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Healthy Eating Rx: Improving Nutrition Through Health Care

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Under the leadership of former Senate Majority Leaders Tom Daschle and Bill Frist, M.D., BPC's Health Program develops bipartisan policy recommendations that will improve health care, lower costs, and enhance coverage and delivery. The program focuses on coverage and access to care, delivery system reform, cost containment, chronic and long-term care, and rural and behavioral health.

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DISCLAIMER

The findings and recommendations expressed herein do not necessarily represent the views or opinions of BPC's founders, its funders, its working group members, or its board of directors.

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Table of Contents

4 EXECUTIVE SUMMARY

7 BACKGROUND

8 A Food is Medicine Approach

13 Scaling of Food is Medicine Interventions

17 Nutrition Screening and Counseling Coverage

18 Health Care Provider Education

23 CURRENT POLICY LANDSCAPE

23 Congressional Action

23 Administrative Action

23 White House National Strategy on Hunger, Nutrition, and Health

26 ABOUT THIS REPORT

27 FIM POLICY RECOMMENDATIONS

36 CONCLUSION

37 APPENDIX 1

41 GLOSSARY OF ACRONYMS

42 ENDNOTES

Executive Summary

Most Americans have poor diets, which contribute to preventable illnesses and many of the leading causes of death—such as cardiovascular disease, cancer, COVID-19, and Type 2 diabetes.^{1,2,3,4} Poor diet and diet-related health conditions are also very costly. Cardiometabolic disease caused by poor diet costs an estimated \$50 billion per year, while government spending to treat cardiovascular disease, cancer, and diabetes accounted for more than half of the \$383.6 billion spent on diet-related diseases in 2018.^{5,6}

A Food is Medicine (FIM) Approach

Recognizing the potential of food-based interventions to improve health outcomes, Food is Medicine (FIM) integrates food-based programs and interventions at multiple levels of health care to address the specific health needs of certain populations.⁷ For the purposes of this report, FIM refers to interventions at the intersection of nutrition and health care (including the provision of nutritious foods), and those that are particularly focused on treating diet-related illnesses. Interventions discussed here include medically tailored meals (MTMs), medically tailored food packages, and produce prescription programs, all of which have been shown to improve health outcomes.⁸

Scaling FIM Interventions

Despite evidence showing the value of FIM interventions, public and private payers and purchasers of care cover them to only a limited degree. Medicare fee-for-service does not cover them; some Medicare Advantage plans and value-based models do. Certain state Medicaid plans cover MTM and other FIM interventions using Section 1115 waivers and in lieu of other Medicaid services options.⁹ Implementing MTMs nationally for people with diet-related conditions and activity limitations could prevent about 1.6 million hospitalizations and collectively save Medicare, Medicaid, and private payers \$13.6 billion annually.¹⁰

Barriers to FIM Interventions

A major—and long-standing—barrier to improving nutrition security and access to FIM interventions is the lack of health care provider education about nutrition. Nutrition education is generally limited during health care providers' training; for example, the typical medical student receives less than 20 hours over four years of medical school, much of it in basic science classes during the first year.¹¹ Other barriers to nutrition security and FIM interventions include inconsistent coverage and payment, as well as inadequate coordination between the health care system and community-based organizations that provide food.

Congressional Action

In the 117th Congress (2021-2022), Reps. James McGovern (D-MA) and Michael Burgess (R-TX) proposed a House resolution calling on medical schools as well as residency and fellowship programs to strengthen nutrition education for physicians.¹² Although the resolution did not impose a mandate on medical education, it signaled congressional interest in nutrition education. In the 118th (or current) Congress, Reps. McGovern and Tracey Mann (R-KS) relaunched the House Hunger Caucus, which was established in 2007 and focused on access to FIM interventions.¹³

Administration Action

In September 2022, the Biden administration convened the first White House Conference on Hunger, Nutrition, and Health in more than 50 years and released its [National Strategy on Hunger, Nutrition, and Health](#), providing a whole-of-government and private-sector road map for ending hunger and reducing diet-related diseases by 2030. One of five key pillars focused on integrating nutrition and health, namely by testing and expanding coverage of FIM interventions through public insurance programs — including Medicare, Medicaid, the Indian Health Service, and the Department of Veterans Affairs (VA).¹⁴ The strategy urges private sector action to complement federal commitments, and a significant portion of the \$8 billion-plus in private commitments as of August 2023 supports the integration of nutrition in health care.¹⁵

BPC Activity

The Bipartisan Policy Center convened a Food is Medicine [Working Group](#) in March 2023, co-chaired by former Senate Majority Leader Bill Frist, former Agriculture Secretaries Dan Glickman and Ann Veneman, and former Health and Human Services (HHS) Secretary Donna Shalala. The working group includes diverse stakeholders, such as health systems, hospitals, insurers, patient advocacy organizations, health care providers, and food retailers. This report, which makes 10 recommendations to improve nutrition education and to scale evidence based FIM interventions, is a product of the co-chairs and reflects input from working group members and relevant stakeholders.

POLICY RECOMMENDATIONS

The report's recommendations fall into two categories: (1) training health care professionals and educating patients and the public about nutrition; and (2) engaging health care professionals in the delivery of interventions to spur the consumption of healthy food.

1. *The Health Resources & Services Administration (HRSA) should conduct a systematic review of its workforce programs to identify opportunities for nutrition education to be added as a grantee requirement.*
2. *As a follow-up to the White House Conference on Hunger, Nutrition, and Health, the Biden administration should issue an executive order calling on agencies (e.g., the Department of Veterans Affairs, Indian Health Service, Department of Defense, Department of Health and Human Services, etc.) to educate their health care provider workforce on nutrition science, and to screen for nutrition security and diet quality, make referrals to dietician services, and Food is Medicine (FIM) interventions. Additionally, the administration should encourage agencies to collect best practices on how to educate health care providers across the various federally funded entities.*
3. *Undergraduate and graduate medical program accreditation bodies should establish clinically meaningful nutrition-specific competencies and publicly report metrics that ensure compliance with these competencies beginning in 2025. Additionally, state medical licensing boards and specialty societies should require minimum hours for continuing medical education on nutrition counseling for licensing and board certification, respectively.*
4. *An independent organization, such as the National Academies of Sciences, Engineering, and Medicine, should convene an expert committee or other mechanism to enable diverse, multidisciplinary health care provider representatives and patient advocacy groups to set baseline nutrition education standards for clinicians (e.g., doctors, nurses, community health workers, physician assistants, and pharmacists).*
5. *Congress should provide funding to the HHS Office of Disease Prevention and Health Promotion and USDA's Center for Nutrition Policy and Promotion to disseminate and translate the Dietary Guidelines for Americans (DGA) more effectively. To this end, HHS and USDA should partner with health care professionals, health care systems, health plans, food retailers, patient advocacy groups, and other relevant stakeholders.*
6. *The Centers for Medicare & Medicaid Services (CMS) should be more intentional about extracting data on the benefits of FIM interventions for Medicare and Medicaid beneficiaries by expanding data collection efforts, forming state collaboratives, and testing a payment model within existing value-based models.*
7. *The Centers for Medicare & Medicaid Services (CMS) should include FIM interventions in the numerator of the medical loss ratio (MLR). In doing so, CMS should provide clear parameters for what can be included, the evidentiary standard for inclusion (to allow for amending coverage as more evidence is gathered), and whether FIM interventions should be included in the medical services or quality improvement portion of the MLR.*
8. *HHS should collect and disseminate best practices and tools related to community-based organizations' compliance with the Health Insurance Portability and Accountability Act (HIPAA) when they share patient health care*

data and partner with health care providers to address social needs and deliver FIM interventions.

9. *Congress should expand Medicare coverage for medical nutrition therapy (MNT), a specialized type of nutrition counseling provided by a registered dietitian, to include additional diet-related health conditions that address adverse outcomes from nutrition-related chronic conditions.*
10. *Congress should include registered dietitians among the providers who can bill Medicare for delivering intensive behavioral therapy (IBT).*

Background

Poor diet quality and the resulting rise of costly diet-related diseases are major public health problems in the United States. Most Americans have poor diets, leading to preventable illness and deaths from many of the leading causes of death in the United States, including cardiovascular disease, cancer, COVID-19, Type 2 diabetes, and other common, costly health conditions.^{16,17,18,19,20,21} For example, 37 million Americans (about 1 in 10) have diabetes, and another 96 million U.S. adults (about 1 in 3) have prediabetes, many of whom are unaware they are affected by the conditions.²² Globally, more than 11 million deaths per year result from diet-related factors, particularly high intake of sodium and low intake of fruits and vegetables.²³ Food and nutrition are important to both prevention and treatment of the diet-related conditions noted above.

