

# The Public Health Impact of SNAP

## *The public health impact of SNAP*

SNAP is a powerful food safety net program and has many positive public health impacts. The program helps to reduce poverty, food insecurity, health care expenditures, and the risk of chronic conditions later in life.<sup>1-6</sup> Yet eligibility criteria exclude many people experiencing food insecurity, and six out of 10 SNAP participants point to cost as a major barrier to healthy eating.<sup>7</sup>

### *Poverty*

SNAP lifts people out of poverty, including from deep poverty, especially in households with children.<sup>3</sup> In 2020, participation in SNAP alone lifted 2.9 million people to incomes above the poverty line.<sup>8</sup> SNAP benefits free up household income for other basic needs, such as housing, utility bills, and medications. For people moving out of poverty, SNAP's high income eligibility requirements can help avoid the "[cliff effect](#)" and help ease households' benefits as they earn more income.

### *Health Care Expenditures and Chronic Disease Risk*

People with lower incomes spend a higher percentage of their income on health care coverage and out-of-pocket medical care compared to their higher income counterparts.<sup>9</sup> Participation in SNAP has been linked to improved health outcomes across all age groups, helping to relieve the risk of chronic disease and their associated medical costs.

- **Among children: participation in SNAP results in better physical health, growth, and development than their SNAP eligible non-participant peers.**<sup>10</sup> Research shows that SNAP participation is associated with increased access to health care, fewer missed school days due to illness, improved academic performance, and decreased poor health status and developmental risk.<sup>10-13</sup> Additionally, adults who participated in SNAP in childhood had reduced risk for obesity, cardiovascular disease, and type 2 diabetes later in life.<sup>14</sup>
- **Among adults: SNAP participation increases the probability of reporting good or very good health and is associated with fewer missed work days due to illness.**<sup>15</sup> There are mixed results on how SNAP affects mortality in adults. One study found that families that participated in SNAP during the previous year had a higher risk of death due to metabolic diseases, such as cardiovascular disease and diabetes, when compared to SNAP-eligible nonparticipants.<sup>16</sup> On the contrary, another study showed that SNAP is associated with decreasing premature death from all causes as well as deaths of despair in middle-aged adults.<sup>17</sup> Parsing out SNAP's effect on participant mortality may require more rigorous study design, including controlling for the self-selection effect.
- **Among older adults: SNAP participation is associated with reduced hospitalizations and health care spending, with substantial reductions in annual Medicaid expenses.**<sup>6</sup> Higher SNAP benefits also are associated with fewer nursing home admissions.<sup>18</sup> For those with chronic diseases such as diabetes, SNAP participation is associated with better medication adherence, compared to older adults who are eligible but not participating in SNAP.<sup>19,20</sup> Increased SNAP eligibility (and presumably subsequent enrollment) is associated with reduced prevalence of diet-related diseases, including hypertension, coronary heart disease and stroke, diabetes, and cancer,

especially for those in the lowest income group.<sup>21</sup> These results were not associated with number of doctor visits or medical expenditures, suggesting that SNAP may independently play a role in preventing chronic illness.

### *Food Security*

SNAP helps to address the four pillars of food security, as defined by the Food and Agriculture Organization (FAO)<sup>22</sup>:

- **Availability:** EBT can be used at over 250,000 SNAP retailers, ranging from large superstores to small convenience markets.<sup>23</sup>
- **Accessibility/Utilization:** SNAP offers financial resources to purchase food through socially acceptable means.
- **Stability:** SNAP is an entitlement program that automatically expands when poverty increases, and as such quickly responds to individuals' financial needs.<sup>24</sup>

Analyzing SNAP's impact on food security can be difficult—especially in studies that compare SNAP participants to nonparticipants—due to “self-selection” into the program of households with greater unmet food needs.<sup>25</sup> **After controlling for the self-selection effect, studies find that SNAP meaningfully decreases food insecurity.**<sup>5</sup>

- In a month-by-month longitudinal analysis, food security deteriorates in the 6 months prior to participating in SNAP and improves in the months shortly after.<sup>25</sup>
- In a longitudinal study measuring food security when households first enroll in SNAP and six months after using the program, the percentage of food insecure households dropped by 10.6 percent.<sup>5</sup>
- In a similar longitudinal study looking only at households with children, the food insecurity rate dropped by 12.9 percent six months after enrollment.<sup>5</sup>

### *Diet Quality and Nutrition Security*

**The relationship between SNAP and diet quality is complex.** Research evaluating the effect of SNAP participation on diet quality must adequately control for self-selection of participants into SNAP with unmet food needs, differences in socio-demographic characteristics in comparison populations, and the interaction of food security status, all of which influence diet quality.<sup>25-27</sup> Further, due to the [benefit inadequacy of SNAP](#), the benefits may alleviate some experiences of food security and hunger, but not always improve diet quality.

