ISSUES IN FOCUS

Food Is Medicine: Integrating Nutrition and Health in the Farm Bill[1]

The 2023 Farm Bill presents two important opportunities to prioritize the role of nutrition and food security in health, including a focus on disease prevention and management. First, by protecting and strengthening federal nutrition programs that increase access to adequate and nutritious food, Congress can help prevent and manage diet-related illnesses in low-income populations, thus reducing the need for more expensive Food is Medicine interventions. Second, Congress could expand the role of existing programs, like GusNIP and SNAP-Ed, in increasing access to Food is Medicine interventions.

QUICK SUMMARY

- Preventable diet-related diseases are a leading cause of death in the U.S., causing a massive strain on the health care system.
- Government nutrition programs provide baseline food and nutrition security and knowledge that helps prevent, and in some cases, manage diet-related diseases in the general population to reduce the need for Food is Medicine interventions.
- Broad implementation of Food is Medicine programs, which are proven to improve patient health through proper nutrition and education, would help alleviate costs associated with high rates of chronic illness.
- A recent study by Tufts University researchers concluded that providing medically tailored meals to all patients with diet-sensitive conditions and activity limitation could result in a potential net cost savings of $13.6 billion annually.

BACKGROUND

Chronic diet-related diseases, including diabetes, heart disease, and cancer are the leading causes of death in the United States.[2] Each year, these diseases contribute to the deaths of nearly 1.5 million people across the nation.[3] These diet-related diseases are also a strain on the health care system, with costs from heart disease, stroke, and diabetes accounting for almost 20% of U.S. health care costs, or $50 billion annually.[4] Food is Medicine is an important tool in both the prevention and treatment of certain diseases. Research has shown that Food is Medicine interventions can be an effective and cost-efficient

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[2] *Leading Causes of Death*, CTR. FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm [https://perma.cc/K3WK-GFXE].

[3] U.S. GOV'T ACCOUNTABILITY OFF., GAO-21-593, CHRONIC HEALTH CONDITIONS FEDERAL STRATEGY NEEDED TO COORDINATE DIET-RELATED EFFORTS 15 (2021).

[4] Thiago Veiga Jardim et al., *Cardiometabolic Disease Costs Associated with Suboptimal Diet in the United States: A cost Analysis Based on a Microsimulation Model,* 16(12) PLOS MEDICINE e1002981 (2019), https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002981.

way to improve health outcomes for patients with diet-related diseases,[5] increase diet quality,[6] and decrease health care costs.[7]

Despite a growing body of evidence, access to and funding for Food is Medicine interventions remains limited. The United States Department of Agriculture (USDA) provides only limited support for produce prescriptions through grant programs, which results in only a small subset of the population being able to benefit from these interventions. Leaders across the U.S. health care and food systems are working to expand the availability, and thus the impact, of Food is Medicine interventions. Congress's current consideration of the farm bill is an opportunity to support and amplify the impact of Food is Medicine by investing in scaling these programs and expanding their reach.

What is Food is Medicine? And How Can it Support a Healthier Population?

Food is Medicine encompasses a range of nutrition intervention programs that address health concerns and nutrition needs. Throughout this report, the term "Food is Medicine" is used to describe interventions that include "the provision of foods that supports health, such as medically tailored meals or groceries, or food assistance, such as vouchers for produce" and have "a nexus to the health care system."[8]

- **Medically tailored meals** provide patients with complete or near-complete nutrition in the form of ready-to-eat meals. Typically, a clinician will identify the need for medically tailored meals and refer the patient to a medically tailored meal organization. Patients then work with a Registered Dietician Nutritionist (RDN) who designs a meal program that addresses the patient's health concerns, which are typically complex and often include co-occurring conditions that make it difficult to shop for or prepare meals.

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[5] Hilary K. Seligman et al., *A Pilot Food Bank Intervention Featuring Diabetes-Appropriate Food Improved Glycemic Control Among Clients in Three States,* 34(11) Health Aff. (Millwood) 1956 (2015), https://pubmed.ncbi.nlm.nih.gov/26526255/; Aleda M. H. Chen et al., *Food as Medicine? Exploring the Impact of Providing Healthy Foods on Adherence and Clinical and Economic Outcomes,* 5 Exploratory. Res. Clinical. Soc. Pharmacy e100129 (2022), https://pubmed.ncbi.nlm.nih.gov/35478519/.

[6] Seth A. Berkowitz et al., *Medically Tailored Meal Delivery for Diabetes Patients with Food Insecurity: a Randomized Cross-over Trial,* 34(3) J. Gen. Internal Med. 396 (2019), https://pubmed.ncbi.nlm.nih.gov/30421335/; Jason Hy Wu et al., *Testing the Feasibility and Dietary Impact of a "Produce Prescription" Program for Adults with Undermanaged Type 2 Diabetes and Food Insecurity in Australia,* 152(11) J. Nutrition. 2409 (2022), https://pubmed.ncbi.nlm.nih.gov/36774107/.

[7] Berkowitz et al., *Association Between Receipt of a Medically Tailored Meal Program and Health Care Use*, 179(6) JAMA Internal Med. 786 (2019), https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2730768; Kurt Hager et al., *Association of National Expansion of Insurance Coverage of Medically Tailored Meals with Estimated Hospitalizations and Health Care Expenditures in the US*, 5 Jama Network Open e2236898 (2022), https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2797397.

[8] Sarah Downer et al., Center for Health Law and Pol'y Innovation, Food is Medicine Research Action Plan 24 (2022) https://www.aspeninstitute.org/wp-content/uploads/2022/01/Food-is-Medicine-Action-Plan-Final_012722.pdf [https://perma.cc/QK2F-4WW7] (hereinafter "Research Action Plan").

- **Medically tailored groceries** provide a variety of food items, both perishable and nonperishable, that the recipient must prepare. These groceries are meant to provide partial or near complete nutrition. While a RDN approves the food provided, medically tailored groceries are not typically designed specifically for the individual but rather to address certain health concerns.
- **Produce prescription** programs provide supplemental nutrition in the form of produce, or vouchers to purchase produce, in order to address a specific health condition. In some instances, produce prescriptions may also include other sources of nutrition, such as grains and legumes.

