American Heart Association.

Food Sustainability and Farm Bill Policy Statement

May 2022

Background:

For more than 50 years, the Supplemental Nutrition Assistance Program (SNAP) – formerly known as Food Stamps - has been vital in addressing food insecurity in the United States. It has an impact on health, educational attainment and economic self-sufficiency.[2] The program helps millions of Americans struggling through underemployment and low or stagnant wages. In 2021, 41.5 million people participated in SNAP, up from 35.7 million people pre-pandemic, serving as an essential safety net during the pandemic and economic downturn.[3] The majority of SNAP benefits going to households with children, older adults or those with disabilities.[4]

The U.S. Department of Agriculture (USDA) sets maximum SNAP benefits for households based on the Thrifty Food Plan (TFP), which I s the estimated cost to purchase groceries for a family of four. However, participants on SNAP have expressed that healthy food, especially fruits and vegetables, are not affordable. A recent study found that 61 percent of SNAP participants viewed the cost of healthy food as a barrier to the adequacy of SNAP benefits.[5] In the last farm bill, Congress directed the USDA to study the costs required to purchase and consume a healthy diet and as a result, the update to the TFP amounted to SNAP benefits permanently increasing by 21% as of October 1, 2021. A recent study found that these higher benefit levels will help households better afford a healthy diet including fruits and vegetables.[6]

SNAP and COVID

In March 2020, the onset of the COVID-19 pandemic resulted in sudden massive job loss and an increased number of Americans at risk for food and nutrition insecurity.[7] Prior to the pandemic, SNAP participation dropped, declining in 40 states and the District of Columbia. This was the lowest SNAP participation rate since 2010. As families struggled amid the pandemic, applications for SNAP benefits soared. On an average month in 2020, SNAP provided benefits to 39.9 million people in the U.S.[8], up from 35.7 million in 2019, with the numbers continuing to rise in 2021.[3, 9]

To combat the effects of the pandemic, Congress authorized the Families First Coronavirus Response Act (FFCRA) in March 2020, temporarily raising SNAP benefits in two ways: raising all benefits by 15%, or about $27 per month per person, and boosting every household to the maximum benefit level for their household size. The 15% increase ended on September 30, 2021, while the maximum household benefit continues until states end their pandemic emergency status – or when the federal government ends the public health emergency declaration. Congress also authorized the Coronavirus Aid, Relief, and Economic Security (CARES) Act which included $15.5 billion dollars to support increased demand for SNAP. The

pandemic has detrimentally impacted communities across the nation, especially low-income communities and communities of color. There is a continued need to expand SNAP benefits as people continue to recover from the aftershocks of COVID-19. The pandemic has also seriously impacted on the economy and is driving rising food costs across the country. Labor shortages, supply chain disruptions, and other factors, such as rising shipping costs, have contributed to the inflation of grocery prices, particularly dairy and meat products.

SNAP and Food Insecurity

Food insecurity and poor nutrition remain problems for millions of American households. National data showed that the overall prevalence of food insecurity remained stable in 2020 (10.5%) compared to 2019 (10.5%), households with children and Black households experienced significant increases in food insecurity.[8] The quick response of the federal government and states to increase the amount of and access to SNAP benefits is in part why food insecurity did not grow worse during the pandemic. However, research shows that SNAP benefits are often not adequate to last a family the entire month and three-fourths of benefits are exhausted by mid-month.[2, 10] A 2016 report[7] summarized the important role SNAP plays in addressing food insecurity. Importantly, the majority of SNAP recipients who are eligible for work do so while on the program, underscoring that many recipients are using the program to overcome underemployment or temporary job loss.[11-13]

> "We can all agree that no one ought to go hungry in America, and SNAP is essential in protecting the most vulnerable citizens during tough times. For many, it is a vital lifeline to keeping food on the table." *Chairman K. Michael Conaway*

A bipartisan U.S. House of Representatives Committee on Agriculture report[14] affirmed the importance of SNAP, but proposed areas of change, including: innovation and flexibility in program delivery, work requirements and SNAP employment and training programs, maintaining program integrity, and improving food access and promoting healthy food. The American Heart Association will prioritize improving food and nutrition security in the forthcoming reauthorization of the farm bill, with the goal of ensuring that low-income Americans have equitable and stable availability, access, affordability, and utilization of nutritious foods and beverages.[15]

