

# Promoting Equitable Expansion of the SNAP Online Purchasing Pilot

## Healthy Eating Research

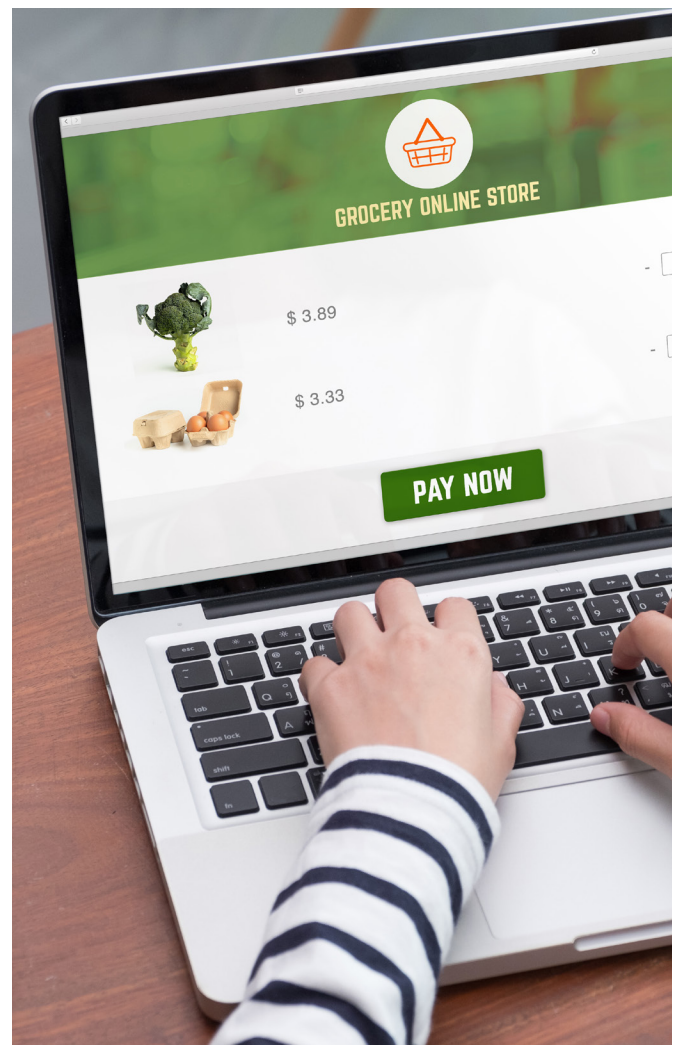
Research Brief, July 2021

### Introduction

The U.S. Department of Agriculture (USDA) Supplemental Nutrition Assistance Program (SNAP) is the nation's largest nutrition assistance and anti-hunger program.<sup>1</sup> Eligible households with low incomes receive monthly allotments on an electronic benefits transfer (EBT) card, which works similarly to a debit card. SNAP can be used to purchase most food and beverage items, excluding alcohol, hot foods, and prepared foods, from nearly 250,000 authorized retailers.<sup>2</sup> In June 2020, SNAP served 43 million individuals, representing nearly 1 in 8 Americans and marking a 16% increase in participation since March.<sup>3</sup> SNAP is a critical part of the nutrition safety net for households with children, seniors, and people with disabilities. In 2019, over 66% of SNAP participants lived in households with children.<sup>4</sup>

