- Published during or after 1995 (although a few important studies that were conducted between 1990 and 1994 were included).

This new analysis combines the studies from the original review with examination of new documents published since January 2010. The findings outlined in this report feature the relevant scientific and “gray” literature (studies, reports, and analyses that are not published in peer-reviewed journals) that have contributed to the past two decades of healthy food access research.

Two databases of relevant research were developed and subsequently combined to serve as the foundation for this report. The first database was compiled between May and June 2009, and ultimately included 132 research articles published primarily between 1995 and 2009 (with a few studies published between 1990 and 1994). The second database was compiled in January and

February of 2013, and included research selected from the period between January 2010 and February 2013. While inclusion criteria were nearly identical for the development of both databases, collection methods differed slightly. Extensive outreach to experts and organizations in the food access field was conducted in addition to an online database search to compile the research included in the first database. Significantly less outreach was involved in the collection of the newer compilation of research, which relied primarily on university-based library access to search a database of holdings that exceeds 100 million resources from books, scholarly journals, newspaper articles, e-books, theses, dissertations, and conference proceedings. In addition to information culled from this systematic search, other relevant resources, especially non-academic literature, were identified through internet searches and a number of the newest reports and articles were suggested for consideration by experts in the field.

Search term limits for the second database were inclusive to the publication years of 2010 to 2013 and the terms “healthy food access” or “food access.” These searches yielded more than 1,200 hits, excluding mass media newspaper articles, as well as masters’ theses and doctoral dissertations. Two reviewers independently evaluated the relevance of retrieved articles, and slated each article for “inclusion” or “exclusion” in the database based on the article’s relevance to the topic. The resulting compilation of literature features approximately 170 articles, reports, book chapters, and briefs.

In total, more than 300 studies published between 1990 and 2013 were reviewed and assessed to develop the themes presented in the findings section and arrive at the conclusions presented in this report.

References

1. **The Reinvestment Fund.** *Access to Supermarkets in Inner City Communities.* Reinvestment Brief, Issue 5. [Online] 2008. <http://trfund.com/wp-content/uploads/2013/06/CDFIStudySummary.pdf>.
2. **Hagan, E. and Rubin, V.** *Economic and Community Development Outcomes of Healthy Food Retail.* PolicyLink, 2013. <http://www.policylink.org/site/apps/tnet/content2.aspx?c=IkXLbMNjRE&b=5136581&ct=12761513>.
3. **California FreshWorks Fund.** *California FreshWorks Fund Fact Sheet.* FreshWorks. [Online] 2012. http://www.cafreshworks.com/pdfs/CFWF_FactSHT_9.pdf.
4. **Ver Ploeg, M. et al.** *Access to Affordable and Nutritious Food: Updated Estimates of Distance to Supermarkets Using 2010 Data.* [Report No. 143.] Washington, D.C.: United States Department of Agriculture, Economic Research Service, 2012.
5. **Ver Ploeg, M., Breneman, V., Farrigan, T., Hamrick, K., Hopkins, D. et al.** *Access to Affordable and Nutritious Food—Measuring and Understanding Food Deserts and Their Consequences: Report to Congress.* Washington, D.C.: United States Department of Agriculture, Economic Research Service, 2009.
6. **PolicyLink, The Food Trust, The Reinvestment Fund.** *A Healthy Food Financing Initiative: An Innovative Approach to Improve Health and Spark Economic Development Fact Sheet.* [Online] 2012. http://www.policylink.org/atf/cf/%7B97c6d565-bb43-406d-a6d5-eca3bbf35af0%7D/HEALTHYFOODFINANCING_2PG.PDF.
7. *A Systematic Review of Food Deserts, 1966–2007.* **Beaulac, J., Kristjansson, E., Cummins, S.** Preventing Chronic Disease: Public Health Research, Practice and Policy, 2009, Vol. 6(3).
8. *Neighborhood Environments: Disparities in Access to Healthy Foods in the U.S.* **Larson, N., Story, M., Nelson, M.** American Journal of Preventive Medicine, 2009, Vol. 36(1).
9. *Supermarket Access in the Inner Cities.* **Nayga, M. and Weinberg, Z.** Journal of Retailing and Consumer Services, 1999, Vol. 3.
10. **Alameda Point Collaborative.** Alameda Point Collaborative Food Security Findings and Recommendations. Alameda Point Collaborative. 2006.
11. *Retail Stores in Poor Urban Neighborhoods.* **Alwitt, L. and Donley, T.** Journal of Consumer Affairs, 1997, Vol. 31.
12. *Availability and Prices of Foods Across Stores and Neighborhoods: The Case Of New Haven, Connecticut.* **Andreyeva, T., Blumenthal, D., Schwartz, M., Long, M., Brownell, K.** Health Affairs, 2008, Vol. 27(5).
13. *The Role of Race and Poverty in Access to Foods that Enable Individuals to Adhere to Dietary Guidelines.* **Baker, E., Schootman, M., Barnidge, E., Kelly, C.** Preventing Chronic Disease: Public Health Research, Practice and Policy, 2006, Vol. 3(3).
14. **Birnback, K.** *Food for Thought. Access and Availability of Health Food in East Austin.* Austin: University of Texas at Austin, 2008.
15. **Bjorn, A., Lee, B., Born, B., Monsivais, P., Kantor, S., Sayre, R.** *At the Table with the AFPC. Mapping Food Insecurity and Access in Seattle and King County Issue.* Seattle: Seattle and King County Acting Food Policy Council, 2008.
16. *Neighbourhood Fruit and Vegetable Availability and Consumption: The Role of Small Food Stores in an Urban Environment.* **Bodor, J.N., Rose, D., Farley, T.A., Swalm, C., Scott, S.K.** Public Health Nutrition, 2008, Vol. 11.
17. **California Center for Public Health Advocacy, PolicyLink, UCLA Center for Health Policy Research.** *Designed for Disease: The Link Between Local Food Environments and Obesity and Diabetes.* Davis, CA: California Center for Public Health Advocacy, 2008.
18. *Do the Poor Pay More for Food? An Analysis of Grocery Store Availability and Food Price Disparities.* **Chung, C. and Myers, J.** Journal of Consumer Affairs, 1999, Vol. 33.
19. *Mobility Strategies and Food Shopping for Low-Income Families: A Case Study.* **Clifton, K.** Journal of Planning Education and Research, 2004, Vol. 23.
20. **Community Farm Alliance.** *Bridging the Divide. Growing Self-Sufficiency in Our Food Supply: Community Food Assessment. A Regional Approach for Food Systems in Louisville KY.* Community Farm Alliance. [Online] 2007. <http://www.communityfarmalliance.org/BridgingTheDivide.pdf>.
21. **Community Health Councils Inc.** *Does Race Define What's in the Shopping Cart? Community Health and Education.* Community Health Councils Inc., 2008.

