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TEXAS IS UNIQUE



State in the U.S.



10% of U.S. births occurred in TX (2021-2024)



Every **80 seconds** a child is born somewhere in Texas



Hispanics account for **the largest share** of Texas' total population



35% of population speaks languages other than English at home



Texas has a greater population than 18 states **combined**



5 million Texas residents live in rural areas, more than any other state



7 out of 10 Texans live within the Texas Triangle



DISCLOSURES & ACCREDITATION

This webinar awards **1.5 Entry-Level CHES/MCHES® credit.**

Requirements for Completion: Attend the session in its entirety

An evaluation form with instructions will be sent via email within one week following the webinar to registrants who signed up for credit.

The Michael & Susan Dell Center for Healthy Living is a Designated Provider of continuing education contact hours (CECH) for Certified Health Education Specialists (CHES®) and Master Certified Health Education Specialists (MCHES®) through The National Commission for Health Education Credentialing, Inc. (NCHEC®).



DISCLOSURES & ACCREDITATION

This webinar is pending **Commission on Dietetic Registration review and approval for 1.5 CPEU.**

Requirements for Completion: Attend the session in its entirety

Once approved, certificates will be sent via email to attendees who signed up for credit. Please note that takes 4-6 weeks for the CDR to review the applications.

The Academy of Nutrition and Dietetics (Academy) and Commission on Dietetic Registration (CDR) are not responsible for the provider's interpretation of the Academy/CDR Code of Ethics for the Nutrition and Dietetics Profession or its enforcement as it relates to the scenarios and content presented in this activity.

11th Annual Philip R. Nader Legacy of Health Lectureship

Title: Food is Medicine Interventions to Support Food & Nutrition Security: Where do we go from here?

Speakers: Deanna Hoelscher, PhD, Hilary Seligman, MD, and Shreela Sharma, PhD

Planning Committee Members:

Deanna Hoelscher, PhD, Rachel Linton, MPH, Shreela Sharma, PhD, and Karla Abela, PhD, RN, CCRN, CPN

Accreditation Statement:

McGovern Medical School at the University of Texas Health Science Center at Houston is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation:

McGovern Medical School at the University of Texas Health Science Center at Houston designates this live activity for a maximum of 1.50 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Commercial Support: This activity is not commercially supported.

Disclosure of Financial Relationships

Planners:

Deanna Hoelscher, PhD, Rachel Linton, MPH, Shreela Sharma, PhD, and Karla Abela, PhD, RN, CCRN, CPN have no financial relationship(s) with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients to disclose.

Speakers:

Deanna Hoelscher, PhD, Hilary Seligman, MD, and Shreela Sharma, PhD have no financial relationship(s) with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients to disclose.



NURSING CONTACT HOUR DISCLOSURES

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- Attest that you have attended 100% of the session
- Complete online evaluation form

This educational activity is provided by Cizik School of Nursing at UTHealth Houston in joint providership with Michael & Susan Dell Center for Healthy Living, UTHealth Houston School of Public Health in Austin.

Cizik School of Nursing at UTHealth Houston is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the ANCC by Cizik School of Nursing at UTHealth Houston and Michael & Susan Dell Center for Healthy Living, UTHealth Houston School of Public Health in Austin.

Cizik School of Nursing at UTHealth Houston is awarding up to 1.5 nursing continuing professional development contact hours for this activity.

Learning Outcome:

Upon completion of the activity, at least 80% of the learners will report enhanced knowledge of Food Is Medicine interventions, evidence supporting various approaches, and recognizing key opportunities and challenges related to implementation and scale within clinical and health system settings.

Disclosures:

Neither the Planning Committee members nor the presenters today have disclosed any relevant financial relationships related to the planning or implementation of this CNE activity. We have no COI to disclose to you.

Shreela and Vibhu Sharma Endowment for Excellence in Community Nutrition, Climate Health, and Sustainability Fellows



Melinda Rushing



Jennifer Aiyer



Brittni Naylor



Fangyu Li



Nivedhitha
Parthasarathy



Victoria Kwentua



Iheyinwa Odum-Nwabueze



Heather Jones



Che (Qi) Xue



Rebecca Gyawu



Zihan Yang



Tyson Murray



Katherine Joseph





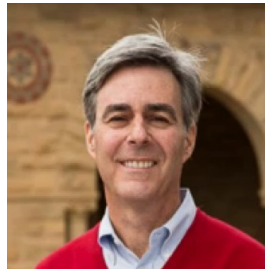
PHILIP R. NADER
Legacy of Health
LECTURESHP



