

Healthy Food Checkout Ordinances: Changing retail food environments and promoting healthy diets

Background and Influence of Checkout Foods on Public Health

- In the United States, foods at checkout tend to be high in nutrients that should be limited, such as sugar, sodium, and saturated fat. A **national study examining over 8,000 retail food stores found that nearly 90% of all stores carried candy** at checkout.¹
- Over 33% of those stores carried **sugar-sweetened beverages (SSBs) like soda, and sports and energy drinks**.¹
 - **Less than 15% of the same retailers carried fresh fruits and vegetables** and less than a quarter provided bottled water at checkout counters.¹
- A multicity study in the U.S. found that **over 40% of nonfood businesses feature checkouts with a high quantity of unhealthy food items and beverages**.² These nonfood businesses include pharmacies, hospitals, hotels, hardware shops, and children's stores.²
 - This trend suggests that businesses that do not primarily sell food also create and expose people to unhealthy food environments, contributing to the growing prevalence of diet-related conditions.²
- Checkout areas are as much as **eight times more profitable** per square foot as other parts of the store.³
 - Businesses and retailers strategically place food and beverages in checkout lines, recognizing that shoppers cannot easily bypass the checkout section where unhealthy foods are prominently presented.³
- Most food products at checkout do not contribute to a healthy diet that supports a healthy lifestyle as they are known contributors to increasingly prevalent diet-related conditions including **obesity, type 2 diabetes, and high blood pressure**.⁴



What is a healthy checkout ordinance?

- A healthy checkout ordinance is a policy intervention that aims to create a healthier food environment in stores near checkout counters.⁵ The policy works by limiting food items sold at checkout to healthy food items, such as fruit, nuts, seeds, and beverages with no artificial sweeteners or added sugar like water or seltzer.⁵ These foods would take the place of traditionally unhealthy items like chips, soda, sports drinks, candies, and cookies.⁵
- To improve the food environment in stores and businesses, Berkely and Perris, two California cities, passed a healthy checkout ordinance in 2020 and 2023 respectively.⁵

Why implement healthy food checkout ordinances to improve nutrition and public health?

- Product placement strategies impact customer purchasing behavior.⁶
- The quality and quantity of available foods vary depending on where someone lives.⁶ Individuals in low-income communities may come across more convenience stores with more ultra-processed foods when compared to middle- and high-income communities. Such a difference in food exposure, because of the surrounding food environment, can lead to unhealthy eating habits.⁶
- Designing, implementing, and enforcing such regulations in convenience stores would provide communities with more nutritious food options that could decrease the risk of communities developing diet-related chronic diseases.^{6,7}
- Healthier food access is an issue that plagues many minority communities across multiple social determinants of health.⁸ Implementing healthy food placement regulations helps improve accessibility and exposure to healthy food options for affected individuals and communities.⁸



Implications of a Healthy Checkout Ordinance on Childhood Obesity

- Childhood obesity is a prominent public health issue in the U.S.⁹ **One in six** youth (ages 10 – 17) are obese in the U.S. Adolescent obesity is a growing problem, especially among urban communities.⁹ Obesity prevalence varies by family income, affecting **18.9%** of children and adolescents between the ages of 2 and 19 years in the lowest income group.⁹ **19.9%** of those are in the middle-income group, and **10.9%** are in the highest-income group.⁹
- Those who are obese as children tend to remain obese into adulthood.⁹ Obesity itself is a chronic condition and is ranked second among the leading preventable causes of death in the U.S.⁹
- Policies like the healthy checkout ordinance help combat prevalent issues such as obesity by reshaping the food environment people, and children, are exposed to in retail and business settings.
 - Children are a target because they control significant spending. Children themselves spend **\$25 billion** of their own money, and they influence another **\$200 billion** in household purchases per year.¹⁰ Teens spend **\$140 billion** per year of their own money, **20%** of which is spent on food.¹⁰

Implications for health equity

- Shelf space dedicated to discretionary food differs by store based on socio-economic levels.¹¹
- A cross-sectional supermarket study conducted in Australia found that shelf space for discretionary or unhealthy foods was **9.7% higher in areas of lower socioeconomic status** compared to less disadvantaged areas.¹¹
- In the United States, some retailers have increased the promotion of these healthier foods by specific placement also based on the time of the month that it is expected that people are receiving their Supplemental Nutrition Assistance Program (SNAP) benefits.¹²
 - Examples include increased displays of unhealthy food advertisements or price promotions of unhealthy products like SSBs.¹² Such retail activities can exacerbate diet-related disparities among households participating in SNAP.¹²
- Enforcing healthy food placement regulations would reduce exposure to unhealthy products among lower socioeconomic positions to the same level as those of higher socioeconomic positions.¹³
- A study examining convenience stores near urban schools found that many had a limited supply of healthier beverage and snack options, like water and pretzels ($\geq 85\%$), but most stores did not have a wide range of healthy snack options. All stores had less healthful impulse purchase items available (e.g., candy) while only **46%** carried healthier impulse items (e.g., fruit). Most stores (**97%**) had food/beverage advertising. Overall, convenience stores located near secondary schools represent an important and understudied component of the youth food environment.⁴



Impacts of similar policies around the world

- A four-year study at Cambridge University in the UK found that when grocery stores implemented a healthy checkout setup, customers purchased almost **20%** fewer unhealthy foods at the checkout.¹⁴ The study examined **30,000 UK households**, and after the announcement of the checkout food policy, there was a **17% reduction** in the purchase of small packages of sugary confectionery, chocolate, and potato chips from supermarkets.¹⁴
- Another study conducted in England examined the effects of healthy food checkout interventions in 39 convenience stores.¹⁵ The interventions involved removing high-fat, high-salt, and high-sugar products from the in-queue areas with results showing there was an approximately **4% decrease** in candy purchases.¹⁵
- An eight-week study in the Netherlands found that repositioning healthy food items at checkout counters resulted in a **sustained increase** in healthy food purchases over time.¹⁶
- These studies highlight the effectiveness that targeted policy interventions can have on promoting healthier choices at checkout, leading to improved health outcomes.