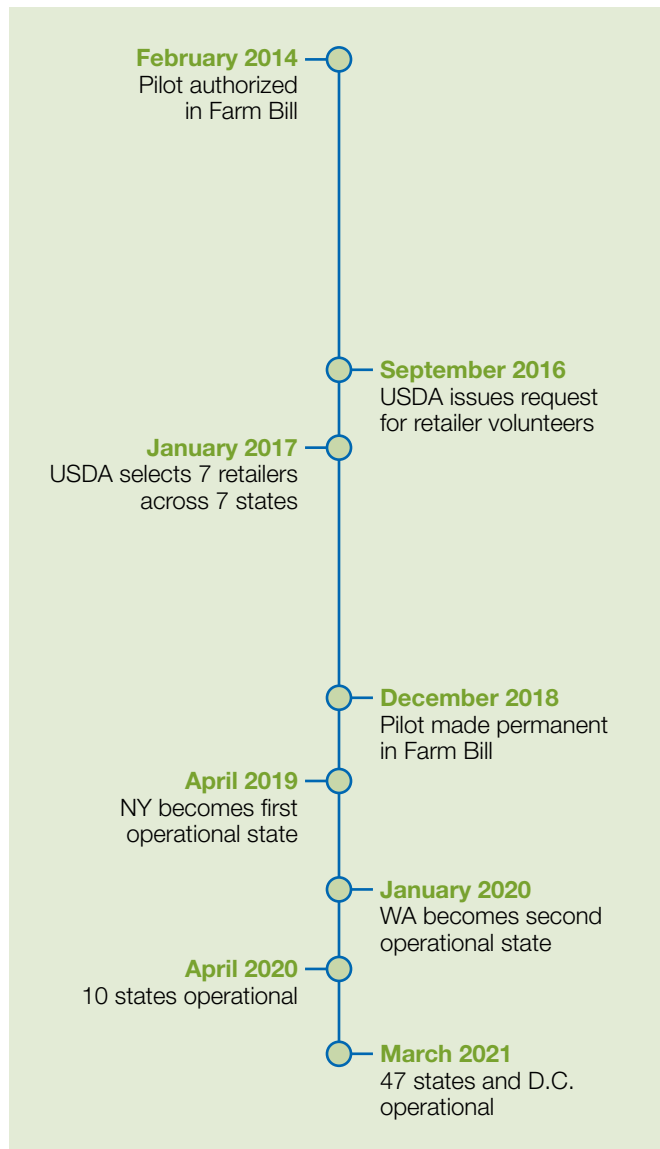
Until recently, SNAP benefits could only be used for food purchases paid for in person at authorized retail stores, or for orders placed online and paid for at pick-up or delivery. The 2014 Farm Bill mandated testing the feasibility of accepting SNAP benefits for online grocery transactions in the Online Purchasing Pilot (“Pilot”).<sup>5</sup> The 2018 Farm Bill amended the definition of “retail food store” to include online entities and authorized USDA to approve states and retailers for online purchasing nationwide.<sup>6</sup> This change effectively made the Pilot permanent and available across the U.S.. In April 2019, the Pilot launched in three online retailers in select areas of New York.<sup>7</sup> Increased participation in SNAP, along with the need for socially distanced food shopping and delivery during the COVID-19 pandemic, led to the rapid expansion of the Pilot in 2020 (Figure 1).<sup>8</sup>

According to USDA, the Online Purchasing Pilot aims to “improve access to healthy food for SNAP participants,” including people in rural areas, those who lack transportation to the grocery store, and people with mobility limitations.<sup>9</sup> Unlike many SNAP waivers and program flexibilities approved by USDA during the COVID-19 pandemic, approval for online purchasing is not time limited. It is likely that online transactions will represent a growing portion of SNAP redemptions in years to come, as new states and retailers continue to be approved on a rolling basis. Furthermore, USDA has announced its intent to prioritize nutrition security,<sup>10</sup> which seeks to address the dual problems of food insecurity and diet-related chronic diseases, in their programs and policies.<sup>11</sup>



**Figure 1.**

**Rollout of the USDA Online Purchasing Pilot**



The focus on nutrition security creates an opportunity to design a Pilot that not only increases access to healthy food, but also promotes the longer-term nutritional health of underserved communities, for example, by supporting local retailers or restricting business practices that undermine healthy eating. This brief assesses whether the Pilot supports USDA’s dual aims of promoting healthy food access and nutrition security by examining the extent to which the following three criteria are met:

- The Online Purchasing Pilot is **available**.
- Online purchasing is **utilized**.
- The Online Purchasing Pilot **supports nutrition security**, including household food security and healthy dietary behaviors.

**Equity** is achieved when all SNAP participants have the resources and supports they need to achieve nutrition security through utilization of online purchasing. This brief examines the extent to which the Online Purchasing Pilot is currently meeting these three criteria, and offers recommendations for improvement. It draws on academic and grey literature, USDA guidance and policy documents, federal and state agency press releases, industry reports, legislation, and news media coverage related specifically to the Online Purchasing Pilot or to online purchasing.