Philip R. Nader, MD (1936 - 2017)

**Funding for this
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Past Nader Lectureship Speakers



Thomas Robinson, MD, PhD
(2016)



Elsie Taveras, MD, MPH
(2017)



Steven Abrams, MD
(2018)



Radek Bukowski, MD,
PhD (2018)



Julie Lumeng, MD
(2019)



Jennifer Orlet Fisher, PhD
(2020)



Rafael Pérez-Escamilla, PhD
(2021)



Angela Odoms-Young, PhD
(2022)



Cynthia Osborne, PhD,
MPP, MA (2023)



Kofi Essel, MD, MPH,
FAAP (2024)



Jaclyn Albin, MD, CCMS,
DipABLM (2026)

KEYNOTE PRESENTATION



Dr. Hilary Seligman, MD, MAS
Professor of Medicine and of
Epidemiology & Biostatistics
University of California San Francisco

October 29, 2026 | 11 AM CT



University of California
San Francisco

Food is Medicine Programs to Support Food & Nutrition Security: *Where do we go from here?*

Phillip R. Nader Lecture
October 29, 2026

Hilary Seligman, MD, MAS
Professor of Medicine and of
Epidemiology & Biostatistics
UCSF's Action Research Center for Health

Disclaimer

Comments today are my own and do not necessarily reflect the opinions of my funders, including NIH, CDC, USDA, or the American Heart Association.



How it started...

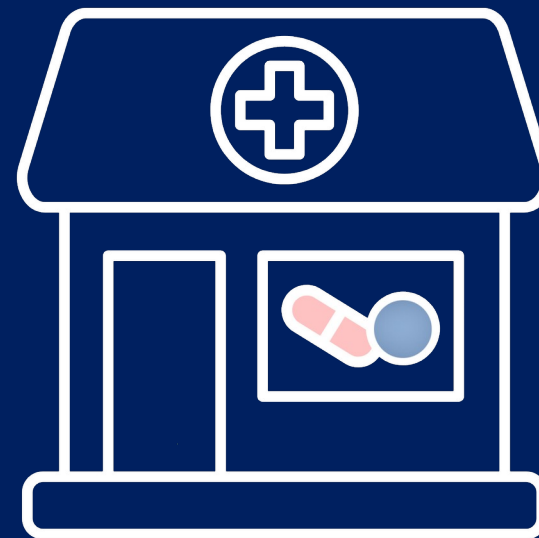




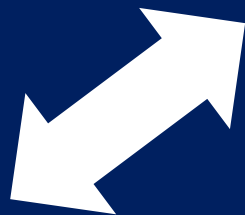
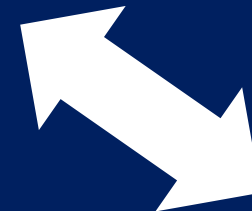
Insurer



Clinic

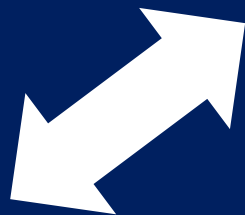


Pharmacy





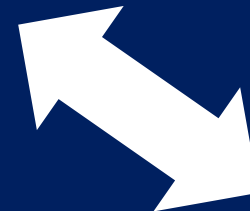
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Grocery



EatSF826932



VALID FOR: Any fresh or frozen fruits and vegetables.
No added sugar or salt.
VÁLIDO PARA: Cualquier frutas y vegetales frescas o congeladas sin azúcar o sal.
适用于任何新鲜或冷冻水果和蔬菜。不加糖或盐

\$5.00
MAXIMUM

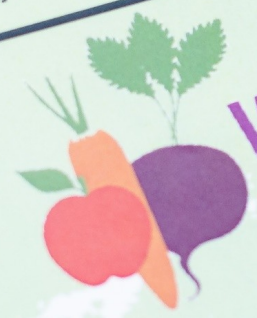
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NO CHANGE

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4/1/2020
4/30/2020

WWW

Vendor:



VOUCHERS
4 VEGGIES



Please return voucher to
the vendor for receipt.

...micro-printing & thermometric ink. Padlock icon will change color from red to light red to color



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Today's Content

- What is *Food is Medicine*?
- The Evidence for *Food is Medicine*
- Implementation: Health Care Perspectives
- Policy: Where do we currently stand?



What is
Food is Medicine?

