

Food at Home: Affordable Housing as a Platform to Overcome Nutritional Challenges

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Enterprise Community Partners is a national organization that believes opportunity starts with a good home that you can afford. We create and advocate for affordable homes in thriving communities linked to jobs, good schools, health care and transportation. Enterprise's Policy Development and Research division provides thought leadership and data-backed recommendations to influence housing and community development policy, addressing both emerging policy issues and long-term needs.

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INTRODUCTION AND EXECUTIVE SUMMARY

Good nutrition and decent affordable housing are vital components of personal health, well-being, educational attainment and positive economic outcomes. Therefore, improving nutrition for residents of low-income communities is crucial to expanding opportunity. Unfortunately, there are a number of barriers that low-income households face in achieving balanced diets. Some of these barriers are a matter of insufficient income, while other barriers are literally built into the communities in which many families live. Poor nutrition also has costs borne by society at large in the form of increased health expenditures and reduced economic productivity.

Enterprise Community Partners fundamentally believes that housing is the platform from which we can work to expand opportunity for success, particularly when woven into a supportive living environment that fosters healthy lifestyles. To this end, we believe affordable housing providers can play a critical role in improving residents' access to nutrition.

This report highlights some of the existing programs and best practices in addressing the nutritional needs of low-income communities. It also provides a series of actionable recommendations that demonstrate how affordable housing and housing providers can serve as a crucial conduit for providing low-income families with access to healthy foods and fostering healthy eating.

Nutrition is a key factor in health outcomes that can enhance or lessen quality of life for individuals and communities alike. The majority of places with limited access to nutritious food have high concentrations of lower-income households with children. Research demonstrates that a lack of proper nutrition can be harmful to physical health as well as cognitive development for both children and adults. Heart disease, diabetes and some cancers are just a few of the devastating results of poor nutrition.¹ In particular, limited cognitive development can severely impact a child's future learning and economic potential, and we know that the first thousand days, starting at conception, are the critical formative period during which good nutrition—or the lack thereof—will have lifelong consequences.²

The twin challenges of food insecurity³ and housing insecurity⁴ are similar in their staggering scale. There are currently 49 million people in the United States suffering from food insecurity and 30 million living in areas with limited access to healthy food options.⁵ Similarly, there are nearly 47 million renters (living in 20 million households) who are considered to be cost burdened, defined as paying more than 30 percent of their income for housing. Of these, 10.9 million households comprised of 25 million people pay more than half their income for the roof over their head.⁶

The ability to find affordable housing—whether market-rate or subsidized—can have an enormous impact on a household's ability to afford life's other necessities. The nutritional health of low-income households may improve if they are able to find stable and affordable housing. One study compared health outcomes for children living in subsidized housing to those on a wait list, and found that children in subsidized housing were “more likely to be food secure; less likely to be seriously underweight; and more likely to be classified as ‘well’ on a composite indicator of child

health.”⁷ Other research shows that children in subsidized housing are less likely to be undernourished than children in eligible families that do not receive a housing subsidy.⁸ Importantly, the same data do not indicate a statistically significant association between receipt of housing subsidy and likelihood that the child is overweight.⁹

In addition to a lack of affordable housing, many low-income families face significant barriers to achieving and maintaining balanced diets. These barriers include high food prices coupled with inadequate incomes to meet basic needs, limited access to healthy food options and restrictions on use of public assistance programs such as SNAP (Supplemental Nutrition Assistance Program, formerly known as food stamps).

Poor nutrition also has macro-level effects on government spending and the overall economy. Between 2012 and 2022, health care expenditures are expected to grow at an annual rate of 5.8 percent, potentially crowding-out investment in other priorities, holding overall expenditures constant.¹⁰ Reducing the incidence of nutrition-related conditions and diseases could subsequently reduce national health care expenditures. The cognitive and physical gains resulting from improved nutrition can also provide an economic boost.

Currently, there are a range of policies, programs, and services expanding access to healthy foods and nutrition education. Two critical areas of focus are: capital solutions to expand access to nutritious food and eliminate food deserts, and educational efforts to help individuals and families make healthier dietary choices. The organizations implementing these initiatives are socializing healthy behaviors and creating a framework through which new ideas can be introduced and implemented. Affordable housing and housing providers can play a crucial role alongside their community development counterparts in efforts to improve nutrition.

This paper offers innovative policy and programmatic solutions that address poor nutrition among underserved populations through housing, including:

- Expanding on-site access to healthy foods by partnering with local food assistance programs (such as food banks and food pantries) and facilitating the use of online delivery programs
- Serving as a resource for more economical collective/bulk purchasing
- Crafting and coordinating educational efforts in partnership with schools, public health organizations and other entities that also provide nutritional information
- Utilizing resident services and common space to reinforce messages from other institutions to fill key gaps in outreach and promote a culture of healthy eating in everyday life
- Connecting families to healthy foods by encouraging mixed-use development, expanding transit, and adopting housing-based solutions

As a crucial part of the social safety net, community developers and affordable housing providers should be fully engaged with all stakeholders to play a pivotal role in providing access to both nutritious food and the information necessary to guide healthy dietary decisions. The goal of this paper is to link these efforts and advance conversations between the housing and health fields.

SECTION 1: IMPROVED HEALTH AND NUTRITION ARE A CRUCIAL PART OF A COMPREHENSIVE STRATEGY TO REDUCE POVERTY

THE ROLE OF NUTRITION IN INDIVIDUAL WELL-BEING

It is important to understand the link between nutrition and opportunity, as well as the types of nutrition and housing challenges we face in this country. These linkages offer guidance on how housing can be a platform for improved health and nutrition.

Nutrition plays a critical role in overall physical health, as well as cognitive development and life outcomes for both children and adults. A lack of proper nutrition can lead to obesity, other non-communicable diseases (such as diabetes) and/or deficiencies in key micronutrients vital to good health. Poor nutrition can cause or inhibit the ability to resist/recover from numerous health ailments, which has a significant impact on an individual's educational attainment, work productivity and life expectancy.

Among adults, poor nutrition can lead to heart disease, diabetes and some cancers.¹¹ Although the health outcomes for adults are severe, the negative physical and mental effects of malnourishment on children can create lifelong challenges. According to the latest public health research, the most important period for early childhood development occurs in the first 1,000-day period (between conception and 2 years of age).¹² An expecting mother's diet is crucial—adequate and appropriate nutrition contributes to cognitive development, and is therefore critical for both the child and pregnant mother.

There are direct and indirect benefits of proper nutrition on early childhood development. Poor nutrition during this 1,000-day period can have severe, adverse physical effects such as stunting. In terms of cognitive development, the brain needs adequate nutrients to develop and function optimally. Additionally, under-nutrition can contribute to lethargic behavior, which lowers a child's activity and interaction in his or her environment. This lack of play and stimulation can severely limit a child's cognitive development. Nutrition plays an essential role in children's long-term life outcomes because without adequate brain development, they can suffer academically, economically and socially.

There are three categories of significant nutritional challenges in the United States: obesity, under-nutrition and a lack of dietary diversity.

Between 1980 and 2010, obesity rates doubled in children and tripled in adolescents.¹³ In 2010, one in three children and adolescents was overweight or obese. While the number of obese children ages 2–5 has recently declined, rates remain uncommonly high for children and continue to rise among teens.¹⁴ Childhood obesity can result in a number of chronic conditions affecting overall health throughout life, including but not limited to: high blood pressure, high cholesterol, atherosclerosis, cardiovascular disease, diabetes, pulmonary embolism, asthma exacerbation, obstructive sleep apnea, cirrhosis, osteoarthritis and depression.¹⁵ Social and psychological issues also can result from childhood obesity. These conditions will often follow children into adulthood and worsen over time. Interventions for obese children have become more common, particularly

in schools, expanding opportunities to learn healthy eating habits. However, the nutritional impacts on cognitive development can have long-term effects on educational attainment, social ability and productivity.

Obesity does not only impose physical costs. In 2008, medical costs for people who are obese were \$1,429 higher than individuals with normal body weight. In addition, obesity has been linked with reduced worker productivity and chronic work absence, which can have an impact on wages.¹⁶ These increased expenses and/or diminished earnings can create a negative cycle: a lack of resources contributes to poor health, adding financial strain and reducing the ability to afford nutritious foods, thus exacerbating health problems.

