U.S. Department of Health and Human Services

Food Is Medicine Landscape Summary

OASH Office of Disease Prevention and Health Promotion

Food Is Medicine

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Document Purpose

The document provides foundational framing elements central to the U.S. Department of Health and Human Services' (HHS) perspective on the Food Is Medicine (FIM) landscape. The document was informed through collaboration with other federal departments and agencies and with external partners.

HHS and our partners are motivated by understanding that the nation's investment in health care spending, at greater than $4 trillion in 2020, needs to be accompanied by longer-term investments that address the upstream causes of poor health outcomes.[1]

HHS recognizes the importance of addressing social determinants of health (SDOH) and unmet health-related social needs (HRSNs) that have a direct bearing on health outcomes. HHS recently issued a series of policies, as well as funding and training opportunities, to address SDOH and HRSNs.[2] HHS issued a call to action in 2023 asking individuals, organizations, and systems that have been historically siloed to collaborate across health care, social services, public and environmental health, government, and health information technology to advance solutions.[3]

FIM interventions are one way to respond to this call to action. Integrating health services (both medical care and public health) with human services, which include resources that help people and families address challenges like mental health, social and economic hardships, disabilities, and child welfare, is a critical step to enabling more equitable outcomes.

The fast-moving pace of FIM and the increased breadth of participating systems and partners has signaled a demand to ensure federal departments are using consistent definitions, rationale, and guidelines to collaboratively build lasting, high-value FIM models. Building upon the vision of the National Strategy on Hunger, Nutrition, and Health,[4] resources provided through the Consolidated Appropriations Act, 2023 supported the creation of an initiative that allows for the opportunity to establish a unified federal foundation that supports advancement across the FIM landscape.

This document defines what FIM is using a comprehensive lens, identifies why FIM should be understood through a broader ecosystem to effect the greatest benefit, and describes how federal and external resources are applied to support action across diverse settings.

The Concept of Food Is Medicine

The popular phrase "Let thy food be thy medicine and medicine be thy food," ascribed to Hippocrates (400 BC), is often used to emphasize the importance of nutrition to help prevent or treat disease. The FIM concept reaffirms the connection between diet and health and recognizes that access to high-quality nourishment is essential for individuals and communities to thrive. HHS understands this concept to manifest through the provision of healthy food as an integrated component of health care delivery. The FIM landscape is quickly evolving, with a variety of interventions across diverse communities and systems.

The increasing diversity and complexity of effort and engagement across systems supports the opportunity to establish a foundational perspective to ground, frame, and define FIM. The goal of the HHS FIM Initiative is to support a clear, shared direction among partners; enable the development of lasting, high-value interventions; and identify opportunities to create and support federal action.

HHS, together with its federal department and agency partners, can facilitate awareness and action to support FIM in several ways. For example, a growing number of federal departments and agencies directly fund FIM interventions and research as well as provide technical assistance and training. Through enhanced intradepartmental and interagency collaboration, HHS and its federal partners can ensure a coordinated vision that contributes to successful FIM interventions across a range of pathways.

Framing Food Is Medicine

The catalytic growth of FIM has generated a range of definitions and viewpoints regarding how FIM may be best implemented.[5–9] While variation in perspectives and definitions naturally exists among influential leaders and organizations involved in the FIM landscape, there are shared tenets and goals present across program implementers, researchers, health care delivery and community systems, and policy and thought leaders. The majority of FIM definitions center around the relationship of healthy food to address diet-related conditions and diseases and specifically highlight the role of the health care system as a central actor in FIM interventions.[5–7,10] Perspectives and definitions of FIM identify programs and models, including medically tailored meals (MTMs), medically tailored groceries, produce prescriptions (PPRs), and nutrition incentives alongside culinary and nutrition education (see Table 1).[10,11] It is important to advance FIM framing to center on a multisectoral relationship with many key partners.

To support a clear, unified perspective and federal definition of FIM that is rooted in a shared responsibility orientation, HHS, with the close collaboration of several other federal departments and agencies engaged in the Federal Food Is Medicine Collaborative and by drawing on existing definitions of FIM, formally developed the following framing language:

> **FIM encompasses a broad range of approaches that promote optimal health and healing and reduce disease burden by providing nutritious food — in conjunction with human services, education, and policy changes — through collaboration at the nexus of health care and community.**

This shared framing language is accompanied by 5 key principles in which FIM:

- **Recognizes that ongoing nourishment is essential for good health, well-being, and resilience.** Nourishment is essential to more than physical health — it fosters mental, social, and behavioral benefits and is important across the life course in every setting.
- **Facilitates access to healthy food across a health continuum in the community.** Approaches are designed to support health promotion, disease prevention, and chronic and acute condition management while addressing physical, mental, spiritual, cultural, and social well-being and community connections. Interventions prioritize the dignity and respect of a person receiving and consuming food with consideration of a culturally and regionally appropriate, person-centered design.
- **Cultivates understanding of the relationship between nutrition and health.** FIM fosters intentional integration of nutrition education throughout health care and human service delivery and training to help ensure adequate provider knowledge. It also facilitates knowledge of how nutrition affects health by engaging people and their communities through dynamic communication and tailored messaging, using strategies such as direct and online education, teaching kitchens, and consumer labeling.
- **Unites partners with diverse assets to build sustained and integrated solutions.** Diverse organizations and sectors have reinforcing and collaborative assets that collectively advance and

expand solutions. Through shared stewardship, guided by common language and data access, resources are employed to advance policy and practice that complement existing tools to benefit health and nutrition.

- **Invests in the capacity of under-resourced communities.** Equitable access to resources and capacity development enables all communities to support meaningful solutions that leverage inherent assets and prioritize investment in localized infrastructure, fostering economic opportunity and community stability.

Health and Financial Implications of Diet-Related Disease and Other Poor Health Outcomes

The impact of dietary intake on chronic conditions and other poor health outcomes is well documented. The United States continues to face an urgent, nutrition-related health crisis with rapid increases in the incidence and prevalence of diet-related chronic conditions and diseases and the negative impacts of these illnesses, including poor health outcomes, increased risk of comorbid conditions (e.g., cancer), premature deaths, and rapidly increasing health care costs. In addition, food insecurity often coexists with diet-related diseases, and both are significant, far-reaching, and disproportionately impact historically underserved communities with limited access to food.[12] Yet, food insecurity and diet-related diseases are largely preventable if all systems prioritize the health of the nation.

Health outcomes resulting from diet-related conditions and diseases are moving in a concerning direction, with research continuing to demonstrate that diet-related chronic diseases, such as cardiovascular disease, type 2 diabetes, obesity, liver disease, some types of cancer, and dental caries, pose a major public health problem for people in the United States. Nearly 3 in 4 U.S. adults have overweight and obesity,[13] which increase their risk for diet-related chronic diseases (e.g., type 2 diabetes) and premature death.[14,15] Among the national adult population, 60 percent have 1 or more diet-related chronic disease.[13] More than 944,800 people in the United States die of heart disease or stroke every year, a number that accounts for more than 1 in 3 deaths annually. Consistent evidence demonstrates that a healthy dietary pattern is associated with beneficial outcomes for all-cause mortality, cardiovascular disease, overweight and obesity, type 2 diabetes, bone health, and certain types of cancer (breast and colorectal).[13] Additionally, these conditions result in a significant economic health care burden and even greater societal costs. At least 86 percent of the $4.5 trillion spent annually in the United States on health care can be attributed to medical care for chronic illnesses.[5,16] Further, 90 percent of this annual total arises from individuals who have either or both chronic and mental health conditions.[17] Diabetes alone is estimated to cost the United States $413 billion per year, including $237 billion in direct health care costs and $90 billion in reduced productivity.[14] Nearly $173 billion per year is spent on health care related to obesity.[18] Research that examined the impact of 10 food groups — fruits, vegetables, nuts and seeds, whole grains, unprocessed red meats, processed meats, sugar-sweetened beverages, polyunsaturated fats, seafood omega-3 fats, and sodium — found that almost 20 percent of heart disease, stroke, and diabetes costs are due to poor diet. Looking ahead, the costs from cardiovascular diseases alone are projected to hit roughly $2 trillion by 2050.[17]

Altogether, the current trend of poor health conditions associated with one's dietary intake, combined with an aging U.S. population, increases the financial burden on Medicare, Medicaid, and other federal programs.[19,20] This in turn stresses the U.S. health care system[21] and reduces life expectancy among people in the United States.[22,23] Improving the nation's dietary intake has significant health benefits, and, therefore, cost implications.

Contributing Factors to Diet-Related Diseases and Other Poor Health Outcomes

A complex web of factors contributes to diet-related diseases and health disparities. Put simply, diet-related conditions and diseases are caused in part by poor eating patterns. That is, people in the United States do not eat enough vegetables, fruits, or whole grains, and they eat too much saturated fat, sodium, and added sugars.[24]

Figure 1. Social Determinants of Health[26]

The strongest predictor of health outcomes in the United States is the broader social context in which people live and work.[25] SDOH (Figure 1) are estimated to account for half of the county-level variation in health outcomes and are a major driver of health disparities.[26,27] Education and job opportunities; access to health care, safe housing, and transportation; and neighborhood design all affect an individual's ability to obtain food, make healthy choices, and remain physically active.[26] For example, people who live in communities without grocery stores that offer affordable and healthy food options may face compounding challenges, particularly if they also do not have access to transit that allows them to travel to a nearby grocery store.[18]

Rising food insecurity — when people have limited or uncertain access to adequate food[28] — contributes to the burden of diet-related chronic illnesses.[29] In 2023, 13.5 percent of U.S. households (approximately 18 million people) experienced food insecurity at some point during that year.[12] Food insecurity has been linked with increased risk of diet-related chronic illnesses and other negative health outcomes as well as with increased health care use and cost.[29–31]

This is why many federal departments and agencies are working to reduce food insecurity and improve nutrition security. The U.S. Department of Agriculture (USDA) defines nutrition security as having consistent access to the safe, healthy, affordable foods essential to optimal health and well-being.[32] The evolution to nutrition security recognizes that structural inequalities make it hard for many people to consume a healthy diet. For example, people who lack access to food outlets that sell healthier foods tend to have a lower income; are Black or Hispanic; live in rural areas; and are geographically concentrated in the south.[4] People living in territories, American Indian and Alaska Native (AI/AN), and Native Hawaiians or Other Pacific Islanders are highly dependent on food imports, leading to less access to healthy and affordable foods.

The COVID-19 pandemic starkly demonstrated the disproportionate impacts of diet-related chronic conditions and diseases on mortality and health outcomes. Individuals with diet-related chronic diseases and poor diet quality had a significantly higher risk than their peers without diet-related chronic illnesses for severe COVID-19 infection, hospitalization, and mortality, which exacerbated already existing inequities affecting historically unserved communities, such as food insecurity.[33–38]

Changing the trajectory of these trends requires significant development, expansion, and coordination in the prevention and management of diet-related chronic conditions and diseases across both federal departments as well as the broader health care, community, and food ecosystem.

HHS Vision and Opportunities for Food Is Medicine

HHS envisions an America where all individuals, families, and communities have equitable access to culturally preferred, nutritious food that can help prevent, manage, and treat diet-related disease and promote health and well-being. Achieving this vision will require a whole-of-government and a whole-of-society approach that ensures the healthy choices are the easy choices. This work will include developing, implementing, evaluating, scaling, and sustaining transformative programs, policies, and system changes.

The foundation of FIM is the integration of good nutrition to support positive health outcomes. FIM reaffirms the connection between diet and health and recognizes that access to high-quality nourishment is essential for individuals and communities to thrive. The success of FIM interventions requires strong collaboration between health care, community-based organizations (CBOs), food producers and retailers, and public sector partners. Innovative collaborations and thinking are necessary to adequately support and sustain FIM approaches.

HHS' FIM work is grounded by the understanding that:

1. Access to nutritious food is critical to health and resilience
2. Healthy eating patterns can reduce the risk of many diseases and health conditions
3. Healthy eating patterns play an important role in physical development; maintenance of healthy skin, teeth, and eyes; bone strength; muscle and digestive symptom function; and immunity; and they contribute to a heightened quality of life

FIM approaches present an opportunity to leverage evidence-based practices and long-standing nutrition knowledge to create new models that bridge access to healthy foods with the health care system. It is equally important, as the FIM intervention landscape evolves, to continue to understand, underscore, and prioritize the individual needs and wants of diverse communities.

To achieve sustained, positive, health improvements — preventing and treating diet-related conditions and diseases — amongst diverse populations at scale, FIM interventions that incorporate various high-value systems must be integrated and championed by multisystem partners. This approach supports and reinforces benefits resulting from a wide range of FIM interventions operating within the health care environment. This is possible by extending beyond the health care system walls, increasing the breadth of potential beneficiaries, and building integrated models and opportunities for increased healthy food access and improved healthy eating behaviors.

The Backbone of Federal Food Is Medicine Efforts

In September 2022, the White House hosted a Conference on Hunger, Nutrition, and Health and issued a corresponding National Strategy on Hunger, Nutrition, and Health with federal actions outlined across 5 pillars designed to achieve the bold goals of ending hunger and reducing the burden of diet-related disease while advancing healthy equity by 2030. The strategy included multiple FIM initiatives in "Pillar 2 — Integrate Nutrition and Health."[4] To accelerate progress on these actions, HHS established the Food Is Medicine Initiative to Unify and Advance Collective Action. The initiative, championed by the Secretary of HHS and managed by the Office of Disease Prevention and Health Promotion, aims to develop and implement a federal strategy to reduce nutrition-related chronic diseases and food insecurity to improve health and racial equity in the United States. This strategy includes diet-related research and programmatic efforts that will increase access to FIM interventions.[39]

The HHS Food Is Medicine Initiative to Unify and Advance Collective Action is a far-reaching collaboration among HHS and other federal departments to establish a shared vision and common framing language that would underpin and bound a unified federal concept of FIM. Colleagues from across the federal government support FIM solutions and participate in the Federal Food Is Medicine Collaborative. The Collaborative is the first and sole interdepartmental collaborative to include federal departments that directly support FIM interventions and the systems that enable system-level approaches.

