# Scroll and Shop
Food Marketing Migrates Online
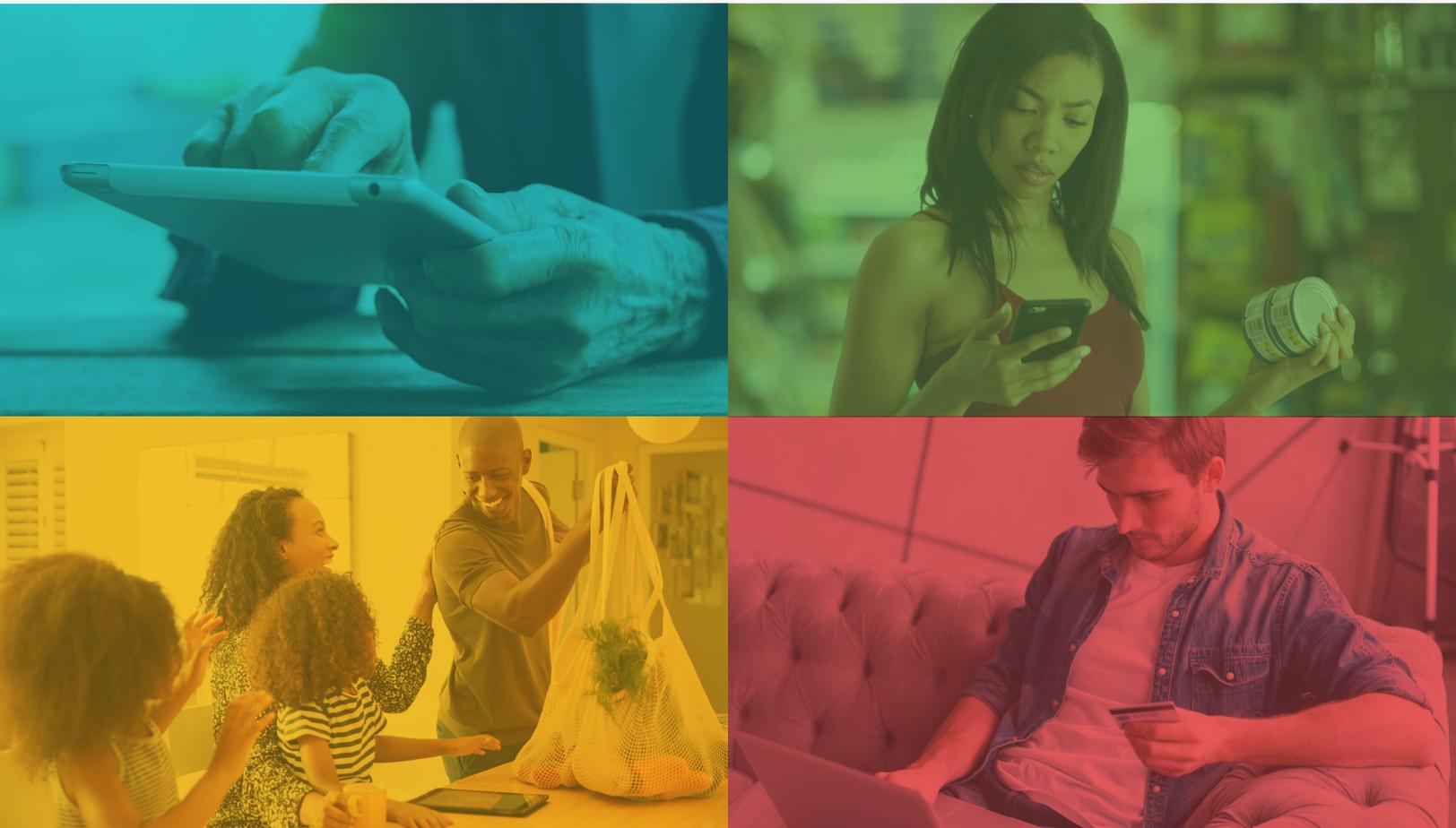
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Acknowledgments

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Executive Summary

No wrangling with writhing toddlers. No waiting in long lines. No hauling heavy bags home on public transportation. These are just a few of the possible benefits from online shopping. With food retailers touting the conveniences of online ordering, less attention has been paid to a larger, more important question:

Does online grocery shopping support healthy eating?

Grocery stores are designed to get customers to shell out money they hadn't planned to spend. Food and beverage manufacturers pay retailers trade promotion fees—totaling more than $50 billion each year—to place, price, and promote products, many of which are unhealthy, in the most visible store spaces.[1] Contracts formalizing these trade promotion deals determine which foods and beverages make it onto supermarket shelves, how aggressively they are discounted, and how often and prominently they are displayed.

As grocery sales migrate online, marketing also is likely to migrate, influencing online grocery shoppers' purchases and health. Already, grocery websites are rife with promotions. Repeated exposure to unhealthy foods and beverages occurs through banner advertisements, pop-ups, and splashy snapshots that can spur unplanned unhealthy purchases. Customers' email inboxes are inundated with additional prompts to purchase more items more often. Retailers use search and purchase histories to craft targeted promotions that take advantage of individual vulnerabilities.

Price and placement are two additional forms of marketing that increase "basket ring," the amount of money spent per shopping trip. Both price and position play important roles in influencing customers' purchases; retailers offer coupons on the top, sides, and bottom of home and search results pages. Sponsorship fees secure prime placement in search results for manufacturers that have big marketing budgets. Typically, farmers and smaller, better-for-you brands have neither the market share nor the funds to pay for discounts and prime placements. In a system that favors the largest industry actors, farmers and produce companies are not the only ones who lose out. Customers, especially those with less income, have less exposure to healthy foods.

To make it easier for low-income customers to shop for food, the United States Department of Agriculture (USDA) now allows Supplemental Nutrition Assistance Program (SNAP) participants in select states to purchase groceries online. The USDA plans to extend online SNAP to the program's 40 million participants in all 50 states.

As more customers shop for groceries online, retailers' online point-of-sale strategies are increasingly important. This report describes a scan of food and beverage promotions, prices, search results, ordering, and delivery from six retailers in the Washington, DC region. We evaluated the healthfulness of promoted products using an adapted version of the National Alliance for Nutrition and Activity (NANA) Vending Standards, which are based on the *Dietary Guidelines for Americans*.

The goal of this scan was to:

- Assess online grocery platforms and identify approaches to promote healthy eating and not undermine it;

- Educate public health partners, policymakers, and the public about food marketing on online grocery platforms;

- Establish a baseline to track changes to online marketing on grocery platforms over time; and

- Encourage researchers to further study online marketing on grocery platforms.

Online grocery shopping has the potential to increase access to and consumption of healthy foods. However, we found that current retailer practices fail to support healthy eating (Tables 1 and 2):

- More than half of food and beverage promotions were for unhealthy products. Seventy-two percent of Safeway's product promotions were unhealthy options.

- More than three-quarters of the food- and beverage-related emails that retailers sent promoted unhealthy products. All the emails Target sent included unhealthy products.

🌱 Peapod and Safeway offered discounts on unhealthy products that were, on average, more than twice as great as the average discounts they offered on healthy products.

🌱 More than half of items featured prominently in search results for staple foods were unhealthy. Target featured the highest percentage (73 percent) of unhealthy foods in search results.

🌱 The majority of fresh fruits and vegetables delivered were of good quality, with taut skin, few soft spots, and good color.

Table 1: Summary Results for Online Retailers

Retailer	Unhealthy Product Promotions*	Email Promotions with Unhealthy Foods or Beverages	Unhealthy Products Featured in Search Results	Produce Quality Score
Amazon Prime Now	43%	75%	60%	79%
FreshDirect	29%	63%	47%	90%
Peapod	57%	77%	67%	82%
Safeway	72%	75%	53%	73%
Target**	63%	100%	73%	-
Walmart Grocery**	46%	88%	50%	-
Average	51%†	76%†	58%	81%

* Includes promotions on home and search pages.
** Target and Walmart Grocery did not offer delivery to the neighborhoods included in our scan during the study period.
† Weighted average.

FreshDirect promoted a smaller proportion of unhealthy foods and beverages than the other five retailers. Twenty-nine percent of FreshDirect's product promotions were for unhealthy items. Fewer than half of staple items featured in search results were unhealthy, and its produce scored the highest in terms of quality.

In contrast, Peapod, Safeway, and Target performed poorly. A majority of promotions on their websites and in their emails were for unhealthy items. Notably, Peapond's and Safeway's discounts on unhealthy items were, on average, more than twice as great as their discounts on healthy items.