Poor diet quality and diet-related conditions not only lead to poor health outcomes but are also costly. An analysis from researchers at Harvard and Tufts universities found that cardiometabolic disease caused by poor diet costs an estimated \$50 billion per year.²⁴ A 2021 Government Accountability Office report concluded that government spending, including through Medicare and Medicaid, to treat cardiovascular disease, cancer, and diabetes accounted for more than half of the \$383.6 billion spent on diet-related diseases in the United States.²⁵

The availability, affordability, accessibility, and cultural appropriateness of foods greatly influence the choices people make in their food consumption. USDA defines food insecurity as “the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.”²⁶ In 2021, about 1 in 10 U.S. households experienced food insecurity.²⁷ Food insecurity is more common among households that are low income, single parent, Black or Hispanic, and are located in large cities and rural areas, compared with households in suburban areas.²⁸

To complement its work on food insecurity, in March 2022, USDA defined nutrition security as “consistent and equitable access to healthy, safe, and affordable foods that promote optimal health and well-being.”²⁹ Nutrition security builds on food security by reemphasizing the significant connection between food insecurity, poor nutrition, and diet-related diseases, particularly within historically underserved communities.³⁰ Addressing nutrition security, with a focus on diet quality, is essential for stemming the tide of diet-related disease. Although established measurement tools for food security exist and are used by health systems, nutrition security screening tools remain in development.³¹

One existing government-funded resource for healthy diet guidance is the Dietary Guidelines for Americans (DGA). The guidelines are updated every five years, with the current edition covering 2020-2025.³² These guidelines are developed jointly by the HHS and USDA and offer evidence-based advice for healthy eating throughout all stages of life.³³ Governmental agencies are required to adopt the DGA as standards or benchmarks for food assistance programs. For instance, schools must comply with the guidelines to receive USDA funding for their lunch programs.³⁴ The DGA emphasizes reducing saturated fats, added sugars, and alcoholic beverages, while increasing the consumption of vegetables, whole fruits, and lean proteins.³⁵

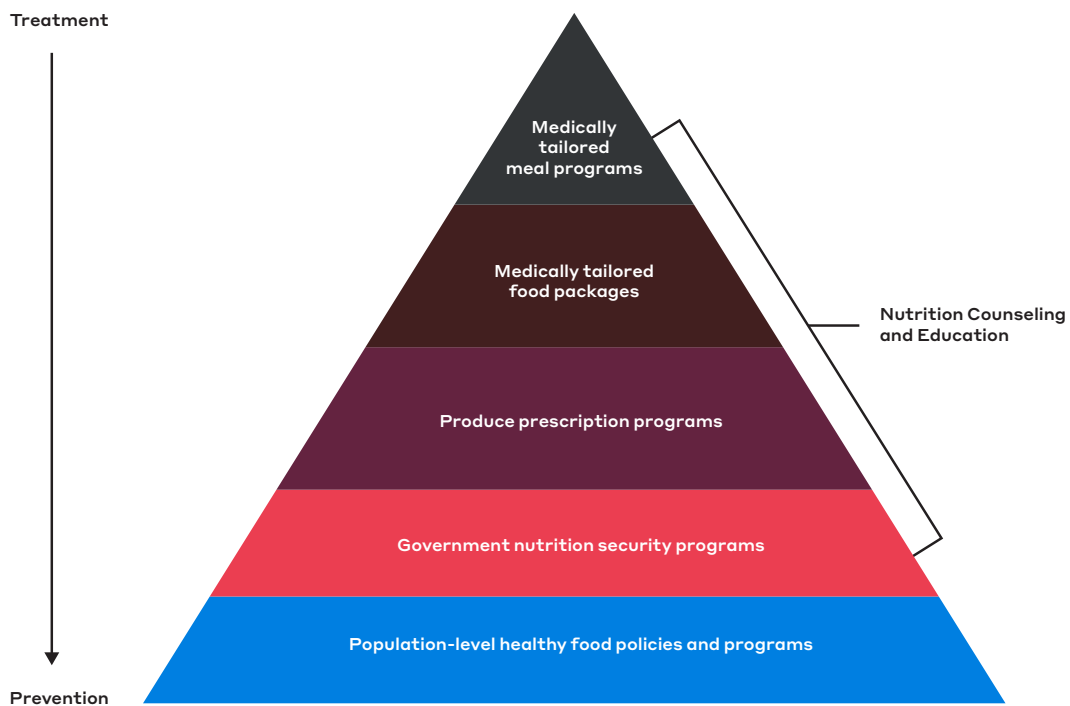
In conjunction with the DGA, HHS and USDA have introduced MyPlate. MyPlate provides access to consumer-friendly information about the DGA and offers practical ways to incorporate the guidelines into daily life.³⁶ Resources available on MyPlate.gov include easily readable handouts on such topics as “Be Salt Smart,” eating healthy on a budget, and creating a grocery list, among others.³⁷ These resources are designed to cater to the public, especially those with limited nutrition education. MyPlate is also designed to improve health outcomes for anyone with diet-related diseases if they adhere to the recommendations.

A Food is Medicine (FIM) Approach

Recognizing the potential of food-based interventions to improve health outcomes, the “food is medicine” (FIM) concept involves the integration of food-based programs and interventions at multiple health care levels to address specific health needs within priority populations.³⁸ Although food can be critical in preventing disease, for the purposes of this report, FIM refers to interventions where nutrition and health care intersect, with a primary emphasis on the provision of nutritious foods aimed at treating diet-related illnesses.

The FIM pyramid, Figure 1, depicts various food-based interventions to improve patient and population health. More-intensive interventions for people with existing diet-related disease are at the top, moving along a continuum toward population-based initiatives focused on disease prevention at the base of the pyramid. Nutrition counseling and education provide knowledge and lifelong skills related to obtaining, preparing, and consuming nutritious foods, and they serve as an important complement to food-based interventions at all levels of the pyramid. FIM Interventions included in Figure 1 are further described in Box 1 and Table 1.

Figure 1: “Food is Medicine” Pyramid



Source: D. Mozaffarian, Heidi M. Blanck, et al., “A Food is Medicine approach to achieve nutrition security and improve health,” *Nature Medicine*, 28: 2238–2240, 2022. Available at: <https://www.nature.com/articles/s41591-022-02027-3>.

BOX 1: IMPORTANCE OF THE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP)

As noted in Figure 1, population-level health policies and programs, including government nutrition security programs, are the base of the FIM pyramid. Programs such as the Supplemental Nutrition Assistance Program (SNAP), the Ryan White Program, and the Supplemental Nutrition Assistance Program for Women, Infants, and Children (WIC) are crucial to providing food and income assistance to needy individuals. Numerous studies show the impact that SNAP and other food assistance programs can have on individuals' health.^{39,40} Improved health and decreases in health care expenses associated with SNAP might also be due to freed-up income available for medications, doctors' appointments, or other previously neglected health needs.

To support SNAP participants in maximizing their limited food budgets, the SNAP Education (SNAP-Ed) program utilizes evidence-based nutrition education; social marketing strategies are tailored to the needs of the local community.⁴¹ This education can teach SNAP recipients how to budget their benefits, cook healthy meals, or create a shopping list of nutritious foods.⁴² Some SNAP-Ed programs also help connect participants with additional funding to purchase fruits and vegetables.⁴³ Community partners and health workers conduct much of this education. Educators, such as community health workers, provide a vital connection between government programs or the health care system and those receiving nutrition interventions.

BPC released recommendations in January 2023 on increasing access to SNAP, WIC, and SNAP-Ed in its report, *Making Food and Nutrition Security a SNAP*.

Population-level food and nutrition policies, as well as government food and nutrition security programs, such as SNAP, WIC, and the Child Nutrition Programs, are important for overall population health. This report, however, will not provide specific recommendations for these programs. The recommendations instead focus on FIM interventions in the top three levels of the pyramid—medically tailored meals, medically tailored food packages, and produce prescription programs. In addition, components, such as nutrition education, that support their successful implementation and help maximize impact are discussed.

Table 1: Comparison of “Food is Medicine” Interventions

	Medically Tailored Meals	Medically Tailored Food Packages	Produce Prescriptions
Definition	Fully prepared meals designed by a registered dietitian nutritionist to address an individual’s medical diagnosis, symptoms, allergies, and medication side effects ⁴⁴	Distributions of raw or lightly processed foods for recipients to prepare for home consumption; the contents are sufficient to prepare nutritionally complete meals or provide a significant portion of the ingredients for such meals ⁴⁵	Vouchers or restricted debit cards that can be redeemed for produce or direct distributions of produce that are made available to recipients based on a health condition or risk ⁴⁶
Intervention target	Individual (per the medical definition), but some providers have opted to expand	Individual or family	Individual or family
Requires patient education	No, but can be provided	Yes	Yes
Impact on health care utilization and outcomes	<p>Decreases inpatient hospital admissions</p> <p>Decreases emergency department use</p> <p>Decreases emergency transports</p> <p>Decreases admissions to skilled nursing facilities</p> <p>Decreases overall health care costs</p> <p>Decreases days where mental health interfered with quality of life</p> <p>Reduces hypoglycemia in people with diabetes</p> <p>Decreases self-reported depressive symptoms Increased diet quality</p> <p>Increases adherence to medication regimens⁴⁷</p>	<p>Decreases HbA1c in people with diabetes</p> <p>Reduces cost of care</p> <p>Increases medication adherence</p> <p>Increases fruit and vegetable consumption⁴⁸</p>	<p>Decreases HbA1c in people with diabetes</p> <p>Decreases fast-food consumption</p> <p>Decreases body mass index</p> <p>Increases fruit and vegetable consumption</p> <p>Decreases blood pressure⁴⁹</p>

Medically Tailored Meals

Early medically tailored meals (MTMs) programs were created to provide nutritional support for patients with HIV/AIDS. They have expanded to include people living with other complex, severe, and chronic diseases, such as cancer, diabetes, and cardiovascular disease.⁵⁰ Peer-reviewed research shows that MTMs can have a positive impact on outcomes, including inpatient hospital admissions, emergency department use, admissions to skilled nursing facilities, hypoglycemia in people with diabetes, better diet quality, and adherence to medication regimens.^{51,52,53} Thus, if tailored appropriately, MTMs potentially improve health care outcomes and decrease health care costs. A BPC analysis demonstrated that providing nonmedical benefits, such as home-delivered meals tailored to a targeted group of individuals with chronic conditions in Medicare fee-for-service, could help to avert hospital readmissions and reduce health care costs.⁵⁴ Additionally, a recent report found that if MTMs were implemented for all individuals with diet-related diseases and for individuals with limitations in instrumental activities of daily living, net savings could total \$13.6 billion in the first year.⁵⁵ CMS has supported the utilization of MTMs in a variety of contexts, including Medicare Advantage organizations, Special Supplemental Benefits for the Chronically Ill, and Section 1115 waivers for state Medicaid plans.^{56,57,58}

Medically Tailored Food Packages

Food packages designed to address the nutritional needs of pregnant and postpartum women, infants, and the at-risk through the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serve as an example of medically tailored food packages.⁵⁹ A comprehensive literature review conducted in 2022, comprising an analysis of nearly 100 peer reviewed studies examining maternal and child outcomes related to WIC participation, found that engagement in the WIC program was associated with purchasing healthier foods and improved diets for pregnant women and children.⁶⁰ Maternal WIC participation is also associated with improved birth outcomes, lower infant mortality, and better child cognitive development.⁶¹ Other medically tailored food packages have been shown to positively affect HbA1c levels in people with diabetes, total cost of care, medication adherence, and fruit and vegetable consumption.⁶²

Produce Prescription Programs

Produce prescription interventions can yield favorable effects on HbA1c levels in people with diabetes, as well as reduce fast-food consumption, lower body mass index, and increase fruit and vegetable consumption.^{63,64} A 2023 study from the American Heart Association reinforced that produce prescriptions increase food and vegetable intake, while also improving the health status of both adults and children, decreasing food insecurity, and improving blood pressure.⁶⁵ The USDA Gus Schumacher Nutrition Incentive Program (GusNIP) includes a produce prescription component.⁶⁶ GusNIP provides grants to

projects in all 50 states that encourage the purchase of fruits and vegetables by SNAP beneficiaries.⁶⁷ Projects include programs like “Double Up Bucks” that allow SNAP benefits to be doubled when shopping for fresh foods at a farmers market.

