American Heart Association.

Health Care Food™

Accelerating the Integration of **Food Is Medicine in Health Care**

ADVANCES IN THE FOOD IS MEDICINE FIELD

Supplemental Materials 2026





Presented by Health Care by Food™,
a food is medicine initiative of the American Heart Association

Abbreviations

AI – Artificial Intelligence
AST – Aspartate Aminotransferase
BMI – Body Mass Index
BP – Blood Pressure
CBO – Community-Based Organization
CFIR – Consolidated Framework for Implementation Research
CHW – Community Health Worker
CI – Confidence Interval
CRHF – Carbohydrate-Restricted, High-Fat
CVD – Cardiovascular Disease
DASH – Dietary Approaches to Stop Hypertension
DBP – Diastolic Blood Pressure
DHO – Diabetes Hands On
DSME – Diabetes Self-Management Education
ED – Emergency Department
EPIS – Exploration, Preparation, Implementation, Sustainment
ER – Emergency Room
FIM – Food Is Medicine
F&V – Fruit and Vegetable
GAD – Generalized Anxiety Disorder
HbA1c – Hemoglobin A1c
HCXF – Health Care by Food
KCCQ – Kansas City Cardiomyopathy Questionnaire
HEFI – Healthy Eating Food Index
HEI – Healthy Eating Index
HF – Heart Failure
LDL Cholesterol - Low-Density Lipoprotein Cholesterol
LWBC – Living With and Beyond Cancer
MI - Myocardial Infarction
MTG – Medically Tailored Groceries
MTM – Medically Tailored Meal
NS – No Significance
PA – Physical Activity
PHQ-9 – Patient Health Questionnaire 9-Item
PRx – Produce Prescription
QALYs – Quality-Adjusted Life Years
RCT – Randomized Controlled Trial
RD – Registered Dietitian
RDMI – Registered Dietitian-Mediated Motivational Interviewing
RI – Reciprocal Interactions
SBP/SPP – Systolic Blood Pressure
SD – Standard Diet
SNAP – Supplemental Nutrition Assistance Program
TIR – Time in Range
T2DM – Type 2 Diabetes Mellitus
VHA – Veterans Health Administration

Table 1: Summary of Studies using Medically Tailored Meals

Publication	Population	Sample Size	Intervention
Owens 2025	Vulnerable adults with newly diagnosed stage I–IV lung cancer enrolled in the NutriCare intervention arm, including individuals who were economically disadvantaged, from racial/ethnic minority groups, uninsured, over age 65, and/or from rural areas	N=21	MTMs delivered for 24 weeks plus weekly remote nutrition counseling informed by motivational interview 3 meals/day + snacks for 8 weeks; then every other week for 8 weeks; then every 4 weeks for 8 weeks. Nutrition counseling weekly for 6 months, biweekly during last 2 months of Phase

Study Design
Qualitative

Comparison
N/A

Length of Follow-up
6 mo

Outcomes

N/A

Conclusion

Most participants were satisfied with the intervention, especially nutrition counseling. Convenience of home-delivered MTMs was valued, though taste, freshness, and variety were commonly noted concerns. Participants desired more choice and flexibility in meals. Dietitian interactions were viewed as highly beneficial, providing nutrition expertise, emotional support, and motivation for behavior change

Publication	Population	Sample Size	Intervention
Hollis-Hansen 2025	Adults receiving infusion treatment at an outpatient infusion clinic in Dallas, Texas, screened positive for food insecurity	N=39	Pantry + 12 MTM per month

Study Design
RCT-Pilot

Comparison
Pantry referral only (control) and Pantry + $75/mo payment

Length of Follow-up
3 mo

Outcomes

Completion: 87%
Adherence to pantry appointment: 54%
MTM Adherence: "Moderate"

Conclusion

MTM adherence was moderate, with most participants eating some meals but often modifying or sharing them. Statistically significant improvement occurred in perceived diet quality over time across all groups. Food security improved slightly in pantry-only and MTM groups but decreased slightly in the payment group; no differences between groups. Trends suggested greater improvements in diet quality, food security, and fruit/vegetable intake in the MTM group, though not statistically significant. Well-being increased slightly but without statistical significance.

