Evaluating Policy and Planning Tools for Healthy Corner Stores

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Abstract

This research explores the ways that urban healthy corner stores can improve food environments in low-income areas, counteracting the disparities in food access that contribute to rising U.S. rates of obesity and diet-related disease. Corner stores are often locally-owned businesses that are already equipped for food retail and are already frequented by neighborhood residents, making them more responsive to community preferences and more cost-effective than supermarket attraction strategies. Accordingly, cities and organizations are implementing "healthy corner store programs" to support the stores in selling healthy food, improving neighborhood livability and local business development.

Based on a literature review and practitioner interviews, I assess the strengths and challenges of healthy corner store programs, review policy and planning tools to support these programs, and propose program evaluation methods to measure their outcomes. I find that most healthy corner store programs are still in initial phases, inviting innovation and expansion in coming years, which would be bolstered by more rigorous program evaluations. These initiatives can have most significant impacts as part of larger multi-pronged strategies to increase food access, and would be more institutionally sustainable if policy or planning approaches eventually replaced current resource-intensive programs.

Introduction

As U.S. obesity rates continue to climb, increasing attention has focused on food environments as a determinant of diet and therefore of weight status and health. Processes of urban disinvestment and structural racism have resulted in low-income neighborhoods, often populated largely by people of color, with low access to supermarkets and other healthy food retail locations. However, these neighborhoods often contain a high density of corner stores where residents shop frequently and travel to on foot. These stores often sell a mix of alcohol, tobacco products, and energy-dense but nutrient-poor foods, such as sugar-sweetened beverages and processed snacks. This contributes to negative health outcomes and inhibits the perception of these stores as a source of healthy food, local business development, or neighborhood livability.

Despite that, this paper constructs these corner stores as a wealth of opportunity. These locally-owned businesses are already mostly equipped for food retail, are already located in these "food deserts," and are already frequently trafficked by local residents who have demonstrated a demand for healthy food. A number of cities and organizations around the country have already implemented "healthy corner store programs" to support these stores in providing healthy food and boosting to neighborhood viability while contributing to local business development. To date, these programs have not been evaluated with enough consistency to lend themselves to a meta-analysis that would allow generalizations about the nature and scale of their outcomes and impact. This lack of evaluation also stymies the replication of the most effective processes for program development and implementation.

Accordingly, this paper provides a background literature review about the causes, extent, and defining features of these unhealthy food environments that impact diet-related health outcomes, local economic activity, and community cohesion. I discuss the relative merits and downsides of the existing programmatic approach to healthy corner store initiatives, as compared to a policy and planning approach. I provide case examples on the most robust of these corner store programs, in Philadelphia, PA, Washington, DC, and Baltimore, MD. I then provide an inventory of the barriers impeding corner store programs and propose programmatic or policy-based solutions that could be employed to overcome these obstacles, with examples of their implementation.

Finally, I conclude with a section on the evaluation of healthy corner store programs and policies. I discuss the potential benefits of conducting rigorous program evaluations, and highlight current barriers to doing so. This is followed by a corner store program or policy evaluation template, with suggestions for research designs, indicators, metrics, and data collection instruments. I aim to help facilitate a more comprehensive body of program evaluation data. Such data would enable a meta-analysis of the benefits, challenges, and best approaches to healthy corner programs and policies, strengthening current and future initiatives.

Literature Review: Background and Historical Context

In this literature review about healthy corner stores, I will reference literature examining (1) the existence of disparities in access to healthy, fresh, affordable food among people of different racial/ethnic backgrounds and socio-economic status. Once I confirm and describe these disparities, I detail (2) their causes. I then look at literature about (3) the effects these disparities have on residents' purchasing and consumption habits, psychosocial status, and diet-related health outcomes.

Finally, I examine literature that (4) evaluates healthy corner store programs and policies, or similar health interventions, to explore how these programs were implemented and evaluated, and whether they were deemed successful in achieving their goals.

The Problem: Low Access to Healthy Foods in Low-Income Urban Areas

Poor food access and the resulting obesogenic diet in low-income urban neighborhoods can be explained by a complex interaction of many economic, social, political, and historical factors. To summarize my findings that follow in the literature reviewed below, few supermarkets and grocery stores are located in low-income or minority neighborhoods, even though they are the preferred source of food for most people (Powell et al., 2007; Zenk et al., 2005). Corner stores or convenience stores and fast food restaurants are often plentiful in these areas, but sell mostly cheap, calorie-rich but nutrient-poor food, and may also charge more than supermarkets for healthy items (Hendrickson et al., 2006; Jetter and Cassady, 2006; Raja et al., 2008). This means that residents of these areas must travel long distances and spend extra time to procure healthy, affordable food. This is exacerbated by the fact that few of them have access to a car, and their neighborhoods are often poorly served by public transportation (Bader et al., 2010). These shopping trips are often further complicated by the fact that many people work multiple jobs at odd hours and take care of children or dependent family members. Finally, many people haven't had sufficient education about diet, nutrition, and health to take full advantage of healthier choices when they are available, or might not know how to prepare nutritious meals from whole ingredients (Billings and Cabbil, USDA**).**[1]

[1] Educational efforts have had some success in increasing consumption of healthy food in settings such as schools and corner stores (Michie et al., 2009). However, an overemphasis on the lack of skills, knowledge, or motivation around healthy food purchasing, preparation, or consumption implies that the problem of poor diets stems from the willful priorities of residents. There is a clear consensus across the academic literature in this literature review that the food

Even if they could physically access healthy food sources, many people live in severe poverty that denies them economic access to food (Kumayika and Grier, 2006). Federal programs may help with food access, such as SNAP (Supplemental Nutrition Assistance Program) and WIC (Women, Infants and Children). They provide financial assistance, but these benefits might not cover the full cost of beneficiaries' food needs, and not all retailers accept benefits from the SNAP or WIC programs (Frazao et al., 2007; Nord et al, 2011).

In researching disparities in food access, I found a strong consensus in the literature that retail sources of healthy food are not distributed evenly among neighborhoods, leading to neighborhood-level environmental barriers to healthy eating. There is less healthy food access in communities with more people of color and where people have lower average incomes (Zenk et al, 2005; Powell et al., 2007; Morland et al., 2002; Gittelsohn et al., 2008; Dodson et al., 2009).

In one of the seminal studies on this topic, Morland et al. (2002) found that minority and poor communities have less access to a variety of healthy food than non-minority and wealthy communities. Zenk et al. (2005) added that in wealthy neighborhoods, distance to a supermarket is the same regardless of racial composition, but that among impoverished African American neighborhoods were an average of 1.1 miles further from a supermarket than were white neighborhoods. Powell et al. (2007) corroborated that low-income neighborhoods have only 75% as many chain supermarkets as middle-class neighborhoods. African Americans neighborhoods have only 52% as many chain supermarkets as white neighborhoods, and even less in urban areas. Hispanic neighborhoods have 32% as many supermarkets as non-Hispanic neighborhoods. In contrast, non-chain groceries (which can include corner stores and convenience stores depending on

environment, not an individual's motivation, is the primary determinant of food behaviors and health outcomes. (Story et al., 2008) Thus, this paper and the theory of change behind corner store programs prioritize food access and retail over educational efforts, to avoid the victim-blaming that dominates in discourse around the "culture of poverty."

local businesses licensing) are more common in low-income and minority areas. A study by Franco et al. (2008) using the Healthy Food Availability Index found that 43% of African American neighborhoods and 46% of low-income neighborhoods scored in the lowest tertile of those studied. Galvez et al. (2007) confirmed disparities in grocery stores by race/ethnicity in East Harlem, NY.

In addition, the food that is available in these neighborhoods may be more expensive or of inferior quality. Jetter and Cassady (2006) found that a two-week market basket of healthy groceries in the Los Angeles, CA area was $36 more expensive than the standard market basket, due largely to the cost of skinless poultry, lean ground beef, and whole grains. The healthy basket cost 35-40% of the food budget of an estimated low-income consumer's food budget. However, there is still significant debate as to whether healthier food costs significantly more, with the probable answer being that the cost differentials are highly context-specific (Fry 2013). Some research has shown healthy food to be more expensive in terms of dollar value per calorie. The USDA has countered that dollars per calorie is not the appropriate metric for assessing food cost, and that healthy food isn't actually more expense on a per-meal basis (Fry 2013). This is currently a popular topic of research, but results are not yet conclusive or generalizable.

Freedman (2009) found that community members do not perceive corner stores as "real" food stores, and that the layout and selection of stores was designed to appeal to residents' race, class, gender or environment, reflecting social hierarchies onto the food environment. In addition, neighborhoods with more people of color have a higher concentration of fast food retail outlets and convenience stores that promote unhealthy eating, according to Hilmers et al. (2012).

Continuing on the topic of cost and quality, Andreyevna et al. (2008) found that food price and availability were comparable across neighborhoods in New Haven, CT, but that stores in low-

income neighborhoods have fewer healthier varieties of food and lower quality produce. In surveying both rural and urban communities, Hendrickson et al. (2006) wrote that healthy food was significantly more expensive than budgeted for in the USDA Thrifty Food Plan. Residents identified that their major barriers to shopping were cost, quality of food, and food choice limitations. Frazao et al. (2007) found that SNAP participants cited the high prices of fresh fruits and vegetables as a barrier to healthier diets, but that low-income households on SNAP were not likely to spend additional income on fruits and vegetables, because they used their SNAP benefits to increase their purchasing power for non-food expenditures like housing and health care.

As for the transportation elements of food access, Bader et al. (2010) found that low vehicle ownership rates and high crime rates inhibit safe and time-efficient travel. As both are common features in low-income areas of color, these neighborhoods experienced lower overall access to supermarkets than is usually captured by the common factors of income and distance. In addition, low-income, high-minority neighborhoods around the country are known to experience discrimination in access to public transportation.

Despite this, there is documented demand for healthy food in low-income areas. A study by Martin et al. (2012) among low-income African American and Hispanic residents of New Haven, CT concluded that if more fresh fruits and vegetables are available, there is a greater probability that customers will purchase them. Low-income urban residents prioritized "healthy behavior incentives" seventh out of eight interventions they would support to address socioeconomic determinants of health (Danis et al. 2010). This indicates that options and access are needed to improve health outcomes, not greater incentives to utilize existing options.

Structural Causes

Two persistent structural causes have created urban environments where low-income and minority groups suffer from food insecurity: institutional racism and devaluation of urban capital.

Inner-city landscapes with inferior social services, economic activity, and environmental quality are populated by the marginalized, disadvantaged members of society. Institutional, systematic racism has been a powerful force throughout history in determining who makes up those groups. Institutional racism refers to America's history of government policies and social structures, both official and unofficial, which deny equal treatment, access and opportunity to groups of people of color. They contribute to self-sustaining cycles of poverty and a metaphorical "glass ceiling" on advancement for these groups. This racial segregation has been shown to affect the economic well-being of the segregated minority groups (Chang et al., 2009) Today's racism targets primarily Blacks, Asians, Latinos/Hispanics, and Native Americans, but in the past has also been directed at immigrants from Eastern Europe, Jews, and other groups now considered white.

As described by McClintock (2008), historical patterns of devaluing certain types of urban capital contribute to urban decay. During economic booms, surplus capital is invested in fixed infrastructure development. Some are positive changes, such as bridges, sewers, and utility lines. Other infrastructure, however, can have a negative impact on the environmental quality and livability of the surrounding area, such as large highways, power plants, and chemical-discharing factories. During economic downtrends, capital retreats from these industrial areas, but they maintain their industrial landscape, likely polluted, dilapidated and devalued from years of use. McClintock goes on to say that those who can afford to do so leave those areas in favor of newer or cleaner neighborhoods, leaving society's disadvantaged members to live in these inhospitable environments.

Wages fall, unemployment rises, and the tax base shrinks to such an extent that residents do not have equal access to public services like transportation, education, and health care. This perpetuates their cycle of poverty and the devaluation of the area. In this landscape, food access declines as a result of poverty, poor infrastructure, and an inhospitable environment for new businesses that might sell healthy food (McClintock, 2008).

Of course, urban decay and racism contribute to a host of other problems for the effected communities besides food insecurity, including substandard housing, lack of employment opportunities, under-funded school systems, and environmental injustices.

Effects on Health Outcomes

Lack of access to healthy food in low-income and minority neighborhoods has many negative consequences, both immediate and long-term. It is common knowledge that diets based on food that is calorie-rich but innutritious lead to higher rates of obesity and its associated health effects, including type-II diabetes and cardiovascular disease. They can also lead to limited mobility, decreased productivity and lower self-esteem. Further, people experience psychological distress from not knowing how they will get their next meal (Laraia et al, 2006).

