

MASSACHUSETTS

Food is Medicine

STATE PLAN

EXECUTIVE SUMMARY



JUNE 2019



CENTER for HEALTH LAW
and POLICY INNOVATION
HARVARD LAW SCHOOL



COMMUNITY
SERVINGS
FOOD HEALS

Authors

CHLPI

The Center for Health Law and Policy Innovation of Harvard Law School (CHLPI) advocates for legal, regulatory, and policy reforms to improve the health of underserved populations, with a focus on the needs of low-income people living with chronic diseases. CHLPI works to expand access to high-quality health care and nutritious, affordable food; to reduce health disparities; and to promote more equitable and effective health care and food systems. CHLPI's Food is Medicine initiative promotes access to healthy food as an essential component of health care and asserts that such food should be considered a reimbursable, core medical service. Since 2014, CHLPI has served as an advisor for the national Food is Medicine Coalition, working to integrate nutrition interventions into the health care system. CHLPI has released two national reports: *Food is Medicine: Opportunities in Public and Private Health Care for Supporting Medically Tailored Meals* and *Food is Prevention: The Case for Integrating Food and Nutrition Interventions into Health Care*. CHLPI is a clinical teaching program of Harvard Law School and mentors students to become skilled, innovative, and thoughtful practitioners as well as leaders in health, public health, and food law and policy.

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COMMUNITY SERVINGS

Community Servings is a not-for-profit food and nutrition program providing services throughout Massachusetts to individuals and families living with critical and chronic diseases. We give our clients, their dependent families, and caregivers appealing, nutritious meals, and send the message to those in greatest need that someone cares. We are leading members of the Food is Medicine Coalition, a national association of nonprofit food and nutrition service providers that advocates for the integration of medically tailored foods into health care payment and delivery systems.

Community Servings has partnered with rigorous external clinical researchers to co-author three peer-reviewed journal articles demonstrating that our medically tailored home-delivered meals program improves health outcomes, reduces health care utilization and costs, and improves quality of life for individuals coping with complex illnesses: *Association Between Receipt of Medically Tailored Meal Program and Health Care Use*; *Meal Delivery Programs Reduce the Use of Costly Health Care in Dually Eligible Medicare and Medicaid Beneficiaries*; and *Medically Tailored Meal Delivery for Diabetes Patients with Food Insecurity: A Randomized Cross-Over Trial*.

AUTHORS FROM COMMUNITY SERVINGS:

David Waters, Jean Terranova, and Hannah Sobel.

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The Massachusetts Food is Medicine State Plan is the result of a two-year statewide initiative that explored the need for and access to nutrition interventions in the Commonwealth.

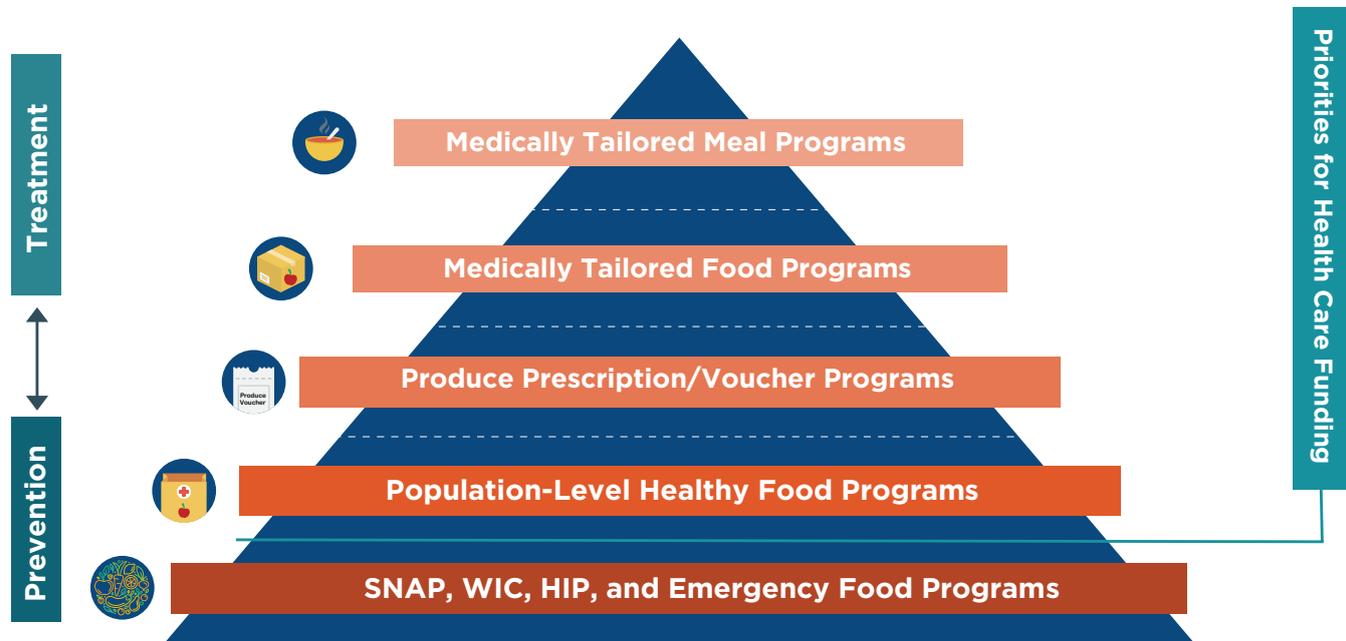
The State Plan has brought together hundreds of individuals and organizations from across Massachusetts and beyond, all united by a belief that

Food is Medicine.