The Collaborative is working to advance FIM by:

- Providing thought partnership and leadership to build an aligned federal understanding and approach
- Engaging in learning and synthesis of best practices and needs to advance FIM programs and investments
- Building collaborative action that can support policy and practice across the federal landscape and the nation

An Ecosystem Approach to Food Is Medicine

Building upon evidence described above, healthy eating is not just one of individual choice; the ecosystem, including structural inequities to food access, in which an individual lives can have significant consequences on one's ability to choose foods that are best for supporting overall health and well-being. The same applies to FIM interventions where an ecosystem approach is needed to achieve high-quality, effective interventions that extend beyond the walls of health care.

Collaborating with external partners that represent diverse roles and perspectives across the ecosystem has been central to the HHS FIM Initiative. These partners offer a deeper understanding of the multitude of factors that are necessary to develop effective FIM models and the policies that support them. Attempting to scale FIM interventions without a comprehensive lens and systems perspective will fail to achieve desired and sustained health outcomes.

Figure 2 depicts a comprehensive lens of the FIM ecosystem. At the core, there is a unique nexus between health care and community systems across a range of environments. The ability of different environments to provide FIM interventions are moderated by catalytic actions, such as enabling policies, communication, and cultural relationships to food. Opportunities for action, or enabling conditions, are key structures and functions that should be considered to build FIM interventions and places where action can be taken across a range of systems. These catalytic actions and enabling conditions affect the cost, uptake, and feasibility of an integrated FIM intervention.

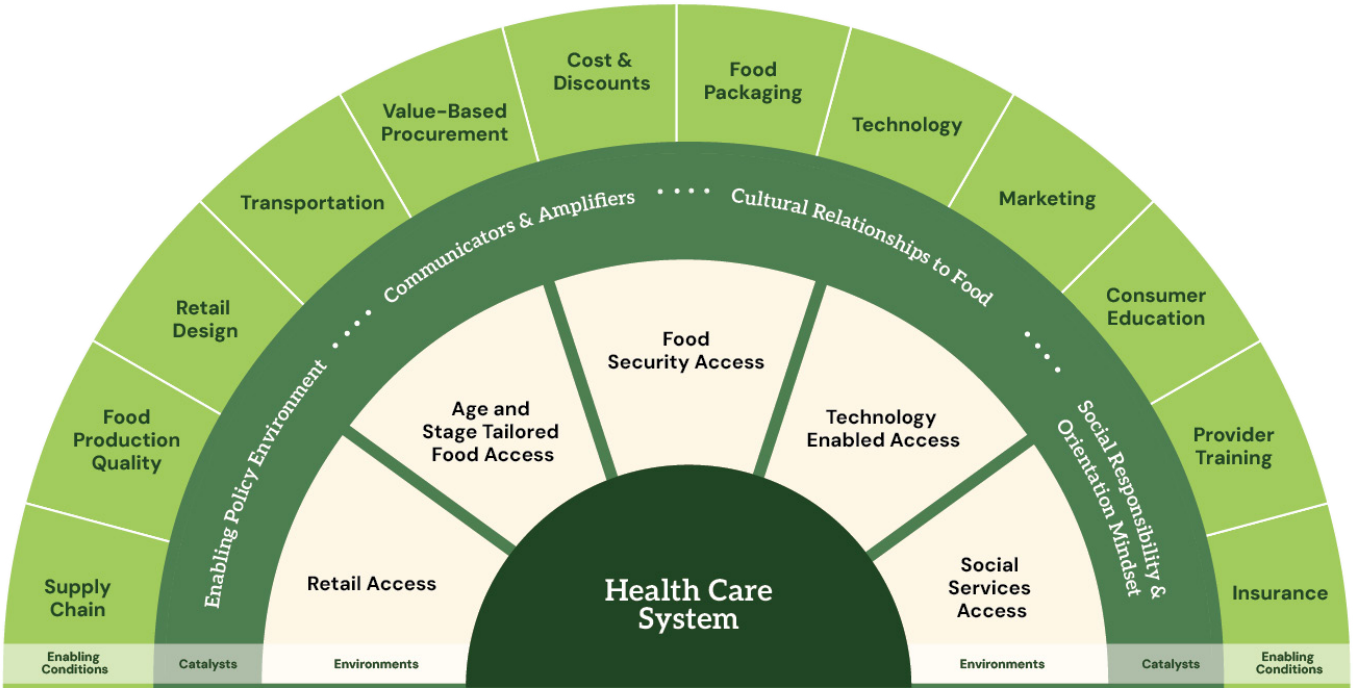

Figure 2. Food Is Medicine Ecosystem

Federal departments and agencies have a wide range of resources that support an ecosystem approach to FIM interventions. Currently, many federal resources supporting FIM do so through enabling systems that are designed to improve food and nutrition security and the overall food system.

Strengthening the conditions that enable FIM requires collaborative engagement across the federal government and society, as individual federal agencies and resources cannot do this alone. Opportunities exist to further integrate and identify approaches to leverage federal resources in complementary ways.

Building on the ecosystem approach, Figure 3 represents a holistic federal perspective of FIM interventions and enabling qualities and resources. Central to FIM are the specific interventions that are implemented at the nexus of health care and community systems. FIM models are structured to support a range of diet-related health conditions and diseases that vary across level of acuity and need. FIM program models are situated at the intersection of broader systems that are complementary to, but distinct from, FIM program models. Surrounding the pyramid are key FIM enabling systems: health delivery system resources, food and nutrition security resources, healthy food access environment resources, and food production resources.

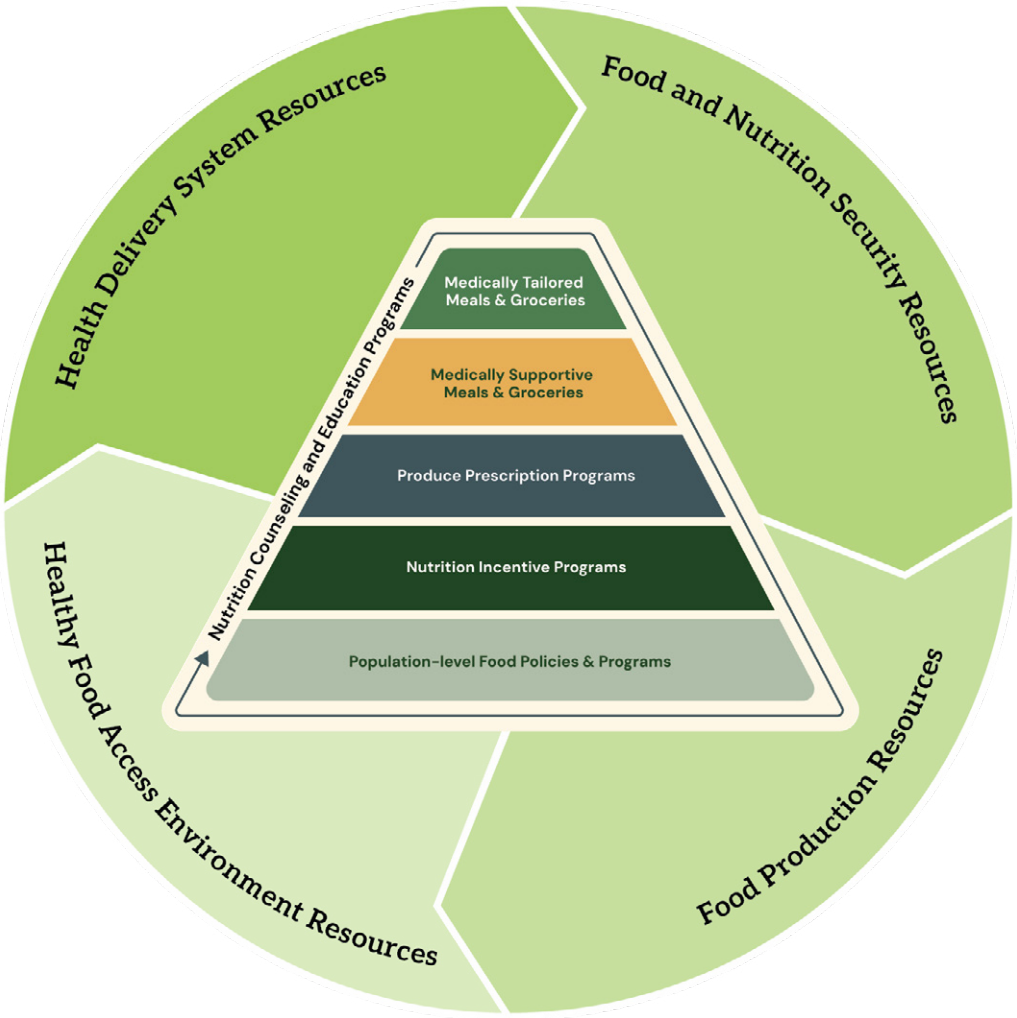

Figure 3. Food Is Medicine Interventions and Enabling Systems

FIM program interventions include a range of approaches that support a continuum of need, from acute to prevention. FIM program models include Medically Tailored Meals and Groceries, Medically Supportive Meals and Groceries, Produce Prescription Programs, and Nutrition Incentive Programs. These program models are distinct and aligned to different degrees of diet-related diseases and conditions and broader HRSNs. FIM program models are provided in partnerships with Nutrition Counseling and Education Resources that are tailored to the intervention's structure. Population-Level Food Policies and Programs include actions that directly support FIM interventions within community structures to enable greater individual health benefit.

FIM program interventions maximize their benefit and sustainability when supported by resources from enabling systems. These enabling system resources — Food and Nutrition Security Resources, Health Delivery System Resources, Healthy Food Access Environment Resources, and Food Production Resources — are distinct and complementary. Many federal department and agency resources reside within these enabling systems and are important to consider and employ when creating FIM interventions.

Types of Food Is Medicine Interventions

Within the unified FIM concept in the framing language above, FIM approaches include interventions that have a nexus to the health care system by providing food that can help to manage, treat, and prevent chronic health conditions.[19] Recent research has conceptualized FIM interventions on a pyramid in which the top tiers (i.e., medically tailored and medically supportive meals and groceries) are typically reserved for patients with the greatest treatment needs and lower tiers (i.e., PPRs and nutrition incentive programs) can have much broader impacts for preventive care and reducing the impacts and severity of diet-related chronic illnesses.[40,41] Table 1 delineates the latest progression of the pyramid framework expressed in the literature[41] and provides brief descriptions of each intervention. FIM interventions vary in both what they include (some more comprehensive interventions include food and nutrition counseling or education and some provide solely food or solely nutrition education) and in how tailored they are in meeting the individual's specific nutrition and health care needs. Individuals may access FIM interventions through a variety of paths, including within a clinical setting through a referral or prescription from their health care provider or hospital that has identified the need for the intervention.[19] Alternatively, individuals may also access FIM interventions through community access points (e.g., food banks, food pantries, social service providers) as well as through state-based assistance programs or health plan care managers.[19]

Table 1. Descriptions of Food Is Medicine Interventions

Intervention Type	Intervention or Model Description
Medically tailored meals	MTMs are pre-prepared meals typically provided to patients with complex medical conditions who are unable to shop and prepare meals on their own. MTMs are tailored by a Registered Dietitian Nutritionist (RDN) to meet the medical and dietary needs of the patient.[19]
Medically tailored groceries	Medically tailored groceries are perishable and nonperishable grocery items assembled in a prepackaged box or bag, designed by RDNs to address an individual's specific needs and health conditions. They generally require additional preparation before consumption.[19]
Medically supportive meals	Medically supportive meals are pre-prepared meals (e.g., heart healthy or diabetes-friendly meals) provided to an individual to help manage or prevent diet-related disease(s) or condition(s) in individuals who are at a higher risk for illness. Unlike MTMs, medically supportive meals are generally not tailored to the individual.[42]
Medically supportive groceries	Medically supportive groceries are perishable and nonperishable, generally healthy grocery items that require additional preparation before consumption.[42]

Table 1. Descriptions of Food Is Medicine Interventions*, continued*

Intervention Type	Intervention or Model Description
Produce prescription programs	PPR programs provide fresh, frozen, or canned produce with no added salt, sugar, or fat to individuals with prescriptions from their doctors, for those with specific nutritional needs and food access challenges.[19] Vouchers or restricted, redeemable debit cards are provided to individuals to purchase the produce they are prescribed.[19,43]
Nutrition incentives	A nutrition incentive could be a financial or nonfinancial encouragement to purchase healthier foods.[44] In the context of FIM, these are generally discounts, funds, or both to increase the ability of individuals with eligible incomes to buy healthy foods, which is often produce at the point of purchase. Further, the goal of nutrition incentives to improve diet quality, and thus control or reduce the risk for chronic disease(s), aligns with FIM intervention goals. Many nutrition incentives build on the foundation provided by certain federal nutrition assistance programs, specifically the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the Supplemental Nutrition Assistance Program (SNAP). Besides federal nutrition assistance programs, food pharmacies, housed inside or outside health care organizations, have emerged and provide free or discounted produce and other grocery items in accordance with prescriptions or referrals from health care providers.[45,46]
Population-level food policies and programs	Population-level food policies and programs include actions that directly support FIM interventions within community structures to enable greater individual health benefit. Policies and programs are diverse in nature, but they typically address nutrition education or food access. The broad scope of these types of policies and programs facilitates communication and action across sectors. Examples of programs that could be leveraged to enable FIM include federal nutrition assistance programs, federal nutrition education, nutrition labeling and regulatory actions, food policy councils, healthy food financing initiatives, community gardens, and social marketing campaigns.