The effects of the aforementioned food environments on residents' habits of food purchasing, consumption and preparation can be seen through correlations between living in these neighborhoods and incidences of diet-related health outcomes like obesity, diabetes and cardiovascular disease. Broadly, Zenk et al. (2009) found that neighborhood food environments influence fruit and vegetable intake. **Story et al. (2008) concluded that these environmental factors contributed more to obesity than individual factors like knowledge, skills and motivation**. Ahern et al. (2011) demonstrated that, in urban areas, the presence of more full-service

restaurants, grocery stores and direct farm sales per capita are associated with positive health outcomes, and fast food restaurants and convenience stores are associated with negative health outcomes. According to Rundle et al. (2008), access to what they called "BMI-healthy" food stores was associated with lower BMI and obesity in New York City, after controlling for neighborhood walkability. Rose et al. (2009) found that cumulative shelf space dedicated to energy-dense food (measured in linear meters per store, not percentage of total store shelf space) was modestly positively associated with increased BMI, but that increased fresh fruit and vegetable shelf space were not associated with BMI.

Transportation also played a part in shopping and consumption habits. D'Angelo et al. (2011) wrote that in low-income areas of Baltimore, MD, residents walked to shop at corner stores more often than they drove to shop at supermarkets, and they purchased more unhealthy food after walking to corner stores. Christian (2010) found that the percentage of a neighborhood's population without a car that lived over a mile from a grocery store correlated with increased obesity rates.

As to the impact of corner stores on children, Kumanyika and Grier (2006) found that minority and low-income children have the highest rates of obesity among all U.S. children. Purchases made in urban corner stores contribute significantly to energy intake among school children, with an average of more than 350 calories per purchase (Borradaile et al., 2009). Dennisuk et al. (2011) further demonstrated that urban African-American low-income youth spend average of $3.96 per day on food and beverages, and that corner stores are their most frequently visited food source, with an average of two visits per week. During these visits, the most commonly purchased items were chips, candy, and soda.

Evaluation

Finally, I reviewed eight evaluations of health interventions that were similar to healthy corner store programs, to learn about their evaluation design, metrics, and indicators (Cummins et al., 2005; Song et al., 2009; Gittelsohn et al., 2009; Glanz et al., 2007; Rodgers et al., 1994, Haerens et al., 2006; Sahota et al., 2001; Wechsler et al., 1998). They all focused on food retail settings or school settings. These eight comprised all the relevant evaluations that I could find from the past twenty years that were published in academic journals, signifying a need for more evaluation about health interventions that target the food environment, especially food retail.

Most used a quasi-experimental design, with a control group and an intervention group that were assigned or came from a "natural experiment" with matched pairs. The most common data collection tool was a questionnaire, often asking participants to self-report about their habits, intentions, knowledge around healthy food purchasing and consumption. Pre- and post-intervention questionnaires were compared to each other and to the control group to determine the extent and cause of any observed changes. In another design, Rodgers et al. (1994) partnered with a supermarket to use their food sales data as a proxy for consumption, to indicate dietary changes due to an in- store supermarket intervention. In terms of process monitoring, most evaluations tracked how many of the intervention components were successfully implemented at each site.

Glanz et al. (2007) documented the development and testing of the Nutrition Environment Measurement Survey (NEMS), which assesses food retail locations based on the availability of healthy options, price and quality, using ten categories that each have indicator items (e.g. lean ground beef is the indicator item for the "meat" category). NEMS has great potential to be used as a standard pre- and post-intervention food environment assessment.

This literature review shaped my evaluation design template in several ways. The findings about the overwhelming effects of the food environment on consumption patterns led me to focus on evaluating changes in the food store environment, rather than consumer knowledge or intentions. The common evaluation methods informed my choice to use a quasi-experimental research design, with an intervention group and comparison group. The structure and areas of inquiry in other questionnaires shaped my interview protocols, and the NEMS survey (Glanz et al., 2007) influenced my store environment observational measures. Overall, the broad consensus on disparities in food environments and public health along racial and class lines reinforced the need for programs like healthy corner store initiatives, which includes a need for their evaluation.

Why Corner Stores?

Given that the main causes of poor food access in low-income communities are lack of geographic access to healthy food retail outlets, high prices of healthy food, and lack of transportation, an ideal solution to this problem would address all these issues. Programs should offer affordably priced, nutritious food that is easily accessible without a vehicle or public transportation, with broader benefits for community development and resident empowerment. **The healthy corner store approach fits all these criteria.**

Although some common conceptions depict corner stores as negatively impacting neighborhoods, healthy corner store initiatives can reframe them as a community asset and potent opportunities. The presence of so many pre-existing, well-distributed food retail establishments in low-income urban neighborhoods dramatically eases the process of bringing healthy, affordable food to these areas. Raja et al. (2008) wrote that empowering local corner stores and small groceries to sell healthy food makes use of existing food retail infrastructure, lowering the time frame,

financial investment and space requirement needed to bring healthy options to a neighborhood. Given the existing businesses and infrastructure, the main roles of healthy corner store initiatives are altering the product mix, ensuring affordable pricing, and in some cases revamping store aesthetics, layout, and advertising to position the store as a welcoming, reputable source of healthy food. This is significantly less daunting than starting from scratch to attract and establish healthy food retail.

Since most corner stores are small, locally-owned businesses, encouraging residents to purchase food within their neighborhood can stimulate the local economy and foster relationships between business owners and residents (Cedeño 2013). Since many stores are owned by local residents, they can be more attuned and responsive to the cultural preferences and dietary patterns of the community than a large supermarket or chain (Cedeño 2013, Mora 2014, Moore 2013).

Using corner stores as a means to increase food security and food sovereignty strikes a balance between expediency and structural change (Fry 2013). Bringing healthy food to corner stores is a much faster and cheaper process than trying to attract a large-scale chain supermarket. Among other barriers, supermarket attraction requires locating a suitably large, vacant piece of land and convincing the franchise of potential profits this neighborhood despite lower average incomes (Fry 2013). Even if it were successfully established, one large supermarket does not address the needs of a wide area of car-less residents, and the market's revenue would be channeled to a distant headquarters instead of back into the community. On the other end of the spectrum, farmers markets and CSA pick-up sites are the fastest food access points to create, as they require no permanent infrastructure or business planning. However, they are inherently transitory establishments. If the farm went out of business or the market manager closed that location, those food sources would disappear instantly, without having created any structural solutions. In the

meantime, the profits from these sales would still have left the community, bypassing the opportunity that corner store initiatives harness to support local businesses (Cedeño 2013).

Corner stores could be seen as a manifestation of the American dream, where recent immigrants establish small, local businesses to serve the needs of their community and create their own income streams. Although America's history has been far from the immigrant meritocracy that is idealized in patriotic spaces, improving the viability of these small businesses and enhancing the livability of their neighborhoods appeals to those ideals of entrepreneurship and upward mobility. It is crucial not to blame store owners for the existence of food-insecure neighborhoods, as these businesspeople are among the most crucial partners in these projects. Just as nobody would claim that healthy diets in high-income areas result from business decisions by local supermarket managers, it is important to remember that this food desert situation was caused by the structural forces described earlier, not by corner store owner stocking decisions.

As mentioned above, corner stores in their current iteration are sometimes seen as negative influences on the community. This is due in part to their common inventory. Most corner stores sell tobacco products, alcohol (depending on local licensing – for example, this is prohibited in Pennsylvania), and an assortment of unhealthy food. They are sometimes less well-organized and well-lit than their grocery store counterparts. On the social side, some are known for being the site of after-hours loitering. For that reason, there is a history of friction between corner stores and the police, especially in Oakland, CA. (Cedeño 2013) However, these are far from intractable problems, and do not negate the potential benefits from transformed corner stores.

I offer two additional caveats: one about food access at various stages of life, and the other about the heterogeneity of corner stores around the country. The aforementioned factors that contribute to food insecurity do not affect all people equally at all stages of life. For example, for the disabled or elderly, the major obstacle to food access may be moving around a supermarket or carrying home heavy bags. For parents of young children, the difficulty may be transporting children to the store if childcare is unavailable. For those in a period of un- or under-employment, price may be the main concern. It is important to consider this variation when designing a solution to food insecurity that will work for everyone, as some solutions exclusively address the time, price, or distance components. Healthy corner stores could be a solution at the nexus of these issues because the food would be nearby, affordable, and help with mobility, distance, and time issues. However, various challenges outlined in the "Barriers to Implementing Healthy Corner Store Programs and Policies" section describe obstacles to corner stores stocking a variety of products at low prices.

Corner stores are not a homogenous group. In different areas of the country and among different ethnic groups, they may be referred to as corner stores, convenience stores, bodegas, or mini-marts. They vary greatly in customers served, retail space, product selection, and community involvement. Some already carry a variety of healthy products and serve as the main neighborhood grocery. This underscores the need to adapt program or policy to their specific context, as opposed to a "one-size-fits-all" approach. For this reason, the "Inventory of Tools for Healthy Corner Store Programs and Policies**"** section outlines many flexible options of policy and planning approaches that cities can choose among to support healthy corner stores in their specific local context.

Practitioner Perspectives

The following represent the major themes that emerged from my interviews with professionals involved in healthy corner store programs or policies. For a full list of interview participants who contributed to this section, see Appendix A: Interview Participants.

A repeated topic was the need for a multi-pronged approach to improving food access. As with everything in the fields of public health or economic development, there is no "silver bullet" strategy that will result in immediate, broad-based improvement. Corner stores are a promising new frontier, but will achieve their maximum potential when combined with other strategies including supermarket attraction, farmers markets, food hubs, and urban agriculture. This philosophy is being played out in current initiatives, with most food-focused organizations incorporating several of these strategies into their work (Evans 2014, Fry 2013, Mora 2013).

Numerous interview participants referred to two essential components of healthy corner store programs or policies: being community-based, and being based on voluntary incentives as opposed to restrictions or punitive action (Gittelsohn 2013, Fry 2013, Cedeño 2013, Moore 2013, Wagner 2013, Evans 2014). These programs must have input from community members in order to truly meet their needs and gain support through grassroots networks. Using voluntary incentives to spur change ensure that programs will be business-friendly, as opposed to burdening storeowners, which is especially important in economically depressed areas. This is also important because mutual collaboration with storeowners is a crucial component of successful healthy corner store programs. Several interviewees noted that the level of engagement of the storeowners was what they personally observed to be the largest determining factors in the success of a program (Mora 2014, Smith 2014, Moore 2013).

Another common refrain was the need to improve both food access (availability) and food affordability (price or cost) – improvements either alone would be insufficient in allowing everyone to enjoy a healthy diet (Evans 2014, Smith 2014). Some interviewees added education as the third essential component, while this was less of a priority for others (Tabery 2014, Cedeño 2013, Moore 2013, Diggs 2013).

Most interview participants saw challenges in intersecting corner store program with environmental sustainability. The low-hanging fruit in terms of sustainability benefits from corner store programs were decreased miles driven by residents, with the caveat that many would have taken public transportation to supermarkets anyway. It would also be possible to equip corner store with energy-efficient refrigeration equipment and to train storeowners on sustainable business practices, but this was beyond the scope of all programs I researched. The consensus was that it is unrealistic for now to sell locally-grown or organic produce in corner stores, given their higher price point and seasonality issues. Current innovations in food hubs and indoor production are promising, but not yet scalable enough to be widely relevant to healthy corner store initiatives (Wagner 2014).

The supermarket industry was a topic of great interest to several of my interview participants. All described it as a highly complex and dynamic industry, and one with very low profit margins that averaged 1-2%. The industry's decision-making processes, especially as they relate to where and when to locate supermarkets, have direct effects on food environments. Greater understanding of the industry's incentives would allow policymakers to align industry incentives with incentives to improve food access (Smith 2014, Tucker 2014, Mora 2014).

The importance of **marketing and in-store environments** was highlighted as an important area for healthy corner store policies and programs to focus on (Wagner 2014, Mora 2014, Evans

2014, Cedeño 2013). This most often takes the form of providing grants to improve the store façade or in-store signage or layout, and may also include the provision of posters to display in the store.

Corner Store Initiatives as a Bridge from Program to Policy

Most corner store projects today take the form of programs or interventions, rather than policies or planning regulations. I argue that the latter would be more financially sustainable, enforceable, and broadly effective, and thus would be the ideal structure for these initiatives. Programs or un-enforceable guidelines run the risk of disappearing when interest or funding runs dry, and could be used by cities or politicians to bolster their image or appease food advocates without taking any meaningful action (Fry 2013).

However, it would be politically and financially unfeasible for city governments or other large institutions to move directly from current practices to more just, sustainable ones (Fry 2013, Gittelsohn 2013). As I describe in the "Barriers to Implementing Healthy Corner Store Programs and Policies" section, many corner stores lack the infrastructure, knowledge, motivation or distributor connections to stock healthy, fresh, affordable food, making related policies unenforceable. Corner store initiatives in the program phase could serve as a testing ground for and bridge to corner store policies, allowing for capacity-building, administrative fine-tuning, and stakeholder input. This would ensure that when a policy, law or planning-based solution is enacted, there is a positive track record to support it and systems are in place for it to operate smoothly. Interestingly, many programs do not see their role as a bridge to policy, a mindset which would form an interesting topic for future research (Fry 2013, Cedeño 2013).

Research Methods

This "Research Methods" section will describe my research questions and my rationale in selecting those questions. I then explain my research design to gather and analyze information in response to those questions, outlining my data sources and interview participants. I conclude with a discussion of this project's Institutional Review Board approval and ethical considerations.