What is Food is Medicine?

Food is Medicine refers to a spectrum of services and health interventions that recognize and respond to the critical link between nutrition and chronic diseases. Food is Medicine interventions consist of healthy foods that are tailored to meet the specific needs of individuals living with or at risk for serious health conditions affected by diet.

FOOD IS MEDICINE PYRAMID



SNAP: Supplemental Nutrition Assistance Program

WIC: Special Supplemental Nutrition Program for Women, Infants, and Children

HIP: Healthy Incentives Program

Emergency Food Programs: Programs such as food banks, food pantries and soup kitchens that supply food to people on a temporary and supplemental basis at no cost

Within the context of this State Plan, Food is Medicine interventions include:

1. MEDICALLY TAILORED MEALS:

Medically tailored meals are the most intensive Food is Medicine intervention, requiring a referral from a health care provider or health plan. They are designed by a Registered Dietitian Nutritionist based on a nutritional assessment. These meals address the recipient’s medical diagnosis or diagnoses with the goal of ensuring the best possible health outcomes. Typically, meals are prepared and home-delivered.¹

2. MEDICALLY TAILORED FOOD:

Medically tailored food is a package of non-prepared, grocery items selected by a Registered Dietitian Nutritionist or other qualified nutrition professional as part of a treatment plan for an individual with a defined medical diagnosis. The recipient of medically tailored food is typically capable of picking up the food and preparing it at home.

3. PRODUCE PRESCRIPTION/VOUCHER PROGRAMS:

Vouchers for free or discounted produce, sometimes called “prescriptions,” are distributed by health care providers to address a recipient’s specific health condition and are redeemed at retail grocers, farmers’ markets, or within Community Supported Agriculture programs.

4. POPULATION-LEVEL HEALTHY FOOD PROGRAMS:

These anti-hunger programs partner with health care providers to distribute generally healthy food to any patient, regardless of health status. The food is not explicitly tailored for any specific diagnosis, but increasingly provided in health care settings in recognition of the strong association between food insecurity and diet-related chronic disease.

Although Food is Medicine interventions often target food-insecure populations, they are distinct from broader hunger safety net programs, like the Supplemental Nutrition Assistance Program (SNAP), because of their focus on chronic disease prevention, management, and treatment. A growing number of Massachusetts health care payers (i.e., public and private health insurers), providers (i.e., physicians, nurses, and dietitians), and health care systems (i.e., hospitals and community health centers) are now exploring how they can integrate Food is Medicine interventions into new patient-centered models of care for individuals living with or at risk for complex chronic diseases.

How Can Food is Medicine Interventions Influence Health Outcomes and Costs?

The United States Department of Agriculture defines food insecurity as the lack of consistent access to enough food for an active, healthy life.²

Roughly one out of every ten households in Massachusetts struggles with food insecurity, resulting in a staggering \$1.9 billion in avoidable health care costs each year.³

Food-insecure individuals are at heightened risk for diet-related chronic diseases due to barriers limiting their access to healthy food and the use of coping strategies that may be harmful to health. Often, these individuals delay or forgo medical care;^{4,5} engage in cost-related medication underuse;^{6,7,8} choose between food and other basic needs such as utilities;^{9,10} are forced to consume low-cost, energy-dense foods;^{11,12,13} and/or forgo food needed for special medical diets.¹⁴ As a result, total health care costs increase as food insecurity severity increases.^{15,16}

A growing body of research demonstrates that connecting people with complex health conditions to Food is Medicine interventions is an effective and low-cost strategy to improve health outcomes, decrease utilization of expensive health services, and enhance patient quality of life.

In a 2019 study, receipt of medically tailored meals was associated with 49% fewer inpatient admissions, 72% fewer admissions to skilled nursing facilities, and a 16% reduction in health care costs.

Seth A. Berkowitz et al., *Association Between Receipt of a Medically Tailored Meal Program and Health Care Use*, JAMA INTERNAL MEDICINE (2019).

Despite strong evidence of the ability of Food is Medicine interventions to promote health outcomes and reduce health care costs, access remains limited across Massachusetts and throughout the United States. While Massachusetts is home to several pioneering programs, the majority of Food is Medicine programs are still small in scale and operate primarily on grants and charitable donations. Massachusetts can be at the forefront of health care innovation if Food is Medicine interventions are adequately scaled and sustainably funded in a new era of delivery and payment reform.

FOOD IS MEDICINE CBO:

“Research has played such a crucial role in helping health care leaders understand the value of our services. Four years ago, when the research was much more limited, it was a struggle to engage with the health care system. Now, with research that clearly shows the impact of Food is Medicine, they see how we can help them achieve their goals of improving patient outcomes and controlling costs.”