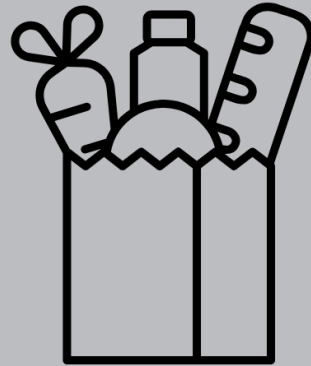


- Integration of specific food and nutrition programs in, or in close collaboration with, the health care system
- Target population
 - People with or at high risk for certain health conditions (often diet-related)
 - People with or at high risk of food insecurity

Most Common *FIM* Models



Medically
Tailored
Meals



Medically
Tailored
Groceries



Produce
Prescription
s

THE EVIDENCE

Observational & Mixed Methods Studies

Growing body of evidence of strong feasibility, high participant satisfaction, and positive impacts on diet quality, FV intake, and some clinical outcomes.

- Produce prescriptions
 - Improvements in FV intake by ~0.5 – 1 serving/day, especially when engagement is sustained
- Medically tailored groceries
 - Improvements in food security and clinical outcomes, especially when integrated with clinical care
- Medically tailored meals
 - Improvements in dietary intake and reduced health care utilization among high-risk populations





Circulation

AHA SCIENTIFIC STATEMENT

A Systematic Review of “Food Is Medicine” Randomized Controlled Trials for Noncommunicable Disease in the United States: A Scientific Statement From the American Heart Association

Hilary K. Seligman, MD, MAS, Chair; Sonia Y. Angell, MD, MPH; Seth A. Berkowitz, MD, MPH; Mitchell S.V. Elkind, MD, MS, FAHA; Kurt Hager, PhD; Nathalie Moise, MD, MS, FAHA; Hannah Posner, AB; Jen Muse, MS, RD; Angela Odoms-Young, PhD; Ronit Ridberg, PhD, MS; Andrea B. Troxel, ScD; Amy L. Yaroch, PhD; Kevin G. Volpp, MD, PhD, Vice Chair

- As of Aug. 2024, 14 RCTs of FIM
- Mostly early-stage, smaller studies or pilot studies

Table 2. Summary of RCTs by Type of FIM Intervention and National Institutes of Health Stage Model for Behavioral Intervention Development

Stage	MTM, n	MTG, n	PRx, n	Total, n
1	2	1	2	5
2	0	3	1	4
3	4	1	0	5
4	0	0	0	0
5	0	0	0	0

- Highly variable in populations, specifics of intervention studied, and outcomes
- Generally consistent with observational literature
 - Positive impacts on diet quality and food security
 - Still need more data on clinical outcomes

Key Take-Away: 2025

We do not yet have a robust RCT evidence base for FIM.

Rapid expansion of FIM Evidence

Figure 1. The cumulative number of FIM publications grew steadily between July 2024 and June 2026