**Key Insights into the Online Purchasing Pilot**

**Is the Online Purchasing Pilot Available to All SNAP Participants?**

Availability means there is an adequate supply of retailers selling healthy foods to which consumers can gain access. Although availability of retailers approved for the Online Purchasing Pilot is increasing, important gaps remain. Key findings related to availability are as follows:

- USDA rapidly expanded the geographic availability of the Online Purchasing Pilot from just five states in March 2020 to 47 states and Washington D.C., by March 2021. These states are home to 97% of SNAP participants.<sup>12</sup>
- Online purchasing is not available to all SNAP participants in operational states. Although most states allow online transactions with SNAP EBT in at least one retailer, authorized retailers do not always serve all zip codes within the state. Estimates from 2018-2019 found that among states participating in the Pilot, online purchasing and delivery services were available in only 31% of census tracts considered rural food deserts. In comparison, online purchasing and delivery services were available in 94% of census tracts considered urban food deserts.<sup>13</sup>
- Participation in the Online Purchasing Pilot is dominated by the largest grocery retail chains. Amazon and Walmart are the top revenue-generating grocery retailers in the United States and control more than 50% of the online grocery market.<sup>14,15</sup> These retailers are operational in all approved states, and, as of May 2021, were the only retailers operational in nine states (19% of those approved). Amazon offers SNAP recipients discounted Prime membership, which covers free grocery delivery, as well as discounts on other products and services.<sup>16</sup>
- There are more than 20,000 small, independent grocers and 8,600 farmers’ markets in the United States—only 12 of these participated in the Pilot as of May 2021.<sup>17,18</sup> Despite growing interest, independent stores have been unable to participate due to limited financial resources, technological hurdles, and a long, often opaque application process that requires approval of each store location in each state.<sup>19,20</sup>

Smaller stores have limited resources to meet the technical requirements of the Pilot, which requires an e-commerce platform with custom software, online EBT pin processor, and up-to-date online inventory (Table 1). Stores may also need to hire staff or outside vendors to provide personal shopping and/or delivery services.

### Are SNAP Participants Able to Utilize Online Purchasing?

Increasing the availability of retailers approved for the Online Purchasing Pilot is an important step toward improving healthy food access for SNAP recipients. However, despite increased retailer participation in the Pilot, and growing acceptability and utilization of online food purchasing, there are many personal, structural, and financial barriers that make further adoption challenging. Key findings related to utilization of the SNAP Online Purchasing Pilot are as follows:

- Utilization of online purchasing has increased during the pandemic. Early evidence from states participating in the Pilot shows that in the first several months of the pandemic, up to 5% of monthly SNAP redemptions occurred online.<sup>23</sup> In an average month, 2% of SNAP recipients in Vermont and up to 17% in Kentucky used SNAP online purchasing. In many states, including Washington, Maryland, Nebraska, and Texas, increases in adoption seen during the early months of the pandemic plateaued in later months.
- Among families with lower incomes, online grocery shopping is generally perceived as convenient and time-saving, and viewed as being particularly beneficial for people with disabilities, older adults, and households with poor access to transportation.<sup>24-30</sup> However, in the general population, people who purchase food online continue to be younger, live in households with children, and have higher income and educational attainment.<sup>31,32</sup>

Table 1.

Requirements for authorized retailers to accept SNAP EBT for online transactions<sup>21</sup>

Requirement	Criteria to Meet Requirement
<b>Retailer Licensing and Existence of E-Commerce Platform</b>	
<b>SNAP Authorized Retailer</b>	<ul style="list-style-type: none"> <li>■ Stock a minimum variety of staple foods (fruits, vegetables, meat, dairy, grains) or document &gt;50% of sales from staple foods (e.g., a butcher)<sup>22</sup></li> <li>■ Be licensed by USDA</li> </ul>
<b>Online Presence</b>	<ul style="list-style-type: none"> <li>■ Operate an e-commerce site with an inventory of food available</li> </ul>
<b>Characteristics of E-Commerce Platform</b>	
<b>Secure Online PIN Entry</b>	<ul style="list-style-type: none"> <li>■ Use the payment processing company, Acculynk, and their secure PIN processing infrastructure</li> </ul>
<b>Error Handling</b>	<ul style="list-style-type: none"> <li>■ Communicate with customers to reduce payment errors (i.e., denial of payment due to insufficient SNAP balances)</li> </ul>
<b>Refunds</b>	<ul style="list-style-type: none"> <li>■ Provide refunds to match the original purchase</li> </ul>
<b>Pricing Estimation</b>	<ul style="list-style-type: none"> <li>■ Provide an estimated price for products sold by weight</li> </ul>
<b>SNAP Integrity</b>	<ul style="list-style-type: none"> <li>■ Ensure that only SNAP-eligible food items are purchased with SNAP benefits</li> <li>■ Ensure that no sales tax is charged on SNAP purchases</li> <li>■ Ensure that one EBT card is used per customer account</li> </ul>
<b>Split Tender</b>	<ul style="list-style-type: none"> <li>■ Allow customers to pay for non-SNAP-eligible items and fees using debit, credit, gift cards, or another form of accepted payment other than SNAP EBT</li> </ul>
<b>Transaction Receipt</b>	<ul style="list-style-type: none"> <li>■ Provide an electronic receipt to all SNAP households including transaction information such as remaining EBT balance, itemized fees, and estimated delivery or pick-up time</li> </ul>
<b>Privacy Policies and Practices</b>	
<b>Sharing of Personal Data</b>	<ul style="list-style-type: none"> <li>■ Require customers to opt in to (versus opt out of) sharing personal, individual level information (i.e., customer email address) with third parties</li> </ul>

