ISSUES AT-A-GLANCE

Food is Medicine

THE NUTRITION POLICY INITIATIVE AT TUFTS UNIVERSITY

Poor Diets are Harming Our Health:

Lack of good nutrition is the **number one driver of poor health outcomes** in the U.S. Poor diets are the **leading cause of death**, with Americans with lower-incomes, living in rural communities, and from historically marginalized racial and ethnic groups most affected.

Yet, a focus on nutrition is largely missing from the health care system – explaining so much about the rising disease burdens, costs, and inequities in diet-related illnesses in recent decades. Food is Medicine – integration of sensible food-based interventions to treat and prevent disease – must play a critical role in reversing these growing burdens.

- **One in 2** U.S. adults has diabetes or prediabetes, **3 in 4** have overweight or obesity, and **14 in 15** have suboptimal cardiometabolic health.
- Even among teens, **1 in 4** have prediabetes, **1 in 4** have overweight or obesity, and in **1 in 8** have fatty liver disease.
- Poor diets are estimated to cause more than **500,000 deaths each year**. This is due to too little intake of fruits, vegetables, nuts, whole grains, seafood, and healthy fats; and too much salt, processed meat, and sugary drinks.

Poor Diets are Harming Our Economy:

The combined health care spending and lost productivity from suboptimal diets cost the economy **$1.1 trillion** each year. This equals the entire economic output of the food system – for every $1 we spend on food, the economy loses $1 in health harms.

- About 85% of all health care spending is related to the management of diet-related chronic diseases.
- Each year, the direct medical costs of diabetes are **$237 billion**, and another $90 billion is lost from reduced productivity. These figures exceed the annual budgets of many federal departments and agencies, **including**, among others, the USDA, NIH, CDC, and FDA combined. And yet, studies show that type 2 diabetes is largely treatable, and preventable, with good nutrition.
- Food is Medicine interventions can effectively bend these cost curves. For example, **$13.6 billion** could be saved annually if all eligible Americans received medically tailored meals through the healthcare system, even after accounting for the cost of the program.
- Other Food is Medicine interventions, like Produce Prescriptions, appear highly cost-effective, similar to foundational healthcare priorities like blood pressure and cholesterol screening and control.

Food is Medicine – A Critical Part of the Solution

Food Is Medicine (FIM) interventions reflect the critical link between nutrition and health, integrated into health care delivery. These include programs that provide nutritionally relevant food, free of charge or at a discount, to support disease management, disease prevention, or optimal health, linked to the health care system as part of a patient's treatment plan.

FIM interventions should not be conflated with social determinants of health (SDOH). SDOH – like housing, transportation, income, and food security – reflect broader societal challenges that influence health.

The health care system can identify and refer patients to appropriate external resources to help deal with SDOH, but may not play a primary role in addressing these social issues. In contrast, poor nutrition is a leading, direct determinant of health – and as such is appropriately addressed by the healthcare system, similar to smoking, poor mental health, and substance abuse. FIM interventions also often reflect effective treatment, rather than long-term prevention, of diet-related conditions.

Tufts University is dedicated to advancing the science and integration of effective FIM interventions into health care (Figure 1).

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THE FOOD IS MEDICINE PYRAMID

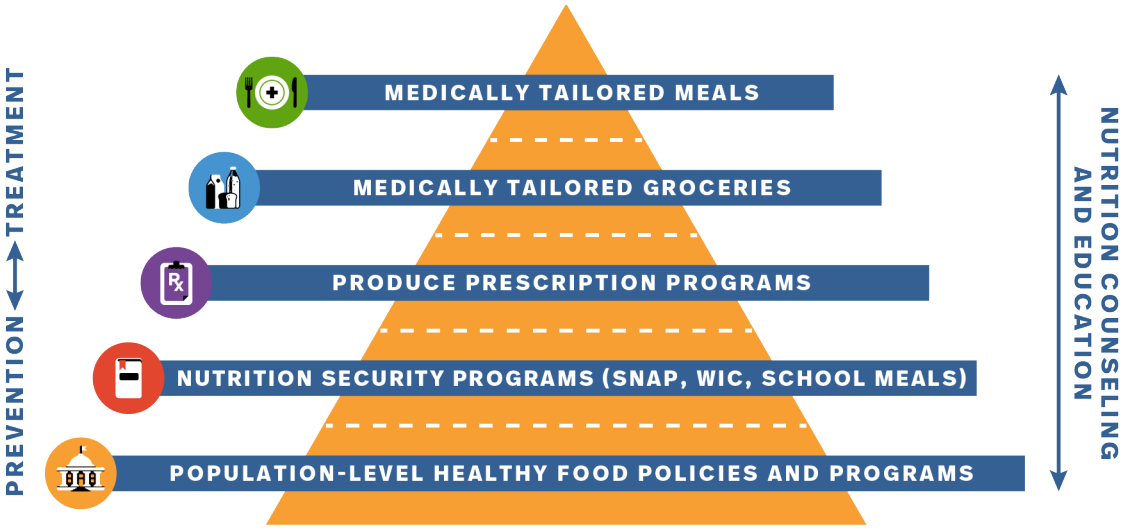

Figure 1
Source: https://www.nature.com/articles/s41591-022-02027-3

MEDICALLY TAILORED MEALS

- Medically tailored meals (MTMs) provide home-delivered, nutritious meals customized for patients with severe chronic conditions and limitations in activities of daily living.
- Each year in the U.S., an estimated $13.6 billion would be saved if all eligible Americans received MTM interventions in the healthcare system.

