

Grocery Purchasing in the Food Desert Environment: Constraints Outweigh Preferences

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Abstract

Data show that the food desert environment is correlated with high risk of diet-related illness in low-income urban communities. Using an empirical model of grocery purchasing decision processes, we explained how specific components of the economic and structural environment influenced purchasing decisions that conflicted with shoppers understanding of healthy eating. In this paper we describe how the policy environment and suppliers influence purchasing; why interventions to increase healthy purchases must be designed using an understanding of food desert system dynamics; and why several intervention approaches are incomplete. We recommend a complex of evidence-based strategies to facilitate healthy purchasing in urban American food deserts.

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Introduction/background

Food deserts in urban and rural American communities are characterized by limited access to full service supermarkets. Research demonstrates that the food desert environment limits shoppers' ability to attain healthy eating behaviors, and is associated with the high incidence of diet-related illnesses such as obesity, heart disease, and type II diabetes in low-income urban communities (Franco, Diez Roux, Glass, Caballero, & Brancati, 2008; LaVeist, Pollack, Thorpe, Fesahazion, & Gaskin, 2011; Moore & Diez Roux 2006; Moore, Diez Roux, Nettleton, & Jacobs, 2008; Treuhaft & Karpyn, 2010; Powell, Slater, Mirtcheva, Bao, & Chaloupka, 2007). Research has focused on macro-level analyses describing the structural environment and the actors in food deserts. Emerging micro-level research has identified general shopping strategies used by consumers in food deserts in an attempt to better understand the dynamics within food deserts, and to inform behavioral and policy interventions (Clifton, 2004; Rose, 2011; Zenk et al., 2011).

The authors of the current paper have recently provided a detailed analysis of the underlying decision process, seeking to explain how the food desert environment affects individual purchasing behavior, outcomes, and ultimately health in low-income communities (Zachary, Palmer, Beckham, & Surkan, 2012, summarized below). Using qualitative data on grocery-purchasing decisions in the context of a specific supermarket, our recent article presented a model of food purchasing decision processes used by low-income shoppers in an urban American food desert. We analyzed the role supermarket characteristics and other environment qualities play in determining grocery purchases and how they affect consumers' ability to purchase healthy foods.

The paper builds on the prior model, with the objectives of: (1) explaining how the policy environment and other actors affect the shopping decisions; (2) explaining implications for policy and current approaches to intervention; and (3) applying our previous findings to identify a complex of evidence-based policy interventions that target various environmental influences on consumers' grocery purchasing.

Methods

Data

Analysis for this study is based on verbal qualitative data (37 semi-structured in-depth interviews, n=31; 3 focus groups, n=22) and data from direct/participant observation at a supermarket in a low-income urban community. The semi-structured in-depth interviews provided data on consumers' perceptions of the community and immediate supermarket environment, their perceptions of healthy and unhealthy eating, and how they make decisions about grocery purchasing. Focus groups were used to identify shared perceptions, decision criteria, and shopping strategies, and consumers' ideas about how to modify the environment to increase healthy purchases. Observation provided data on the structural qualities of the supermarket environment, including the layout, displays, signage, pricing, food quality and selection; grocery shopping behavior in the context of the supermarket environment; and common purchases.

Study Setting and Participants

Study participants were low-income, predominantly African-American women, who had children age 15 or under in the household and were the primary food purchasers for their

households. The sample participants varied according to economic-resource level and available transportation, but most did not have access to a car. The majority of participants received some federal food assistance from the Women, Infants, and Children (WIC) program and/or Supplemental Nutritional Assistance Program (SNAP, commonly known as Food Stamps). Some participants lived walking distance from the study supermarket while others were ten to fifteen minute driving distance by car. Participants who did not have access to cars traveled to the supermarket by foot, bus, informal taxi, or some combination.

The study supermarket is the only full-service supermarket in the study community.¹ The owner refers to it as a “price impact store” (Personal communication, study supermarket owner, March 1, 2012). The shoppers all mentioned the sales, prices, location, and convenience as reasons to shop there. Several mentioned that it “caters to the [low-income] area.”

Analysis

A decision-analytic approach, informed by situated cognition theory, was used to integrate the widely shared elements of individual decision processes into a single model of decisions about food purchases. The model explains how attributes of the household, economic constraints, and qualities of the supermarket environment lead to observed purchasing behavior, and explains the environmental context of unhealthy purchases. The current analysis builds on our previous model by outlining policy implications of shared purchasing strategies. We present a complex of evidence-based policies intended to modify the grocery purchasing decision environment, and thus help consumers in food deserts make healthy purchases.