Why Now? A Moment of Opportunity for Food is Medicine

The Massachusetts health and food systems are currently in a period of transformation that has the potential to create important new opportunities to expand investment in Food is Medicine interventions.

1. NEW MASSHEALTH ACO STRUCTURE

In 2018, MassHealth, the Massachusetts Medicaid program, transitioned over 800,000 members into Accountable Care Organizations (ACOs) with the goal of improving quality and coordination of care. As part of this ACO program, Massachusetts is providing new funding and incentives for health care providers to identify and address health-related social needs, including food insecurity, in their Medicaid populations.

2. HEALTH-FOCUSED FOOD SYSTEM TRANSFORMATION

Simultaneously, the public has begun to recognize the health impacts of a broken food system, using initiatives such as the Massachusetts Local Food Action Plan to call on local and national leaders to alter food and agriculture policies to improve access to nutritious foods, incentivize healthier choices, and create healthier food environments.

The Massachusetts Food is Medicine State Plan

The Massachusetts Food is Medicine State Plan builds on the momentum of recent health and food systems change in the Commonwealth by providing the data and strategies necessary to systematically expand access to Food is Medicine interventions.

THREE GOALS OF THE STATE PLAN:

1. **Assess the current need for Food is Medicine interventions.**
2. **Assess current access to Food is Medicine interventions.**
3. **Develop recommendations to scale up access to meet current need.**

Throughout the State Plan process, we received expert feedback from our Food is Medicine Planning Council, a multi-disciplinary stakeholder group of more than 40 organizations from across the state experienced in addressing the connections between food insecurity, nutrition, and health care.

Methodology and Results

METHODS

In order to better understand the existing Food is Medicine landscape in Massachusetts, we engaged key stakeholders from January–August 2018 through surveys, regional listening sessions, and interviews, including:

- Health insurers,
- Health care providers,
- Community-based organizations providing food and nutrition services, and
- Recipients of Food is Medicine interventions.

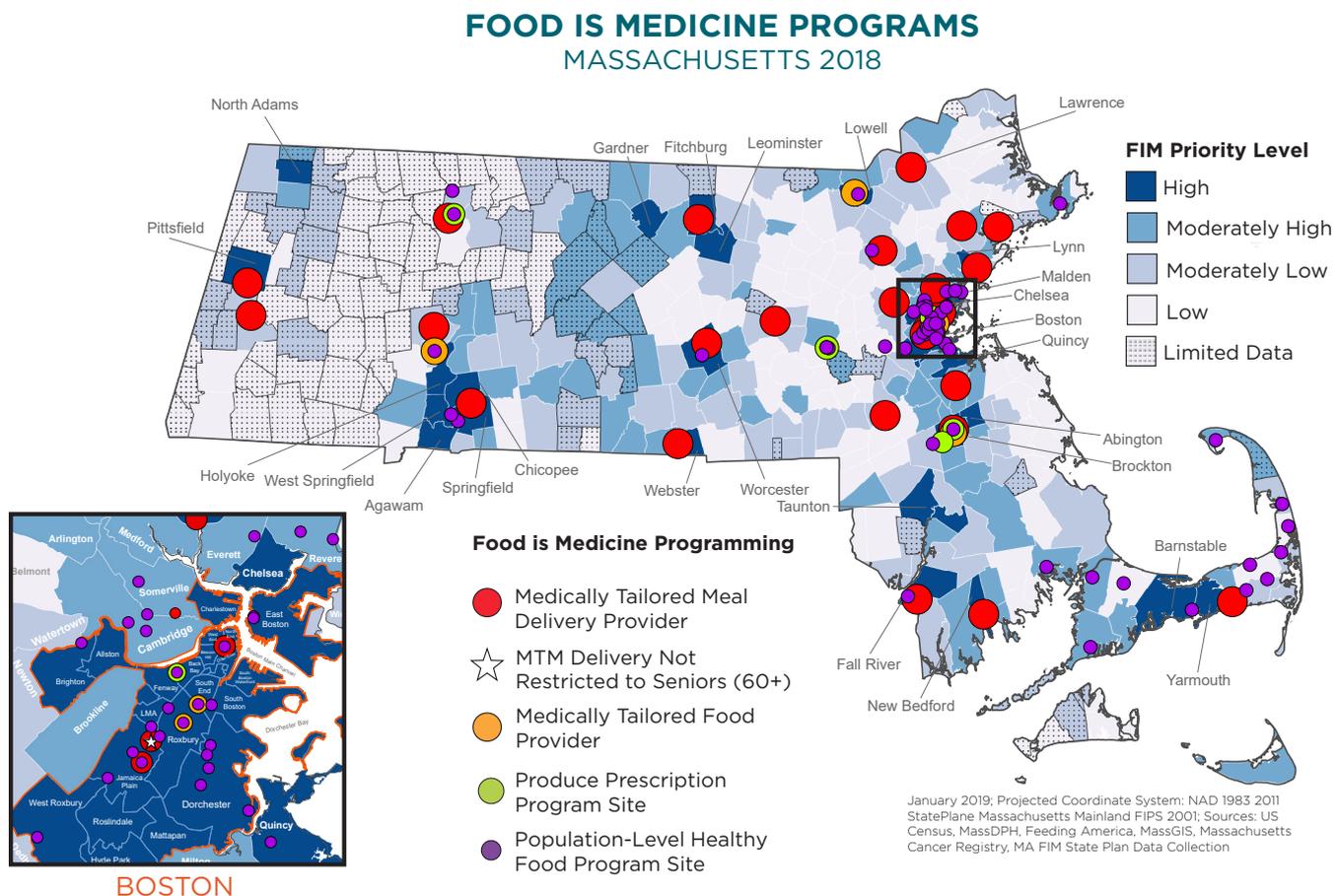
We then used geographic information systems (GIS) software to map the need for Food is Medicine interventions against current access. Three factors were identified that indicated the need for Food is Medicine interventions: a high level of food insecurity, a lack of accessible and reliable transportation, and a high burden of diet-related chronic diseases.