**Diet quality** refers to adherence to a dietary pattern that is consistent with consuming nutrients that promote health and prevent disease. A key method of measuring diet quality is the Healthy Eating Index (HEI) score, which demonstrates how an eating pattern aligns with the Dietary Guidelines for Americans (DGA).

**Nutrition security** includes having access to safe, nutritious, culturally relevant food that aligns with the key recommendations of the DGA.

**Research suggests that SNAP participation may not improve diet quality for individuals with high food security; however, participation is associated with better diet quality among individuals experiencing marginal, low and very low food security.**<sup>28, 29</sup> The effect of SNAP on diet quality also is influenced by interactions with race and ethnicity, such that SNAP participation results in greater improvements in diet quality for White people experiencing food insecurity compared to Black or Latine people experiencing food insecurity. The reasons for these differential effects by race and ethnicity may be partially attributed to disparities in access to healthy foods for Black and Latine individuals.<sup>28, 30, 31</sup> More research is needed to understand the link between diet quality and nutrition security.

USDA categorizes household food security status across four ranges:

- high food security:** no reported indications of food-access problems or limitations.
- marginal food security:** one or two reported indications—typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake.
- low food security:** reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.
- very low food security:** reports of multiple indications of disrupted eating patterns and reduced food intake.

### *The potential of SNAP to reduce disparities in food and nutrition security among marginalized groups*

Systemic racism in the United States drives disproportionate rates of food insecurity among marginalized communities. Decades of harmful, unjust policies, such as housing segregation, discriminatory hiring practices, and voting restrictions have relegated people of color to lower generational wealth. And racial discrimination is also associated with food insecurity, independent of poverty and socioeconomic status, in part due to biased and unfair treatment experienced by Black, Latine, and Indigenous communities.<sup>32, 33</sup> Food security also intersects with other inequalities besides race, including class, gender, immigrant status, and sexuality. Thus, compared to the national average, there are disparities in the prevalence and severity of food insecurity among households with children, households headed by a single parent, Black and Latine-headed households, Indigenous households, noncitizen immigrant households, and households headed by people with disabilities.<sup>34-36</sup>

Despite the many public health benefits of SNAP, including its ability to lift millions of Black and Latine households out of poverty and deep poverty annually, SNAP falls short on addressing disparities in food and nutrition security.<sup>37, 38</sup> This was made clear when the boost in social safety net programs during the COVID-19 health and economic crisis kept food insecurity rates in the U.S. constant between 2019 and 2020, but disparities in the prevalence and severity of food insecurity persisted among certain marginalized groups.

More robust and targeted measures are needed to improve disparities in food and nutrition security. For example, people who were formerly incarcerated are twice as likely to experience food insecurity as the rest of the population, but incarceration, especially for drug crimes, is biased against Black and Latine people at all stages of the criminal justice system.<sup>39, 40</sup> Policies that correct biases in the justice system and eliminate the SNAP ban on people with previous drug felony convictions would alleviate disparities in access to nutritious foods. For more opportunities to reduce disparities in food and nutrition security in SNAP, see CSPI's resource on [SNAP Access and Utilization](#).

For more information, please contact the Center for Science in the Public Interest at [policy@cspinet.org](mailto:policy@cspinet.org).