Research Questions

My research questions were:

- What strengths, weaknesses, opportunities and threats impact corner stores in their role as a solution to poor food access in low-income, urban neighborhoods?
- What form do most current healthy corner store initiatives take, and why?
- What policy and planning tools are available to policy-making bodies to encourage corner stores in low-income areas to sell fresh, healthy affordable food?
- What policy and planning tools and techniques are in use by policy-making bodies to encourage corner stores in low-income areas to sell fresh, healthy affordable food, and why were those selected?
- To what extent and in what ways are these policies and programs planned and implemented with cultural sensitivity and community participation?
- Why is there a lack of rigorous evaluation of healthy corner store programs, and how can more evaluation be initiated?
- In what ways can healthy corner store programs be evaluated?

Rationale for Research Questions

I attempted to formulate research questions that would make the greatest contribution to on-the-ground policy and practice about healthy corner store initiatives. I aimed to make full use of existing relevant data and gather new data that would be realistic for me to collect given my time frame, funding, and experience. In an ideal world, I would have been able to draw on rigorous evaluations of all major existing healthy corner store programs, as well as interview or observe a large sample of program staff, storeowners, and neighborhood residents. With those aggregated data, I could synthesize an empirical "best practices" model for healthy corner store programs and policies. However, few programs have been evaluated, and even fewer with overlapping metrics. Furthermore, this goal of a "best practices" guide assumes that the findings from my data would be scalable and generalizable across many programs and locations. I have come to understand that this is highly unlikely given the diverse geographic and socioeconomic contexts in which these programs operate. Therefore, any truly universal "best practices" model would be so broad that it would suffer in utility.

Research Design

Keeping in mind my goals of practical research employing existing data, and my parameters regarding data availability, time, resources, and research experience, I chose the following research design that would allow me to collect sufficient data to unambiguously answer the above questions.

1. A literature review of academic publications and grey literature about disparities in food access, the effects of those disparities, and current thinking on healthy corner store programs.

2. An inventory of the possible policy approaches to promote healthy corner stores and the barriers these policies might face, including my understanding of residents' appraisal of those policies, drawn from academic articles, news articles about those policies, and interviews with relevant professionals.
3. Several case examples on the most robust healthy corner store programs and policies, based on available published literatures, in-person interviews with staff connected to those initiatives, and site visits to program offices and connected food retail locations.
4. A discussion of the need for healthy corner store program evaluations and the barriers to conducting those evaluations, followed by a template evaluation design, and sample data collection instruments for a healthy corner store program evaluation. This was informed by interviews with practitioners and work in a graduate-level Program Evaluation course focused on mixed-methods outcome evaluations of programs with social or environmental goals.

Data Collection: Sources and Subjects

My data collection process focused on three main sources: academic publications, in-person interviews, and grey literature. In my literature review, I gathered information primarily from academic publications. These scholarly journals addressed topics including food security/access, health disparities, urban policy and planning, nutrition, obesity, psychology and sociology of food behaviors, race, and poverty. Key search phrases that I used included "healthy corner/convenience stores," "corner/convenience store program/policy," "food access," "food desert," "food environment," "food security," "[community] nutrition," "neighborhood" and "evaluation." The databases and search tools that yielded the most relevant results were PubMed, HealthStar Ovid, Science Direct and Academic OneFile.

I chose these literature sources because academic databases provide authoritative, rigorous information on these programs in a consistent format. They are often more current than published books, keeping pace with the quickly evolving understanding of food access issues and solutions. These publications were the source of some analyses of the causes and extent of food insecurity in the U.S., the specific characteristics of these low-income, low-access areas, and the extent of the public health consequences of food deserts. I hoped to also find articles analyzing the impact of existing corner stores initiatives, but very few evaluations of these programs exist.

I conducted twenty in-person or phone interviews with employees of city agencies, non-profit organizations, or universities involved in implementing corner store programs or policies. A full list of my interview participants can be found in Appendix A: Interview Participants. I chose these program staff as interview subjects because they would know more about the goals, operation, and outcomes of their healthy corner store programs than would any participating storeowners or residents. They would be the easiest to contact for a research interview, as staff contact information is often listed on websites, and they could then connect me to the less accessible research participants as needed, such as the corner store owners or residents. In selecting participants, I studied their publication record or their position within relevant organizations. I determined my mix of interview participants to be sufficient once I had interviewed at least three leaders from different organizations in each city where I conducted a case example. I also presented my interview list to each participant so he or she could recommend important missing individuals.

I used these interviews to gather qualitative information about how the programs were initiated, planned, funded and implemented. I inquired about the partnership dynamics in the commonly used model of collaboration between a city agency and a community organization. I also

asked about executed or planned evaluation, future plans for the program, and lessons learned thus far. My IRB-approved interview protocol follows as Appendix H: Practitioner Interview Protocol.

Finally, I referred to planning guides and resources published by think-tanks and city government agencies about policy approaches to healthy corner stores, how to select the most context-appropriate mix of tools, effective strategies for policy/program implementation, and barriers to doing so. I learned about existing initiatives from their websites, news articles and other online grey literature about the organization and programs.

Using information mostly from the interviews, with some supplementation from the literature review, I wrote case examples of the three cities that I determined to have the most robust healthy corner store programs: Philadelphia, PA Washington DC, and Baltimore, MD (See "Case Examples" section). I selected them based on the length of time the program has been active, the number of stores engaged, and the amount of financial and institutional resources invested in the program. Through the case examples, I hoped to illustrate examples of the causal mechanisms that led to the establishment of the programs, different approaches to allocating responsibility for the program's operations, and different combinations of program, policy and planning tools. The case examples demonstrate the ways that local contextual factors, such as an area's population density and demographics, influence program decision-making.

Ethical Considerations

I applied for an expedited Institutional Review Board (IRB) review, and was granted the status of "exempt," based on the minimal risk of harm to human subjects that could result from this research. My only interaction with human subjects was in interviews. Because the questions they

answered were not personal in nature and would not be damaging to their reputation, the IRB found there to be negligible risk of personal harm.

Because my interview participants were involved with the planning and implementation of these programs, they may have had an incentive to present their programs in a positive light. This could be compounded by their knowledge that their answers might be published, Similarly, there have been differences in opinion among my research participants, the storeowners, and the residents in terms of their idea of success, their view of the problem being addressed, or their assessment of the program's culturally sensitivity and community involvement. I tried to account for this by refraining from making policy recommendations, instead describing multiple policy options, while bringing a critical lens to my evaluation of policy tools.

Case Examples

Philadelphia, Pennsylvania: The Healthy Corner Store Initiative

Philadelphia is widely acknowledged to have the most robust healthy corner store program of any U.S. city. The Healthy Corner Store Initiative is implemented by (1) The Food Trust, a local non-profit organization, with major partners in (2) The Reinvestment Fund, a Community Development Financing Institution, (3) the Get Healthy Philly! Program at the Philadelphia Department of Public Health**,** and is funded by (4) the Fresh Food Financing Initiative spearheaded by State Representative Dwight Evans. The Pennsylvania Fresh Food Financing Initiative includes the Healthy Corner Store Initiative as well as several other food access and nutrition programs. It was described by several practitioners as originating from the confluence of two key factors: Philadelphia's alarmingly high public health statistics relating to food and health, and the presence of

multi-sectoral stakeholders willing to invest in this issue (Smith 2014, Tabery 2014, Wagner 2014, Evans 2014, Mora 2014).

To give a sense of Philadelphia's obesity situations, 64% of adults and 57% of children were overweight or obese in 2008, four years into the FFFI. However, nearly 70% of children were overweight or obese in North Philadelphia. Since 2000, close to 24,000 Philadelphians have died from diet- or fitness-related illnesses, and as high as 25% of children and 30% of adults consumed one serving or fewer of fruits and vegetables daily (Philadelphia DPH). Unsurprisingly, this was coupled with high rates of hunger and poverty (Wagner 2014). This was part of the reason that First Lady Michelle Obama kicked off her "Let's Move" campaign in Philadelphia (Evans 2014).

The Pennsylvania Fresh Food Financing Initiative was spearheaded by Representative Dwight Evans, a longtime Democratic member of the state's House of Representatives representing the 203rd Legislative District (Evans 2014, Smith 2014, Mora 2014). Together with sympathetic sponsors in the state legislature, a record of support for community development programs, and his position as Chairman of the House Appropriations Committee, Evans championed the Fresh Food Financing Initiative which began in the 2004 fiscal year (Evans 2014, Mora 2014). Before the start of this campaign, a group of stakeholders had convened in a task force to generate a series of recommendations that ultimately called for the establishment of a financing initiative (Smith 2014).

This initial appropriation authorized $30 million to be spent over five years on initiatives to improve statewide health, nutrition, and fitness. In 2008, after this period ended, appropriations continued at lower levels (Smith 2014). Evans approached The Reinvestment Fund, a Community Development Financing Initiative, with an offer to invest $10 million of those funds (Smith 2014, Wagner 2014). He was hoping for a strong financial institution to oversee the on-the-ground

investment of the money (Smith 2014). When Obama was elected and announced the focus on healthy lifestyles that is encapsulated by Michelle's "Let's Move" campaign, The Reinvestment Fund was also approached by PolicyLink, a national-level non-profit working on innovative equity-focused policy and research, who wanted to prioritize healthy food access in low-income areas (Smith 2014, Mora 2014). PolicyLink was interested in investigating the challenges and barriers that prevented investment by grocery stores in low-income communities (Smith 2014), and wanted to collaborate to scale this work nationally (Mora 2014).

The Reinvestment Fund's role in this work involved financing low-interest loans to support high-risk, low-return investments in community development (Mora 2014). As a CDFI, their role was to identify and invest in well-done projects that are generally considered "risky," as a way to prove to more traditional funders that these projects are economically viable (Smith 2014). The hope was for them to serve as a trailblazer to attract mainstream investment, at which point they could move on to focus on new "risky" project issue areas (Smith 2014). For example, CDFIs invested heavily in charter schools before they took off (Smith 2014). Happily, they are beginning to approach this stage with investment in healthy food retail in low-income areas (Smith 2014).

The Reinvestment Fund, and CDFIs more generally, are also key partners because the Department of the Treasury can only distribute federal-level funds to CDFIs, not directly to organizations (Mora 2014). In rural areas not serviced by a CDFI, the local Department of Health and Human Services can collaborate with the CDC as a workaround (Mora 2014).

The Reinvestment Fund collaborated with The Food Trust, a large and well-respected local non-profit with a mission to "to ensure that everyone has access to affordable, nutritious food and information to make healthy decisions" (The Food Trust). The Food Trust's longstanding work in

this area was part of the reason that Pennsylvania and Philadelphia were able to garner funding and effectively implement the Fresh Food Financing Initiative and the Healthy Corner Store Initiative.

The final partner is Get Healthy Philly!, a program of the Philadelphia Department of Public Health that was launched in March 2010 to bring together multiple stakeholders working towards healthier living environments in Philadelphia. They are involved more in visioning than in daily operations. They focus are tobacco control and policy, and nutrition and physical activity.

In the first year of The Food Trust's Healthy Corner Store Initiative, 88 stores were involved (Smith 2014). These included mostly supermarkets and grocery stores, but also some alternative retail formats such as CSAs, farmers markets, co-ops, and corner stores (Smith 2014). With the corner store work, those funds seeded The Food Trust's concept of working with corner stores located near schools where they were doing nutrition education, with the hopes of fostering healthier food environments with those children in which they could act on the health guidelines they were learning (Smith 2014). At first, their focus was putting in refrigerated barrels of pre-cut fruit and marketing water as a healthy snack (Smith 2014). This work was all grant-funded and involved providing a high level of technical assistance (Smith 2014).

With this work as a strong pilot program, the partnership put together a strong proposal for the expansion of the Fresh Food Financing Initiative and its corner store program with federal funding from the 2009 stimulus package. This was administered through the federal Center for Disease Control in their Communities Putting Prevention to Work (CPPW) initiative that focused on chronic disease prevention (Mora 2014, Wagner 2014). Philadelphia received the most money of any city for work in tobacco cessation and obesity prevention, because of their alarming public health statistics (Mora 2014). This facilitated the launch of Get Healthy Philly! in 2010. This also

allowed The Food Trust to scale up their Healthy Corner Store Initiative into their current 630-store network (Mora 2014). It nearly half of what the city recognizes as corner stores (Tabery 2014).

The Food Trust's operations in their Healthy Corner Store Initiative engage a diversity of stores and storeowners that receive varying levels of support. The Healthy Corner Store Initiative requires that if stores receive a refrigerator from The Food Trust, they have to accept EBT cards from SNAP and WIC (Tabery 2014). They estimate that 75% now accept EBT, which increased when The Food Trust offered training to storeowners on how to apply for EBT, including a tip sheet (Tabery 2014). They also translated these resources into Spanish to accommodate the 70% of owners who speak Spanish (Tabery 2014). They also offer trainings on how to handle and display produce, and various aspects of business operation (Mora 2014). Staff cite the main skills needed to implement this program as relating to business operations, product placement, marketing, and Spanish proficiency – not the typical public health skill set (Mora 2014).