RESULTS

The data from our surveys, listening sessions, and program participant interviews described a current system where:

- Health care payers and providers have a growing interest in addressing food insecurity, but continue to face challenges to effectively integrating Food is Medicine interventions into work flows and broader policies.
- Health care providers believe addressing food insecurity is beneficial to patient care, but do not regularly screen for food insecurity, do not regularly refer patients to nutrition resources, and are not typically confident in their knowledge of how diet can be leveraged to prevent, treat, or manage illness.
- Communication between providers, payers, and community-based organizations (CBOs) about patient needs is challenging due to systematic, operational, and cultural differences.
- Some payers have begun to fund Food is Medicine interventions, but CBOs continue to be insufficiently resourced to be the full partners and collaborators they could and want to be in responding to health-related nutrition needs.
- Leadership and coordination around integrating nutrition interventions into health care delivery is lacking within the health system and more broadly across the state.

Our geospatial analysis identified 26 high priority municipalities in Massachusetts and 72 municipalities with a moderately high priority level. These locations should be priorities for future investment in expanding Food is Medicine interventions.



Based on our State Plan surveys and data verification process, we captured 63 programs that self-identified as working with health care partners and/or tailoring food to medical conditions. These programs included: 26 medically tailored meal providers (only one not restricted to seniors), 5 medically tailored food providers, 5 produce prescription/voucher programs, and 27 population-level healthy food programs.

When these programs were added to our priority map, gaps and trends emerged, such as:

- Many high priority municipalities currently lack access to any Food is Medicine interventions.
- Medically tailored food and produce prescription/voucher programs are limited throughout the state.
- All but one of the medically tailored meal programs in Massachusetts limit their services to individuals over the age of 60.
- The number of population-level healthy food program sites across the state illustrate the growing interest in connecting food and health within the emergency food system.

Where We Go From Here: A Vision for the Integration of Food into the Health Care System

The Food is Medicine State Plan recognizes our state's depth of expertise and experience in connecting people with food - and in going above and beyond to ensure that food is healthy whenever possible. But more can and should be done to support the integration of food and health systems.

The data we gathered from our listening sessions, surveys, interviews, and geospatial analysis shines a light on access gaps and helps us visualize the Massachusetts health care system of the future, the system we need to achieve our goal of outcome-driven, cost-effective, person-centered care.

We envision a health care system where...

- All health care providers on a patient's care team are knowledgeable about the role that food and nutrition play in prevention, management, and treatment of diet-related acute and chronic diseases;
- Providers screen patients for food insecurity or, as appropriate, malnutrition;
- Providers feel empowered to respond quickly and effectively to a patient's nutrition needs with a referral to an appropriate nutrition resource;
- Community-based service providers can communicate back to the health care provider about the patient's connection to nutrition resources;
- There are a number of high-quality, medically tailored food and nutrition services, ranging from a medically tailored meal to a produce voucher, available to patients who reside in any community across the Commonwealth;
- Community-based nutrition service providers are well-resourced, sustainably funded through payments for their Food is Medicine services, and offer evidence-based Food is Medicine interventions that meet standards developed by experts in the field;
- The term "health care reform" encompasses and explicitly supports nutrition-sensitive health care systems for the benefit of patients, providers, payers, and the broader community;
- The leaders of our health care and food systems come together to pursue a coordinated, transformative change at these systems' nexus that will resonate more broadly in each arena;
- Patients trust their treatment plans will address the root causes of their diet-related disease and offer a pathway to health and well-being.