¹ All participants shopped at the study supermarket, but some participants also traveled outside the community to other supermarkets when possible.

Findings from this study are based on data on grocery purchasing among families in one particular urban community. However, the results are consistent with results from other studies in the emerging literature on food acquisition in urban food deserts, using broader study populations in other American cities (Clifton, 2004; Rose, 2011; Zenk, et al., 2011). The findings are also supported in the literature on situated action and how behavior results from an interaction between people and their environments (Gero, 2011; Henning 2000; Suchman, 1987).

Results: How Environmental Context Affects Grocery Purchases

Consumers' grocery purchasing decisions depend on the environment

Shoppers in our sample were systematically unable to exercise their preferences for healthy, fresh, and natural foods – this contributed to negative health outcomes. We found that food purchases in the study population primarily reflected qualities of the decision environment rather than healthy eating preferences. Shoppers' interaction with their environment – including economic and physical resources in the broadly defined environment and the immediate supermarkets accessible to them – led to purchases that were unhealthy and that did not reflect what they would prefer without constraints.

The availability of physical and economic resources affects how shoppers think about the cost of certain products and thus how they allocate their grocery budgets. As a result, grocery-purchasing decisions must be understood as they relate to the food desert environment. Due to limited budgets and the need to consistently provide sufficient food for the household, all grocery decisions were planned using a complex rational decision process, which determined

economically feasible purchases.²

Given the knowledge of their resource constraints and the environment available to them, participants used decision criteria that incorporated their estimation of factors other than the label price.

- *Travel and time cost associated with purchasing the product:* Products unavailable at the closest supermarket required additional costs in terms of travel and time. Since perishable products have a limited shelf life, purchasing fresh food requires frequent shopping trips, which requires additional time and transportation expense. Therefore frozen and canned options had lower transaction cost, as they were cheaper, longer lasting, and carried limited risk of spoiling.
- *Risk of wasting food/money:* There is cost associated with the risk of throwing away food/money. This applied to low quality fresh foods (e.g., fruit/vegetables) that might spoil before they could be used and to unfamiliar or new foods that children and other household members might not eat. Shoppers frequently estimated the amount that would actually be used, and incorporated that into the perceived cost of the product.
- *Cost-effectiveness compared to other products:* Aside from the absolute price, shoppers considered meals provided per dollar. Calorie-dense, filling products better sustain the household at a lower cost. Shoppers would have to buy a higher volume of healthier foods and spend more to provide the same number of meals.

Participants demonstrated context-dependent decision criteria for choosing purchases that would

² See Zachary, Palmer, Beckham, & Surkan, (2012) for full description of these results and the decision process used, and how situated cognition theory applies to consumers' grocery purchasing.

provide for the household without wasting food or money. We identified empirical heuristics rule, which participants used to combine these decision criteria to make best use of the resources in their environment. (See Kahneman & Frederick, 2002; Simon, 1996) Shoppers used the criteria in combination, and estimated tradeoffs based on specific resources such as access to a car. Shopping locations and products were selected using these heuristics in attempt to:

- Optimize use of sales– comparing prices using circulars, and buying sale products during each shopping trip;
- Minimize transportation time and cost (e.g. by choosing products with a long shelf-life); and
- Maximize quantity and quality of product per dollar spent in order to provide the greatest number of meals per dollar.

In making these decisions shoppers used the physical supermarket environment – including layout, design, quality, and available selection. Thus the physical environment was an important context for consumers’ decisions. Consumers used sale signs and advertisements to identify cost-effective purchases. They also reacted to the perceived quality of foods on a particular shopping trip by avoiding fresh or new products if they had concern they would not be able to use the foods before they would spoil. These findings are consistent with evidence that the immediate physical environment affects behavior, and that people use their environments to “achieve intelligent action” (Suchman, 1987, cited by Henning, 2000; Wilson, 2002).

