

# The Case for a National SNAP Fruit and Vegetable Incentive Program

Sara John, MS, Reece Lyerly, MS, MPH, Parke Wilde, PhD, Eliza Dexter Cohen, BA, Eliza Lawson, MPH, and Amy Nunn, ScD

## ABOUT THE AUTHORS

Sara John and Parke Wilde are with the Friedman School of Nutrition Science and Policy, Tufts University, Boston, MA. Reece Lyerly is with the Friedman School of Nutrition Science and Policy and the Rhode Island Public Health Institute, Providence. Eliza Dexter Cohen and Eliza Lawson are with the Rhode Island Public Health Institute. Amy Nunn is with the Rhode Island Public Health Institute and School of Public Health Center for Health Equity Research, Brown University, Providence.

Supplemental Nutrition Assistance Program (SNAP) enrollment has increased dramatically during the COVID-19 economic crisis. Currently, one in three households with children experiences food insecurity, the greatest prevalence in modern times.<sup>1</sup> SNAP effectively reduces poverty and improves food insecurity,<sup>2</sup> and the current recession has increased many US households' reliance on federal nutrition programs. These new developments have intensified ongoing public debate about the most effective program designs for promoting food security and dietary quality.

SNAP fruit and vegetable (FV) incentives aim to improve diet quality for participants by providing matching funds for FVs purchased with electronic benefit transfer (EBT). SNAP incentives encourage healthy eating behaviors by subsidizing FV purchase and consumption. FV incentives have been piloted nationwide, providing important evidence that can inform optimal program design. However, incentives are not uniformly available to all SNAP participants, and there are currently

insufficient federal resources appropriated to expand incentives nationwide. We review the scientific evidence base for FV incentives and their correlation with healthy eating behaviors, highlight potential challenges for scaling FV incentive programs, and explain the public health opportunity associated with nationwide expansion of evidence-based FV incentives.

## EVIDENCE BASE

SNAP provides more than 37 million Americans monetary benefits for food. Given widespread SNAP participation, incremental program changes have the potential to have large, positive impacts on US food security and nutrition, further aligning SNAP with agency mission. The 2008 Farm Bill's Healthy Incentives Pilot (HIP) offered a \$0.30 rebate per every \$1.00 of SNAP benefits spent on targeted FVs. This program was associated with a reduction in the gap between actual and recommended FV intake by 20%; SNAP households randomly assigned to receive FV incentives increased daily consumption of FVs by

26% (¼ cup equivalent) and monthly household purchases increased 11% (\$6.15).<sup>3</sup>

Subsequently, the 2014 Farm Bill authorized the Food Insecurity Nutrition Incentives (FINI) Program to fund community FV incentives for SNAP participants. The 2018 Farm Bill increased funding and renamed FINI the Gus Schumacher Nutrition Incentive Program (GusNIP). The FINI Interim Report evaluating 2015–2017 grantees showed that FINI increased monthly FV purchases for SNAP participants living near a participating retailer by up to 16% (\$15.32) but did not translate to detectable increases in FV consumption.<sup>4</sup> However, the consumption finding should be interpreted with caution. The wide array of FV incentive program designs and limited uptake across the 2600 FINI-participating retailers complicated the evaluation of FINI outcomes. Some programs designed to measure more discrete measurable outcomes demonstrated large improvements in FV consumption; for example, the FINI-funded Rhode Island Public Health Institute's Food on the Move program, a mobile produce market offering a 50% discount on all EBT purchases, found that SNAP customers spent \$10.54 more on FVs per transaction per month compared to non-SNAP customers and was associated with increases in FV consumption (Reece Lyerly, written communication, September 1, 2020).

## CHALLENGES AND OPPORTUNITIES

While growing evidence shows that FV incentives improve healthy eating behaviors, successful incentive programs face challenges as consumer demand for incentives outpaces program budgets. For example, in 2018, the

Massachusetts Healthy Incentives Program spent its entire three-year budget of \$1.3 million in less than one year, followed by program suspensions in 2019 and 2020. Similarly, Food on the Move sales skyrocketed when consumer demand quadrupled with program expansion. While this growth was laudable, it jeopardized the sustainability of both programs and prompted contractions in program scope. Forced contractions confuse customers and likely limit continuity in healthy eating behaviors, the intended outcome of FV incentives.