Nutrition counseling and education are components across many FIM intervention types that offer educational or teaching opportunities for people to learn about food and then benefit from it.[47,48] Different approaches to nutrition counseling and education include teaching kitchens, culinary medicine, and behavioral pharmacies.

Greater detail is provided on each FIM model below.

Medically Tailored Meals and Groceries

MTMs are provided to patients through a referral from a medical professional or health care plan and are part of a treatment plan for certain diet-related health disease(s) or condition(s).[49,50] MTM programs include fully prepared meals that are typically provided to patients with complex medical conditions (e.g., cancer,

HIV, chronic heart failure) who are unable to shop and prepare meals on their own.[10] MTMs are tailored by an RDN to meet the medical and dietary needs of the patient.[50] Some MTM programs have been shown to improve health outcomes and lower health-related costs.[50,51] Most MTM programs are designed to serve high-need patients who may participate in the program for longer durations because of their health, age, and other needs. Additionally, most patients would not be able to afford to participate in an MTM program without insurance coverage.[51]

Medically tailored groceries are unprocessed or lightly processed grocery items (e.g., produce, whole grains, legumes, lean proteins), store-bought shelf products, and meal kits with ingredients portioned by meal that patients can use to prepare healthy meals at home. Patients can access medically tailored groceries through home delivery programs or at distribution sites located in community food pantries or health care settings.[19] Health care providers, health insurance plans, and CBOs can screen patients to determine whether they are eligible to receive medically tailored groceries.[19] After eligibility has been confirmed, RDNs assemble medically tailored groceries in prepackaged boxes or bags as part of a specialized treatment plan for patients with severe or chronic conditions (e.g., diabetes mellitus, cardiovascular disease).[10,19] For example, specialized treatment plans, such as heart-healthy, diabetic-friendly, and pescatarian grocery plans, are tailored to each patient's nutritional needs.[52] Several studies have reported that patients using medically tailored groceries have experienced decreases in hemoglobin A1C and cost of care and increases in medication adherence and fruit and vegetable consumption.[10] Core components of high-quality programs are outlined in Table 2.

Table 2. Core Components of High-Quality Medically Tailored Meals and Medically Tailored Groceries Programs

Medically Tailored Meals	Medically Tailored Groceries
In MTM programs, ready-to-eat meals are curated to support an individual's medical needs as described by their health care team. • MTM programs support individuals with referrals from a health system for their chronic illnesses or acute illness that requires specific dietary support. • Eligibility is determined by medical needs, not income status. • After the referral, individuals are served by an organization that provides the meals. These can include both CBOs and for-profit companies. • Individuals receive fresh, diverse, medically appropriate meals that are approved by RDNs and delivered to their residence. • Nutrition counseling is commonly used to further support an individual's dietary needs.	Medically tailored groceries programs provide food boxes selected by an RDN to assist individuals with managing diet related illnesses. • Food boxes support the specific nutritional needs of the individual based on their health condition. • Groceries can include meat, produce, grains, and any other medically appropriate foods. • Food boxes are delivered to the individual's home or can be picked up at a local partner organization, such as a food pantry or hospital. • Through the program, the individual receives patient-centered nutrition education and recipes.

Medically Supportive Meals and Groceries

Medically supportive meals are nutrient-rich, prepared meals that are used to prevent, treat, or reverse chronic diseases. Medically supportive meals are selected by health care professionals and incorporated into patients' treatment plans in accordance with evidence-based practices. Although each patient's treatment plan is unique, medically supportive meals are generally not tailored to accommodate patients' specific medical and medication histories. Instead, medically supportive meals include healthy foods that can be used by a broad patient population to improve dietary habits and overall health.[42]

Medically supportive groceries are nutritious whole foods that are used in chronic disease prophylactic, therapeutic, and reversal interventions. Medically supportive groceries are selected by health care professionals for patients with the manual dexterity necessary to cook the groceries before consumption. Although health care professionals consider each patient's physical limitations before providing them with medically supportive groceries, they do not tailor the groceries to the specific dietary restrictions and chronic diseases of each patient. Medically supportive groceries include perishable and nonperishable grocery items that are universally healthy and would benefit a broad patient population.[42] This intervention is emerging as a newer FIM model, with a less robust evidence base to date. Much of the literature that is complementary with MTMs and medically tailored groceries is referenced as of the date of publication.

Produce Prescriptions

PPRs enable doctors to prescribe a predetermined dollar amount of fruits and vegetables to patients who have experienced or are at risk of experiencing negative health outcomes due to poor eating habits.[53] Doctors write food prescriptions based on patients' specific dietary needs and provide patients vouchers to purchase the nutritious foods they are prescribed.[43,54] Three types of access points that provide this food at reduced or no cost are private industry (e.g., grocery stores, private grocery delivery services), onsite access points at health care sites (e.g., hospital-based food pantries), and nonprofit distributors (e.g., food banks, food pantries).

After participating in PPR programs, patients typically consume more nutritious foods and show improved health outcomes.[43,54] However, there is ongoing debate about the minimum program duration required to improve patient outcomes. Field experience has shown that a PPR program with a minimum duration of 6 months and an ability to re-dose as medically necessary is recommended to improve patient outcomes.[55] PPR programs may be part of a long-term nutrition and health management plan for patients experiencing chronic diseases. Likewise, researchers have recommended that a PPR program's duration should match each patient's unique medical needs and allow for re-dosing rather than standardizing program length at a certain number of months. The optimal duration for PPR programs paired with educational components has not been assessed, but the benefit of combining nutrition education with access to healthy food has been documented. Core components of high-quality programs are outlined in Table 3.

Table 3. Core Components of High-Quality Produce Prescription Programs

Produce Prescription Programs
In PPR programs, a health care provider writes an individual a "prescription" for fruits and vegetables. This "prescription" acts as a voucher the individual can redeem for free produce of their choosing. • PPR programs are typically intended for individuals with or at risk of a diet-related chronic condition (e.g., diabetes) who are also facing food and nutrition insecurity, low income, or both. • Vouchers can be redeemed at farmers markets, food pantries, grocery stores, and corner stores. Redemption sites vary by program. • The "prescription" vouchers can typically be used to purchase fresh, frozen, or canned produce without additives. • Implementation requires collaboration between health care providers, food retailers, and often CBOs that assist in the logistics of program implementation. • Most PPR programs include nutrition counseling, cooking education, or both.

Nutrition Incentive Programs

Nutrition incentives have been shown to address food insecurity, increase produce consumption, and improve dietary quality. The following section explains how 2 federal nutrition assistance programs, WIC and SNAP, support access to healthier foods. Starting with WIC, this federal nutrition assistance program administered by USDA is often considered one of the first federal FIM interventions because it is designed to address specific nutritional needs during critical times of growth and development.

WIC seeks to safeguard the health of women with low income, infants, and children up to age 5 who are at nutritional risk.[56,57] WIC provides nutritious foods to supplement diets, information on healthy eating, and referrals to health care. The program provides federal grants to states for supplemental foods, health care referrals, and nutrition education for pregnant, breastfeeding, and non-breastfeeding postpartum women with low income and to infants and children up to age 5 who are found to be at nutritional risk. Participants in WIC receive a monthly benefit for nutritious foods, including a cash-value benefit to purchase fruits and vegetables as part of their food package. They are also eligible to participate in the WIC Farmers Market Nutrition Program (FNNP), which provides a seasonal benefit to buy eligible foods from farmers, farmers markets, or roadside stands. Evidence suggests WIC participants are more likely to consume a healthy diet.[57,58]

SNAP allows eligible recipients to purchase eligible foods through an electronic benefit card (EBT) at 260,000 authorized retailers, including farmers markets, mobile markets, supermarkets, corner stores, and online stores. Instead of SNAP, Puerto Rico, American Samoa, and the Commonwealth of the Northern Mariana Islands operate a block grant program known as the Nutrition Assistance Program (NAP).

There are currently 4 SNAP incentive programs:[59,60]

- Electronic Healthy Incentives Pilot (eHIP), where Colorado, Louisiana, and Washington were selected to operate statewide eHIP projects
- Gus Schumacher Nutrition Incentive Program (GusNIP), described further below
- Healthy Fluid Milk Incentive projects, where SNAP participants receive incentives for purchasing qualifying milk at select SNAP authorized retailers

- SNAP Retailer Incentive Waiver, in which organizations (either the retailer or the nonfederal funding entity) apply for a waiver from the Food and Nutrition Service to offer incentives to participants in SNAP. Farmers markets are authorized to provide incentives to recipients of SNAP to make local foods more affordable and to support farmers and do not need a waiver.

Most relevant to FIM is the GusNIP Nutrition Incentive Program (NI), a competitive grants program which supports projects that provide a financial fruit and vegetable incentive to consumers shopping with their SNAP and NAP benefits. There are 3 fruit and vegetable incentive models. Commonly, for every $1 of SNAP or NAP benefits an individual spends, they earn a $1 in fruit and vegetable incentive for immediate use.

The GusNIP portfolio of competitive grant programs also includes the GusNIP – Produce Prescription Program. With the GusNIP – Produce Prescription Program, if a health care professional determines that a person with eligible income suffers from, or is at risk of developing, a health condition that can be improved with a diet that includes more produce, the person receives a prescription for fresh produce. With the program, the customer does not have to make a qualifying purchase, and the PPR is generated after a health evaluation.[56,59,61]

Another nutrition incentive program model, food pharmacies, provide fresh or frozen foods, such as fruits, vegetables, and lean proteins, to patients who suffer from chronic diseases or are at risk of developing these diseases.[46] Some food pharmacies serve patients in the health care setting through hospital- or clinic-based food pantries, while other food pharmacies serve patients in the community setting through community gardens, local farms, mobile produce markets, schools, and other venues. Food pharmacies are located in a variety of different settings because they are designed to increase access to healthy food. Food pharmacies are also designed to remove financial barriers to healthy foods through financial incentives, such as providing free or discounted produce. Patients can purchase healthy produce from food pharmacies at little to no cost after receiving a prescription from their health care provider. Although discounts do not always incentivize purchases, they have been shown to increase fruit and vegetable intake. More research is needed to assess the longitudinal effects of food pharmacies on healthy food intake and diet-related health outcomes.[45] Core components of high-quality nutrition incentive programs are outlined in Table 4.

Table 4. Core Components of High-Quality Nutrition Incentive Programs

Nutrition Incentive Programs
A nutrition incentive could be a financial or nonfinancial encouragement to purchase healthier foods.[44] In the context of FIM, these are generally discounts, funds, or both to increase the ability of individuals with eligible incomes to buy healthy foods, which is often produce at the point of purchase. Although the goal of nutrition incentives is to improve diet quality and thus control or reduce the risk for chronic disease(s), recipients typically are not required to have or be at risk of developing a diet-related disease(s) or condition(s). Incentives are typically delivered in the form of coupons, paper or digital vouchers, or within certain federal nutrition assistance programs as extra funds added to SNAP or WIC EBT cards. • Incentives can be redeemed at participating farmers markets, Community Supported Agriculture (CSA) programs, traditional food retailers, or authorized SNAP or WIC retailers. • Nutrition incentive programs can support local farms by encouraging the recipient to purchase locally grown produce. • Many nutrition incentive programs include an educational component for nutrition, cooking, or both.

Nutrition Education and Counseling

Nutrition education and counseling are components of a FIM intervention in many contexts and offer an opportunity for participants to acquire lasting skills and behavioral change.[38,39] Nutrition education means "any combination of educational strategies, accompanied by environmental supports, designed to motivate and facilitate voluntary adoption of food choices and other food- and nutrition-related behaviors conductive to health and well-being. Nutrition education is delivered through multiple venues and involves activities at the individual, community, and policy levels."[62] Different approaches to nutrition education and counseling depend on the clinical needs of the patient, but they can range from more intensive medical nutrition therapy (MNT) provided by an RDN to group classes in teaching kitchens to behavioral pharmacy programs. FIM interventions are generally designed to combine direct nutrition education and cooking skills with an environmental support of food provision.

The following section provides more details on 4 common nutrition education and counseling approaches seen within FIM interventions.