Table 2: Best and Worst Retailer Practices

Retailer	Best and Worst Practices
Amazon Prime Now	• 43% of product promotions and 75% of email promotions did not meet nutrition standards
FreshDirect	• Highest percentage (71%) of healthy product promotions • Scored highest on produce quality
Peapod	• Offered a greater discount for unhealthy (14%) than for healthy (5%) items
Safeway	• Highest percentage (72%) of unhealthy product promotions • Sent the most emails; 75% were for unhealthy foods and beverages • Offered a greater discount for unhealthy (16%) than for healthy (7%) items
Target	• Greatest percentage of product promotions for sweet or salty snacks (18%) and sugar-sweetened beverages (14%), and lowest percentage of product promotions for produce (10%) • Included unhealthy products in every email sent • Highest percentage (73%) of unhealthy products in search results
Walmart Grocery	• Greatest percentage of product promotions for produce (43%)

Recommendations

Recommendations for Policymakers

Policymakers should help ensure that online grocery websites promote healthy, not unhealthy, eating.

The U.S. Department of Agriculture should develop policies and guidance for online SNAP retailers to:

- Highlight healthy, not unhealthy, foods and beverages in promotions on home, search, and checkout pages, and in emails.

- Use price promotions to incentivize healthy, rather than unhealthy, food and beverage purchases.

- Prominently feature healthy options in search results.

- More clearly communicate the price of product substitutions or additional fees for weight-adjusted items like produce, and display unit pricing so that price-sensitive customers can more easily compare product value.

- Disclose product sponsorships.

The Federal Trade Commission (FTC) should:

- Complete a study of online grocery retailers' marketing practices, including targeted marketing practices that use personal purchase history, search history, and the customer's race, income, or address to inform website and email promotions.

- Investigate whether retailers clearly disclose product sponsorships.

- Bar retailers from sharing personal purchase and search history data with food manufacturers.

Recommendations for Retailers

Retailers should redesign grocery websites to support healthy eating, rather than undermine it. Specifically, they should:

- Highlight healthy, not unhealthy, foods and beverages in promotions on home, search, and checkout pages, and in emails.

- Prominently feature healthy options in product search results.

- Use price promotions to support food and beverage purchases consistent with expert dietary recommendations.

- Disclose sponsorships so that customers can distinguish genuine search results from advertisements.

- Develop policies that only permit the use of personal purchase, search, and geographic information to promote healthy foods and beverages.

- Design automated reorder features to reduce unhealthy promotions and support healthy ones.

- Clearly communicate pricing policies and pricing structures for substitutions. Customers, especially price-sensitive ones, need to know what additional costs they might pay when retailers substitute for similar products or deliver produce of a greater weight.

- Prominently display unit costs to allow price-sensitive shoppers to more accurately compare products.

- Improve delivery processes to ensure that perishable items remain cold and products arrive without bruises or blemishes.

Recommendations for Researchers

Researchers should evaluate online marketing, including targeted marketing, to identify practices that undermine and that support healthy eating. Specifically, they should:

- Conduct additional studies to assess the number, kind, and healthfulness of product promotions that appear on home, search, and checkout pages; in emails; and through price promotions. Studies should compare retailers' promotions to high- vs. low-income customers, including SNAP participants.

- Assess the extent to which retailers prominently feature unhealthy versions of products in search results, as well as the difference in products featured to high- vs. low-income shoppers.

- Compare the user experience for online ordering and delivery for high- vs. low-income customers.

- Test different online promotions to identify approaches that effectively encourage healthy eating.

- Assess the prevalence and effect of targeted promotions.

- Compare retailers' automated order tools to determine which features best support healthy eating.

- Test the effectiveness of different default search filters to support healthy eating.

Introduction

Online grocery platforms are emerging as a convenient solution for today's time-strapped customers. As shoppers order more of their groceries over the internet, they spend less time browsing supermarket aisles and may make fewer unhealthy impulse purchases.[2] If executed thoughtfully, online grocery platforms could increase access to healthy food, particularly in communities with few brick-and-mortar grocery stores.[3]

But headlines like "Hershey's Plan to Keep Impulse Candy Shopping Alive" suggest that, rather than leaning into the potential health benefits of online grocery shopping, the industry is designing new ways to trigger impulse food and beverage purchases.[4] To maintain impulse sales of less-healthy foods, manufacturers and grocers are devising marketing approaches for online shopping. For example, to increase snack food sales, grocers offer larger package sizes and display snack food ads alongside already-selected items. Pop-ups and cross-promotions are also common digital checkout features.
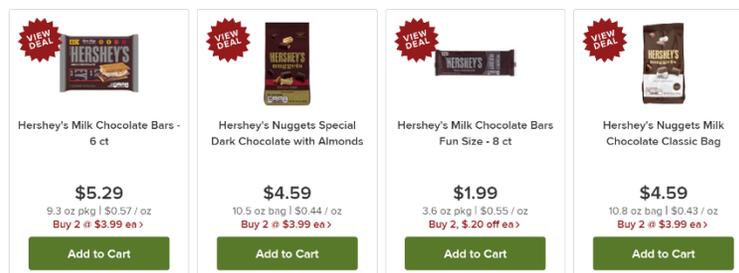
Manufacturers like Hershey use price as one of many tactics to push impulse buys online.

As increasingly sophisticated targeted marketing tactics gain traction, the U.S. Department of Agriculture is working to expand the Supplemental Nutrition Assistance Program (SNAP) online. Enabling SNAP participants to use their benefits online could lessen food access barriers, but it could also expose a greater portion of the public to online food marketing. As online grocery shopping becomes more prevalent, public health organizations, policymakers, and consumers need to better understand how online grocery platforms operate and influence food purchases.

Grocery Stores Are Americans' Primary Source of Foods and Beverages

Today, 90 percent of Americans—SNAP participants, food-insecure individuals, and higher-income customers—do their usual food shopping at a grocery store or supercenter.[5] Grocery stores are the top source of foods and beverages, providing more than 60 percent of a household's weekly calories, on average.[6]

Approximately 70 percent of the sugary beverages children drink come from food retail.[7]

Though grocery stores sell a wide range of healthy products, they also contribute a majority of the unhealthy foods and beverages in Americans' diets. Approximately 70 percent of the sugary beverages children drink come from food retail.[7] Grocery stores are also adults' primary source of sugar-sweetened beverages and unhealthy snack foods.[8] In one national chain, which uses a nutrient profiling system that awards zero, one, two, or three stars to indicate the healthfulness of products, only 24 percent of in-store products qualified for even a single star.[9] And one star is anything but a high nutritional bar: as a point of reference, as of January 2020, Lay's Salt and Vinegar Chips receive one.[10]

Food Marketing at Point-of-Sale Influences What Customers Buy and Eat

Food and beverage manufacturers pay retailers trade promotion fees to influence stores' layout, product mix, and displays. The result is that unhealthy products are prominent, prevalent, and priced to move. Trade promotion fees—totaling more than $50 billion each year—are so effective at driving purchases that manufacturers now spend twice as much on in-store product promotion than on traditional advertising.[11,12]

One study of in-store placement and promotion found that, on average, sugary drinks appear in 25 and unhealthy foods in 40 different places across a grocery store.[13] Another revealed that

retailers increase promotions for sugary drinks at stores with high SNAP participation when the state issues benefits,[14] suggesting that retailers' targeted use of trade promotion fees has the potential to further entrench health disparities. As grocery sales migrate online, the point-of-sale marketing tactics that trade promotion fees support could also migrate, potentially influencing online grocery shoppers' purchases and health.

> Food and beverage manufacturers pay retailers trade promotion fees to influence stores' layout, product mix, and displays. The result is that unhealthy products are prominent, prevalent, and priced to move.