22. **Cotterill, R., and Franklin, A.** *The Urban Grocery Store Gap*. [Food Marketing Policy Issue Paper 8.] Food Marketing Policy Center, University of Connecticut, 1995.
23. **D.C. Hunger Solutions.** *Healthy Food, Healthy Communities: An Assessment and Scorecard of Community Food Security In the District of Columbia*. D.C. Hunger Solutions. [Online] 2006. <http://www.dchunger.org/pdf/healthfoodcomm.pdf>.
24. *Community Measures of Low-Fat Milk Consumption: Comparing Store Shelves with Households.* **Fisher, B. and Strogatz, D.** *American Journal of Public Health*, 1999, Vol. 89(2).
25. **Azuma, A.** *Food Access in Central and South Los Angeles: Mapping Injustice, Agenda for Action*. Urban and Environmental Policy Institute, 2007. http://scholar.oxy.edu/uep_faculty/346/.
26. *Neighborhood Characteristics and Availability of Healthy Foods in Baltimore.* **Franco, M., Diez Roux, A., Glass, T., Caballero, B., Brancati, F.** *American Journal of Preventive Medicine*, 2008, Vol. 35(6).
27. **Gallagher, M.** *Examining the Impact of Food Deserts on Public Health in Chicago*. Mari Gallagher Research and Consulting Group. [Online] 2006. http://www.marigallagher.com/site_media/dynamic/project_files/Chicago_Food_Desert_Report.pdf.
28. **Gallagher, M.** *The Chicago Food Desert Report*. Mari Gallagher Research and Consulting Group. [Online] 2009. www.marigallagher.com.
29. *Race and Food Store Availability in an Inner-City Neighbourhood.* **Galvez, M., Morland, K., Raines, C. et al.** *Public Health Nutrition*, 2007, Vol. 11.
30. *Closing the Grocery Gap in Underserved Communities: The Creation of the Pennsylvania Fresh Food Financing Initiative.* **Giang, T., Karpyn, A., Laurison, H., Hillier, A., Burton, M., Perry, D.** *Journal of Public Health Management and Practice*, 2008, Vol. 14(3).
31. *Nutrition Environment Measures Survey in Stores (NEMS-S) Development and Evaluation.* **Glanz, K., Sallis, J., Saelens, B., and Frank, L.** *American Journal of Preventive Medicine*, 2007, Vol. 32(4).
32. **Hartford Food System.** *Connecticut's Supermarkets: Can New Strategies Address the Geographic Gaps?* Hartford Food System. [Online] 2006. <http://www.hartfordfood.org/publications/supermarkets.pdf>.
33. *Race and Residential Accessibility to Shopping and Services.* **Helling, A. and Sawicki, D.** *Housing Policy Debate*, 2003, Vol. 14(1).
34. *Barriers to Buying Healthy Foods for People with Diabetes: Evidence of Environmental Disparities.* **Horowitz, C., Colson, K., Hebert, P., Lancaster, K.** *American Journal of Public Health*, 2004, Vol. 94.
35. *Assessing Retail Fruit and Vegetable Availability in Urban and Rural Underserved Communities.* **Hosler, A., Rajulu, D., Fredrick, B., Ronsani, A.** *Preventing Chronic Disease*, 2008, Vol. 5(4).
36. *Low-Fat Milk and High-Fiber Bread Availability in Food Stores in Urban and Rural Communities.* **Hosler, A., Varadarajulu, D., Ronsani, A., Fredrick, B., Fisher, B.** *Journal of Public Health Management Practice*, 2006, Vol. 12.
37. *You Are Where You Shop: Grocery Store Locations, Weight, and Neighborhoods.* **Inagami, S., Cohen, D., Finch K. B., Asch, S.** *American Journal of Preventive Medicine*, 2006, Vol. 31(1).
38. *The Availability and Cost of Healthier Food Alternatives.* **Jetter, K. and Cassady, D.** *American Journal of Preventive Medicine*, 2006, Vol. 30.
39. *Rural Poor Have Less Access to Supermarkets, Large Grocery Stores.* **Kaufman, P.** *Rural Development Perspectives*, 1998, Vol. 13.
40. **Manjarrez, C. and Cigna, J.** *Food Stamp Participation and Market Access in the District of Columbia*. [Discussion Brief No. 3.] Urban Institute. [Online] 2006. http://www.urban.org/UploadedPDF/311343_dcfoodstamp.pdf.
41. *Comparing Perception-Based and Geographic Information System (GIS)-Based Characterizations of the Local Food Environment.* **Moore, L., Diez Roux, A., Brines, S.** *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 2008, Vol. 85(2).
42. *Associations of Neighborhood Characteristics with the Location and Type of Food Stores.* **Moore, L. and Diez Roux, A.** *American Journal of Public Health*, 2006, Vol. 96.
43. *Disparities in the Availability of Fruits and Vegetables Between Racially Segregated Urban Neighbourhoods.* **Morland, K. and Filomena, S.** *Public Health Nutrition*, 2007, Vol. 10(12).
44. *Neighborhood Characteristics Associated with the Location of Food Stores and Food Service Places.*

- Morland, K., Wing, S., Diez Roux, A., Poole, C.** American Journal of Preventive Medicine, 2002, Vol. 22.
45. *The Contextual Effect of the Local Food Environment on Residents' Diets: The Atherosclerosis Risk in Communities Study.* **Morland, K., Wing, S., Diez Roux, A.** American Journal of Public Health, 2002, Vol. 92(11).
 46. *A National Study of the Association between Food Environments and County-Level Health Outcomes.* **Ahern, M., Brown, C., Dukas, S.** The Journal of Rural Health, 2011, Vol. 27(4).
 47. *Starved for Access: Life in Rural America's Food Deserts.* **Morton, L. and Blanchard, T.** Rural Realities, 2007, Vol. 1(4).
 48. **Neckerman, K., Bader, M., Purciel, M., Yousefzadeh, P.** *Measuring Food Access in Urban Areas.* Columbia University. [Online] 2009. http://www.npc.umich.edu/news/events/food-access/neckerman_et_al.pdf.
 49. *Associations Between Access to Food Stores and Adolescent Body Mass Index.* **Powell, L., Auld, C., Chaloupka, F., O'Malley, P.M., Johnston, L.D.** American Journal of Preventive Medicine, 2008, Vol. 33(4).
 50. *Food Store Availability and Neighborhood Characteristics in the United States.* **Powell, L., Slater, S., Mirtcheva, D., Bao, Y., Chaloupka, F.** Preventive Medicine, 2007, Vol. 44(3).
 51. *Neighborhood Food Environment and Walkability Predict Obesity in New York City.* **Rundle, A., Neckerman, K., Freeman, L., Lovasi, G., Purciel, M., Quinn, J., Richards, C., Sircar, N., Weiss, C.** Environmental Health Perspectives, 2009, Vol. 117.
 52. **Sacramento Hunger Coalition.** *The Avondale/Glen Elder Community Food Assessment. Food Security in a South Sacramento Neighborhood.* Sacramento, CA: Sacramento Hunger Coalition, 2004.
 53. **Shaffer, A.** *The Persistence of L.A.'s Grocery Gap: The Need for a New Food Policy and Approach to Market Development.* UEP Faculty & UEPI Staff Scholarship, 2002. http://scholar.oxy.edu/uep_faculty/16/.
 54. *Neighborhood Socioeconomic Deprivation and Minority Composition Are Associated with Better Potential Spatial Access to the Ground-Truthed Food Environment in a Large Rural Area.* **Sharkey, J. and Horel, S.** The Journal of Nutrition, 2008, Vol. 138.
 55. *Association Between Neighborhood Need and Spatial Access to Food Stores and Fast Food Restaurants in Neighborhoods of Colonias.* **Sharkey, J., Scott, H., Daikwon, H., Huber, J.** International Journal of Health Geographics, 2009, Vol. 8(9).
 56. *Improving the Nutritional Resource Environment for Healthy Living Through Community-Based Participatory Research.* **Sloane, D., Diamount, A., Lewis, L. et al.** The Journal of General Internal Medicine, 2003, Vol. 18.
 57. *The Presence of Organizational Resources in Poor Urban Neighborhoods: An Analysis of Average and Contextual Effects.* **Small, M.L., and McDermott, M.** Social Forces, 2006, Vol. 82.
 58. **Smith, D.** *Food Deserts in the Willamette: A Study of Food Access in Lane County, Oregon.* [Master's thesis]. Eugene, OR: University of Oregon, 2003.
 59. **Sparks, A., Bania, N., Leete, L.** *Finding Food Deserts: Methodology and Measurement of Food Access in Portland, Oregon.* Washington, DC: Paper prepared for Institute of Medicine, Workshop on the Public Health Effects of Food Deserts, January 26, 2009.
 60. **Social Compact Inc.** *Baltimore Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods.* Washington, DC: Social Compact Inc., 2008.
 61. —. *Cincinnati Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods.* Washington, DC: Social Compact Inc., 2007.
 62. —. *Detroit Grocery Initiative: Catalyzing Grocery Retail Investment in Inner-City Neighborhoods.* Washington, DC: Social Compact Inc., 2008.
 63. —. *City of Fresno Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods.* Washington, DC: Social Compact Inc., 2008.
 64. —. *City of Tampa Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods.* Washington, DC: Social Compact Inc., 2008.
 65. —. *Harlem Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods.* Washington, DC: Social Compact Inc., 2008.
 66. —. *Houston Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods.* Washington, DC: Social Compact Inc., 2007.