Medical Nutrition Therapy

MNT is a form of treatment that employs nutrition education and behavioral counseling to prevent or manage a medical condition. The intervention is an evidence-based process that aims to treat or manage a disease through nutrition. Its components are comprehensive and include assessment of nutritional status and provision of a nutritional diagnosis, diet modifications, counseling, and specialized nutrition therapies. An RDN works with a patient and other health care team members to identify diet-related health needs, personal goals, and patterns of daily living to ensure the prescribed diet is aligned to and supportive of personal needs.[63]

Culinary Medicine

Culinary medicine takes an evidence-based approach to promoting healthy dietary habits by combining the art of cooking with the science of medicine. Culinary medicine classes both guide, practical, hands-on food preparation and offer scientific information about how nutrition and dietary patterns affect health.[48] These classes are often taught by medical doctors or RDNs. Outside of the classroom, RDNs also provide nutrition education to help patients manage chronic medical conditions. However, insurance often does not cover consultation with RDNs, creating a barrier to access for patients with a low income.[64,65]

Recent literature highlights the benefit of combining nutrition education — ideally through virtual platforms — with access to healthy food and other educational approaches.[48,66] For example, one pilot study provided cooking and nutrition classes for children of parents who used a food pantry, which instilled knowledge of healthy eating in the children and subsequently augmented the parents' nutrition knowledge.[67] Another pilot study provided virtual culinary medicine curricula to patients with diabetes who also participated in a clinic-led food prescription program. These patients showed improvements in several biometric measures and increased both their consumption of fruits and vegetables and their frequency of healthy cooking.[48]

Teaching Kitchens

Teaching kitchens can provide instruction in any of the following areas:

- Nutrition education
- Basic cooking skills

- Physical activity and its critical role in health optimization
- Mindfulness and its relationship to diet, portion control, satiety, and resilience
- Web-based resources and technologies to access recipes and nutrition facts
- Motivational interviewing strategies and health coaching techniques to induce sustained behavioral change[68]

Teaching kitchens can be delivered virtually or in person in both rural and urban settings. Therefore, in addition to serving as learning environments, teaching kitchens can also provide a space for nutritious food distribution programs that are accessible to diverse populations.[69–71]

The impact of teaching kitchens is most often assessed in hospital settings. Researchers at the Harvard T.H. Chan School of Public Health and the Culinary Institute of America found that patients who participated in hospital teaching kitchens experienced improvements in their diets as well as in their biomarkers, including weight, blood pressure, lipids, and blood sugar levels.[68] Teaching kitchens that operate across varied settings, such as hospitals, farms, cafeterias, college nutrition classes, and CBOs, have demonstrated the greatest efficacy.[68,72,73]

Behavioral Pharmacies

Behavioral pharmacies are educational delivery systems for behavioral prescriptions (e.g., get more physical activity, eat healthier) that offer access to physical activity, healthy food provisions, social support, and stress reduction to improve patient care. The primary goal of behavioral pharmacies is to connect patients to a healthy, thriving community. After being prescribed a behavioral prescription by their health care provider, patients participate in in-person meetings and receive support from their peers and coaches to achieve the health goals set by their doctors. In addition to assessing classic biomarkers of health (e.g., weight, blood pressure), behavioral pharmacies also assess human behaviors that underlie health and well-being, such as psyche or mental health conditions. Behavioral pharmacies strive to embed behavioral factors that improve health into the health care system by making them readily accessible and affordable. Behavioral pharmacies can be coupled with other educational approaches to optimize sustainable dietary habits. After participating in behavioral pharmacies, patients experienced significant improvements in fruit and vegetable intake, hypertension, depression, isolation, and physical activity.[74]

Population-Level Food Policies and Programs

Population-level food policies and programs include actions that directly support FIM interventions within community structures to enable greater individual health benefit. These policies and programs are diverse in nature, but they typically address nutrition education, food access, or both. The broad scope of the policies and programs facilitates communication and action across sectors. The Dietary Guidelines for Americans outlines science-based recommendations to promote health and prevent chronic disease, and it can provide a framework upon which many FIM programs are developed. Partners can leverage the Dietary Guidelines to create consistent and high-value nutritional standards in the context of FIM. Examples of other types of policies and programs that could be leveraged to enable FIM include federal nutrition assistance programs, federal nutrition education, nutrition labeling and regulatory actions, food policy councils, healthy food financing initiatives, community gardens, and social marketing campaigns. These programs aim to make the healthy choice the easy choice.

Elements of All High-Value Food Is Medicine Interventions

FIM interventions are most effective when they are designed and implemented to align with and build upon the assets of the community context and partners. The following 4 foundational elements (Figure 4) should be considered and included in all FIM interventions:

- **Provision of food:** The provision of food aligns to support the prevention, management, and treatment of diet-related health conditions, cultural sensitivity, age and stage abilities, and economic resources.
- **Clinical/care team:** Care is provided by a range of health and human service professionals who understand the value of healthy food in treating diet-related health conditions and can enable access to healthy food as a health care intervention. Care may be provided to enrolled individuals by a team of partners that often includes a physician or health care provider, an RDN, and a community health worker. While the FIM intervention team will be structured to the specific care or intervention context, it is critical that professional partners are engaged and part of the delivery relationship to maximize health outcomes and program effectiveness.
- **Education supports:** An important component of FIM is providing tools to support sustained behavior change. Food, nutrition, and culinary education can be provided alongside the provision of food, and may include counseling and MNT, group classes, teaching kitchens, and grocery shopping tips among other ways to provide information and skills about healthy eating.
- **Navigation:** Guidance and referrals are provided in a range of reinforcing contexts to maximize food access and information that support individual healthy food choices aligned with personal health needs and economic resources.

Figure 4. Four Foundational Elements of Food Is Medicine Interventions

Key Opportunities

The overarching goal of HHS' FIM work — alongside its federal department and agency partners — is to unify and catalyze action such that FIM interventions are integrated and supported across communities and systems. FIM's shared vision and framing language provides a foundation to guide cross-agency efforts. Within this vision are strong signals of action and investment across several systems, which include state health systems, Health Resources and Services Administration (HRSA)-supported health centers (health centers), tribes, and CBOs. Meal providers, food banks, and human service providers are advancing their efforts and seeking partnership from HHS and other federal departments to address the need at the nexus of diet and health care. Through integrated efforts across these systems, FIM interventions enable implementers to better assist participants in following dietary recommendations by directly increasing the affordability and accessibility of culturally preferred, healthy foods and by enabling sustained dietary change. While not the core requirement and measure of success, the cross-cutting nature of FIM interventions have the potential to create ripple effects, from connecting resources to address other HRSNs to supporting economic resiliency and the local food ecosystem.

At the federal level, specific opportunities for immediate, continued action include:

- Aligning perspectives on concepts, definitions, and standards and integrating these shared principles in key policy, programmatic, practice, and personnel decisions
- Supporting greater connection and coordinated learning and action across federal FIM and related efforts
- Expanding partners and systems engaged in FIM that understand their relationship to FIM interventions around shared principles and coordinated action
- Catalyzing a movement to expand and advance FIM systems of care, including building public awareness of these shared principles to foster social norms around the integration of nutrition, health, and FIM interventions
- Providing resources that create greater unity, expand understanding of impact, and increase permanent FIM efforts

Federal Efforts Supporting the Food Is Medicine Ecosystem

This overview outlines key aspects of the current FIM landscape within federal departments and agencies. Currently, a complement of federal departments and agencies have resources that directly support the development and implementation of FIM models. A broader range of federal departments and agencies have complementary resources that are not FIM-specific, but they support the common goals of reducing diet-related diseases and improving overall health that may be leveraged to support and sustain FIM interventions.

Within HHS, agencies supporting FIM include (in alphabetical order):

- Administration for Children and Families (ACF)
- Administration for Community Living (ACL)
- Centers for Disease Control and Prevention (CDC)

- Centers for Medicare & Medicaid Services (CMS)
- Food and Drug Administration (FDA)
- Health Resources & Services Administration (HRSA)
- Indian Health Service (IHS)
- National Institutes of Health (NIH)
- Substance Abuse and Mental Health Services Administration (SAMHSA)

Other federal departments and agencies supporting FIM include, but are not limited to:

- AmeriCorps
- USDA
- Department of Transportation (DOT)
- Department of Veterans Affairs (VA)
- National Endowment for the Arts (NEA)

Notably, several federal departments and agencies provide both direct support for FIM initiatives and funding for FIM-supporting activities (e.g., programs addressing food access, food and nutrition security, food sovereignty, investment in food systems, and nutrition education) and FIM-related research. FIM-supporting activities and FIM-related research are critical for building the foundation for the future of large-scale FIM interventions.

As presented above, HHS supports an ecosystem approach to FIM. Federal resources that directly support or complement FIM interventions can be oriented through the lens of the FIM Core Interventions and Supporting Systems framing. The federal programs included below either (a) directly support FIM models, (b) complement FIM models through a complementary adjacent system, or (c) do both.

The resources included are focused on federal departments and agencies that are engaged in the HHS FIM Initiative as of September 2024. Within the federal government, more work is needed to identify and include all the resources that could support and enhance solutions centered on FIM. Ultimately, the goal of sharing the complement of federal resources is to connect the dots across the many elements that help support a strong FIM ecosystem and maximize value to achieve individual and community health.

Resources that Directly Support Food Is Medicine Interventions

The following federal programs currently directly support FIM interventions depicted in the center pyramid of Figure 3's FIM interventions and enabling systems.

Department of Health and Human Services

Centers for Medicare & Medicaid Services

CMS supports FIM-related health care services and FIM interventions by either or both:

- Covering such services and interventions as health care benefits in certain circumstances
- Allowing health care entities, such as providers or health plans, the flexibility to choose to provide services, items, and interventions to members of CMS programs (e.g., a hospital operating in a

value-based care arrangement might provide post-discharge home-delivered meals as a strategy to help patients avoid readmission)

With respect to nutrition counseling, Medicare covers MNT,[75] Intensive Behavioral Therapy for Obesity,[76] and the Medicare Diabetes Prevention Program, although uptake of these services has historically been low.[77] The Diabetes Self-Management Training benefit for people with diabetes includes disease management through diet and nutrition, and it is highly effective in reducing morbidity and mortality from diabetes. In the Medicare Advantage (MA) program (Medicare coverage provided by privately contracted health plans), additional FIM interventions, such as meals or food and produce, may be covered as part of supplemental benefits.[78] Within Medicaid and the Children's Health Insurance Program (CHIP), states have the ability to provide FIM services through multiple authorities and flexibilities,[79] such as covered benefits in the state plan, Medicaid Section 1115 demonstration pilots, home- and community-based services (HCBS) authorities, and CHIP health services initiatives (HSIs). The extent of such coverage depends on the type of FIM service, the specific authority under which it may be covered, and each state Medicaid program's decisions about what services and interventions to include in their state plans, demonstrations, and waivers, and for whom.

Beyond opportunities to cover FIM services and interventions as health care benefits, CMS programs may enable and incentivize health care entities to provide access to FIM services and interventions to CMS program members as part of efforts to improve health care outcomes and health care quality. For example, practitioners participating in Medicare's Merit-based Incentive Payment System (MIPS) Quality Payment Program may attest to "Implement[ing] Food Insecurity and Nutrition Risk Identification and Treatment Protocol" as one of the Improvement Activities that contributes to their overall MIPS score. Providing FIM services to patients identified as being food insecure and at risk of negative health outcomes due to diet can help meet the requirements for this Improvement Activity.[80]

As of September 30, 2024, a new Social Security Administration rule explicitly excludes receipt of food as a countable source of in-kind support and maintenance for purposes of Social Security Income (SSI) eligibility determination or for Medicaid eligibility determined with the SSI methodology.[81]

Quality Measurement and Public Reporting

As part of statutorily mandated quality programs for hospitals, inpatient psychiatric facilities, dialysis facilities, and clinicians, quality measures focused on patient screening[82] for several core HRSNs, including food insecurity, have been adopted. Provider-level information on patient screening rates, as well as the rate of patients who were screened and indicated they had an issue related to food insecurity, will be made publicly available on CMS' Compare tool on Medicare.gov.[83] In addition, the Hospital Inpatient Quality Reporting Program includes a malnutrition measure[84] that focuses on screening, assessment, and intervention[85] for hospitalized patients using data derived from patients' electronic medical records.

Medicare Part B Coverage for Nutrition Counseling

Medicare Part B plans cover FIM MNT services, which include "nutritional diagnostic, therapeutic, and counseling services provided by an RDN" for specific medical conditions (e.g., diabetes, renal failure, and recent kidney transplantation).[86] As of 2022, basic Medicare Part B covers 3 hours of MNT in the first year of diagnosis and 2 hours each subsequent year. Additional hours of MNT are covered only if a physician determines that a change in the patient's condition or treatment necessitates a change in their MNT plan.[87] MNT must also be covered in MA plans; such plans may choose to expand the number of hours of MNT or offer MNT to individuals living with other diet-affected diseases as part of a plan's supplemental benefits.

For individuals who meet specific health criteria, Medicare also covers MNT.[75] In addition, nutrition counseling and education may be part of other covered services, such as Intensive Behavioral Therapy for Obesity,[76] the Medicare Diabetes Prevention Program,[77] and cardiac rehabilitation.[88]

Food Is Medicine Coverage Under Medicare Advantage Plans

MA plans are approved by Medicare but are run by private companies. These companies provide Medicare Part A and Part B covered services and commonly also include Medicare drug coverage.[89] Many MA plans offer supplemental benefits that address medical and social needs, including nonmedical transportation services and FIM MTMs, food, and produce benefits. Some of these benefits are only available to eligible MA plan enrollees who are chronically ill (see Special Supplemental Benefits for the Chronically Ill below). In 2024, 72 percent of MA plans and 75 percent of Special Needs Plans offered supplemental meal benefits.[90]

Special Supplemental Benefits for the Chronically Ill

The Balanced Budget Act of 2018 included new authorities concerning supplemental benefits that may be offered to chronically ill enrollees in MA plans; these are called "Special Supplemental Benefits for the Chronically Ill (SSBCI)." Per the statute, SSBCI are not restricted to benefits that fall within the definition of "primarily health related," but must be limited to items or services that have a reasonable expectation of improving or maintaining the health or overall function of the chronically ill enrollee. Chronically ill enrollees are those who meet these 3 criteria:

- Have 1 or more comorbid and medically complex chronic condition that is life threatening or significantly limits the overall health or function of the enrollee
- Have a high risk of hospitalization or other adverse health outcomes
- Require intensive care coordination[91]

In 2024, 916 plans offered food and produce benefits through SSBCI and 323 plans offered meals (beyond limited basis) through SSBCI. In addition, some SSBCIs offer transportation to obtain items and services that can address HRSNs, such as groceries.