Food is Medicine

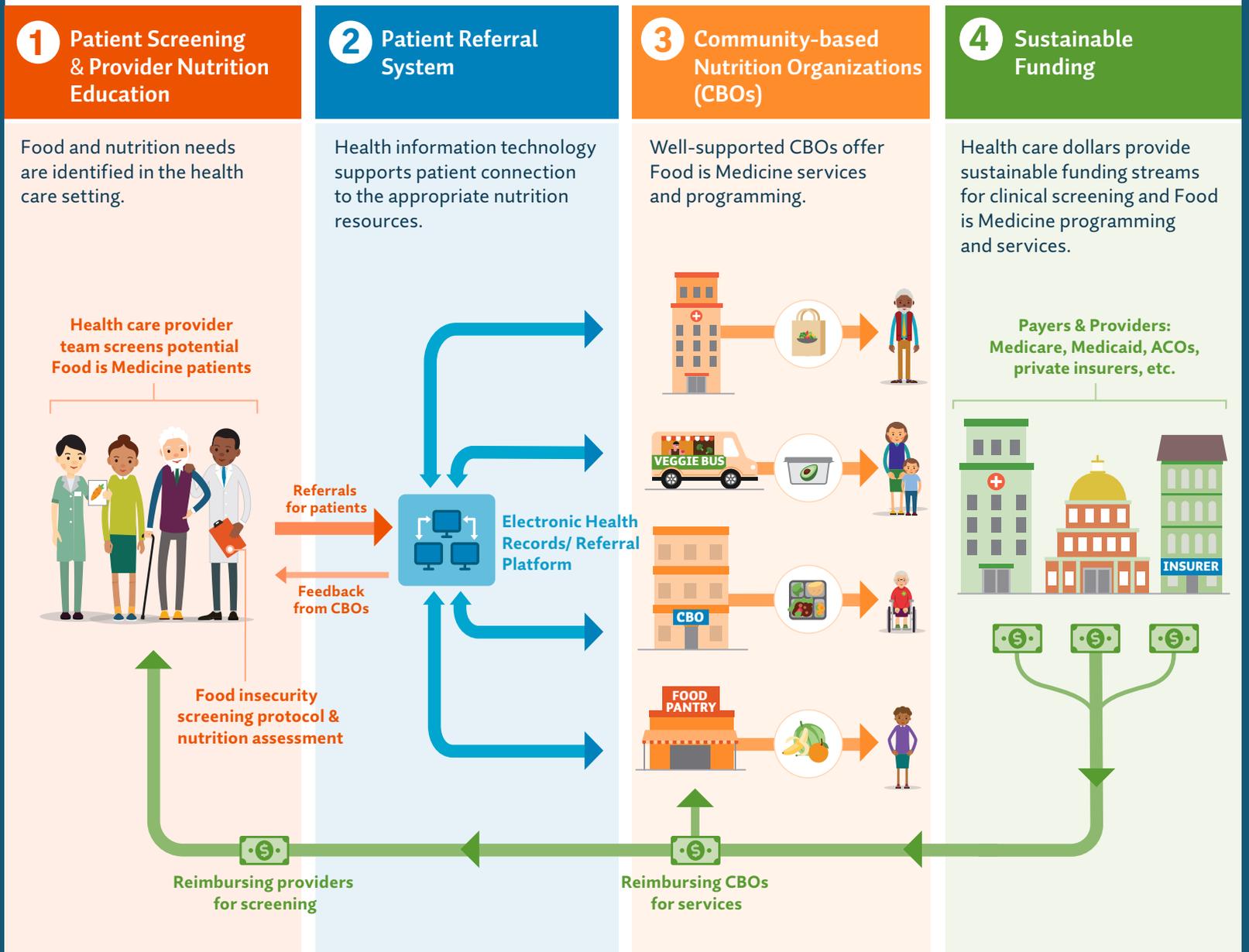
STATE PLAN

Roadmap for Change in Five Focus Areas

Improving access to Food is Medicine interventions

Research has shown that **Food is Medicine** interventions can play a powerful role in improving health outcomes and controlling health care costs. However, access to these interventions remains limited.

Our vision: a health care system where food & nutrition interventions are fully integrated into care.



5 Systemic change throughout private and public sectors to support Food is Medicine

Explicit support and concrete commitments from:

- Providers
- Payers
- Community-based organizations
- State & federal policy makers
- Philanthropy
- Advocacy groups

FOOD IS MEDICINE 15

The Food is Medicine 15 is a set of recommendations developed in partnership with the Massachusetts Food is Medicine Planning Council and countless others who have given their time, support, and input to this initiative. Many Planning Council members have been on the front lines of this work for years. Others are newly energized by the research that shows Food is Medicine's positive impact on health outcomes, health care costs, and the lives of the people served by existing programs.

In the Massachusetts Food is Medicine State Plan, we speak with one voice – as health care providers, health care payers, CBOs, researchers, and advocates – in asserting the belief that access to Food is Medicine interventions should equal the level of need. The recommendations in this plan, the Food is Medicine 15, identify specific steps that we must take to realize the integrated system that Massachusetts residents deserve.

The Food is Medicine 15 , organized by State Plan Focus Areas:

- 1. Provider Knowledge and Screening**
Recommendations 1-3
- 2. Patient Referral and Connection**
Recommendations 4-6
- 3. High-Quality, Appropriate Services Available in the Community**
Recommendations 7-8
- 4. Sustainable Funding for Food is Medicine Interventions**
Recommendation 9
- 5. Leadership Engagement and System Transformation**
Recommendations 10-15

We acknowledge that the State Plan is part of a bigger movement working to connect our food and health care systems. The continued existence of a strong network of robustly funded anti-hunger and safety net programs in Massachusetts, including WIC, SNAP, and the Healthy Incentives Program (HIP) is vital to the success of the State Plan.