The policy environment

Supplemental Nutrition Assistance Program (SNAP) policies influenced grocery-purchasing

decisions. In the study State, SNAP benefits are transferred to recipients once per month in alphabetical order, with the first transfers on the 6th and the last on the 15th. Shoppers had limited budgets for groceries, often most or all from SNAP benefits, and thus benefit schedules, shopping frequency, and consumers' purchases were interrelated. With limited transportation resources and few available supermarkets, traveling to the market was expensive for many participants, in terms of both time and travel cost. As described above, given the relative cost of foods, and low quality of perishable foods at available supermarkets, grocery purchases were largely non-perishable items. In the context of all these factors – type of food purchased, travel cost, and timing of resource availability – shoppers often made one main grocery trip per month which coincided with SNAP benefits release.³

The relationship between SNAP policy design and purchasing is important for interventions. Interventions should be designed with the understanding that it is expensive to shop frequently – this affects not only when people shop, but also what foods they purchase, and specifically their ability to purchase perishable foods. Moreover, this pattern illustrates the interrelated nature of factors of the individual resource, community, and environments that work together to influence consumer behavior.

SNAP's effect on purchasing also illustrates that, unlike WIC, SNAP is not a nutrition program. Both SNAP and WIC provide financial resources (vouchers) for food, but because WIC is specific to child and maternal health/nutrition, it is designed to maximize nutritional quality.⁴ (U. S. Department of Agriculture, 2012, "SNAP"). WIC voucher use is intended for specific healthy

³ In some cases budgets were so limited that many participants could not afford to buy all the food they planned and had to prioritize at the check out.

⁴ The program has consultation and information components.

products including milk and produce. SNAP beneficiaries have no explicitly nutrition-related restrictions on the types of food purchased (although SNAP does restrict use, e.g. hot foods are not covered). (U.S. Department of Agriculture, 2012, “About WIC”)

Participants receiving WIC often explained that the program facilitates healthy purchases. WIC-approved products such as wheat bread and whole grain cereals are identified with special labeling in the supermarket, providing an additional visual cue in the immediate shopping environment. Thus, WIC provides beneficiaries two benefits in the grocery purchasing decision process – financial incentive/support for healthy products assists in planning affordable purchases, and WIC labeling in the supermarket identifies healthy products in the immediate environment.

Conflicting perspectives on the environment

Our research revealed discrepancies between how key actors in the behavioral system perceive qualities of the supermarket environment (see discussion of food deserts as behavioral systems below; see also Simon [1996] and Wilson [2002]). For example, we found that consumers and suppliers had conflicting views on pricing as it relates to food stamps. The days on which benefits are transferred are extremely crowded at supermarkets with high SNAP usage. We found that the supermarket owner and managers believed they had to lower food prices after food stamps are issued, because food does not sell toward the end of the month. Shoppers, who observe lower prices after food stamps time is over, perceive this as the prices being “jacked up when [the supermarket managers] know food stamps are out,” which they feel takes advantage of their economic constraints.

While this discrepancy itself did not necessarily affect shoppers' ability to purchase healthy foods, it is part of their shopping decision environment. It is representative of many differences between consumers' and suppliers' perspectives in food deserts. The difference in prices throughout the month is important because pricing has a significant effect on purchasing in the food desert environment – participants explained that they compare prices across stores and buy products when they are on sale. Shoppers have relatively more purchasing power when the prices are lower, which also allows more healthy purchases. This dynamic also illustrates how the SNAP schedule affects suppliers – creating high traffic during one part of the month, and little business at other times.

We found that the study supermarket management made assumptions about why customers made certain purchases, and while they observed the behavior they expected, their assumptions about their shoppers' intentions or decision rationales were not accurate. For example, when the store stocked organic and all-natural meats, they did not sell; the store management assumed this was because shoppers were not interested in healthy eating. However, the shoppers explained that healthier products such as natural/preservative-free meat are more desirable, but they are simply unaffordable – a key informant in a walk through interview pointed out it is twice as expensive as conventional meat.

Research also revealed differences in how the shoppers and management perceive the supermarket layout. Shoppers consistently complained about the unhealthy “junk” that appears immediately at the single entrance to the supermarket. However, supermarket managers insisted

that on entering the store the first thing a person would see is the fruits and vegetables section. While the produce section is located near the entrance, it competes with other displays in the immediate area including large islands and walls stacked with high-sugar juice drinks, cereals, and snacks. Products such as fruit snacks and desserts are placed directly next to fresh fruit displays. (See Zachary et al., [2012] for additional description of and participant reactions to the supermarket layout).