Uniformity Flexibility

Uniformity Flexibility (UF) allows MA plans to engage enrollees for health care services that are medically related to the patient's health status or disease state if the food benefit is offered uniformly to all individuals with the same qualifying condition. Food-related supplemental benefits may be offered through UF. Additional meals (added to what a plan offers in its standard supplemental benefit offerings) were one of the most common benefits offered through UF in 2019.[92]

Value-Based Insurance Design Model

The Value-Based Insurance Design (VBID) Model, which tests certain innovations in the MA program, operates under Section 1115A of the Social Security Act (42 U.S.C. § 1315a,[93] added by § 3021 of the Patient Protection and Affordable Care Act[94]) that authorizes CMS to test innovative health care payment and service delivery models that have the potential to lower Medicare, Medicaid, and CHIP spending while maintaining or improving the quality of participants' care. One of the innovative flexibilities in the VBID Model is the ability for CMS-approved MA plans to offer supplemental benefits (which can be primarily health related or non-primarily health related) to a prioritized subset of enrollees who are identified by their chronic health condition, socioeconomic status, or place of residence in the area deprivation index regions that are most under-resourced. These supplemental benefits must have, like SSBCI, a reasonable expectation of improving or maintaining the health or overall function for this subset of enrollees. An example of a non-primarily health

related supplemental benefit provided via the VBID Model is healthy, home-delivered meals for enrollees with a low-income subsidy status (who are more likely to face food or nutritional insecurity). Food-related supplemental benefits were the most common type of supplemental benefit offered through the VBID Model in 2024, with more than 7 million enrollees eligible to receive them.

Medicaid Section 1115 Demonstration Pilots

Section 1115 of the Social Security Act grants HHS authority to approve experimental, pilot, or demonstration projects that promote the objectives of the Medicaid program.[95] Medicaid Section 1115 demonstration pilots give states additional flexibility to design and improve their programs, and they can be used to cover clinically appropriate and evidence-based services and supports that address HRSNs, such as food insecurity. CMS has published a framework of services and supports to address HRSN that CMS considers allowable under specific Medicaid and CHIP authorities.[79] With respect to food and nutrition services, states might include FIM interventions in their demonstration project, such as PPRs, produce vouchers, and meal delivery programs. CMS reviews and approves Medicaid Section 1115 demonstration pilots, and, for HRSN 1115 demonstration pilots, CMS requires that state spending on related social services be maintained or increased, in addition to other requirements including those related to budget neutrality, provider payment rates, and robust evaluations of demonstration.[96]

Medicaid Home and Community-Based Services Authorities

Medicaid section 1915 HCBS programs [1915(c), 1915(i), 1915(j), 1915(k)] gives states the option to provide a robust array of services and supports to facilitate beneficiary independence and community integration. Each authority has specific functional eligibility requirements.[97,98] CMS allows states to propose covering certain nutrition services as part of HCBS programs.[79] Section 1915(c) and 1915(k) programs allow states to provide HCBS to individuals who would otherwise need institutional care. Section 1915(i) programs require individuals to meet state-defined needs-based criteria.

Medicaid Managed Care: In Lieu of Services and Settings

In 2023, CMS released guidance to state Medicaid programs about innovative options states may consider employing in Medicaid managed care programs to reduce health disparities and address unmet HRSNs by using a service or setting that is provided to an enrollee in lieu of a service or setting (ILOS) covered under the state plan. CMS finalized rulemaking in May 2024 that included changes to ILOS regulatory requirements, which built upon guidance published in 2023.[99] ILOSs can be utilized by states and their managed care plans to strengthen access to care by expanding settings options and by addressing certain Medicaid enrollees' HRSNs in order reduce the need for future costly state plan-covered services.[100]

Children's Health Insurance Program Health Services Initiatives

HSIs are programs that improve the health of children with low-income backgrounds that states can implement with Title XXI funding under their CHIP 10 percent administrative cap. HSIs are permitted through section 2105(a)(1)(D)(ii) of the Social Security Act and are defined at 42 C.F.R. 457.10. HSIs must include activities that protect the public health, protect the health of individuals, improve or promote a state's capacity to deliver public health services, or strengthen the human and material resources necessary to accomplish public health goals related to improving the health of children. Approved state HSIs have included, for example, nutrition counseling and instruction.

Indian Health Service

IHS' FIM-related activities focus on tribal sovereignty and the use of traditional foods and nutrition practices. This focus is demonstrated in the implementation of the Produce Prescription Pilot Program (P4) and other IHS Division of Diabetes Treatment and Prevention (DDTP) initiatives and activities.

Produce Prescription Pilot Program

The IHS P4 has awarded 5 tribes or tribal organizations $500,000 each to support the implementation of PPR programs in their communities. This is a 5-year grant program started in July 2023 and is projected to end in 2027. The goal of P4 is to demonstrate and evaluate the impact of PPR programs on AI/AN people and their families, specifically by reducing food insecurity; improving overall dietary health by increasing fruits, vegetables, and traditional food consumption; and improving health care outcomes. The P4 grant recipients are the Rocky Boy Health Center, Navajo Health Foundation, Pascua Yaqui Tribe, Laguna Health Care Corporation, and Muscogee (Creek) Nation.[101]

Division of Diabetes Treatment and Prevention

IHS DDTP is responsible for developing, documenting, and sustaining clinical and public health efforts to treat and prevent diabetes in AI/AN people. DDTP also plays a central role in managing and supporting the diabetes-related initiatives, including the Special Diabetes Program for Indians (SDPI), the Healthy Lifestyles in Youth Project, and others.[102] SDPI program was developed in response to the diabetes epidemic among AI/AN people and was established by Congress in 1997. SDPI provides funds for diabetes treatment and prevention services to IHS and to tribal and urban Indian communities across the United States.[103] As a result, AI/AN communities now have much needed diabetes resources and increased access to quality diabetes care.[102] SDPI funds 310 grant recipients in 35 states.[104] As a requirement of the program, each SDPI grant recipient must implement 1 SDPI Diabetes Best Practice. The best practices are focused areas for improvement of diabetes prevention and treatment outcomes in communities and clinics. Many of these best practices include nutrition and nutrition-related activities, such as nutrition education.[105]

Department of Agriculture

All of USDA's mission areas contribute to ensuring everyone in this country has consistent and equitable access to healthy, safe, affordable foods essential to optimal health and well-being. This section highlights 2 key USDA-supported FIM interventions: WIC and GusNIP.

Special Supplemental Nutrition Program for Women, Infants, and Children

WIC provides federal grants to states for supplemental foods, health care referrals, and nutrition education for eligible women who are pregnant, breastfeeding, and non-breastfeeding postpartum, infants, and children up to age 5 years who are found to be at nutritional risk. WIC participants receive the following benefits: supplemental nutritious foods, nutrition education and counseling at WIC clinics, breastfeeding support, and screening and referrals to other health, welfare, and social services. WIC has become one of the most successful nutrition intervention policies for improving maternal and child health (MCH), and it is acknowledged to be one of the most successful and well-known FIM interventions.

Gus Schumacher Nutrition Incentive Program

The GusNIP portfolio is a collection of 3 competitive grant programs.[53] From 2019 to 2023, GusNIP has invested over $290 million in nearly 230 projects throughout the United States and Territories. [106] Among the funding opportunities offered, GusNIP provides 2 competitive grant options that can support FIM project delivery and implementation — the Nutrition Incentive Program and the PPR Program — as well

as additional resources for the nutrition incentive and PPR community, prospective applicants, and current participants through its GusNIP – Training, Technical Assistance, Evaluation, and Information Centers Program (GusNIP NTAE Center).[61,106] The GusNIP – Nutrition Incentive Program supports projects that provide point-of-purchase incentives to increase fruit and vegetable purchases among participants in SNAP and NAP. The GusNIP – PPR Program supports projects that implement and evaluate the effects of fresh fruit and vegetable prescriptions on the:

- Improvement of dietary health through increased consumption of fruits and vegetables
- Reduction of individual and household food insecurity
- Reduction in health care use and associated costs

All GusNIP grantees must collect process evaluation and outcome evaluation metrics and provide them to the GusNIP NTAE Center to ensure common tracking and to enable meaningful comparisons across all projects. Outcome evaluation metrics must include a core set of participant-level and firm (clinic site or food retailer)-level measures. As a result of GusNIP funding, 4,612 sites offer fruit and vegetable incentives and fill PPRs, and participants consistently report increased fruit and vegetable consumption and improved food security.[107]

Department of Veterans Affairs

Through its health system, VA provides veterans with clinical services around nutrition, food security, and nutrition education and counseling. The Nutrition and Food Services office provides nutrition-related support to veterans and their families to promote disease prevention and overall wellness. RDNs employed at VA medical centers and clinics contribute online blog posts, video recipes, and other educational resources about healthy food choices and how they impact veterans' health.[108,109]

Healthy Teaching Kitchen Program

The VA Healthy Teaching Kitchen (HTK) program provides veterans with cooking and nutrition education tailorable to specific diet-related conditions to promote healthier dietary habits. Veterans can bring a caregiver to attend HTK classes online or in person at their local VA. Classes cover various topics (e.g., grocery shopping, meal planning, cooking) and are taught via demonstrations and "cook-alongs."[110]

Food Security Office

VA established an interdisciplinary Food Security Office (FSO) to address the high rate of food insecurity among veterans, which is due, in part, to veterans' lower rate of participation in SNAP.[109] Of adults 70 years and older, about 29 percent of veterans with food insecurity are enrolled in SNAP compared to 39 percent of non-veterans.[111] Even those enrolled in SNAP often still struggle with access to healthy foods.[112] Therefore, FSO aims to connect veterans with resources to improve access to nutritious foods. The FSO has established cross-agency and private-sector partnerships to expand its program offerings.[109]

VA now requests that its health care teams screen veterans for food insecurity using the Hunger Vital Sign™ tool. Using this tool, providers can identify veterans experiencing food insecurity and connect them with nutrition assistance resources, such as on-campus food pantries and SNAP enrollment support.[113] The Veterans Health Administration has also embedded reminders within the electronic health record system to prompt food insecurity screening during clinic visits.[112,114,115] VA also partnered with MAZON: A Jewish Response to Hunger to further facilitate veteran access to SNAP benefits.[112,116]

In partnership with the Rockefeller Foundation, VA will implement Fresh Connect, a PPR program, at VA Health Care Systems in Houston, Texas and Salt Lake City, Utah. Through this program, veterans will be screened with the Hunger Vital Sign™ tool and receive nutrition education and coaching from RDNs as well as $100 per month for fresh produce purchases.[117] This pilot program aims to address diet-related disease and food insecurity while gathering evidence to explore PPR programs for veterans.

Complementary Resources that Can Support Food Is Medicine Interventions

The following federal programs currently enable and enhance FIM interventions through complementary systems depicted in the 4 outer quadrants of Figure 3's FIM interventions and enabling systems.

Department of Health and Human Services

Administration for Children and Families

Food and Nutrition Security Resources

Administration for Native Americans

As part of ACF, the Administration for Native Americans (ANA) supports AI/AN youth in collaboration with local tribes. ANA manages 2 population-level programs to increase community food access — Social and Economic Development Strategies and Environmental Regulatory Enhancement (ERE) — which aim to help tribes achieve self-sufficiency and maintain sovereignty.[118–120] These programs currently support 24 projects related to hunger, nutrition, and health.[120]

Head Start Program Nutrition Requirements

The Head Start Program provides nutrition assistance to recipients of Head Start. Section 1302.44 of the Head Start Program Performance Standards outlines meal and nutritional requirements for Head Start programs.[121] ACF sets these standards in collaboration with the USDA Food and Nutrition Service (FNS), requiring programs to account for special dietary needs, disabilities, cultural relevance, and developmental appropriateness.[120,121] Analysis of more than 4,000 children from low-income backgrounds found that participants of Head Start had lower body mass indexes and were at lower risk for being overweight than children in informal, non-parental care settings, which demonstrated the program's value in supporting child health and lowering the risk of chronic diseases.[122]

Temporary Assistance for Needy Families

Temporary Assistance for Needy Families (TANF) provides grant funding to states to provide monetary support and access to services for families with children who have a low income. TANF benefits are intended to meet ongoing basic needs, including food.[123]

Healthy Food Access Environment Resources

Community Services Block Grant

The Community Services Block Grant (CSBG) supports pathways out of poverty, including services designed to ameliorate the causes and conditions of poverty, by assisting individuals and families with low incomes and communities that are underserved with limited access to services based on local needs (e.g., food,

employment, education, and adequate housing). The social and support services funded by CSBG are administered by 66 tribes and more than 1,000 CSBG-eligible entities, commonly referred to as Community Action Agencies (CAAs). The CAAs work in close partnership with CSBG state and territory lead agencies and CSBG state associations. CSBG funding has supported the development and implementation of multiple innovative healthy food programs. These programs advance promising innovations in working to eliminate food and nutrition insecurity by ensuring equitable access to healthy food through grocery giveaways, nutrition education, cooking classes, meal programs, food banks and food pantries, community gardens, hydroponic farming training programs, partnerships with local farmers, and other new programs.[124]

Community Economic Development Program

The Community Economic Development (CED) Program provides competitive grants to community development corporations who assist individuals with a low income with employment and business development opportunities. CED-funded projects have included the creation and expansion of restaurants and commercial kitchens as well as agricultural initiatives.[125] For example, Community Builders of Kansas City (CBKC) received CED funds to purchase a local grocery store that otherwise would have closed when the owner retired, thus ensuring continued access to healthy foods for people living in the surrounding area. CBKC is now remodeling part of the grocery store to accommodate vendors that will provide health and nutrition services.[126]

Social Services Block Grant Program

The Social Services Block Grant Program provides funds to states, the District of Columbia, Puerto Rico, and U.S. territories to promote economic self-sufficiency and prevent and reduce neglect and abuse of children and adults. Funds can be used to provide services described under the Uniform Definition of Services. Services with relevance to FIM include the provision of congregate meals, meals in adult and child daycare service settings, meal planning assistance in the home, home-delivered meals, and transportation services.[127]