The Food Trust is also a hub grantee of the Robert Wood Johnson (RWJ) Foundation and the American Heart Association (AHA) through their Voices for Healthy Kids program (Mora). These programs are all-encompassing around childhood obesity, including food access, marketing, and more (Mora 2014). RWJ and AHA distribute funds to "hub grantees" including The Food Trust, who provide advising to "state grantees" who work on the ground (Mora 2014).

As to outcomes of the Healthy Corner Store Initiative, The Food Trust is now supporting similar projects around the country, in areas including New York, Illinois, New Orleans, and Ohio (Smith 2014). The Food Trust hopes to continue and expand this national-level consulting (Tabery 2014). Because of the high levels of geographic and demographic diversity in program areas, local partners are crucial in adapting programs to regional elements (Tucker 2014). They provide

resources and technical assistance with program planning (Smith 2014). Having a successful program in Philadelphia gave them a model to follow and make it easier to persuade others of the effectiveness of this approach (Smith 2014). This demonstrated success and track record also helped them to advocate for federal appropriations in Washington, DC, which resulted in the national-scale Healthy Food Financing Initiative (Smith 2014).

Moving forward, policy initiatives are in motion on two fronts. One relates to appropriations, aiming for a carve-out from existing funds (Smith 2014). The other is working to institutionalize authorization for a program related to health and food access, which is currently being considered in Congress (Smith 2014).

Although there is ambitious talk in the media of "eliminating food deserts" permanently, some practitioners do not see this as a reasonable goal, given the unusual dynamism of the grocery industry (Smith 2014). Supermarket locations shift so quickly that there will always be need for resources to support food access (Smith 2014). However, these programs do not need to be grant- or government- funded forever, unlike entitlement programs like SNAP (Smith 2014). The hope of The Reinvestment Fund is that mainstream private institutions and investors will take on the risk to invest in healthy food retail in low-income areas (Smith). Likewise, The Food Trust is hoping for a market-driven solution that removes the necessity of grant funding (Tabery 2014).

The main program evaluation of the Healthy Corner Store Initiative took place in 2008, when The Food Trust partnered with the Center for Obesity Research and Education (CORE) at nearby Temple University (Tabery 2014). Evaluation methods proved difficult because of the challenge of collecting sales data (Tabery 2014, Vander Veur 2014). For a long time, the only

reliable method of data collection was customer intercepts, where students would stand outside a store and look into shoppers' bags (Tabery 2014, Vander Veur 2014).

In 2010, The Food Trust resolved to upgrade this method, and began a project to install point-of-sale barcode scanning systems at participating corner stores (Tabery 2014). In order to install this infrastructure, the 10,000 items carried by even small stores needed their barcodes scanned into the system (Mora 2014). Although they are in a piloting stage now, The Food Trust expects the POS systems to be very helpful in evaluation once fully functional (Mora 2014). They will also help storeowners by providing quantitative data on their inventory and sales (Mora 2014).

Participating corner stores allow The Food Trust to analyze that information, contributing to research efforts that inform more effective interventions (Tabery 2014). That data revealed an average increase in healthy beverages and products purchased by about 50%, showing that the programs are having positive impacts on the ground (Tabery 2014). This increase in sales has been correlated with an increase in consumption and an increase in store profitability (Tabery 2014). Analyzing the data based on the level of intervention that a store received helped target what kinds of marketing spurred that increase (Tabery 2014). So far, they have found that the greatest successes are in stores that received the largest investments of time, energy, and resources (Mora 2014). This higher level of engagement with The Food Trust leads to more positive relationships with customers and outcomes in community engagement (Mora 2014).

They are now working on an interdisciplinary program evaluation design called "Common Impact Measures" (Mora 2014). The three main areas of inquiry are food availability, heath behaviors, and economic success (Mora 2014), corresponding roughly to my evaluation's focus on both health- and business-related outcomes. They are not tracking health outcomes; rather, behavior

changes that have been credibly linked to health outcomes (Mora 2014). They are also interested in evaluating business owners' experiences in the program with qualitative data from store surveys undertaken with the University of Pennsylvania (Mora 2014). They hope to better understand how healthy food retail can make sense as a business model (Mora 2014).

Philadelphia also boasts a food policy council, currently in its second year (Wagner 2014). It is housed in the city's Office of Sustainability, but includes members from the Department of Public Health. As related to corner store work, there is an Anti-Hunger and Local Food Committee. It also contains a committee on vacant land access to allow farming on the city's 40,000 vacant parcels, half of which are privately owned (Wagner 2014).

Washington, DC: The Healthy Corners Program

In Washington, DC, the Healthy Corners program is operated by a collaboration of DC Central Kitchen, the DC Department of Health, and initial support from DC Hunger Solutions. In this program, participating corner stores place their produce orders with DC Central Kitchen, who then places the wholesale order and delivers the requested products to stores in their refrigerated truck. This eliminates the barrier that storeowners face when wholesale distributors have minimum orders greater than what their small business can sell before the produce goes bad. For the first few months of the program, DC Central Kitchen sold the produce to the storeowners at a reduced price, allowing them to arrive at a suitable mix and quantity. They also provide nutrition education, cooking demonstrations, marketing support and technical assistance. They are funded through the FEED DC Act of 2010, administered via the DC Department of Small and Local Business Development (Palmer 2013, Moore 2013, Diggs 2013).

According to Lindsey Palmer, Director of Nutrition and Community Outreach at DC Central Kitchen, lessons from their program have highlighted the importance of building strong relationships with storeowners and communities. Additional key takeaways are the need to train both storeowners and consumers in how to store perishable food, to advertise the program initially, and to dispel the myth that healthy food is prohibitively expensive (Palmer 2013).

Baltimore, Maryland: The Healthy Stores Project

The Baltimore, MD Healthy Stores project is one of the only instances of a corner store program spearheaded by a university – in this case, the Bloomberg School of Public Health at Johns Hopkins University. According to Joel Gittelsohn (2013), Professor in their Center for Human Nutrition, the university affiliation has allowed for more academically rigorous evaluation of the program. It also provides researchers that already have significant experience in health intervention development and evaluation. Their approach centered on identifying the foods that contribute the most fat, sugar, salt, etc. to local residents' diets using "community workshops," and then working with corner stores to stock healthier alternatives to those identified foods. They also incorporated marketing and education strategies to encourage the shift in resident purchasing patterns, through programs planned and run by the university researchers. The Healthy Stores program initially supplied all new food items to the corner stores, avoiding issues of sourcing (Gittelsohn 2013).

Their experience implementing the intervention demonstrated the need to balance community input with quantitative and qualitative data in constructing a corner store intervention, and revealed the surprisingly large benefit of having an issue champion in the community or government agency. Similarly to DC Central Kitchen, Gittelsohn emphasized the need to publicize

the initiative early and often, and to reach out to unexpected partners in places like the city's Office of Sustainability and religious institutions (Gittelsohn 2013).

In the following section, "Inventory of Tools for Healthy Corner Store Programs and Policies," I deconstruct these programs, and others like them, into their constituent components of various program activities, policy tools, and planning tools.

Inventory of Tools for Healthy Corner Store Programs and Policies

In this section, I will describe the mechanisms available to be incorporated into a healthy corner store program or policy. These represent the different ways to increase the availability of healthy, affordable food in corner stores and to promote its sales. In crafting a program and policy, most organizations or government agencies select multiple strategies from this menu to customize the structure that makes most sense given their context-specific factors, which may include the program funding level, local demographics, partners involved, and more.

There are roughly five categories of tools available: (1) advertising and education, (2) zoning, licensing, and permitting, (3) financial support to stores, (4) technical assistance to stores, (5) consumer price reduction, and (6) certification programs. For those that offer incentives to qualifying stores, eligibility could be determined based on the amount of their inventory that meets pre-determined health standards (as a percentage or an absolute threshold,) based on the sales volume of healthy food as an absolute threshold or as a percentage of total sales, (Wagner 2014) if they accept EBT transactions, (Mora 2014) or based on the storeowners completion of a training program or commitment to future changes.

Advertising and Education

Advertising and education is the approach with the lowest cost and shortest time frame to implement, making it the most ubiquitous method of support among both government agencies and non-profits in supporting healthy corner stores. Among the most common forms are providing posters to advertise the healthy wares to passers-by, in-store posters encouraging consumers to make healthy purchases or reminding them of nutrition facts, and running on-site promotional or educational programming. The greatest cost of this approach is media buys for advertising space and staff hours for planning and running promotional or educational events.

According to Amanda Wagner (2014) at the Philadelphia Department of Public Health, large-scale media campaigns to promote healthy diets is a costly but attractive strategy that is gaining support in some cities. These campaigns could take lessons from the anti-tobacco media efforts that met with great success in smoking-related public health outcome in past decades.

Zoning, Licensing, and Permitting

The zoning process divides a city into districts and determines what land uses may occur in each type of district, using categories including residential, commercial, industrial, and recreational. Zoning code could be amended to prohibit or make conditional the establishment of food retail that does not meet pre-determined healthy criteria, especially if the use is to be located within a certain distance of a school, residential district, or other "sensitive" area. Zoning can also be amended to exempt healthy food retailers from requirements that may be burdensome to small businesses, such as parking or lighting requirements. It can require stores to meet certain criteria as a precondition for receiving their land use entitlement, such as stocking healthy inventory or accepting purchases from

Electronic Benefit Transfer (EBT) cards from the Supplemental Nutrition Assistance Program (SNAP) and the Women, Infants, and Children program (WIC). On the developer end, cities could create density bonuses or easy access to zoning code exemptions for developers who will construct buildings intended for healthy food retail in qualifying neighborhoods, such as low-income census tracts or USDA food deserts.

There are a number of downsides to the zoning approach. As most zoning codes amendments for healthy corner stores would provide restrictive or punitive policy approaches, as opposed to voluntary incentive-based ones, many practitioners feels that the time is not yet ripe for this strategy. For now, they recommend approaches that help build infrastructure and skills around healthy food retail, to avoid burdening small businesses or passing un-enforceable laws (Fry 2013). Additionally, as zoning is intended for long-term city planning, existing establishments are often grandfathered into updated regulations. This makes zoning a useful tool for forward-looking design with less immediate impact. However, zoning code may play a greater role in the future after the establishment of an existing healthy food retail environment. Finally, zoning reforms may come up against legal issues around business discrimination.

Licensing laws function similarly to zoning codes, but regulate a business' operations as opposed to the parcel of land that it occupies. These policies can use the same tools as in zoning, requiring healthy options or certain locations as a condition for being permitted to operate. Compared to zoning, this is a more immediately potent tool for two reasons. First of all, policy approaches using licensing or permitting can produce results more quickly than zoning, because permits often need to be renewed annually. Secondly, the owners or operators of corner stores are often tenant renters, as opposed to owning the land or building. Licensing engages with the business

owners directly. This avoids situations where zoning code relating to the stores façade or infrastructure puts onus on a landlord who may not be actively involved in the property (Smith 2014). Licensing and permitting can also help with monitoring of an area's food access, as it has a by-product of generating a comprehensive record of a city's food retail locations over time.

Financial Support to Stores

Financial support to stores can take the form of direct funds, loans, cost-sharing for capital purchases, or in-kind item distribution that helps stores access the infrastructure required to sell healthy food and fresh produce. It could cover the expenses for new refrigeration equipment, shelving or displays, point of sale (POS) systems or book-keeping equipment, or improvements to the store's façade or interior aesthetics and layout to make it more attractive to customers and direct their attention towards the healthier offerings (Tabery 2014).

Intersecting with the zoning and licensing section above, cities could provide tax credits such as a land tax abatement or building tax stabilization for qualifying stores. They could reduce or waive fees associated with the permitting process. Government agencies can also "make stores eligible for loans in incubator programs to fund infrastructure and training to start selling [fresh fruits and vegetables], or offer priority access to competitive grant programs already offered by local economic development agencies" (ChangeLab, 2013).

Finally, it is possible to support healthy corner stores by lowering or subsidizing costs relating to the business side of healthy food retail. For example, they could provide financial support for the ongoing costs associated with the price of electricity needed to run coolers to for façade upkeep if damaged by vandalism or weather events.

Community development financial institutions (CDFIs) can play an important role in investing and disbursing funds for food access initiatives such as healthy corner store programs. The role of a CDFI is to identify and invest in well-run projects that are deemed "risky" by traditional investors. By supporting those projects in terms of both planning support and financial assistance, including deferring principal payments on loans, CDFIs can be a trailblazer to demonstrate that these "risky" programs can be viable, attractive options to mainstream investors. They show that not all social equity-focused work needs to be grant-funded, and help establish best practices for projects in a certain field. An example of their role in healthy corner store programs in the involvement of The Reinvestment Fund in Philadelphia, PA with the city's Fresh Food Financing Initiative, which is detailed in the "Philadelphia, Pennsylvania: The Healthy Corner Store Initiative" case example in the "Case Examples" section (Smith 2014, Evans 2014).