These programs may also include services such as nutrition education or cooking classes.[9]

Role of Food Security

Many individuals who face diet-related diseases are also food insecure. Food insecurity is defined as a "house-hold level economic or social condition of limited or uncertain access to food."[10] The USDA reports that in 2021, 10.2% of U.S. households were food insecure at least once during the year, including 3.8% of households scoring very low for food security.[11] Very low food security means that members of a household had to reduce their food intake at times because they could not afford enough food.[12] Poverty, low income, and unemployment are some of the main factors that lead to food insecurity. Individuals who do not have access to health-promoting foods face a greater health risk compared to those who are food secure.[13] Food is Medicine programs provide the necessary nutrition assistance for individuals who may face food insecurity—or other challenges accessing or preparing food—in combination with diet-related illnesses. For these households and individuals, having access to nutritious food through Food is Medicine programs allows for management and potential reversal of diseases, as well as fewer hospital visits and, in some cases, decreased medical costs.[14]

Low-income and marginalized communities face above-average rates of food insecurity as compared to the national average and are most at risk to develop and suffer from chronic diseases.[15] For example, Black adults die from diabetes and high

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[9] *Id.* at 27–35.
[10] *Definitions of Food Security*, ECON. RES. SER., https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/definitions-of-food-security/ [https://perma.cc/N6ZH-ABDN].
[11] *Food Security and Nutrition Assistance*, ECON. RES. SER., https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/food-security-and-nutrition-assistance/#:~:text=In%202021%2C%2089.8%20percent%20of,had%20very%20low%20food%20security [https://perma.cc/8NXQ-Q4VU].
[12] *Food Security in the U.S.,* ECON. RES. SER., https://www.erske.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/measurement/ [https://perma.cc/4RVS-ZTM8].
[13] *Food Accessibility, Insecurity, and Health Outcomes*, NAT'L. INST. ON MINORITY HEALTH AND HEALTH DISPARITIES, https://www.nimhd.nih.gov/resources/understanding-health-disparities/food-accessibility-insecurity-and-health-outcomes.html [https://perma.cc/7Q6J-NACA]
[14] RESEARCH ACTION PLAN, *supra* note 8, at 60–61, 66–67, 72–73.
[15] *Key Statistics and Graphics*, ECON. RSCH. SERV., https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/keystatistics-graphics/ [https://perma.cc/G9BU-6K5B] [hereinafter Key Statistics and Graphics]; James H. Price et al., *Racial/Ethnic Disparities in*

blood pressure-related complications two to three times as often as white adults.[16] Further the diabetes rate among indigenous communities is 14.5% compared to 7.4% of the non-Hispanic white population.[17] Structural factors, such as systemic racism and discriminatory policies have contributed to the diet-disparities and consequent health disparities observed in low income and primarily Black and brown communities.[18] Therefore, it is imperative that Food is Medicine interventions create more equitable access to nutritious foods and improved health outcomes for individuals and communities who have largely been excluded from these resources for many years.

Impact of Food is Medicine on Health and Health Care Costs

The existing peer reviewed research looking at Food is Medicine interventions has found statistically significant results suggesting these programs are effective at helping patients manage diet-related diseases and encouraging patients to eat healthier diets.[19] A 2022 systematic review of the existing literature found that providing medically tailored meals and meal kits to adults with chronic illnesses significantly reduced LDL cholesterol by 5 to 10%, reduced metabolic syndrome prevalence by 30%, and reduced kidney disease mortality rates by 56%.[20] Produce prescription programs have been shown to decrease rates of food insecurity, increase fruit and vegetable intake, improve blood sugar levels, and lower the body mass index of participants.[21] The economic impacts are also notable. One study assessed the possible savings from implementing medically tailored meals on a national level. Using a simulation model, the researchers estimated that national implementation could result in annual net savings in health care expenditures of $13.6 billion.[22] These findings indicate that Food is Medicine interventions can have a direct positive impact on the urgent, nutrition-related health crisis facing the United States.

Chronic Diseases of Youths and Access to Health Care in the United States Biomed Res. Institute 787616 (2013), https://doi.org/10.1155/2013/787616.

[16] *See* Rahul Aggarwal et al., *Rural-Urban Disparities: Diabetes, Hypertension, Heart disease, and Stroke Mortality Among Black and White Adults, 1999 – 2018,* 77(11) J. AM. C. Cardiology 1480 (2021), https://www.jacc.org/doi/10.1016/j.jacc.2021.01.032.

[17] *National Diabetes Statistics Report, Prevalence of Diagnosed Diabetes,* Ctr. for Disease Control and Prevention, https://www.cdc.gov/diabetes/data/statistics-report/diagnosed-diabetes.html [https://perma.cc/V42T-H4VA].

[18] Jessie A. Satia, *Diet-Related Disparities: Understanding the Problem and Accelerating Solutions* 109(4) J Am Diet Assoc. 610 (2009), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2729116/.

[19] Research Action Plan, *supra* note 8, at 60-61, 66-67, 72-73.

[20] Aleda M. H. Chen et al., *Food as medicine? Exploring the Impact of Providing Healthy Foods on Adherence and Clinical and Economic Outcomes,* 5 Exploratory Res. Clinical Soc. Pharmacy e100129 (2022), https://pubmed.ncbi.nlm.nih.gov/35478519/.

[21] Research Action Plan, *supra* note 8, at 72–74; Laura Fischer et al., *Feasibility of a Home-Delivery Produce Prescription Program to Address Food Insecurity and Diet Quality in Adults and Children*, 14 Nutrients (May 2022), https://doi.org/10.3390/nu14102006; Mary Jane Lyonnais, *A Produce Prescription Program in Eastern North Carolina Results in Increased Voucher Redemption Rates and Increased Fruit and Vegetable Intake among Participants*, 14 Nutrients (June 2022), https://doi.org/10.3390/nu14122431; Jacqueline Pick Harris et al., *Farmers' Market Voucher Initiative to Improve Diabetes Control in Older Adults*, 18 The J. For Nurse Practitioners 236 (Feb. 2022), https://doi.org/10.1016/j.nurpra.2021.09.010.