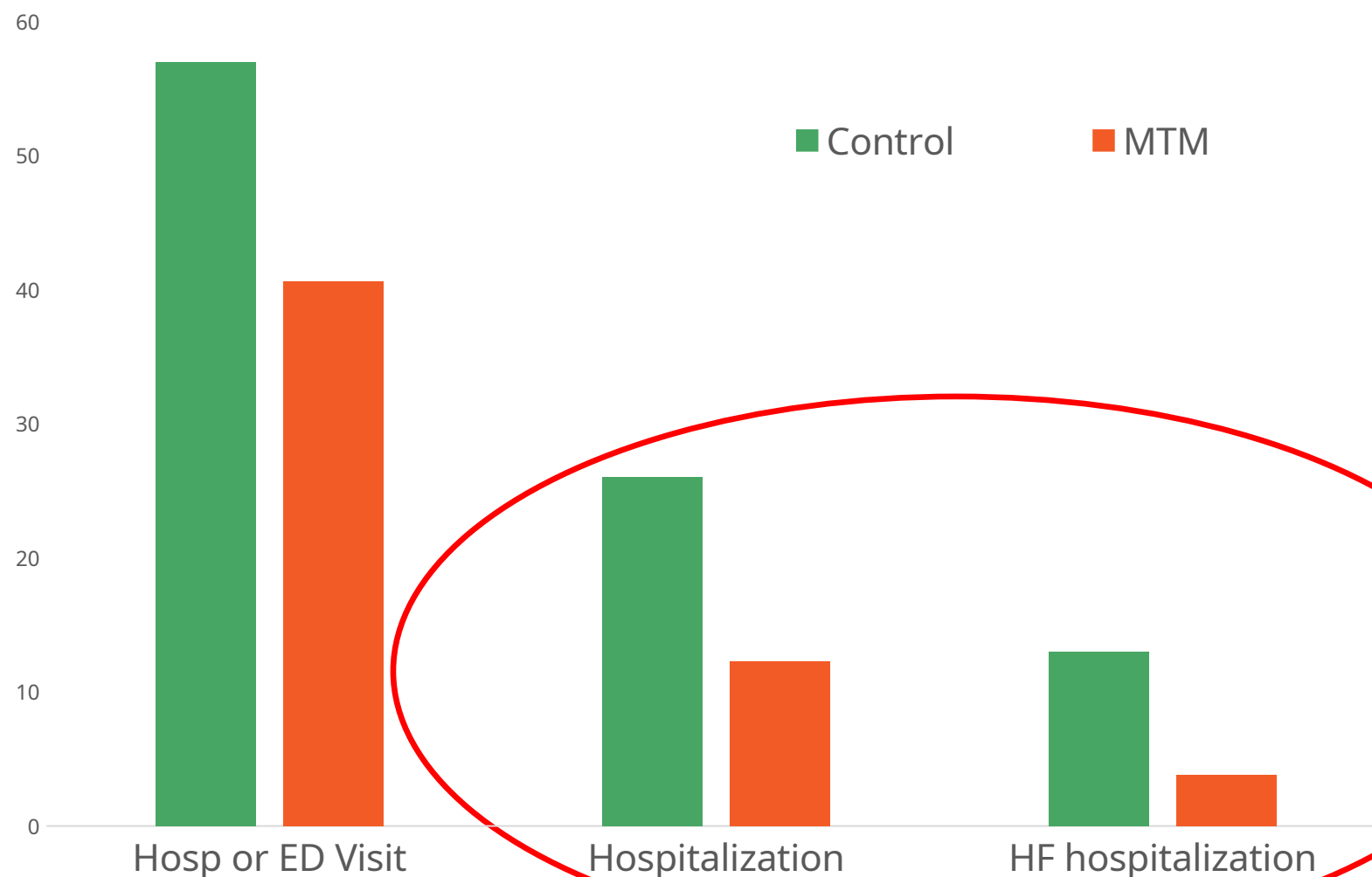


In 2025-26, 8 RCTs and 10 quasi-experimental studies were added to the literature!

High-Level Evidence Across Program Types

- Implementation is highly feasible
- Patient satisfaction is often very high
- Consistent improvements in food security and diet quality
- Improvements in clinical outcomes are variable. Evidence from highest-quality studies:
 - MTMs can reduce heart-failure re-admissions
 - Multiple program types can improve DM (HbA1c) and HTN (SBP & DBP) outcomes; but other studies show no improvements
 - Evidence base is promising, but less mature and often variable, for other clinical populations: high-risk pregnancy, cancer, etc.

50% reduction in heart failure hospitalizations with MTM's



Eberly LA, et al. An Indigenous Food Is Medicine Intervention: The MUTTON-HF Randomized Clinical Trial. JAMA Intern Med. 2026 Sep 1;186(9):1077-1087.

Indian Health Service is considering coverage of this program as a standard benefit

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High Quality Study

Benefit Design

as a standard benefit

Key Challenges in Building the Evidence

- For most clinical populations, observing outcomes of interest requires a long observation period and/or very large samples
- Measurement of dietary intake is challenging
- Lack of standardization:
 - The FOOD is the core part of most FIM programs, but food is usually provided with multiple other, non-standardized program components (nutrition education, referrals for social needs, etc)
 - FIM interventions are not successful when isolated from culture, taste preferences, household dynamics, etc.