SNAP and Healthy Food Access

Although diet quality has been steadily improving in the U.S. during the past two decades, overall dietary quality is still poor. According to a recently published Centers for Disease Control and Prevention (CDC) report, only one in ten American adults are eating the recommended amount of fruits or vegetables each day.[16] Most significantly, there is a widening gap with diet quality associated with education and income.[17] Despite the important role SNAP plays in addressing hunger and poverty, additional data indicate that SNAP recipients have worse diet quality than income-eligible non-participants.[18-22] Although diet quality for low-income consumers tends to be poor overall, studies have shown that SNAP

beneficiaries consumed less fruit and vegetables and more added sugars and meat and meat alternatives when compared with income-eligible non-participants.[20, 23] Another study found that sugary beverages accounted for approximately 12% of total daily caloric intake (258 kcal) among SNAP participants, higher than that of SNAP-eligible nonparticipants (9%, 205 kcal) and SNAP-ineligible nonparticipants (6%, 153 kcal).[24] In both SNAP and SNAP-eligible households, more money is spent on sugary beverages than any other food commodity.[25, 26] Unlike other federal feeding programs like the Women, Infants, and Children Program (WIC) or the Child and Adult Care Food Program (CACFP), which have nutrition standards for foods and beverages that can be served or purchased, SNAP does not focus on diet quality or nutrition.

SNAP consumers can buy almost any food or beverage with their benefits. Taxpayers in part bear the economic costs of unhealthy foods and beverages and bearing the associated subsequent health care costs that are a result of diet-related chronic disease. Lower job productivity, absenteeism, and diminished military readiness are also consequences.

There is increasing public support for amending SNAP to add nutrition criteria to use government dollars toward healthful items to improve the health status of those with the greatest health disparities.[1, 27] Research has demonstrated that increasing the amount SNAP participants can spend on food does improve diet quality, correlating with increased purchase of fruits and vegetables, whole grains and lean dairy.[28]

Public Support for Addressing Diet Quality in SNAP[1]

- In qualitative research by Leung et al., 82 percent of survey respondents support providing additional benefits to program participants that can be used to purchase only healthful foods.
- A majority of SNAP participants support removing SNAP benefits for sugary drinks.
- Of the 46 percent of SNAP participants who initially oppose removing sugary drinks, 45 percent support removing SNAP benefits for sugary drinks if the policy also includes additional benefits to purchase healthful foods.

Some experts have urged the USDA to pilot SNAP purchasing restrictions to support a healthier dietary pattern. Some states and large municipalities have applied for waivers to disallow sugary drinks or foods with little or no nutritional value. Until this time, the USDA has rejected these applications saying this differentiation would be too difficult to implement in retail environments. Now there is indication that the USDA would be more responsive to applications from certain states that included both an incentive for healthy food purchases combined with a disincentive for certain unhealthy foods or beverages.

The Healthy Incentives Pilot Program (as described below) and other initiatives have demonstrated that it is very feasible to implement incentives and disincentives within the program.[29] The federal government spends millions of dollars each year on the purchase of sugary drinks and other unhealthy foods that contribute to poor health outcomes and result

in higher health care expenditures and diminished quality of life.[1, 30] Some research has estimated that prohibiting sugary drink purchases using SNAP benefits could reduce daily sugary drink consumption by 112.5 g/person and prevent 797,900 cardiovascular disease events, gain 2.11 million quality-adjusted life years (QALY), and save $39.16 billion in lifetime healthcare costs.[31, 32] One QALY represents one year in perfect health and is an economic measure that captures the value of investment for quality and quantity of life lived.