[22] Hager *supra* note 7.

Federal Nutrition Programs that Support Improved Medical Outcomes

Food is Medicine programs often build on and supplement broader federal nutrition programs administered by the USDA. Federal nutrition programs that improve access to food and nutrition education complement the provision of Food is Medicine by supporting participants' dietary needs and facilitating their efforts to prevent or manage diet-related diseases. Through implementation of Title IV Nutrition Programs in the Farm Bill, the USDA offers a safety net for millions of food-insecure Americans.[23] Programs under the Nutrition Title, which accounted for approximately 76% of the 2018 Farm Bill expenditures, work to increase food security and reduce hunger by providing children and low-income individuals nutrition education and access to the foods they need to eat a healthful diet.[24] In these ways, USDA's nutrition programs can enhance population-level access to nutritious and adequate food to prevent diet-related illness, and potentially avoid the need for medical care; and to support individuals managing diet-related illnesses as they step down from receiving Food is Medicine interventions, like medically tailored meals. Protecting and strengthening federal nutrition programs recognizes the connection between nutrition and health and the need to ensure nutrition security to keep our population healthy.

> Some federal nutrition programs are not funded through the Farm Bill. For example, the National School Lunch Program, Child and Adult Care Food Program, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) are generally reauthorized in a child nutrition reauthorization bill.

Supplemental Nutrition Assistance Program

SNAP is the nation's largest and most important anti-hunger food assistance program. Despite the United States' status as one of the world's leading food producers, more than 40 million U.S. residents face the realities of food insecurity each day.[25] The Farm Bill provides crucial tools that help combat food insecurity. As Congress drafts and negotiates the 2023 Farm Bill, it is of the utmost importance that SNAP is protected, strengthened, and ideally expanded. Diet-related diseases are among the leading causes of premature death in this country and, up to half of all premature deaths are preventable.[26] These diseases are driven, in part, by the reality that many too many Americans do not have enough money to afford to purchase the foods they need to maintain their health.

As a population-level nutrition program, SNAP lacks the necessary nexus to health care to be classified as Food is Medicine; however, it has potential to work in

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[23] *Key Statistics and Graphics*, *supra* note 15.
[24] Cong. Res. Serv., Farm Bill Primer: What Is the Farm Bill? 1 (2023), https://crsreports.congress.gov/product/pdf/IF/IF12047 [hereinafter Farm Bill Primer].
[25] *Key Statistics and Graphics*, *supra* note 15.
[26] Mark Mather, *Up to Half of U.S. Premature Deaths Are Preventable; Behavioral Factors Key,* POPULATION REFERENCE BUREAU (Sept. 14, 2015), https://www.prb.org/resources/up-to-half-of-u-s-premature-deaths-are-preventable-behavioral-factors-key/ [https://perma.cc/G5KH-ZHL7].

prevention of diet-related diseases and support of Food is Medicine interventions by offering SNAP participants access to healthy food options. By ensuring that SNAP provides sufficient access to healthy foods, the number of people who require more intensive nutrition interventions, such as medically tailored meals and/or produce prescriptions, is reduced. SNAP, and other nutrition programs, can also offer a supportive "off-ramp" for individuals transitioning from Food is Medicine nutrition programs so that they can maintain their health, alleviating the need for future Food is Medicine interventions.

SNAP and the Thrifty Food Plan

The Thrifty Food Plan (TFP) is one of four food plans USDA develops that estimates the cost of a healthy diet across various price points.[27] SNAP benefits are based on the TFP, the lowest cost food plan.[28] In theory, the TFP is supposed to represent a nutritious, practical, cost-effective diet prepared at home for a "reference" family—an adult male and an adult female, ages 20-50, and two children, ages 6-8 and 9-11.[29] The reference family, notably, leaves out teenage children who have substantially greater nutritional needs.[30] USDA calculates the TFP using a mathematical model that considers four factors: 1) how much groceries cost; 2) what nutrients are in which foods; 3) what average Americans eat; and 4) what a nutritious diet looks like.[31] This is an extremely complex area of policy making because broad assumptions must be used in population-level calculations.[32]

In 2021, USDA revised the TFP for the first time since 2006.[33] Congress had directed USDA to re-evaluate the TFP based on four data points set forth above. USDA used the same mathematical model used in each of the previous re-evaluations, only making changes if there was clear and convincing evidence to do so.[34] Using food prices adjusted to reflect food costs in June 2021, the cost of food for the reference family increased by 21%.[35] This means the reference family of four would receive an additional $4.79 per day in SNAP benefits to support a healthy diet.[36] The revision was not held to a cost-neutral constraint, which allowed data and process decisions to reflect current dietary guidance and updated data on food prices, food composition, and consumption patterns, rather than cost neutrality.[37] While this increase is significant and encouraging, one continued flaw of the TFP calculations is that they still do not account for differences in food prices across the country.[38] The boost in

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[27] Food and Nutrition Serv., Thrifty Food Plan 1 (2021), https://www.fns.usda.gov/sites/default/files/resource-files/TFP2021.pdf (hereinafter Thrifty Food Plan).
[28] *Id.* at 1.
[29] *Id.* at 2.
[30] James P. Ziliak, *Modernizing SNAP Benefits*, The Hamilton Project 13 (2016), https://www.hamiltonproject.org/assets/files/ziliak_modernizing_snap_benefits.pdf [https://perma.cc/XD36-JLRN].
[31] Thrifty Food Plan, *supra* note 27, at 8–9.
[32] *Id.* at 6.
[33] *Id.* at 1.
[34] *Id.*
[35] *Id.* at vi.
[36] *Id.*
[37] *Id.* at vii.
[38] Sabrina K. Young & Hayden Stewart, *U.S. Fruit and Vegetable Affordability on the Thrifty Food Plan Depends on Purchasing Power and Safety Net Supports*. 19 Int. J. Envtl. Res. Pub. Health 2772 (2022), https://doi.org/10.3390/ijerph19052772.