- Stable and secure internet needed to access online grocery websites is still unavailable in many rural, tribal, and urban areas with low incomes. While access to fixed broadband service is lacking for about 6% of the American population, in rural and tribal areas upwards of 25-33% of the population cannot access this service.<sup>33</sup> In 2019, nearly 1 in 5 adults with lower incomes (<\$30,000 in annual income) lacked access to home broadband and a digital device, such as a smartphone, home computer, or tablet.<sup>34</sup>
- Technology acceptance, including digital literacy, distrust in technology, and concerns about sharing personal information online are important barriers to utilization of the Pilot.<sup>28,29,35</sup> Consumers' digital hesitancy is fueled by lack of experience shopping online and difficulty navigating the store website. Concerns about identity theft, breach of confidentiality, and data security are also prevalent.
- The brick-and-mortar store is perceived as having several advantages over online retail. Quality and freshness of perishable items such as produce and meat have historically posed major barriers to shopping online,<sup>25,26,36</sup> but recent data from mixed-income samples show this is changing as consumers put more trust in personal shoppers to select acceptable items.<sup>31</sup> Social interactions with other shoppers or store staff and sensory stimuli (sight, touch, smell) are also viewed as important aspects of the shopping experience that are unavailable in the online setting.<sup>26,28,30</sup>
- Shopping online is perceived as being more expensive than shopping in the store. Customers are wary of membership costs, fees (e.g., service, delivery, cancellation), and gratuity, which are often not disclosed until the point-of-purchase and cannot be paid for using EBT.<sup>25,36-38</sup> Food prices have been found to be higher online than in store.<sup>24-26</sup> Deals are difficult to find, as in-store coupons are often unavailable online and retailers make it difficult to compare unit prices across similar items prior to purchase.<sup>26,37</sup> Consumers who might shop for foods across multiple retailers to get the best deals are less able to do so online due to minimum order requirements and other fees.<sup>25,30</sup> The online platform allows retailers to use computer algorithms to dynamically price products in real time based on competitors' prices or characteristics of the consumer, which may raise prices when demand for certain products or in certain areas is high.<sup>39</sup>
- Lack of time, resources, and infrastructure for placing online orders, accepting deliveries, and picking up groceries ordered online may be a challenge. Even if EBT is used for food purchases, placing an order online is difficult without a bank account or access to credit, since having a debit or credit card is often needed to cover delivery and other fees.<sup>27</sup> Some households may lack safe and secure delivery or pick-up locations or the transport options necessary for curbside pick-up.<sup>26</sup> Many online retailers, including food retailers, offer

dynamically priced delivery, whereby customers are offered differential delivery prices based on the delivery deadline, delivery routes, and other factors.<sup>37,40,41</sup> Customers may be offered discounts for longer or less convenient delivery windows, or may choose to pay a premium for greater convenience, narrower windows, or speedier delivery.<sup>42</sup> In each of these scenarios, people who live in sparsely populated areas, have greater financial constraints, or have limited time or job flexibility may end up paying higher fees or experiencing longer wait times for food delivery.