These drinks are the leading single source of added sugars in the U.S. diet.[33] The food industry and retailers, who are the ultimate beneficiaries of SNAP dollars, have consistently and openly opposed adoption of any nutrition standards in SNAP.[34] Others have expressed concerns of embarrassment, stigma, potentially reducing SNAP participation and unfair targeting of low-income consumers if there were restrictions on SNAP purchases.[35] These concerns are understandable and valid, and further underscore the importance of addressing the overall diet quality of SNAP participation, combining incentives with disincentives or restrictions to increase healthy food and beverage purchasing within the program. Making these changes to the SNAP program could lead to a snowball effect that improves diet quality for all Americans due to the role SNAP plays in determining what is marketed and sold in the retail environment. There is also a need for continued research to further assess the impact on participation and population health while being sensitive to the real issues surrounding stigma, education, and ease of check-out.

Current or past programs addressing diet quality in SNAP

Healthy Incentives Pilot (HIP) Program[36]

The Food, Nutrition, and Conservation Act of 2008 authorized $20 million for pilot projects to evaluate health and nutrition promotion in SNAP to determine if incentives provided to SNAP recipients and point-of-sale increased the purchase of fruits and vegetables. Under HIP, 7,500 households in Hamden County, Massachusetts were randomly selected to receive a financial incentive for purchasing fruits and vegetables, while the remaining 47,595 households continued to receive SNAP benefits as usual. Overall, HIP participants purchased and consumed more fruits and vegetables. Retailers found the program easy to administer and they increased shelf space or display for fruits and vegetables in store. Specific results were:

- HIP participants (respondents 16 and older) consumed almost a quarter of a cup (26 percent) more targeted fruits and vegetables per day than did nonparticipants.
- HIP households spent more SNAP benefits on targeted fruits and vegetables than non-HIP households in participating supermarkets and superstores – $12.05 versus $10.86 on average each month – an increase of $1.19 or 11 percent.
- HIP survey respondents reported spending $78.17 each month on all fruits and vegetables, $6.15 more than non-HIP households. This includes spending with Electronic Benefits Transfer (EBT) and other forms of payment in both participating and nonparticipating retailers.
- Two-thirds of HIP households said they bought larger amounts and a greater variety of fruits and vegetables because of HIP.

- Three-quarters of HIP households felt that fruits and vegetables had become more affordable due to HIP.
- HIP participants were more likely to have fruits and vegetables available at home during the pilot.
- Awareness and understanding of HIP increased over time.
- Most retailers did not find HIP difficult to operate. More than 90 percent of participating retailers reported no change in check-out time, and only 15 percent indicated that HIP purchases were hard to process.
- More than half of participating grocery stores received more shipments from a supplier, increased the frequency of restocking the display floor or increased shelf space for fruits and vegetables.
- Participating retailers without integrated electronic cash registers were more likely to report negative effects on store operations.
- Total costs for implementing HIP, including the $263,043 in incentives earned by HIP participants, were $4.4 million. The largest share of costs (55 percent) was incurred for system design, development and testing for EBT and retailer systems changes, which are largely one-time costs.
- The estimated total cost for implementing HIP nationwide is approximately $90 million over five years, including costs for modifying EBT and retailer systems and state agency costs.

Estimates for annual incentive costs range from $825 million to $4.5 billion, depending on assumptions about retailer participation and fruit and vegetable spending. Forthcoming modeling studies will estimate the health care cost savings of implementing nutrition standards for SNAP.

Food Insecurity Nutrition Incentives (FINI)

Building on the success of HIP, the Agriculture Act of 2014 authorized the USDA to provide Food Insecurity Nutrition Incentives (FINI) grants to eligible organizations to design and implement projects to increase produce purchases among low-income consumers participating in SNAP by providing incentives at point of purchase. A 2019 report from USDA's Food and Nutrition Service evaluated FINI and found that the program increased fruit and vegetable sales and consumption in SNAP participants.[37]

The Gus Schumacher Nutrition Incentive Program (GusNIP, formerly known as FINI)

The Agricultural Improvement Act of 2018 expanded FINI and renamed it the Gus Schumacher Nutrition Incentive Program (GusNIP). Known as the farm bill, the 2018 legislation authorized $250 million over five years to conduct and evaluate nutrition incentive and produce prescription programs to income-eligible consumers participating in SNAP at the point of sale. Of the $250 million, $30 million is awarded annually to state and local organization implementing nutrition incentive programs, while up to $25 million over the 5 years is allotted to produce prescription programs. A fruit and vegetable prescription pilot was also included under GusNIP.