SNAP benefits thus increases the affordability of healthy foods for the average household; however, households facing food prices greater than the national average—often the most vulnerable populations in urban areas, remote rural areas, and other communities with low access to food retailers—are likely to still face constraints purchasing a balanced diet of nutritious food.[39] Basing SNAP benefits on the Low- or Moderate-Cost Food Plans would better ensure that all individuals have access to a variety of foods, especially those higher in nutritional value. This change would maximize the ability of SNAP to reduce the need for Food is Medicine interventions and help those transitioning out of Food is Medicine programs to maintain a healthy lifestyle.

Supplemental Nutrition Assistance Program – Education

SNAP-Ed is a federally funded grant program that promotes nutrition education and obesity prevention for people who are eligible for SNAP.[40] In addition to direct education, SNAP-Ed also uses multi-level interventions, and community and public health approaches to improve nutrition.[41] Many Food is Medicine programs incorporate education into their intervention models, pairing education with the provision of food needed to maintain a healthy diet. For example, produce prescriptions may be complimented by services such as nutrition education or cooking classes. With a budget of $464 million, SNAP-Ed is the nation's largest and most important nutrition education and obesity prevention program.[42] Some SNAP-Ed funding directly supports nutrition education within Food is Medicine projects.

For example, in New York, SNAP-Ed partners with local health care providers and participating vendors to partner on a produce prescription program that increases access to affordable, local produce to prevent and treat chronic diseases and reduce food insecurity.[43] Each week, participants receive nutrition education (sometimes including cooking demonstrations) and $25 in vouchers to redeem at participating vendors for the purchase of fresh, local fruits and vegetables.[44] The educational workshop component is funded through SNAP-Ed, while the produce prescription vouchers are supported by the GusNIP program.[45]

In addition to nutrition education, SNAP-Ed supports efforts to improve policies, systems, and community environments (PSE).[46] PSE interventions can be deployed to further policy change that supports Food is Medicine programs or to effectuate systems change, such as improved coordination of Food is Medicine interventions

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[39] *Id.*
[40] *Supplemental Nutrition Education Program – Education (SNAP-Ed)*, NAT'L INST. OF FOOD & AGRIC. U.S. DEP'T OF AGRIC., https://www.nifa.usda.gov/grants/programs/capacity-grants/efnep/snap/supplemental-nutrition-education-program-education-snap-ed [https://perma.cc/7PDX-JRCR].
[41] *Id.*
[42] FOOD & NUTRITION SERV., SNAP-ED FINAL ALLOCATIONS FY22 1, https://snaped.fns.usda.gov/sites/default/files/documents/FY_22_SNAP-Ed_Allocations.pdf [https://perma.cc/3C4T-QLHX].
[43] *SNAP-Ed Fruit and Vegetable Prescription Program*, CORNELL COOPERATIVE EXTENSION ST. LAWRENCE COUNTY, https://stlawrence.cce.cornell.edu/food-nutrition/snap-ed-fruit-and-vegetable-prescription-program [https://perma.cc/429J-KRZF].
[44] *Id.*
[45] *Id.*
[46] *Supplemental Nutrition Education Program – Education (SNAP-Ed)*, *supra* note 40.

across different programs. These interventions have tremendous potential to improve community health by addressing policies, systems, or environmental barriers that impede the implementation or scaling of Food is Medicine programs. For example, SNAP-Ed could be deployed to effectuate policy changes to support local implementation or expansion of Food is Medicine programs, environmental changes such as the development of community food resources that feed into Food is Medicine programs, or systems change that prioritizes procurement from local producers.

Authorized by the Farm Bill and funded through the Nutrition Education and Obesity Prevention Grant Program, SNAP-Ed relies upon USDA for implementation.[47] The 2018 Farm Bill maintained SNAP-Ed but did not significantly increase funding.[48] Congress appropriated additional funding to USDA in 2022, which is being used to improve SNAP-Ed data collection and outcome reporting.[49] By robustly funding SNAP-Ed, Congress can support Food is Medicine interventions, like the nutrition education program that is coupled with produce prescriptions in New York, and the even more impactful policies, systems, and community environment change that is necessary to lay the groundwork for expansion and scaling of Food is Medicine Programs across the country.

Special Supplemental Nutrition Program for Women, Infants, and Children

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), which tailors it benefits to the specific needs of participants who have been identified as being at nutritional risk by their medical providers, serves as a long-standing example of a successful Food is Medicine intervention. While authorized via the child nutrition reauthorization bill, rather than the farm bill, it provides a meaningful model and foundation upon which the USDA can support and build similarly impactful and far-reaching Food is Medicine programs. WIC provides nutrition assistance to millions of low-income pregnant, postpartum, and breastfeeding individuals, infants, and children who are determined to be at nutritional risk by a health care provider.[50] WIC participants receive food items that provide nutrients which tend to be lacking in low-income women and children's diets. Some WIC recipients, also receive WIC Farmers' Market Nutrition Program vouchers to buy fruits and vegetables.[51] Additional WIC interventions include nutrition education, breastfeeding support, and health care referrals.[52] In existence since 1974, WIC has reduced fetal deaths; improved diet and diet-related outcomes for women, infants, and children; decreased health care costs, and improved growth and cognitive development in children and infants.[53]

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[47] 7 U.S.C. § 2036a.
[48] See e.g., CONG. RES. SERV., R45525, THE 2018 FARM BILL (P.L. 115-334): SUMMARY AND SIDE-BY-SIDE COMPARISON CRS-157 (2019), https://fas.org/sgp/crs/misc/R45525.pdf.
[49] FOOD & NUTRITION SERV., 2022 USDA EXPLANATORY NOTES 34-93 (2021), https://www.usda.gov/sites/default/files/documents/34FNS2022Notes.pdf.
[50] CONG. RES. SERV., R44115, A PRIMER ON WIC: THE SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN 8-9 (2017) https://crsreports.congress.gov/product/pdf/R/R44115 [hereinafter A PRIMER ON WIC].
[51] A PRIMER ON WIC *supra* note 50, at 10–11.
[52] *Id.* at 1.
[53] *About WIC: How WIC Helps*, FOOD & NUTRITION SERV., https://www.fns.usda.gov/wic/about-wic-how-wic-helps [https://perma.cc/VUD7-LFXU].