Although obesity typically gets the headlines, under-nutrition and lack of dietary diversity are also far too commonplace. According to the latest data from the U.S. Department of Agriculture (USDA), one in six people in the United States faces hunger, a third of whom are children.¹⁷

The primary means of combating under-nutrition in the United States is in the form of food assistance programs such as the Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps. Established in 1964, this entitlement program was meant to prevent malnutrition, particularly among the young and the elderly.¹⁸ Currently, there are over 47 million participants enrolled in SNAP.¹⁹ Despite high participation rates, many households either do not receive adequate monthly benefits or are missed entirely. New research has found that food budgets are significantly tighter at the end of the month for lower-income households than at the beginning.²⁰ Already high under-nutrition is a problem that could potentially worsen in the coming years with the passage of the 2014 farm bill.²¹ This package included \$8 billion in cuts to SNAP, which is projected to reduce benefits for 850,000 program participants over the next 10 years.²²

Poor food quality and a lack of dietary diversity—often linked with obesity—are harmful in their own right. While assistance programs such as SNAP can reduce hunger and increase overall caloric intake, it is far more complicated to influence what foods are being consumed. While obesity rates are rising, 67.5 percent of U.S. adults do not eat fruit at least two times per day, and 73.7 percent do not eat vegetables at least three times per day.²³ Part of this problem is the result of access and availability—most food retailers in lower-income areas offer foods that are low-quality and often lack diversity.²⁴ As a result, lower-income households consume a high proportion of low-quality foods, meaning that individuals are at risk of being overweight and undernourished simultaneously. Particularly among children, the combination of poor nutrition and food insecurity can have devastating consequences for development of the body and the mind.²⁵

Poor health and nutrition have societal costs as well, exacerbating poverty, increasing public expenditures for health care and other social services, and reducing economic output. Though research on the direct economic cost of malnutrition tends to focus on developing countries, data from a number of studies indicate that there are significant social and economic costs:²⁶

- A 2009 extrapolation of British and European Union (EU) data found that as many as 20 million individuals in the EU are at risk of malnourishment, with an annual societal cost of 120 billion Euros (\$164.57 billion at current conversion rates).²⁷
- A review of research and analysis by Save the Children, an international health nonprofit, found studies showing that malnutrition can reduce lifetime earnings by as much as 10 to 20 percent, with a global economic impact of \$125 billion per year.²⁸
- A study of over 70,000 adults in Canada found that obesity was associated with lower workforce participation and higher absenteeism.²⁹

LOW-INCOME FAMILIES FACE BARRIERS TO AFFORDABLE HOUSING AND BALANCED DIETS

While certainly not the only factors, food prices and income play a role in the nutritional challenges of lower-income communities. According to the Economic Research Service at the USDA, food price inflation has been consistent with overall price inflation at 2 to 3 percent between 1990 and 2005. However, since 2006, the all-food Consumer Price Index (CPI) has fluctuated significantly, ranging from a 0.8 percent increase in 2010 to a 5.5 percent increase in 2008.³⁰ In addition, food prices have been rising faster than their historical norms and faster than most other goods. Since 2006, the all-item CPI has risen by 14 percent while the all-food CPI has risen by 20 percent.³¹ As a result, households are spending a larger share of their income on food.

Food is not the only item in household budgets that has outpaced inflation. Median rents have also increased significantly since 2000, rising 45.6 percent in nominal dollars through 2013, compared to only a 29 percent rise in the core CPI (which tracks all items less food and energy).³² This translates into an annual gap of 0.5 percent, which compounds over time.

A significant portion of the population faces housing cost burdens:

- Among U.S. households in 2012, 15.6 percent were severely housing cost burdened (spending 50 percent of their income or more on housing).³³
- Among extremely low-income working households in 2012, 79.4 percent were severely cost burdened, as were 37.8 percent of very low-income working households.³⁴
- Renters are more than twice as likely to be severely cost burdened than owners as rents continue to rise (with a 3.9 percent increase over the last three years at the national level).³⁵

Indeed, HUD's most recent Worst Case Housing Needs report found a 43.5 percent increase in the number of very low-income renters (households earning no more than half the area median income) paying more than half their income on rent.³⁶ This dramatic increase is attributed to increased demand for rental housing, even among wealthier households, that has put pressure on the availability and affordability of units typically occupied by families at the bottom of the income distribution. It is also a reflection of falling incomes and the ongoing shortage of funding for housing assistance.³⁷ Households paying more than half their income for rent are fundamentally housing insecure, as any unexpected costs could trigger the loss of their home.

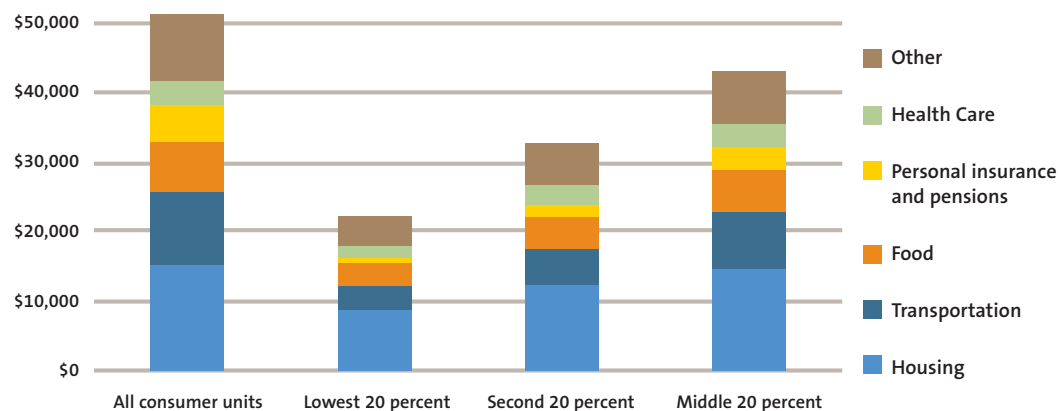
These relative increases in food prices and rents are also coming at a time when incomes for moderate- and low-income families have been stagnant or falling. When adjusted for inflation, the typical U.S. household had less income in 2012 than it did in 1999.³⁸ In fact, 2000–2010 was the worst 10-year period for income performance since data collection began in 1967. While there has been modest income growth at the median since 2011 as part of the economic recovery, hourly wages for people in the lowest income bracket have remained stagnant.³⁹

When incomes do not change but the prices of basic necessities such as food, housing and transportation rise, families are forced to make difficult trade-offs. Housing and transportation costs are the two largest individual items in a household budget and they are relatively hard to reduce as quantities consumed and prices are generally fixed in the short term. For example, consider that rent is typically paid in one single, large transaction that buys a month's worth of shelter. Food, on the other hand, is purchased multiple times over the course of a month (if not multiple times each day), allowing many more opportunities to adjust consumption patterns based on shifting budget constraints.

Low-income households have fewer resources to dedicate to healthy dietary choices. Affordable housing relieves the budgetary pressures posed by high housing costs by allowing otherwise stressed families to spend more money on food. Among families in the bottom income quartile, those whose housing is affordable (whether market rate or subsidized) spend a significantly higher portion of their income on food than families facing severe housing cost burdens (29 percent vs. 18 percent). On average, families with rent burdens spend only \$217 per month on food compared to \$350 for families who are not burdened.⁴⁰ Similarly, a \$500 increase in annual rental costs is associated with a 3-percentage point increase in food insecurity rates.⁴¹

Graph: Household Expenditures in the United States

For most families (those in the bottom 80 percent of earners), food represents the third largest individual household expense after housing and transportation. This relationship remains steady as income rises. Total spending on food rises with income. Households in the bottom two quintiles spent approximately 47 percent and 31 percent less on food than the average household, respectively.