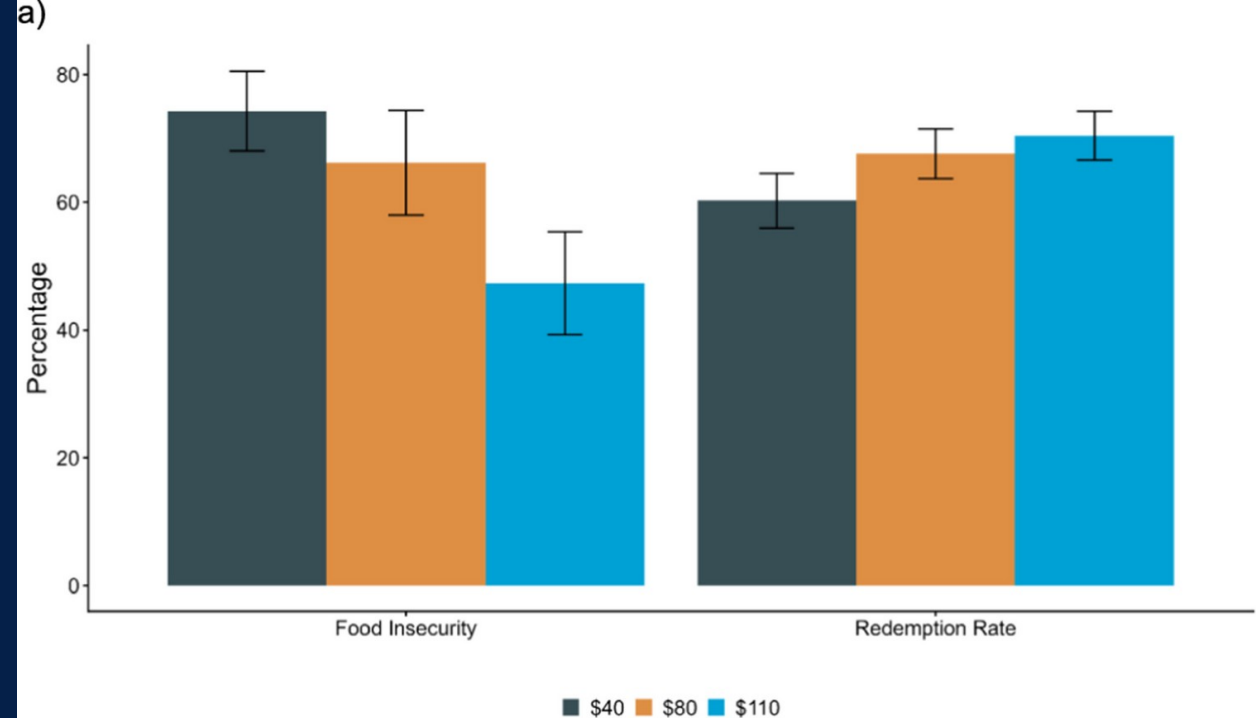
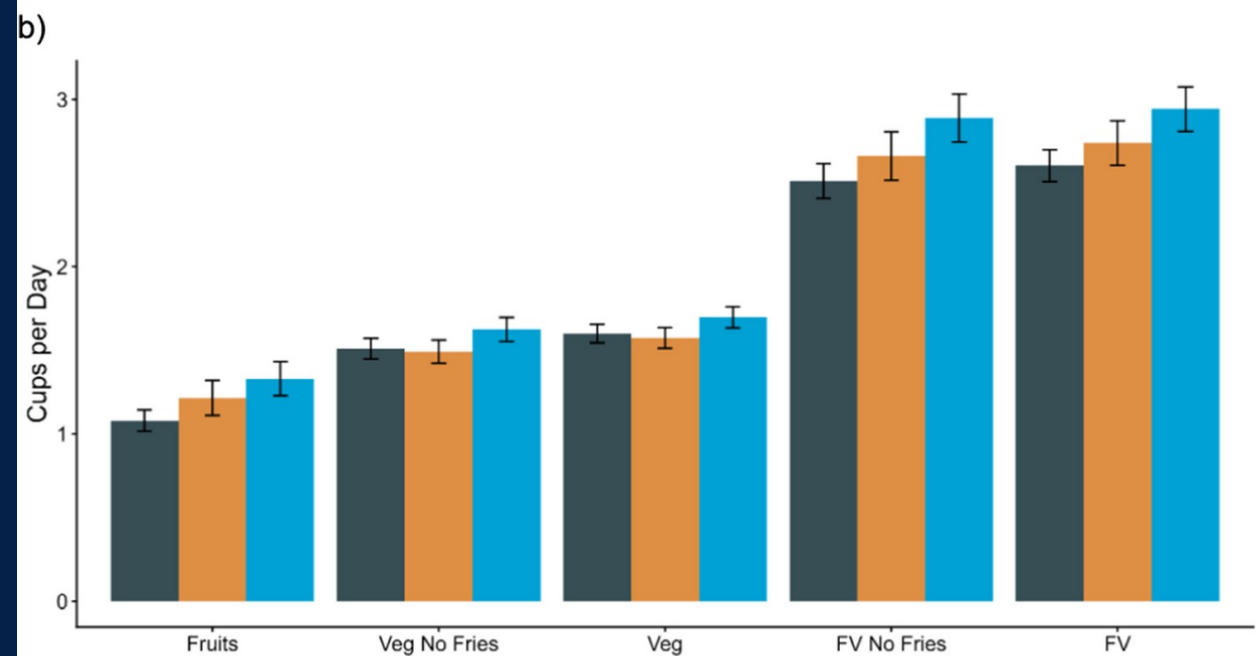
Implementation Science: Many Unanswered Questions

- How do we reach the right patient, with the right FIM program, at the right dose and duration, and at the right time in their life to...
 - Be of most **value** to the patient?
 - Create the most **impact** on a patient's health?
 - To be **feasible** for the organization providing the food?
 - Be the most **cost-effective** for society?