Moreover, we recognize that the disparities within our health and food systems are persistent and are often the result of both explicit and institutional discrimination on the basis of race, class, disability, sex, ethnicity, and other factors. The State Plan is therefore only the first step of a longer and more thorough exploration and process. We look forward to future iterations of this work that more fully respond to historic injustices with coordinated food and agricultural policies that support health and public health.

State Plan Focus Area 1

PROVIDER KNOWLEDGE AND SCREENING: IDENTIFYING FOOD AND NUTRITION NEEDS IN THE HEALTH CARE SETTING

RECOMMENDATION 1

Physicians, other members of the health care team, and their professional societies, should work together to improve provider nutrition education and referral capacity by:

- a. Creating continuing education courses that allow health professionals to learn about: the role of nutrition in optimal disease management; best practices for food insecurity screening and referral to resources; and current payment mechanisms for Food is Medicine interventions.
- b. Improving provider nutrition knowledge by promoting additions to curricula and licensing exams.

RECOMMENDATION 2

MassHealth should issue guidance on food insecurity and malnutrition screening protocols and identify best practices for referrals for all MassHealth members. This guidance should:

- a. Encourage the use of a validated food insecurity screening tool, such as The Hunger Vital Sign™.
- b. Require screening and referral results to be tracked individually and in the aggregate for each health care organization serving MassHealth patients.
- c. Put forward best practices for social needs screening and referrals in the MassHealth Accountable Care Organization (ACO) model.

RECOMMENDATION 3

Commercial insurers operating in Massachusetts, including those that offer Medicare Advantage plans, should:

- a. Ensure that food insecurity screening and referrals are part of their care coordination and case management programs.
- b. Encourage and incentivize their provider networks to perform food insecurity screening and make resource referrals part of patient care.

HEALTH CARE PROVIDER:

“In order to build champions for food/nutrition issues in health care systems, there needs to be greater availability of continuing education on these topics, particularly among physicians. Physicians have a lot more sway with hospital leaders than other staff. It would also be helpful to create more continuing education opportunities for groups such as nurses and registered dietitians regarding Food is Medicine.”

State Plan Focus Area II

PATIENT REFERRAL AND CONNECTION: SUPPORTING PATIENT CONNECTION TO APPROPRIATE RESOURCES

RECOMMENDATION 4

Massachusetts health care providers should implement bidirectional referral systems that are embedded into, or are seamlessly integrated with, electronic health records (EHR).

- a. State agencies should provide technical assistance to identify and help implement and/or support the design of systems necessary to ensure the most vulnerable patients have access to reliable referral systems.

RECOMMENDATION 5

Physician practices and hospitals should integrate non-physician providers into the screening and patient referral processes for Food is Medicine interventions.

RECOMMENDATION 6

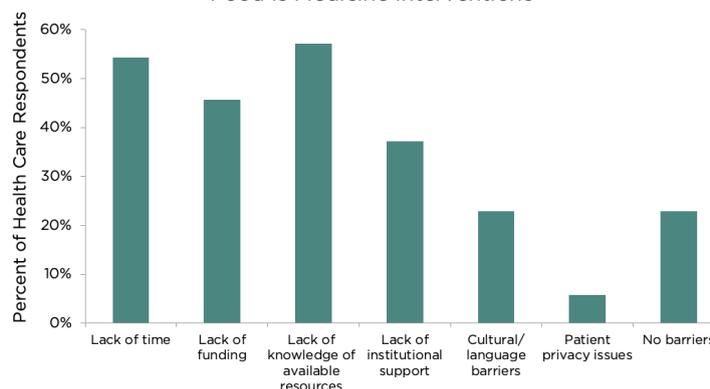
Health care providers, oral health providers, and CBOs, should work together to increase access to oral health care as a component of Food is Medicine interventions by:

- a. Incorporating oral health data into electronic health records (EHR) to improve care coordination between health care providers and oral health providers.
- b. Expanding access to oral health screening in CBO settings that offer Food is Medicine programs and services.

HEALTH CARE PROVIDER:

“There is an ongoing question of who on the care team “owns” the screening process. Should it be physician assistants, physicians, etc.? How can this role best be staffed? To improve the patient experience and encourage more engagement on these issues, it could be helpful to designate a member of the staff other than the physician whose role is to meet with patients specifically about social determinants of health.”

Reported Barriers by Health Care Providers in Referring Patients to Food is Medicine Interventions



Source: Massachusetts Food is Medicine State Plan Health Care Provider Survey

State Plan Focus Area III

HIGH-QUALITY, APPROPRIATE SERVICES AVAILABLE IN THE COMMUNITY: SUPPORTING FOOD IS MEDICINE INTERVENTIONS AND PROGRAMMING WITHIN COMMUNITY-BASED ORGANIZATIONS

RECOMMENDATION 7

Health care payers and providers should adopt statewide definitions and standards for Food is Medicine interventions, informed by the expertise and experience of Food is Medicine programs and program recipients.