67. —. *Los Angeles Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods*. Washington, DC: Social Compact Inc., 2008.
68. —. *Louisville Metro Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods*. Washington, DC: Social Compact Inc., 2008.
69. —. *San Francisco Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods*. Washington, DC: Social Compact Inc., 2008.
70. —. *Southeast Fort Worth Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods*. Washington, DC: Social Compact Inc., 2008.
71. —. *Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods*. Los Angeles: Social Compact Inc., 2008.
72. **Sustainable Food Center**. *Access Denied. An Analysis of Problems Facing East Austin Residents in Their Attempts To Obtain Affordable, Nutritious Food*. Sustainable Food Center. [Online] 1995. http://www.sustainablefoodcenter.org/_files/reports/Access_Denied.pdf.
73. **Social Compact Inc**. *Washington DC Neighborhood Market Drilldown: Catalyzing Business Investment in Inner-City Neighborhoods*. Washington, DC: Social Compact Inc., 2008.
74. **Tanaka, K., Mooney, P. et al**. *Lexington Community Food Assessment: 2004-2007*. Department of Community & Leadership Development, University of Kentucky. [Online] 2008. <http://www.uky.edu/Ag/CLD/doc/CommunityFoodAssessmentReport04-07.pdf>.
75. **Tchumtchoua, A**. *Town-Level Assessment of Community Food Security in Connecticut*. Food Marketing Policy Center, University of Connecticut, 2005.
76. **The Food Trust**. *Stimulating Supermarket Development: A New Day for Philadelphia*. The Food Trust. 2004. http://thefoodtrust.org/uploads/media_items/pa-recommendations.original.pdf.
77. —. *The Need for More Grocery Stores in New York: Special Report*. The Food Trust. [Online] 2008. <http://policylinkcontent.s3.amazonaws.com/SupermarketsNewYork.pdf>.
78. —. *The Need for More Supermarkets in Chicago*. The Food Trust. [Online] 2008. <http://policylinkcontent.s3.amazonaws.com/2008-IL-report1.pdf>.
79. **University of Virginia School of Architecture, Department of Urban and Environmental Planning**. *The Charlottesville Region Food System: A Preliminary Assessment*. [Student Report]. University of Virginia School of Architecture, Department of Urban and Environmental Planning, 2006.
80. **Thurman, S**. *Measuring Access to Food in Charlottesville, VA*. Charlottesville, VA: University of Virginia, 2007.
81. **Tsai, S**. *Needs Assessment: Access to Nutritious Foods in East Oakland and South Hayward*. [Master's Thesis]. Berkeley, CA: School of Public Health at University of California, Berkeley and Alameda County Public Health Department, 2003.
82. **Unger, S. and Wooten, H**. *A Food Systems Assessment For Oakland, CA: Toward A Sustainable Food Plan*. [Master's Thesis]. Berkeley, CA: Oakland Mayor's Office of Sustainability and University of California, Berkeley, 2006.
83. *Socioeconomic and Food-related Physical Characteristics of the Neighborhood Environment Are Associated with Body Mass Index*. **Wang, M., Kim, S., Gonzalez, A., MacLeod, K., Winkleby, M**. Journal of Epidemiology and Community Health, 2007, Vol. 61.
84. *Fruit and Vegetable Intake in African Americans: Income and Store Characteristics*. **Zenk, S.H., Schulz, A.J., Hollis-Neely, T., Campbell, R.T., Watkins, G., Nwankwo, R., Odoms-Young, A**. American Journal of Preventive Medicine, 2005, Vol. 29(1).
85. *Neighborhood Racial Composition, Neighborhood Poverty, and the Spatial Accessibility of Supermarkets in Metropolitan Detroit*. **Zenk, S., Schulz, A., Israel, B., James, S., Bao, S., Wilson, M**. American Journal of Public Health, 2005, Vol. 95.
86. *Fruit and Vegetable Access Differs by Community Racial Composition and Socioeconomic Position in Detroit, Michigan*. **Zenk, S., Schulz, A., Israel, B., James, S., Bao, S., Wilson, M**. Ethnicity & Disease, 2006, Vol. 16.
87. **Fresno Metro Ministry**. *Fresno Fresh Access: Community Food Assessment Report. 2003–2005*. Fresno Metro Ministry. 2005.
88. **Kaufman, L. and Karpati, A**. *Food Matters: What Bushwick Families' Food Habits Teach Us about*

- Childhood Obesity*. New York, NY: New York City Department of Health and Mental Hygiene, 2007.
89. **Fulfrust, B.** *Mapping the Markets: The Relative Density of Retail Food Stores in Densely Populated Census Blocks in the Central Coast Region of California*. University of California, Santa Cruz. [Online] 2006. <http://www.escholarship.org/uc/item/34j371tf>.
 90. **Williams, D.** *Food Security and Access in Akron Ohio*. [Master's Thesis]. Akron, OH: University of Akron, 2002.
 91. **San Francisco Food Alliance.** *2005 San Francisco Collaborative Food System Assessment*. San Francisco, CA: San Francisco Food Alliance, 2005.
 92. **California Center for Public Health Advocacy.** *Searching for Healthy Food: The Food Landscape in California Cities and Counties*. Davis, CA: California Center for Public Health Advocacy, 2007.
 93. *Neighbourhood Food Environments: Are They Associated with Adolescent Dietary Intake, Food Purchases and Weight Status?* **Laska, M.N., Hearst, M.O., Forsyth, A., Pasch, K.E., Lytle, L.** *Public Health Nutrition*, 2010, Vol. 13(11).
 94. *The Association between Obesity and Urban Food Environment*. **Bodor, J.N., Rice, J.C., Farley, T.A., Swalm, C.M., Rose, D.** *Journal of Urban Health*, 2010, Vol. 87(5).
 95. *Economic Contextual Factors, Food Consumption, and Obesity among U.S. Adolescents*. **Powell, L.M., Han, E., Chaloupka, F.J.** *Journal of Nutrition*, 2010, Vol. 140(6).
 96. *Associations of Supermarket Accessibility with Obesity and Fruit and Vegetable Consumption in the Coterminous United States*. **Michimi, A. and Wimberly, M.C.** *International Journal of Health Geographics*, 2010, Vol. 49(8).
 97. *The Neighborhood Food Environment and Adult Weight Status: Estimates from Longitudinal Data*. **Gibson, D.M.** *American Journal of Public Health*, 2011, Vol. 101(1).
 98. *Obesity and Supermarket Access: Proximity or Price?* **Drewnowski, A., Aggarwal, A., Hurvitz, P.M., Monsivais, P., Moudon, A.V.** *American Journal of Public Health*, 2012, Vol. 102(8).
 99. *Measuring Availability of Healthy Foods: Agreement between Directly Measured and Self-reported Data*. **Moore, L.V., Diez Roux, A.V., Franco, M.** *American Journal of Epidemiology*, 2012, Vol. 175(10).
 100. *Obesity and the Food Environment among Minority Groups*. **Odams-Young, A.M., Zenk, S.N., Karpyn, A., Ayala, G.X., Gittelsohn, J.** *Current Obesity Reports*, 2012, Vol. 1(3).
 101. *The Effect of Distance and Cost on Fruit and Vegetable Consumption in Rural Texas*. **Dunn, R.A., Dean, W.R., Johnson, C.M., Leidner, A., Sharkey, J.R.** *Journal of Agricultural and Applied Economics*, 2012, Vol. 44(4).
 102. *Perceptions of the Food Shopping Environment Are Associated with Greater Consumption of Fruits and Vegetables*. **Blitstein, J.L., Snider, J., Evans, W.D.** *Public Health Nutrition*, 2012, Vol. 15(6).
 103. *Fast Food Restaurants and Food Stores: Longitudinal Associations with Diet in Young to Middle-aged Adults: The CARDIA Study*. **Boone-Heinonen, J., Gordon-Larsen, P., Kiefe, C.I., Shikany, J.M., Lewis, C.E., Popkin, B.M.** *Archives of Internal Medicine*, 2011, Vol. 171(13).
 104. *Food Expenditures and Food Purchasing among Low-income, Urban, African-American Youth*. **Dennisuk, L.A., Coutinho, A.J., Suratkar, S., Surkan, P.J., Christiansen, K., Riley, M., Anliker, J.A., Sharma, S., Gittelsohn, J.** *American Journal of Preventive Medicine*, 2011, Vol. 40(6).
 105. *Understanding the Rural Food Environment-- Perspectives of Low-income Parents*. **Yousefian, A., Leighton, A., Fox, K., Hartley, D.** *Rural Remote Health*, 2011.
 106. *Contributions of Built Environment to Childhood Obesity*. **Rahman, T., Cushing, R.A., Jackson, R.J.** *Mt Sinai Journal of Medicine*, Vol. 78(1).
 107. *"Food Is Directed to the Area": African Americans' Perceptions of the Neighborhood Nutrition Environment in Pittsburgh*. **Kumar, S., Quinn, S.C., Kriska, A.M., Thomas, S.B.** *Health & Place*, 2011, Vol. 17(1).
 108. *Neighborhood Impact on Healthy Food Availability and Pricing in Food Stores*. **Krukowski, R.A., West, D.S., Harvey-Berino, J., Prewitt, T.E.** *Journal of Community Health*, 2010, Vol. 35(3).
 109. *"You Have to Hunt for the Fruits, the Vegetables": Environmental Barriers and Adaptive Strategies to Acquire Food in a Low-income African American Neighborhood*. **Zenk, S.N., Odams-Young, A.M., Dallas, C., Hardy, E., Watkins, A., Hoskins-Wroten,**