An evaluation of the second year of GusNIP shows that the program has been successful in increasing produce consumption among participants.[38]

- Participants purchased more than $20 million in fruits and vegetables at their local food retailers in Year 2.
- Nearly 75 percent of GusNIP funds were used directly for incentives (up from 68.5 percent in Year 1) and the number of locations offering incentives and reporting data increased to 1,876 retailers in Year 2, compared to 588 retailers in Year 1.
- An economic impact of $41 million across 47 grantees was generated from incentive spending at local food retail outlets in Year 2, up from $8 million in Year 1.
- Nutrition incentive participants reported eating more fruits and vegetables (1.72 cups/day and 1.08 cups/day, respectively) than the average adult in the U.S. (1.57 cups/day and 0.96 cups/day, respectively).
- Produce prescription participants saw an increase in fruit and vegetable intake from baseline (2.21 cups/day) to post-project (2.49 cups/day).
- Produce prescription participants experienced improvements in food security status from baseline to post-project.

Nutrition Education (SNAP-Ed)

The Healthy Hunger-Free Kids Act of 2010 funds the Supplemental Nutrition Assistance Program Education (SNAP-Ed). SNAP-Ed addresses nutrition education, physical activity, and obesity prevention, and aims to increase the likelihood that SNAP-Ed household will make healthy diet and physical activity choices with a limited budget. A 2016 evaluation framework outlined 51 key indicators across four levels – individual, environmental supports, sectors of influence, and population results - that could be used to consistently evaluate the effectiveness of the program.[39] Studies looking at the intent of state implementing agencies (SIAs) to use and evaluate the indicators found that most SIAs reported their intent to impact short and medium-term indicators, the individual and environmental levels, compared with longer-term indicators, sectors of influence and population level.[40, 41]

Sustainability in the Farm Bill

Sustainability and the food system

Current American dietary patterns are characterized by high consumption of red meat, processed foods, added sugars, and unhealthy fats, and inadequate intake of whole grains, fruits, and vegetables. Only one in ten adults in the U.S. consume enough fruits and vegetables on a given day[16] and current dietary trends have contributed to more than 40 percent of adults living with obesity.[42] There are increasing concerns that current dietary patterns and food systems have an high environmental impact contributing to increased levels of greenhouse gas (GHG) emissions and water and land usage.[43]

In recent years, more efforts have been made to shift from current dietary patterns to more sustainable dietary patterns. The Food and Agriculture Organization (FAO) defines sustainable diets as those "having low environmental impact and contributing to food and

nutrition security and healthy life for present and future generations."[44] Current dietary patterns do not align with this definition and have a significant impact on the health and well-being of the population as well as the natural resources that are used to produce food. The production and consumption of food are some of the main drivers of environmental degradation, threatening the future availability of natural resources like land, healthy soil, and clean water. Foods in the U.S. are produced in a way that relies heavily on nonrenewable inputs and unsustainable practices. The production of ultra-processed foods and beverages as well as meat and dairy are responsible for the uptake in GHG emissions such as carbon dioxide (CO2), with agriculture account for 10 percent of all GHG emissions in the U.S.[45] and 24 percent of GHG emissions globally.[46] If these trends continue, GHG emissions associated with food production will double by 2050.[47] These emissions contribute to climate change which threatens the availability of a healthy food supply in the future and puts healthy diets further out of reach for most.

Much of the current literature around sustainable diets and food systems supports reducing consumption of certain foods (i.e. animal proteins) and increasing consumption of healthier, more plant-based diet rich in fruits and vegetables which may reduce GHG emissions by as much as 56 percent.[48-50] While ideal, shifting to a plant-based diet may not be possible or realistic for most people. To have the lowest environmental impact, there should not only be a shift to more sustainable, nutritious diets but food should also be produced, packaged, and transported to consumer with the lowest environmental impact. To promote a sustainable and healthy food system, considerable investments need to be made across the food system, from production to consumption.