Source: Enterprise analysis of Consumer Expenditure Survey Data, Bureau of Labor Statistics, September 2013

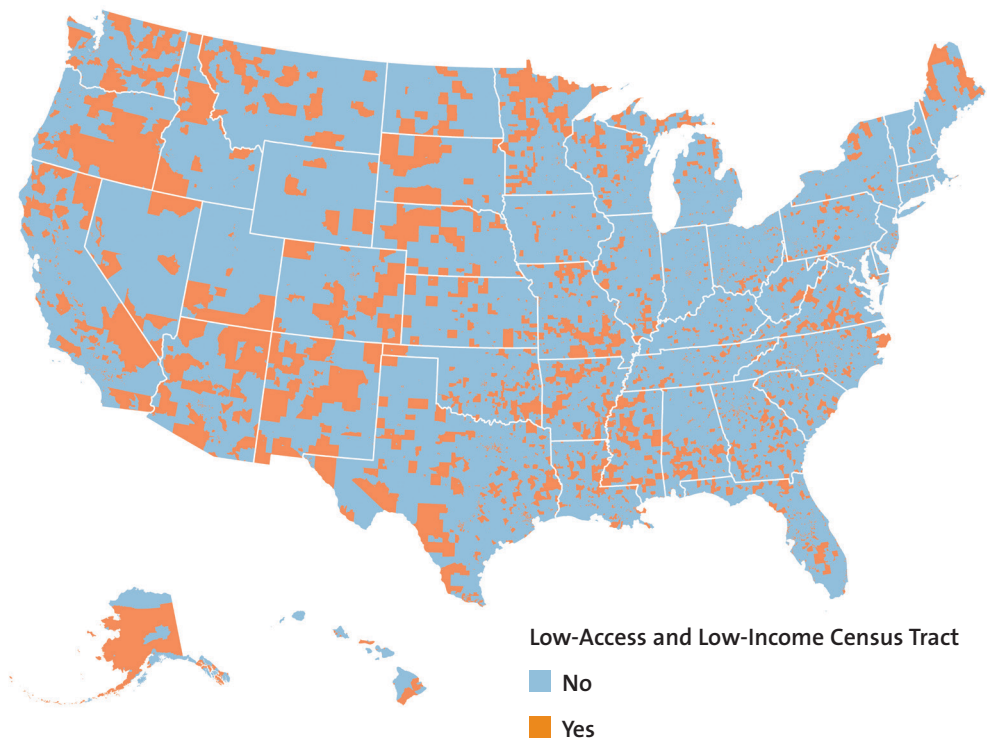
Moreover, as poor nutrition creates or exacerbates health problems, an individual's health care expenses may increase, further stressing the household budget. Out-of-pocket expenditures for health care increased by 3.8 percent in 2012, faster than the increase in private health insurance and Medicaid spending.⁴²

In most retail establishments more nutritious food such as fresh produce is more expensive than less nutritious foods. In addition, a recent study has shown a growing price disparity between nutrient-dense and low-nutrient foods.⁴³ During the last 20 years, the cost of foods with added sugar and fat content has increased by 30 percent as the cost of fresh produce has risen by 100 percent. Lower-income individuals generally consume more lower-cost foods, which are typically less nutritious. While not the sole cause of nutritional challenges, there is an established correlation between price and poor or under-nutrition. A report on food access by PolicyLink and The Food Trust found that lower produce prices and higher fast food prices are associated with higher consumption of fruits and vegetables as well as lower body mass index (BMI).⁴⁴

Physical Barriers to Healthy Foods

The limited means of low-income households to purchase nutritious food is often exacerbated by lack of access. In the last 20 years, food deserts have become a topic of significant study. The USDA, plus the U.S. Departments of Treasury and Health and Human Services (HHS), collectively define a food desert as “a census tract with a substantial share of residents that live in low-income areas that have low levels of access to a grocery store or a healthy, affordable food retail outlet.”⁴⁵

Communities are considered low income if they have a poverty rate of 20 percent or greater or if they have a median family income at or below 80 percent area median family income. Low-access communities have at least 500 people and/or at least 33 percent of the census tract's population living more than one mile from a supermarket or large grocery store (10 miles in the case of non-metropolitan census tracts). Without access to larger food retailers, residents are forced to rely on smaller grocery or convenience stores. These stores and fast-food restaurants are significantly more common than grocery stores in lower-income areas, which impacts both consumption and nutrition. Smaller retail establishments (such as corner stores) face challenges in stocking healthy food options, given the limited shelf life of fresh fruits and vegetables and the lack of buying power and scale of which large supermarkets can take advantage.⁴⁶ According to research conducted by the Mari Gallagher Group in Detroit and Chicago, these smaller stores lack the quality and diversity necessary to maintain proper nutrition.⁴⁷ A Philadelphia-based analysis found that healthy food options were significantly less available and often more expensive in corner stores.⁴⁸

Food Deserts in the United States⁴⁹

Currently, 6 to 9 percent of all households do not have access to healthy food and 30 million people in the United States live further than one mile (10 miles in non-metropolitan areas) from a large grocery store.⁵⁰ While a mile may not seem significant, it is important to remember that many lower-income households also have limited means of transportation. Without access to a car, individuals must either walk or rely on public transportation. However, public transport is not available in all areas of the country—particularly in rural areas. Transit may also take additional time and expense, which many lower-income households cannot afford. Today, there are 2.1 million households without personal vehicles that live more than one mile from the nearest grocery store.⁵¹ Unsurprisingly, nutrition and health outcomes are poorest in areas without access to full-service grocery stores.

While it may be common to associate food deserts with dense inner cities or sparsely populated rural areas, addressing malnutrition requires a broader geographic point of view. A recent analysis found that there were more people in the United States living in poverty in the suburbs than in inner cities, and the rate of suburban poverty growth was double that of cities.⁵² These communities may have food access challenges related to land use and planning. While there are a wide range of suburban or lower-density development patterns, those that are less walkable and more auto-dependent create different challenges for addressing food insecurity. In some cases,

grocery stores may be more distant. In others, they may be relatively nearby but less accessible to pedestrians because of barriers in the development pattern or street network.⁵³ Land-use and zoning rules that separate residential from retail and commercial usage can result in fewer corner stores or other nexus points at which healthy food can be purchased. These community design factors, along with more sporadic transit access, can force residents to be more car dependent. Car reliance increases household expenditures (creating more pressure on the aforementioned tradeoffs between food and other household expenses), a situation that is exacerbated by vehicle break downs.

While better access to healthy foods is associated with higher consumption of healthier foods, improving access does not necessarily improve nutrition. There are significant “last mile” hurdles (connecting low-income residents to the healthy food that is in their community) and behavioral challenges that must be addressed in conjunction with issues of access. One recent study that examined the impact of introducing supermarkets into food desert areas concluded that complementary strategies are needed if communities are serious about changing patterns of consumption.⁵⁴ Another study in Philadelphia similarly found that adding a supermarket to a low-income area did not significantly change purchasing patterns.⁵⁵ However, the study suggests that six months is an insufficient time period for trends in purchasing and consumption to change. Improving nutrition and health outcomes for whole communities is a long-term endeavor that requires greater access in addition to educational and marketing strategies.

Program and Policy Barriers to Healthy Foods

Certain innovations that expand access to nutritious foods and address “last mile” challenges for much of the population may not be available to low-income households. In the last decade, online food delivery services have become more common among grocery stores. Services such as Peapod, Instacart and even Amazon allow consumers in certain cities to order their groceries online and have them delivered to their homes. For households with limited access to supermarkets, a delivery service could reduce location and transportation challenges.

However, several barriers can prevent lower-income households from using these services. The first obstacle involves the delivery window. Delivery services often require the purchaser to choose a window, typically two or three hours wide, in which to be present for the delivery. This rule is reasonable and a large proportion of consumers can accommodate it. However, for a household with a non-standard work schedule (for example, a single-parent working two part-time jobs without predictable schedules or traditional hours) this simple rule can make delivery challenging.

Amazon Fresh, currently available in Los Angeles, San Francisco and Seattle, will make unattended deliveries within a three-hour window (as well as schedule attended deliveries within a one-hour slot), but unattended delivery is predicated on the availability of a safe place to store the food until the buyer returns home. An even more significant barrier for low-income would-be users is that the service charges a \$299 annual fee, in addition to having minimum order sizes (although no delivery fees).