Seniors Farmers' Market Nutrition Program

Modeled after the WIC Farmers' Market Nutrition Program (FMNP), SFMNP awards grants to states, territories, and Indian Tribal Organizations to provide low-income seniors with vouchers to purchase eligible foods from farmers, farmers' markets, and Community Supported Agriculture (CSA) programs.[54] Low-income older adults, who are particularly vulnerable to nutrition deficiencies and diet-related diseases, can use the vouchers to supplement their diet with fresh fruits and vegetables as well as locally produced foods, such as honey and herbs.[55] Unlike WIC, SFMNP is in the Farm Bill.[56] While WIC FMNP's integration into the WIC program means that participants must meet with their health care provider to participate, the SFMNP does not have a similar nexus to the health care system. The 2018 Farm Bill maintained, but did not increase, SFMNP funding set by the 2014 Farm Bill that provided $20.6 million annually through 2023.[57] While this funding from mandatory appropriations facilitated the participation of more than 780,000 low-income older adults who purchase produce from approximately 15,000 farmers at 5,000 farmers' markets, roadside stands, and CSAs, the program does not receive any additional discretionary funding.[58]

Gus Schumacher Nutrition Incentive Program

GusNIP brings together stakeholders from the food and health care systems to improve the health and nutritional status of low-income households.[59] Funded by the Farm Bill[60] and administered by the USDA, GusNIP is made up of three distinct competitive grant programs: 1) the nutrition incentive program; 2) the produce prescription program; and 3) training, technical assistance, and evaluation agreements.

The **Nutrition Incentive Program** makes additional funds available to SNAP participants who use their SNAP benefits to purchase fruits and vegetables.[61] These programs are an important and effective tool for increasing equitable access to fruits and vegetables; an estimated 62% of program participants are food insecure.[62] Like the broader SNAP program with which they are affiliated, nutrition incentive programs do not fall under the umbrella of Food is Medicine. However, they can serve

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[54] U.S. Dep't. Agric., Senior Farmers' Market Nutrition Program (June 2021), https://www.fns.usda.gov/sfmnp/fact-sheet-2021 [hereinafter Senior Farmers' Market Nutrition Program].
[55] *Id.*
[56] Farm Bill Primer, *supra* note 24, at 1.
[57] Senior Farmers' Market Nutrition Program, *supra* note 54, at 2.
[58] Food & Nutrition Serv., Senior Farmers' Market Nutrition Program Fiscal Year 2021 Profile, https://fns-prod.azureedge.us/sites/default/files/resource-files/SFMNP-FY-2021-Profile.pdf.
[59] *Gus Schumacher Nutrition Incentive Program (GusNIP)*, Nat'l Inst. of Food & Argic., https://www.nifa.usda.gov/grants/programs/hunger-food-security-programs/gus-schumacher-nutrition-incentive-program [https://perma.cc/C6C2-WUUK].
[60] Cong. Res. Serv., Farm Bill Primer: SNAP and Nutrition Title Programs (2022), https://crsreports.congress.gov/product/pdf/IF/IF12255.
[61] *Gus Schumacher Nutrition Incentive Program (GusNIP)*, *supra* note 59.
[62] Gretchen Swanson Ctr. for Nutrition, Gus Schumacher Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Center (GusNIP NTAE): Impact Findings Year 2 58 (2022) https://www.nutritionincentivehub.org/media/fjohmr2n/gusnip-ntae-impact-findings-year-2.pdf [hereinafter (GusNIP NTAE): Impact Findings Year 2].

as an important foundation to Food is Medicine by improving diet quality across a broad population, reducing the need for Food is Medicine services and providing critical supports to individuals transitioning off Food is Medicine interventions.

The **Produce Prescription Program** supports projects that provide fruit and vegetable prescriptions and/or incentives to increase consumption of fruits and vegetables by low-income individuals suffering from or at risk of developing diet-related diseases.[63] Thus, produce prescriptions are within the spectrum of Food is Medicine programs. To receive these grants, projects must demonstrate that they will: 1) improve dietary health through increased consumption of fruits and vegetables; 2) reduce individual and household food insecurity; and 3) reduce health care use and associated costs.[64]

The **Training, Technical Assistance, Evaluation, and Information Center (NTAE)** offers support services to potential grant applicants, existing programs, and the operation of GusNIP as a whole through cooperative agreements.[65] NTAE provides support to GusNIP grantees with research and evaluation, through technical assistance, and around program innovation.[66] In 2021, GusNIP NTAE supported grantees in distributing over $20 million dollars in nutrition incentives and increased both the proportion of budgets allocated toward direct incentives (74.7%) and the number of locations offering incentives.[67]

The 2018 Farm Bill increased funding for GusNIP programs to $250 million over five years, from 2019-2023 and established the Produce Prescription Program along with the NTAE.[68] Of the total GUSNIP funding, up to 10% was set aside to support produce prescription grants.[69] Although these programs increase fruit and vegetable consumption and financially benefit local food retailers and communities[70]—with an investment of $13 million in grants generating more than $41 million in economic impact[71]—they fail to reach many areas of the country and lack sustainable funding streams. One time funding provided through the American Rescue Act Plan allowed