Scaling of Food is Medicine Interventions

Despite existing evidence related to the effectiveness of FIM interventions, public and private payers and health care purchasers provide limited coverage. For instance, Medicare fee-for-service does not cover FIM interventions, although some Medicare Advantage plans do. Similarly, some state Medicaid plans provide MTM and other FIM interventions through Section 1115 waivers. These arrangements enable Medicaid managed care plans to cover alternative services in place of standard Medicaid benefits, if they are medically appropriate and cost-effective.⁶⁸ A 2022 study found that national implementation of MTM for people with diet-related conditions and activity limitations could prevent approximately 1.6 million yearly hospitalizations and collectively save Medicare, Medicaid, and private payers \$13.6 billion each year.⁶⁹

A recent review of produce prescription programs found that the largest source of funding (46%) was private (e.g., foundation, trust, enterprise, or large-scale grant support).⁷⁰ GusNIP and its predecessor, the Food Insecurity Nutrition Incentive Program, funded by Congress and administered by USDA, constituted 16% of overall funds.⁷¹ State, city, and other local funding provided 15% of the funding, while 7% came from health care groups, with a slight majority (4% of total) coming from accountable care organizations.⁷² Private health plans are increasingly partnering to provide produce prescriptions and community mobile farmers markets for their members. Unfortunately, these services can be expensive and are typically only feasible for larger health care providers.⁷³ See examples of FIM interventions supported by the private sector in Box 2.

BOX 2: EXAMPLES OF PRIVATE SECTOR-LED FIM INTERVENTIONS

“**Instacart** has launched **Instacart Health**, a sweeping health and nutrition initiative—comprising new technologies, partnerships, and policy advocacy commitments—to improve nutrition security, inspire healthier choices, and scale food as medicine programs. For example, Instacart has worked closely with the USDA and its retail partners to bring SNAP online. The company recently announced it’s the first online grocery marketplace to offer online SNAP payments in all 50 states, delivering on a commitment it made last year to support the White House’s National Strategy on Hunger, Nutrition, and Health. Instacart

has also introduced new technologies such as Fresh Funds, which allow any organization to provide a category-specific food stipend to patients, employees, or community members; Lists for Nutrition and Virtual Storefronts, which let health care providers, payers, caregivers, and nutritionists create actionable, shoppable lists for disease-specific diets; and Community Carts, which bring traditional food drives online and help food banks secure the exact grocery items they need to support their unique communities. The company's partners using these new tools include Boston Children's Hospital, the Stanford Cancer Institute, Partnership for a Healthier America, No Kid Hungry, and more than 110 Feeding America partner food banks across the country. [Click here](#) to learn more about Instacart Health."

"**Elevance Health**, formerly known as Anthem, Inc., recognizes the power of food as medicine and has prioritized several internal and external strategies to address food/nutrition security and diet-related chronic diseases. Elevance Health's Life Essential Kits (LEKs) program was designed to address social drivers of health for eligible Elevance Health associates, with most families choosing to receive medically tailored groceries. Throughout 2022, the LEKs program also resulted in statistically significant reductions in emergency department (ED) visits, preventable hospitalizations, and anxiety-related ED visits, with a 216% decrease in total ED costs. The Elevance Health Foundation, their philanthropic arm, is investing up to \$30 million to support programs that leverage food as medicine, with each grant focused on using food interventions to help prevent or manage chronic conditions, improving access to and distributing food while providing long-term solutions for food security, and providing nutrition and health education. The Foundation will award more than \$14 million to the [Feeding America](#) network, the largest hunger-relief organization in the United States, to foster stronger partnerships between food banks and health care partners. [Click here](#) to learn more about Food is Medicine and Elevance Health."

*Quotes provided directly by the organizations listed above.

The lack of consistent insurance coverage and payment is one of several barriers for FIM implementation, as noted in a recent report from the Milken Institute, [Market Solutions for Scaling Food is Medicine Prescriptions](#). Although additional research to build the evidence base is needed, existing policies and regulations should be scrutinized to determine how to enable evidence based FIM interventions.⁷⁴ One such policy involves modifying the medical loss ratio requirements of the Patient Protection and Affordable Care Act of 2010 and determining whether health plans can count FIM interventions as a service that improves health care quality. See Box 3 for additional information on the medical loss ratio.

BOX 3: THE MEDICAL LOSS RATIO

The medical loss ratio (MLR) compares the money spent on health care and quality improvement services to the amount spent on administrative costs or profits by insurance companies.⁷⁵ The MLR was established by the Affordable Care Act in 2010 to better target benefits on medical services to patients and to reduce administrative costs. It also aimed to control the government's expenditure on accountable care or managed care organizations serving Medicare and Medicaid.⁷⁶

For health plans, federal minimum ratios are 80% for individual and small group markets, and 85% for large group markets (i.e., 100 employees or larger). This means that large group market accounts must allocate at least 85% of premium dollars to health care service delivery and quality improvement. The same requirements apply to Medicare Advantage, Medicare Part D, and Medicaid managed care providers.⁷⁷ If an insurer fails to meet the MLR requirements for three consecutive years, they must provide rebates to the individuals or organizations covered by their plan. This rule ensures that any excessive spending on administrative costs or profits is returned to policyholders and enhances the overall quality of health care services.

For a service to be defined as an activity that improves health care quality, which could potentially include some FIM interventions, it must meet all the following requirements:

- improve health care quality;
- increase the likelihood of desired health outcomes in ways that can be objectively measured and produce verifiable results and achievements;
- be directed toward individual enrollees or incurred toward the benefit of specific segments of enrollees;
- be grounded in evidence-based medicine, widely accepted best clinical practice, or criteria by recognized groups; and,
- primarily fall into one of five categories: improve health outcomes, prevent hospital readmissions, improve patient safety, promote health and wellness, or enhance the use of health care data.⁷⁸

Another barrier that must be addressed involves coordination between the health care system and the food sector for the successful delivery of FIM interventions. Similar to other social determinants (or drivers) of health, FIM interventions are best achieved when health care systems are linked with community-based organizations (CBOs). CBOs allow the health care system to hand off the difficult duty of procuring and distributing food, something that many hospitals and health clinics are not prepared to do. Some hospitals attempt fresh food pharmacies or food markets at their health care locations. Geisinger, a major health care system in Pennsylvania and the Northeast, offers fresh foods and education opportunities at multiple “farmacy” locations.⁷⁹ From this pilot program, Geisinger achieved a 2-point reduction in HbA1c levels for participants when combined with a diabetes education program.⁸⁰

Another model that could aid in the distribution of food and the secure collection of data is the community care hub model. A variety of pilot programs have utilized this model to provide social determinants of health services (i.e., food, housing, and transportation) and to reach communities most in need. Recently, it was used in North Carolina under the state’s “Health Opportunities Pilots” that uses “network leads” to bridge the gap between the health care system and community-based organizations.⁸¹ See Box 4 for additional information on community care hub models.

BOX 4: COMMUNITY CARE HUB MODELS

The goal of the community care hub model is to establish sustainable partnerships between health care providers, public health, and community-based organizations (CBOs), which requires developing data and financial infrastructure.⁸² The current infrastructure supports “hubs” or “community-focused entities supporting a network of CBOs providing services addressing health-related social needs—which centralize administrative functions and operational infrastructure.” As the “connective tissue” between disparate community providers, hubs can also:

- coordinate funding from multiple private and public sources to develop hub infrastructure;
- leverage trusted relationships and members’ existing assets including workforce, service delivery expertise, and cultural competency to coordinate care in collaboration with health care partners;
- offer a single point of contracting for CBOs of all sizes with health care entities;
- enable CBOs and the communities they serve to have a seat at the table with health care providers in communities where

under-resourced CBOs may not otherwise be included in decision making; and

- coordinate community-based workforce development and training;⁸³

Thus, key components of this model include capture and screening, “warm” handoffs (i.e., connection between health care and social services), service delivery, referral feedback, and tracking outcomes. Although more needs to be learned about the advantages and obstacles of these models, they have the potential to help CBOs leverage their collective influence to improve their payment and data collection options.

Nutrition Screening and Counseling Coverage

There are several initiatives to help health care providers screen for nutrition security and assess diet quality. For example, Tufts, Kaiser Permanente, and the Los Angeles County Department of Public Health have developed a two-item screener focused on the difficulty of accessing healthy food and the underlying factors contributing to these challenges. Clinical settings are also increasingly using comprehensive and short assessment tools on diet quality to determine patients’ consumption habits. These tools need to continue being tested and validated across different populations.⁸⁴

As noted in Table 1, many of the FIM interventions include some type of patient counseling. Health and nutrition coaching can come from a variety of health providers including dietitians, physicians, nurses, and community health workers. Currently, two forms of nutrition counseling and education are separately reimbursable: medical nutrition therapy and intensive behavioral therapy.