Online Grocery Shopping Is Growing

Online grocery currently makes up about 6 percent of total grocery spending in the United States, with sales amounting to nearly $17.5 billion in 2018.[15,16] But the segment is experiencing rapid growth: the Food Marketing Institute (FMI), a trade association for the grocery industry, estimates that by 2025, online grocers will capture 20 percent of grocery retail and reach $100 billion in sales.[17]

The FMI estimates that a quarter of customers purchased groceries online in the last month.[18] Most people spend less than 25 percent of their grocery shopping dollars online.[19] Those who frequently shop online tend to have higher levels of education and household incomes.[20] Frequent online shoppers also spend more than the average shopper on groceries: $149 per week compared to $109.[21,22]

Though current online grocery shoppers tend to have higher incomes, a 2019 USDA pilot in Alabama, Iowa, Maryland, Nebraska, New Jersey, New York, Oregon, and Washington State is, for the first time, enabling people to use SNAP benefits to purchase groceries online.[23] The USDA plans to expand online use of SNAP benefits to all 50 states following the pilot.[24]

On the whole, people have been slower to shop online for food than for other products.[25] Research from the United Kingdom suggests

that people find it inconvenient to wait for deliveries, worry about the quality of perishables, and question whether grocers will accurately complete their orders.[26,27] Customers also report concerns about high delivery fees and their ability to compare product prices online.[28,29]

Customers who grocery shop online cite several advantages, including saving time, shopping without children, avoiding crowds, and having help transporting bulkier items.[30,31] Other reasons to shop online include childbirth, illness, and disabilities.[32,33]

Online Grocery Shopping Could Support Health

Online ordering and delivery can simplify grocery shopping for people who are time-strapped or have limited mobility. These services could make it easier for people, specifically those who live in rural areas or areas that lack full-service grocery stores, to access healthy food.[34,35,36,37] Online grocery shopping could also reduce impulse purchases, making healthy eating easier.[38,39,40,41,42,43,44]

Smart Snacks ▸

Granola & Nutrition Bars • Rice Cakes • Nuts & Seeds

Retailers should highlight healthy, rather than unhealthy, foods and beverages online.

Research suggests that shopping online can help consumers reduce unhealthy purchases.[45,46] People may be more able to resist certain products online because images of the products do not trigger desire to the degree physical products do.[47] Without the promise of instant gratification, unhealthy products may be less appealing. But whether online grocery shopping will support healthy eating remains to be seen. Critical factors, including web design, point-of-sale promotions, pricing, and targeted marketing will affect purchases and, ultimately, consumption.

Online Food Marketing Is Likely to Grow with Online Grocery Shopping

Website design, much like in-store layout, influences decisions. Research shows that customers heavily rely on default display options and make most of their purchases from the first page of search results.[48] Retailers and food and beverage manufacturers use a variety of strategies to capture online shoppers' attention and dollars on those pages. For example, Amazon recently announced that it will allow manufacturers to place sponsored ads on a keyword cost-per-click basis.[49] Other tactics to prompt impulse purchases include pop-ups, banner ads, and other promotions.[50] Companies also use product titles, descriptions, images, videos, reviews, and other features to increase sales.[51]

Manufacturers and retailers use ads to promote snacks on grocery websites.

Price promotions are another common online marketing strategy. Retailers offer low base prices, coupons, loyalty member discounts, two-for-one deals, and other price reductions. Low original prices and price reductions can increase customer purchases.[52] And online, marketers have more opportunities to make discounts available. Printing costs limit the number of specials a retailer can feature in a weekly circular, but as one marketer noted, "with digital, you don't have a limit."[53]

Without physical space constraints, retailers can promote larger items and highlight a greater number of products online. Checkout provides a prime example. In brick-and-mortar stores, to check out, customers must walk past a shelf of candy, chips, and soda designed to increase sales. Online checkout also promotes impulse purchases, allowing retailers to prompt customers to buy bigger bags of candy and chips instead of single-serve snacks.

Without physical space constraints, retailers can promote larger items and highlight a greater number of products online.

Companies like Hershey encourage retailers to include a host of digital promotions on the checkout page.[54,55] The manufacturer's suggestions include a "just add Hershey's" feature to earn free shipping and pop-ups to advertise products like chocolate chips when orders include baking ingredients.[56] Hershey's quarterly earnings suggest that its marketing strategies may lift sales; e-commerce sales grew 30 percent in the period after the candy maker introduced these checkout features.[57]

Manufacturers are not the only ones increasing promotions; retailers have too. In 2018, Amazon Fresh—Amazon's grocery-only delivery subscription service—promoted snacks like chips, cookies, and nuts during the weeks before school started. During the last week of August and first week of September, Amazon Fresh featured more than 300 promotions for snacks—roughly 260 more than many brick-and-mortar stores.[58]

Without the constraints of a physical store, manufacturers' ability to promote products is seemingly limitless. Retailers display promotions on the home page, search pages, and throughout the online ordering platform, which makes avoiding unhealthy food marketing difficult. Retailers create additional opportunities to promote foods and beverages using email to penetrate customers' inboxes and prompt additional purchases from home.

Targeted Marketing Online Could Increase Impulse Buys

Online food marketing has potential benefits; it could save shoppers time

Your Past Purchases   View All
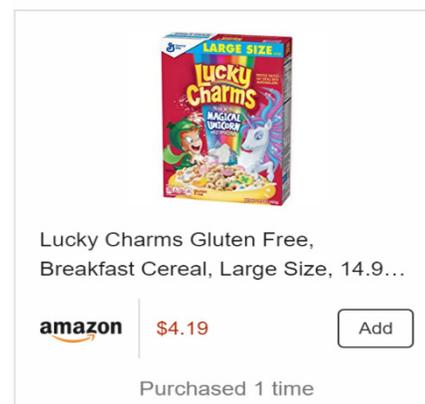
Lucky Charms Gluten Free, Breakfast Cereal, Large Size, 14.9…

amazon $4.19   Add

Purchased 1 time

Advertisements that feature customers' past purchases can convert a one-time impulse buy into a bad habit.

searching for commonly purchased items and make price discounts more easily accessible. But online food marketing also has the potential to reinforce unhealthy behaviors and biases.

Food marketers collect personalized data using software that tags customers with unique identifiers. Software tracks an individual, analyzes behavior patterns, and develops a unique profile, allowing companies to tailor marketing to that person.[59] Targeted marketing technology allows marketers to mine customers' purchase and search histories, meaning that an individual's one-time purchase can become an ongoing promotion.

> Targeted marketing technology allows marketers to mine customers' purchase and search histories, meaning that an individual's one-time purchase can become an ongoing promotion.

Hershey boasts that it can create "algorithmically curated lists based on your previous purchases and behavior—and search."[60] According to one executive, "Once that customer buys one of our snacks, it'll likely stay on their pre-loaded list for the next purchase—and we move that unplanned 'impulse' purchase into a planned one."[61]

Top items on Walmart Grocery's reorder list suggest that the retailer's automated features encourage unhealthy products; Oreo Cookies, Tostitos Scoops, and Hershey's chocolate bars are among the items featured.[62] Kroger is developing a search function that bases results on previous purchases. A customer searching for fresh "chicken" may instead be served up less-healthy alternatives in the search results based on a previous purchase.

TOP ITEMS ON REORDER LISTS

Cookie - OREO® Chocolate Sandwich Cookie

Cracker - Nabisco® Ritz® Crackers

Condiment - French's® Classic Yellow Mustard

Soup - Campbell's® Cream of Mushroom

Chip - Tostitos® Corn Chip Scoops

Spread - Jif® Creamy Peanut Butter

Candy - HERSHEY'S® Milk Chocolate Bar

Cereal - Honey Nut Cheerios®

Baby Wipes - Parent's Choice® Fragrance Free

Diapers - Pampers®

Beverage - Water

Skincare - Jergens® Ultra Healing Dry Skin Moisturizer

Cleaning Product - Dawn® Ultra Dishwashing Liquid Original Scent

Haircare - TRESemme® Moisture Rich Shampoo & Conditioner

Retailers should design reorder lists to promote healthy, rather than unhealthy, foods and beverages.

"That search could pull up a wide variety of products, from chicken breasts to chicken-flavored instant ramen to Chicken in a Biskit crackers," said an executive at Kroger's data analytics and marketing firm.[63]

Products that appear in the search results are not the only items that marketers manipulate using personalized data. Retailers may cross-promote products related to customer search results—for example, advertising cookies with the results from a search for milk. Industry experts note that this "is an extremely successful tactic. One in five shoppers actually purchases items that are suggested to them."[64]
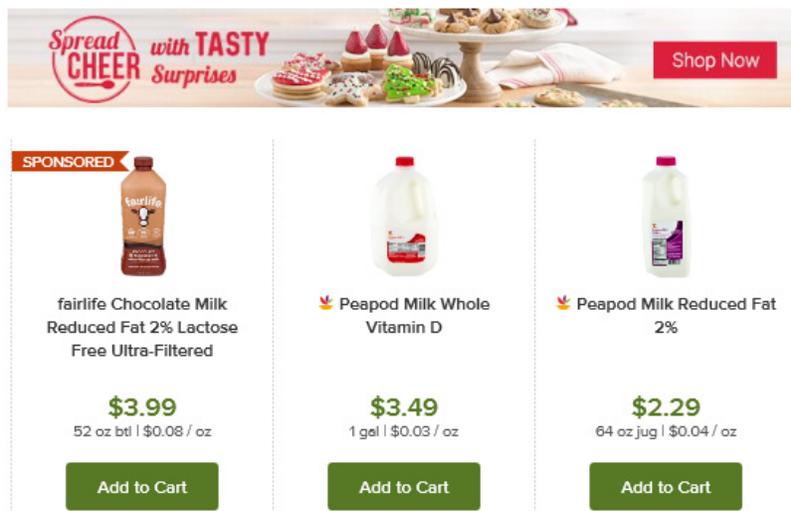
On Peapod, an advertisement for cookies appears above search results for milk.