While the U.S. has acknowledged the need to address sustainability within food systems, they have yet to incorporate these principles into the nation's food and nutrition policies. For example, the 2020-2025 Dietary Guidelines for Americans (DGA) advisory committee recognized sustainability as an important part of maintaining a healthy diet but the guidelines make no mention of environmental sustainability.[33] Likewise, the Conservation Stewardship Program (CSP), which supports diversification of agricultural practices, is included in the 2018 farm bill; however, funding for the program has seen cuts of $3.6 billion over ten years. Recently, the U.S. launched the Sustainable Productivity Growth for Food Security and Resource Conservation (SPG) Coalition, an initiative aiming to boost sustainable agricultural production, make farms more resilient to climate change, and ensure vulnerable populations have access to safe, affordable and health food, indicating a desire to invest in strengthening food systems and ensuring access to healthy diets for all. The coalition has yet to announce concrete plans to move this initiative forward. To effectively address sustainability across the food system, the U.S. needs to provide significant investment and support to new and existing policies and programs that incorporate sustainable agricultural practices across the food system and ensure access to healthy, affordable food for all.

Food Loss and Waste

The sustainability of diets is influenced both by foods comprising the diet and the ways foods are produced, including levels of loss and waste across the food supply chain. The USDA defines food loss as the edible amount of food, postharvest, that is available for human consumption but is not consumed for any reason.[51] Food waste is defined as losses of food that occur across the food supply chain, especially at the retail and consumption stages, and is linked to consumer and retailer behavior.[52] Food loss and waste can occur at any stage of the production and supply chain. The average American wastes about one pound of food every day[53], with up to 40 percent of the U.S. food supply being lost or wasted every year.[54] The estimated 60 million tons of food wasted in the U.S. is worth $200 billion.[55-57] When food is wasted, all the natural resources used to grow the food - like pesticides, fertilizers, irrigation water, and energy in the form of transportation is wasted as well. The environmental impact of food wasted is staggering, contributing to environmental issues such as increased GHG emissions, water pollution, soil erosion, and biodiversity loss.

Food waste and loss is particularly concerning given the amount of people who do not have access to healthy, affordable food. More than ten percent, or 38.3 million, of U.S. households are food insecure, with higher rates seen among households with children and Black households.[8] The amount of food wasted annually could feed millions of Americans and help lift them out of food and nutrition insecurity. Interventions to reduce or redistribute food waste have the potential to address food sustainability, access to food, improve food security, and diet quality.

USDA, along with the U.S. Environmental Protection Agency (EPA), joined forces in 2015 to set a goal to reduce the nation's food waste by 50 percent by 2030. As part of the plan to reduce national food waste and loss, USDA, EPA, and the U.S. Food and Drug Administration (FDA) launched the Winning on Reducing Food Waste Initiative in which they affirmed their commitment to meeting the 2030 goal and agreed to coordinate food waste and loss actions across the different agencies.[58] The initiative does not specify plans to achieve the 50 percent reduction nor are they accompanied by plans to assess environmental impact. To ensure food loss and waste are addressed across the food supply chain, more research should be conducted to identify the most effective, sustainable strategies to reduce food loss and waste and additional funding should be provided to ensure the national goal is reached by 2030.

Climate Change and Nutrient Decline

A healthy, resilient food system relies on both climate and soil to produce nutrients and the foods we need to maintain health. Over the past several decades, the nutritional levels in fruit, vegetables, and grains have declined significantly. A significant proportion of the American population are currently deficient in one or more essential dietary nutrients.[33, 59] It is estimated by 2050, an additional 175 million people globally will be deficient in zinc and 122 million more will not meet the daily recommendation for protein in their diets.[60] Micronutrients deficiencies are a major contributor to developing infections and are associated with an increased risk for chronic diseases, including cardiovascular disease.[61] Several factors

contribute to micronutrient deficiencies including current dietary patterns, consisting of diets low in fruits, vegetables, and whole grains[16], and declining nutrient density of staple crops as a result of climate change and current agricultural practices.