### **Does the Online Purchasing Pilot Support Nutrition Security?**

This criterion captures the degree to which the practices, products, and services provided by retailers support food security and healthy dietary behaviors. Strategies to support the selection of healthy food have been tested in experimental online stores, but few studies have included SNAP recipients. Further, promising practices have so far not been scaled up or sustainably leveraged to promote healthy choices in real-world online food retail settings, where unhealthy products account for the vast majority of product promotions. Key findings related to supporting nutrition security are as follows:

- In the general population, online food purchasing holds promise for reducing unhealthy impulse purchases, particularly when behavioral principles, such as defaults and personalized “nudges,” are leveraged to promote health.<sup>43,44</sup> Pilot and short-term experimental studies have found that healthy default shopping carts, recommended product substitutions, front-of-package food labels, and placing healthy items early in the search results can increase fruit and vegetable purchases online, improve the nutritional profile of the online grocery transaction, and improve the household food environment.<sup>45-50</sup>
- There is great potential for online food retailers to provide nutritional guidance to shoppers at point-of-purchase by providing salient food labels, automatic filters for healthy items, access to a registered dietitian in real time, or customized recipes or shopping lists. However, in real-world settings, this healthy food choice infrastructure is used infrequently or inconsistently across products (e.g., Nutrition Facts labels are available for some products, but not others) and is often difficult to access.<sup>37,51</sup>
- Online grocery retailers use a wide range of strategies to market certain products and brands on their platforms.<sup>52-54</sup> These include strategies similar to the brick-and-mortar setting, such as price promotions, banner advertisements, and shelf labeling. More specific to online platforms are strategies such as product recommendations (e.g., “popular near you”) and search result ordering (e.g., “best match”), peer-to-peer communication (e.g., product ratings and reviews), branded site content (e.g., recipes recommending specific brands),

## E-Commerce Practices May Entrench Health Inequities and Threaten Nutrition Security

### 1. Targeting and personalization by consumer attributes:

Prior research shows that search engines and e-commerce sites personalize search results and target product marketing using the user's geolocation (IP address, Wi-Fi location, or GPS-enabled mobile phone data).<sup>57,58</sup> Evidence shows that product marketing is also personalized according to other characteristics of the consumer (e.g., browser, operating system, web usage) or presumed characteristics of the consumer segment.<sup>55</sup> This personalization can affect pricing, as well as how products are presented or advertised to consumers in the online store. For example, several studies have shown that popular retail, travel, and car rental sites personalize the order in which search results are displayed, whereby a subset of users are steered toward more expensive products with the same search.<sup>59-62</sup> Other studies have documented personalization in web advertisements and recommender systems.<sup>63,64</sup>

**2. Biases in algorithmic decision-making:** Studies across diverse fields have shown that computer algorithms based on biased information can lead to undesirable outcomes. For example, algorithms used in sentencing have been shown to inaccurately predict recidivism among black defendants who did not reoffend, at nearly twice the rate of white defendants (although this finding has been subject to scrutiny, it has sparked discussion about fairness in algorithmic decision-making).<sup>65,66</sup> Amazon famously abandoned a recruitment algorithm that systematically discriminated against women.<sup>67</sup>

**3. Deceptive or misleading practices:** There are many ways in which e-commerce retailers have been shown to coerce consumers into making impulse purchases or decisions that increase profit but ultimately harm the consumer ("dark patterns"). Examples include adding items to the shopping cart without the user's consent, creating a false sense of urgency to make a purchase (e.g., countdown timers), using confusing language or shame to steer users toward certain choices, creating a false sense of scarcity (e.g., low stock messages), making it easy to sign up for a membership but difficult to cancel, or forcing users to share personal information in order to complete certain tasks.<sup>68</sup>

interactive product features (e.g., option to "like" a product), and social media engagement. Most products promoted using these strategies have been found to be of poor nutritional quality (defined as ultra-processed and excessive in calories, added sugars, saturated fat, sodium, or other sweeteners).<sup>52,53</sup> Compared to ultra-processed products, fewer discounts are available online for fresh foods such as fruits, vegetables, or unprocessed meats.<sup>54</sup>

- Unlike brick-and-mortar stores, online grocery platforms use targeted and personalized marketing.<sup>55</sup> While the targeting and personalization of marketing is not a harmful practice in and of itself, it is concerning if done without the user's explicit, informed consent. There are many examples of the targeting and personalization of marketing in other e-commerce settings that perpetuate prior undesirable behaviors, target users with unhealthful products based on biased algorithms, or manipulate users into making decisions they otherwise would not make.<sup>56</sup>

## Knowledge Gaps

As the Pilot expands, more research is needed to understand the extent to which online purchasing improves healthy food access and nutrition security for SNAP participants. Key knowledge gaps include:

- **Availability of authorized retailers and coverage of delivery services:** Currently, few retailers are authorized to participate in the Pilot and historically, delivery services have been limited in rural and tribal areas. It will be important to continue to measure characteristics of authorized retailers (e.g., store type, ownership, location, delivery radius), disparities in geographic availability of retailers and delivery services, and the extent to which availability affects household food access.
- **SNAP redemptions at online retailers:** Between 2019 and 2020, online retail's share of food expenditures more than doubled in the general population, but SNAP participants' use of online purchasing is still low—both in terms of the proportion of SNAP participants that purchase groceries online and in terms of the proportion of SNAP benefits redeemed online. More data on the uptake of online purchasing during the pandemic, shifts in food shopping behaviors (e.g., toward large national chains offering food delivery in place of local grocers lacking online infrastructure), and the extent to which these changes persist after the pandemic are needed.
- **Nutritional quality of online purchases:** Studies assessing the effect of online food shopping on the nutritional quality of purchases have included an insufficient sample of SNAP recipients due to inability to use EBT for online transactions. The expansion of the Pilot enables research on the extent to which utilization of online purchasing affects diet quality of SNAP participants.

- **Personalization of online food retail marketing:** Prior research in e-commerce settings demonstrates personalization in pricing, advertising, and product recommendations. The degree to which online food retail environments are personalized, and the consumer characteristics on which personalization is based (e.g., geolocation, demographics, past purchases), is unknown. Research is needed to understand the prevalence and mechanisms of these practices.
- **Impact of online food retail marketing on purchases:** Online food retail marketing is highly prevalent and tends to promote ultra-processed foods and beverages of poor nutritional quality. The extent to which this marketing influences consumer food choices and the feasibility of shifting marketing practices to promote healthful foods and beverages is unknown. The Pilot also presents the opportunity to study how the online platform could be leveraged (e.g., through online “nudges,” labeling, or nutrition education) to promote healthful food choices and improve household food security both for SNAP participants and for all users of online purchasing.
- **SNAP participants’ perspectives on the use of online purchasing:** Continued research with SNAP participants is needed to understand how users engage with the online platform, to identify barriers to utilizing the Pilot, and to cultivate a healthy online food retail environment. Participatory research that recognizes SNAP participants as stakeholders in achieving healthy food access and co-creating interventions that support online purchasing is warranted.

## Policy Considerations

The COVID-19 pandemic has shed light on the importance of providing access to online food retail and delivery services for SNAP participants, particularly as participation in SNAP swells during the pandemic and economic recession. For the Pilot to achieve its aim of improving healthy food access for SNAP participants underserved by brick-and-mortar retailers, online purchasing will need to be available, utilized, and designed to promote nutrition security for all consumers. The current evidence base points to gaps in the Pilot’s ability to meet these criteria, which could be mitigated through policy change. Policy recommendations to promote equitable expansion of the Online Purchasing Pilot include:

- **Supporting the participation of diverse retailers in the Online Purchasing Pilot:** Many small retailers and producers lack the e-commerce infrastructure needed to participate in the Pilot (Table 1) and to compete with large national chains and online entities. USDA should provide technical and financial assistance to local retailers and producers to incentivize their participation. The process and timeline for gaining approval should be transparent and easily accessible to retailers through trade associations, USDA, and state agency

websites. Information about participating retailers in each state, such as their geographic reach by zip code, needs to be frequently updated, made publicly available, and shared with state agencies and SNAP outreach partners. Congress should pass legislation that requires commercially available software systems and online POS systems to accept SNAP.