From a public health perspective, personalized marketing creates a path-dependency problem. Retailers may nudge customers repeatedly to replicate their least-healthy purchases. For example, a shopper who purchased onion dip for a party may be pestered later by onion dip promotions. The dangers of personalized marketing may be compounded by existing food industry dynamics. Though Americans are interested in eating healthfully,[65] manufacturers of unhealthy products like soda, candy, and chips have greater resources to take advantage of evolving technology than do fruit and vegetable farmers.

Understanding Online Grocery Platforms to Inform Their Development

Given the rapid growth of personalized marketing technology, the increasing popularity of online food shopping, and the influence in-store marketing plays on people's purchasing decisions, we conducted a scan of food and beverage marketing on online platforms for grocery chains that deliver in Washington, DC.

Our initial goal was to identify the types of online marketing approaches that retailers employ and the healthfulness of the foods and beverages they promote. We also aimed to establish a baseline, enabling researchers to track changes to online grocery platforms over time, and to conduct additional, in-depth studies of food and beverage marketing on grocery platforms. Our results will help inform public health partners, policymakers, and the public about food marketing on online grocery platforms. They should encourage retailers to reconfigure grocery platforms to promote healthy, not unhealthy, purchases.

Methods

Online Retailer Selection

We assessed the practices of six retailers in the Washington, DC region between February and April 2019. Retailers included Amazon Prime Now, FreshDirect, Peapod (Giant Food), Safeway, Target, and Walmart Grocery. As of April 2019, Amazon Prime Now, FreshDirect, Peapod, and Safeway delivered within DC city limits. We also included major retailers Target and Walmart Grocery, though neither delivered in DC at the time of our scan (so they were not included in the ordering and delivery assessment of this study).

Overall Promotions

We created two customer accounts for each of the six retailers: one with a street address in a lower-income DC neighborhood and one with a street address in a higher-income neighborhood. We did not want to skew the results toward high- or low-income customers.

Before conducting a scan on an individual retailer's website, we deleted browser history, search history, and cookies, knowing that those could influence our observations. On the retailer's home page and on five subsequent search results pages (milk, bread, cereal, drinks, and chicken), we recorded each promotion for foods and beverages. We defined a promotion as any advertisement, discount, or product link distinct from the search results. Some promotions we categorized as "general," meaning that the flavor, size, or price of products being promoted through the brand logo or image were not discernible. Others we categorized as "product promotions," when the advertisement, discount, or link promoted a distinct, identifiable product. Both general and product-specific promotions appeared in banner advertisements, pop-ups, fixed images, and coupons on the top, sides, and bottom of home and search results pages.
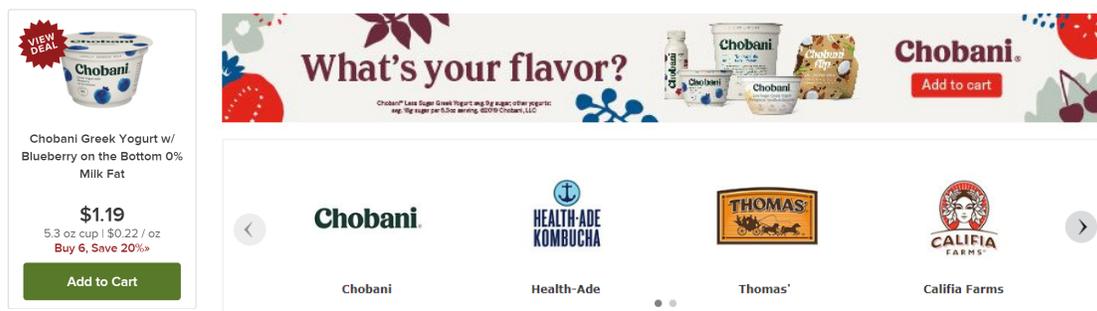
The image on the left provides an example of a specific product promotion. The two promotions on the right were assessed as general promotions because there were not individual identifiable products for which nutrition information could be analyzed.

For each promotion, we saved a screenshot of the webpage. For product promotions, we noted the flavor, size, and price, when available. (Some product promotions did not include prices; for others, the container size was not discernible.) We also noted whether the product promotion was for produce, a sugar-sweetened beverage, or a salty or sweet snack. We completed these steps twice, once from the lower-income neighborhood account, and once from the higher-income account.

We assessed the nutritional quality of the promoted products using an adapted version of the National Alliance for Nutrition and Activity (NANA) Vending Standards.[66] A food product met the nutrition standards if:

- no more than 35 percent of its calories were from total sugars;

- no more than 35 percent of its calories were from fat;

- no more than 10 percent of its calories were from saturated fat;

- no more than 200 milligrams of sodium were in a serving; and

- it contained a positive nutritional component—had at least a quarter cup of fruit, non-fried vegetables, or fat-free/low-fat dairy; 1 oz. of nuts or seeds or 1 Tbs. of nut butter; was at least 50 percent whole grain (whole grain was the first ingredient or the product had a whole-grain claim); or contained 10 percent of the Daily Value for at least one naturally occurring nutrient of public health concern (calcium, potassium, vitamin D, or fiber).

Healthy beverage products included:

- water (including carbonated) with no added caloric sweeteners;

- coffee or tea with no added caloric sweeteners;

- fat-free or 1 percent low-fat dairy milk, or calcium- and vitamin D-fortified alternative milks, with less than 200 calories per serving;

- 100 percent fruit juice or juice combined with water or carbonated water with no added caloric sweeteners;

- 100 percent vegetable juice with no added caloric sweeteners and no more than 200 milligrams of sodium per serving; and

- low-calorie beverages with no more than 40 calories per container.

Price Promotions

We collected base price and price promotion data for a market basket of ten unhealthy and ten healthy options (Table 3). We defined price promotions as any discounts on the regular price of a product, such as specials, coupon codes, and two-for-one deals. We selected unhealthy and healthy items based on top food categories from the USDA's *Foods Typically Purchased by SNAP Households*.[67]

Table 3: Foods and Beverages Assessed for Price

Unhealthy	Healthy
Coca-Cola *(2 liters)*	Carrots *(1 lb.)*
DiGiorno Rising Crust Pizza, Pepperoni *(27.5 oz.)*	Tomatoes *(1 lb.)*
Lay's Classic Potato Chips *(10 oz.)*	Spinach *(5 oz.)*
Oreo Chocolate Sandwich Cookies *(14.3 oz.)*	Bananas *(1 bunch, minimum 5 count)*
Hershey's Milk Chocolate Bar *(1.55 oz.)*	Granny Smith Apples *(3 lbs.)*
Lucky Charms *(10.5 oz.)*	Cheerios *(12 oz.)*
Wonder Classic White Bread *(20 oz.)*	Nature's Own 100% Whole Wheat Bread *(20 oz.)*
80% Lean Ground Beef *(1 lb.)*	Boneless Skinless Chicken Breast *(2 lbs.)*
Whole Milk *(1 gallon)*	1% Milk *(1 gallon)*
Land O'Lakes Butter *(1 lb.)*	Wesson Vegetable Oil *(1 quart)*

We entered the name of each item from Table 3 into each online grocery platform's search bar. We recorded the regular price and any price promotions for the items that met the search criteria, starting from the top of the webpage, moving left to right. For example, when the first two items in search results for "tomatoes" were tomato soup and tomato paste, we skipped these products and recorded pricing data for the first fresh tomatoes. We calculated the average percentage discount for the ten healthy products and compared it to the average discount for the ten unhealthy products.

Search Results

Research shows that online, as in stores, position plays an important role in influencing customers' purchases.[68] People are more likely to choose products positioned near the top of the first page of search results.[69] They are also more likely to select default display options.[70] To determine if retailers highlight healthy options in search results, we developed a list from the USDA's *Foods Typically Purchased by SNAP Households*[71] of five common staple items that come in both healthy and less-healthy versions: milk, bread, cereal, drinks, and chicken.

We entered each staple food item into each online grocery platform's search bar. We saved a screenshot and recorded the first three products in the first row starting from the left. (The screen settings we used showed between three and five items in each row, varying by retailer.) We assessed the healthfulness of these products using the adapted NANA Vending Standards, described above.