- J., Holland, L.** Health Education and Behavior, 2011, Vol. 38(3).
110. *Obesity and Access to Chain Grocers.* **Chen, S. et al.** Economic Geography, 2010, Vol. 86(4).
111. *Running on Empty? Financial Leverage and Product Quality in the Supermarket Industry.* **Matsa, D.A.** American Economic Journal: Microeconomics, 2011, Vol. 3(1).
112. *Measuring the Food Environment: Shelf Space of Fruits, Vegetables, and Snack Foods in Stores.* **Farley, T.A., et al.** Journal of Urban Health, 2009, Vol. 86(5).
113. *Do Latino and Non-Latino Grocery Stores Differ in the Availability and Affordability of Healthy Food Items in a Low-income, Metropolitan Region?* **Emond, J.A., Madanat, H.N., Ayala, G.X.** Public Health Nutrition, 2012, Vol. 15(2).
114. **White House Task Force on Childhood Obesity.** *White House Task Force on Childhood Obesity Report to the President-May 2010.* 2010.
115. **Hanson, K.** *The Food Assistance National Input-Output Multiplier (FANIOM) Model and Stimulus Effects of SNAP.* Washington, DC: United States Department of Agriculture, Economic Research Service, 2010.
116. **Pothukuchi, K. and Wallace, R.** *Sustainable Food Systems: Perspectives on Transportation Policy.* Healthy, Equitable Transportation Policy: Recommendations and Research, 2010.
117. **Martinez, S., Hand, M., Da Pra, M. Pollack, S., Ralston, K. et al.** *Local Food System Concepts, Impacts, and Issues.* USDA ERS Economic Research Report No. 97, 2010.
118. **Karp Resources.** *Rhode Island Food Assessment. A Report Prepared for the Rhode Island Food Policy Council.* 2011.
119. **John Dunham & Associates for the Vermont Grocer's Association.** *Vermont Food Industry Economic Impact Study.* New York, NY: John Dunham & Associates, 2011.
120. *Obesogenic Neighborhood Environments, Child and Parent Obesity: The Neighborhood Impact on Kids Study.* **Saelens, L.D., Sallis, J.F., Frank, L.D., Couch, S.C. et al.** American Journal of Preventive Medicine, 2012, Vol. 42(5).
121. **Food Research and Action Center.** *A Review of Strategies to Bolster SNAP's Role in Improving Nutrition as well as Food Security,* 2011.
122. *Factors Influencing Food Buying Practices in Residents of a Low-income Food Desert and a Low-income Food Oasis.* **Walker, R.E., Fryer, C.S., Butler, J., Keane, C.R., Kriska, A., Burke, J.G.** Journal of Mixed Methods Research, 2011, Vol. 5(3).
123. *Microbial Quality of Food Available to Populations of Differing Socioeconomic Status.* **Koro, M.E., Anandan, S., Quinlan, J.J.** American Journal of Preventive Medicine, 2010, Vol. 38(5).
124. *Neighborhood Deprivation, Supermarket Availability, and BMI in Low-income Women: A Multilevel Analysis.* **Ford, P.B. and Dzewaltowski, D.A.** Journal of Community Health, 2011, Vol. 36(5).
125. *The Supermarket as a Neighborhood Building Block.* **Hinshaw, M. and Vanneman, B.** Planning, 2010, Vol. 76(3).
126. *Supermarkets Pledge to Build New Stores in Food Deserts.* **Tucker, C.** The Nation's Health, 2011, Vol. 41(7).
127. *Disparities and Access to Healthy Food in the United States: A Review of Food Deserts Literature.* **Walker, R.E., Keane, C.R., Burke, J.G.** Health and Place, 2010, Vol. 16(5).
128. *Limited Supermarket Availability is Not Associated with Obesity Risk among Participants in the Kansas WIC Program.* **Ford, P. and Dzewaltowski, D.** Obesity, 2010, Vol. 18(10).
129. *Price and Expenditure Elasticities for Fresh Fruits in an Urban Food Desert.* **Weatherspoon, D., Oehmke, J., Demebele, A., Coleman, M., Satimanon, T.** Urban Studies, 2013, Vol. 50(1).
130. *A Cost Comparison of More and Less Nutritious Food Choices in US Supermarkets.* **Katz, D.L., Doughty, K., Njike, V., Treu, J.A., Reynolds, J., Walker, J.** Public Health Nutrition, 2011, Vol. 14(9).
131. *Increasing Access and Affordability of Produce Improves Consumption of Vegetables in Low-income Seniors.* **AbuSabbah, R., Klein, A., Namjoshi, D.** Journal of the American Dietetic Association, 2010, Vol. 110(9).
132. *Access to Immunizations Facilitated by Chain Pharmacies.* **Supply Side.** Mass Market Retailers, 2012, Vol. 29(12).