Written by Cassie Ramos, Policy Associate

## References

1. Bleich S, et al. *Strengthening the Public Health Impacts of Snap: Key Opportunities for the Next Farm Bill*. Healthy Eating Research. 2021. <https://healthyeatingresearch.org/wp-content/uploads/2021/05/her-snap-farm-bill-3.pdf>. Accessed December 10, 2021.
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):1636-40.
3. Sherman A, Trisi D. *Safety Net More Effective against Poverty Than Previously Thought*. Center on Budget and Policy Priorities. 2015. <https://www.cbpp.org/research/poverty-and-inequality/safety-net-more-effective-against-poverty-than-previously-thought>. Accessed January 30, 2022.
4. Hoynes, Hilary. Long-Run Impacts of Childhood Access to the Safety Net. *American Economic Association*. 2016;
5. Mabli J, et al. *Measuring the Effect of Supplemental Nutrition Assistance Program (Snap) Participation on Food Security*. U.S. Department of Agriculture Food and Nutrition Service. 2013. <https://www.mathematica.org/publications/measuring-the-effect-of-supplemental-nutrition-assistance-program-snap-participation-on-food-security>. Accessed January 30, 2022.
6. Berkowitz S, Palakshappa D, Rigdon J, Seligman H, Basu S. Supplemental Nutrition Assistance Program Participation and Health Care Use in Older Adults : A Cohort Study. *Ann Intern Med*. 2021; 174 (12):1674-82.
7. *Barriers That Constrain the Adequacy of Supplemental Nutrition Assistance Program (Snap) Allotments*. U.S. Department of Agriculture Food and Nutrition Service. 2021. <https://fns-prod.azureedge.net/sites/default/files/resource-files/SNAP-Barriers-Summary.pdf>. Accessed December 1, 2021.
8. Fox L, Burns K. U.S. Department of Commerce. *The Supplemental Poverty Measure: 2020*. 2021. <https://www.census.gov/content/dam/Census/library/publications/2021/demo/p60-275.pdf>. Accessed January 30, 2022.
9. Claxton G, Sawyer B. *How Affordability of Health Care Varies by Income among People with Employer Coverage*. Healthy System Tracker. 2019. <https://www.healthsystemtracker.org/brief/how-affordability-of-health-care-varies-by-income-among-people-with-employer-coverage/>. Accessed January 30, 2021.
10. Ettinger de Cuba, S. A., A. R. Bovell-Ammon, J. T. Cook, S. M. Coleman, M. M. Black, M. M. Chilton, P. H. Casey, et al. Snap, Young Children's Health, and Family Food Security and Healthcare Access. *Am J Prev Med*. 2019; 57 (4):525-32.
11. Morrissey, T. W., and D. P. Miller. Supplemental Nutrition Assistance Program Participation Improves Children's Health Care Use: An Analysis of the American Recovery and Reinvestment Act's Natural Experiment. *Acad Pediatr*. 2020; 20 (6):863-70.
12. Bronchetti, E. T., G. Christensen, and H. W. Hoynes. Local Food Prices, Snap Purchasing Power, and Child Health. *J Health Econ*. 2019; 68 102231.
13. Gassman-Pines A, Bellows L. Food Instability and Academic Achievement: A Quasi-Experiment Using Snap Benefit Timing. *American Educational Research Journal*. 2018; 55