Online Order and Delivery

We assessed delivery accuracy and product quality by ordering an assortment of unhealthy and healthy items from the four retailers that offered delivery in Washington, DC: Amazon Prime Now, FreshDirect, Peapod, and Safeway. The unhealthy items we ordered were a subset of the items in Table 3. We included these items based on the hypothesis that products in our order history could influence emails and targeted promotions. The healthy items included all the fresh produce from Table 3, plus five additional fresh fruits and vegetables. Ordering ten fruits and vegetables gave us a larger sample from which to assess the quality of delivered produce (Table 4).

Table 4: Items Ordered

Unhealthy	Healthy
Coca-Cola *(2 liters)*	Carrots *(1 lb.)*
DiGiorno Rising Crust Pizza, Pepperoni *(27.5 oz.)*	Tomatoes *(1 lb.)*
Oreo Chocolate Sandwich Cookies *(14.3 oz.)*	Spinach *(5 oz.)*
Lucky Charms *(10.5 oz.)*	Bananas *(1 bunch, minimum 5 count)*
Wonder Classic White Bread *(20 oz.)*	Granny Smith Apples *(3 lbs.)*
	Green Grapes *(2 lbs.)*
	Strawberries *(1 lb.)*
	Bosc Pears *(2 count)*
	Cucumbers *(1 lb.)*
	Avocados *(2 count)*

At the time of delivery, we noted whether items arrived during the scheduled delivery period and whether the correct items were delivered. We adapted a version of the Communities of Excellence in Nutrition, Physical Activity, and Obesity Prevention (CX3) SNAP-Ed Toolkit to examine produce quality.[72] Specifically, we assessed the firmness, freshness, and color of fruits and vegetables,

scoring each product on a scale of 0 to 3. A score of 0 indicated poor quality (discoloration, bruising, overripe, wilted, moldy) and a score of 3 indicated good quality (firm, fresh, no soft spots, excellent color). We calculated the total score for each retailer and divided that by the total possible score.

Targeted Marketing

For targeted marketing, we looked at three kinds of promotions: those based on past purchases, those based on customers' addresses, and those received via email. For promotions based on past purchases and customers' addresses, we conducted a second assessment of the home page for the four retailers from which we placed orders. This was completed five weeks after we placed online orders. We recorded any product promotions expressly linked to previous purchases or the user's home address. For example, we included promotions with labels like "Based on Past Purchases" or "Popular in Your Area." We assessed the nutritional quality of those products using the adapted NANA Vending Standards.

For emails, we noted the number of emails received that included foods and beverages and assessed the percentage that met nutrition standards. We monitored emails for one month after we placed online orders. If an email included at least one promotion for a product that failed to meet the standards, we classified the email as promoting unhealthy foods or beverages.

Results

Topline Findings: How Retailers Rank on Nutrition

Online grocery shopping creates an opportunity to increase access to and consumption of healthy foods, yet our scan of grocers in DC found that current practices fail to support healthy choices. How online retailers promote, price, and place foods and beverages mirrors in-store practices—practices that favor unhealthy foods and beverages over healthier alternatives.

Results from our scan suggest that online retailers should do more to support healthy eating. We found that:

- More than half of food and beverage promotions were for unhealthy products. Seventy-two percent of Safeway's product promotions were unhealthy options.

- More than three-quarters of the food- and beverage-related emails that retailers sent promoted unhealthy products. All the emails Target sent included unhealthy products.

- Peapod and Safeway offered discounts on unhealthy products that were, on average, more than twice as great as the average discounts they offered on healthy products.

- More than half of items featured prominently in search results for staple foods were unhealthy. Target featured the highest percentage (73 percent) of unhealthy foods in search results.

- The majority of fresh fruits and vegetables delivered were of good quality, with taut skin, few soft spots, and good color.

We did not find major differences between the accounts using a lower- vs. higher-income neighborhood address for any of the variables assessed (promotions, price, search results, ordering, and delivery). Therefore, we combined the lower- and higher-income account data for each retailer in the results. Since we deleted the browser history during the assessment, an absence of historical data may have led to a null result. Our method also only identified differences by zip code, rather than other location identifiers, like IP address. Future research should include these variables.

Promotions

Promotions on Home and Search Results Pages

We observed an average of 30 food and beverage promotions (general and product-specific) per grocer's home page, with a range of 18 to 40 (Table 5). Safeway had the fewest food and beverage promotions on its home page, and Walmart Grocery had the most. Target displayed the most food and beverage promotions on search results pages. On average, search results pages featured four food and beverage promotions. Amazon Prime Now, Safeway, and Walmart Grocery did not have food or beverage promotions on search results pages.

Table 5: Number of Promotions per Page

	Home Page	Search Results Page
Amazon Prime Now	39	0
FreshDirect	26	6
Peapod	19	3
Safeway	18	0
Target	39	13
Walmart Grocery	40	0
Average	**30**	**4**

Safeway had the fewest food and beverage promotions on its home page, and Walmart Grocery had the most.

Overall, more than half (51 percent) of food and beverage product promotions were for unhealthy items, though the nutritional quality of the foods and beverages promoted varied widely by retailer (Table 6). FreshDirect had the fewest unhealthy product promotions (29 percent). In contrast, 72 percent of Safeway's product promotions were unhealthy.

Across retailers, a quarter of the product-specific promotions (27 percent) were for produce, 10 percent were for salty or sweetened snacks, and 5 percent were for sugar-sweetened beverages. Target's promotions were the least healthy by food category; the retailer

had the highest proportion of promotions for salty or sweetened snacks and sugar-sweetened beverages and the lowest proportion of promotions for produce. To their credit, FreshDirect, Peapod, Safeway, and Walmart Grocery had no promotions for sugar-sweetened beverages.

Table 6: Nutritional Quality of Product Promotions on Home and Search Results Pages

	Did Not Meet Nutrition Standards	Promote Produce	Promote Salty or Sweetened Snacks	Promote Sugar-Sweetened Beverages
Amazon Prime Now (n=39)	43%	33%	14%	9%
FreshDirect (n=32)	29%	35%	2%	0%
Peapod (n=22)	57%	17%	17%	0%
Safeway (n=18)	72%	28%	0%	0%
Target (n=52)	63%	10%	18%	14%
Walmart Grocery (n=40)	46%	43%	3%	0%
Average*	51%	27%	10%	5%

* Weighted averages; weight factor based on 203 total product promotions.

Targeted Promotions

Only two of the four retailers from which we ordered groceries—Amazon Prime Now and Peapod—explicitly promoted products based on purchase history or address. (Others may use customer purchase history and address, but did not indicate that in their promotions.) Thirty-six percent of Amazon Prime Now's targeted promotions were associated with a previously purchased item, and 64 percent were based on the customer's address.

Popular near you in snacks

Ruffles Original Potato Chips, Party | Ruffles Cheddar & Sour Cream | Tostitos Scoops! Tortilla Chips, Party | Tostitos Salsa Con Queso - Medium, | Tostitos Hint of Lime Flavored Tortill

Online grocers use customers' personal information, such as their address, to promote products to them.

Forty-six percent of these targeted promotions did not meet nutrition standards. In contrast, 100 percent of Peapod's targeted promotions were for previously purchased items, though only 10 percent did not meet nutrition standards.

Retailers highlighted unhealthy products in their emails to customers, as Peapod did on the left. Only 24% of email promotions were exclusively for healthier foods, as in the FreshDirect email promotion on the right.

Email Promotions

Retailers sent an average of 11 emails per month with promotions for foods and beverages (Table 7). Amazon Prime Now and Target sent the fewest emails (6 per month), and Safeway sent the most (18 per month). Seventy-six percent of emails featuring foods and beverages promoted unhealthy products. All the emails Target sent included unhealthy items. FreshDirect sent the smallest proportion of emails containing unhealthy products; even so, 63 percent promoted unhealthy foods and beverages.

### Table 7: Retailer Emails Promoting Foods and Beverages

	Emails per Month	Did Not Meet Nutrition Standards
Amazon Prime Now	6	75%
FreshDirect	16	63%
Peapod	13	77%
Safeway	18	75%
Target*	6	100%
Walmart Grocery*	8	88%
Average	11	76%**

* We did not order groceries from Target and Walmart Grocery, which may have affected the results.
** Weighted average; weight factor based on 67 total emails per month.