A compounding challenge is that FINI and GusNIP require applicants to solicit dollar-for-dollar nonfederal financial matching contributions. Ultimately, onerous matching requirements are unrealistic for many state and nonprofit institutions that operate programs, limiting the scope of FV incentives. With the current GusNIP funding structure, grant funds are often insufficient to cover the full cost of incentives and provide inadequate resources for administering programs across retail settings. Dispensing with nonfederal match requirements would expand program

scope and contribute to continuity in service.

## RECOMMENDATIONS FOR SCALING INCENTIVES

Successful FV incentive programs' impact and growth provide evidence for scaling incentives. The decentralized FINI model of smaller-scale grants culminated in a wide array of incentive program designs, providing critical insight for scaling FV incentives into a cohesive, nationwide program that maximizes impact. Table 1 highlights important program design considerations and evidence-based recommendations for a national FV incentive program. We propose the following for a national FV incentive:

### Use 100% Match Rate and No Match Cap

Debate has been ongoing about the appropriate match rates and match caps and how best to optimize and simplify FV incentive structures. Match rates refer to the incentive provided to

the customer relative to the customer's EBT expenditure. Match caps refer to imposed incentive maximums. HIP and farmers' markets historically used lower match rates, but most FINI retailers (84%) provide a 100% match rate,<sup>4</sup> with anticipated larger increases in FV spending relative to HIP.<sup>5</sup> We recommend a 100% (dollar-for-dollar) match rate; this approach maximizes impact and is easy to communicate.<sup>4</sup> Although most FINI grantees impose match caps to contain costs,<sup>4</sup> such restrictions can unnecessarily complicate programs, as few HIP households reached match caps.<sup>3</sup>

### Use Instant Electronic Incentive Mechanisms

There is differing opinion on how best to administer FV incentives. Some programs distribute incentives for redemption on future purchases to motivate customer return, but many redemption models culminate in incomplete incentive redemption (Reece Lyerly, written communication, September 1, 2020).<sup>4</sup> While token or coupon

**TABLE 1— Recommendations for Maximizing Impact When Scaling Up Fruit and Vegetable Incentive Programs: Evidence From the Healthy Incentives Pilot and Food Insecurity Nutrition Incentive Program**

Program Element	Program Design Choices	Recommendation
<b>Match</b>		
Rate	100%, 40%, 30%	Use <i>100% match rate</i> and <i>no match cap</i> for a clear, compelling program.
Cap	Transaction-based, household-based, none	
<b>Mechanism</b>		
Economic	Instant, rebate, voucher	Use an <i>instant electronic incentive mechanism</i> for streamlined administration and high redemption.
Delivery	Electronic, physical	
<b>Targets</b>		
Fruits and vegetables	Fresh, frozen, canned, local	Allow <i>all forms of fruits and vegetables</i> to earn additional <i>SNAP benefit</i> across all authorized retailers, focusing expansion to grocery stores.
Population	SNAP, lower-income	
Retailer	Farmers' markets, grocery stores, mobile markets, CSA	

Note. CSA = community-supported agriculture; SNAP = Supplemental Nutrition Assistance Program.

incentives have lower start-up costs, they can be operationally cumbersome and difficult to monitor.<sup>4</sup> Most importantly, electronic instant incentives optimize redemption rates (Reece Lyerly, written communication, September 1, 2020) and increase capacity for monitoring and evaluation, which is critical in evaluating the impacts of the proposed national incentive model. We endorse using existing SNAP technology to provide immediate redemption of incentives through EBT cards; these models optimize redemption and reduce stigma through discrete redemption of incentives.

## Expand Target Foods, Population, and Retailers

A final set of incentive program considerations revolve around target foods, population, and retailers. Half of FINI-funded projects target only local, fresh FVs to support local agriculture.<sup>4</sup> However, we recommend incentives apply to fresh, canned, and frozen FVs to maximize consumption of FVs year-round given smaller effect size in programs that place restrictions on FV form.<sup>6</sup> Moreover, most SNAP benefits are redeemed in grocery stores and supermarkets; FV incentives should therefore be designed for large retail settings where they are likely to have the greatest public health impact. Widespread implementation will further amplify impact through promotional effects (<https://bit.ly/35X0yY>).