Topsoil erosion, land management practices, and unsustainable agricultural practices may all contribute to the nutrient decline of staple crops. Crops grown using pesticides and chemical fertilizers impact soil health, resulting in lower mineral uptake. Unsustainable agricultural practices and topsoil erosion can damage plants' ability to absorb carbon dioxide (CO_2) from the atmosphere and lock it into the soil. When soil is degraded, CO_2 is released back into the atmosphere resulting in compromised plant growth and nutrient degradation. Climate change and rising levels of GHG emissions and CO_2 affect crops by reducing plant growth and reducing the level and availability of nutrients (e.g., zinc, iron, and protein) in crops. Research suggests that increasing levels of CO_2 in the atmosphere may affect the availability of nutrients in soil and decreases nutrient uptake, especially nitrogen and other mineral concentrations, in crops.[60, 62, 63] A 2017 review found that elevated CO_2 levels potentially result in three-11 percent decrease of zinc and iron in grains and legumes.[64] Similarly, a meta-analysis found that increasing levels of CO_2 decreases protein levels in rice, barley, wheat, and potato crops by ten-15 percent.[65]

No policies or programs currently exist in the U.S. to address nutrient decline of staple crops. In the upcoming 2023 farm bill, there is an opportunity to invest in and support policies and programs to increase sustainable agricultural practices and reduce the risk of nutrient decline in staple crops.

Policy Recommendations for the Upcoming Farm Bill

The farm bill is a comprehensive multi-year bill that addresses agricultural and nutrition policy issues. It is typically renewed every five years and is scheduled to be reauthorized in 2023. Outlays for nutrition are about four-fifths of the full cost of the legislation and include SNAP and other nutrition programs. SNAP itself has an annual cost of approximately $74 billion.[66] As the U.S. continues to deal with the aftershocks of the COVID-19 pandemic and increasing concerns regarding the environmental impact of current dietary patterns, Congress needs to invest in policies that will improve the nutritional quality of food, diet quality, and ultimately health of all.

SNAP:

One of the biggest goals for the farm bill should be protecting funding for and access to SNAP, while at the same time addressing diet quality. The primary goal should be optimizing federal spending to provide healthy food and beverage access to low-income beneficiaries. Research has shown greater effectiveness of combining an incentive and disincentive approach to improve healthy eating and diet quality in federal nutrition programs. Specifically, the association will advocate for:

- Increasing SNAP to align with low-cost food plan and help ensure adequate benefit levels.

- Creating an enhanced pilot program within SNAP that assesses the outcome of fruit and vegetable incentive purchasing combined with removal of sugary drinks to evaluate the effects on consumer purchasing, healthy food and beverage consumption, short-term health outcomes and retailer implementation.
- Asking for report language that directs the USDA to invite applications from states to pilot approaches to increase access to healthy foods and beverages and improve the diet quality for SNAP participants coupled with robust evaluations.
- Increasing funding for SNAP-Ed and continue support of innovative nutrition education.
- Improving the retail environment and increasing the availability and purchase of healthy foods.
- Increasing funding for and expanding the SNAP online purchasing program.

GusNIP:

The 2014 and 2018 farm bill have helped establish a framework to test, improve, and fund nutrition incentive programs nationwide. Since its inception, the structure of GusNIP has contributed to a system where state and local communities with well-established organizations have been able to access significant funding, while excluding the most vulnerable populations. Opportunities exist within GusNIP to make the program more equitable and increase fruit and vegetable access and intake within the most vulnerable populations. The association will advocate for:

- Expanding baseline funding to further test the GusNIP program design and capitalize on current and future investments into organizational capacity.
- Exploring options to decrease the burden of the match requirement including eliminating the match requirement all together, reducing the match requirement for a maximum of 10 percent, or take into consideration using other federal sources of funding.
- Requiring improvements to the application process and expanded technical assistance resources to improve program access and equity.
- Developing a new mechanism for funding successful programs as they scale state or region wide.

Sustainability:

Effective incentives and enforcement policies need to be enacted to support the entire food chain – from farmers to consumers – and in doing so, could ensure the availability of healthy and sustainable food choices, which will be necessary to attain food and nutrition security for current and future generations. The association will advocate for:

- Leverage agricultural commodity subsidies to support cultivation of diverse, nutritious food that promotes healthier and more sustainable production and consumption
- Increasing funding for existing programs that focus on sustainability and health.
- Developing and supporting a food redistribution program to decrease food loss and waste.

- Including policies and programs, such as incentives, that focus on conservation and to expand and strengthen sustainable, biodiversity-friendly agricultural practices.

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