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[63] *Gus Schumacher Nutrition Incentive Program (GusNIP)*, *supra* note 59.
[64] *Gus Schumacher Nutrition Incentive Program – Nutrition Incentive Program (GusNIP-NI)*, NAT'L INST. OF FOOD & AGRIC., https://www.nifa.usda.gov/gusnip-request-applications-resources-ni [https://perma.cc/9U4Q-HALJ].
[65] *The Gus Schumacher Nutrition Incentive Program – National Training, Technical Assistance, Evaluation, and Information Centers Program (GusNIP-NTAE)*, NAT'L INST. OF FOOD & AGRIC., https://www.nifa.usda.gov/gus-schumacher-nutrition-incentive-program-national-training-technical-assistance-evaluation [https://perma.cc/4W2S-F247].
[66] (GUSNIP NTAE): IMPACT FINDINGS YEAR 2, *supra* note 62, at 3.
[67] *Id.*
[68] Agriculture Improvement Act of 2018, Pub. L. 115-334, § 4205, 132 Stat. 4490, 4659–60 (2018).
[69] *Id.*
[70] *See* Allison D. Yoder et al., *Retail Nutrition Programs & Outcomes: An Evidence Analysis Center Scoping Review*, J. ACAD. OF NUTR. & DIETETICS 1 (2020), https://doi.org/10.1016/j.jand.2020.08.080; DAWN THILMANY ET AL., *THE ECONOMIC CONTRIBUTIONS OF HEALTHY FOOD INCENTIVES* (2021), https://www.spur.org/sites/default/files/2021-02/economic_contributions_incentives_2_2_21.pdf; KATIE GARFIELD ET AL., CTR. FOR HEALTH LAW & POL'Y INNOVATION, MAINSTREAMING PRODUCE PRESCRIPTIONS: A POLICY STRATEGY REPORT 5–6 (2021), https://chlpi.org/wp-content/uploads/2013/12/Produce-RX-March-2021.pdf.
[71] (GUSNIP NTAE): IMPACT FINDINGS YEAR 2, *supra* note 62, at 4.

USDA to offer an additional $40 million in funding to support produce prescription programs in 2022.[72]

The current competitive grant-based model means that in many cases, smaller programs serving marginalized communities have struggled to compete with well-established programs that have existing infrastructure in place.[73] Notably, as of early 2023, no nutrition incentive program grants had been awarded to a Tribal agency.[74] A key barrier is the high matching requirement for nutrition incentive grants—grantees must provide an equal amount of funding from state, local, or private sources for every dollar requested.[75] Programs in their nascent stages or programs that are underfunded not only lack the perceived credibility of larger programs but are also challenged by the grant application process and administrative burdens of project management.[76] Although GusNIP NTAE's efforts to support capacity building and to encourage applicants from underserved areas are a promising start,[77] shifting from a grant-based model to a national program would expand the program's reach, reduce implementation complexities, create the potential for improving population health, and reduce the inequities described above.

Beyond issues with the grant model, those programs that receive awards face operational challenges; additional support is needed to build their capacity and better serve participants. Geography and transportation limitations create barriers to accessing current programs. Too often participants experience difficultly retrieving produce in programs where food pick-up is required.[78] Currently, many retailers,

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[72] *USDA NIFA Invests $40M to Improve Dietary Health and Reduce Food Insecurity*, Nat'l Inst. of Food & Agric. (June 1, 2022), https://www.nifa.usda.gov/about-nifa/press-releases/usda-nifa-invests-40m-improve-dietary-health-reduce-food-insecurity [https://perma.cc/4FQN-S3RY].
[73] Ctr. for Science in the Public Interest, Toward a More Sustainable Gus Schumacher Nutrition Incentive Program (GusNIP): Recommendations for Program Reauthorization and Implementation 2 (July 2022), https://www.cspinet.org/sites/default/files/2022-11/Towards%20a%20more%20equitable%20Gus%20Schumacher%20Nutrition%20Incentive%20Program%20%28GusNIP%29-%20Recommendations%20for%20program%20reauthorization%20and%20implementation.pdf [hereinafter Ctr for Science].
[74] *GusNIP Grantees,* Nutrition Incentive Hub, https://www.nutritionincentivehub.org/grantee-projects [https://perma.cc/BWL6-CPK6] (Three of the 29 produce prescriptions grants for years 2019-2022 went to organizations that explicitly identified support for native or indigenous populations in the grant summary—Kokua Kalihi Valley Comprehensive Family Services serving majority Asian and Pacific Islander patients, the Waianae Coast Comprehensive Health Center based in Hawaii, and The Yukon-Kuskokwim Health Corporation, which is a Tribal Organization based in Alaska. The proportion of produce prescription grants funded through COVID-related funding (GusNIP Covid Relief and Response and American Rescue Plan Act grants) was substantially lower—one grant was awarded to the Community Outreach and Patient Empowerment program which would expand services to the Navajo Nation and the other to the Kokua Kalihi valley Comprehensive Family Services).
[75] 7 U.S.C. § 7517(b) (providing that the federal share of program costs cannot exceed 50% of the total cost of the activity).
[76] Kristen H. Leng et al., *How Does the Gus Schumacher Nutrition Incentive Program Work? A Theory of Change,* 14(10) Nutrients 12 (2022), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9146513/.
[77] *NTAE Capacity Building & Innovation Fund – Application Support Grant*, Nutrition Incentive Hub, https://www.nutritionincentivehub.org/funding/capacity-building-and-innovation-fund [https://perma.cc/9EHS-YY9T] [hereinafter *NTAE Capacity Building*].
[78] Sarah A. Stotz et al., *Produce Prescription Projects: Challenges, Solutions, and Emerging Best Practices – Perspectives from Health Care Providers,* 29 Prev. Med. Rep. (2022), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9502043/.

especially smaller ones, lack the necessary infrastructure to redeem nutrition incentives or produce prescriptions.[79] These challenges further illustrate the need for additional capacity building and technical assistance to increase accessibility.

Opportunities to Support Food is Medicine in the 2023 Farm Bill

The Farm Bill plays an important role in improving nutrition through broad population-based programs such as SNAP and SFMNP; by offering nutrition education and multi-level interventions and community and public health approaches to improving nutrition through SNAP-Ed; and by directly funding nutrition incentives and produce prescriptions through GusNIP. But given the devastating and far-reaching impact of diet-related diseases in the United States, there is significant room to do more.