Administration for Community Living

ACL funds services and support provided primarily by CBOs, and it invests in research, education, and innovation to support the health,well-being, and independence, and inclusion of older adults and people with disabilities. Many of ACL's programs support FIM, either directly by providing services to address food and nutrition insecurity and by screening and connecting people to other programs and resources, or indirectly by researching and collecting data to identify issues and effective interventions specific to ACL's populations.[128]

ACL's Administration on Aging (AoA) promotes programs and initiatives to improve the lives of the more than 78 million older adults (60+) living in the United States.[129] AoA is the principal agency designated to carry out the provisions of the Older Americans Act (OAA). The OAA promotes the well-being of older adults by providing services and programs designed to help them live independently in their homes and communities; these services include, but are not limited to, evidence-based health promotion programs and the Senior Nutrition Program.[130]

Under the OAA, ACL provides funding to states to support the delivery of evidence-based health promotion programs to educate older adults about the importance of healthy lifestyles and to promote healthy behaviors. These programs are often delivered in the same locations as the nutrition programs for older adults and are part of complementary programs and services offered to older adults. These programs address topics such as mental and behavioral health, physical activity, falls prevention, and nutrition

improvement interventions that mitigate or prevent chronic diseases (e.g., cardiovascular disease, diabetes, arthritis). Evidence-based health promotion programs funded by the OAA must meet the ACL evidence-based definition.[131]

ACL also funds competitive grants to develop, expand, and disseminate innovative programs in the community for chronic disease self-management and falls prevention. Chronic Disease Self-Management Education (CDSME) grants fund the delivery of evidence-based programs that provide education and tools to older adults and adults with disabilities to help them manage chronic conditions, and they support dissemination of these programs. CDSME programs also include tools and activities related to nutrition and healthy eating.[132] Falls prevention programs are offered in small group settings, and they combine exercise (to improve strength and balance) along with health and nutrition education to encourage behavior changes that reduce the risk of falls.[133] These programs are highlighted on the National Council on Aging's Center for Healthy Aging website.[134]

Food and Nutrition Security Resources

Senior Nutrition Program

Under the OAA, ACL provides funding to states to support nutrition services for adults age 60 years and older with the greatest social and greatest economic need. Services are intended to:

- Reduce hunger, food insecurity, and malnutrition
- Promote socialization
- Promote health and well-being by assisting older adults in gaining access to nutrition and other disease prevention and health promotion services in order to delay the onset of adverse health conditions that result from poor nutritional health or sedentary behavior

Provided by local nutrition programs for older adults, these services include healthy home-delivered meals and meals served in congregate group settings (e.g., senior centers, housing for older adults, faith-based locations) in alignment with current Dietary Guidelines for Americans.[135]

ACL also funds competitive grants that support and promote innovative and promising practices to enhance the quality, effectiveness, and outcomes of nutrition programs for older adults. Some innovative practices for chronic disease include specific nutrition education, referral programs, nutrition counseling, and MTMs. These and other models are highlighted on the Nutrition and Aging Resource Center website.[136]

Centers for Disease Control and Prevention

The Division of Nutrition, Physical Activity, and Obesity (DNPAO) at CDC funds several FIM-supporting state and nongovernmental organization population-level activities, including the High Obesity Program (HOP), the Racial and Ethnic Approaches to Community Health (REACH) 2023 Program, the State Physical Activity and Nutrition (SPAN) Program, and the Farm to Early Care and Education (ECE) Implementation Program.[120,137–139] In addition, CDC supports the Nutrition and Obesity Policy Research and Evaluation Network via a cooperative agreement with the University of California, San Francisco Center for Vulnerable Populations. This network assists members in establishing cross-collaborative efforts to evaluate the impacts of policy on community access to healthy food and health services.[140,141]

Food and Nutrition Security Resources

State Physical Activity and Nutrition 2023–2028 Program

Seventeen states received 5 years of competitive funding to carry out CDC's State Physical Activity and Nutrition (SPAN) program (Figure 5). Recipients will put into action FIM evidence-based strategies for making healthy food choices easier everywhere through the:

- Promotion of food service and nutrition guidelines for community anchor institutions, worksites, and the charitable food system
- Expansion of evidence-based programs, including fruit and vegetable voucher incentives and PPR programs
- Continuity of care in breastfeeding support
- Improvement in nutrition standards in ECE[139,142]

Figure 5. States Receiving 2023 SPAN Funding

2023–2028 High Obesity Program

DNPAO supports HOP through competitive 5-year funding to land grant universities in counties where the prevalence of adult obesity is 40 percent or greater. The land grant universities then work with their community extension services to improve access to healthy foods and safe areas for physical activity.[143] Since the inaugural HOP cohort of 11 in 2014, DNPAO funded 15 land grant universities between 2018 and 2023, and it just awarded another 5-year funding cycle (2023–2028) to 16 land grant universities (Figure 6).

Proven food and nutrition strategies include:

- Fruit and vegetable voucher incentives and PPR programs
- Healthier nutrition standards in community settings, such as ECE, food banks, and pantries
- Collaboration with the health care systems to screen and refer community members to nutrition security resources through such programs as the Family Healthy Weight Program

HOP recipients work collaboratively with CDC to tailor their work to best meet the needs of the mainly rural areas where these efforts are focused.

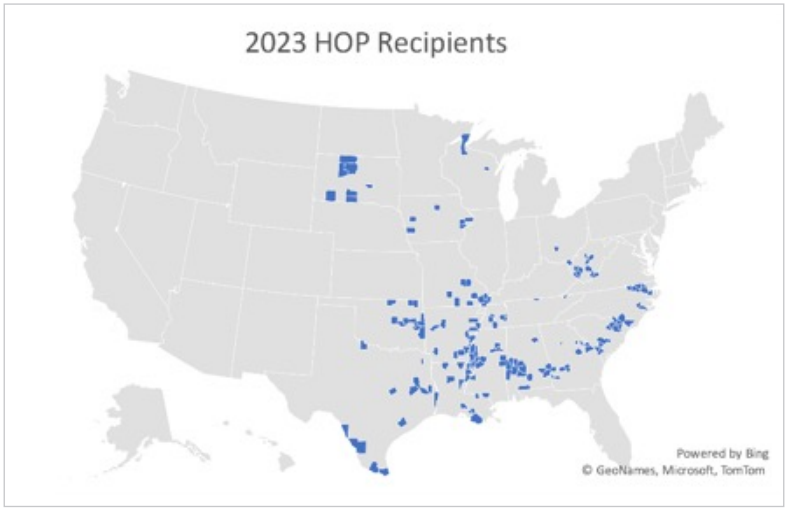

Figure 6. Counties Receiving 2023 HOP-Funded Programming

Racial and Ethnic Approaches to Community Health 2023–2028 Program

DNPAO awarded competitive REACH funding for 5 years (2023 to 2028) to 50 organizations in 86 counties with the following goals for certain racial and ethnic groups: increasing access to healthy foods, increasing physical activity, and providing breastfeeding support, vaccination, tobacco use prevention, and healthy weight management programs (Figure 7). Recipients will implement FIM and other nutrition strategies, such as fruit and vegetable voucher incentives, PPR programs, and healthier nutrition standards in food banks and pantries, as well as work with the health care system to screen and refer community members to nutrition security resources through such programs as the Family Healthy Weight Program. The REACH recipients work collaboratively with CDC to culturally adapt their work to best meet the health needs of the racial and ethnic communities who are disproportionately affected by obesity and chronic diseases.[142,144,145]

Figure 7. Counties Receiving 2023 REACH-Funded Programming

DNPAO also tracks REACH Program outcomes for individual communities. The REACH 2018–2023 cycle improved access to healthy foods for more than 3.3 million people through such actions as increasing access to fresh fruits and vegetables through mobile farmers markets that including a variety of produce and crops of cultural significance; increasing purchases made with SNAP dollars; and working with community partners

to launch a PPR pilot to increase patients' access to fresh produce to aid in managing and preventing chronic conditions.

Collective Impact of SPAN, HOP, and REACH 2018–2023 Funding

In the past 5-year funding cycle, SPAN, HOP, REACH recipients increased access to healthier food for more than 9 million people in the United States by implementing nutrition standards in places where foods are served or sold; providing more options for places to get healthier low-cost food (e.g., fruits and vegetables, food pantries, connections to SNAP) for more than 2.6 million people; assisting more than 3 million mothers with the skills and support they need to meet their breastfeeding goals; and improving nutrition standards for 3.8 million children attending ECE settings.[146]

In addition, the Farm to ECE Implementation Program provided funding to support gardening, nutrition, and local food-related initiatives in ECE settings. In Fiscal year (FY) 2021, this implementation program reached 219,000 children at 1,900 ECE centers across 10 states and the District of Columbia.[147]

Food and Drug Administration

Healthy Food Access Environment Resources

FDA is prioritizing its nutrition initiatives to ensure people in the United States have greater access to healthier foods and nutrition information to enable everyone to more easily and readily identify healthier choices.

Many of FDA's nutrition initiatives can help frame and support the implementation of FIM initiatives, several of which are highlighted in the 2022 White House National Strategy on Hunger, Nutrition, and Health.[4]

Specific efforts include:

- Issuing a proposed rule in 2022 to update requirements for labeling food as "healthy" to align with current nutrition science and the Dietary Guidelines for Americans. The proposed rule includes requirements for the inclusion of food groups recommended by the Dietary Guidelines as well as limits for saturated fat, sodium, and added sugars.
- Developing a standardized front-of-package nutrition labeling system for food packages to help all consumers (including those with lower nutrition literacy) quickly and easily identify foods that are part of a healthy eating pattern.
- Issuing guidance on voluntary sodium reduction goals for industry in 2021 and additional draft sodium reduction goals in 2024 to facilitate lowering the amount of sodium in the food supply beyond the 2021 targets.
- Proposing to update regulations that enable manufacturers to use safe and suitable salt substitutes in standardized foods that list salt as an optional or required ingredient in 2023.
- Holding a public meeting in 2023, in collaboration with other federal partners, regarding future steps the federal government could take to help reduce the intake of added sugars.
- Mandating calorie labeling on menus to help consumers make informed decisions about meals and snacks. As of May 7, 2018, calories are required to be listed on many menus and menu boards of restaurants and other food establishments that are part of a 1080 chain of 20 or more locations.

- Updating requirements for the Nutrition Facts label on packaged foods and drinks in 2016 to make it easier for consumers to make informed choices that contribute to lifelong healthy eating habits.

National Institutes of Health

Health Delivery System Resources

NIH is composed of 27 institutes and centers (ICs), 24 of which receive funding from the NIH Office of the Director (OD) for nutrition- and FIM-related research, including the evaluation of diets in different disease contexts and the development and validation of dietary measures. NIH also contains the Office of Nutrition Research (ONR), which is responsible for coordinating the 2020–2030 Strategic Plan for NIH Nutrition Research (SPNNR).[148] SPNNR emphasizes cross-cutting, innovative opportunities to advance nutrition research across a wide range of areas, from basic science to experimental design to research training. SPNNR is organized around a unifying vision of precision nutrition research, and it includes 4 strategic goals and 5 cross-cutting research areas. These opportunities complement and enhance ongoing research efforts across individual NIH ICs to improve health and to prevent or eliminate diseases and conditions affected by nutrition.[149]

In FY 2022, NIH provided a total of $2.1 billion to support research and training for more than 2,000 clinical nutrition studies. With investments from 24 ICs and the OD, NIH-funded nutrition-related research requires extensive collaboration and planning to ensure its alignment with the 2020–2030 SPNNR and each IC's research mission and goals.[150]

In April 2023, NIH released a Request for Information (RFI) inviting input on research opportunities and best practices for FIM research programs. These programs are part of a whole-of-government approach to end hunger, improve nutrition and physical activity, and reduce diet-related diseases and disparities.[151]

Health Resources and Services Administration

HRSA programs support equitable health care to the nation's highest-need communities. HRSA programs are aligned with the FIM vision and include a myriad of programs that facilitate its implementation and the dissemination of successful practices and lessons learned. For instance, HRSA can capitalize on its existing health center infrastructure and use the Maternal and Child Health (MCH) Nutrition Training Program to train existing and future nutrition professionals on topics of interest, such as pediatric obesity prevention and nutrition during pregnancy. Additionally, HRSA-funded organizations may implement FIM programs as a form of preventive health care and nutrition services.[152] Lastly, to improve overall cultural competency in nutrition service delivery, which can include FIM programming, the White House has directed HRSA to partner with Historically Black Colleges and Universities and Minority Serving Institutions to increase the diversity of practicing nutrition professionals.[4]

Health Delivery System Resources

Health Center Program Technical Assistance

This resource provides a central hub for Health Center Program technical assistance, which includes a resource clearinghouse, health center stories, clinical quality improvement resources, webinars, and links to other HRSA-funded technical assistance partners.

Primary Care Associations

Primary Care Associations are state or regional nonprofit organizations that use HRSA funds to provide training and technical assistance to health centers.

Health Center Program

Health centers are community-based and patient-directed organizations that provide affordable, accessible, high-quality primary health care services to individuals and families, including people experiencing homelessness, agricultural workers, and residents of public housing.

Maternal and Child Health Nutrition Training Program

HRSA's Maternal and Child Health Nutrition Training Program integrates FIM concepts into its training for existing and future nutrition professionals on topics such as pediatric obesity prevention and nutrition during pregnancy.

Office of Disease Prevention and Health Promotion

The Dietary Guidelines for Americans provides advice on what to eat and drink to meet nutrient needs, promote health, and prevent disease.[13] It is developed and written for a professional audience, including policymakers, health care providers, nutrition educators, and federal nutrition program operators. HHS and USDA work together to update and release the Dietary Guidelines every 5 years. Each edition of the Dietary Guidelines reflects the current body of nutrition science.