14. H, Hoynes. Long-Run Impacts of Childhood Access to the Safety Net. *American Economic Association*. 2016;
15. Gregory C, Deb P. Does Snap Improve Your Health? *Elsevier*. 2015; 50
16. Conrad, Z., C. D. Rehm, P. Wilde, and D. Mozaffarian. Cardiometabolic Mortality by Supplemental Nutrition Assistance Program Participation and Eligibility in the United States. *Am J Public Health*. 2017; 107 (3):466-74.
17. Heflin C, Ingram S, Ziliak J. *Snap Participation Is Associated with Reduced Risk of Premature Mortality among U.S. Adults*. Lerner Center for Public Health Promotion. 2020. <https://surface.syr.edu/cgi/viewcontent.cgi?article=1073&context=lerner>. Accessed February 10, 2022.
18. Szanton S, Samuel L, Cahil R, Zielinskie G, Wolff J, Thorpe R, Betley C. Food Assistance Is Associated with Decreased Nursing Home Admissions for Maryland's Dually Eligible Older Adults. *BMC Geriatrics*. 2017;
19. Pooler, J. A., and M. Srinivasan. Association between Supplemental Nutrition Assistance Program Participation and Cost-Related Medication Nonadherence among Older Adults with Diabetes. *JAMA Intern Med*. 2019; 179 (1):63-70.
20. Srinivasan, M., and J. A. Pooler. Cost-Related Medication Nonadherence for Older Adults Participating in Snap, 2013-2015. *Am J Public Health*. 2018; 108 (2):224-30.
21. Booshehri, L. G., and J. Dugan. Impact of the Supplemental Nutritional Assistance Program on Diet-Related Disease Morbidity among Older Adults. *Health Serv Res*. 2021; 56 (5):854-63.
22. *Reform of the Committee on World Food Security: Final Version*. Committee on World Food Security. 2009. <https://www.fao.org/3/k7197e/k7197e.pdf>. Accessed January 30, 2022.
23. *Fiscal Year 2020 Year End Summary*. U.S. Department of Agriculture Food and Nutrition Service. 2020. <https://fns-prod.azureedge.net/sites/default/files/resource-files/2020-SNAP-Retailer-Management-Year-End-Summary.pdf>. Accessed December 2, 2021.
24. Hoynes H, Schanzenbach DW. *Strengthening Snap as an Automatic Stabilizer*. Brookings Institute. 2019. [https://www.brookings.edu/wp-content/uploads/2019/05/ES\\_THP\\_HoynesSchanzenbach\\_web\\_20190506.pdf](https://www.brookings.edu/wp-content/uploads/2019/05/ES_THP_HoynesSchanzenbach_web_20190506.pdf). Accessed February 8, 2022.
25. Nord M, Marie Golla A. U.S. Department of Agriculture Economic Research Service. *Does Snap Decrease Food Insecurity: Untangling the Self-Selection Effect*. 2009. [https://www.ers.usda.gov/webdocs/publications/46295/10977\\_err85\\_1\\_.pdf?v=380.9](https://www.ers.usda.gov/webdocs/publications/46295/10977_err85_1_.pdf?v=380.9). Accessed January 10, 2022.
26. Andreyeva, T., A. S. Tripp, and M. B. Schwartz. Dietary Quality of Americans by Supplemental Nutrition Assistance Program Participation Status: A Systematic Review. *Am J Prev Med*. 2015; 49 (4):594-604.
27. Singleton, C. R., S. K. Young, N. Kesse, S. E. Springfield, and B. P. Sen. Examining Disparities in Diet Quality between Snap Participants and Non-Participants Using Oaxaca-Blinder Decomposition Analysis. *Prev Med Rep*. 2020; 19 101134.
28. Nguyen B, Shuval K, Bertmann F, Yaroch A. The Supplemental Nutrition Assistance Program, Food Insecurity, Dietary Quality, and Obesity among U.S. Adults. *Am J Public Health*. 2015; 105 (7):1453-9.
29. *Food Security in the U.S.: Measurement*. U.S. Department of Agriculture Economic Research Service. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/measurement/>. Accessed January 30, 2022.
30. Hilmers A, et al. Neighborhood Disparities in Access to Healthy Foods and Their Effects on Environmental Justice. *Am J Public Health*. 2012; 102 (9):1644-54.

31. Baker E, Schootman M, Barnidge E, Kelly C. The Role of Race and Poverty in Access to Foods That Enable Individuals to Adhere to Dietary Guidelines. *Preventing Chronic Disease*. 2006; 3 (3):
32. Bowen S, Elliott S, Hardison-Moody A. The Structural Roots of Food Insecurity: How Racism Is a Fundamental Cause of Food Insecurity. *Sociology Compass*. 2021; 15 (7):
33. A, Odoms-Young. Examining the Impact of Structural Racism on Food Insecurity: Implications for Addressing Racial/Ethnic Disparities. *Fam Community Health*. 41
34. Coleman-Jensen A, et al. *Household Food Security in the United States in 2020*. U.S. Department of Agriculture Economic Research Service. 2021. <https://www.ers.usda.gov/webdocs/publications/102076/err-298.pdf?v=3644.3>. Accessed January 10, 2022.
35. *Hunger and Poverty among Immigrants*. Bread for the World. 2016. <https://www.bread.org/sites/default/files/downloads/immigrants-fact-sheet-2016.pdf>. Accessed January 10, 2022.
36. *Health, Disability and Food Insecurity*. Feeding America. 2020. <https://www.feedingamerica.org/sites/default/files/2020-06/Map%20the%20Meal%20Gap%202020%20Health%20Disability%20and%20Food%20Insecurity%20Module.pdf>. Accessed January 30, 2022.
37. *Snap Helps Millions of African Americans*. Center on Budget and Policy Priorities. 2018. <https://www.cbpp.org/research/food-assistance/snap-helps-millions-of-african-americans>. Accessed January 30, 2022.
38. *Snap Helps Millions of Latinos*. Center on Budget and Policy Priorities. 2018. <https://www.cbpp.org/sites/default/files/atoms/files/3-2-17fa3.pdf>. Accessed January 30, 2022.
39. Testa A, Jackson D. Food Insecurity among Formerly Incarcerated Adults. *SAGE Journals: Criminal Justice and Behavior*. 2019; 46 (10):
40. *Report to the United Nations on Racial Disparities in the U.S. Criminal Justice System*. The Sentencing Project. 2018. <https://www.sentencingproject.org/publications/un-report-on-racial-disparities/>. Accessed January 30, 2022.