Dose is a Key Design Element

Kane, R.M., Perez-Velazco, X., Levi, R. *et al.* Produce Prescription Dose Response: A Randomized Community Trial. *J GEN INTERN MED* (2026). <https://doi.org/10.1007/s11606-026-10773-0>

Funding: American Heart Association, Healthcare X Food



“Dose” is a Key Part of the Participant Experience



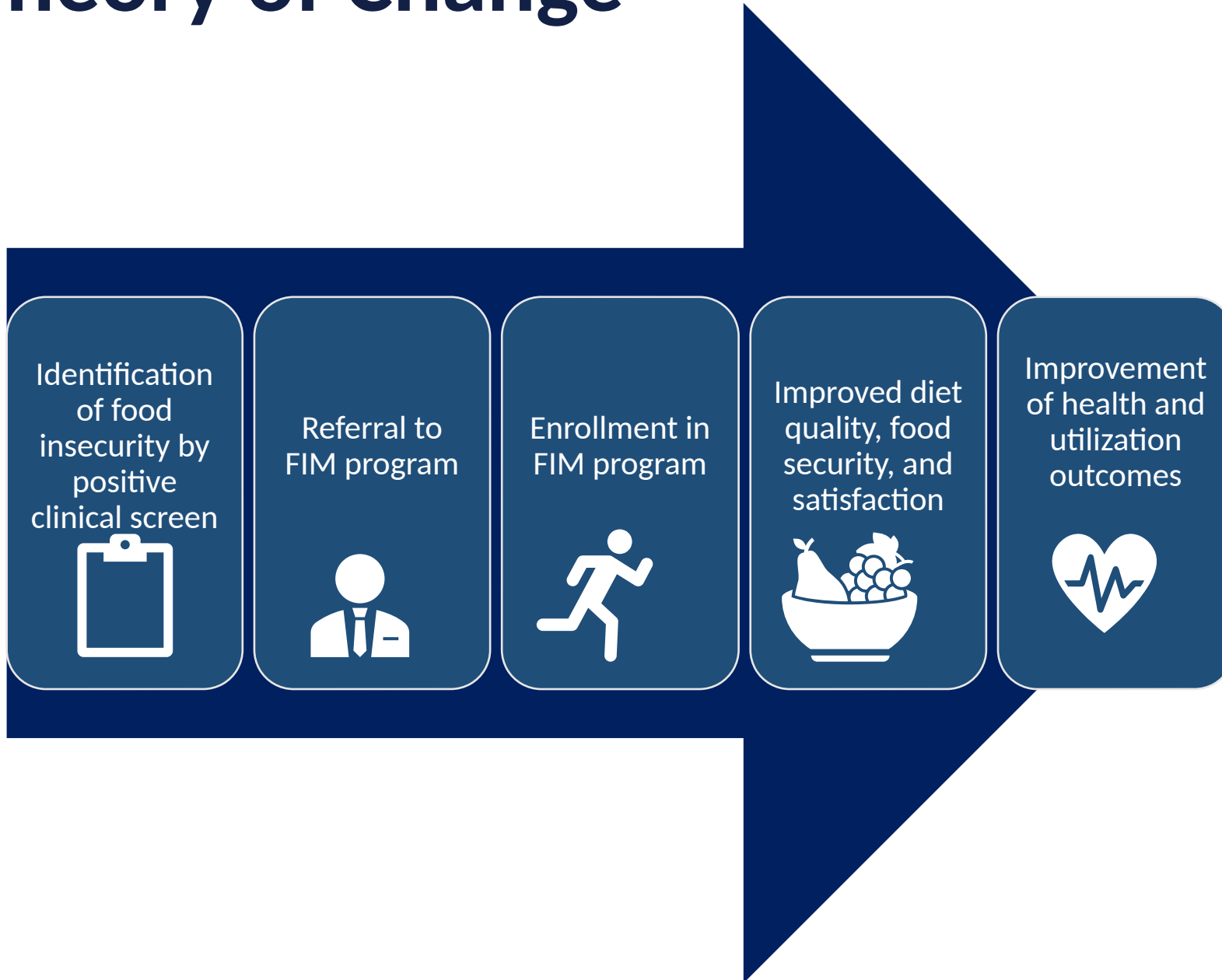
Ximena Perez-Velazco, Ryan Kane, Seth Berkowitz,...Hilary Seligman. *Under review.*

**IMPLEMENTATION:
Healthcare Partner
Perspectives**

FIM is being accelerated by...