RECOMMENDATION 8

Health care payers and providers should explicitly seek to include Food is Medicine intervention recipients and community-based organizations in their community engagement activities.

FOOD IS MEDICINE PROVIDER:

“I am a dietitian at a Federally Qualified Health Center and a volunteer at the local food pantry. On Friday, I would sit with my patient and go over what to eat and on Saturday, I would see the same patient at the pantry and have to hand out food I knew wasn’t right for them because that’s all we had. I want to be part of fixing this!”

State Plan Focus Area IV

SUSTAINABLE FUNDING STREAMS FOR FOOD IS MEDICINE PROGRAMMING

RECOMMENDATION 9

Public and private health care payers should support the delivery of Food is Medicine interventions by embedding intervention costs into standard payment systems (e.g. capitation and fee-for-service) and emerging funding streams.

- a. MassHealth Accountable Care Organizations (ACOs) should use Flexible Services funds to provide Food is Medicine interventions to their members.
- b. MassHealth should establish additional funding streams for Food is Medicine interventions (e.g. via in-lieu-of services).
- c. Massachusetts Medicare Advantage plans should leverage the recent expansion of supplemental benefits to fund Food is Medicine interventions.
- d. Private health care payers should pay for Food is Medicine interventions as covered benefits.

State Plan Focus Area V

SYSTEMS TRANSFORMATION AND LEADERSHIP ENGAGEMENT

RECOMMENDATION 10

The Massachusetts Legislature should explicitly recognize Food is Medicine as a priority through legislative action and within the state budget by:

- a. Funding a MassHealth Food is Medicine State Plan Demonstration Pilot to evaluate the impact of Food is Medicine within the MassHealth population.
- b. Providing sufficient funding to meet demand for the Healthy Incentives Program (HIP).
- c. Funding the Prevention and Wellness Trust Fund and identifying activities that promote the ability of the health care system to address health-related social needs as one of the priorities for fund expenditures.

RECOMMENDATION 11

Massachusetts state agencies, CBOs, and health care providers should take advantage of opportunities to leverage federal funding to expand access to Food is Medicine interventions.

- a. CBOs and health care providers should partner to apply for funding from the Gus Schumacher Nutrition Incentive Program to expand access to produce prescription/voucher programs in Massachusetts.
- b. Where parameters of federal funding and Food is Medicine State Plan priorities align, state agencies should utilize funding to advance Food is Medicine State Plan objectives.

RECOMMENDATION 12

The Executive Office of Health and Human Services (EOHHS) should convene an Interagency Working Group to inform and accelerate the integration of Food is Medicine and other health-related social needs interventions into the health care system.

RECOMMENDATION 13

Physicians, clinicians, and researchers should expand research on Food is Medicine and its impact on patient health outcomes, health care usage, and health care costs by:

- a. Identifying gaps in current research.
- b. Developing an assessment of nutritional need that can direct patients in health care settings to the appropriate Food is Medicine intervention.

FOOD IS MEDICINE CBO:

“If we promoted our food services at Community Health Centers we would see a large increase in demand, but we are in a catch twenty-two situation: we can’t promote the service if we do not have enough resources to fill the need.”

RECOMMENDATION 14

The philanthropic community should work in concert to:

- a. Continue to build the evidence for Food is Medicine by supporting cutting-edge research.
- b. Use grant funding to incentivize robust, widespread, and professionally diverse (i.e., all care team members) use of new electronic referral systems.
- c. Build the capacity for Food is Medicine CBOs to partner with health care entities and serve every community in the state, starting with the Food is Medicine Priority Municipalities.
- d. Support the implementation and monitoring of the Food is Medicine State Plan.

RECOMMENDATION 15

The conveners of the Food is Medicine State Plan will establish a Massachusetts Food is Medicine Coalition. This Coalition should:

- a. Convene quarterly to evaluate progress on State Plan policy recommendations.
- b. Cultivate cross-sector communication surrounding Food is Medicine in Massachusetts.
- c. Advocate for future policies that will improve access to Food is Medicine interventions in Massachusetts.
- d. Coordinate the efforts of the Food is Medicine Task Forces (see Next Steps below) on:
 - Provider Nutrition Education and Referral
 - Food is Medicine Community-Based Organizations
 - Food is Medicine Research

Next Steps

The development of this State Plan has brought together an unprecedented array of Massachusetts experts and advocates united by a firm belief in the role that nutrition can and must play in an effective health care system. To ensure the success of the Plan, we must leverage this energy and expertise to take immediate, concrete steps toward implementation.

Over the coming months, we will convene three Task Forces that will sit within the Massachusetts Food is Medicine Coalition. These Task Forces will be convened by leading experts experienced in advocating for and/or delivering Food is Medicine interventions. Each Task Force will be focused on addressing a crucial gap identified in the State Plan.

PROVIDER NUTRITION EDUCATION AND REFERRAL TASK FORCE

- The Provider Nutrition Education and Referral Task Force will work to improve the capacity of Massachusetts health professionals to identify and address the need for Food is Medicine interventions in their patient populations (**Recommendation #1**).