Medical nutrition therapy (MNT) is a specialized type of nutrition counseling provided by a registered dietitian. The delivery of MNT can include nutrition assessment and reassessment, nutrition diagnosis, intervention, monitoring, and evaluation. These efforts seek to prevent, delay, or manage diseases and conditions.⁸⁵

Currently, Section 1861(s)(2)(V) of the Social Security Act authorizes Medicare Part B to provide full coverage for MNT for individuals who are diabetic, have renal disease, or have had a kidney transplant during the past 36 months.⁸⁶ To receive full coverage, patients must get a referral for MNT from their physician and have the services provided to them by a registered dietitian or other certified nutrition professional.⁸⁷ Separately, under Section 4105 of the Affordable Care Act, Medicare is permitted to expand its coverage of

preventive services based on recommendations from the U.S. Preventive Services Task Force (USPSTF).⁸⁸ In 2020, the USPSTF issued a recommendation advising adults with cardiovascular disease risk factors to undergo behavioral counseling interventions aimed at promoting a healthy diet.⁸⁹

Congress previously considered further expanding MNT. [The Medical Nutrition Therapy Act of 2021](#) (H.R. 3108) would expand Medicare coverage of MNT services to patients living with a variety of other conditions including obesity, hypertension, dyslipidemia, eating disorders, cancer, cardiovascular disease, gastrointestinal disease, and HIV/AIDS.⁹⁰ The bill further grants authority to the HHS secretary to include additional diseases and conditions based on medical necessity and nutrition/clinical guidelines.⁹¹

Intensive behavioral therapy (IBT) for obesity is focused on weight loss among individuals with obesity. IBT involves screening for obesity in adults using body mass index, conducting dietary (nutritional) assessments, and providing intensive behavioral counseling and therapy. These efforts promote sustained weight loss through high intensity interventions focused on diet and exercise.⁹² People with prediabetes who lost weight with IBT were less likely to develop diabetes.⁹³

At present, Medicare only covers IBT for obesity if qualified primary care providers deliver the therapy.⁹⁴ However, research demonstrates that primary care physicians are rarely utilizing reimbursement options, with fewer than 1% of eligible patients receiving obesity counseling.⁹⁵ [The Treat and Reduce Obesity Act \(TROA\) of 2023](#) (S. 2407/H.R. 4818) would broaden the range of qualified health care providers who can provide IBT, including registered dietitians/nutrition professionals.⁹⁶ Considering the increasing demands placed on primary care providers to address various health concerns within the primary care setting, coupled with their limited training in managing obesity, it is worth noting that research shows dietitians' nutrition interventions are effective for weight management.⁹⁷

Health Care Provider Education

A major barrier to improving nutrition security and access to FIM interventions is the lack of health care provider education on nutrition. This is not a new issue: The American Medical Association convened groups as early as 1950 to discuss the lack of nutrition education in medical schools.⁹⁸ During initial training, however, nutrition education continues to be limited.⁹⁹ For example, the average medical student receives less than 20 hours of nutrition education over four years, with a significant portion occurring during basic science classes in the early years of their education.¹⁰⁰ In one survey, only 14% of resident physicians reported being adequately trained in nutrition education.¹⁰¹ In 2014, BPC released a report, [Teaching Nutrition and Physical Activity in Medical School: Training Doctors for Prevention-Oriented Care](#), that provided additional recommendations for nutrition training in medical school. Recommendations from the report are outlined in Appendix 1.

Medical schools must adhere to the curriculum guidelines set by the Liaison Committee on Medical Education (LCME) to obtain accreditation.¹⁰² The LCME establishes a set of core competencies that medical schools must ensure are included in their curriculum.¹⁰³ These core competencies cover patient care, critical thinking, problem-solving skills, communication, basic biomedical sciences, and more. Although organizations such as the Association of American Medical Colleges (AAMC) and the American Medical Association (AMA) support the LCME, they are not directly involved in the development of LCME standards.

Similar to the LCME, the Accreditation Council for Graduate Medical Education (ACGME) sets accreditation standards for residency and fellowship programs in the United States.¹⁰⁴ After completing their coursework, medical students proceed to graduate medical education (GME), typically known as a residency, in their chosen specialty. During these programs, physicians engage in more hands-on work and are periodically assessed on their specialized knowledge. The ACGME typically updates the requirements for these programs every 10 years.¹⁰⁵

In March of 2023, ACGME, AAMC, and the American Association of Colleges of Osteopathic Medicine (AACOM) held a [summit](#) to discuss nutrition in medical education. ACGME has stated that one of its committees will review the organization's Common Program Requirements in 2024 and 2025, with the possibility of encouraging nutrition education in GME. Meanwhile, AAMC has indicated that new foundational competencies are under development and may incorporate nutrition upon their release. While the LCME has noted that three of [its current standards](#) address nutrition, the words “nutrition” and “food” are not mentioned. Surveys of medical schools provide limited detail on the quality and quantity of nutrition education being provided.¹⁰⁶

Like physicians, physician assistants (PAs) report that they do not feel adequately prepared to counsel patients on nutrition.¹⁰⁷ Surveys show that among all prescribing providers, there is also a common lack of understanding regarding when to refer patients to dietitian services. Although this report primarily addresses the providers who interact with patients most frequently and those who typically prescribe treatment, it is crucial to emphasize that every health care provider plays a vital role in ensuring patients receive the necessary care. Nurses make up the largest number of health care providers with around 5.2 million registered nurses (RN).¹⁰⁸ Nutrition is better integrated in nursing education than it is for physicians because nutrition is a tested topic in the National Council Licensure Examination for Registered Nurses (NCLEX-RN).¹⁰⁹ As with all other health care providers, it is important for nutrition to be emphasized in any continuing education throughout nurses' and physician assistants' careers.

In the nearly 10 years since BPC's last report on this topic, stakeholders have made only limited progress in advancing physician training on nutrition.

Physicians, physician assistants, nurses, and other health care providers are trusted by patients to relay important medical information.¹¹⁰ If these providers are not well educated on nutrition, they might be unintentionally providing incorrect or outdated nutrition guidance. Table 2 describes opportunities to implement nutrition education for physicians, nurses and nurse practitioners, and physician assistants.

Table 2: Opportunities to Implement Nutrition Education for Health Care Providers

Health Care Provider	Undergraduate Education	Licensing Exams	Graduate Education	Board Exams/ Specialty Certification	Continuing Medical Education
Physician	<ul style="list-style-type: none"> -Doctor of Medicine (M.D.) -Accrediting body: Liaison Committee on Medical Education (LCME) -No explicit nutrition requirements, but several LCME standards provide impetus for incorporating nutrition into curricula as self-directed material -Nutrition education currently focuses largely on biochemistry and vitamin deficiency states 	<ul style="list-style-type: none"> -United States Medical Licensing Examination Step 1, 2, and 3 -Sponsored by Federation of State Medical Boards, National Board of Medical Examiners -Nutrition adequately referenced but minimally tied to chronic diseases and disease prevention 	<ul style="list-style-type: none"> -Residency/ Fellowship -Accrediting body: American Council of Graduate Medical Education -No nutrition competency requirements in many key specialties, including internal medicine and cardiology -Some Clinical Nutrition Fellowships -Physicians Nutrition Specialist 	<ul style="list-style-type: none"> -Administered by American Board of Medical Specialties Individual Specialty Boards -Little nutrition content covered in exams -National Board of Physician Nutrition Specialists certification 	<ul style="list-style-type: none"> -Accrediting bodies: State Board of Medical Examiners -National Board of Nutrition Support Certification: Certified Nutrition Support Clinician
Nurse/Nurse Practitioner	<ul style="list-style-type: none"> -Practical Nursing Diploma -Associate/ Bachelor of Science Degree in Nursing -Accrediting bodies: Accreditation Commission for Education in Nursing (ACEN), National League for Nursing, Commission on Collegiate Nursing Education (CCNE) -No explicit requirements for nutrition and diet therapy: didactic nutrition courses taught ununiformly, little clinical nutrition learning experience 	<ul style="list-style-type: none"> -NCLEX-PN/RN -Administered by: National Council of State Boards of Nursing -Incorporates nutrition-related questions under a variety of content categories 	<ul style="list-style-type: none"> -Master of Science in Nursing/ Doctor of Nursing Practice -Accrediting bodies: CCNE, ACEN 	<ul style="list-style-type: none"> -National Nurse Practitioner Certification Board Exam -Administered by the American Association of Nurse Practitioners (AANP) and American Nurses Credentialing Center 	<ul style="list-style-type: none"> -Accrediting bodies: American Nurses Credentialing Center, AANP -National Board of Nutrition Support Certification: Certified Nutrition Support Clinician -Additional degrees: Master of Science in Nutrition

Health Care Provider	Undergraduate Education	Licensing Exams	Graduate Education	Board Exams/ Specialty Certification	Continuing Medical Education
Physician Assistant	-Bachelor's degree from accredited college/university and science prerequisites		-Master of Science in Physician Assistant Studies -No explicit nutrition requirements -Accrediting body: Accreditation Review Commission on Education for the Physician Assistant	-Physician Assistant National Certifying Exam -Administered by National Commission on Certification of Physician Assistants	-Accrediting body: American Academy of Physician Assistants -PA Foundation's Nutrition Outreach Fellowship -National Board of Nutrition Support Certification: Certified Nutrition Support Clinician -Additional degrees: Master of Science in Nutrition

Compounding the problem of lack of knowledge about nutrition education, health care providers experience barriers to referring patients to FIM and nutrition interventions. For example, in a survey of 123 cardiologists, 71% reported that they referred 10% or fewer of their patients to dietitians.¹¹¹ Cardiologists who participated in a nutrition-focused continuing medical education were nearly twice as likely to refer patients to dietitians, underscoring the importance of physicians' nutrition knowledge in effectively addressing it with their patients.¹¹²

BOX 5: EXAMPLES OF ACADEMIC INSTITUTIONS WITH A FOCUS ON NUTRITION EDUCATION

“**Johns Hopkins University School of Medicine** believes in the importance of nutrition education for physicians, as it equips them with the knowledge and counseling skills needed to implement evidence-based guidelines to mitigate disease risk and facilitate behavioral change in their patients, as advocated by numerous chronic disease management guidelines. Implementing this belief into their medical school education program, Johns Hopkins University School of Medicine has undertaken the initiative of providing physicians-in-training with an evidence-based nutrition curriculum aimed at increasing their self-efficacy in the realm of nutrition. This curriculum employs a diverse range of educational strategies, including online didactic modules, small group sessions led by registered dietitians

that feature real-world clinical vignettes, avatar virtual learning, case studies highlighting nutrition-specific social determinants of health, and the application of counseling skills to facilitate modifications in dietary habits.”