Table 1: Summary of Studies using Medically Tailored Meals

Publication	Population	Sample Size	Intervention
Palakshappa 2025	Adults with uncontrolled hypertension (>130/80) who reported food insecurity and lived in Forsyth County, NC	N=60	Stage 1: CHW support (weekly contact for 4 weeks then as needed) for 3 months Stage 2: MTM for non-responders from stage 1 (10 DASH-aligned meals/week for 3 months)

Study Design
RCT-Pilot

Comparison
Stage 1: Community resource information (tailored to zip code) for 3 months
Stage 2: CHW support (weekly contact for 4 weeks then as needed) for 3 months

Length of Follow-up
3mo and 6mo

Outcomes

CHW-->CHW: 46.7% >10 mm Hg reduction in SBP
CHW-->MTM: 66.7% >10 mm Hg reduction in SBP

Conclusion

98.3% of eligible patients enrolled; 82.1% completed 3-month follow-up and were eligible for re-randomization; 71.4% completed 6-month follow-up. Adaptive interventions showed varying BP improvement. Food insecurity and perceived stress improved in both groups at 3 months

Publication	Population	Sample Size	Intervention
Taha 2026	Newly diagnosed adult patients with non-metastatic head and neck cancer undergoing radiotherapy	N=13	Home-delivered MTM with CRHF diet (~30% carbohydrate, 45% fat, 25% protein); 3 meals daily; isocaloric; delivered for 2 weeks pre-radiotherapy and ~7–9 weeks during radiotherapy

Study Design
RCT-Pilot

Comparison
Standard diet (SD) MTM (~50–52% carbohydrate, ~30% fat, 18–20% protein); 3 meals daily; isocaloric; delivered for 2 weeks pre-radiotherapy and ~7–9 weeks during radiotherapy

Length of Follow-up
2 mo post-RT

Outcomes

Descriptive weight change overall T0–T2: −6.01% (CRHF) vs +0.07% (SD)

Conclusion

Recruitment rate was 65% and retention 69%. Adherence was high (92% CRHF vs 96% SD) with high satisfaction. No diet-related adverse events were reported. Both groups experienced less weight loss than typical in this population, with higher adherence associated with less weight loss. The CRHF group showed descriptive trends toward greater fat loss and potential muscle preservation.

Table 1: Summary of Studies using Medically Tailored Meals

Publication	Population	Sample Size	Intervention
Eberly 2026	Adult American Indian patients with heart failure receiving care at two Indian Health Service sites in rural Navajo Nation	N=20	14 culturally aligned MTM (optimized nutrition in heart failure) per week (2 meals daily) for 4 weeks

Study Design
Prospective Cohort-Pilot

Comparison
No control group

Length of Follow-up
30 days

Outcomes

Meal box receipt: 72/80 (90%). Acceptability of Intervention Measure mean 16.9 (SD 3.1). Food secure patients increased from 40% to 85% ($p = 0.02$). KCCQ physical limitation increased from mean 59.6 to 82.7 ($p < 0.001$). KCCQ social limitation increased from mean 74.6 to 83.8 ($p = 0.045$). Cultural Connectedness Traditions subscore increased from 7.2 to 7.9 ($p = 0.04$). Weight change among patients with obesity −2.3 kg (SD 3.3; $p = 0.03$)

Conclusion

The MUTTON-HF program was feasible and acceptable. 90% of weekly meal boxes were successfully received by patients, and acceptability scores were high. Significant pre- to post-intervention improvements were observed in food security, KCCQ physical and social limitation scores, cultural connectedness (Traditions subscale), and weight among patients with obesity.