**EXAMPLES OF
SNAP-ELIGIBLE ITEMS⁵⁸****Food Items**

- Breads and cereals
- Fruits and vegetables
- Meats, fish and poultry
- Dairy products

Prepared Food

- Some restaurants accept SNAP benefits from qualified homeless, elderly or disabled people

“Junk Food” Items

- Soft drinks
- Candy
- Cookies
- Crackers
- Ice cream
- Bakery cakes

Other Items

- Seeds and plants that produce food
- Energy products with a nutrition facts label

**EXAMPLES OF
SNAP-INELIGIBLE ITEMS****Nonfood Items**

- Soaps
- Paper products
- Household supplies
- Vitamins and medicines
- Pet foods

Prepared Food

- Hot foods
- Foods sold for on-premises consumption

Other items

- Beer, wine and liquor
- Cigarettes and tobacco
- Live animals
- Energy products with a supplemental facts label

The minimum order size presents another hurdle for lower-income households. Many of these delivery services require a minimum purchase ranging from \$35 to \$70 per order before delivery fees, which themselves can exceed \$10 per order.⁵⁶ Similar to the delivery window, this requirement is reasonable for many households, particularly for wealthier consumers buying a week’s worth of groceries. However, for households in the lowest income brackets, the minimum is prohibitive. Families who live paycheck-to-paycheck may not be able to spend \$35—which qualifies for free delivery from Instacart—on food at a single time. In addition, Instacart, whose business model uses “personal shoppers” to pick up and deliver from local supermarkets and warehouse stores, offers free delivery with a relatively low minimum order. However, its per unit pricing can be significantly higher than in-store prices. The current client base of delivery services is presumably willing to trade time for money, but low-income families are rarely in a position to make that tradeoff.

While public programs help supplement food budgets for millions of households, operational challenges make otherwise compelling delivery services difficult for recipients to use. As one of the few food and nutrition-focused public entitlement programs available to non-seniors, SNAP is heavily used by lower income households. However, the program’s current rules and regulations make it difficult for mainstream food delivery services to accept SNAP benefits.⁵⁷ First, customers using food stamps must pay at the time and place of purchase. Many of these customers use electronic benefit transfer (EBT) cards, which act like debit cards for using food stamps. Vendors cannot store EBT information at the time the order is made and then charge the card at the time of delivery. Second, most drivers do not carry EBT payment devices, so SNAP users cannot pay when the groceries are delivered. Third, grocers cannot require a minimum purchase amount from SNAP users and delivery fees cannot be charged to EBT cards.

In addition, most online delivery services do not separate SNAP-eligible and non-eligible items (see sidebar). In a grocery store, customers and staff are able to separate items into different payments depending on eligibility (for example, separating SNAP-eligible bread and milk from other items such as laundry detergent or trash bags). However, most online programs will not distinguish foods or goods and will require a single-payment method. Moreover, separating items into two online orders makes it more difficult to meet the minimum order standard. Lastly, refunds are not possible for EBT cards—meaning customers cannot change or cancel an order once it is made. All of these barriers to food delivery do not place such delivery services completely out of reach for lower-income households. However, it is clear that corporate policies and SNAP regulations often do not align in ways that make it easy for program participants to use grocery delivery services.

SECTION 2: BEST PRACTICES FOR IMPROVING NUTRITION AND HEALTHY EATING IN LOW-INCOME COMMUNITIES

Local governments, public health and social service organizations, community groups, educators, and housing providers throughout the country have taken steps to expand access to healthier food options in underserved communities and change consumption patterns and health outcomes. The following section outlines best practices that address these challenges and illustrates the role that housing can play in advancing and complementing such initiatives. These best practices have informed our recommendations for how affordable housing providers can play a role in reinforcing and replicating existing efforts to improve nutrition within communities.

INCREASE ACCESS TO HEALTHY FOODS IN LOW-INCOME COMMUNITIES

Access to healthy foods is a necessary first step to improve the nutrition, health and consumption habits of lower-income households. Many low-income communities have made important strides by increasing the number of local grocery stores and farmers' markets and working with existing stores and institutions to expand healthy eating options.

Improve access through capital investments in healthy stores

As the largest type of food retailer, supermarkets are the most common means for purchasing healthy foods. Yet over 30 million people in the United States live in areas without nearby grocery stores.⁵⁹ Supermarkets tend to be more common in areas that predominantly serve white, middle-income populations.⁶⁰ While grocery stores are needed in underserved areas, financing for such projects is often expensive and sometimes unattractive to retailers. In the last two decades, many programs have been developed on the federal, state and local levels that provide incentives for food retailers to open stores in food deserts and in areas with higher concentrations of lower-income households:

- **Tax credit investment:** Since 2000, the New Markets Tax Credit (NMTC) has encouraged investment in low-income communities.⁶¹ In exchange for tax credits, investors direct capital to businesses and real estate located in underserved areas. This program has been used to bring many types of businesses into low-investment areas, including supermarkets and healthy food retailers. Under the program, investors are more willing to accept start-up costs that are often higher in these lower-income areas.⁶² In total, over \$400 million in NMTCs have been used to open large, healthy food retailers in underserved urban and rural markets.⁶³ Not only does the NMTC program help increase the number of supermarkets in food deserts, it also helps create jobs and promote economic development. NMTCs have been an essential source of gap financing for grocery stores and other sources of nutritious food in low-opportunity areas.
 - Recently, a New Orleans development known as 1700 Tchoupitoulas received a \$10 million NMTC allocation from Enterprise Community Investment to convert three vacant buildings into affordable housing with available job training and a Fresh and Healthy Kitchen. As the name suggests, this kitchen serves healthy meals to schoolchildren as well as low-income members of the community – thus improving access to nutritious foods and encouraging healthy eating habits. Like many community

redevelopment efforts, 1700 Tchoupitoulas did not qualify for conventional financing, making the NMTC funding critical.⁶⁴

- Also in New Orleans, the ReFresh Project was financed using NMTCs.⁶⁵ This development includes a new Whole Foods Market, Liberty's Kitchen (a nonprofit that provides youth culinary training and school meals) and Tulane University's Goldring Center for Culinary Medicine (a teaching kitchen associated with Tulane's School of Medicine).⁶⁶ The site's Broad Street location was selected to bring fresh food and economic growth into a low-opportunity area. The opening of the Whole Foods Market has improved access to a grocery store and a source of employment for nearby housing developments, such as Enterprise's Faubourg Lafitte redevelopment.⁶⁷ This particular Whole Foods Market is a new model, piloted in Detroit, that establishes relationships with local food vendors and primarily sells its house "365" brand (for non-produce, non-bakery and non-meat items) in an effort to keep food prices low for its customers.

■ **Local/regional loan funds:** In addition to tax incentives, state and local governments and community organizations have created funds that aim to establish healthy food retailers in food deserts. The [New York Healthy Food and Healthy Communities Fund](#), operated by the Low Income Investment Fund (LIIF) in partnership with The Reinvestment Fund and The Food Trust, is one example.⁶⁸ This statewide program helps finance healthy food retailers in lower-income communities when they are unable to access conventional financing. Program funds can be used for predevelopment activities, real estate acquisition, construction/rehabilitation, leasehold improvements, equipment and infrastructure. What started out as a \$10 million loan fund in 2009 has become a \$30 million program that promotes healthy communities across New York State.⁶⁹

■ **Statewide loan funds:** As the first state to actively investigate and form coalitions around food deserts, Pennsylvania is a leader in promoting access to healthy foods. Through the [Pennsylvania Fresh Food Financing Initiative \(FFFI\)](#), the state allocated \$30 million and leveraged another \$165 million in private investment to finance supermarkets and other healthy food retailers in urban and rural communities.⁷⁰ This funding has resulted in the approval of 75 new or revamped stores that will offer a variety of foods to underserved residents. FFFI was the first of its kind and has since been replicated in six other states and cities – including New York's Health Food and Healthy Communities Fund. This program not only improves access to healthy foods, it also creates economic development and employment opportunities, while fostering public-private-nonprofit relationships in community development efforts.