“**The University of Pennsylvania’s School of Nursing’s** diverse range of programs accommodates aspiring nurse practitioners (NPs), physicians, dentists, dietitians, and individuals seeking to deepen their nutrition knowledge at the graduate level. Students can explore the intersection of health care and nutrition with innovative, asynchronous online courses. University of Pennsylvania’s School of Nursing offers a 3-course graduate nutrition minor for Penn Nursing graduate students as well as a comprehensive 10-course asynchronous online MS in Nutrition Science degree or a 4-course Graduate Nutrition Certificate open to students from diverse academic backgrounds. UPenn’s School of Nursing collaborates with Penn Dental and Penn Medicine through their dual degree programs.”

“**The Kaiser Permanente Bernard J. Tyson School of Medicine (KPSOM)** has integrated nutrition across its curriculum. All KPSOM students receive an introduction to nutrition in the first year Scientific Basis of Health component of its Integrated Science course. Other nutrition-related topics covered in the core curriculum include food insecurity, community- and policy-level drivers of diet-related disease, and a service-learning session on community supported agriculture. In addition, KPSOM students are able to enroll in a Culinary Medicine selective, an Integrative Medicine elective that includes a nutrition module, and a Social Health Practice selective in which students work on Kaiser Permanente’s efforts to get more members enrolled in WIC and SNAP and various Food is Medicine interventions.”

*Quotes provided directly by the organizations listed above.

Developing nutrition-specific competencies for all providers is an important first step in creating curriculum and education standards for providers. Nutrition-specific competencies could be woven into multiple areas of provider education. Some of the institutions listed in Box 5 already incorporate nutrition education within their mandatory life science courses. Conversely, others have discovered that courses dedicated solely to nutrition are more effective within their overall curriculum than general courses. Similar to the way graduate medical education responded to the opioid epidemic by mandating additional training in pain management and substance abuse, health care provider education could address the escalating prevalence of diet-related diseases by instituting nutrition-specific competencies.¹¹³ A previous BPC report, [Provider Competencies for the Prevention and Management of Obesity](#), addressed this need. Recommendations from this report can be found in Appendix 1.

Current Policy Landscape

CONGRESSIONAL ACTION

Congress has several ways to address Food is Medicine initiatives. These include establishing a working group or caucus to bring attention to the issue, holding hearings to increase awareness, and introducing and passing authorizing and appropriations language, including report language. In the 117th Congress, Reps. James McGovern (D-MA) and Michael Burgess (R-TX) released a resolution calling on medical schools, residency, and fellowship programs to address the lack of nutrition education for physicians.¹¹⁴ This bipartisan resolution was a clear statement from Congress on the adverse consequences to Americans' health and the U.S. economy that result from the deficiency of physician training and the need to ensure that all phases of medical training include meaningful nutrition education. Food is Medicine was a subject of discussion on Capitol Hill during two separate occasions in the 117th Congress. On September 1, 2021, the House Committee on Rules held a roundtable "Ending Hunger in America: Food as Medicine."¹¹⁵ On December 12, 2022, the Senate Agriculture, Nutrition, and Forestry Subcommittee on Nutrition, Agricultural Research, and Specialty Crops hosted a hearing "Food as Medicine: Current Efforts and Potential Opportunities."¹¹⁶

During the 118th Congress, Reps. McGovern (D-MA) and Tracey Mann (R-KS) relaunched the House Hunger Caucus, which has, since 2007, served as a "forum for Members of Congress to discuss, advance, engage, and work across the aisle on issues related to domestic and international hunger and food insecurity."¹¹⁷ While the level of FIM activity in the 118th Congress may have been less than in the preceding Congress, one significant action stood out: Sen. Debbie Stabenow (D-MI) introduced bipartisan legislation, with co-sponsorship by Sens. Roger Marshall (R-KS), Cory Booker (D-NJ), and Bill Cassidy (R-LA). The Medically Tailored Home-Delivered Meals Demonstration Act (S. 2133) would establish a pilot program for the home delivery of medically tailored meals under Medicare Part A for qualifying individuals.¹¹⁸

ADMINISTRATIVE ACTION

White House National Strategy on Hunger, Nutrition, and Health

In September 2022, the Biden administration convened the first White House Conference on Hunger, Nutrition, and Health in more than 50 years and released its [National Strategy on Hunger, Nutrition, and Health](#), which

provided a whole-of-government and private-sector road map for ending hunger and reducing diet-related diseases by 2030.¹¹⁹ Among the five key pillars of that strategy was the integration of nutrition and health. This pillar called for testing and expanding coverage of FIM interventions within public insurance programs such as Medicare, Medicaid, the Indian Health Service, and the Department of Veterans Affairs.¹²⁰ A key component involved urging private-sector initiatives to supplement federal commitments. As of August 2023, a significant portion of the more than \$8 billion in private-sector commitments has also been directed toward bolstering the integration of nutrition in health care.^{121,122} Relevant commitments from the National Strategy on Hunger, Nutrition, and Health are shown in Box 6.

As the White House prepared for this conference, the Chicago Council on Global Affairs, Food Systems for the Future, the Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy at Tufts University, and World Central Kitchen convened a task force to create a set of policy recommendations for the upcoming conference. The report, [*Ambitious, Actionable Recommendations to End Hunger, Advance Nutrition, and Improve Health in the United States*](#), was developed through a review of policy reports, in-person and virtual listening groups, and conversations with policy experts. One portion of this report informed the administration regarding steps the health care sector could take to increase access to FIM interventions. A number of these policies influenced the strategy formed during the White House conference, as well as the recommendations in this report.

In conjunction with the White House conference, many private companies and organizations made commitments to improving nutrition and food access. In particular, the Rockefeller Foundation and the American Heart Association partnered to launch a nationwide Food is Medicine Research Initiative in the spring of 2023. With additional partners, such as Kroger, the groups aim to mobilize \$250 million to fund research into best practices and tools for scaling FIM interventions in settings across the country.¹²³ More recently, the Rockefeller Foundation partnered with the VA to provide produce prescriptions and MTMs to veterans in need.¹²⁴ This large infusion of research funding and increases in private-public partnerships are leading the way for important growth and innovation in the field of FIM. Additional organizations are also deeply engaged in FIM research, including the [Tufts Food is Medicine Institute](#) and the [Aspen Institute](#).¹²⁵ The projects from these institutions, and many others, are referenced throughout this report.

BOX 6: RELEVANT COMMITMENTS FROM THE WHITE HOUSE NATIONAL STRATEGY ON HUNGER, NUTRITION, AND HEALTH¹²⁶

Pillar 2—Integrate Nutrition and Health: *Prioritize the role of nutrition and food security in overall health—including disease prevention and management—and ensure that our health care system addresses the nutrition needs of all people.*

A. *Provide greater access to nutrition services to better prevent, manage, and treat diet-related diseases.*

Receiving health care to help prevent, treat, and manage diet-related diseases can optimize Americans' well-being and reduce health care costs. However, access to and coverage for this care varies significantly. To better care for all Americans, the Biden-Harris administration will:

- **Expand Medicare and Medicaid beneficiaries' access to “Food is Medicine” interventions.** “Food is Medicine” interventions—including medically tailored meals and groceries as well as produce prescriptions (fruit and vegetable prescriptions or vouchers provided by medical professionals for people with diet-related diseases or food insecurity)—can effectively treat or prevent diet-related health conditions and reduce food insecurity. The Biden-Harris Administration supports legislation to create a pilot to test covering medically tailored meals for individuals in traditional Medicare who are experiencing diet-related health conditions. This proposal builds on a demonstration initiative in Medicaid, where HHS Centers for Medicare & Medicaid Services (CMS) will provide authority for states to test Medicaid coverage of additional nutrition services and supports using Medicaid section 1115 demonstration projects. HHS CMS will also issue guidance on how states can use section 1115 demonstrations to test the expansion of coverage for these interventions.
- **Increase access to nutrition-related services through private insurance and federal programs beyond Medicare and Medicaid. To further increase consistency in access to and coverage of quality health care services:**
 - HHS Indian Health Service (IHS) will implement and evaluate a National Produce Prescription Pilot Program.
 - VA will implement and evaluate various food programs, including produce prescription programs, food pantries, and mobile food pantries that meet local needs and Veteran preferences.

Call to Action for a Whole-of-Society Response:

- States should leverage all available federal authorities to expand coverage of “Food is Medicine” interventions.
- States should collaborate with non-profit or community-based organizations to establish a state-funded produce prescription program for low-income individuals and families.
- State, local, and territory governments should integrate nutrition experts into their health departments and modernize scope of practice laws, as applicable, to allow qualified health care professionals to play a larger role in disease prevention and management efforts.
- Health insurance companies should consider providing or expanding coverage of nutrition services, including produce prescriptions and/or medically tailored meals for target populations.
- Hospitals, clinics, and health centers should implement programs leveraging federally supported open industry technology standards that address SDOH such as screening patients for food insecurity, connecting patients to nutrition assistance services, and ensuring services are available.
- Health professional schools (e.g., medical, dental, pharmacy, nursing, social work, public health, physician’s assistants, physiology, exercise science, etc.) and licensing boards should expand nutrition education in graduate medical education curriculums, board exams, and postgraduate training.

About This Report

To address the challenge of diet-related disease, the lack of health care provider education, and awareness of the role of dietary interventions in preventing and treating diet-related conditions, the Bipartisan Policy Center convened a [Food is Medicine Working Group](#) in March 2023. The group is co-chaired by former Senate Majority Leader Bill Frist, former Agriculture Secretaries Dan Glickman and Ann Veneman, and former Health and Human Services Secretary Donna Shalala. It also included representation from diverse stakeholders, including health systems, hospitals, insurers, patient advocacy organizations, health care providers, and food retailers.

In May 2023, BPC held a private roundtable focused on Food is Medicine education, inviting the working group as well as top medical school directors, medical professional organizations, and other experts. In July 2023, BPC held a second private roundtable to provide input on recommendations focused on FIM interventions, inviting pharmaceutical companies, universities, government officials, and nonprofit organizations with intervention expertise. Using the feedback from both roundtables as well as feedback from numerous one-on-one conversations with additional stakeholders, BPC developed recommendations to improve Food is Medicine education and interventions. This report is a product of the working group co-chairs, with input from other working group members and relevant stakeholders.