FOOD IS MEDICINE COMMUNITY-BASED ORGANIZATION TASK FORCE

- The Community-Based Organization Task Force will lead a statewide effort to establish standards for Food is Medicine interventions in the Commonwealth (**Recommendation #7**).

FOOD IS MEDICINE RESEARCH TASK FORCE

- The Research Task Force will accelerate additional investigation into the field of Food is Medicine by leading public health and medical researchers (**Recommendation #13**).

CONCLUSION

Massachusetts has long been a national leader on health care policy, setting the tone for broader reforms across the country. We have led the way in providing widespread access to affordable health insurance regardless of income or medical history.

But we now know that access to health insurance (and therefore to medical care) is not, by itself, enough to achieve our long-term health care goals. Increasingly, Massachusetts health care leaders are recognizing the critical role that health-related social needs, including nutrition, play in driving health outcomes and costs. As a result, these leaders have taken some initial steps to bridge the gap between our food and health care systems. But much work remains to be done.

Massachusetts should seize on this momentum and be bold.

We can build a system that reliably identifies individuals who are food insecure, connects them to appropriate Food is Medicine interventions, and supports those interventions via sustainable funding.

In doing so, Massachusetts will establish itself as the first state in the nation to ensure that patients have access not only to affordable, effective medical care but also to the foods they need to live healthy, happy and productive lives.

State Plan Acknowledgements

This report would not be possible without the invaluable guidance and hard work of many throughout the Commonwealth and beyond.

Thank you to our Massachusetts Food is Medicine State Plan Planning Council:

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- Blue Cross Blue Shield of Massachusetts
- Boston Medical Center HealthNet Plan
- Boston Medical Center
- Boston Public Health Commission
- Brockton Neighborhood Health Center
- Cape Cod Healthcare
- Children's HealthWatch
- Center for Health Law and Policy Innovation (CHLPI)
- Commonwealth Care Alliance
- Community Health Center of Franklin County
- Community Servings
- DentaQuest Partnership for Oral Health Advancement
- Elder Services of Merrimack Valley
- Emerald Physician Services
- Feeding America
- The Food Bank of Western MA
- Greater Boston Food Bank
- Harvard School of Public Health
- Health Care Without Harm
- Just Roots
- Krupp Family Foundation
- Massachusetts Healthy Aging Collaborative
- Massachusetts Food System Collaborative
- Massachusetts League of Community Health Centers
- Massachusetts Medical Society
- Mayor's Office of Food Access, Boston
- Meals on Wheels America
- Minuteman Senior Services
- New England States Consortium Systems Organization (NESCSO)
- The Open Door
- Project Bread
- Sustainable Cape
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- University of Massachusetts Medical School
- University of Massachusetts Memorial Medical Center
- Victory Programs
- Wholesome Wave

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Provider Nutrition Education and Referral Task Force

- Massachusetts Medical Society
- Dr. Kumara Sidhartha, Cape Cod Health Care

Food is Medicine Research Task Force

- Children's HealthWatch

Community-Based Organization Task Force

- Greater Boston Food Bank
- Community Servings

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- Office of Statistics and Evaluation, Bureau of Community Health and Prevention

Endnotes

- ¹ Following the dissemination of the State Plan's surveys, the national Food is Medicine Coalition released a new definition of medically-tailored meals in January 2019. According to the Food is Medicine Coalition, "medically tailored meals are delivered to individuals living with severe illness through a referral from a medical professional or healthcare plan. Meal plans are tailored to the medical needs of the recipient by a Registered Dietitian Nutritionist (RDN), and are designed to improve health outcomes, lower cost of care and increase patient satisfaction."
- ² *Definitions of Food Security*, UNITED STATES DEPARTMENT OF AGRICULTURE ECONOMIC RESEARCH SERVICE, <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx> (last visited June 7, 2019).
- ³ See John T. Cook et al., *An Avoidable \$2.4 Billion Cost: The Estimated Health-Related Costs of Food Insecurity and Hunger in Massachusetts*, CHILDREN'S HEALTHWATCH & GREATER BOSTON FOODBANK, (Feb. 2018). Note that we have excluded special education costs in our calculation of \$1.9 billion based on our focus on the health care system.
- ⁴ Victoria L. Mayer et al., *Food insecurity, coping strategies and glucose control in low-income patients with diabetes*. PUBLIC HEALTH NUTRITION, (2016).
- ⁵ Margot B. Kushel et al., *Housing instability and food insecurity as barriers to health care among low-income Americans*, JOURNAL OF GENERAL INTERNAL MEDICINE, (2006).
- ⁶ Dena Herman et al., *Food insecurity and cost-related medication underuse among nonelderly adults in a nationally representative sample*. AMERICAN JOURNAL OF PUBLIC HEALTH, (2015).
- ⁷ Patience Afulani et al., *Food insecurity and health outcomes among older adults: The role of cost-related medication underuse*. JOURNAL OF NUTRITION IN GERONTOLOGY AND GERIATRICS, (2015).
- ⁸ Chadwick Knight et al., *Household food insecurity and medication "scrimping" among US adults with diabetes*. PREVENTATIVE MEDICINE, (2016).
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