Upon entering the store, the first products encountered were unhealthy items, often marketed towards children. Shoppers responded to the displays based on their shopping decision criteria – products were on sale and perceived as cost-effective. Participants believed that with this layout, there was no way to avoid unhealthy products, and that placing healthier products in the front area would increase healthy purchases. Conversely, the supermarket managers and owners, who designed the shopping environment, believed not only that fruits and vegetables were the most prominent displays at the store entrance, but also that unhealthy product displays could be avoided based on personal will and preferences. This discrepancy potentially inhibits an intervention to increase healthy purchasing.

Policy implications

Food deserts as behavioral systems

Our research demonstrates that food deserts can best be understood as behavioral systems. Individual behavior occurs in environmental context, and depends on other actors, policies, physical resources, and other qualities of the broadly defined and immediate environments.

Although grocery shopping in food deserts is highly context dependent, there is evidence (Clifton, 2004; Palmer, Smith, Haering, & McKenzie, 2007; Rose, 2011; Zenk et al., 2011) that many urban food deserts demonstrate similar qualities in terms of:

- Individual shopping strategies;
- Qualities of the physical and socioeconomic environments;
- The influence of transportation on food shopping;
- Over-marketing and abundance of unhealthy products at available supermarkets; and
- Crowding and higher prices at local supermarkets during food stamp benefits release.

Prior researchers have argued that multifaceted intervention strategies must be used to improve health in food deserts, and specifically in low-income, predominantly minority communities (Bell & Standish 2005; LaVeist et al. 2011; Woolf & Braverman, 2011). Our data support the argument that in order to generate individual-level change in communities, policies must include reforms at multiple levels, including national policy, industry regulation and incentives, city policy, and individual store initiatives, reflecting the broad spectrum of environmental influences on purchasing.⁵ Rather than targeting one component of a complex behavioral system (i.e. individual or structural), effective policies must act on multiple factors simultaneously, and ideally in coordination with each other. Moreover, policy can best – and perhaps can only – modify food deserts, or the individual outcomes in them, if interventions are designed based on an understanding of dynamics within the system.

Informing intervention strategies

We expand on prior recommendations for multifaceted interventions by connecting an empirical

⁵ Clifton, 2004; Rose, 2011; Zenk, et al., 2011, drew similar conclusions based on their data.

understanding of food desert dynamics to specific policy recommendations. Our findings suggest that it is particularly important for policy interventions to make healthy purchases compatible with households' needs to provide sufficient food on a limited income.

SNAP policy design is a potential intervention point to facilitate healthy purchases. SNAP benefits constitute a large portion of many households' food budgets, and there is strong empirical evidence in our data that purchasing patterns are coordinated with SNAP design (see also: Rose, 2011). Given the significant overlap between SNAP participation, individual decision factors, and diet-related illness in low-income communities, SNAP has the potential to be an effective nutrition-oriented program (cf. Monsivais, Aggarwal, & Drewnowski [2011]).

Enhanced understanding of current intervention strategies

An empirical understanding of purchasing behavior in food deserts suggests that certain approaches to intervention – currently implemented or as suggested in current literature – might be ineffective. Several examples are discussed below.

Information

Prior studies have recommended increasing information and motivation to increase healthy eating in food deserts (e.g., Chang, Nitzke, Guilford, Adair, & Hazard, 2008; Eikenberry & Smith, 2004). There is evidence that interventions or policies focused on information will be incomplete if taken in isolation. Research demonstrates that many residents of low-income communities understand and value healthy eating, but other factors have a stronger bearing on their purchasing decisions (e.g. buying cost-effective non-perishable food, getting the best price

per number of meals provided). Even if education efforts increase or expand knowledge of healthy eating, data suggest knowledge of, and preference for, buying foods that shoppers consider healthy is not a primary influence on grocery purchases in food deserts. Moreover, information does not have a uniform effect on behavior. Since many shoppers already want to eat in a healthy way, increasing information/motivation is not necessarily well matched to their stages in the adoption cycle (Achterberg & Miller, 2004).

Focus on produce/fresh food

Prior recommendations for increasing healthy purchasing involve promoting fresh fruits and vegetables (e.g. Glanz & Yaroch, 2004), or increasing the number of local outlets that carry fresh produce. Interventions strategies focused only on fresh produce or fruits and vegetables (e.g., Baltimore Food Policy Initiative) have limitations. The approach of increasing access to fresh food assumes that if people had more local opportunities to purchase fresh produce they would do so. However, we found that interventions would also need to address issues of freshness/quality, because low quality or risk of spoiling was cited as a reason not to purchase fresh produce.