This report provides bipartisan recommendations related to two key topic areas:

1. training health care professionals and educating patients and the public on nutrition; and
2. engaging health care professionals in interventions intended to lead to the consumption of healthy food (e.g., referral for dietary counseling, MTMs, medically tailored groceries, produce prescriptions).

FIM Policy Recommendations

EDUCATING HEALTH CARE PROFESSIONALS

1. ***The Health Resources & Services Administration (HRSA) should conduct a systematic review of its workforce programs to identify opportunities for nutrition education to be added as a grantee requirement.***

HRSA supports the training and education of thousands of health care providers through various workforce programs. The Bureau of Health Workforce, the Bureau of Primary Health Care, and the Maternal and Child Health Bureau all support grants to schools and education centers. HRSA's current budget is roughly \$13.5 billion, with about \$1.6 billion per year focused on provider training programs.¹²⁷

Given the size of its grants, HRSA wields significant influence over the programs responsible for training health care providers. To ensure nutrition is addressed in these programs, HRSA should review its roughly 60 workforce

programs to determine which programs could add nutrition education as a grantee requirement. After identifying the programs, HRSA should revise the grant funding requirements to include a baseline nutrition education component for licensed (e.g., physicians, nurses, dentists) and unlicensed professionals (e.g., community health workers).

Entities receiving grants should develop or utilize curriculum that aligns with the most current research findings and adheres to the Dietary Guidelines for Americans. Box 5 above includes examples of health care training programs that are currently providing nutrition education. This approach will equip the upcoming generation of health care professionals with a comprehensive understanding of how nutrition affects chronic diseases. Adding nutrition requirements to current grants does not necessitate additional funding. For instance, under Section 768 of the Public Health Service (PHS) Act, 42 U.S.C. 295c, HRSA has authority to change requirements and funding amounts for each grant.¹²⁸

2. As a follow-up to the White House Conference on Hunger, Nutrition, and Health, the Biden administration should issue an executive order calling on agencies (e.g., the Department of Veterans Affairs, Indian Health Service, Department of Defense, Department of Health and Human Services, etc.) to educate their health care provider workforce on nutrition science, and to screen for nutrition security and diet quality, make referrals to dietician services, and Food is Medicine (FIM) interventions. Additionally, the administration should encourage agencies to collect best practices on how to educate health care providers across the various federally funded entities.

As part of the historic White House Conference on Hunger, Nutrition, and Health, the Biden administration released a national strategy that included FIM activities within the federal government. The strategy includes several recommendations aimed at increasing FIM interventions and improving access to nutritious foods for all individuals (see Box 6 on page 25). In the national strategy, the administration called on the Department of Health and Human Services, the Department of Veterans Affairs, and the U.S. Department of Agriculture to enhance nutrition education for health care providers. Additionally, Healthy People 2020 states that “nutrition education and counseling should be included in all routine health contacts with health professionals.”¹²⁹ To accelerate momentum, the Biden administration should issue an executive order calling on agencies such as VA, HHS, Department of Defense, and other relevant federal employers to require nutrition education for all health care providers they employ or support (e.g., health care professionals working at federally qualified health centers). Nutrition education should include nutrition science basics, familiarity with screening for nutrition security and diet quality, training on weight bias and stigma, and knowledge about appropriate referrals to dietician services and Food is Medicine interventions.

The federal government is a large employer and trainer of medical providers across the country. For instance, the VA alone trains over 120,000 health professionals in more than 7,000 programs.¹³⁰ With its large number of trainees, the VA has a significant impact on education for medical professionals. If the VA were to increase its nutrition education and require it for all health care providers, there would likely be a significant improvement in providers' confidence to deliver nutrition education to patients in need.¹³¹ Mandating that providers receive accredited training would also help them meet continuing medical education (CME) credit requirements. Examples of nutrition education for health professionals can be found in Box 7 below.

Additionally, the executive order should contain best practices and existing curricula. These resources could then be disseminated among federal agencies, health systems, and health care training institutions, facilitating their ability to acquire knowledge and formulate analogous programs. These best practices will also serve as crucial tools for expanding proven initiatives, offering exemplars of educational initiatives to explore in different contexts.

BOX 7: EXAMPLES OF NUTRITION EDUCATION FOR HEALTH PROFESSIONALS

“The American College of Lifestyle Medicine (ACLM) is the nation’s only medical professional association dedicated to educating, equipping, and empowering physicians and other health professionals to address root causes of disease through evidence-based therapeutic lifestyle interventions—including nutrition and physical activity—to treat, often reverse when used intensively, and prevent chronic disease. ACLM fills the gaping void of lifestyle medicine, including food as medicine, in medical education across the entire education spectrum, from undergraduate, graduate (residency) and continuing medical education. ACLM’s Health Equity Achieved through Lifestyle Medicine (HEAL) Initiative promotes health equity through lifestyle medicine and its HEAL Initiative Scholarship Program, which was created to support lifestyle medicine leaders who are working to reduce health disparities in historically underserved communities. In doing so the scholarship supports a diverse health care workforce by awarding underrepresented in medicine (UIM) clinicians with need-based scholarships that cover the costs associated with attaining education and certification in lifestyle medicine.”

Gaples Institute Nutrition Science for Health and Longevity: Essential Nutrition Training for Clinicians

This award-winning clinical nutrition course from the educational nonprofit Gaples Institute is distinguished as the health professional nutrition course now required in the curriculum of 7 medical schools

with more committed to doing so in the coming year. The course guides medical students and residents through the essentials of clinical nutrition, motivational interviewing, social determinants of food/nutrition insecurity, and clinician self-care. This highly interactive course, updated annually, includes 150+ clickable references to key studies. Drawing on their extensive expertise supporting medical educators, the Gaples Institute provides customized support to facilitate the integration of this vital nutrition course into the curriculum of medical schools and residency programs. The Gaples Institute nutrition course is multi-accredited and widely utilized by practicing physicians, nurses, and other health professionals. More information here.

*Quotes provided directly by the organizations listed above.

3. Undergraduate and graduate medical program accreditation bodies should establish clinically meaningful nutrition-specific competencies and publicly report metrics that ensure compliance with these competencies beginning in 2025. Additionally, state medical licensing boards and specialty societies should require minimum hours for continuing medical education on nutrition counseling for licensing and board certification, respectively.

Unlike nurses who receive fundamental nutrition education as a standard part of their licensure exams and curriculum, physicians lack similar requirements. It is imperative for both the Liaison Committee for Medical Education (LCME) and the Accreditation Council for Graduate Medical Education (ACGME) to address the lack of proper nutrition education for physicians (see Background on page 19).¹³² Similar to the training requirements instituted in graduate medical education for the opioid epidemic, these organizations should respond to the fact that poor diet is now the leading risk factor for mortality in the United States.¹³³ To ensure medical schools and residencies are implementing nutrition-specific competencies, LCME/AAMC and ACGME should produce regular reports with metrics to gauge progress. By doing so, a greater number of students and trainees will retain essential nutrition counseling knowledge.

After medical school and residency, CME should be utilized to fill in educational gaps. State medical licensing boards and specialty societies should set a minimum number of hours of nutrition education for physicians. CME allows for flexibility in the instructional format (online, in-person, or hybrid) and is now accredited by the Accreditation Council for Continuing Medical Education.¹³⁴ Requiring nutrition-specific CME could partially address the current lack of nutrition focus in undergraduate and graduate medical education. Examples of CME courses can be found in Box 7 above.

Ensuring that health care providers learn the [Dietary Guidelines for Americans](#) and understand how to communicate them to patients is an important first step in their education. Additionally, physicians who treat diet-related diseases (e.g., internists, cardiologists, endocrinologists, pediatricians) should be educated on how to conduct a nutritional screening, including what a patient typically eats, provide basic nutrition education based on the patient's needs, and recognize when a referral to a dietician is necessary.¹³⁵

4. An independent organization, such as the National Academies of Sciences, Engineering, and Medicine, should convene a group of multidisciplinary health care provider representatives and patient advocacy groups to set baseline nutrition education standards for clinicians (e.g., physicians, nurses, community health workers, physician assistants, pharmacists).

Establishing nutrition education standards for all health care providers can help ensure consistency in training across disciplines and training levels. As discussed earlier, core competencies are already in place for various aspects of medical education, including patient care and communication.¹³⁶ However, identifying an organization tasked with establishing nutrition-specific standards for the wide range of health care providers can pose a challenge. Moreover, achieving consensus-based standards requires an array of organizations representing a range of health professionals (e.g., nurses, dentists, dietitians, physician assistants) to provide input. Additionally, it will be essential to incorporate patient advocacy groups into this process to ensure a focus on patient-centered care, cultural preferences, and health equity.

This multidisciplinary group can help establish standards that reflect current nutrition research and are widely accepted throughout the health care community. Ultimately, these standards can serve as a foundation for each profession's nutrition-specific competencies and prerequisites across various levels. This forum can be utilized to share curricula and educational tools currently being implemented by professional organizations, further facilitating the integration of nutrition education, and enhancing the quality of care provided to patients.

5. Congress should provide funding to the HHS Office of Disease Prevention and Health Promotion and USDA's Center for Nutrition Policy and Promotion to disseminate and translate the Dietary Guidelines for Americans (DGA) more effectively. To this end, HHS and USDA should partner with health care professionals, health care systems, health plans, food retailers, patient advocacy groups, and other relevant stakeholders.

When a new edition of the Dietary Guidelines for Americans is released, HHS and USDA should distribute and effectively communicate updated guidelines to both the health care community and the public. Currently, USDA and HHS receive little funding to disseminate the DGA. As noted in the Background section of this report, USDA primarily handles the creation of MyPlate, which

includes resources for health care providers and the public for how to interpret the DGA recommendations. Funding for the updated DGA is provided only in five-year intervals, and it is allocated in the same year it is released.¹³⁷ The most recent funding occurred in fiscal year 2020, aligning with the release of the updated DGA released that same year. Utilizing this funding, USDA created additional public-facing resources intended to encourage behavioral change among the public and promote healthier diets. Inadequate and irregular funding poses obstacles to dissemination efforts and the development of additional resources to support MyPlate. To address these barriers, Congress should appropriate dedicated funds to HHS and USDA on an annual basis for the coordinated dissemination of the DGA and MyPlate resources.