Adults with serious medical conditions who **received 10 MTMs** per week for an average of 9 months per year were 49% less likely to be admitted to the hospital and 72% less likely to be admitted to skilled nursing facilities – producing a 16% reduction in total health care costs, even with the cost of the MTM program.

PRODUCE PRESCRIPTIONS

- **Produce prescriptions** offer free or discounted produce to ambulatory patients based on a range of eligibility criteria, such as people who have a chronic condition, like diabetes, prediabetes, hypertension, obesity or heart disease, as well as people on low incomes and/or who are food insecure.
- A national produce prescription program, providing eligible individuals with discounted or free produce such as fruits and vegetables in combination with nutrition education, could improve nutrition and health, and save **$40 billion annually in health care costs**.

A meta-analysis of **healthy food prescription programs** found a 22% increase in fruit and vegetable consumption, corresponding to 0.8 higher daily servings overall. On health, this led to a BMI decrease of 0.6 kg/m2 and HbA1c decrease of 0.8%.

NUTRITION EDUCATION FOR DOCTORS

- Less than 1% of lecture hours in U.S. medical schools are dedicated to nutrition education, despite nutrition being the leading cause of poor health in our nation and doctors being a top trusted source for patients when it comes to diet and food.
- Numerous organizations have called for increased nutrition education throughout graduate medical education and for practicing doctors, to equip and empower healthcare providers to assess, advise and direct patients to the resources and interventions needed to advance nutrition security.

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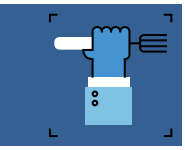
The National Path Forward:

The 2022 White House Conference on Hunger, Nutrition, and Health – the first conference of its kind since 1969 – and accompanying National Strategy highlighted the role of FIM priorities for improving our nation's health. The strategy called for expanding Medicare and Medicaid beneficiaries' access to FIM interventions, expanding nutrition education in graduate medical education, and implementing universal screening for food security in public and private electronic health records.

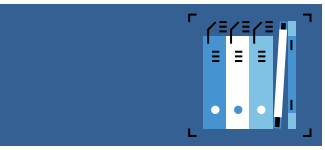
These FIM initiatives are critical to meeting the national goals of ending hunger and increasing healthy eating and physical activity by 2030 so fewer Americans experience inequitable diet-related diseases.

A report by the United States Government Accountability Office (GAO) confirmed that diet-related diseases are a top issue in the U.S. including 42% of adults with obesity, and 54% of the $383.6 billion in government health care spending to treat these conditions. The report found that the 200 federal efforts related to diet are fragmented across 21 agencies – therefore, Congress should identify a federal entity to lead implementation of a federal strategy for diet-related efforts.

KEY POLICY SOLUTIONS



Congress should authorize pilot programs that provide eligible individuals with **MTMs and produce prescriptions through Medicaid, Medicare, the Department of Veterans Affairs, the Department of Defense, and Indian Health Service**.



States should apply for and the Centers for Medicare and Medicaid Services (CMS) should approve Section 1115 Waivers that allow Medicaid Programs to **test and scale Food is Medicine programs**.

The Supplemental Nutrition Assistance Program (SNAP), supporting roughly 42 million Americans per year, has been successful in reducing food insecurity, but must be leveraged more effectively to reduce nutrition insecurity. Effective interventions include regular analysis and reporting on SNAP purchasing nationally, **expansion of the successful Gus Schumacher Nutrition Incentive Program (GusNIP)**, including in online retail; and encouragement of innovative state pilots to test new approaches to jointly advance food and nutrition security.

The U.S. Department of Health and Human Services (HHS) and CMS should continue to support efforts to **develop the data infrastructure needed for food and nutrition insecurity to be captured in electronic health records** and ensure interoperable health information exchange and the collection of demographic information. The HHS Office of National Coordinator for Health Information Technology should use this data to determine goals and interventions that can support areas such as food and nutrition insecurity.

Congress and HHS should **ensure nutrition education for doctors and other providers throughout their training and practice**, including through reform of accreditation requirements, medical licensing exams, specialty certification exams, continuing medical education requirements, and nutrition-focused research fellowships and postdoctoral programs through agencies such as NIH, Health Resources and Services Administration (HRSA), and CMS.

HHS and CMS should convene private health insurance payers and providers to **collaborate on ways to include Food is Medicine programs** within private health insurance plans. The HHS Office of Inspector General (OIG) could establish a flexible anti-kickback statute safe harbor specifically for FIM initiatives or at a minimum clarify the circumstances in which OIG would not impose any sanctions on a FIM initiative.

It is time to implement FIM interventions at federal, regional, and local levels to increase population-wide nutrition security, health equity, and wellness across the lifespan. As food and nutrition insecurity and diet-related diseases persist and drive preventable poor health outcomes and sky-high health care spending, there's no time to lose.