■ **Federal financial products and collaborative efforts:** Along with state and local governments, the federal government is also helping finance food retailers in underserved areas. Through a partnership between the USDA, Treasury and HHS, the [Healthy Food Financing Initiative](#) directs funds to areas designated as food deserts.⁷¹ The USDA uses loans, grants, promotions and other programs to support public and private investments in healthy retail, while Treasury uses NMTCs and financial assistance to community development financial institutions (CDFIs). HHS, on the other hand, uses its Community Economic Development program to support

projects that improve the economic and physical health of households in lower-income communities. State and local leaders use these federal initiatives to bring stakeholders together and create or preserve healthy food retail in underserved markets.⁷²

Investment in grocery stores and other food services can also have a positive impact on the affected community and local economy. Studies have shown proximity and accessibility to retail and/or grocery stores can increase the value of single-family homes.⁷³ Perhaps more importantly, capital investment in grocery stores can have spillover effects on employment. According to the California FreshWorks Fund (a public-private partnership loan fund), 24.3 new jobs are created on average for every 10,000 square feet of retail grocery space.⁷⁴ A CDFI Fund–sponsored analysis of investments found:

- Employees of urban supermarket were likely to reside in distressed areas within close proximity of the store.
- These jobs offered positive wage levels and trajectories comparable to industry peers.
- Supermarkets reduce the loss of food retail expenditures to other neighborhoods, resulting in a net local increase in employment.
- In some scenarios, supermarkets serve as retail employment anchors.⁷⁵

However, there are growing concerns that building new grocery stores alone will not alter purchasing or consumption habits in the short term. Recent studies looking at the early results of FFFI-funded projects have not found significant improvements in nutrition and health among residents.⁷⁶ Given that this study was conducted six months after the opening of a new grocery store, results suggest that nutritional choices do not change quickly and more comprehensive strategies are needed to improve nutrition in lower-income communities. Nevertheless, making diverse foods available is a necessary—although likely insufficient—first step to promoting community health.

Expand physical and financial access to farmers' markets

Farmers' markets have become an essential component in introducing fresh foods to urban food deserts. While the majority of the nation's nearly 5,000 markets are located in middle- and higher-income neighborhoods, they are becoming increasingly common in lower-income communities.⁷⁷ Initiatives in cities across the country have made significant efforts to bring farmers' markets into underserved areas and eliminate barriers for lower-income residents. Fortunately, start-up costs for farmers' markets are low; the real challenge is engaging community residents.

In an effort to make farmers' market purchases more feasible for low-income consumers, state and local initiatives are providing vendors with EBT technology.⁷⁸ This allows customers to use SNAP or food stamp benefits to purchase fresh foods and vegetables. Pilot programs in Colorado and New Mexico have actively facilitated EBT technology in farmers' markets.

The 2014 farm bill also encourages the use of SNAP benefits at farmers' markets through its Food Insecurity Nutrition Incentive program.⁷⁹ Under this program, the USDA has been allocated \$100 million to double SNAP benefits at farmers' markets. Since fresh foods at markets are often expensive for low-income people, this program would enable SNAP participants to increase their produce purchases. While the details of the program have yet to be finalized, similar programs have found success in several states, including Michigan, Connecticut, and California.⁸⁰

These efforts to improve access to and affordability of farmers' markets complement supermarket openings in food deserts. While these programs and initiatives cannot change nutritional patterns of communities through access alone, they are necessary components of a larger strategy to create healthier communities.

Expand availability of healthy foods in existing stores and institutions

Another approach to improving nutrition in low-income communities is to expand nutritious food availability in the locations that people already access in their day-to-day routine. Such locations can include corner stores, schools, churches, community centers and transit stations. Public, private and philanthropic institutions have provided resources to make healthy foods available in these locations throughout the country. While some of these initiatives are charitable in nature, others are designed to eventually become profitable, improving both local nutritional intake and the sustainability of the initiative.

Research from the CDC shows that interventions in small food stores can increase the availability and sales of healthy foods.⁸¹ Initiatives of varying scales and formats can be found across the country, including Philadelphia; Richmond, Va.; and Baton Rouge, La.⁸² A notable example is Philadelphia's Healthy Corner Store Initiative, a partnership between Get Healthy Philly and the Philadelphia Department of Public Health.⁸³ This initiative works to enhance the availability of healthy food in Philadelphia's communities through existing corner stores. Over 600 corner stores signed up for the program, which:

- Provides training on selling healthy, perishable products
- Helps stores convert equipment to stock fresh food
- Assists in marketing healthy products
- Educates youths in schools near targeted corner stores about proper nutrition
- Links store owners to community partners, farmers and suppliers⁸⁴

Of the initiative's enrolled stores, 83 percent met the minimum participation level of stocking four or more new healthy products and marketing materials. These stores offered an average of 36 new healthy products.⁸⁵

The federal government also recently increased the incentives for corner stores to carry more healthy food. The 2014 farm bill increases "stocking requirements" for retailers that accept SNAP, requiring them to offer a minimum of seven items in each of the following categories: fruits and vegetables, grains, dairy and meat. Perishable items must be stocked in at least three of these

INFORMATION RESOURCES FOR HEALTHY EATING

- [Choose MyPlate, MyPlate Kids' Place](#) and [Choose MyPlate – Health & Nutrition Information for Pregnant & Breastfeeding Women](#), USDA
- [The Nutrition Source: Knowledge for Healthy Eating](#), Harvard School of Public Health
- [Kids Eat Right](#), Academy of Nutrition and Dietetics
- [Nutrition](#), Centers for Disease Control and Prevention
- [Overweight and Obesity](#), Centers for Disease Control and Prevention
- [The Food Folks Nutrition Curriculum](#), Children's Hunger Alliance
- [Lifecycle Nutrition – Pregnancy](#), USDA National Agricultural Library
- [Nutrition During Pregnancy](#), University of Pittsburgh Medical Center

**See Appendix for more information on these programs.*

categories.⁸⁶ While businesses are not required to accept SNAP, failure to comply with these requirements could lead to a reduction in sales for stores in low-income communities.

One of the most direct ways that a jurisdiction can impact nutrition is through the public schools system. Public schools provide anywhere from one-to-three meals per day, and therefore can make a significant difference in the nutritional intake of their students. In 2010, the District of Columbia passed the DC Healthy Schools Act.⁸⁷ This legislation raised standards for the nutritional content of school lunches above basic USDA standards, requiring more whole grains and greater diversity of fruits and vegetables.⁸⁸ Among other elements of the law, schools receive financial incentives to:

- Improve the quality of school meals
- Expand access to school meals (for example, by providing free breakfast to all students in the classroom rather than “before the bell”)
- Promote healthy eating habits⁸⁹

Schools are also required to conduct a self-reported school health profile, which is verified by periodic audits.⁹⁰ Combined with nutrition education efforts (see next section), these access-related programs can serve as the foundation for a strategy to promote improved nutrition in a community.

IMPROVE NUTRITIONAL EDUCATION AND PROMOTE HEALTHIER DIETARY CHOICES

While access to healthy food is a necessary component of a nutritious diet, availability alone does not guarantee nutritional improvement. Individuals' ingrained preferences for unhealthy food—potentially shaped by a historical lack of nutritious food options—may be difficult to change immediately. While access to healthy food is correlated with a good diet and lower risk for obesity and other diet-related chronic diseases,⁹¹ there is currently no evidence that improved access alone directly causes healthier outcomes.⁹² Case in point, the Food Trust and PolicyLink found that studies exploring how much the availability of healthy food affects eating habits and overall health show that “access is embedded in a complex set of relationships and factors in which the presence of a store is a necessary factor, but not necessarily the only factor, to ensure healthy eating.”⁹³

Nutritional education plays an essential role in nutritional improvement. The relative healthiness of a given food is not always obvious. For example, fruit juices can provide important nutrients, but are not a direct substitute for whole fruits, given their high sugar content and decreased ability to satiate hunger.⁹⁴ The perceived healthiness of fruit juices can cause people to discount the health risks associated with the resulting sugar intake and can lead to adverse health consequences.⁹⁵ Therefore, it is important to provide educational resources that provide accurate—and budget sensitive—information on healthy dietary choices.