- Internal champions who recognize value of these programs
- Insurance flexibilities that allow for reimbursement
- Recent pushes to screen for social needs (including food insecurity) in the clinical setting_

Theory of Change



We are building a new system, and building a new system is hard.





LOCAL ORGANIZATIONS

- Embedded in communities
 - Cultural competency
 - Personalized service
- Decades of experience
 - Non-profit mission

NATIONAL COMPANIES

- Shovel-ready
- Enormous scale
- Access to rural areas
- Efficiency
- Capacity to bill healthcare for services



FOCUS ON PEOPLE WITH HIGH DISEASE BURDEN

- Momentum
- Can “prove ROI” in a short-time frame
- Aligns with an annual HC budget

FOCUS ON PREVENTION

- Many more people are eligible
- May prevent onset of disease completely
- Population as well as individual impacts
 - ROI is greater in the end



HIGH DOSE – LOW REACH

- Smaller number of people benefit
 - More likely to have a demonstrable impact on health outcomes
- Habit formation allows for maintenance of effect

LOW DOSE – HIGH REACH

- Reach more people & leave out fewer people
 - Households, rather than individuals (multi-generational impacts)
- Population level impact likely even with a small effect size



CHOICE

- Dignity
- Support of local retail
- May be higher value for the individual participant

PRE-SELECTED FOOD ITEMS

- Efficient
- Local sourcing
- Exposure to new foods



**TARGET POPULATION:
FOOD INSECURITY**

- Roots of FIM movement
- Focuses resources on a less advantaged group
- Pushes healthcare to develop systems to address social drivers

**TARGET POPULATION:
CHRONIC DISEASE**

- May be more feasible
- Does not require screening for food insecurity
- Allows wider access to healthy food benefits

Tensions in implementation

- Local vs national food provider
- Focus on treatment or prevention
- Choice vs pre-selection of food
- Target programs toward people with chronic disease or food insecurity
- How to use a limited amount of funding
 - *High “dose” to a few people, or a low “dose” to many people*
- Demonstrating an ROI in the one-year time frame of a HC budget