Price

While all retailers offered at least one discount, we calculated the average discount on healthy vs. unhealthy products for the two retailers (Peapod and Safeway) that had five or more discounts on products in the market basket. (Amazon Prime Now, Fresh Direct, and Walmart Grocery had fewer than five discounts.) Target was excluded from the analysis because it did not list prices for at least half of its items.

Cheetos XXTRA Flamin' Hot Crunchy Cheese Flavored Snacks - 8.5oz Cheetos ★★★★☆ 5 $3.79 $2.50 with Order Pickup	**Rold Gold Braided Honey Wheat Pretzels - 10 Oz** Rold Gold ★★★★☆ 1 $2.99 $2.50 with Order Pickup	**Kit Kat Miniatures Assorted Classic Bag - 11oz** Kit Kat $3.33 reg $3.59
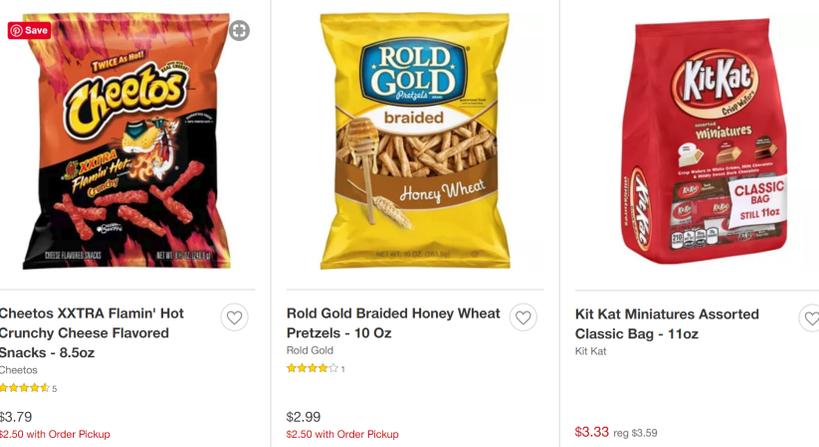
Retailers use price to promote unhealthy items like the ones pictured above.

Peapod offered markdowns on seven products, with an average discount of 14 percent on unhealthy items and 5 percent on healthy items. Similarly, Safeway offered markdowns on nine items, with an average discount of 16 percent on unhealthy items and 7 percent on healthy items. Peapod's and Safeway's discounts for unhealthy products were, on average, more than twice as great as their discounts for healthy products.

> Peapod's and Safeway's discounts for unhealthy products were more than twice as great as their discounts for healthy products.

Placement in Search Results

When we evaluated the first three products that appeared in the search results for each of the five staple categories (milk, bread, cereal, drinks, and chicken), we found that more than half (58 percent) were unhealthy (Table 8). Target featured the greatest proportion of unhealthy items in its search results (73 percent); FreshDirect had the lowest proportion (47 percent).

Table 8: Items Featured in Search Results

	Did Not Meet Nutrition Standards
Amazon Prime Now	60%
FreshDirect	47%
Peapod	67%
Safeway	53%
Target	73%
Walmart Grocery	50%
Average	**58%***

* Average is unweighted because 15 products were evaluated for each retailer.

Perdue Chicken Breast Tenderloins Boneless Skinless - 6-8 ct Fresh

🌷 **Giant Chicken Breast Tenderloins All Natural Value Pack Fresh**

🌷 **Giant Chicken Breast Tenderloins 99% Fat Free All Natural Fresh**

Chicken Patties - 3lbs - Market Pantry™
market pantry™ | only at ⊙

Tyson® White Meat Fun Nuggets - 29oz
Tyson
★★★★★ 106

Campbell's® Chunky™ Healthy Request Chicken Noodle Soup 18.6 oz
Campbell's
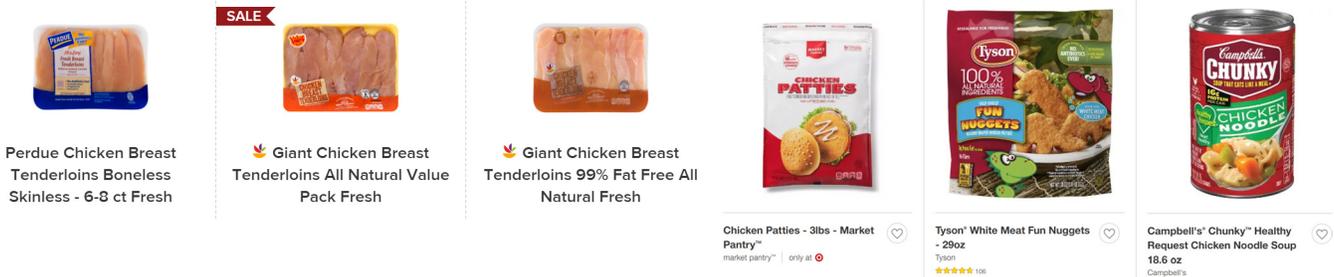
A customer searching for "chicken" on Peapod (left) will see fresh, healthier options at the top of search results. In contrast, top search results on Target (right) include chicken patties and nuggets.

Delivery Timeliness and Quality

At the time of our scan, only four of the six retailers delivered groceries in Washington, DC (Target and Walmart Grocery did not). Eighty-nine percent of items delivered correctly matched our order, and most deliveries arrived on time (Table 9).

Table 9: Delivery

	On-Time Delivery	Items Delivered Correctly	Produce Quality Score
Amazon Prime Now	100%	90%	79%
FreshDirect	100%	90%	90%
Peapod	50%	87%	82%
Safeway	50%	90%	73%
Average	**75%***	**89%****	**81%****

* Two deliveries per retailer.
** Average is unweighted because the number of items delivered ranged from 14 to 15.

Produce quality was good overall, with an average score of 81 percent and a range of 73 to 90 percent. FreshDirect scored the highest; most of the fresh fruits and vegetables delivered were of good quality—with taut skin, no soft spots, and excellent color. In contrast, the produce from Amazon Prime Now and Safeway was of mixed quality. Common issues included bruised, soft, overripe, or smashed items.

Produce quality was good overall (left). Delivered fresh fruit and vegetables generally received high quality scores, but some arrived bruised, soft, or overripe (middle and right).

Discussion

Retailers should promote, competitively price, and prominently place healthy—rather than unhealthy—foods and beverages on online grocery platforms. Understanding how online retailers use promotions, price, and placement to market unhealthy products to customers can help inform solutions to support health.

Promotions

Online Promotions are Ubiquitous and Often Unhealthy

Retailers should reduce the number of promotions for unhealthy foods and beverages and increase the number for healthy ones. On average, customers were exposed to 30 promotions on a retailer's home page, more than half of which were for unhealthy products. Customers received an average of 11 emails a month promoting foods and beverages, 76 percent of which pushed unhealthy options. However, more than half of the product promotions from Amazon Prime Now, FreshDirect, and Walmart Grocery were for healthier items, and 43 percent of Walmart Grocery's product promotions were for produce.

Online, like in-store, retailers' strategy is one of saturation. They inundate customers with promotions on the home page, search result pages, and at checkout. Repeated exposure to unhealthy foods and beverages through bright banner advertisements, pop-ups, and splashy snapshots induce impulse purchases. Emails make avoiding unhealthy food marketing all the more difficult. Retailers create additional opportunities to peddle foods and beverages, penetrating customers' inboxes and prompting additional purchases at home.

As shown in the figure at the top of the next page, online impulse purchases of groceries and snacks has increased. According to Nielsen, retailers sell 14 percent more crackers, popcorn, chips, and pretzels online than in brick-and-mortar stores.[73] Retailers may be selling more snacks because customers order in bulk to offset delivery costs or because customers are less likely to weigh health consequences online.[74,75]

CHANGE IN IMPULSE BEHAVIOR ONLINE VS. BRICK & MORTAR

Department Level

IN-STORE	MORE IMPULSE	ONLINE	
	GROCERY		5.0%
	HOUSEHOLD CARE		4.6%
	SNACKS		4.4%
	PERSONAL CARE		1.9%
-1.3%		PET CARE	
-1.5%		HEALTH	
-1.9%		FRESH	
-9.4%		FROZEN	