Technical Assistance to Stores

Technical assistance to store owners is a component of nearly all healthy corner store programs. Most commonly, staff at the organization implementing the program provide this assistance, but it could also come from trained volunteers or community members. Examples of areas where storeowners may require technical assistance include training in sourcing healthy food from distributors, storing it in a hygienic manner, displaying it attractively, advertising these products effectively, installing and using a point-of-sale purchase scanning system, or maintaining refrigeration equipment. These areas of technical skills correspond roughly to the metrics I devised in the healthy corner store program evaluation template to assess storeowners improvement in skill areas, as detailed in Appendix D: Evaluation Planning Grid Template.

Price Reduction

Mechanisms to reduce the price of healthy food in corner stores may be the most complicated but promising approach, as many consumers cite price as a key determinant in their food purchasing habits. This most commonly takes the form of requiring that corner stores accept SNAP and WIC benefits, and some cities have supplemented this with additional SNAP-type benefits that can only be spent on healthy food. Other proposed policies tax unhealthy items, and use that tax revenue to subsidize healthy food. However, cities have nearly no influence over the market price of any goods, including food. This requires creative strategies that allow food to be sold for a cheaper price while still making a profit for the store.

With all policies, it is important to support storeowners in meeting new requirements, because placing burdens on businesses in low-income areas can hamper local economies and is politically unpopular. Thus, such policies could prove to be nearly unenforceable, leading to expenses for the government agency but little benefit for the community (Fry 2013).

Certification Programs

Several healthy corner store programs feature certification programs that create a network of "certified healthy" corner stores. Vendors that meet certain healthy criteria or commit to meeting them within a specified time frame are giving access to support and promotion for the sponsoring organization or government agency. This promotion often includes posting a certification logo that customers can recognize as indicating offerings and being featured on the partner's website and promotional materials. The other benefits to stores of participating in a certification program can include any of the aforementioned strategies, as determined to be most appropriate for that area's

specific context. Guidelines for healthy corner store certification programs are outlined in ChangeLab Solution's publication "Health on the Shelf: A Guide to Small Food Retailer Certification Programs" (Fry 2013).

Barriers to Implementing Healthy Corner Store Programs & Policies

Barriers on both structural and individual levels can prevent corner stores from stocking and selling healthy food, with fresh produce being especially problematic. By a structural barrier, I mean one that results from the structure of the food distribution system or the food environment around the store. An individual-level barrier refers to one stemming from a person's knowledge, preferences, or practices.

I have categorized these barriers into five areas: (1) obstacles to sourcing fresh produce, (2) cost to the store of transitioning to healthier food retail, (3) lack of consumer demand (perceived or actual), (4) lack of consumer knowledge about how to select, store or prepare healthy food or about nutrition, and (5) competition to healthy corner stores from retailers of cheap, less healthy food.

Given that these barriers inform storeowners' decisions not to stock healthy, fresh, affordable food, the following tools can be employed to eliminate these barriers and foster a healthy food environment in an economically flourishing neighborhood.

Obstacles to Sourcing Fresh Produce

Many owners of smaller corner stores face obstacles in sourcing fresh produce. Large-scale produce distributors like Sysco establish minimum orders requirements with more produce than most small stores can sell before it spoils. Perishability is often a major concern for storeowners,

who tend to be risk-averse regarding spoilage. Stores must choose between losing money by over-ordering, and not ordering any produce. Understandably, many choose the latter (Cedeño 2013).

To overcome this barrier, a city agency, non-profit organization, grocers association, or other group can coordinate group bulk orders to be shared among several vendors. In some cases, wholesalers may be willing to compromise on their minimum requirements, in order to facilitate orders from small-scale vendors. Wholesalers may be especially receptive if this compromise is brokered by a trusted third-party mediator, as was the case in Philadelphia (Mora 2014).

Another option would be to connect corner stores to smaller scale sources of healthy items, such as local farms, leftover produce from farmers markets, or wholesalers with more manageable minimum order requirements. It may also be possible for government agencies to compensate wholesale distributors for lowering their minimum order requirements for corner stores that meet certain healthy vendor criteria.

If this were the major barrier, a program would do well to focus on technical assistance and price reduction. Another asset is the fact that many cities, including San Francisco and Philadelphia, have long-established large-scale indoor markets for produce wholesale, where vendors traditionally purchase food early in the morning for retail that day (Fry 2013, Hennessey-Lavery 2013). There may also be a role for food hubs in addressing these obstacles to sourcing produce. Food hubs could aggregate produce from smaller-scale farmers and deliver it to corner stores.

Transition Costs to Stores

Many corner stores are not currently set up to sell produce or other healthy perishable items. This means that they lack appropriate or sufficient refrigeration, shelving, book-keeping, or trained employees, or that the store's overall layout and aesthetics are unappealing to customers looking to

purchase fresh groceries. Unhygienic conditions in corner stores (perceived or actual) can be a deterrent to customers purchasing produce there. In order to successfully sell produce or healthy food, stores often need to invest in upgrading their infrastructure, which can be cost-prohibitive.

Supporting organizations can provide the equipment or funding necessary to transition to healthy food retail, or can connect corner stores to affordable providers of the equipment and consulting. See the above "Financial Support to Stores" and "Technical Assistance to Stores" sections for ways to do so.

Lack of Customer Demand

In some areas, there is a perception among corner store owners that there is no demand for healthy food in their neighborhood, or that it is not their role to meet the existing demand. Some believe that if they stocked more of these healthy items, they would lose money either through spoilage, or through the opportunity cost of foregoing shelf-stable products with larger mark-ups, such as alcohol and tobacco. Orders of items like alcohol and cigarettes often come with perks from the suppliers, who set up the display and pay storeowners to advertise their goods.

This perceived lack of customer demand can be ostensibly confirmed if the few pieces of produce that they do sell, commonly apples, potatoes or onions, do not "move" well. However, this may not indicate a lack of demand or predict the failure of future efforts to stock more produce. If a store offers just a few kinds of produce, customers may choose to buy those same items elsewhere anyway, because they would still need to take a trip to a larger supermarket to purchase their other groceries. Additionally, marketing studies have shown that customers are more likely to buy produce when it is presented attractively and prominently. Without technical assistance from healthy corner store programs, store owners may not possess those marketing skills.

To stimulate customer demand, programs and policies could focus on the advertising and education strategies described in the previous "Inventory of Tools for Healthy Corner Store Programs and Policies" section.

Lack of Customer Knowledge

Some projects cite lack of customer knowledge about how to select, store, and prepare nutritious meals at home as a barrier to the successful implementation of healthy corner store policies or programs, assuming that this lack of knowledge leads to decreased purchasing. To increase customer knowledge about how to select, store and prepare healthy food, cities can provide educational materials about cooking or nutrition to display on-site. They could also provide funding or staff to conduct educational programs on site or in local community centers.

Understandably, there is significant overlap between tools to increase knowledge and those to increase demand. Many logic models link increased knowledge about healthy eating to increase intention to eat healthy, which leads to increased healthy food purchasing. However, even if that is correct, there is no guarantee that the increased purchasing would take place at corner stores instead of larger supermarkets or other sources.

If it is a priority to encourage healthy food sales at corner stores in particular, extra measures should be taken to ensure that corner stores offer the best selection, pricing, and display possible. To focus on improving customer knowledge, efforts would do well to emphasize the advertising and education tools described in the previous "Inventory of Tools for Healthy Corner Store Programs and Policies" section. See footnote in "The Problem: Low Access to Healthy Foods in Low-Income Urban Areas" in the "Literature Review" section for a caveat about education-based solutions to food access issues.

Unhealthy Competition

A commonly cited reason for poor sales of produce and healthy options is the abundance of competition from nearby fast food restaurants, or even the cheaper, unhealthier options within the same corner store. With constraints on time and money, it makes sense that people would gravitate towards more convenient or less expensive options that do not demand the time or knowledge required for cooking. If this is determined to be the main barrier to healthy diets, programs and policies can make use of zoning and licensing tools to shape a healthier food environment, as described in the above "Zoning, Licensing, and Permitting" section.

Evaluation of Healthy Corner Store Programs and Policies

Challenges of Evaluating Healthy Corner Store Initiatives

Difficulty emerges around evaluating healthy corner store programs and policies. While most corner store programs publish an informal "lessons learned" piece or some statistics on their program's reach, there is an overall lack rigorous evaluation of corner store programs for their impacts on public health, economic/business development, or community cohesion (Gittelsohn, Fry). This lack of evaluation can be attributed to the confluence of a number of factors, including the novelty and complexity of evaluating programs with diffuse, long-term outcomes, the difficulty of collecting data without point-of-sale systems in corner stores, and the challenge of isolating the cause of observed changes when each store has a different level of participation in the program. This is further complicated by potential funding squeezes that incentivize program coordinators to invest resources in a program's operations as opposed to its funding.

A notable exception to this pattern is in Baltimore's Healthy Stores program, as described in the earlier case example, where Johns Hopkins University is deeply involved in corner store program implementation and evaluation, resulting in several published articles (Gittelsohn 2013).

Most practitioners pointed to the relative novelty of these programs as the key reason for the current lack of evaluation, indicating that evaluation methods would evolve as these programs matured (Tucker 2014). Additionally, some cited as a challenge the complexity of evaluating programs like healthy corner store initiatives, which have diffuse impacts in many arenas with slow-acting changes (Tucker 2014). There is also little uniformity among both the corner stores themselves and the types of programs, making comparison especially difficult (Vander Veur 2014). With a new and complex field like this, it is difficult to ensure the accuracy of findings and to attribute them to specific program characteristics, since most research is not powered to detect small-scale differences. When neutral or unfavorable findings are discovered, they might be due to an evaluation flaw as easily as a flaw in the intervention itself (Vander Veur 2014).

Others have implicated the difficulty of collecting sales data from corner stores, information which figures as a major indicator in nearly all evaluations (Tabery 2014). Since most corner stores do not keep comprehensive sales records or use a point-of-sale system, there is very little pre-existing aggregated data, and whatever data exists may be difficult to access because it is the store's private businesses records (Tabery 2014, Fry 2013). Efforts to newly collect this data prove very time- and resource-intensive. To that end, The Food Trust is working to install point-of-sale scanner systems in a trial segment of stores in their Healthy Corner Store Network (Tabery 2014, Fry 2013, Vander Veur 2014). They have also partnered with researchers at Temple University to conduct

customer intercepts, where researchers stop customers on their way out of the store and record the contents of their shopping bag (Tabery 2014, Vander Veur 2014).

Joel Gittelsohn at Johns Hopkins University highlighted the relationship between the level of evaluation and the level of community engagement in a healthy corner store program. The most successful programs are likely those with the most community support. However, the most rigorous evaluation is done on programs that were initiated and implemented by universities or non-profits, which often engage with community members only after funding has been secured and significant planning has already taken place (Cedeño 2013). This means that the body of evaluation literature heavily emphasizes the top-down model of planning and implementing healthy corner store programs (Gittelsohn). Research on grassroots approaches may well reveal new strategies and more successful outcomes (Cedeño 2013).

Wagner noted that the process of evaluation is further complicated by the fact that not all stores in a healthy corner store program receive the same level of resources and support. Even if a program's outcomes were reliably ascertained, this situation would make it difficult to determine what "treatment" resulted in the observed outcomes (Wagner 2014).

Another contributor to the lack of evaluation is organizations' impetus to spend as much of their funding as possible on the program itself, rather than on its monitoring or evaluation (Fry 2013). This allows them to achieve the greatest impact and appear virtuous to peer organizations and funders who deride large overhead costs. However, few practitioners spoke of this pressure as an obstacle to their work. By some accounts, public support for food-related work has ballooned in recent years (Evans 2014). However, according to others, funding has decreased since its peak

around 2003-2007, which coincided with the high-publicity launch of Michelle Obama's "Let's Move" campaign in Philadelphia (Vander Veur 2014, Evans 2014).

Continuing on the topic of financing, most practitioners did not point to this lack of evaluation as an obstacle in securing funding or support for their program (Smith 2014). Funders generally understand the nature of this work and the futility of calling for hard numbers within a short time frame (Wagner 2014). However, others voiced frustration with the public's and press' "silver-bullet mentality," hoping for one cure-all solution. They described the connection between supermarket placement and health outcomes as associated but far from linear, emphasizing that no one solution will fix all the issues in urban low-income food access (Mora 2014, Evans 2014).

Practitioners also revealed general agreement in regards to the appropriate metrics for evaluating healthy corner store initiatives, with some difference in opinion as to the relative weight that should be given to each component. The most frequently cited areas of inquiry were economics and health. Indicators included healthy food sales, quantity healthy food in stock, changes in individual-level customer purchase patterns, job creation, store aesthetics, pricing, and neighborhood viability (a nebulous concept in itself) (Smith 2014, Tucker 2014, Wagner 2014, Mora 2014, Diggs 2013). Most agreed that evaluations should focus on evaluating the presence of behaviors that are empirically linked to health outcomes, rather than evaluating the health outcomes themselves (Mora 2014). Several agreed that the field of public health was best suited to inform the majority of evaluations at this point (Evans 2014, Mora 2014). There was also general consensus that a mix of qualitative and quantitative measures could best capture the full scope of a program's impact (Smith 2014). Amanda Wagner at the Philadelphia Department of Public Health voiced a desire to evaluate

not only the outcome and impacts of healthy corner store initiatives, but also called for evaluation of the process of planning and implementing the program (Wagner 2014).