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Clinical

**Public
Health**

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Clinical

**Public
Health**



POLICY

50% reduction in heart failure hospitalizations with MTM's

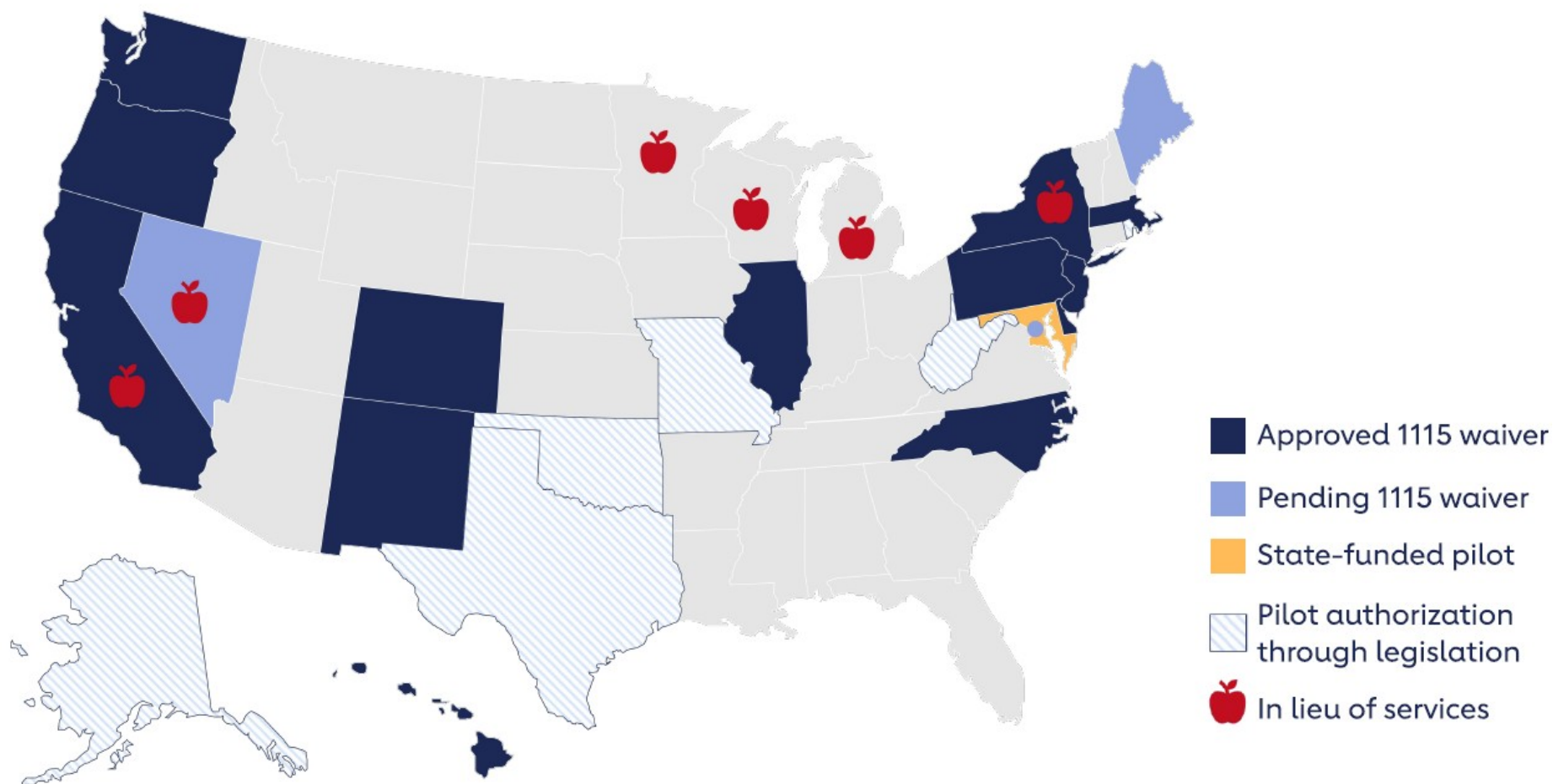


Eberly LA, et al. An Indigenous Food Is Medicine Intervention: The MUTTON-HF Randomized Clinical Trial. *Journal of the American Heart Association*. 2020

Benefit Design

as a standard benefit

Figure 3. Landscape of State Innovation



Only states with services that align with the Heart Association's FIM definition have been highlighted.

"Pilot authorization through legislation" refers to states that have enacted legislation enabling pursuit of a FIM pilot, generally through an approved Medicaid mechanism. Enactment alone does not indicate that a pilot is operational; rather, it reflects state authorization and intent to advance future implementation.



Key federal takeaways:

- Congress continues to increase funding for FIM, a rare occurrence in the current fiscal and political environment, thanks to the field's collective advocacy in maintaining congressional bipartisan support and unified set of funding priorities.
- FY 2026 investments represent a \$24 million increase in dedicated federal funding for FIM and nutrition research programs since FY 2024.
- Congressional members continue to introduce and support numerous bills on FIM in a bipartisan manner.
- CMS continues to express interest and support for FIM innovation.

Federal FIM funding opportunities have been shifting

- **Medicaid 1115 waivers have been an important funding mechanism**
 - Anticipated Medicaid cuts are likely to slow or reverse current momentum
- **Medicare Advantage and private insurers have been key drivers of FIM innovation**
 - Value-Based Insurance Design (VBID), which enabled Medicare Advantage plans to offer FIM as a supplemental benefit, ended in 2025



RURAL HEALTH
TRANSFORMATION

HRSA Awards Nearly \$13 Million to Expand Access to Healthy Foods for Pregnant and Postpartum Women

MAHA ELEVATE

INDIAN HEALTH SERVICE AWARDS \$3.5 MILLION FOR TRIBAL FOOD AND NUTRITION INITIATIVES

Gus Schumacher Nutrition Incentive Program
(GusNIP)

Where do we go from here?

- Continue implementing core FIM elements – they are well supported by the current evidence
 - Adapt thoughtfully to local context and to individual patients
- Evaluate implementation and share findings
- Rigorous studies of clinical outcomes and utilization outcomes are necessary, but do these in partnership

Conclusions

- It has already been proven that a healthy diet results in better outcomes
- FIM interventions have been definitively proven to increase
 - Food security
 - Healthy diet
- But more research is necessary to evaluate the capacity of FIM to improve many clinical outcomes
- Tremendous momentum toward implementing & evaluating FIM programs across the US
- More research is necessary to understand how best to **deliver, scale, and fund** FIM programs
- Scaling FIM requires navigating important tradeoffs



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AUDIENCE Q&A

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