133. *Food Retailer Practices, Attitudes and Beliefs about the Supply of Healthy Foods.* **Andreyeva, T., Middleton, A.E., Long, M.W., Luedicke, J., Schwartz, M.B.** Public Health Nutrition, 2011, Vol. 14(6).
134. *Socioeconomic Status, Energy Cost, and Nutrient Content of Supermarket Food Purchases.* **Appelhans, B.M., Milliron, B., Woolf, K., Johnson, T.J., Pagoto, S.L., Schneider, K.L.** American Journal of Preventive Medicine, 2012, Vol. 42(4).
135. *Improving Retrospective Characterization of the Food Environment for a Large Region in the United States during a Historic Time Period.* **Auchincloss, A.H., Moore, K.A.B., Moore, L.V., Diez Roux, A.V.** Health & Place, 2012, Vol. 18(6).
136. *Food Access, Availability, and Affordability in 3 Los Angeles Communities, Project CAFE, 2004-2006.* **Azuma, A.M. et al.** 2, 2010, Preventing Chronic Disease, Vol. 7.
137. *Neighborhoods and Obesity in New York City.* **Black, J.L., Macinko, J., Dixon, L.B., Fryer, J., George, E.** Health and Place, 2010, Vol. 16(3).
138. *S-008: Relationships between Personal Eating Identity and Perceptions of Healthy Food Access in the Neighborhood Food Environment.* **Blake, C.E., Liese, A.D., Freedman, D.A., Barnes, T.L.** Epidemiology, 2012, Vol. 23(1).
139. *Increasing Supplemental Nutrition Assistance Program/ Electronic Benefits Transfer Sales at Farmers' Markets with Vendor-operated Wireless Point-of-sale Terminals.* **Buttenheim, A.M., Havassy, J., Fang, M., Glyn, J., Karpyn, A.E.** Journal of the Academy of Nutrition and Dietetics, 2012, Vol. 112(5).
140. *Hy-vee Takes on Health and Wellness.* **Canning, K.** Private Label Buyer, 2010, Vol. 24(5).
141. **United States Department of Agriculture, Food and Nutrition Service.** *Food and Nutrition Service, Benefit Redemption Division, Annual Report FY2010.* 2011.
142. **The Reinvestment Fund and Opportunity Finance Network.** *Searching for Markets: The Geography of Inequitable Access to Healthy and Affordable Food in the United States.* The Reinvestment Fund. [Online] http://www.cdfifund.gov/what_we_do/resources/SearchingForMarkets_Report_web_Low_%20Res.pdf.
143. *Studying the Place of Technology to Lower Financial Barriers for Dietary Change.* **Siek, K.A. and Maitland, J.** Methods of Information in Medicine, 2010, Vol. 49(1).
144. *Use of Concept Mapping to Explore the Influence of Food Security on Food Buying Practices.* **Walker, R.E. and Kawachi, I.** Journal of the Academy of Nutrition and Dietetics, 2010, Vol. 112(5).
145. *Access to Food Source and Food Source Use are Associated with Healthy and Unhealthy Food-purchasing Behaviours among Low-income African-American Adults in Baltimore City.* **D'Angelo, H. et al.** Public Health Nutrition, 2011, Vol. 14(9).
146. *Neighborhood Socioeconomic Status Is Associated with Serum Carotenoid Concentrations in Older, Community-dwelling Women.* **Nicklelett, E.J. et al.** The Journal of Nutrition, 2011, Vol. 141(2).
147. *A Systematic Review of Fast Food Access Studies.* **Fleischhacker, S.E. et al.** Obesity Reviews, 2011, Vol. 12(501).
148. *Geographic Access to Healthy and Unhealthy Foods for the Older Population in a U.S. Metropolitan Area.* **Yamashita, T. and Kunkel, S.** Journal of Applied Gerontology, 2012, Vol. 31(3).
149. *Neighborhood Disparities in Access to Healthy Foods and Their Effects on Environmental Justice.* **Hilmers, A., Hilmers, D.C., Dave, J.** American Journal of Public Health, 2012, Vol. 102(9).
150. *Store Type and Demographic Influence on the Availability and Price of Healthful Foods, Leon County, Florida, 2008.* **Leone, A.F. et al.** Preventing Chronic Disease, 2011, Vol. 8(6).
151. *The Food Environment and Dietary Intake: Demonstrating a Method for GIS-mapping and Policy-relevant Research.* **Lucan, S.C. and Mitra, N.** Journal of Public Health, 2012, Vol. 20(4).
152. *Leveraging Community-Academic Partnerships to Improve Healthy Food Access in an Urban, Kansas City, Kansas, Community.* **Mabachi, N.M. and Kimminau, K.S.** Progress in Community Health Partnerships: Research, Education, and Action, 2012, Vol. 6(3).
153. *Do Residents of Food Deserts Express Different Food Buying Preferences Compared to Residents of Food Oases? A Mixed-methods Analysis.* **Walker, R.E., Block, J., Kawachi, I.** The International Journal of Behavioral Nutrition and Physical Activity, 2012, Vol. 9(1).
154. *Income Disparities in Perceived Neighborhood Built and Social Environment Attributes.* **Sallis, J.F., Slymen, D.J., Conway, T.L.** Health and Place, 2011, Vol. 17(6).

155. *Socio-economic Status, Racial Composition and the Affordability of Fresh Fruits and Vegetables in Neighborhoods of a Large Rural Region in Texas.* **Dunn, R.A. et al.** Nutrition Journal, 2011, Vol. 10(6).
156. *Healthy Food Availability in Small Urban Food Stores: A Comparison of Four US Cities.* **Laska, M.N., Borradaile, K.E., Teste, J., Foste, G.D., Gittelsohn, J.** Public Health Nutrition, 2010, Vol. 13(7).
157. **Sustainable Food Center.** *Central Texas Foodshed Assessment.* Austin, TX: s.n., 2011.
158. *Disparities in Neighborhood Food Environments: Implications of Measurement Strategies.* **Bader, M.D. et al.** Economic Geography, 2010, Vol. 86.
159. **Food Research and Action Center.** *A Half Empty Plate: Fruit and Vegetable Affordability and Access Challenges in America.* Washington, DC: s.n., 2011.
160. **Manon, M. and Giang, T.** *Food for Every Child: The Need for Supermarkets in Houston.* Philadelphia, PA: The Food Trust, 2010.
161. **Kim, E. and Manon, M.** *Food for Every Child: The Need for Supermarkets in Minnesota.* Philadelphia, PA: The Food Trust, 2012.
162. **Giang, T., Harries, C., Treering, D.** *Food for Every Child: The Need for Supermarkets in Georgia.* Philadelphia, PA: The Food Trust, 2011.
163. **Manon, M. and Harries, C.** *Food for Every Child: The Need for Supermarkets in Massachusetts.* Philadelphia, PA: The Food Trust, 2010.
164. **Kim, E., Manon, M., Lang, B.** *Food for Every Child: The Need for Supermarkets in Mississippi.* Philadelphia, PA: The Food Trust, 2012.
165. **Harries, C., Kim, E., Treering, D.** *Food for Every Child: The Need for Supermarkets in Maryland.* Philadelphia, PA: The Food Trust, 2011.
166. **Holtzman, E., Manon, M., Treering, D.** *Food for Every Child: The Need for Supermarkets in Tennessee.* Philadelphia, PA: The Food Trust, 2011.
167. **Dutko, P., Ver Ploeg, M., Farrigan, T.** *Characteristics and Influential Factors of Food Deserts.* [Report No. 140] Washington, DC: United States Department of Agriculture, Economic Research Service, 2012.
168. *A Picture of the Healthful Food Environment in Two Diverse Urban Cities.* **Lee, R. et al.** Environmental Health Insights, 2010, Vol. 4.
169. **Fair Food Network.** *Strengthening Detroit Voices.* Fair Food Network. [Online] 2013. <http://www.fairfoodnetwork.org/what-we-do/projects/strengthening-detroit-voices>.
170. *Using Geographic Information Systems and Local Food Store Data in California's Low-income Neighborhoods to Inform Community Initiatives and Resources.* **Ghirardelli, A., Quinn, V., Foerster, S.B.** American Journal of Public Health, 2010, Vol. 100(11).
171. *Meaningful, Measurable, and Manageable Approaches to Evaluating Healthy Food Financing Initiatives: An Overview of Resources and Approaches.* **Fleischhacker, S.E., Flournoy, R., Moore, L.V.** Journal of Public Health Management Practice, 2012, Vol. 18.
172. *Are Neighbourhood Food Resources Distributed Inequitably by Income and Race in the USA?* **Richardson, A.S. et al.** BMJ Open, 2012, Vol. 2(2).
173. **United States Department of Agriculture, Economic Research Service.** *Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences.* Report to Congress. United States Department of Agriculture, Economic Research Service. [Online] 2009. <http://www.ers.usda.gov/publications/ap-administrative-publication/ap-036.aspx#UmcBjTzaTc>.
174. **Blanchard, T. and Lyson, T.** *Access to Low Cost Groceries in Nonmetropolitan Counties: Large Retailers and the Creation of Food Deserts.* Southern Rural Development Center. [Online] 2006. http://srdc.msstate.edu/trainings/presentations_archive/2002/2002_blanchard.pdf.
175. —. *Food Availability & Food Deserts in the Nonmetropolitan South.* Southern Rural Development Center. [Online] 2006. http://srdc.msstate.edu/publications/other/foodassist/2006_04_blanchard.pdf.
176. —. *Retail Concentration, Food Deserts, and Food Disadvantaged Communities in Rural America.* Southern Rural Development Center. [Online] 2009. http://srdc.msstate.edu/ridge/projects/recipients/02_blanchard_final.pdf.
177. **Hatfield, D. and Gunnell, A.** *Food Access in California Today.* Portland, OR: Ecotrust. [Online] 2005. http://www.vividpicture.net/documents/12_Food_Access_in_CA_Today.pdf.