Benefits of Evaluating Healthy Corner Store Initiatives

There would be many benefits deriving from a larger collection of healthy corner store program and policy evaluations. This data could inform decision-making in current and future healthy corner programs and policies, helping organizations and funders to leverage their time and resources as efficiently as possible to create the maximum benefit for their target population and for society as a whole. Publication of these evaluations could also create greater opportunities for program exposure. Evaluations could provide a credible, demonstrated record of success in funding applications and in policy advocacy, or alternatively prove that there would be more impactful ways to invest money and time. They would also help to situate healthy corner store programs among the many current approaches to combating environmental food insecurity, so that they can most effectively be combined with other tools such as farmers markets and supermarket attraction. To further these ends, I designed a template for evaluations of healthy corner store programs and policies, described in the following section.

Background on the Healthy Corner Store Program Evaluation Template

I designed an evaluation template to answer the question: In what ways and to what extent did the healthy corner store program effect public health, local business development, and community cohesion in the target areas?

Corner stores are uniquely situated at the nexus of these three issues; I chose this multi-disciplinary evaluation question to uncover all the possible effects of corner store programs. Their

wares have the potential to improve public health (with healthy food) or to worsen health outcomes (with alcohol and tobacco products). As most corner stores are small, locally-owned, frequently-trafficked business, their financial health has the potential to transform neighborhood-wide business development. Finally, their role in interface among ethnic groups (for example, between Korean-Americans storeowners and African-Americans residents in Baltimore) sets the tone for community cohesion, and their atmosphere shapes residents' perceptions of the local business environment.

While I have designed an evaluation for program outcomes and impacts, a process evaluation is an essential input of any outcome evaluation. Process evaluations serve the purpose of documenting the nature and level of activities that resulted in the subsequent outcomes, allowing for targeted modification of program operations based on outcome data. Process evaluations also allow organization to identify and address inefficiencies or unintended actions in the implementation process. However, I did not design a template for process evaluations. Many examples of process evaluations for health interventions and social programs already exist, and these would not be sizably different for healthy corner store programs. The outcome evaluation for a healthy corner store program is more unique than other health or social programs because of the multidisciplinary nature of its effects.

By "template," I mean that it consists of many options for program goals, objectives, indicators, and data collection methods and instruments. Evaluators can choose among these options to craft an evaluation design that reflects the program in question, the available data, and the resources being devoted to the evaluation.

My evaluation template makes use of a quasi-experimental research design, where the outcomes of the intervention group are compared with those of a similar group who did not live in a

neighborhood that would allow them to be impacted by the healthy corner store program. Accordingly, the intended research participants for my design fall in to four groups: (1) residents in the intervention area, (2) storeowners in the intervention area, (3) residents in the comparison area, and (4) storeowners in the comparison area.

A more detailed description of the evaluation goals, objectives, and indicators can be found in Appendix C: Logic Model for Healthy Corner Store Programs (also known as a theory of change), Appendix D: Evaluation Planning Grid Template, and Appendices E, F, and G, which contain my sample data collection instruments for corner store environments, storeowners, and residents.

The primary intended users of data from this evaluation are staff of healthy corner store programs or policies, and funders of those programs. They have the most immediate interest in the results, as their time, energy, resources or funds are investing in these programs. Given this investment, they should want to ensure that their resources are being well used, incentivizing them to use these findings to implement changes in their activities or funding direction.

The other main stakeholders in these evaluations would be the target populations of healthy corner store programs: corner store owners and local neighborhood residents. They stand to gain the most from the implementation of a successful healthy corner store program, as it is *their* health, the economic development of *their* neighborhood, and their cohesion of *their* community in question. Since they have a stake in corner store programs being as beneficial as possible, the findings could show them changes to fight for or practices to fight against.

With any evaluation, the results can only be applied with complete confidence to the program that was evaluated, with the potential to extrapolate to similar programs in comparable circumstances. This always carries a calculated risk of inaccuracy, as no programs or contexts are

identical. However, corner store programs may be especially vulnerable to issues of generalizability. The contexts of healthy corner store programs vary widely in income level, racial/ethnic background, access to transportation, community cohesion, and other factors, which influence the implementation and outcome of the program.

Conclusion and Discussion

To summarize my research, the literature review and practitioner interviews demonstrate the need for innovative solutions to address poor food access in low-income, urban areas. Corner store programs constitute a promising opportunity because of their existing food retail space and their greater potential than a supermarket or farmer's market to contribute to local economic development and community cohesion. Characteristics of a successful corner store program include incorporating multiple tools, forming part of a broader array of tactics to address food access issues, being community-based and community-driven as opposed to being implemented top-down by an outside organization, and addressing both food access and food affordability.

Such programs can be supported through policy approaches relating to advertising, education, zoning, licensing, permitting, financial support, and price reduction. However, such policies and programs are not without their challenges in pricing and sourcing of healthy food, stores' transition costs to acquire infrastructure to sell healthier food, issues of consumer demand and marketing, and unhealthy competition. Robust examples of healthy corner store programs are springing up in cities around the country, providing an example for future efforts. These cities include Philadelphia, Pennsylvania, Washington DC, and Baltimore, Maryland.

Evaluation of healthy corner store programs and policies poses difficulties because of the challenge of collecting corner store sales data, the complex and long-term outcomes of these program, issues of limited funding, and the correlation between rigorous evaluation and more top-down institutional corner store programs. Practitioners may make use of my healthy corner store program evaluation template to facilitate the evaluation process, which will contribute to program decision-making and may create positive exposure leading to increased funding.

Given the newness of this field, most of my assertions lack a robust body of literature to serve as a comparison. However, my general agreement with the limited existing literature and the relative consensus among my interview participants indicate that research on policy and planning for healthy corner stores will progress in a cohesive direction consistent with my findings. Many practitioners confirmed the findings of academic literature with their lived experiences at work. They substantiated claims of limited access to healthy food in low-income urban areas, the presence of many corner stores, the health disparities by race and income, and the use of quasi-experimental evaluation methods with the expectation of low quantitative change even for successful programs. However, more research is needed into both my research questions and the areas of inquiry outlined in the following "Further Research Questions."

The main contributions of this paper are the broad-level analysis of policy and planning tools for healthy corner stores, detached from a specific location or program, and the interdisciplinary framing of these programs as relevant to public health, local business development, and community cohesion. However, the most innovative work is the evaluation of healthy corner store programs that focuses more broadly than public health. I found less than ten such published reports, which collectively evaluated only two programs nation-wide. Even well-established

organization like The Food Trust with their 630-store Healthy Corner Store Initiative are still in initial planning phases for their Common Impact Measures, an extensive evaluation that encompasses business development. While my evaluation template is by no means exhaustive or universal, it is well timed for the present moment when healthy corner store initiatives are growing rapidly across the country. I expect rigorous evaluations of these programs to be widespread within five to ten years, and hope that my program evaluation template will assist in initiating that process.

Further Research Questions

A major theme thus far has been the need for further research on policy and programs for healthy corner stores. In particular, evaluations of the many existing healthy corner store programs would contribute to the field by answering the following questions about healthy corner store programs in ways generalizable to all programs. Details of this potential research are detailed in the "Evaluation of Healthy Corner Store Programs and Policies" section.

The practitioners I interviewed highlighted additional relevant areas that demand further research. Some focused on the food retail industry, specifically the drivers of supermarket closures (Smith 2014), the cost differentials across different retail venues (Smith 2014), and how the history of the supermarket industry shaped today's format (Tucker 2014). Two practitioners in different contexts (university-based research and community-based cooperative food retail) similarly called for research on grass-roots (versus top-down) food access strategies (Cedeño 2013, Gittelsohn 2013).

Marketing research was another theme, especially the effects of in-store marketing, with the goal of employing marketing strategies to promote healthy eating behaviors (Tucker 2014, Fry 2013). Others voiced desire for research into improved methodologies to evaluate food access that

incorporate more comprehensive definitions of access (Smith 2014) that include transportation, safety, and walkability - not just the USDA's distance-based metrics.

Another interesting avenue for research would be investigating how corner store programs see their role in relation to policy, and ways to encourage them to take on a more active role in policy creation. Finally, many practitioners noted the current debate around questions of demand and pricing, described in earlier "The Problem: Low Access to Healthy Foods in Low-Income Urban Areas" section. More research on this topic seems to be a current priority of the academic community, and should be continued (Fry 2013).

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Appendices

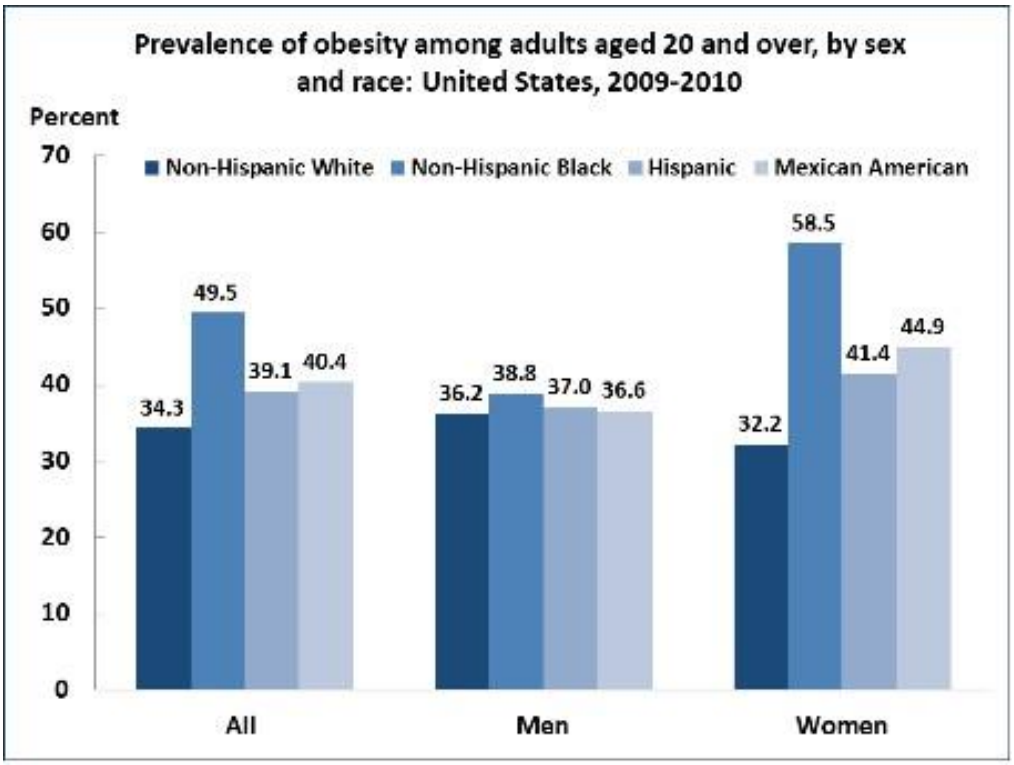
Appendix A: Interview Participants

1. Cedeño, Mariela. Mandela Marketplace. Personal interview. 14 August 2013.
2. Chissell, Zach. Real Food Farm. Phone interview. 16 July 2013.
3. Cynar, Ellen. City of Providence's Healthy Communities Office. Phone interview. 27 Aug. 2013.
4. Day, Paul. DC Central Kitchen. Phone interview. 24 July 2014.
5. Diggs Outlaw, Robin. DC Central Kitchen. 24 July 2013. Phone interview. 9 Jan. 2014.
6. Evans, Representative Dwight. Pennsylvania House of Representative. Personal interview.
7. Fry, Christine. ChangeLab Solutions.. Personal interview. 8 August 2013
8. Gittelsohn, Joel. Johns Hopkins Bloomberg School of Public Health. Personal interview. 19 July 2013.
9. Hagey, Allison. PolicyLink. Personal interview. 7 August 2013.
10. Hennessey-Lavery, Susana. San Francisco Department of Public Health. Phone interview. 11 Sept. 2013.
11. McCullaugh, Molly. Real Food Farm. Personal interview. 16 July 2013.
12. Mora, Gabriella. The Food Trust. Personal interview. 10 Jan. 2014.
13. Palmer, Lindsey. DC Central Kitchen. Personal interview. 18 July 2013.
14. Smith, Pat. The Reinvestment Fund. Personal interview. 13 Jan. 2014.
15. Tabery, Kenji. The Food Trust. Personal interview. 10 January 2014.
16. Tingling-Clemmons, Michele. Phone interview. 9 July 2013.
17. Tucker, Jordan. The Food Trust. Personal interview. 10 Jan. 2014.

18. Vander Veur, Stephanie. Temple University Center for Obesity Research and Education. Phone interview. 13 Jan. 2014.

19. Wagner, Amanda. Philadelphia Department of Public Health. Personal interview. 10 Jan. 2014.

Appendix B: Prevalence of Obesity by Race



Source: "NCHS Data on Racial and Ethnic Disparities." Centers for Disease Control and Prevention.