While the Dietary Guidelines is not intended to be clinical guidelines for treating diet-related chronic diseases, it serves as a reference for federal, medical, voluntary, and patient care organizations as they develop clinical nutrition guidance tailored for people living with a specific medical condition. Health professionals can adapt the Dietary Guidelines to meet the specific needs of their patients with chronic diseases, as part of a multifaceted treatment plan. In this way, the Dietary Guidelines serve as a foundational piece of America's larger nutrition guidance landscape.

Substance Abuse and Mental Health Services Administration

Health Delivery System Resources

SAMHSA supports the Food and Mood Project,[153] a population-level FIM framework to explore the intersection between nutrition security and behavioral health and wellness. This initiative promotes emotional and mental wellness by implementing strategies to address the lack of access to culturally diverse foods and food insecurity.[120]

AmeriCorps

Food and Nutrition Security Resources

The AmeriCorps Volunteers in Service to America (VISTA) program assists nonprofit organizations and state, local, tribal, and territorial (SLTT) government agencies in working to eliminate poverty via nutrition assistance.[154] In 2020, AmeriCorps launched its Food Security Initiative (FSI), using $2 million in American Rescue Plan funding to support 100 additional VISTA program participants across Ohio, Maine, New Hampshire, and Texas that aimed to address hunger and food security. In 2022, AmeriCorps expanded the FSI to provide grants to organizations in Arizona, Alabama, and Arkansas. AmeriCorps Seniors, consisting of

volunteers age 55 years and older, funds programs — including meal delivery programs — for older adults and those with disabilities.[155]

FoodCorps, a longtime grantee of AmeriCorps, established the Nourishing Futures Initiative with an initial $250 million commitment.[156] This initiative aims to provide access to free, quality meals and food education by 2030 to 500,000 students in public elementary and high schools nationwide.[155,157] The Nourishing Futures Initiative complements USDA's school meals programs with a holistic, equity-grounded approach beyond the provision of food by mobilizing a national network of supporters for policies that expand free school meals; fund food educators; update garden, kitchen, and cafeteria infrastructures; strengthen local supply chains; and support the food education and school nutrition workforce.

Department of Agriculture

USDA has a wide range of programs that can support FIM. These assets include the administration of a suite of 16 federal nutrition assistance programs, which reach 1 in 4 people in the United States over the course of a year.[158]

In addition, USDA offers a range of funding and technical assistance options that support a variety of components to develop, implement, and evaluate FIM approaches, such as the Agricultural Marketing Service Local Food Promotion Program and the Regional Food Business Centers.[159–163]

USDA offers a range of research, education, extension, and innovation supports via their:

- Research, Education, and Economics Mission Area agencies
- Agricultural Research Service
- Economic Research Service
- National Institute of Food and Agriculture (NIFA)[164–168]
- Farm Service Agency[169]

Additionally, USDA has:

- Five federal nutrition education programs[170,171]
- A range of food safety educational resources[172]
- A variety of agricultural library supports[173,174]
- Natural resource conservation resources[175]
- Navigation and technical assistance offices dedicated to tribal relations and external engagement[176,177]
- A dedicated rural health liaison and a variety of supports to stimulate rural development[178]

Food and Nutrition Security Resources

Food and Nutrition Service

USDA's other nutrition assistance programs include[158]:

- **Supplemental Nutrition Assistance Program**: This program provides nutrition assistance to individuals and households with eligible incomes to supplement their food budget so that they can purchase healthy food. Recipients receive a monthly benefit on an EBT card, similar to a debit card,

which can be used at authorized retail stores to purchase food, including some online retailers. SNAP is the largest federal nutrition assistance program. Participation in SNAP varies across states, reflecting differences in need and program policies. In FY 2023, SNAP served an average of 42.1 million people per month, or 12.6 percent of U.S. residents.[179] Puerto Rico, American Samoa, and the Commonwealth of the Northern Mariana Islands operate a block grant program known as NAP.

- **Seniors Farmers Market Nutrition Program**: This program provides older adults with eligible incomes with a seasonable benefit that can be exchanged for local fruits, vegetables, honey, and herbs at participating farmers markets, roadside produce stands, and CSA programs. To qualify for Senior Farmer's Market Nutrition Program benefits, individuals must be at least 60 years of age with an income at or below 185 percent of the federal poverty line.
- **WIC Farmers Market Nutrition Program**: This program issues eligible participants in WIC a seasonable benefit in addition to their regular WIC benefits. The benefit can be used to buy fresh, nutritious, unprepared, locally grown fruits, vegetables, and herbs from farmers, farmers markets, or roadside stands that have been approved by the state agency to accept these coupons.

USDA's food distribution programs:

- **Commodity Supplemental Food Program**: This program works to improve the health of people with low incomes who are at least 60 years of age by supplementing their diets with nutritious USDA foods. USDA distributes both food and administrative funds to participating states and Indian tribal organizations to operate the program.
- **Food Distribution Program on Indian Reservations**: This program provides USDA foods to households with eligible incomes who live on Indian reservations and to Native American households residing in designated areas near reservations or in Oklahoma. USDA distributes food and administrative funds to participating Indian tribal organizations and state agencies to operate the program.
- **The Emergency Food Assistance Program**: This program helps supplement the diets of people with low incomes by providing them with emergency food assistance at no cost. USDA provides 100 percent American-grown USDA foods and administrative funds to states.
- **USDA Foods in Schools**: This program supports domestic nutrition programs and American agricultural producers through purchases of 100 percent American-grown and -produced foods for use by schools and institutions participating in the National School Lunch Program, the Child and Adult Care Food Program, and the Summer Food Service Program.

USDA also supports numerous child nutrition programs (e.g., the National School and Breakfast Programs, Summer Meal Programs, the Fresh Fruit and Vegetable Program, and the Child and Adult Care Food Program) that ensure children have access to nutritious meals and snacks at childcare centers, schools, and other places where they live and play, including during the summer months**.** USDA also supports The Patrick Leahy Farm To School Program that helps operators incorporate local foods within the child nutrition programs. In addition, USDA offers relevant nutrition education via Team Nutrition and food safety education materials. The Child and Adult Care Food Program also provides support to 138,000 adults enrolled in eligible adult day care centers.

SNAP Healthy Food Incentives

USDA has implemented many incentive programs to encourage the purchase and consumption of healthy foods among participants in SNAP. These incentives usually take the form of coupons, discounts at point of purchase, or the addition of extra SNAP funds. In addition to GusNIP, federally funded projects working with

SNAP can include eHIP, which will add incentives directly to a recipient's EBT card rather than through a coupon or script. The Health Fluid Milk Incentive Project may provide participants in SNAP with an incentive to purchase qualifying milk products at particular stores. Organizations may also apply for a waiver from USDA to operate an incentive program with private funding. Research has shown that financial incentive programs have the potential to increase recipients' produce consumption.[60,180]

Supplemental Nutrition Assistance Program Nutrition Education (SNAP-Ed)

SNAP-Ed provides nutrition education to applicants and recipients of SNAP. SNAP-Ed is federally funded and administered by SNAP state and local implementing agencies. States conduct needs assessments to ensure that SNAP-Ed is delivered in a hands-on and tailored way for their communities. As a result, SNAP-Ed looks different in every state. SNAP-Ed uses evidence-based public health projects and interventions. A network of over 28,000 local partners works within states to deliver SNAP-Ed. Nutrition education materials include healthy recipes and strategies for food shopping with constrained budgets.[181,182] SNAP-Ed developed a toolkit to support agencies in designing and implementing policy, system, and environmental change interventions.[183]

Healthy Food Access Environment Resources

Rural Development

Rural Development provides loans and grants through its Healthy Food Financing Initiative (HFFI) to FIM-supporting projects that will improve access to healthy, affordable foods in communities that are underserved with limited access to food. HFFI's funds are managed by the Reinvestment Fund.[184]

National Institute of Food and Agriculture

NIFA supports the advancement of agricultural sciences through the provision of funds and expertise.[185] NIFA manages several programs: GusNIP's portfolio of competitive programs, the Expanded Food and Nutrition Education Program (EFNEP), the Agriculture and Food Research Initiative (AFRI), and the Community Food Projects Competitive Grants Program (CFPCGP).

Expanded Food and Nutrition Education Program

EFNEP is an educational program supported by NIFA through a cooperative extension to 76 land grant universities. These universities provide educational programming to families with low incomes in order to increase the families' consumption of healthy foods. Educational programming is hands-on and community-based, and universities collect EFNEP participant data for subsequent program evaluations and improvements. Data are reported through the Web-Based Nutrition, Education, Evaluation and Reporting System (WebNEERS), which ensures robust program evaluations.[170] In a 2021 study, EFNEP graduates reported an average half-cup increase of produce consumption daily relative to their diet prior to program completion.[186]

Community Food Projects Competitive Grants Program

CFPCGP is a program that funds projects that improve access to federally assisted nutrition programs and healthy foods, in alignment with USDA's strategic goals. Planning Project and Community Food Project grantees are required to match their CFPCGP award amounts.[187,188]

Food Production Resources

Agriculture and Food Research Initiative
NIFA administers AFRI, which provides grants to support agricultural sciences, focusing particularly on the improvement of rural economies and food production. AFRI provides funds for 6 priority areas outlined in the 2018 Farm Bill, one of which is food safety, nutrition, and health. This priority area is subdivided into several categories, including 1 FIM-related subcategory that is dedicated to diet, nutrition, and the prevention of chronic diseases. During the 2021 to 2022 funding cycle, AFRI granted 10 awards in this category worth a total of nearly $7 million.[189]

Agricultural Marketing Service

The Agricultural Marketing Service oversees numerous agricultural improvement grant programs that support domestic food producers, including those growing fruits and vegetables.[190] Support for local and regional farmers growing fruits and vegetables is essential to satisfy the needs of expanding FIM initiatives. Selected examples include the:

- Farmers Market Promotion Program that funds projects to develop and expand producer-to-consumer markets (e.g., farmers markets, roadside stands, community agriculture programs)[159]
- Local Food Promotion Program that funds projects that develop, coordinate, and expand local and regional food business enterprises
- Local Food Purchase Assistance Cooperative Agreement Programs that fund states, tribal, and U.S. territorial governments for the purchase of local foods and beverages that are healthy, nutritious, and unique to the geographic area to meet the needs of the population while supporting local producers and food businesses that are historically underserved
- Regional Food Business Centers that provide technical assistance, coordination, and funding to help build resilient and equitable regional food systems that create more, new, and better markets for producers
- Specialty Crop Block Grant Program that funds projects aimed at improving fruit and vegetable growing practices to increase local and regional capacities for providing healthy foods[162]
- Local Food for Schools Cooperative Agreement Program that funds states to purchase local and regional foods from small farmers and food businesses for use in schools

Department of Transportation

Healthy Food Access Environment Resources

Federal Transit Administration
The Federal Transit Administration (FTA) leads the Coordinating Council on Access and Mobility (CCAM), a federal interagency council that supports states and local communities in improving transportation, access, and coordinated service delivery systems for 3 prioritized populations: older adults, people with disabilities, and individuals with a low income. CCAM works to improve federal coordination of transportation resources and address barriers faced by states and local communities when coordinating transportation. Its mission is to issue policy recommendations and implement activities that improve the availability, accessibility, and efficiency of transportation for CCAM's prioritized populations. CCAM provides grants and technical assistance to communities seeking to assess or improve service delivery systems.[191] As evidenced by

Activity 1.2 of the 2023–2026 CCAM Strategic Plan, CCAM aims to compile evidence that demonstrates how improved transportation and delivery systems improve other quality-of-life factors, including access to healthy foods. Additionally, CCAM will estimate returns on investment for these improvements.[192]

Also, under Activity 3.1, CCAM's partner agencies have committed to creating a standardized vehicle sharing policy, an incidental use policy, and an updated resource that support communities in understanding how to use federal resources. These policies ease barriers for transportation providers and allow them to maximize their services for transportation users. A CCAM vehicle sharing policy will allow multiple local CCAM grantees to utilize government-sponsored vehicles. For example, an FTA grantee operates public transit service Monday through Friday while the local senior center uses the van on the weekends for meal delivery. Federal fund braiding involves utilizing federal funds from one grant program to fulfill the local match requirement of another federal grant. In addition, public transportation can be used to bring goods and services closer to communities and individuals through a standardized incidental use policy. CCAM has committed that it will, by 2025, develop, publish, and promote a CCAM incidental use policy to bring goods and services (e.g., groceries, medications, library books, community health workers) directly to socially isolated individuals and communities.[192]

Mobility management is an innovative approach for managing and delivering coordinated transportation services to customers.[193] SLTT partners previously cited difficulties in satisfying local match requirements to support transportation projects. Therefore, CCAM developed 2 resources:

- CCAM Program Inventory, which identifies 130 federal programs that may fund human services transportation.
- CCAM Federal Fund Braiding Guide, which helps partners find acceptable federal fund braiding arrangements on transportation-related projects in compliance with 2 C.F.R. § 200.306(b), which prohibits federal fund braiding for local matches "except where the federal statute authorizing a program specifically provides that federal funds made available for such a program can be applied to matching or cost sharing requirements of other federal programs."