## CALL TO ACTION

FINI and GusNIP established FV incentive programs that varied in design and implementation that collectively contributed to important changes in healthy food access and enhanced healthy

eating behaviors among SNAP participants. However, only a small fraction of SNAP participants currently has access to FV incentive programs. Recent increases in SNAP participation also represent an opportunity to improve the health of millions of Americans and to stimulate economic activity through increased purchasing power. Scaling FV incentives to all SNAP participants has been associated with health benefits that could culminate in more than \$1 billion in health care savings related to nutrition-driven chronic disease.<sup>7</sup> During this time of economic crisis and rising food insecurity, we call on the federal government to institutionalize evidence-based FV incentives for all SNAP participants. *AJPH*

## CORRESPONDENCE

Correspondence should be sent to Sara John, Tufts University, Friedman School of Nutrition Science and Policy, 150 Harrison Ave, Boston, MA 02111 (e-mail: sara.john@tufts.edu). Reprints can be ordered at <http://www.ajph.org> by clicking the "Reprints" link.

## PUBLICATION INFORMATION

Full Citation: John S, Lyerly R, Wilde P, Cohen ED, Lawson E, Nunn A. The case for a national SNAP fruit and vegetable incentive program. *Am J Public Health*. 2021;111(1):27–29.

Acceptance Date: September 20, 2020.

DOI: <https://doi.org/10.2105/AJPH.2020.305987>

## CONTRIBUTORS

All authors have directly participated in the development of this editorial.

## ACKNOWLEDGMENTS

This work was supported by the US Department of Agriculture Food Insecurity Nutrition Incentive Program (grants 2017-70025-26693, 2017–2020 and 2018-102728-00001, 2018–2021), AARP Foundation (grant HUN-2016-12-003, 2016–2018), Blue Cross Blue Shield of Rhode Island (2018 Transitional Blue Angel Community Health Grant), and Rhode Island Department of Health—Health Equity Zones.

**Note.** Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the funders.

## CONFLICTS OF INTEREST

There are no conflicts of interest to disclose.

## REFERENCES

1. Bauer L. The COVID-19 crisis has already left too many children hungry in America. Brookings Institute. May 6, 2020. Available at: <https://www.brookings.edu/blog/up-front/2020/05/06/the-covid-19-crisis-has-already-left-too-many-children-hungry-in-america>. Accessed May 12, 2020.
2. Keith-Jennings B, Llobrera J, Dean S. Links of the Supplemental Nutrition Assistance Program with food insecurity, poverty, and health: evidence and potential. *Am J Public Health*. 2019;109(12):1636–1640. <https://doi.org/10.2105/AJPH.2019.305325>
3. Olsho LE, Klerman JA, Wilde PE, Bartlett S. Financial incentives increase fruit and vegetable intake among Supplemental Nutrition Assistance Program participants: a randomized controlled trial of the USDA Healthy Incentives Pilot. *Am J Clin Nutr*. 2016; 104(2):423–435. <https://doi.org/10.3945/ajcn.115.129320>
4. Vericker T, Dixit-Joshi S, Taylor J, et al. The evaluation of Food Insecurity Nutrition Incentives (FINI) interim report. Prepared by Westat for the US Department of Agriculture, Food and Nutrition Service; 2019.
5. Andreyeva T, Long MW, Brownell KD. The impact of food prices on consumption: a systematic review of research on the price elasticity of demand for food. *Am J Public Health*. 2010;100(2):216–222. <https://doi.org/10.2105/AJPH.2008.151415>
6. Rummo PE, Noriega D, Parret A, Harding M, Hesterman O, Elbel BE. Evaluating a USDA program that gives SNAP participants financial incentives to buy fresh produce in supermarkets. *Health Aff (Millwood)*. 2019;38(11):1816–1823. <https://doi.org/10.1377/hlthaff.2019.00431>
7. Mozaffarian D, Liu J, Sy S, et al. Cost-effectiveness of financial incentives and disincentives for improving food purchases and health through the US Supplemental Nutrition Assistance Program (SNAP): a microsimulation study. *PLoS Med*. 2018;15(10): e1002661. <https://doi.org/10.1371/journal.pmed.1002661>