Future Considerations

- Research conducted on previous food-related marketing policies found significant changes in marketing strategies used on products affected by such policies.¹²
 - Companies may use more health and nutritional claims on products to encourage their purchase such as “**no artificial flavors**” or “**uses natural ingredients**” despite products not being deemed healthy enough to be placed in checkouts.¹²
 - Promotional techniques such as price discounts, charitable messaging, and healthy lifestyle imagery (running, playing sports, etc.) may also be used to market unhealthy products.¹²
 - Food and nonfood businesses such as pharmacies and repair shops may receive **free or discounted equipment that promotes unhealthy food products** and companies outside of checkout areas. This strategy would circumvent the regulation by extending food product promotion outside of regulated regions.¹²
- Healthy checkout policies may result in retailers finding healthier alternatives that can generate comparable profits to unhealthy items that were previously sold in checkout regions. Making this change would provide customers with more nutritious food options while ensuring businesses continue to generate similar profit margins.
 - This approach promotes a healthy food environment in a manner that benefits financial and business interests.
- While healthy checkout ordinances can be beneficial to shoppers as they offer healthier alternatives in checkout lines, there is potential backlash which may include **companies falsely advertising their products as healthier** and offering discounts on healthier alternatives.¹⁷
- Though companies may fear a loss in revenue from checkout ordinances, companies may find that there is an increase in profits through offering healthier alternatives that can generate profits that are similar to or higher than healthier items that were previously sold before the implementation of the healthy checkout ordinances.



What can be done with what we currently know?

- To continue the promotion of healthy retail environments, these checkout ordinances **may be even more effective in conjunction with other interventions** such as financial incentive programs, which have been shown to increase spending on healthier food options.
 - Considering that corner stores operate on smaller margins than supermarkets, determining discount percentages as incentives should be further investigated. Such research may determine what incentives are enough for people to purchase healthier foods that also align with a store’s profit margins.

- Regulatory authorities and policymakers could implement stringent restrictions and requirements on food products placed in checkout areas of stores.
 - SNAP authorization mandates both healthy and unhealthy food stocking in certain grocery and convenience stores. Compliance with stocking requirements is necessary for these stores to accept SNAP.¹⁸
 - Combining SNAP authorization with regulations could provide financial incentives for retailers to maintain healthy stocking standards, countering the financial motivations that companies may provide to receive product placement in high-traffic areas of the store, like checkout counters.¹⁸

Key takeaways

- Globally and domestically, checkout areas **prominently feature unhealthy food** items high in sugar, sodium, and saturated fat (**sodas, sports drinks, candies, and chips**) while healthier food products like fruits and nuts are displayed less often.¹
 - Non-food businesses, including hospitals, pharmacies, and hardware shops, also feature checkout areas with unhealthy food products, contributing to an unhealthy food environment.²
 - Lower income communities are disproportionately affected by unhealthy checkouts as they tend to face greater exposure to these food environments.¹¹
 - Excessive consumption of foods high in sugar, sodium, and saturated fat content is associated with an increased risk of developing diet-related conditions such as type 2 diabetes, high blood pressure, and obesity.⁴
- A healthy food checkout ordinance (HCO) is an intervention that improves retail food environments by providing guidelines that reshape the food selection of checkout areas.⁵
 - Unhealthy food products are restricted in checkout areas and are swapped with more nutritious options.⁵
 - HCOs can help combat prevalent public health issues such as childhood and adolescent obesity through the creation and promotion of healthy food environments.⁵
- Research on similar policies and interventions has shown that HCOs can reduce junk food purchases and consumptions. Combining HCOs with other policies and interventions may be more effective in promoting healthy food environments.^{14,15,16}

Effective HCOs would require:

- Stringent product placement parameters:
 - Provide a comprehensive scope of agreed upon definitions of checkout regions for various retail establishments and businesses to create clear and understandable limits for what parts of a store constitutes a checkout area.
- Clearly defined product categories:
 - Reference peer-reviewed and evidence-based nutrition guidelines to determine nutrient content and criteria for approved and restricted product categories. This would likely include limits on sugar, sodium, and saturated fat content but may extend to presence of artificial sweeteners or to ultra-processed food items.

- Encouraging compliance
 - Incorporating financial incentives and disincentives for businesses that comply with the ordinance will help stores promote and improve the food environments in their respective checkout areas. Relevant and effective enforcement policies would help mitigate businesses failing to comply with the ordinance.
- Monitoring effectiveness
 - Create mechanisms to monitor and evaluate the effectiveness of the ordinance based on assessments of consumer purchasing patterns, business compliance, and public health outcomes in the region of focus.
- Public awareness and education
 - Providing education and support for retailers and the general public will help them understand the motivations and benefits behind the ordinance. Promoting the ordinance and its benefits can also provide direction to people, ultimately helping them have healthier purchasing behaviors and options.
- Collaboration with key personnel
 - Constructing an effective ordinance requires extensive collaboration with local and regional retail and government leaders to tailor the ordinance to relevant businesses. Working with key personnel (retail employees and leadership, public health experts and community members) may also allow opportunities to incorporate other interventions and programs (such as SNAP) to leverage pre-existing resources when implementing the ordinance.

While not exhaustive, following these recommendations will aid policy makers in creating a healthy food checkout ordinance that positively impacts public health by creating healthy food environments and reducing the risk of communities developing diet-related conditions.



This fact sheet was prepared by 2023 FERN fellows
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