Appendix C: Logic Model for Healthy Corner Store Programs

Needs and Starting Assumptions	Resources/Inputs	Activities

• Low-income, urban areas have poor access to healthy food retail locations
• Many residents eat unhealthy diets leading to obesity diet-related diseases
• Residents of these areas don't have enough knowledge about nutrition to eat a healthy diet
• Local commerce is depressed in these neighborhoods
• Perceived crime levels and racial/ethnic tensions decrease community cohesion
	• Low-income, urban areas already have many small, local food retail locations (corner stores)
	• Program staff secure funding
	• Program staff develop implementation plan and educational materials
	• Program staff recruit corner store participants
	• Program staff hold workshops with community members to determine target foods
		• Build food sourcing, stocking and displaying capacity
		  ○ Fund and train for store redesign and acquisition of storage and displays
		  ○ Provide gift cards or free baskets of promoted food items
		• Improve customer knowledge about nutrition
		  ○ Implement out point-of-purchase promotions, educational materials, posters and taste tests
		• Increase awareness of new healthy options in corner stores
		  ○ Implement out point-of-purchase promotions, educational materials, posters and taste tests
		• Monitor implementation for process evaluation

Outputs (Immediate Result)	**Outcomes (Short-Term Results)**	**Impacts (Long-Term Results)**
• Storeowners have knowledge to source, stock and display healthy food in corner stores • Stores stock healthy food short-term • Stores are more aesthetically pleasing • Residents engage with educational and promotional activities at corner stores	• Residents have more knowledge and intention about healthy eating • Residents have more access to healthy food ⇓ • Residents buy the healthy food ⇓ • Residents routinely eat the healthy food • Stores profit from the sales • Mutually beneficial retail cycle established independent of program: stores routinely stock healthy food and residents alter shopping and consumption patterns to include healthy food from corner store • Residents and storeowners have more frequent interactions • Residents and storeowners interactions are made more pleasant by the availability of healthy food that meets consumer demand and promotes health	• Residents diet improve • Local commerce increases • Relations between storeowners and residents improve ⇓ • Residents diet-related health outcomes improve • Local businesses have more financial success • Community cohesion improves

Appendix D: Evaluation Planning Grid Template

Broad Evaluation Question	Evaluation Question	Constructs/Categories of Interest	Data Sources & Instrument	Analysis Approach
In what ways and to what extent did the program affect Public Health?	Did the program increase access to healthy, fresh, affordable food in corner stores low-income urban neighborhoods (also referred to as "improving the local food environment")?	At the end of the program, did each store stock: i. One type of low-sugar cereal (Yes/No) ii. One type of high-fiber cereal (Yes/No) iii. One type of 1% or skim milk (Yes/No) iv. One type of cooking spray (Yes/No) v. One type of fruit (Yes/No) vi. One type of low-fat snack (Yes/No) vii. One type of whole wheat bread (Yes/No) viii. One type of diet soda (Yes/No) ix. One type of bottled water (Yes/No) x. One type of vegetable (Yes/No) (Products and thresholds based on program activities and goals and process evaluation)	Store Environment Observational Measures	Count what proportion of stores stocked what proportion of items. Calculate the average number of stocked promoted items. Count which items are most frequently and infrequently stocked. Compare these counts to process monitoring data about pre-intervention stocking levels and to comparison store stocking levels for attribution purposes. Find and describe patterns in these stocking levels and how to correlate with different features of a store. Prioritize most important items, e.g. diet soda, 1% or skim milk, fruit, vegetable, and bottled water.
	Did the program increase consumption of fresh, healthy foods purchased from corner stores in low-income urban neighborhoods?	Quantity of healthy food sold (in units, dollars, or weight) (use promoted items as proxy for healthy food)	Store Sales Records	Compare sales of healthy foods over time program for intervention stores, and between control and intervention group at baseline and after program. Describe characteristics of stores that sell the most and least healthy food. Find themes among these characteristics.
	Did the program improve awareness of and skills for selecting and preparing these healthy foods through point-of-purchase promotions?	Number of people or percent of population engaged in any educational and promotional activities	Process Monitoring Records	Count the number of people engaged in two or more of all the educational and promotional activities. Calculate proportion of neighborhood population engaged by dividing that number by census population counts.
		Number of people or percent of population engaged in a certain proportion of all the educational and promotional activities	Process Monitoring Records	Count the number of people engaged in a certain proportion of all the educational and promotional activities. Calculate proportion of neighborhood population engaged by dividing that number by census population counts.
		Nature of interaction at program activities	Resident Interview	Describe the nature of the interactions with the program activities. Code based on positive and negative responses, with subcategories of specific reasons for the positive or negative experiences.
		People report that they have increased awareness of and skills for selecting and preparing these healthy foods through point-of-purchase promotions	Resident Interview	Code responses based on whether they reported increased skills/knowledge since the program. Analyze the extent to which they report improvement and the mechanisms that spurred this change. Compare control and intervention group.
	Did the program improve corner store aesthetics, layout and displays to encourage healthy food purchasing and discourage the purchase of alcohol, tobacco products and high-calorie foods and beverages?	Produce and healthy products displayed visibly Each kind of item in a separate container, row, or stack There will be no dust or debris on the shelf, container or food Stores display at least XX healthy food advertising flyers or brochures	Store Environment Observational Measures	Count what proportion of stores were arranged in this way. Find themes among the stores that did and did not do so. Compare control and intervention group and to other points in time.
	Were all educational and promotional materials and promoted products will be culturally appropriate and linguistically accessible for the target population?	Provide materials in translation to store owners who request it	Storeowner interview	Count what proportion of storeowners said they received materials in translation if requested. Describe any benefits they report receiving from the linguistic appropriateness of the materials.
		Cultural appropriateness of promoted food items	Resident Interview	Count what proportion of interviewees report that the promoted food items were culturally appropriate
		Cultural appropriateness of promoted recipes	Resident Interview	Count what proportion of interviewees report that the promoted recipes were culturally appropriate

Broad Evaluation Question	Evaluation Question	Constructs/Categories of Interest	Data Sources & Instrument	Analysis Approach
In what ways and to what extent did the program affect local **Business Development**?	Did the program support stores in acquiring long-term infrastructure that allows them to sell fresh, healthy food?	Participating stores that lacked adequate refrigeration and shelving now have it	Storeowner Interview	Count what proportion of storeowners report having adequate shelving and refrigeration. Compare to comparison group. Find themes among the stores that did and did not have that.
		Participating stores that lacked adequate book-keeping equipment now have it	Storeowner Interview	Count what proportion of storeowners report that they have adequate book-keeping equipment. Compare over time, and to comparison group. Find themes among the stores that did and did not have that.
	Did the program support storeowners in acquiring the skills necessary to transition to a long-term business model that allows them to profit from selling fresh, healthy food?	(Participating storeowners improvement in the following seven skill areas:)		(General guiding principle for all seven (7) skill areas: Count what proportion of storeowners report they improved their proficiency in each skill area. Describe if sales records or store environment reflects those skills, if applicable. **For all measures, add: Find themes among the stores and storeowners that did and did not have those skills or measures.**)
		1. Sourcing healthy food from distributors with appropriate quantities and prices	Storeowner Interview	Count what proportion of storeowners report they have proficiency in this skills area and compare to comparison group. Count what proportion report that the program helped them improve their proficiency in this skill area. Compare over time, and to comparison group.
		2. Ordering healthy food from those distributors at appropriate intervals, quantities, and product mixes	Storeowner Interview	Count what proportion of storeowners report they have proficiency in this skills area and compare to comparison group. Compare over time, and to comparison group. Count what proportion report that the program helped them improve their proficiency in this skill area.
		3. Marking up the price of the healthy food to a price pint that generates and profit while keeping the food affordable to low-income residents	Storeowner Interview	Count what proportion of storeowners report they have proficiency in this skills area and compare to comparison group. Compare over time, and to comparison group. Count what proportion report that the program helped them improve their proficiency in this skill area.
			Store Sales Records	Count what proportion of sales records show prices that are above the wholesale price but below the pre-determined affordable price for each item. Compare over time, and to comparison group.
		4. Displaying the healthy food in an attractive, hygienic manner	Storeowner Interview	Count what proportion of storeowners report they have proficiency in this skills area and compare to comparison group. Count what proportion report that the program helped them improve their proficiency in this skill area. Compare over time, and to comparison group.
			Store Environment Observational Measures	Count what proportion of stores have displays that have each kind of item in a separate container, row, or stack and are free from dust and debris. Compare over time, and to comparison group.
		5. Maintaining displays of healthy products	Storeowner Interview	Count what proportion of storeowners report they have proficiency in this skills area. Compare over time, and to comparison group. Count what proportion report that the program helped them improve their proficiency in this skill area.
			Store Environment Observational Measures	Count what proportion of stores have displays that do not contain rotten or expired products. Compare over time, and to comparison group.
		6. Promoting their healthy products	Storeowner Interview	Count what proportion of storeowners report they have proficiency in this skills area and compare to comparison group. Count what proportion report that the program helped them improve their proficiency in this skill area.
			Resident Interview	Count what proportion of residents report that corner stores actively promote/advertise healthy products. Compare over time, and to comparison group.
			Store Environment Observational Measures	Count what proportion of stores display promotional materials for healthy products. Compare to comparison group.
		7. Ringing up their healthy products	Storeowner Interview	Count what proportion of storeowners report they have proficiency in this skills area and compare to comparison group. Count what proportion report that the program helped them improve their proficiency in this skill area.
	Did the program increase number and frequency of local residents who shop at neighborhood corner stores?	Increase in number of regular customers	Resident Interview	Count number of residents who report that they did not shop at a corner store before the program but report visiting a corner store regularly (at least once per week) now. Compare over time, and to comparison group.
			Storeowner Interview	Count number of storeowners who report that new customers visit the store regularly (at least once per week) now. Find themes among stores that said yes and no and compare to comparison group.
		Increase in frequency of visits of previously regular customers	Resident Interview	Count number of residents who report shopping at a corner store regularly (at least once per week) before the program and now report visiting more frequently after the program. Compare over time, and to comparison group.
			Storeowner Interview	Count number of storeowners who report that customers who shopped at the corner store regularly before the program (at least once per week) now visit more frequently. Find themes among stores that said yes and no. Compare over time, and to comparison group.
	Did the program increase corner store revenue?	Increase in store revenue	Store Sales Records	Count what proportion of sales records show increase in store revenue. Control for changes in neighborhood population and changes in distributor prices and corner store retail prices. Find themes among the stores that did and did not show revenue increases. Compare over time, and to comparison group.
			Storeowner Interview	Count what proportion of storeowners report increase in store revenue. Control for changes in neighborhood population and changes in distributor prices and corner store retail prices. Find themes among the stores that did and did not report revenue increases. Compare

Broad Evaluation Question	Evaluation Question	Constructs/Categories of Interest	Data Sources & Instrument	Analysis Approach
In what ways and to what extent did the program affect **Community Cohesion**?	Did the program improve relations between corner store owners and community members?	Increased familiarity between residents and store owners	Resident Interview	Code responses based on if residents report that their interactions with storeowners feel friendlier, they now have a more personal relationship with the storeowner, or they now speak more with the storeowner while shopping at the corner store, or other similar themes that emerge. Compare comparison and intervention groups to compare the frequency of these themes in the interviews.
			Storeowner Interview	Code responses based on if storeowners report that their interactions with residents feel friendlier, they now have a more personal relationship with the residents or they now speak more with the residents while they shop at the corner store, or other similar themes that emerge. Compare comparison and intervention groups to compare the frequency of these themes in the interviews.
		Decrease in racial/ethnic tensions between storeowner and residents/customers	Resident Interview	Code responses based on if residents report that they feel a decrease in racial/ethnic tensions with the storeowner. Compare comparison and intervention groups to compare the frequency of this theme in the interviews.
			Storeowner Interview	Code responses based on if storeowners report that they feel a decrease racial/ethnic tensions with the residents Compare comparison and intervention groups to compare the frequency of this theme in the interviews.
		Local residents report an increase in the extent to which the corner store feels like a place that is operating with community well-being in mind	Resident Interview	Code responses based on if residents report that they feel an increase in the extent to which the corner store feels like a place that is operating with community well-being in mind. Compare comparison and intervention groups to compare the frequency of this theme in the interviews.

Appendix E: Instrument for Store Environment

Script for Evaluation Introduction and Consent

Hello. My name is _____. I am a researcher with _(institution)__ in __(city)__, _(state)_. I am conducting an evaluation about __(program name)__ that ran in this store and _(number)_ others in ___(neighborhood)___ between __(date)___ and ___(date)___ _(year)_. The program aimed to reduce food insecurity by providing healthier food options in corner stores in __(neighborhood)__. I will be looking at the program's effects on public health, economic development and community cohesion. I hope to use my research to help improve future programs and policies that address urban food access and food insecurity. I will be gathering information about those topics through corner store environment observational measures as well as interviews with owners of the participating stores and the local residents who shopped there. If you participated in past studies about this project, thank you again for contributing your time and insight. This research builds on those studies.