NUTRITIONAL EDUCATION FOR EXPECTANT MOTHERS

- In New York, Medicaid prenatal care providers are required to conduct an individual nutritional risk assessment, refer pregnant women identified as “nutritionally at risk” to specific services, provide basic nutrition education and counseling (including on infant feeding practices), and as needed refer women to supplemental food assistance programs such as SNAP and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC).¹⁰⁴
- Colorado offers a Prenatal Plus Program, which provides “case management, nutrition counseling and psychosocial services to pregnant women who are at risk for negative maternal and infant health outcomes due to lifestyle, behavioral and non-medical parts of a woman’s life that could affect her pregnancy.” According to a 2008 evaluation of the program, 72 percent of women who entered the program with inadequate weight gain ended up gaining the recommended amount of weight before delivery.¹⁰⁵
- Residents of Brown County, Wis., can receive nutritional support through the Prenatal Nutrition & Breastfeeding Initiative. A collaboration between the Brown County University of Wisconsin-Extension, the Brown County Department and Health, WIC and the Health Families Programs, this initiative offers education on pregnancy-related nutritional needs, breastfeeding and food safety. The program offers home visits and one-on-one support, plus assistance to breastfeeding mothers who are returning to work and/or school.¹⁰⁶
- The University of Maryland Medical Center offers a free two-hour online course on Nutrition During Pregnancy.¹⁰⁷

Provide nutritional information via housing providers, community resources and social service providers

There is a significant focus on nutrition and healthy lifestyles within school systems. Yet while K–12 health education is important, experts assert that waiting until age 5 to influence cognitive and character skills is “far too late.”⁹⁶ Although studies show the importance of education as a contributing factor to better health, early childhood health, socio-emotional and character development traits also affect cognitive development and achievement throughout life.⁹⁷ As previously stated, the most important period of cognitive development occurs in the first 1,000-day period (between conception and 2 years of age).⁹⁸ Therefore, it is crucial that nutrition education reaches parents (and soon-to-be parents) who are responsible for what their children eat. Though Medicaid eligibility and services vary by state, the program presents an opportunity to provide nutrition education to pregnant mothers. Several states and universities have developed programs to serve this population, ranging from simple online courses to individualized, in-person counseling and case management (see sidebar).

Since schools are not yet in the picture, other institutions, including community groups and service providers, are often best placed to offer these services. One notable example is the Cooking Matters program, which is a partnership between Share our Strength (a nonprofit focused on hunger and poverty) and local providers that provides a six-week hands-on cooking course to low-income families.⁹⁹ These sessions expand beyond healthy meal preparation to cover smart shopping and comparing foods for cost and nutrition.¹⁰⁰

Nutrition awareness and an overall culture of healthier eating can be broadly socialized. Philadelphia’s Get Healthy Philly initiative includes a media and policy environments strategy to promote healthier norms, provide information and influence the behavior of consumers. Specific activities include maintenance of the website www.foodfitphilly.org as an information resource, multi-media educational initiatives (including social media) and education and enforcement around the city’s menu-labeling ordinance.¹⁰¹

The Urban Institute’s Housing Opportunity and Services Together (HOST) initiative builds on efforts to provide services to residents of subsidized and public housing where they live. Integrated case management services address a number of barriers to self-sufficiency, including poor physical and mental health,¹⁰² although to date, none of the pilot sites have explicitly focused on nutrition in addressing health issues. Nonetheless, HOST is a compelling model for housing and service providers to join forces to effect positive cultural and behavioral changes in communities.

The Peer Health Program, as part of the Campaign for HOPE SF in San Francisco, is another example of health-related on-site programs available to residents of housing developments.¹⁰³ Enterprise Community Partners is among several nonprofit and private organizations that support the Campaign, which in turn provides resources for the program. The funds are used to design and run peer leadership programs that address health issues identified by the housing developments as most pressing. Taken together, the Peer Health Programs of the four housing developments within the HOPE SF initiative have included nutrition education, healthy cooking

discussions, walking clubs and community garden work in their curricula. The program is meant to support peer leadership and encourage residents to make healthier nutrition and exercise choices.¹⁰⁸

Improve K–12 nutritional education through partnerships between schools and health, educational and housing service providers

Complementing efforts to engage parents as early as possible, nutritional education within the school system is important to create and reinforce healthy eating habits. School districts often work with various partners to develop programs and curricula that can reach target populations. Higher education and public health institutions can provide technical information and communication best practices. For example, the Children’s Hunger Alliance in Ohio has developed an education curriculum on a healthy diet for elementary-aged children that school districts throughout the state can use.¹⁰⁹ The Children’s Hunger Alliance has also partnered with Ohio Action for Healthy Kids and the American Dairy Association Mideast to create the Healthy Kids, Healthy Schools Initiative. This program provides nutrition education and physical fitness programs for school-aged children in the state of Ohio,¹¹⁰ while providing schools with such resources as:

- Grant funding
- Engagement with food services and distributors
- A “playbook” of nutrition and physical activity engagement, and educational strategies
- Assistance to increase participation in school breakfast and developing effective wellness programs
- Parental engagement
- Sharing of best practices and model programs¹¹¹

Housing providers also have a role in shaping the K–12 nutritional curriculum and broader health efforts. Housing providers can leverage their daily involvement in the lives of residents and provide information on the specific needs of the community. They can also help track outcomes of K–12 initiatives.

SECTION 3: RECOMMENDATIONS FOR USING HOUSING AND COMMUNITY INSTITUTIONS AS A PLATFORM TO PROMOTE A CULTURE OF HEALTHY EATING

Capital solutions and increasing demand through education are essential steps in reducing the number of food deserts and encouraging healthy diets for all income groups. However, opening supermarkets in underserved areas does not necessarily solve the problem of access, nor are all low-income communities large enough or dense enough to support their own supermarkets. Healthy food options are important in all communities, but additional steps are needed to bring those foods into homes. In addition to their role in providing nutritional education, affordable housing providers and other community institutions (such as schools, churches, libraries and community centers) can help make this connection and bridge the “last-mile” gap in an economical way. In some circumstances, changes to public nutrition assistance programs may be necessary to bring innovative programs to scale.

REINFORCE MESSAGES AND FILL GAPS IN OUTREACH

The aforementioned education-related best practices have a range of defined targets. Some are narrow in scope (low-income expecting mothers enrolled in Medicaid) while others are more broad (city-wide media initiatives). While some portion of a target population is bound to receive this messaging, there will inevitably be gaps. Housing providers can play a role in reinforcing key messages and filling these gaps. Similar to schools, which reach the vast majority of children within a certain age cohort, rental housing providers touch a large number of low-income families. The ability to reach this broad audience provides an opportunity to reinforce the messages schools offer as part of larger campaigns and to share this information with people who may not have received it.

Housing providers and other neighborhood institutions often play a vital role in disseminating information and helping residents access a broad spectrum of resources and targeted benefits. These outreach efforts can include assisting with SNAP enrollment, voter registration and school enrollment, and connecting residents to social and supportive services. For instance, in 2009 the USDA awarded several outreach grants to housing and community organizations to encourage low-income seniors to participate in SNAP and other food assistance programs. Some of these organizations went door-to-door in specific communities while others distributed information within senior housing developments.¹¹² By referring or enrolling residents in on-site programs and services, housing providers can reach households that are often underserved.

Housing providers should craft and coordinate educational efforts in partnership with schools, public health organizations and other entities that also provide nutritional information. In particular, developers of affordable housing with on-site services should incorporate nutritional education into their curricula, especially for expecting parents. Providers of intensive case management should also incorporate this information.

Given their close contact with low-income residents, housing providers are able to develop and maintain relationships with residents as well as form an understanding of their cultural norms and habits. These insights into residents’ needs and preferences open up an opportunity to create