Congress could provide improved access to nutrition services to better prevent, manage, and treat diet-related diseases through the 2023 Farm Bill by:

1. Protecting and Strengthening Population-Level Nutrition Programs Like SNAP to Improve Food Security

SNAP is one of the most effective tools to reduce hunger and food insecurity. As such, it stands at the center of the Farm Bill's food security and nutrition policy. Purchasing food, especially fresh and nutritious food, can be a significant financial burden for low-income households. SNAP benefits improve food security and can reduce diet-related health conditions. By protecting and strengthening federal nutrition programs that increase access to adequate and nutritious food, Congress can help prevent or help manage diet-related illnesses, thus reducing the need for more intensive and costly Food is Medicine interventions. For a complete list of recommendations on how Congress can protect and strengthen SNAP please see the Farm Bill Law Enterprise's Food Access & Nutrition report.

2. Strengthening GusNIP to Promote Health Choices by SNAP Participants

a. Expanding Access to GusNIP by Making it a National Program

Only a small portion of those enrolled in SNAP can currently access GusNIP's nutrition incentives or its produce prescription programs.[80] By transitioning from grant-based programs to a national model that makes additional SNAP dollars available to all SNAP participants for the purchase of fruits and vegetables, Congress could expand GusNIP's reach and impact. This transition would also address the structural inequities of the current program, which fails to reach significant portions of the population who could benefit.

If Congress is not prepared to take advantage of this opportunity, it should at a minimum retain and expand GusNIP funding and provide additional support for capacity building. A bicameral bill introduced by Senator Cory Booker (D-N.J.) and Representative Lisa Blunt Rochester (D-DE) in June 2023, proposes to do just that by increasing funding for the program from $250 million to $3.5 billion over five years and

[79] Ctr. for Science, *supra* note 73, at 9.
[80] Ctr. for Science, *supra* note 73, at 3.

authorizing $100 million of annual discretionary funding.[81] The bill, which is titled *Opt for Health with SNAP, Close the Fruit and Vegetable Gap Act,* would provide the sort of large-scale investments that are needed to scale up programs that provide critical access to fresh fruits and vegetables and improve public health.

b. Protecting and Expanding Access to GusNIP and Remove Barriers to Participation

To protect and expand access to GusNIP, while also removing barriers to participation, Congress should:

Reduce or Eliminate the Matching Funding Requirements for GusNIP Nutrition Incentive Programs

Requiring programs to match federal funding with equal contributions from local, state, or private sources (50% match) disadvantages programs from underserved communities, particularly those that lack historical funding pathways, developed relationships, or dedicated development staff. Congress could eliminate or reduce the matching requirement to expand access to program funds and better reach those communities that have largely been excluded. Congress temporarily reduced the dollar-for-dollar matching requirement to a 10% match in the wake of the COVID-19 pandemic.[82] The reduction or elimination of the cost-sharing requirement should be made permanent. The *Opt for Health with SNAP, Close the Fruit and Vegetable Gap Act* proposes eliminating the program's current matching requirements, which would promote more equitable distribution of and access to the program.[83]

Strengthen Investments in GusNIP Produce Prescription Programs

Produce prescription programs, some of which are funded through the pilot program Congress established in the 2018 Farm Bill, have proven to be effective at improving health outcomes for individuals suffering from diet-related illnesses, especially those with the double burden of food insecurity.[84] However, many areas of the country still lack access to such a program and its attendant benefits.[85] Given these gaps, coupled with research suggesting a range of positive health impacts achieved through produce prescription programs,[86] Congress could strengthen its investment in the program. This is particularly important to ensure the sustainability of programs following the one-time infusion of funds through the Covid Relief and Response and American Rescue Plan Acts.[87] As Congress increases overall GusNIP funding, it could

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[81] The full text of the proposed bill is available at https://www.booker.senate.gov/imo/media/doc/oh_snap_close_the_fruit_and_vegetable_gap_act_of_2023.pdf.
[82] Consolidated Appropriations Act, 2021, Pub. L. 116-260, § 755 (2020).
[83] The full text of the proposed bill is available at https://www.booker.senate.gov/imo/media/doc/oh_snap_close_the_fruit_and_vegetable_gap_act_of_2023.pdf.
[84] RESEARCH ACTION PLAN, *supra* note 8.
[85] MARIA ELENA RODRIGUEZ ET AL., DAISA ENTERPRISES & WHOLESOME WAVE, PRODUCE PRESCRIPTION PROGRAMS US FIELD SCAN REPORT: 2010–2020 4, 12–13 (2021), https://static1.squarespace.com/static/5febb5b1df316630764c4dec/t/60d0e873a8100c7ed37499d5/1624303736319/produce_ prescription_programs_us_field_scan_report__june_2021_final.pdf.
[86] RESEARCH ACTION PLAN, *supra* note 8.
[87] *USDA NIFA Invests $40M to Improve Dietary Health and Reduce Food Insecurity*, NAT'L INST. OF FOOD AND AGRIC. U.S. DEP'T OF AGRIC. (June 1, 2022) https://www.nifa.usda.gov/about-nifa/press-

expand the proportion of funds—currently limited to 10% of all GusNIP funds[88]—that can be allocated to produce prescription programs. Increasing this proportion to 20% would empower USDA to better support the scaling and proliferation of produce prescription programs throughout the country, including in underserved communities.

Direct USDA to Increase the Cap on Individual Produce Prescription Grant Awards

Currently, produce prescription grants are capped at $500,000 over three years.[89] By allowing produce prescription grants to exceed this amount, as is allowed for GusNIP nutrition incentive programs, USDA could better advance the field of produce prescriptions, and Food is Medicine more broadly. Larger grants would better equip programs to conduct more robust evaluations, scale up programs to serve more participants or a larger geographic region, and address infrastructure needs that may otherwise inhibit the expansion of programs into communities with more limited resources.