Introduction for Store Environment Observational Measures

I would like to look around your store to gather data about the amount and kind of produce and healthy products here and how they are organized and displayed. It will take no longer than 20 minutes. You would free to go about other tasks while I look around and take notes. I would use this information to better understand the impact that __(program name)__ has had your store by comparing it now to information about before, during and immediately after the program. You are free to choose not to participate in my research or to not respond to any particular questions, without any consequence of any kind. Your name, personal information, and the identity of your

store will be anonymous and confidential in the final report, but will be known to me and anyone else assisting with the research process. If you would like, I can show you the specific things I will be looking for and taking notes on. If you would like, I can bring a translator to help us communicate. Do you agree to allow me to look around your store to gather this information (at a mutually agreed-upon time)?

Instrument for Store Environment Observational Measures

Researcher Directions: *In Part 1, please document the store environment in the following "Yes/No" questions. In Part 2, please check for the presence of at least one of each kind of specified product. In the "Notes" section, please include unusual characteristics relevant to that category which are not asked about in another question*

Researcher Name: _____ ***Date:*** __/__/____ ***Time:*** __:__
Store Name: _____
Store Address: _____

Store square feet of retail space: _____
Layout: Shoppers browse products in aisles / Shoppers request items displayed behind register

Part 1: Environment Observations

1. Is produce displayed visibly? (Yes/No)
   Notes: _____
2. Are healthy food products (not produce) displayed visibly? (Yes/No)
   Notes: _____
3. Is each kind of item in a separate container, row or stack? (Yes/No)
   Notes: _____
4. Is there any dust or debris on the containers or food? (Yes/No)
   Notes: _____
5. Is any of the perishable food (not including produce) spoiled? (Yes/No)

Notes: _____

6. Is any of the produce rotten? (Yes/No)

Notes: _____

7. Does the store display at least two __(program name)__ healthy food advertisements, such as flyers or brochures? (Yes/No)

Notes: _____

Part 2: Product Observations

Check for the presence of at least:

8. One type of low-sugar cereal (Yes/No)
9. One type of high-fiber cereal (Yes/No)
10. One type of 1% or skim milk (Yes/No)
11. One type of cooking spray (Yes/No)
12. One type of fruit (Yes/No)
13. One type of low-fat snack (Yes/No)
14. One type of whole wheat bread (Yes/No)
15. One type of diet soda (Yes/No)
16. One type of bottled water (Yes/No)
17. One type of vegetable (Yes/No)

Notes: _____

_____

_____

_____

_____

Appendix F: Instrument for Storeowner Interview

Script for Evaluation Introduction and Consent (by phone or in person)

Hello. Hello. My name is _____. I am a researcher with _(institution)__ in __(city)__, _(state)_. I am conducting an evaluation about __(program name)__ that ran in this store and _(number)_ others in ___(neighborhood)___ between __(date)___ and ___(date)___ _(year)_. The program aimed to reduce food insecurity by providing healthier food options in corner stores in __(neighborhood)__. I will be looking at the program's effects on public health, economic development and community cohesion. I hope to use my research to help improve future programs and policies that address urban food access and food insecurity. I will be gathering information about those topics through corner store environment observational measures as well as interviews with owners of the participating stores and the local residents who shopped there. If you participated in past studies about this project, thank you again for contributing your time and insight. This research builds on those studies.

Introduction for Interview Protocol for Storeowners (by phone or in person)

For intervention group: I would like to interview you for about twenty minutes about your experience with __(program name)__ and how it has affected you and your business operations.

For comparison group: I would like to interview you for about twenty minutes about your business practices, your store infrastructure and equipment, your comfort level with certain business-related skills, and your interactions with your customers.

For all, continue: You are free to choose not to participate in my research or to not respond to any particular questions, without any consequence of any kind. Your name any personal information

[and the identity of your store] will be anonymous and confidential in the final report, but will be known to me and anyone else assisting with the research process. I will be asking you to answer questions on a scale from 1 to 5, where one represents "Not at all" and five represents "Completely/Very much/Very many," and I will then ask you to elaborate on your responses. I will be recording our conversation to make it easier to analyze your responses afterwards. The interview should last approximately 20 to 30 minutes. If you would like, I can bring a translator to help us communicate. Do you agree to participate in this interview?

Interview Protocol for Storeowners (in person)

Researcher Directions: *Ask the following questions of the interviewee, who will be the corner store owner or the store employee in charge of managing major business decisions and everyday operations. Record the whole interview on the supplied audio recording equipment. For each question, circle their response on the Likert scale (1-5), and write down only the aspects of the response that will not be captured with the audio recording, such as any visual aids the interviewee provides. The interview should last approximately 20 to 30 minutes. For the first interview with intervention-group storeowners, please include questions 1 and 9, but skip these questions every other time.*

Researcher Name: _____ ***Date:*** __/__/____ ***Time:*** __:__

Store Name: _____

Storeowner Name:

_____

Store Address:

_____

1. Were all the program materials provided to you in a language that you are comfortable in if you requested it? *(First-time intervention group only)*

[Researcher note: If they need to be reminded, the program materials included information on how to source, order, display, maintain, promote and ring up produce and healthy food items, and guidelines for interacting with customers]

1 2 3 4 5

Notes: _____

_____

2. Are you confident in your skills to **order** produce and healthy food items?

1 2 3 4 5

Notes: _____

_____

3. Are you confident in your skills to **display** produce and healthy food items?

1 2 3 4 5

Notes: _____

_____

4. Are you confident in your skills to **maintain** produce and healthy food items?

1 2 3 4 5

Notes: _____

_____

5. Are you confident in your skills to **promote** produce and healthy food items?

1 2 3 4 5

Notes: _____

_____

6. Are you confident in your skills to **ring up** produce and healthy food items?

1 2 3 4 5

Notes: _____

_____

7. Do you have access to distributors of produce and healthy items who sell at prices and quantities that are appropriate for your business?

1 2 3 4 5

Notes: _____

_____

8. Do you know how much to mark up produce and healthy items to make a profit, while also keeping costs affordable to customers and selling the produce quickly enough to avoid spoiling?

1 2 3 4 5

Notes: _____

_____

9. To what extent did __(program name)__ improve your comfort with any these skills in sourcing, ordering, displaying, maintaining, promoting, marking up, or ringing up? *(First-time intervention group only)*

1 2 3 4 5

Notes: _____

_____

10. Do you have adequate shelving to display all your products?

1 2 3 4 5

Notes: _____

_____

11. Do you have adequate refrigeration to display all your products?

1 2 3 4 5

Notes: _____

_____

12. Do you have adequate book-keeping equipment to maintain accurate sales records?

1 2 3 4 5

Notes: _____

_____

13. Have you recently seen an increase in the number of new customers who visited the store at least once per week?

1 2 3 4 5

Notes: _____

_____

14. Have you recently seen an increase in the number of old customers who used to visit the store at least once per week, but who now visit more frequently?

1 2 3 4 5

Notes: _____

_____

15. Has your store revenue increased in the past four months?

1 2 3 4 5

Notes: _____

_____

16. Has your familiarity with your customers increased in the past four months, as shown by more friendly interactions, more conversations with your customers while they are in the store, or having a more personal relationship with individual customers?

    1 2 3 4 5

Notes: _____

_____

17. Do you feel that any racial/ethnic tensions with your customers have decreased in the past four months?

    1 2 3 4 5

Notes: _____

_____

Appendix G: Instrument for Resident Interview

Script for Evaluation Introduction and Consent (in person)

Hello. Hello. My name is _____. I am a researcher with _(institution)__ in __(city)__, _(state)_. I am conducting an evaluation about __(program name)__ that ran in this store and _(number)_ others in ___(neighborhood)___ between __(date)___ and ___(date)___ _(year)_. The program aimed to reduce food insecurity by providing healthier food options in corner stores in __(neighborhood)__. I will be looking at the program's effects on public health, economic development and community cohesion. I hope to use my research to help improve future programs and policies that address urban food access and food insecurity. I will be gathering information about those topics through corner store environment observational measures as well as interviews with owners of the participating stores and the local residents who shopped there. If you participated in past studies about this project, thank you again for contributing your time and insight. This research builds on those studies.

Introduction for Interview Protocol for Residents (in person)

For interviews at intervention group stores: In order to see if you would be eligible to participate in an interview, could you please tell me if you shop here at least twice a week, and if so, if you remember __(program name)__ that took place here [recently/last month]/etc?

If yes to both: I would like to I would like to interview you for about twenty minutes your experience with __(program name)__ and how it has effected your purchasing and consumption habits, your relationship with the local corner store owners and how any changes in the corner store stock or dynamic effected your view of the livability of you neighborhood. You are free to choose

not to participate in my research or to not respond to any particular questions, without any consequence of any kind. Your name any personal information will be anonymous and confidential in the final report, but will be known to me and anyone else assisting with the research process. Do you agree to participate in this interview?

If no to either: Unfortunately, I am only looking to interview people who shop here at least twice a week, and remember __(program name)__. Thank you for your time.

For interviews at comparison group stores: In order to see if you would be eligible to participate in an interview, could you please tell me if you shop here at least twice a week?

If yes: I would like to I would like to interview you for about twenty minutes your experience with your local corner stores and any recent changes in your purchasing and consumption habits, your relationship with the local corner store owners, and how any changes in the corner store stock or dynamic effected your view of the livability of you neighborhood. You are free to choose not to participate in my research or to not respond to any particular questions, without any consequence of any kind. Your name any personal information will be anonymous and confidential in the final report, but will be known to me and to anyone else assisting with the research process. Do you agree to participate in this interview?

Interview Protocol for Residents (in person)

Researcher Directions: *Ask the following questions of the interviewee, who will be a resident of the neighborhood where the corner store you are at is located. Record the whole interview on the supplied audio recording equipment. In the notes section, write down only the aspects of the response that will not be captured with the audio recording, such as any visual aids the interviewee provides. Ask Questions 1 and 2 only to residents who you are interviewing at a corner store in the intervention group.*

Researcher Name: _____ ***Date:*** __/__/____ ***Time:*** __:__

Interviewee Name: _____

Interviewee Neighborhood: *Intervention neighborhood / Comparison neighborhood*

Demographic Information:

Age: ____

Gender: ____

Family Size: _____

Race/Ethnicity/National Origin: _____

Car Ownership: Owns / Access but doesn't own / No ownership or access

1. Were the foods and recipes promoted by __(program name)__ appealing to you? Did they fit well with your cultural background? *(Intervention group only)*

[Researcher note: Be prepared to provide examples of promoted foods/recipes. Note if the resident needs this reminder.]

Notes: _____

_____

2. Please describe the kinds of interactions you had with program staff during the intervention (*Intervention group only)*

Notes: _____

_____

3. Did you shop at corner stores four months ago?

Notes: _____

_____

4. *If yes:* Do you shop at corner stores more often now than you did four months ago? If so, why?

   If no: When and why did you begin shopping at corner stores?

Notes: _____

_____

5. Does this corner store actively promote or advertise healthy products through in-store posters, flyers, or other promotional material?

Notes: _____

_____

6. When you shop at the corner store, what kinds of things do you usually buy? Has this changed in the past four months?

Notes: _____

_____

7. Do you feel that you have more awareness of and skills to select and prepare healthy food than you did four months ago?

Notes: _____

_____

8. Do you personally know the owners of the corner stores in your neighborhood? Has this changed in the past four months?

Notes: _____

_____

9. Do you usually interact with the owner or shopkeeper while you shop there besides paying for your items? If not, why not? Has this changed in the past four months?

Notes: _____

_____

10. Do you feel that the corner store is a business that has the health and well-being of the community in mind? Why or why not? Has this changed in the past four months?

Notes: _____

_____

Appendix H: Practitioner Interview Protocol

Participant Procedure and Instrumentation

Title of Protocol: Policy for Healthy Corner Stores

Principal Investigator: Leah Lazer

Faculty Advisor: Julian Agyeman

Topic: Policy for Healthy Corner Stores: Government-Non-Profit Partnership on Healthy Corner Store Initiatives

Participant: Employee of City Government Departments OR Non-Profit Organization

1. Initial Recruitment

We will reach out the target participants by email or phone to schedule an interview with those that respond with interest.

2. Interview

We will interview each participant for approximately 30 minutes with the following questions and take notes on their responses.

1. What are the origins of the partnership?
    a. Who approached whom to begin it?
    b. What local conditions set the initiative in motion?
2. What was the process for initiating the partnership and implementing its policies/activities?
3. How is the initiative funded?
4. What people/agencies/organizations are involved in the initiative?

   a. What are the backgrounds and expertise of the people planning and implementing it?
   b. What other initiatives are the agencies using in combination with healthy corner store initiatives to address the area of focus?

5. How did you recruit store/government/non-profit participation in the initiative?
   a. How did you determine the targets of your recruitment?
6. How did you select this specific combination of tools and techniques?
   a. Are there best practice models that you followed?
   b. What resources or people did you consult in making the decision?
   c. Did you model the initiative on those of other cities? If so, which ones and why?
7. How would you evaluate the mix of tools that you chose for the initiative?
   a. What are their strengths, weaknesses, opportunities and threats?
8. (Although it is a fairly new program) do you have any measurable or anecdotal information about their outcomes?
   a. What metrics do/would you use to assess success?
9. What are your plans for the future of this initiative?
   a. How do you plan on changing the mix of tools in the future (if at all)?
   b. What would you have done differently so far?

3. Research Completion

We will send participants a copy of the final research publication upon completion.