Fresh food is not affordable for some shoppers because of factors including transportation, time/travel, and cost. Although expanded access might address these issues, purchases are often planned in the context of monthly resources; access to fresh food would not change the opportunity cost of buying fresh (i.e. a larger volume of non-perishable food). We also found that shoppers already buy produce, and produce usually does not constitute the majority of a person's diet. These strategies should incorporate efforts to promote organic and additive-free

canned and frozen alternatives to fresh produce; however they have limited ability to address relatively inexpensive, processed foods.

Access

Interventions calling for increased access to food or an increased number of supermarkets in urban food deserts (Raja, Ma, & Yadav, 2008; Treuhaft & Karpyn, 2010) over simplify the background of grocery purchasing behavior. Focusing broadly on access does not necessarily acknowledge the economic context of purchasing decisions or the fact that people have learned to think about grocery shopping in the food desert environment (i.e. the activity is situated in the environment).

Solely increasing the presence of grocery stores will not necessarily change purchasing behavior. There also needs to be an effort to create a supermarket environment that supports healthy purchases, opportunities for sampling new foods, sales on healthy foods, identification of healthy foods, etc, thus reducing the “risk cost” of buying fresh foods. Increasing the number of local supermarkets in food deserts is also important because it decreases the time cost of buying perishable foods, and potentially allows people to shop more frequently by reducing the travel and time cost of trips.

Supermarket or corner store interventions

While supermarket or corner store public health interventions⁶ have some ability to modify the immediate environment and thus influence purchases through signage, labeling, information,

⁶ Larger scale models include the Fresh Food Financing Initiative; the Healthy Corner Store Network; Baltimore Healthy Carryouts.

they have limitations. These interventions must be accompanied by industry-level and policy remedies, because individual stores and distributors have limited ability to change prices and marketing practices. For example, in the supermarket intervention based on this research, we were unable to change some components of the immediate environment because the store has distributor agreements regarding placement. Moreover, store approaches do not address the broad context of the supermarket environment, which includes transportation, available income for shopping, and the relative price of healthy foods.

Cost

Prior studies found that the high cost of healthy foods inhibited healthy eating, and calls for reducing the cost of healthy food to increase healthy purchases (Cassady, Jetter, & Culp, 2007; Fulp, McManus, & Johnson, 2008; Monsivais, Aggarwal, & Drewnowski, 2011). This recommendation is important but often does not provide enough information about the background of purchasing decisions. Based on our findings, simply giving low-income shoppers more money to spend on food would not necessarily change which foods they purchase. For example, when we asked people what they would do with a larger budget for food, some explained they would buy more of everything they currently buy. This is explained by the argument that cognition on the whole is environmentally situated (Suchman, 1987). Similarly, shoppers will not necessarily respond to the reduction in price of certain healthy foods (that they previously considered unaffordable), unaccompanied by other interventions. Prices of healthy foods should be reduced, but in developing price reduction strategies it is important to consider which foods consumers consider too expensive, and what factors other than label price can increase the perceived cost of a product, including risk of wasting food, travel cost, perishability

cost, and relative cost (i.e. opportunity cost).

Policy Recommendations

There is evidence in our data and the existing empirical research on food deserts that many components of the environment would have to change to influence consumer purchasing. Data point to a complex of policies that are grounded in holistic empirical analysis and are more likely to effectively address the factors that influence food acquisition in food deserts. Table 1 presents the design features a multi-faceted, evidence-based policy intervention would incorporate to increase healthy purchases in urban American food desert environments. For each intervention, the table describes the empirical rationale, the level or point at which the intervention would be implemented, and political or logistical considerations.

[TABLE 1 HERE]

Conclusion

Shoppers' understanding of and approach to grocery shopping starts with planning in the context of the broad environment. Thus interventions intended to change behavior should aim to change the context of food purchasing and the way people think about and do grocery shopping. Many current strategies for improving food desert environments, or consumer behavior in food deserts, target important – but only limited – components of food purchasing. Taken alone they are not sufficient to change individual behavior that is strongly rooted in environmental context.

An empirical understanding of food desert dynamics supports the view that system-oriented and

multifaceted national policy solutions are necessary. Comprehensive strategies should include as much change to the environment as possible. This requires a complex of policies, grounded in an empirical understanding of the food desert system (as described in Table 1). Ideally all components would be implemented together, but this coordination is structurally difficult and will take time. Multi-faceted, cross-disciplinary approaches are logistically and politically challenging given the current organization and operation of government, but they are more likely to be effective.