Source: Nielsen Shopper Essentials Benchmark Study, 2016
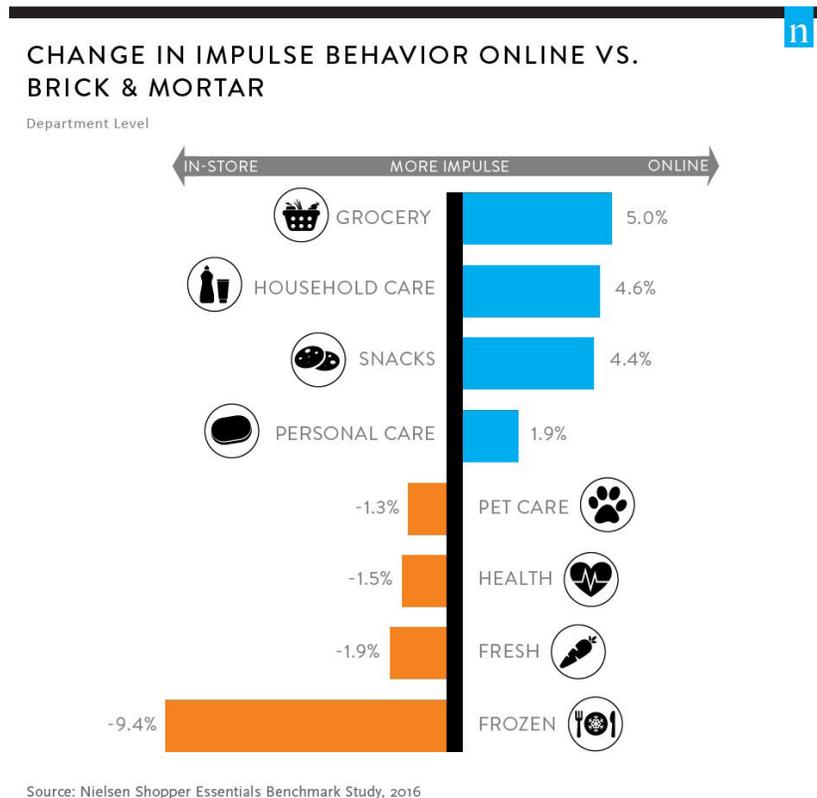
Academic research suggests that online grocery shopping could reduce unhealthy impulse purchases, but Nielsen data—at least for certain products—tells a different story.[73]

Though customers are already buying snacks online, fewer are comfortable purchasing produce online.[76,77] Studies also show that people are less likely to read nutrition information when shopping online than in a store. Future studies should compare the healthfulness of foods promoted in stores vs. online.

Targeted Promotions May Encourage Purchases of Unhealthy Items and Further Entrench Health Disparities

Only two retailers, Amazon Prime Now and Peapod, disclosed that some promotions were based on purchase history or address, but all should. If retailers are going to use shoppers' personal data for online marketing, that use should support healthy eating. Instead, many of the targeted promotions we viewed were for unhealthy foods and beverages. For example, all of Peapod's targeted promotions were for unhealthy items.

Buy It Again

DiGiorno Frozen Pizza Pepperoni, Original Rising Crust, 27.5 oz (Frozen)	Strawberries, 1 lb	Coca-Cola, 2 Liter	OREO Chocolate Sandwich Cookies, 1 Resealable 14.3 oz Pack
amazon $6.99 [Add]	amazon $3.49 $2.99 [Add]	amazon $3.39 [Add]	amazon $4.14 [Add]

Two-thirds of products we purchased were healthy, yet Amazon Prime Now suggested that we re-purchase mainly unhealthy products.

Targeted marketing on grocery websites and in emails has the potential to turn a one-time impulse buy into "a pervasive prompt for more frequent purchases."[78] Personalized data allows manufacturers and retailers to recommend specific foods and beverages that take advantage of individual vulnerabilities.

Targeted online marketing could have the most consequential effects on people already at higher risk for diet-related diseases. Low-income customers and customers of color disproportionately suffer from those diseases.[79,80] Emerging evidence suggests that when machine learning predicts user response to ads, the technology may define user groups by income or race.[81,82] Code may reflect social biases already apparent on television and in in-store marketing. Two-thirds of the food ads viewed by children on Spanish-language TV promote fast food, candy, sugary drinks, and snacks, and black children and teens view more than twice as many television ads for candy and 90 percent more ads for sugary drinks and snacks than white children and teens.[83]

Stores that serve low-income families and communities of color can make it more difficult for people to make healthy food choices. They typically stock lower quality, less affordable fresh fruits and vegetables than stores in higher-income, white neighborhoods.[84,85,86] Stores serving low-income neighborhoods promote more sugary beverages during the period when the state issues SNAP benefits.[87] If not addressed, retailers are likely to repeat this pattern of discrimination online, promoting less-healthy foods and beverages to low-income, black, and Hispanic customers.

Stores increase sugary-drink promotions when the state disburses SNAP benefits.

The USDA's plans to expand SNAP benefits online[88] should lower food access barriers, but the pilot may have unintended consequences that, in other respects, harm the people that the program intends to serve. The data privacy requirements in the SNAP pilot Request for Volunteers are limited, focusing primarily on payment security standards.[89] Limited privacy requirements coupled with sophisticated e-commerce marketing strategies may expose low-income families to new forms of targeted online marketing for foods and drinks that are poor in nutrition and high in added sugars, salt, and saturated fat.[90]

A solution to the targeted marketing problem may reside in the very technology that enables retailers to identify and market to customers. Rather than use technology to promote unhealthy foods and beverages, retailers should design automated features with health in mind.

> Rather than use technology to promote unhealthy foods and beverages, retailers should design automated features with health in mind.

For example, most retailers have a "reorder" feature that automatically saves past purchases to allow customers to quickly order on subsequent visits. Many allow customers to tag individual products as "favorites," making them easier to find when the customer logs back in. And a handful of retailers allow customers to make and save multiple grocery lists (Table 10).

Peapod by Giant   🔍 Search

Browse Aisles   Specials   Order Genius   Express Shop   Past Purchases   Favorites   Delivery / Pick-up Times   Help

Order Genius
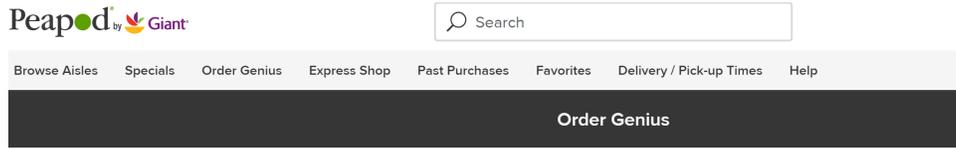
Analyzing past purchases to
determine how you shop...

Peapod's automated features allow customers to create shopping lists, add favorites, and view past purchases.

Automated order features could help customers avoid the distraction and decision fatigue that contribute to impulse purchases in-store. For example, FreshDirect allows customers to sort their past purchases by "Expert Rating" and distinguish "Most Frequently Ordered" from "Ordered Recently." The retailer suggests that customers "create new lists for weekly shopping, your own favorite recipes or monthly staples" and "keep a list of foods the kids love, your workday lunch items or tried-and-true party foods."[91] The ability to separate one-time impulse buys and party foods from weekly staples could help customers minimize unhealthy purchases online. (FreshDirect could make that even easier by dropping the "party foods" reference altogether.)

Table 10: Mechanisms to Automate Purchases

	Allows Customer to "Favorite" Products	Allows Customer to Make Lists	Has a Reorder Feature
Amazon Prime Now			X
FreshDirect	X	X	X
Peapod	X	X	X
Safeway		X	
Target	X		X
Walmart Grocery	X		X

Price

Online Price Promotions for Unhealthy Items Outpace Promotions for Healthy Ones

Peapod and Safeway discounted unhealthy items more than healthy ones, on average. Discounts can sway shoppers to purchase greater volumes, switch brands, and sample new products.[92] Manufacturers and retailers should use discounts to support healthy—rather than unhealthy—eating.

One likely explanation for the difference between unhealthy and healthy product discounts is trade promotion fees. Larger companies, typically producers of unhealthy products, can afford to mark down items and offer lower original prices. Farmers and smaller, better-for-you brands often have neither the market share nor the access to capital to make discounts viable. They cannot afford to pay trade fees while they struggle to sell products in a system designed for larger players. The result is that the majority of food on sale is unhealthy.

Online Platforms Should Make Pricing More Transparent

FreshDirect, Peapod, Safeway, and Walmart Grocery listed unit prices, making it easier for savvy shoppers to compare prices of differently sized products. FreshDirect, Peapod, Safeway, Target, and Walmart Grocery—but not Amazon Prime Now— make it possible for customers to sort search results by price.

All retailers should list unit prices, as well as original and sale prices, on product thumbnails so customers have a complete price picture. Retailers should also provide the option to filter search items by unit price. Price-sorting filters are one area where online has an advantage over in-store shopping. The ease with which customers can identify the most affordable product could save them money and time.

SALE

Chobani Greek Yogurt w/ Blueberry on the Bottom 0% Milk Fat

$1.00
5.3 oz cup | $0.19 / oz

Add to Cart

This ad lists the sale price, but not the original price. Listing the original price helps customers better understand the extent of the discount.