- **Providing SNAP participants the infrastructure and services needed to facilitate online ordering and delivery:** SNAP participants and shoppers with lower incomes report limited access to safe and secure delivery locations, unreliable access to internet and digital devices, and lack of familiarity with online purchasing. USDA should increase funding and provide flexibility to states to use funding for SNAP-Ed, SNAP’s voluntary nutrition education program, to offer these resources according to community need. For example, SNAP-Ed could take orders over the phone or offer drop-off services for seniors or people with mobility limitations, provide secure pick-up locations for deliveries (e.g., refrigerated lockboxes), issue loaner laptops or digital devices, create virtual tutorials about online purchasing, or facilitate group purchasing (i.e., several households purchasing together to meet minimum ordering requirements and reduce service and delivery fees).
- **Subsidizing online purchasing and delivery fees:** Food delivery is a necessity for the many households with children lacking childcare during school closures and is the safest option for most households during the pandemic. But high delivery and service fees are a barrier for SNAP participants. USDA should subsidize online purchasing and delivery fees for the duration of the public health emergency, and should explore permanent options to fully or partially subsidize fees. Several states cover home-delivered meals for at-risk populations through Medicaid demonstration projects, and this option could be explored for grocery delivery.
- **Strengthening health promotion requirements for authorized retailers:** The ability to accept SNAP for online purchases is a financial boon for retailers, who should be expected to meet minimum requirements for promoting health and protecting consumer welfare in order to participate in the Pilot. At a minimum, USDA should require authorized retailers to provide clear and consistent payment and privacy information on their websites, allow consumers to easily opt out of data sharing, and prohibit authorized retailers from using deceptive practices to influence consumer purchases. To advance its mission of achieving nutrition security, USDA could also consider healthy food marketing standards for authorized retailers, including online entities. In the future, as research into online food retail marketing practices grows, restrictions on dynamic pricing, algorithmic decision-making, and personalized marketing may be warranted to ensure equitable treatment of SNAP participants.

- **Promoting a healthy food environment through multiple stakeholder involvement:** Engaging different actors and channels may help achieve the Pilot's ultimate goal of improving access to healthy food for SNAP participants. To this end, SNAP participants themselves and SNAP-Ed providers could work with retailers to leverage the online shopping environment to promote healthy eating (e.g., by providing virtual access to a dietitian while shopping, making food labels more salient, offering personalized recipes or shopping lists, or creating healthy “nudges” on the e-commerce platform).

## Conclusions

Expansion of the USDA SNAP Online Purchasing Pilot during the COVID-19 pandemic begins to fill a gap in food access for the increasing number of households with children who participate in SNAP. The Pilot was designed to provide access to food for people living in areas underserved by brick-and-mortar retailers, who lack transportation to the store, or who are unable to shop because of illness or disability. Since the start of the pandemic, USDA has worked diligently to increase the number of operational states and retailers, but gaps in availability still exist, particularly in rural food desert areas and in communities reliant on small, independent grocers. In areas where the Pilot is available, digital hesitancy, high online food prices, service and delivery fees, and lack of access to reliable internet and/or electronic devices make it difficult for households with limited resources to shop online. Current USDA policy does not support the long-term nutrition security of communities historically underserved by access to healthy food. To date, few retailers other than Amazon and Walmart have been approved, which pulls revenue from local retailers and may have downstream effects on the nutrition security of communities with low incomes. Retailers accepting SNAP benefits are free to collect and share personal data without users' explicit consent, heavily advertise foods and beverages discouraged by the U.S. Dietary Guidelines for Americans, target consumers with advertisements on the basis of demographic characteristics, and design websites that may mislead consumers to maximize retailer profit. Policies that: (1) provide technical and financial assistance so that local retailers and producers can participate in the Pilot; (2) support utilization among SNAP participants through structural changes; and (3) strengthen and enforce requirements for authorized retailers can overcome these limitations and help ensure healthy food access for all SNAP participants.

## Acknowledgments

This research brief is based on a rapid-response study funded through a special commissioned research opportunity from Healthy Eating Research, focused on COVID-19 and the federal nutrition programs, to inform decision-making regarding innovative policies and/or programs during and after the COVID-19 pandemic. External review was provided by Lucia Leone, PhD, assistant professor, University at Buffalo, and Maya Sandalow, policy associate, Center for Science in the Public Interest.

## Suggested Citation

Moran A, Headrick G, Khandpur N. Promoting Equitable Expansion of the SNAP Online Purchasing Pilot. Healthy Eating Research; Durham, NC: 2021. Available at: <https://healthyeatingresearch.org>

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### **About Healthy Eating Research**

*Healthy Eating Research* (HER) is a national program of the Robert Wood Johnson Foundation. Technical assistance and direction are provided by Duke University under the direction of Mary Story PhD, RD, program director, and Megan Lott, MPH, RDN, deputy director. HER supports research to identify, analyze, and evaluate environmental and policy strategies that can promote healthy eating among children and prevent childhood obesity. Special emphasis is given to research projects that benefit children and adolescents and their families, especially among lower-income and racial and ethnic minority population groups that are at highest risk for poor health and well-being and nutrition related health disparities. For more information, visit [www.healthyeatingresearch.org](http://www.healthyeatingresearch.org) or follow HER on Twitter at [@HERResearch](https://twitter.com/HERResearch).

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