Recipients that use federal fund braiding to satisfy local matching still report their progress to each participating funding agency.[194] FTA has clarified that, under incidental use, federally funded transportation assets can be used in support of FIM-related meal delivery programs, given that this non-transit activity does not reduce transit service.[195]

Transit Partnerships for COVID-19 Pandemic Response

Because of massive disruptions caused by the COVID-19 pandemic, transit agencies were forced to pivot to meet local and state resource needs, including those related to food and nutrition access. The Transit Cooperative Research Program identified exemplary activities from transit agencies that helped increase community access to necessary goods and services, and then it synthesized relevant findings to inform future transit collaborations. In Bay County, Florida, in addition to increasing access to COVID-19 testing and vaccinations, the public transit system, in partnership with other local agencies, provided shuttle services and meal deliveries to increase access to food. The Dial-a-Ride demand response and the Park-n-Ride commuter services in Lake County, Ohio, for example, initially provided grocery delivery and pickup services, which then led to the creation of a permanent mobile food bank.[196,197]

State-Led Food Is Medicine Approaches

The development of FIM interventions is rapidly growing across the country. There is a wide variety of approaches in the FIM landscape as each state leverages their unique health care, economic, agricultural, and CBO resources to support populations that can benefit from FIM interventions. For example, some state Medicaid agencies leveraged regulatory flexibilities to increase Medicaid enrollee access to FIM interventions. State agencies also serve as the custodians of SNAP, WIC, and TANF funds, and the agencies are responsible for determining eligibility criteria and overseeing the application process.[161] The responsibility for structuring and administering these programs can support opportunities for integrated use of SNAP, WIC, TANF, and other complementary resources in the context of creating FIM interventions that maximize service efficiency and integrated supports. Some state legislatures have introduced legislation to support FIM initiatives. Investment in adjacent systems, such as information technology infrastructure, agriculture, workforce development, and transportation, can also differentially affect the broader FIM ecosystem.

Given that state efforts leverage different structures and are at varying stages of implementation, states can be categorized generally by their approaches to advancing FIM. The primary types of approaches are highlighted below.

Efforts led by state government entities, often in partnership with statewide cross-sector coalitions, primarily focus on advancing FIM interventions through Medicaid vehicles. These include, but are not limited to, Medicaid Section 1115 demonstration pilots or modification to state in lieu of services and settings plans. At the time this report was written, 10 states (Arkansas, California, Delaware, Illinois, Massachusetts, New Jersey, New Mexico, New York, Oregon, and Washington) have been approved for 1115 demonstration pilots under the HSRN framework, which includes nutrition services.[198] In the case of Massachusetts, the state has taken an additional step by releasing a State Plan which provides its blueprint to building a statewide approach to FIM.

- **State leadership approaches**. States that have a leadership structure in place typically include FIM interventions as one of many intervention components in a broader effort to address HRSNs. State leadership structures still rely on local delivery system structures that best fit and align to existing assets within state health and community service delivery networks. Many states prioritize leveraging and building the capacity of established local community partner networks, including food banks, community health systems, social service providers, and faith-based organizations, to deliver FIM and other complementary interventions.

- **Grassroots community networks.** Many states have robust grassroots and localized networks leading FIM interventions. FIM efforts range in complexity and formality, but all of them share the experience of employing local, community-driven, and trusted organizations to address community needs. In some contexts, networks of community partners create nimble responses in partnership with health care systems and payers to ensure individuals can be referred to and supported through healthy food interventions within community networks. These structures are largely supported through grant funding, broader public sector resources, and in-kind resources.

- **Enabling systems leadership catalysts.** In a complement of states and communities, FIM capabilities are developing through the leadership of enabling system partners, such as agriculture industry leaders, to provide direction, advocacy, and resources to communities while working to influence state and health care system partners. In some contexts, these efforts are being led through regional or statewide food and nutrition coalitions, while, in other contexts, leadership is emerging from healthy

food system leaders. Many of these enabling systems are working to develop approaches that can support and intersect with health care and community approaches to address diet-related conditions and diseases.

System Partners

Nongovernmental FIM models are implemented by a range of private-sector entities, including health insurers, employers, retail and technology businesses, and nonprofit organizations, such as CBOs. These models often entail innovative partnerships among participating entities to match payment for FIM services with service delivery.

Insurance Providers

- **Commercial Providers**
  While much of the recent FIM growth in activity from payers has been focused through Medicare and Medicaid, commercial payers are increasingly testing and providing FIM interventions for eligible members. These benefits resemble those provided through Medicare and Medicaid. As the FIM movement grows, payers and health care organizations are creating new roles and teams dedicated to support food and nutrition system interventions.

- **Employers as Purchasers**
  Similar to the inclusion of FIM benefits in commercial health plan coverage, employers are including FIM interventions in self-funded health plans and employee wellness programs.[199–201] As a result, businesses that provide nutrition counseling and MTMs are marketing their services to both employers and commercial health plans.[202,203] Employers also support FIM by offering flexible spending accounts (FSAs) and high-deductible health plans with health savings accounts (HSAs).[204] FSAs and HSAs allow employees to set aside pretax dollars to pay for "qualified medical expenses," including medical, dental, prescription, and vision bills. Qualified medical expenses can also include meal kits for eligible participants.

Retailers and Food Providers

- **Grocery Retail**
  Grocery stores are a natural location to introduce FIM-supporting programs that increase access to and uptake of nutritious foods. FIM models exist in large grocery chains and independent markets, including those focused on culturally preferred foods.[205] Additionally, efforts to support grocery and food delivery have become increasingly part of the FIM landscape, particularly for those who might not have easy access to a grocery store or supermarket. One survey found that 81 percent of food retailer respondents employ RDNs. This survey further revealed that nearly one-third of those RDNs are either located at stores or accessible virtually to provide nutrition advice and help customers and employees navigate store aisles.[206]

- **Food Delivery Services**
  Food delivery services help patients overcome transportation barriers (e.g., long travel distances, transportation costs, lack of vehicle access, cognitive impairment, mobility limitations) by using couriers to deliver nutritious food directly to patients' homes. Food delivery items may include unprepared

groceries or fully prepared meals, which may be medically tailored or non-tailored, depending on a patient's needs.

- **Pharmacies**
  Pharmacies offer a unique opportunity to provide FIM resources, as most people in the United States have easy access to these locations, and people on high-risk Medicaid and on Medicare visit pharmacies significantly more than primary care providers.
- **Charitable Food Efforts**
  Many CBOs, such as food banks, food pantries, and congregate meal sites, not only distribute food but also implement FIM programs. Food banks serve their local communities through food access and security efforts by storing food that is then delivered to food pantries. Food pantries, including mobile food pantries, are the distribution centers for donated food items. Food banks and food pantries are increasingly partnering with health care providers to screen patients and refer them to services. Food banks, food pantries, and other community food access points are key sources and settings to integrate nutrition education.
- **Food Recovery Efforts**
  Food recovery efforts can help support FIM efforts and the local food economy. By helping to reduce food waste and distribute healthy food to communities that are underserved with access to food, many organizations working on food recovery work toward similar goals, which are improving health while also having a positive impact on the environment.

Food Producers and Distributors

Companies, startups, and producer networks are developing responses to the growing demand for access to prepared meals, groceries, and produce among individuals enrolled in FIM programs. These producers align their approach based on the patient population, and they may contract with state or health care systems or offer direct-to-consumer options.

CSA programs support local agriculture and increase the availability of healthy produce by connecting farmers with local consumers.[207] A community of consumers agree to support a farm so that the farmland legally becomes the community's farm. Farmers and consumers provide mutual support and share the risks and benefits of food production.[208] Consumers in the community pay farmers in advance to receive a share of the upcoming harvest and purchase boxes of produce each week during the harvest season. In addition to produce, many farms also offer eggs, cheeses, milk, bread, meat, and homemade jams. CSA programs foster strong relationships between consumers and farmers, and they provide access to nutritious, local food, which encourages healthier eating habits.[207]

Urban agriculture involves the production, distribution, and marketing of food products within a metropolitan area to increase access to nutritious food. Urban agriculture increases metropolitan residents' access to nutritious food through local access points, such as commercial farms, community gardens, community farms, and institutional farms and gardens.[209] By making food available at various local access points, urban agriculture helps to mitigate transportation issues in food deserts, provide supply chain solutions for areas that are underserved and have limited access to food, and educate metropolitan residents about food production. As more people move to metropolitan areas, urban agriculture is becoming increasingly important; it provides communities that have been marginalized greater ownership and access to healthy, locally grown foods than traditional market-based food systems provide.[210]

Policy and Promotion Partners

Several groups contribute to shaping FIM policy and practice at the federal and state levels.[211,212] Policy development is critical to enabling FIM efforts because public policy facilitates access to FIM services.[213,214] FIM-related advocacy may support policy development by drawing attention to FIM efforts. Such advocacy initiatives include calling for FIM to be eligible for reimbursement within standard health care frameworks and promoting the integration of FIM interventions into standard clinical care for disease prevention and treatment.[212,215,216]

Research Partners

Research also contributes to advancing FIM initiatives by providing data to substantiate the benefits of FIM interventions. These data can also be leveraged to support policy and advocacy efforts and promote FIM programs. Various nonprofit organizations and academic groups conduct FIM research and provide essential funding for a range of studies. This research includes feasibility and implementation studies as well as studies evaluating the efficacy and cost-effectiveness of FIM interventions and programs. Interdisciplinary research efforts emphasize the significance of nutritious food across various HRSNs. Interdisciplinary approaches address broad, systems-level factors contributing to the efficacy of FIM programs beyond individual FIM interventions. For example, interdisciplinary research focusing on community-based interventions and policies impacting the food environment and food affordability also intersects with the health effects of food and nutrition insecurity. At the same time, there is a growing recognition of the connections between food and nutrition security and other social drivers, like housing security and mental health.

Conclusion

Growth in interest, a wealth of thought leadership, and increased investments characterize the current FIM movement. HHS and our federal partners remain committed and excited to work with the range of cross-sector partners engaged in this work. The time is now to collaboratively advance the overarching goal of HHS' FIM work — to unify and catalyze action such that FIM interventions are integrated and supported across communities and systems. HHS welcomes insight, action, and thought leadership from across system partners. Further, HHS supports opportunities for continued collaborative leadership by state health systems, HRSA-supported health centers, tribes, and CBOs (including meal providers, food banks, and human service providers) who are advancing and catalyzing efforts across communities. By developing systems of care through integrated efforts across these systems, FIM interventions enable providers to better assist participants in following dietary recommendations by directly increasing the affordability and accessibility of culturally preferred, healthy foods and by enabling sustained healthy habits.

At the federal level, specific opportunities for immediate, continued action include:

- Aligning perspectives on concepts, definitions, and standards
- Supporting greater connection and coordinated learning and action across federal FIM and related efforts
- Expanding partners and systems engaged in and that understand their relationship to FIM interventions
- Catalyzing a movement to expand and advance FIM systems of care
- Providing resources that create greater unity, expand the understanding of impact, and increase permanent FIM efforts.

Appendix A. Table of Acronyms

ACF	Administration for Children and Families
ACL	Administration for Community Living
AFRI	Agriculture and Food Research Initiative
AI/AN	American Indian and Alaska Native
AoA	Administration on Aging
CAAs	Community Action Agencies
CBKC	Community Builders of Kansas City
CBO	community-based organization
CCAM	Coordinating Council on Access and Mobility
CDC	Centers for Disease Control and Prevention
CDSME	Chronic Disease Self-Management Education
CED	Community Economic Development
CFPCGP	Community Food Projects Competitive Grants Program
CHIP	Children's Health Insurance Program
CMS	Centers for Medicare & Medicaid Services
CSA	Community Shared Agriculture
CSBG	Community Services Block Grant
DDTP	Division of Diabetes Treatment and Prevention
DNPAO	Division of Nutrition, Physical Activity, and Obesity
DOT	Department of Transportation
EBT	electronic benefit card
ECE	early care and education
EFNEP	Expanded Food and Nutrition Education Program
eHIP	Electronic Healthy Incentives Pilot
ERE	Environmental Regulatory Enhancement
FDA	Food and Drug Administration
FIM	Food Is Medicine
FNS	Food and Nutrition Service
FSAs	flexible spending accounts
FSI	Food Security Initiative
FSO	Food Security Office
FTA	Federal Transit Administration
FY	fiscal year
GusNIP	Gus Schumacher Nutrition Incentive Program
HCBS	home- and community-based services
HFFI	Healthy Food Financing Initiative
HHS	U.S. Department of Health and Human Services
HOP	High Obesity Program
HRSNs	health-related social needs
HSAs	healthy savings accounts

Appendix A: Table of Acronyms (continued)

HSIs	health services initiatives
HTK	Healthy Teaching Kitchen
ICs	Institutes or Centers
IHS	Indian Health Service
ILOS	in lieu of service or setting
MA	Medicare Advantage
MCH	Maternal and Child Health
MIPS	Merit-based Incentive Payment System
MNT	medical nutrition therapy
MTMs	medically tailored meals
NAP	Nutrition Assistance Program
NEA	National Endowment for the Arts
NIFA	National Institute of Food and Agriculture
NIH	National Institutes of Health
OAA	Older Americans Act
OD	Office of the Director
ONR	Office of Nutrition Research
P4	Produce Prescription Pilot Program
PPR	produce prescription
REACH	Racial and Ethnic Approaches to Community Health
RDN	registered dietitian nutritionist

SAMHSA	Substance Abuse and Mental Health Services Administration
SDOH	social determinants of health
SDPI	Special Diabetes Program for Indians
SLTT	state, local, tribal, and territorial
SNAP	Supplemental Nutrition Assistance Program
SNAP-Ed	Supplemental Nutrition Assistance Program Nutrition Education
SPAN	State Physical Activity and Nutrition
SPNNR	Strategic Plan for NIH Nutrition Research
SSBCI	Special Supplemental Benefits for the Chronically Ill
SSI	Social Security Income
TANF	Temporary Assistance for Needy Families
UF	Uniformity Flexibility
USDA	U.S. Department of Agriculture
VA	Department of Veterans Affairs
VBID	Value-Based Insurance Design
VISTA	Volunteers in Service to America
WebNEERS	Web-Based Nutrition, Education, Evaluation and Reporting System
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children

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