178. *Food Store Types, Availability, and Cost of Foods in a Rural Environment.* **Liese, A., Weis, K., Pluto, D., Smith, E., Lawson, A.** Journal of the American Dietetic Association, 2007, Vol. 107.
179. **New Mexico Food and Agriculture Policy Council.** *Closing New Mexico's Rural Food Gap.* Santa Fe, NM: New Mexico Food and Agriculture Policy Council. [Online] 2006. <http://hungercenter.wpengine.netdna-cdn.com/wp-content/uploads/2011/07/Closing-NM-Rural-Food-Gap-Patrie-Lee.pdf>.
180. **Sharkey, J. and Horel, S.** *Characteristics of Potential Spatial Access to a Variety of Fruits and Vegetables in a Large Rural Area.* School of Rural Public Health, Texas A&M Health Science Center. [Online] 2009. <http://www.npc.umich.edu/news/events/food-access/sharkey.pdf>.
181. **Frontier Nutrition Project.** *Trinity County Food Security Assessment.* Weaverville, CA: Frontier Nutrition Project. 2001.
182. *Food Access and Cost in American Indian Communities in Washington State.* **O'Connell, M., Buchwald, D.S., Duncan, G.E.** Journal of the American Dietetic Association, 2011, Vol. 111.
183. *High Food Insecurity and Its Correlates among Families Living on a Rural American Indian Reservation.* **Bauer, K.W., Widome, R., Himes, J.H., Smyth, M., Rock, B.H., Hannan, P.J., Story, M.** American Journal of Public Health, 2012, Vol. 102(7).
184. *Assessing the Proximity of Healthy Food Options and Food Deserts in a Rural Area in Maine.* **Hubley, T.A.** Applied Geography, 2011, Vol. 31(4).
185. *Neighborhood Deprivation, Vehicle Ownership, and Potential Spatial Access to a Variety of Fruits and Vegetables in a Large Rural Area in Texas.* **Sharkey, J.R., Horel, S., Dean, W.R.** International Journal of Health Geographics, 2010, Vol. 9(1).
186. **Vallianatos, M.** *Transportation and Food Access Idea 4: More Walkable Food Retail.* LA.Streetsblog.org. [Online] 2011. <http://la.streetsblog.org/author/mark-vallianatos/>.
187. *Does Transportation Mode Modify Associations between Distance to Food Store, Fruit and Vegetable Consumption, and BMI in Low-income Neighborhoods?* **Fuller, D., Cummins, S., Matthews, S.A.** American Journal of Clinical Nutrition, 2012.
188. *School and Residential Neighborhood Food Environment and Diet among California Youth.* **An, R. and Sturm, R.** American Journal of Preventive Medicine, 2012, Vol. 42.
189. *Healthy Food Availability and Participation in WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) in Food Stores Around Lower- and Higher-income Elementary Schools.* **Tester, J., Yen, I.H., Pallis, L.C., Laraia, B.A.** Public Health Nutrition, 2010, Vol. 14(6).
190. *Convenience Stores Surrounding Urban Schools: An Assessment of Healthy Food Availability, Advertising, and Product Placement.* **Gebauer, H. and Laska, M.N.** Journal of Urban Health, 2011, Vol. 88(4).
191. *Prevalence of Obesity and Trends in the Distribution of Body Mass Index among US Adults, 1999-2010.* **Flegal, K.M. et al.** Journal of the American Medical Association, 2012, Vol. 307(5).
192. *Prevalence of Obesity and Trends in Body Mass Index among US Children and Adolescents, 1999-2010.* **Ogden, C.L. et al.** Journal of the American Medical Association, 2012, Vol. 307(5).
193. **American Heart Association.** *Understanding Childhood Obesity.* American Heart Association, 2010.
194. *The Neighborhood Food Environment and Adult Weight Status: Estimates from Longitudinal Data.* **Gibson, D.M.** American Journal of Public Health, 2011, Vol. 101(1).
195. *A Systematic Review of Environmental Factors and Obesogenic Dietary Intakes among Adults: Are We Getting Closer to Understanding Obesogenic Environments?* **Giskes, K., van Lenthe, F., Avendano-Pabon, M., Brug, J.** Obesity Reviews : An Official Journal of the International Association for the Study of Obesity, 2011, Vol. 12(5).
196. *Examining Associations among Obesity and Per Capita Farmers' Markets, Grocery Stores/Supermarkets, and Supercenters in US Counties.* **Jilcott, S.B., Keyserling, T., Crawford, T., McGuirt, J.T., Ammerman, A.S.** Journal of the American Dietetic Association, 2011, Vol. 111(4).
197. *Measuring the Retail Food Environment in Rural and Urban North Carolina Counties.* **Jilcott, S.B., McGuirt, J.T., Imai, S., Evenson, K.R.** Journal of Public Health Management and Practice, 2010, Vol. 16(5).
198. *Associations of Built Food Environment with Body Mass Index and Waist Circumference among Youth with Diabetes.* **Lamichhane, A.P., Puett, R., Porter, D.E., Bottai, M., Mayer-Davis, E.J., Liese, A.D.**