HHS and USDA should collaborate with health care providers, systems, plans, patient advocates, and the broader food community to expand the dissemination of the resources under the DGA and MyPlate. Establishing strategic partnerships would also enable health care providers to access readily available resources designed to help patients understand the impact of food on their health and chronic conditions. Although a USDA MyPlate National Strategic Partnership program seeks to enlist the food industry, nonprofits, and other relevant organizations in promoting the DGA, it has limited participation from health care organizations.¹³⁸ Strengthening private-public partnerships has the potential to enhance access to nutrition resources for providers who might not possess sufficient education on the prevention and treatment of diet-related diseases. In addition, it could provide patients with easily accessible, evidence-based information either before or in conjunction with dietitian counseling or the receipt of FIM intervention.

FACILITATING FIM INTERVENTIONS AND COUNSELING

6. The Centers for Medicare & Medicaid Services (CMS) should be more intentional about extracting data on the benefits of FIM interventions for Medicare and Medicaid beneficiaries by expanding data collection efforts, forming state collaboratives, and testing a payment model within existing value-based models.

Currently, CMS supports the utilization of FIM services in a variety of contexts, including:

- allowing Medicare Advantage organizations (MAOs) to offer beneficiaries supplemental benefits, such as MTMs, on a limited basis.
- expanding MAOs coverage of MTMs as part of Special Supplemental Benefits for the Chronically Ill (SSBCI) beyond a limited basis.^{139,140,141} While the majority of MAOs do not yet offer these benefits, the share of enrollees who have access to SSBCI benefits is highest for food, produce, and meals.¹⁴²

- utilizing its demonstration authority under the Center for Medicare and Medicaid Innovation (CMMI) for the Value-Based Insurance Design model; this allows participating MAOs to tailor benefit designs to enrollees based on chronic conditions or socioeconomic status. It also provides supplemental benefits that address health-related social needs (HRSN), including food and nutritional insecurity.¹⁴³
- authorizing Section 1115 waivers under Medicaid to expand nutrition options. CMS has approved nutrition support waivers for states such as Massachusetts and Oregon (October 2022).^{144,145} In addition, CMS has most recently approved a waiver for Washington to include FIM services coverage in its Medicaid program.¹⁴⁶

Across MAOs, CMMI models, and Medicaid waivers, data collection on the impact of all FIM services is limited. Although MTM has a greater research base supporting its benefits, produce prescriptions and medically tailored groceries also have the potential to improve health outcomes and decrease costs for individuals with diet-related diseases. Without proper data collection, it is difficult to understand which populations benefit most from these services, health outcomes from provided services, and potential cost savings. CMS should develop a strategy with respect to FIM services that strives to collect similar outcomes data on the impact of these interventions across various programs.

Leveraging the many states and insurers testing FIM initiatives, CMS should also launch a learning collaborative so that stakeholders can share best practices and implementation lessons. Medicaid's [Innovation Accelerator Program](#) provides a model for how the agency can offer technical assistance and foster cross-state learning opportunities.

In addition, CMMI should incentivize accountable care organizations and providers to deliver MTMs and other FIM services through existing CMMI payment models. Disease-specific models such as Kidney Care Choices and the Enhancing Oncology Model offer two options. CMS could also consider providing additional one-time payments to Advanced Investment Payments ACOs or additional benchmark adjustments to ACO Realizing Equity, Access, and Community Health (REACH) participants who deliver FIM services to eligible patients. These actions would allow for greater evaluation of FIM initiatives among beneficiaries and a deeper understanding of where and how this intervention can be most useful.

7. The Centers for Medicare & Medicaid Services (CMS) should include FIM interventions in the numerator of the medical loss ratio (MLR). In doing so, CMS should provide clear parameters for what can be included, the evidentiary standard for inclusion (to allow for amending coverage as more evidence is gathered), and whether FIM interventions should be included in the medical services or quality improvement portion of the MLR.

Beyond defining quality improvement activities within the MLR (see Box 3 on page 15), HHS and CMS offer little guidance on what specific services qualify as health care services and which do not. CMS has not provided clear guidance on whether FIM interventions fit into the medical services and quality improvement section (typically 85% of spending) of the MLR.¹⁴⁷ Without specific acknowledgment of services allowed in the numerator, health insurers may hesitate to offer services such as medically tailored meals (MTM) or produce prescriptions that could negatively affect their MLR. Although servicers could provide FIM initiatives through “value-added services,” these services are limited to the administrative portion (typically 15%) of the MLR. Consequently, this limitation restricts the amount of money that can be spent on services.¹⁴⁸

Inclusion of FIM services in the MLR could effectively allow health insurers to scale services such as MTMs, medically tailored groceries, and produce prescriptions to a larger portion of the population. This would not only improve the health and well-being of individuals, but it could also contribute to reductions in overall health care costs and improvement in quality.

8. HHS should collect and disseminate best practices and tools related to community-based organizations’ compliance with the Health Insurance Portability and Accountability Act (HIPAA) when they share patient health care data and partner with health care providers to address social needs and deliver FIM interventions.

In CMS’ [Framework for Health Equity](#), the agency lays out five priorities to increase health equity across its services. The first priority, “Expand the Collection, Reporting and Analysis of Standardized Data,” focuses on interoperability of and data collection on social drivers or determinants of health. CMS recognizes that without proper data collection, it is difficult to understand and address health care issues. Without identifiable connections to community-based organizations (CBOs) or nongovernmental organizations, large gaps in data collection and interoperability for FIM interventions will continue.

The involvement of CBOs, which provide vital food and nutrition services to communities, is crucial for the effectiveness of FIM initiatives. For instance, in states like Ohio, where Medicaid plans address nutrition access, collaboration with CBOs is necessary to gain on-the-ground insights into community needs.¹⁴⁹ When health care providers seek to refer patients to FIM interventions such as medically tailored meals or medically tailored groceries, secure and seamless data exchange between the health care team and CBOs becomes essential. In these relationships, CBOs are often classified as “business associates” with the health care system requiring them to comply with additional laws and regulations.¹⁵⁰ Currently, many CBOs establish individual data-use agreements with each health care system they collaborate with, or request that all patients provide individually signed waivers for services.¹⁵¹

Applying traditional HIPAA standards to CBOs would impose additional administrative burdens on these organizations, which often rely on volunteers and grants to sustain their operations. Some estimates suggest that HIPAA compliance expenses for each physician amount to \$35,000 annually—an unsustainable amount for small CBOs.¹⁵² The uncertainty of compliance requirements for CBOs can be a large enough barrier to prevent collaboration between CBOs and health care systems for FIM programs.¹⁵³

The Office of Civil Rights within HHS does provide limited tools and resources to support HIPAA compliance, but few apply to CBOs.¹⁵⁴ To address these barriers, HHS should gather best practices from health care organizations and CBOs already engaged in partnerships aimed at addressing social needs and, specifically, delivering FIM interventions. HHS should also look at how or if they address any HIPAA challenges. Proper tools could aid in the integration of CBOs into the health care system.

9. Congress should expand Medicare coverage for medical nutrition therapy (MNT), a specialized type of nutrition counseling provided by a registered dietitian, to include additional diet-related health conditions that address adverse outcomes from nutrition-related chronic conditions.

Congress should broaden Medicare’s coverage of MNT to encompass chronic diseases and conditions associated with nutrition, such as cardiovascular disease (CVD) and obesity; substantial evidence shows the therapy’s positive health benefits (see Background on page 18). Expanded Medicare coverage for MNT also yields cost-saving benefits for certain conditions. After an initial implementation period, MNT has been shown to lead to decreased health care utilization and expenses among individuals with diabetes and CVD.¹⁵⁵ Multiple MNT visits provided by dietitians further resulted in significant cost savings for adults with dyslipidemia, a risk factor for CVD, compared with standard care.¹⁵⁶

10. Congress should expand the eligibility of providers to bill Medicare for delivery of intensive behavioral therapy (IBT) to include registered dietitians.

As previously noted, Medicare only reimburses IBT if a primary care physician provides it. These physicians are already tasked with delivering a multitude of services to patients, some of which can be more effectively handled by other health care providers, such as registered dietitian nutritionists (RDNs).

More research is needed to determine whether RDNs can provide IBT at a lower cost than primary care physicians, but they have the potential to, since the reimbursement rate for RDNs is 15% less than that for primary care physicians.¹⁵⁷ Expanding IBT to other providers would be particularly helpful for Medicare beneficiaries in rural and other underserved areas. With a shortage of primary care physicians in these areas, many patients are often dependent on nonphysician practitioners to meet their needs.

Conclusion

As the United States grapples with the increasing prevalence of diet-related diseases, Food is Medicine interventions should be considered as an important part of patient treatment plans, especially as the research base expands. To deliver FIM interventions, health care providers will need to receive comprehensive training in nutrition science and guidelines, as well as learn how to screen for nutrition security and diet quality, and when to refer patients to specific programs. The recommendations in this report seek to improve nutrition knowledge of the current and next generation of health care professionals across disciplines and at all levels of training, including continuing education. Federal agencies, health professional accrediting organizations, and a wide variety of stakeholders including patient advocates will be critical to achieving these goals.

Scaling FIM interventions will be most effectively achieved through private-public partnerships and by establishing connections with trusted community-based organizations. Addressing potential regulatory barriers such as HIPAA and the medical loss ratio, in addition to addressing reimbursement challenges for providers, will be crucial to facilitating the scaling of FIM interventions and improving patient access to these interventions. As Medicare and Medicaid expand their support for FIM interventions, policymakers will need to prioritize data collection and include FIM interventions in a broad range of payment models. Collectively, these actions could significantly improve health outcomes and reduce preventable health care costs.