A strength of this analysis is that it is based on an empirical understanding of behavior in a specific food desert context, from the perspective of actors in the environment. The analytical framework applied captures the complexity of behavior and the interaction between individuals and their environment (Garfinkel 1967; Gero, 2011; Suchman, 1987). The research, however, was a case study and is not necessarily representative of all urban American food deserts. Our goal was to provide an in-depth, contextual understanding of the case. While it was not the objective of the research to generalize beyond the study community, case studies can teach generalizable lessons – for example, by providing evidence against absolute hypotheses (Flyvbjerg, 2006). This is important because policies or policy recommendations are implicitly or explicitly based on absolute assumptions about how people/behavior will respond to an intervention. Behavioral assumptions also affect the way the public frames target populations (Cummins & Macintyre, 2002; Rigby, Soss, Booske, Rohan, & Robert, 2009). Our results demonstrate that in at least one city, assumptions and the policies they influence are flawed. There is even stronger evidence of this point given consistent findings across studies, as described above, but other research replicating decision analysis methods would help clarify the

generality of these findings.

Additional context-specific research is needed at a national level, especially in other urban food desert communities. Further research should also explore how policy remedies related to diet and health can be integrated with – or how they overlap with – policies to address other problems in low-income urban communities, such as employment and crime.

Table 1. Complex of evidence-based strategies to increase healthy grocery purchasing in urban American food deserts

INTERVENTION	RATIONALE	INTERVENTION POINT/ APPROACH	POLITICAL/ LOGISTICAL FEASIBILITY
Provide relatively more purchasing power to spend on (healthy) food; reduce prices of healthy products	Reduce relative price of healthy foods (substitution effect)	National level, SNAP and WIC policy design, industry incentives/subsidies	Expensive, feasible on a pilot basis; Potential benefits to health food suppliers
Increase availability of bulk and/or non-perishable healthy foods (e.g., frozen organic produce, no preservative added, low-sodium packed/dried food)	Allows people to buy healthy foods when they cannot shop frequently	National-level subsidies or incentives for industries	Requires cooperation from industry for marketing/distribution practices
Reduce the cost of organic, un-processed, nutrient-dense, and reduced fat/ calorie/sodium/sugar foods	Changes the relative price of healthier alternatives, Addresses the concern that the same product could be purchased for less	National, Regulatory, Industry	Difficult to achieve at store level without manufacturers/suppliers reducing their prices; added cost of organic certification
Increase the number of local outlets to buy fresh food (e.g., corner stores, farm stands, food trucks, farmers markets) in low-income urban neighborhoods	Reduce the opportunity cost of buying fresh produce by reducing travel cost	City-level programs (e.g. Baltimore Food Policy Initiative), National-level private sector incentive/subsidy (e.g. tax credits, grants, loans ⁷)	Popular belief that there would not be demand; Increased demand for fresh food suppliers
Increase the total number of accessible supermarkets	Reduce the opportunity cost of buying perishable foods by reducing travel cost	National-level private sector incentive/subsidy (e.g. tax credits, grants, loans)	Requires time to locate a store, collaboration between sectors for financing; High cost; Potential spillover benefits
Offer free transportation to food outlets in low-income areas (e.g. a circulator)	Reduce the opportunity cost of buying perishable foods by reducing travel cost	State or City level	Competition for limited city resources; Potential spillover effects (job creation)
Improve buying and stocking practices for produce in low-income urban markets; monthly schedule in areas with high SNAP participation	Higher quality and freshness of produce reduces risk of wasting food, reducing the perceived cost of buying fresh produce	Regulatory; Wholesaler or city level	Difficult enforcement, compliance checks; Location-dependent freshness
Reduce the promotion of processed, unhealthy foods (placement, signage, advertising to children)	Eliminate added visual cue to purchase unhealthy, but typically cost-effective products	Regulatory; Industry level	Opposition to interference in industry marketing practices
Increase information about what is and isn't healthy	Give shoppers in all environments equal information to make healthy purchasing decisions	Regulatory; Store-level; expand reach through implementation at chain markets	Potential opposition from producers; Added cost of requiring addition signage, labeling

⁷ As used in the Pennsylvania Fresh Food Financing Initiative, Healthy Corner Store Network

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