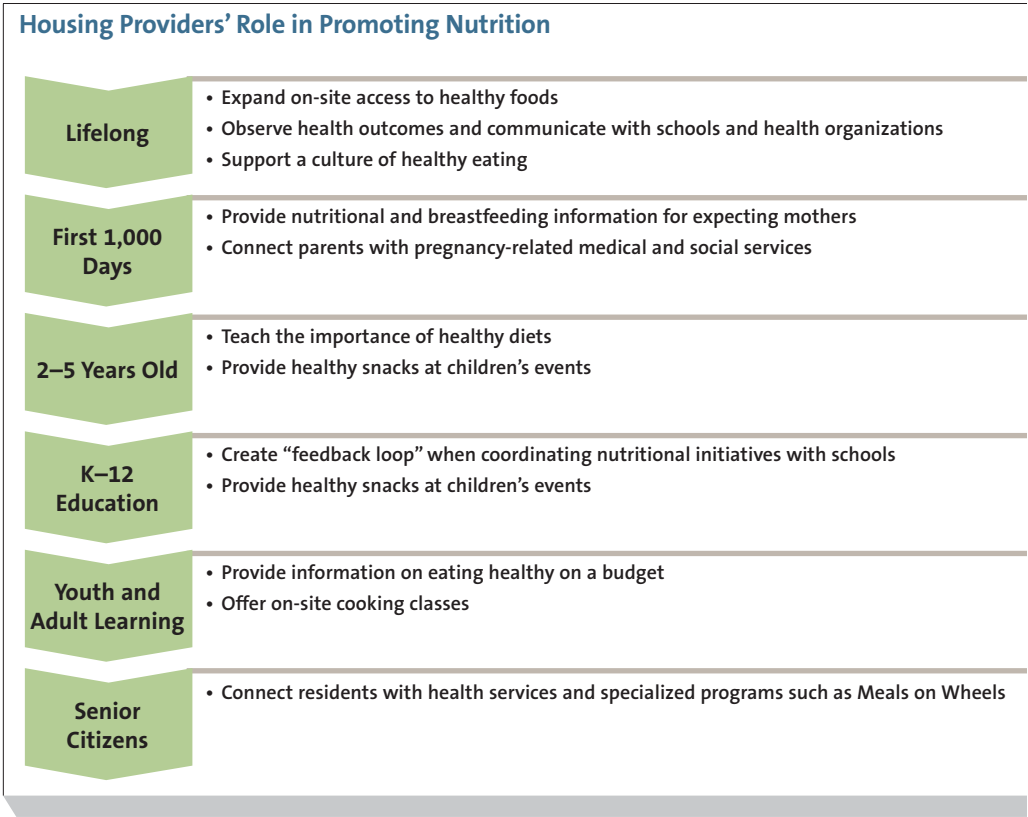
“feedback loops,” allowing the effects and challenges of intervention efforts to be observed and shared. This information can help refine and improve educational information and media activities. For example, housing providers who work with specific demographic groups (such as a large number of renters from a specific immigrant community) can provide culturally and contextually sensitive feedback to institutions that generally work with different populations. If a specific fruit, vegetable or healthy grain is common or preferred within a community, the housing provider can relay that information to the school system as it develops the menu for the neighborhood school.

Recommendation: Promote a culture of healthy eating in everyday life

In many cases, unhealthy eating habits are deeply ingrained within the habits of individuals, families and/or communities. In these circumstances, a culture shift is necessary to promote better health—in schools, communities, stores and homes. The previous section highlighted how schools are improving their meals and curricula, communities are gaining grocery stores and farmers’ markets, and corner stores are stocking healthier foods. Yet in many circumstances, these efforts are part of special initiatives. For lasting health changes, a nutritious diet must become part of an individual’s daily routine.

Housing is one of the more promising leverage points for instituting this paradigm shift. Reaching people where they live every day is crucial for changing habits. Housing providers can offer residents services that, both explicitly and subtly, help make healthy eating a way of life. Providers can directly support healthy diets through education such as basic nutrition classes, informational materials, case management and linking residents to social services. Yet providers also have an indirect role to play. Some resident services programs offer cooking classes—meal options should be healthy, low cost and easily replicable by attendees. Meals and/or snacks provided at resident services events should be nutritious (or at a minimum include a healthy option).

Property managers can make free fresh fruit available in front offices, community rooms and other public spaces. The ubiquity of bowls of apples, oranges, pears and other fruits that do not spoil quickly, placed strategically near the front door, elevators and mailboxes can help reinforce educational efforts to promote nutrition, with the goal that over time these items can displace unhealthy choices such as chips or candy as the low-cost, quick snack foods of choice. A fresh fruit initiative could be implemented for the relatively modest cost of a few dollars per month per unit. If the budget cannot accommodate that expense, property managers could seek philanthropic funding or reach out to local businesses to underwrite the costs of healthy foods for a month or longer. Similarly, community grocers, restaurants or food distributors might choose to directly donate fruit on a set basis.



Recommendation: Partner with local food assistance programs

Commonly, food banks serve as central repositories for donated food and home products that are distributed to food pantries, churches or other organizations that serve specific communities.¹¹³ Though some local food pantries and service providers operate from a single location, others enter into partnerships to provide food closer to low-income residents’ homes. Affordable housing developers and community institutions are well-placed to enter into such partnerships. Food banks should proactively reach out to the affordable housing sector (and vice versa) to explore distribution possibilities at or near affordable developments. For example, the Arlington Food Assistance Center in Virginia complements its central distribution site with regular on-site distributions at affordable housing developments, senior living facilities and community centers.¹¹⁴

When food banks and affordable housing developments facilitate on-site distribution and fixed delivery schedules, they should explore how to coordinate cooking classes or other nutritional education with the delivery. To the extent that food banks offer participants choices and prioritize nutritional options, giving residents low-cost, healthy meal ideas when they pick up their food can reinforce positive nutritional choices.

PAIR HOUSING-SPECIFIC SERVICES TO ADDRESS ACCESS CHALLENGES WITH PROGRAM FLEXIBILITY

We believe there is an expanded role that housing providers could play—either directly or via contract with external service providers—to overcome many of the access challenges faced by low-income families in communities without local sources of nutritious food as well as improve the affordability of healthy options. While some recommendations can be implemented within the existing regulatory framework, we have identified the need for changes to SNAP and other public nutrition assistance programs to make it easier to use affordable housing as a platform for giving low-income families improved access to lower cost, nutritious food.

The rules and regulations governing SNAP and other public nutrition assistance programs are set by Congress and the USDA. Housing providers concerned with nutrition have a stake in the farm bill, USDA regulatory processes and other relevant legislation/rulemaking. Therefore, housing providers working on health-related issues should be engaged in the federal policymaking process for nutrition programs, as many already are for federal housing and community development programs.

Making SNAP and other public nutrition assistance programs more flexible could facilitate the creation of housing- and community-based programs and increase low-income households' access to healthy foods. While progress has been slow, recent changes move in a positive direction. The 2014 farm bill changed rules to allow nonprofit delivery services to accept SNAP benefits for housebound seniors and disabled individuals as long as no delivery fee is charged.¹¹⁵ While this change only allows delivery to certain segments of the population, it serves as an important step in reducing food delivery barriers. These changes to SNAP may not yet improve access to mainstream delivery services, but they open the door to community delivery programs like the kind suggested here. We believe additional programmatic changes are warranted to allow enhanced flexibility for bulk/collective purchases and improved mechanisms to address the point-of-sale and refund issues previously discussed.

Recommendation: Expand access to online delivery programs

As previously mentioned, low-income households face barriers to using online grocery delivery programs such as Peapod. These hurdles include:

- Lack of internet access
- Difficulty in meeting delivery timing requirements
- Inability to meet membership or minimum purchase requirements
- Technical challenges to using SNAP or other EBT-based payment systems

Affordable housing providers and community institutions are in a position to break down some of these barriers. Many developments provide computer access in a common area, and internet access via smartphones is increasingly prevalent. Resident service coordinators or other staff can facilitate delivery to the site, accepting deliveries on behalf of residents during business hours. Residents could authorize building staff to let delivery personnel into their apartments or give

building staff permission to put groceries in their apartments themselves. In larger developments, this could prove labor intensive, so an alternative could be to set aside some space for lockers that would hold the groceries and allow residents to pick them up when they return home. Residents could then schedule deliveries close to the time of their return home and minimize the risk of spoilage without needing to be present for delivery.

Changes to SNAP/EBT payment rules would also provide the opportunity to bring these programs to scale. One potential model is the Virtual Supermarket run by Baltimore City's Health Department.¹¹⁶ To improve access to healthy foods, the city allows low-income residents to make grocery delivery orders from a public space such as a library or school. Participants place their orders and pay using cash, credit cards or SNAP benefits. While programs like the Virtual Supermarket are important in food deserts, marketing these programs is just as important. As in any community, residents habitually shop in the stores most affordable and convenient for them. For delivery services to be successful, residents must know they exist and be motivated to try them. This takes both advertising and outreach on the community level. Baltimore City's initiative not only improves access to healthy foods but also works with communities to encourage healthier eating habits.