- The International Journal of Behavioral Nutrition and Physical Activity, 2012, Vol. 9(1).
199. *The Role of Local Food Availability in Explaining Obesity Risk among Young School-aged Children.* **Lee, H.** Social Science & Medicine, 2012, Vol. 74(8).
 200. *Food Access and Perceptions of the Community and Household Food Environment as Correlates of Fruit and Vegetable Intake among Rural Seniors.* **Sharkey, J.R., Johnson, C.M., Dean, W.R.** BMC Geriatrics, 2010, Vol. 10(1).
 201. *Is There a Robust Relationship between Neighbourhood Food Environment and Childhood Obesity in the USA?* **Shier, V., An, R., Sturm, R.** Public Health, 2012, Vol. 126(9).
 202. *Neighbourhood Food Environments and Obesity in Southeast Louisiana.* **Hutchinson, P., Bodor, J., Swalm, C., Rice, J., Rose, D.** Health & Place, 2012, Vol. 18.
 203. *Perceived and Objective Measures of the Food Store Environment and the Association with Weight and Diet among Low-income Women in North Carolina.* **Gustafson, A.A., Sharkey, J., Samuel-Hodge, C.D. et al.** Public Health Nutrition, 2011, Vol. 14.
 204. *From Neighborhood Design and Food Options to Residents' Weight Status.* **Cerin, E., Frank, L.D., Sallis, J.F., Saelens, B.E., Conway, T.L., Chapman, J.E., Glanz, K.** Appetite, 2011, Vol. 56.
 205. *An Urban Food Store Intervention Positively Affects Food-related Psychosocial Variables and Food Behaviors.* **Gittelsohn, J., Song, H.J., Suratkar, S. et al.** Health Education Behavior, 2010, Vol. 37.
 206. *Neighborhoods and Health.* **Diez Roux, A.V. and Mair, C.** Annals of the New York Academy of Sciences, 2010, Vol. 1186(1).
 207. *Food Environment, Built Environment, and Women's BMI: Evidence from Erie County, New York.* **Raja, S. et al.** Journal of Planning Education and Research, 2010, Vol. 29(4).
 208. *Does Distance Decay Modelling of Supermarket Accessibility Predict Fruit and Vegetable Intake by Individuals in a Large Metropolitan Area?* **Robinson, P.L., Dominguez, F., Teklehaimanot, S., Lee, M., Brown, A., Goodchild, M., Hood, D.B.** Journal of Health Care for the Poor and Underserved, 2013, Vol. 24(1).
 209. *The Built Environment Moderates Effects of Family-Based Childhood Obesity Treatment over 2 Years.* **Epstein, L.H., Raja, S., Daniel, T.O., Paluch, R.A., Wilfley, D.E., Saelens, B.E., Roemmich, J.N.** Annals of Behavioral Medicine, 2012, Vol. 44(2).
 210. *The Effect of Food Store Access and Income on Household Purchases of Fruits and Vegetables: A Mixed Effects Analysis.* **Kyureghian, G., Nayga Jr., R.M., Bhattacharya, S.** Applied Economic Perspectives and Policy, 2013, Vol. 35(1).
 211. *Convenience Stores Are the Key Food Environment Influence on Nutrients Available from Household Food Supplies in Texas Border Colonias.* **Sharkey, J.R., Dean, W.R., Nalty, C.C., Xu, J.** BMC Public Health, 2013, Vol. 15(1).
 212. *Rural and Urban Differences in the Associations between Characteristics of the Community Food Environment and Fruit and Vegetable Intake.* **Dean, W.R. and Sharkey, J.R.** Journal of Nutrition Education and Behavior, 2011, Vol. 43 (6).
 213. *Associations of the Local Food Environment with Diet Quality—A Comparison of Assessments Based on Surveys and Geographic Information Systems: The Multi-Ethnic Study of Atherosclerosis.* **Moore, L., Diez Roux, A., Nettleton, J., Jacobs, D.** American Journal of Epidemiology, 2008, Vol. 167.
 214. *Food Store Access and Household Fruit and Vegetable Use among Participants in the US Food Stamp Program.* **Rose, D. and Richards, R.** Public Health Nutrition, 2004, Vol. 7(8).
 215. *Proximity of Supermarkets Is Positively Associated with Diet Quality Index for Pregnancy.* **Laraia, B., Siega-Riz, A., Kaufman, J., Jones, S.** American Journal of Preventive Medicine, 2004, Vol. 39.
 216. *Distance to Food Stores and Adolescent Male Fruit and Vegetable Consumption: Mediation Effects.* **Jago, R., Baranowski, T., Baranowski, J., Cullen, K., Thompson, D.** International Journal of Behavioral Nutrition and Physical Activity, 2007, Vol. 4.
 217. *Perceived Access to Fruits and Vegetables Associated with Increased Consumption.* **Caldwell, E., Kobayashi, M., DuBow, W., Wytinck, S.** Public Health Nutrition, 2008, Vol. 12(10).
 218. *Community-level Comparisons between Grocery Store Environment and Individual Dietary Practices.* **Cheadle, A., Psaty, B., Curry, S., Wagner, E., Diehr, P., Koepsell, T., Kristal, A.** Preventive Medicine, 1991, Vol. 20(2).

219. **Alberti, P., Hadi, E., Cespedes, A., Grimshaw, V., Bedell, J.** *Farmers' Markets—Bringing Fresh, Nutritious Food to the South Bronx*. New York City Department of Health and Mental Hygiene. [Online] 2008. <http://www.nyc.gov/html/doh/downloads/pdf/dpho/dpho-farmersmarket.pdf>.
220. *Supermarkets, Other Food Stores, and Obesity: The Atherosclerosis Risk in Communities Study*. **Morland, K., Diez Roux, A., Wing, S.** *American Journal of Preventive Medicine*, 2006, Vol. 30(4).
221. **Chen, S., Raymond, F., Snyder, S.** *Obesity in Urban Food Markets: Evidence from Georeferenced Micro Data*. Purdue University. [Online] <http://ageconsearch.umn.edu/bitstream/49512/2/49512.pdf>.
222. *Green Neighborhoods, Food Retail and Childhood Overweight: Differences by Population Density*. **Liu, G., Wilson, J., Qi, R., Ying, J.** *American Journal of Health Promotion*, 2007, Vol. 21(4).
223. *Neighborhood Resources for Physical Activity and Healthy Foods and Their Association with Insulin Resistance*. **Auchincloss, A., Diez Roux, A., Brown, D., Erdmann, C., Bertoni, A.** *Epidemiology*, 2008, Vol. 19.
224. *Obesity Prevalence and the Local Food Environment*. **Morland, K. and Evenson K.** *Health & Place*, 2009, Vol. 15(2).
225. *Body Mass Index in Elementary School Children, Metropolitan Area Food Prices and Food Outlet Density*. **Sturm, R. and Datar, A.** *Public Health*, 2005, Vol. 119.
226. *Disparities in the Food Environment Surrounding U.S. Middle and High Schools*. **Sturm, R.** *American Journal of Public Health*, 2008, Vol. 122.
227. **Glickman, D., Parker, L., Sim, L.J., Del Valle Cook, H., Miller, E.A.** *Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation*. Washington, DC: The National Academies Press, 2012.
228. *Using USDA's Thrifty Food Plan to Assess Food Availability and Affordability*. **Andrews, M., Kantor, L., Lino, M., Ripplinger, D.** *Food Access*, 2001, Vol. 24(2).
229. *A Comparison of the Availability and Affordability of a Market Basket in Two Communities in the Chicago Area*. **Block, D., Kouba, J.** *Public Health Nutrition*, 2006, Vol. 9(7).
230. **Lopez, R.** *Community Food Security in Connecticut: An Evaluation and Ranking of 169 Towns*. Hartford Food System. [Online] 2005. <http://www.fmpc.uconn.edu/research/food/CFS%20in%20CT.pdf>.
231. *Beyond Food Deserts: Measuring and Mapping Racial Disparities in Neighborhood Food Environments*. **Raja, S., Ma, C., Yadav, P.** *Journal of Planning Education and Research*, 2008, Vol. 27.
232. **Rose, D., Bodor, N., Swalm, C., Rice, J., Farley, T., Hutchinson, P.** *Deserts in New Orleans? Illustrations of Urban Food Access and Implications for Policy*. University of Michigan National Poverty Center/USDA Economic Research Service Research, 2009.
233. *The Relation of Community Occupational Structure and Prevalence of Obesity in New York City Neighborhoods—An Ecological Analysis*. **Sekhobo, J. and Berney, B.** *Journal of Hunger & Environmental Nutrition*, 2008, Vol. 3(1).
234. **Gordon, C., Ghai, N., Purciel, M., Talwalkar, A., Goodman, A.** *Eating Well in Harlem: How Available Is Healthy Food?*, New York, NY: New York City Department of Health and Mental Hygiene, 2007.
235. **Cannuscio, C. and Glanz, K.** *Food Environments*. Washington, DC: Island Press/Center for Resource Economics, 2011.
236. *Social Meaning in Supermarkets as a Direct Route to Improve Parents' Fruit and Vegetable Purchases*. **Payne, C.R. and Niculescu, M.** *Agricultural and Resource Economics Review*, 2012, Vol. 41(1).
237. **United States Department of Agriculture, Economic Research Service.** *Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences*. [Report to Congress]. United States Department of Agriculture, Economic Research Service. [Online] 2009. <http://www.ers.usda.gov/Publications/AP/AP036/AP036.pdf>.
238. *Food Deserts, Oases, or Mirages? Small Markets and Community Food Security in the San Francisco Bay Area*. **Short, A., Guthman, J., Raskin, S.** *Journal of Planning Education and Research*, 2007, Vol. 26(3).
239. *Using Urban Commuting Data to Calculate a Spatiotemporal Accessibility Measure for Food Environment Studies*. **Widener, M.J., Farber, S., Neutens, T., Horner, M.W.** *Health & Place*, 2013, Vol. 21.
240. *The Relationship between Diet and Perceived and Objective Access to Supermarkets among Low-income*