Posting accurate pricing information for produce is an area where online grocery lags. In several instances, retailers charged us the price difference when the weight that they delivered differed from the weight that we ordered; for example, when the total weight of four tomatoes was 1.2 rather than 1 pound. Though most noted that final prices could vary, additional charges could be a barrier to purchasing produce for low-income shoppers.

Placement in Search Results

Retailers Did Not Prominently Feature Healthy Items in Search Results

When we searched for common staple items for which there are both healthy and unhealthy versions, we found that more than half of the top results were unhealthy options. A recent study of online retail shows that product order matters; altering the default options featured may help improve the nutritional quality of consumers' food purchases.[93]

Customers use default display options and make most purchases from the first page of results.[94] Placing an item at the top of the search results can increase the product's visibility, sales, and consumption, which is why larger food and beverage companies pay retailers to prominently place products within search results. Retailers should use algorithms to prioritize healthy items over unhealthy versions in search results. For example, when a customer searches for "bread," retailers should feature whole wheat options before ultra-processed white bread.

Healthy Default Search Filters Could Support Healthier Choices

FreshDirect, Peapod, Safeway, and Target allowed customers to sort search results based on nutritional attributes like calories or the presence of common allergens. While Amazon.com and Walmart.com provided nutrition filters, we were unable to locate those filters on the retailers' online grocery stores: Amazon Prime Now and Walmart Grocery.

In addition, customers have to opt in to search filters. Research shows that 87 percent of customers use the default settings to sort products.[95] Changing nutrition filters to an opt-out design would better support healthy eating.

Retailers Should Disclose Sponsorships

FreshDirect and Target listed sponsorships on product thumbnails. Peapod identified several promotions on its home page as sponsored. Walmart.com, but not Walmart Grocery, listed relevant food and beverage sponsorships at the top and bottom of search results pages.

∧ Dietary Needs

Search Dietary Needs

☐ Does not contain dairy

☐ Does not contain egg

☐ Does not contain fish

☐ Does not contain peanuts

☐ Does not contain shellfish

Retailers like Target provide nutrition filters that may make shopping easier for customers with special dietary needs.

But not all retailers divulge sponsorships. For example, we noticed that across retailers, Dave's Killer Bread routinely appeared at the top of searches for "bread," leading us to believe that the brand was paying for placement during the week we collected data. Disclosing sponsorships on grocery websites, in the same way search engines already do, would increase transparency for trade promotion fees and could support healthful eating.

SPONSORED

Lactaid
100% Lactose-Free
2% Reduced Fat Milk,
Carton
1/2 gallon
$4.29/ea ($1.07/pt)

Frito Lay Sweet And Salty Variety Box - 50ct
Frito-Lay
$23.49
Free standard shipping with $35 orders
Not in stores
Add for shipping
sponsored
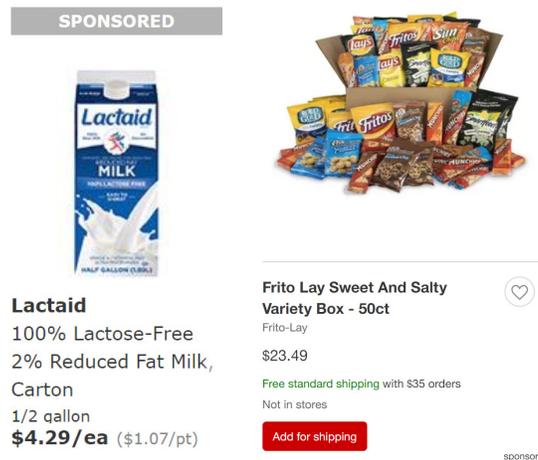
FreshDirect (left) and Target (right) product thumbnails indicate which products are sponsored.

Sponsorship fees may be one reason why healthier foods are less likely to appear at the top of search results. Corporations with big marketing budgets can pay sponsorship fees to ensure that sponsored products are prioritized in search results, but farmers and smaller, better-for-you brands typically cannot. Farmers and

produce companies are not the only ones who lose out; customers have less exposure to healthy foods as a result.

Failure to disclose sponsorships may deceive customers who expect that search results are based on relevance to a search query, not on payment by a third party. The Federal Trade Commission (FTC) has acknowledged that placement has a profound influence on customers' decisions. The FTC investigated search engine results and the "potential for customers to be deceived, in violation of Section 5 of the FTC Act, unless search engines clearly and prominently distinguished advertising from natural search results."[96] The agency's updated search engine guidance highlights the need for visual cues, labels, or other tools to distinguish advertisements, and recommends that disclosures commonly used to identify advertising be noticeable and understandable to consumers.[97]

Recommendations

Recommendations for Policymakers

Policymakers should help ensure that online grocery websites promote healthy, not unhealthy, eating.

The U.S. Department of Agriculture should develop policies and guidance for online SNAP retailers to:

- Highlight healthy, not unhealthy, foods and beverages in promotions on home, search, and checkout pages, and in emails.

- Use price promotions to incentivize healthy, rather than unhealthy, food and beverage purchases.

- Prominently feature healthy options in search results.

- More clearly communicate the price of product substitutions or additional fees for weight-adjusted items like produce, and display unit pricing so that price-sensitive customers can more easily compare product value.

- Disclose product sponsorships.

The Federal Trade Commission should:

- Complete a study of online grocery retailers' marketing practices, including targeted marketing practices that use personal purchase history, search history, and the customer's race, income, or address to inform website and email promotions.

- Investigate whether retailers clearly disclose product sponsorships.

- Bar retailers from sharing personal purchase and search history data with food manufacturers.
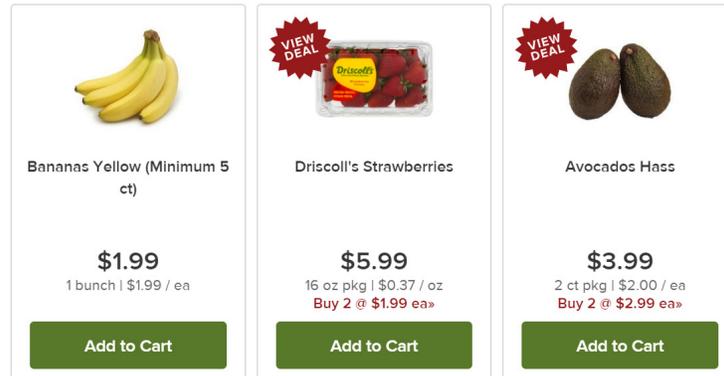
Retailers should only use personal data like past purchase history and customers' addresses to promote healthy items.

Recommendations for Retailers

Retailers should redesign grocery websites to support healthy eating, rather than undermine it. Specifically, they should:

- Highlight healthy, not unhealthy, foods and beverages in promotions on home, search, and checkout pages, and in emails.

- Prominently feature healthy options in product search results.

- Use price promotions to support food and beverage purchases consistent with expert dietary recommendations.

- Disclose sponsorships so that customers can distinguish genuine search results from advertisements.

🌱 Develop policies that only permit the use of personal purchase, search, and geographic information to promote healthy foods and beverages.

🌱 Design automated reorder features to reduce unhealthy promotions and support healthy ones.

🌱 Clearly communicate pricing policies and pricing structures for substitutions. Customers, especially price-sensitive ones, need to know what additional costs they might pay when retailers substitute for similar products or deliver produce of a

Retailers should encourage produce purchases through price promotions.

greater weight.

🌱 Prominently display unit costs to allow price-sensitive shoppers to more accurately compare products.

🌱 Improve delivery processes to ensure that perishable items remain cold and products arrive without bruises or blemishes.

Recommendations for Researchers

Researchers should evaluate online marketing, including targeted marketing, to identify practices that undermine and that support healthy eating. Specifically, they should:

🌱 Conduct additional studies to assess the number, kind, and healthfulness of product promotions that appear on home, search, and checkout pages; in emails; and through price

promotions. Studies should compare retailers' promotions to high- vs. low-income customers, including SNAP participants.

🌱 Assess the extent to which retailers prominently feature unhealthy versions of products in search results, as well as the difference in products featured to high- vs. low-income shoppers.

🌱 Compare the user experience for online ordering and delivery for high- vs. low-income customers.

🌱 Test different online promotions to identify approaches that effectively encourage healthy eating.

🌱 Assess the prevalence and effect of targeted promotions.

🌱 Compare retailers' automated order tools to determine which features best support healthy eating.

🌱 Test the effectiveness of different default search filters to support healthy eating.

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