Provide Additional Support for Capacity Building Through Continued Expansion of the GusNIP Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Center's (GusNIP NTAE) Support for New Programs

Integrating food producers, retailers, and distributors into the health care system requires coalition building, strategic planning, and infrastructure. To expand Food is Medicine programs across the country, community-based organizations need support to develop or scale their capacity to serve the needs of their community. Earlier this year, GusNIP NTAE announced a new funding opportunity aimed at building the capacity of organizations that have never applied or never been awarded a GusNIP grant.[90] Capacity building grants were limited to $25,000 to support grant writing, financial systems updates, coalition building, strategic planning, or other related needs.[91] Applicants from tribal communities, U.S. territories, and states that have yet to receive funding were specifically encouraged to apply. This is a promising start to expanding the geographic reach and equity of the program which could be further enhanced by increasing the level of support so that awards can be issued in excess of $25,000 per organization.

3. Reauthorizing the Senior Farmers Market Nutrition Program (SFMNP) and Adding Authority to Seek Discretionary Funding

Like GusNIP, SFMNP aims to improve the nutritional status of participants, by providing low-income older adults with resources to purchase eligible foods, such as fruits, vegetables, honey, and herbs from farmers' markets, roadside stands, and Community Supported Agriculture programs. By devoting additional funding to this

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releases/usda-nifa-invests-40m-improve-dietary-health-reduce-food-insecurity; *USDA Invests $69 Million to Support Critical Food and Nutrition Security Needs*, U.S. DEP'T OF AGRIC. (Aug. 17, 2021) https://www.usda.gov/media/press-releases/2021/08/17/usda-invests-69-million-support-critical-food-and-nutrition.

[88] Agriculture Improvement Act of 2018, Pub. L. 115-334, § 4205, 132 Stat. 4490, 4659–60 (2018).

[89] NAT'L INST. OF FOOD & AGRIC., REQUESTS FOR APPLICATIONS THE GUS SCHUMACHER NUTRITION INCENTIVE PROGRAM PRODUCE PRESCRIPTION PROGRAM 8, https://www.nifa.usda.gov/sites/default/files/2023-02/FY23-GusNIP-PPR-RFA-508.pdf.

[90] *NTAE Capacity Building, supra* note 77.

[91] *Id.*

program, Congress can better ensure that low-income older adults, who are particularly vulnerable to poor nutrition and diet-related diseases, can access food that helps them maintain and improve their health. The bipartisan and bicameral *Local Farms and Food Act of 2023*, introduced on April 19, 2023, proposes to strengthen support for local and regional food systems to help more people access nutritious, locally grown food. Among other things, the Act would reauthorize the Senior Farmers Market Nutrition Program and add authority to seek discretionary appropriations in addition to mandatory funding.[92] Enacting this legislation would advance this recommendation.

4. **Robustly Funding SNAP-Ed to Support Food is Medicine Interventions that Incorporate Nutrition Education and Deploy SNAP-Ed's Support for Policy, Systems, and Community Environments to Effectuate Policy and Systems Change.**

SNAP-Ed is the largest and most important nutrition education and obesity prevention program in the United States. As such, it partners naturally with Food is Medicine programs that seek to combine health care interventions, nutrition education, and improved access to nutritious food. In the 2023 Farm Bill, Congress should robustly fund SNAP-Ed programs that support Food is Medicine interventions, such as nutrition education. Congress should further direct USDA to prioritize projects proposing to use SNAP-Ed's policies, systems, and community environment supports to develop and build the capacity of Food is Medicine programs through policy, environment, or systems change. This would not only expand the reach of Food is Medicine programs but would also offer opportunities to develop effective projects that can be replicated and scaled.

The biggest gap in food systems support for Food is Medicine programs is support for medically tailored meals and medically tailored groceries. As federal leaders work to implement and build upon the opportunities in the upcoming farm bill, this gap should be top of mind. One of the top priorities in the coming years should be the coordination of a "whole-of-government approach" including collaboration between ***USDA and HHS Centers for Medicare & Medicaid Services (CMS),*** *which oversees initiatives to test Medicaid and Medicare coverage of nutrition services. These agencies* ***should have as a top priority, developing a plan for more broadly piloting medically tailored meals and medically tailored groceries*** *to connect individuals to nutritious food that is medically appropriate to treat or manage diet-related illness.*

Conclusion

The 2023 Farm Bill is an important opportunity to protect and strengthen federal nutrition programs that support improved health and medical outcomes, like SNAP, SFMNP, and GusNIP. Currently, there are significant portions of the population who need, but are unable to benefit from Food is Medicine programs. By closing this gap,

[92] H.R.2723 and S.1205, 118th Congr. (2023).

Congress can improve health outcomes for patients with diet-related diseases,[93] increase diet quality,[94] and decrease health care costs.[95]

[93] Hilary K. Seligman et al., *A Pilot Food Bank Intervention Featuring Diabetes-Appropriate Food Improved Glycemic Control Among Clients in Three States,* 34(11) HEALTH AFF. (MILLWOOD) 1956 (2015), https://pubmed.ncbi.nlm.nih.gov/26526255/; Aleda M H Chen et al., *Food as Medicine? Exploring the Impact of Providing Healthy Foods on Adherence and Clinical and Economic Outcomes,* 5 EXPLORATORY. RES. CLINICAL. SOC. PHARMACY e100129 (2022), https://pubmed.ncbi.nlm.nih.gov/35478519/.

[94] Seth A. Berkowitz et al., *Medically Tailored Meal Delivery for Diabetes Patients with Food Insecurity: a Randomized Cross-over Trial,* 34(3) J. GEN. INTERNAL MED. 396 (2019), https://pubmed.ncbi.nlm.nih.gov/30421335/; Jason Hy Wu et al., *Testing the Feasibility and Dietary Impact of a "Produce Prescription" Program for Adults with Undermanaged Type 2 Diabetes and Food Insecurity in Australia,* 152(11) J. NUTRITION. 2409 (2022), https://pubmed.ncbi.nlm.nih.gov/36774107/.

[95] Hager *supra* note 7.