- Housing Residents*. **Caspi, C.E. et al.** Social Science and Medicine, 2012, Vol. 75(7), pp. 1254-1262.
241. **Barnes Reports**. *Grocery Store Industry*. 2012 Industry and Market Series. 2012.
242. *Valuing Spatial Accessibility to Retailing: A Case Study of the Single Family Housing Market in Hillsboro, Oregon*. **Song, Y. and Sohn, J.** Journal of Retailing and Consumer Services, 2007, Vol. 14.
243. **Goldstein, I., Loethen, L., Kako, E., and Califano, C.** *CDFI Financing of Supermarkets in Underserved Communities: A Case Study*. The Reinvestment Fund. [Online] 2008. http://www.cdfifund.gov/impact_we_make/research/community-economic-development/reports/Community%20Development%20Financial%20Institution%20Financing%20of%20Supermarkets%20in%20Underserved%20Communities%20-%20A%20Case%20Study.pdf.
244. *Combating Childhood Obesity: A Survey of Laws Affecting the Built Environments of Low-income and Minority Children*. **Lindholm, R.** Reviews on Environmental Health, 2011, Vol. 26.
245. **The Reinvestment Fund**. *Reinvestment Brief: The Economic Impacts of Supermarkets on their Surrounding Communities*. The Reinvestment Fund, 2006.
246. **The Office of Housing and Urban Development**. *New Markets: The Untapped Retail Buying Power in America's Inner Cities*. Washington, DC: The Office of Housing and Urban Development, 1999.
247. *The Competitive Advantage of the Inner City*. **Porter, M.** Harvard Business Review, 1995, Vol. 73.
248. **New Seasons Market**. *New Seasons Market Sustainability Report 2012: Growing Sustainably*. [Online] <http://www.newseasonsmarket.com/assets/files/2012-sustainability-report.pdf>.
249. **Wohl, J.** *Walmart Says Price Cuts Helped Shoppers Save Billions on Produce*. [Online news] Reuters, 2013. <http://www.reuters.com/article/2013/02/28/walmart-healthfulfood-idUSL1N0BSCPT20130228>.
250. *Developing Viable Farmers' Markets in Rural Communities: An Investigation of Vendor Performance Using Objective and Subjective Valuations*. **Schmit, T.M. and Gómez M.I.** Food Policy, 2011, Vol. 36(2).
251. **O'Hara, J.K.** *Market Forces: Creating Jobs through Public Investment in Local and Regional Food Systems*. Union of Concerned Scientists. [Online] 2011. http://www.ucsusa.org/assets/documents/food_and_agriculture/market-forces-report.pdf.
252. **United States Department of Agriculture, Food and Nutrition Service**. *Program Data*. United States Department of Agriculture, Food and Nutrition Service. [Online] July 5, 2013. [Cited: July 30, 2013.] <http://www.fns.usda.gov/pd/Overview.htm>.
253. **Food Research and Action Center**. *SNAP/Food Stamps Provide Real Stimulus*. Food Research and Action Center. [Online] [Cited: February 28, 2013.] <http://frac.org/initiatives/american-recovery-and-reinvestment-act/snapfood-stamps-provide-real-stimulus/>.
254. **United States Department of Agriculture, Food and Nutrition Service**. *Data & Statistics: Economic Benefits of Increased SNAP Participation (by State)*. United States Department of Agriculture, Food and Nutrition Service. [Online] [Cited: February 28, 2013.] <http://www.ers.usda.gov/data-products/supplemental-nutrition-assistance-program-%28snap%29-data-system/go-to-the-map.aspx#.UnQxBJTzaTe>.
255. **United States Department of Agriculture, Food and Nutrition Service**. *Supplemental Nutrition Assistance Program Community Partner Outreach Toolkit*. United States Department of Agriculture, Food and Nutrition Service. [Online] 2013. [Cited: April 2, 2013.] http://www.hungerfreecommunities.org/wp-content/uploads/2011/07/SNAP_community_ALL.pdf.
256. **United States Department of Agriculture, Economic Research Service**. *The Food Assistance National Input-Output Multiplier (FANIOM) Model and Stimulus Effects of SNAP*. United States Department of Agriculture, Economic Research Service. [Online] 2010. http://www.ers.usda.gov/media/134117/err103_1_.pdf.
257. **Fair Food Network, marketumbrella.org, Roots of Change, Wholesome Wave**. *Healthy Food Incentives Cluster Evaluation 2011 Final Report*. 2012.
258. **The Food Trust**. *Get Healthy Philly: Farmers' Market and Philly Food Bucks 2011 Report*. 2011.
259. **Fair Food Network**. About Us. *Double Up Food Bucks*. Fair Food Network. [Online] 2012. [Cited: April 2, 2013.] www.doubleupfoodbucks.org/about.
260. —. *Double Up Food Bucks 2011 Evaluation Report*. Fair Food Network, 2011.

261. **Robert Wood Johnson Foundation.** *Declining Childhood Obesity Rates - Where Are We Seeing Signs of Progress?* [Issue Brief] Princeton, NJ: Robert Wood Johnson Foundation, 2013.
262. **New Mexico Department of Health.** *The Weight of Our Children: New Mexico Childhood Obesity Update, 2012.* Office of Nutrition and Physical Activity, New Mexico Department of Health, 2012.
263. **United States Department of Agriculture.** *Food Security in the United States: Definitions of Hunger and Food Security.* United States Department of Agriculture. [Online] 2011. <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx#Ug6A3W1Z7sc>.
264. **Centers for Disease Control and Prevention.** *Healthy Weight—It's Not a Diet, It's a Lifestyle!: Body Mass Index.* Centers for Disease Control and Prevention. [Online] [Cited: March 1, 2013.] <http://www.cdc.gov/healthyweight/assessing/bmi/>.

Acknowledgments

At The Food Trust, the research for this study was conducted with assistance from Nicole Murphy and Courtney Huell, who initially collected and reviewed many of the studies. Many thanks also go to John Weidman, Brian Lang, and Stephanie Weiss who provided helpful guidance and feedback throughout the research process.

At PolicyLink, research oversight was provided by Sarah Treuhaft, while Nora Gilbert, Alice Chiang, and Adam Dyer provided research assistance and organized the database of sources. Heather Tamir, Paula Card Higginson, and Leslie Yang edited and designed the document.

The creation of this report was supported by grants from the Kresge Foundation, the Robert Wood Johnson Foundation, and The California Endowment. The conclusions and perspectives expressed in the report are those of the authors and their organizations, not the funders.

Authors' Biographies

Judith Bell is the president of PolicyLink. She is a national leader in the efforts to establish federal, state, and philanthropic programs to provide financing for healthy food retailing. At PolicyLink, she oversees strategic planning, policy development, and policy campaign strategy at the local, state, and national levels, and writes for a wide range of publications.

Gabriella Mora is a project manager at The Food Trust. She manages local, state, and federal food policy efforts and serves as the organizational liaison to the Philadelphia Department of Public Health to sustain and bring to scale healthy food access programs citywide. She actively supports the research endeavors of The Food Trust, and is an adjunct faculty member at Temple University.

Erin Hagan was a senior associate at PolicyLink providing technical assistance and conducting research in support of efforts to prevent childhood obesity and advance healthy food retailing. She has a doctorate in kinesiology as well as an MBA. She is currently policy and government affairs manager at the San Francisco Public Utilities Commission.

Victor Rubin is the vice president for research of PolicyLink. He has written extensively on the economic impacts of healthy food retailing and on other community-based strategies to advance health equity. He is a former university faculty member in urban planning and a consultant to local, state, and federal programs in community development and education.

Allison Karpyn is the director of research and evaluation at The Food Trust. Since 2002, she has led design and implementation of research and evaluation efforts for Trust programs and has overseen the growth of the organization's external consulting initiatives. She has published widely on topics related to supermarket access, healthy corner stores, and strategies to develop and maintain farmers' markets in low-income areas, and is an instructor in the graduate public health programs at Drexel University, the University of Pennsylvania, and Thomas Jefferson University.



Headquarters:
1438 Webster Street
Suite 303
Oakland, CA 94612
t 510 663-2333
f 510 663-9684

Communications:
55 West 39th Street
11th Floor
New York, NY 10018
t 212 629-9570
f 212 763-2350

www.policylink.org

One Penn Center, Suite 900
1617 John F. Kennedy Blvd.
Philadelphia, PA 19103
t 215 575-0444
f 215 575-0466

www.thefoodtrust.org