Recommendation: Facilitate collective/bulk purchasing to reduce costs and overcome access challenges

Households with sufficient access and income are able to lower their grocery costs by purchasing in bulk, either in traditional grocery stores or those that specialize in high-volume purchasing such as Costco or Sam's Club. Unfortunately, lower-income households do not always have the means to afford the higher upfront cost of bulk items or the paid memberships that these stores may require. Bulk purchases typically also require access to a car. As a result, these customers actually spend more on the identical food than those with higher incomes on a per serving basis.

Purchasing collaboratives could potentially address the cost factor. If building and community residents were able to pool resources for bulk purchasing, particularly of nutritious food items, they would save money and eat healthier in the short and long term. Acting as personal shoppers (similar to the Instacart model), resident service providers could make routine trips to nearby warehouse or grocery stores to fill orders placed by residents 24 or 48 hours in advance. Bulk items could then be split among multiple orders passing through the lower per-unit costs back to the residents.

Despite the widespread participation in food assistance programs such as SNAP, significant programmatic barriers to such a collaborative could occur. However, there are collective purchasing examples that are compatible with SNAP, such as Community Supported Agriculture (CSA).¹¹⁷ Under such programs, community members (often a group of 25–35) come together to buy a share of a local farm's produce, such as vegetables, fruit, eggs, homemade bread, meat, cheese, flowers and more, with items varying depending on the farm.¹¹⁸ The group makes a one-time upfront payment, and members pick up weekly bundles of fresh produce from a designated location such as a community center or school.

While upfront costs are problematic for SNAP users, customers are able to use payment plans and their benefits when partnering with SNAP-accepting farms and working with third-party community organizations. The Farm Fresh Initiative run by the New York City Coalition Against Hunger (NYCCAH) is one such example of using CSA to collectively serve low-income residents living in food deserts.

While available food items will vary by farm and sometimes by season, the use of SNAP in the CSA context shows that collective purchasing using public program benefits is possible, even when payment is decoupled from the purchase. Public assistance programs should be amended to allow the same flexibility for collaborative purchasing arrangements with grocery stores, supermarkets and warehouse stores.

Until those programmatic changes are made, however, service providers could function as middlemen, buying groceries from other retailers and selling the requested goods to the residents at pickup. This would also allow residents to swipe their EBT cards at the point of sale in addition to splitting their purchases into SNAP-eligible and ineligible items. In most states, service providers would need to register as vendors to exempt themselves from any sales tax at the time of purchase and would be obligated to charge applicable tax when they make the sale to the end user.¹¹⁹

ENCOURAGE MIXED-USE DEVELOPMENT AND IMPROVED CONNECTIVITY TO HEALTHY RETAIL

Suburban and/or lower-density communities, particularly those that are growing or undergoing redevelopment, may be able to address challenges present in a planned and built environment that creates a heavy dependence on personal vehicles. Communities interested in improving public health should:

- **Enhance neighborhood walkability:** A community should adopt measures that allow pedestrians to safely walk within and between communities, including but not limited to improvements in sidewalks, enhanced street connectivity and adoption of traffic calming techniques.
- **Allow mixed-use development:** Removing the barriers to mixed-use development allows neighborhood-serving retailers to respond to market demand within communities.
- **Improve public transportation availability:** Suburban areas with the population and capacity to support transit should conduct analyses and engage with low-income communities to ensure that routes and schedules connect residents to the retail centers that meet their basic needs, including health and nutrition.

These changes may not be possible in all scenarios for a range of reasons: insufficient resources, a built-out development pattern or a lack of political will, among others. Therefore, it is even more important in vehicle-dependent neighborhoods that existing institutions such as schools and housing providers engage residents and improve links with nearby opportunities that can support good health and nutrition.

MONITOR AND EVALUATE EFFORTS TO IMPROVE NUTRITION

Housing providers in low-income communities can undertake a wide range of potential nutritional interventions, many of which are context sensitive. Given the scale and difficulty of the problem, innovative programs and solutions are necessary to achieve significant changes. Developing solutions will likely require some degree of trial and error. However, given the growing scarcity of public resources, it is critical that programs receiving long-term funding achieve their desired results. Therefore, support for innovative programs should be coupled with rigorous monitoring and evaluation efforts that address not only correlations between an intervention and outcome, but also the causal relationships.¹²⁰

To this end, Risa Lavizzo-Mourey of the Robert Wood Johnson Foundation argues that those undertaking nutritional interventions should be opportunistic in developing partnerships with the health sector, which can provide “tools, evaluation research, and data to show what works.” According to Lavizzo-Mourey, “Public health can provide a nation-wide network of health departments, public health workers, and insights to increase support for on-the-ground community improvements.”¹²¹

While strong data in support of a program by no means guarantees future support or expansion, it is often a necessary component for consideration by a range of public, private and nonprofit funding sources.

CONCLUSION: IMPLICATIONS FOR COMMUNITY DEVELOPMENT AND AFFORDABLE HOUSING PRACTITIONERS AND POLICYMAKERS

Addressing health and nutrition in a housing context can be integral to improving outcomes and opportunities for low-income families. As a crucial part of the social safety net, community developers and affordable housing providers should engage with residents, public health professionals, local policymakers, the retail and business community, public service providers and the education system to provide the information necessary to guide healthy dietary decisions and further existing efforts to socialize healthy eating choices. Moreover, housing providers may be well situated to help residents improve access to nutritious food and lower costs, thereby improving diets and relieving some stress on household budget.

APPENDIX: INFORMATION RESOURCES FOR HEALTHY EATING

RESOURCES FROM THE U.S. DEPARTMENT OF AGRICULTURE

Choose MyPlate – Provides consumer-oriented nutritional information for individuals of all ages and stages of life. The site also provides information for professionals including educators and those in the health care sector. The site also provides specialized information for pregnant and breastfeeding women (www.choosemyplate.gov/ and www.choosemyplate.gov/mypyramidmoms/index.html).

MyPlate Kids' Place – This subset of Choose MyPlate provides interactive activities for children (such as games, videos and songs) that encourage healthy eating (www.choosemyplate.gov/kids/index.html).

Lifecycle Nutrition – Pregnancy – The National Agricultural Library provides a suite of information and resources on nutrition and pregnancy (fnic.nal.usda.gov/lifecycle-nutrition/pregnancy).

RESOURCES FROM THE CENTERS FOR DISEASE CONTROL AND PREVENTION

Nutrition – Provides information, reports, fact sheets and other resources on a range of nutritional and dietary information (www.cdc.gov/nutrition/).

Overweight and Obesity – Provides information and strategies for individuals, families and communities on reducing obesity (www.cdc.gov/obesity/).

RESOURCES FROM RESEARCH INSTITUTIONS, UNIVERSITIES AND NONPROFITS

Nutrition During Pregnancy – The University of Pittsburgh Medical Center provides detailed dietary recommendations (including sample menus) for pregnant women (www.upmc.com/patients-visitors/education/nutrition/pages/nutrition-during-pregnancy-building-a-healthy-baby.aspx).

The Food Folks Nutrition Curriculum – The Children's Hunger Alliance offers a nutrition curriculum for elementary-aged children. This curriculum was based on MyPyramid, the predecessor to Choose MyPlate ([www.childrenshungeralliance.org/assets/childrenshungeralliance/files/\\$cms\\$/100/1665.pdf](http://www.childrenshungeralliance.org/assets/childrenshungeralliance/files/cms/100/1665.pdf)).

The Nutrition Source: Knowledge for Healthy Eating – The Harvard School of Public Health offers an alternative to Choose MyPlate, known as the Healthy Eating Plate. Updates and information are also offered via Twitter (www.hsph.harvard.edu/nutritionsource/ and twitter.com/HSPHnutrition).

Kids Eat Right – The Academy of Nutrition and Dietetics provides information on healthy eating habits for children, as well as information for parents on cooking, eating and shopping. It also provides recipes and videos (www.eatright.org/kids/).

ENDNOTES

- 1 Centers for Disease Control and Prevention, "Overweight and Obesity," last modified April 27, 2012, <http://www.cdc.gov/obesity/childhood/basics.html>.
- 2 Elizabeth Prado and Kathryn Dewey, "Insight: Nutrition and Brain Development in Early Life," *Alive & Thrive* 4 (2012): 1-14, <http://www.aliveandthrive.org/sites/default/files/file-attachments/Technical%20Brief%204-%20Nutrition%20and%20brain%20development%20in%20early%20life.pdf>.
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