Appendix 1

Recommendations from the 2014 BPC report, [*Teaching Nutrition and Physical Activity in Medical School: Training Doctors for Prevention-Oriented Care*](#)

- 1. Develop and implement a standard nutrition and physical activity curriculum.** Diverse stakeholders should work together to create a standard nutrition and physical activity curriculum that can be integrated into the existing curricula of medical schools with minimal disruption, using a phased-in approach. Ultimately, such a curriculum should also be tailored for educational programs in related health professional fields, such as nursing, pharmacy, and dental schools, as well as schools (or programs) for others. Once national standards exist, students should also work with administrators and teachers to adapt these standards to their own school environment. In the absence of national standards, schools could begin by looking to existing templates, such as the Nutrition Academic Award or the Nutrition in Medicine curriculum, for guidance.
- 2. Include more nutrition and physical activity content in licensing and certification exams.** Organizations responsible for developing and disseminating licensing and certification examinations should include more content on nutrition and physical activity to reflect and complement the new standard curriculum proposed above.
- 3. Increase nutrition and physical activity requirements for residency and continuing education programs.** Beyond medical school curricula and exams, residency and continuing education provide additional opportunities to incorporate training in nutrition and physical activity. Boards and accrediting bodies should add those topics to their residency and Maintenance of Certification programs.
- 4. Expand board-accredited advanced training programs to create a cadre of experts in nutrition and physical activity who can teach health professionals.** For example, to help meet the demands of new curriculum standards, the ABMS, working with the American Board of Internal Medicine, the American Board of Pediatrics, and the American Board of Family Medicine, could help create subspecialty fellowship programs in nutrition and physical activity. These organizations can also promote training through existing subspecialties. Training a new cadre of experts is critical to transmit the knowledge, attitudes, and skills that will be needed by future generations of health professionals.
- 5. Provide federal and state support for reforms in medical education and health care delivery that can help providers better meet patient needs with respect to nutrition, physical activity, and other lifestyle factors.** While the authors of this white paper do not necessarily endorse any specific

legislative approach, one option is to provide federal or state grants to support the development and implementation of new curricula at medical schools, improvements in residency training, or changes in continuing-education and licensing requirements.

6. Recognize and reward innovation to drive continued funding and administrative support for reform efforts that are already underway.

This white paper highlights just some of the initiatives and programs being undertaken by U.S. medical schools to address changing health care needs with respect to the treatment of obesity and related chronic diseases. Innovation and leadership in nutrition and physical activity education should be recognized—for example, through an awards program—in ways that will help galvanize other schools and organizations to take action on a broader scale.

7. Provide reimbursement for health services that target lifestyle factors such as nutrition and exercise. As long as the health care marketplace undervalues preventive care, health care professionals will lack financial support to address these issues with their patients and medical schools will have less incentive to train their students accordingly. Payers should expand reimbursement for both clinic- and community-based providers of evidence-based preventive services addressing nutrition and physical activity.

8. Extend improvements in nutrition and physical activity education to other health professional schools. Specifically, other health professional schools (e.g., nursing, dental, pharmacy, etc.) and their associations should commit to developing and presenting curriculum changes to relevant boards and curriculum committees for consideration, modification, and ultimately adoption.

9. Increase and broaden awareness of the need for changes in medical education. Beyond other health professional schools, stakeholders should engage a broad swath of organizations to help raise awareness of the importance of nutrition and physical activity in medical education and to advocate for policy changes.

Recommendations from the 2017 BPC report, [Provider Competencies for the Prevention and Management of Obesity](#).

1. Competencies for Core Obesity Knowledge

Recommendation 1: Demonstrate a working knowledge of obesity as a disease. Providers identify key measures for the assessment of obesity and care outcomes. Providers recognize the role of endogenous factors like genetics and epigenetics that affect susceptibility, comorbidities, and mortality. Providers recognize the impact of the social context/systems of care for obesity, including family constellation/interaction, and the role of the community environment on obesity. Providers recognize what factors propel and sustain obesity at the individual level.

Recommendation 2: Demonstrate a working knowledge of the epidemiology of the obesity epidemic. Providers recognize the demographics and key factors contributing to the obesity epidemic and its trends over time; providers recognize the factors that propel and sustain obesity at the population level.

Recommendation 3: Describe the disparate burden of obesity and approaches to mitigate it. Professionals recognize the disparate burden of obesity and approaches to mitigate it; professionals also recognize the five inequities in resources and access for the prevention and management of obesity.

- **Subrecommendation 1:** Address the role of inequities associated with and/or determinants of obesity and its outcomes.
- **Subrecommendation 2:** Discuss the specific barriers related to access to care and community resources for people with obesity and those at risk.
- **Subrecommendation 3:** List potential strategies to reduce inequities in obesity prevention and care.

2. Competencies for Interprofessional Obesity Care

Recommendation 4: Describe the benefits of working interprofessionally to address obesity to achieve results that cannot be achieved by a single health professional. Professionals are trained to understand and utilize the skills and competencies of other health professionals, including public health practitioners and community health workers; providers are able to work effectively in an interprofessional health team.

- **Subrecommendation 1:** Summarize the value and rationale for including the skills of a diverse interprofessional team in treating obesity.
- **Subrecommendation 2:** Summarize the needs and opportunities for collaboration/integration among providers and clinical and community systems to prevent and mitigate obesity.

- **Subrecommendation 3:** Apply the skills necessary for effective interprofessional collaboration and integration of clinical and community care for obesity.

Clinical providers and community health professionals recognize needs and opportunities for collaboration and integration of clinical care and community systems to prevent and mitigate obesity; providers collaborate with other providers and community systems to improve patient and population outcomes; professionals collaborate with community organizations to advocate for nutrition and physical activity policies.

- **Subrecommendation 1:** Perform effectively in an interprofessional team.
- **Subrecommendation 2:** Promote the development and use of an integrated clinical-community care plan.
- **Subrecommendation 3:** Collaborate with community organizations to advocate for nutrition and physical activity services, programs, and/or policies that address obesity.

3. Competencies for Patient Interactions Related to Obesity

Recommendation 6: Use patient-centered communication when working with individuals with obesity and others. Providers open discussions about obesity in a neutral manner; providers recognize the environmental and cultural context of obesity and incorporate this information in their counseling; providers recognize the role that inappropriate language can play in shaming patients with obesity; providers are trained to use people-first language (e.g., “people with obesity,” rather than “obese people”) as well as appropriate terminology for physical activity and food intake throughout encounters with patients.

- **Subrecommendation 1:** Discuss obesity in a nonjudgmental manner using person-first language in all communications.
- **Subrecommendation 2:** Incorporate the environmental, social, emotional, and cultural context of obesity into conversations with people with obesity.
- **Subrecommendation 3:** Use person- and family-centered communication (e.g., using active listening, empathy, autonomy support/ shared decision making) to engage the patient and others.

Recommendation 7: Employ strategies to minimize bias toward and discrimination against people with obesity, including weight, body habitus, and the causes of obesity. Providers recognize and mitigate their inherent biases based on weight; providers understand the ways in which bias and stigma affect health outcomes; providers are able to address and minimize bias in their practice and the practice of others.

- **Subrecommendation 1:** Describe the ways in which weight bias and stigma affect health and well-being.
- **Subrecommendation 2:** Recognize and mitigate personal biases.
- **Subrecommendation 3:** Recognize and mitigate the weight biases of others.

Recommendation 8: Implement a range of accommodations and safety measures specific to people with obesity. Providers demonstrate respectful communication and action toward people with obesity by recognizing their specific needs.

Recommendation 9: Utilize evidence-based care/services for people with obesity or at risk for obesity. Interprofessional providers assess the severity of obesity; using shared decision-making, providers develop and implement an appropriate care plan.

- **Subrecommendation 1:** Identify credible information to support obesity care.
- **Subrecommendation 2:** Evaluate Body Mass Index and other anthropometric measures routinely.
- **Subrecommendation 3:** Identify physical and psychosocial comorbidities of obesity and their potential impact on the health of the patient.
- **Subrecommendation 4:** Engage relevant health professionals to initiate a comprehensive care plan using shared decision-making within the patient's context.
- **Subrecommendation 5:** Identify access-to-care barriers for patients with obesity and solutions to mitigate those barriers.
- **Subrecommendation 6:** Employ evidence-based individual and family behavioral-change strategies such as motivational interviewing and cognitive behavioral therapy.

Policy Recommendation 10: Provide evidence-based care/services for people with obesity comorbidities. Providers identify and respond to severe psychological (e.g., adverse childhood experiences, purging, binge eating, food hoarding, weight-based victimization, social challenges, suicidal ideation, depression) and medical comorbidities (e.g., uncontrolled diabetes and high blood pressure, post-operative complications, significant sleep-disordered breathing).

- **Subrecommendation 1:** Recognize when a person is experiencing urgent and emergent comorbidities related to obesity.
- **Subrecommendation 2:** Respond appropriately to people with obesity comorbidities based on scope of practice.

Glossary of Acronyms

AAMC	Association of American Medical Colleges	HRSA	Health Resources & Services Administration
AANP	American Association of Nurse Practitioners	IBT	Intensive Behavioral Therapy
ACEN	Accreditation Commission for Education in Nursing	LCME	Liaison Committee on Medical Education
ACGME	American Council of Graduate Medical Education	MLR	Medical Loss Ratio
ACLM	American College of Lifestyle Medicine	MNT	Medical Nutrition Therapy
CBOs	Community-Based Organizations	MTM	Medically Tailored Meals
CME	Continuing Medical Education	REACH	Realizing Equity, Access, and Community Health
CMMI	Center for Medicare and Medicaid Innovation	SNAP	Supplemental Nutrition Assistance Program
CMS	Centers for Medicare & Medicaid Services	SNAP-Ed	Supplemental Nutrition Assistance Program Education
DGA	Dietary Guidelines for Americans	SSBCI	Special Supplemental Benefits for the Chronically Ill
DOD	Department of Defense	USDA	Department of Agriculture
FIM	Food is Medicine	VA	Department of Veterans Affairs
GusNIP	Gus Schumacher Nutrition Incentive Program	VBID	Value-Based Insurance Design
HHS	Department of Health and Human Services	WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
HIPAA	Health Insurance Portability and Accountability Act		

Endnotes

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