Publication	Population	Sample Size	Intervention
Folta 2026	Adult patients with food insecurity and at least one qualifying chronic medical condition participating in a medically tailored meals program provided by Community Servings in Massachusetts	N=28	Participation in a 6-month MTM program with home-delivered, nutritionally tailored meals designed by RDNs (approximately 1,340 kcal per day)

Study Design
Qualitative

Comparison
Program non-completers

Length of Follow-up
Within 3 mo post-intervention/ withdrawal

Outcomes

N/A

Conclusion

Both completers and non-completers enrolled to alleviate symptoms and improve functioning. Completers were motivated primarily by reduced financial, time, and physical burdens of meal preparation, while non-completers were more focused on diet quality and weight loss. Both groups initially perceived meals as bland and portions as small, but completers adapted over time. Non-completers more often discontinued due to taste preferences or because their health or circumstances improved. Both groups described the program as educational and supportive of sustained dietary changes.

Table 1: Summary of Studies using Medically Tailored Meals

Publication	Population	Sample Size	Intervention
Atluri 2026 **Study Design** RCT **Comparison** MI counseling alone vs MI counseling plus WHEELS mobile app **Length of Follow-up** 6 & 12 mo	U.S. veterans with hypertension and obesity	N=61	Remote intervention consisting of 2 weeks of home-delivered DASH-SRD meals followed by telephone-based dietitian-led MI counseling (with or without WHEELS mobile application); 14 days of DASH-SRD meals; then 5 MI counseling sessions over ~4 months; optional WHEELS mobile app for 8 weeks

Outcomes

DASH adherence increased from 1.8 ± 1.6 to 2.3 ± 1.4 (P=0.02); SBP decreased from 133 ± 17 to 128 ± 15 mmHg (P=0.048); DBP decreased from 73 ± 11 to 69 ± 12 mmHg (P=0.03); urinary sodium:potassium ratio decreased from 2.6 ± 1.1 to 1.5 ± 0.8 (P<0.001).

Conclusion

DASH adherence improved significantly over 6 months; systolic and diastolic blood pressure decreased; urinary sodium:potassium ratio decreased. The addition of the mobile application did not provide additional benefit over counseling alone. Intervention showed sustained improvement in diet adherence and BP reduction.

Publication	Population	Sample Size	Intervention
Berkowitz 2026 **Study Design** RCT **Comparison** Feed individual vs feed the family; dedicated driver vs commercial shipper **Length of Follow-up** 12 weeks	Adults (≥18 years) with control over dietary intake in New England	N=93	MTM delivered weekly (10 meals/week) for 12 weeks with two intervention dimensions: dose (feed the individual vs feed the family) and delivery (dedicated driver vs commercial shipper); 10 MTM per week for 12 weeks; family arm provided meals for all household members

Outcomes

HEI score difference (feed individual vs family):
1.1 (95% CI −22.6 to 24.9; p=0.92)

loneliness difference (dedicated driver vs commercial shipper):
0.35 (95% CI −1.52 to 2.23; p=0.71.

Conclusion

No significant differences in diet quality between feeding the individual vs the family, and no significant differences in loneliness between delivery methods. Food insecurity decreased across groups, and intervention acceptability was high.

Table 1: Summary of Studies using Medically Tailored Meals

Publication	Population	Sample Size	Intervention
Kim 2026 **Study Design** Prospective Cohort **Comparison** N/A **Length of Follow-up** 12 weeks	Adults with type 2 diabetes (≤6 years since diagnosis) and obesity (BMI ≥25 kg/m^2), not using insulin	N=24	Caloric restriction dietary intervention with initial home-delivered meals followed by self-managed diet; 6 weeks of home-delivered meals (800–1,200 kcal/day) followed by 6 weeks of self-managed diet (1,500–1,800 kcal/day for men; 1,200–1,500 kcal/day for women); antidiabetic medications discontinued

Outcomes

TIR increased from 84.3% to 90.3% (P=0.041)
BMI decreased from 29.3 to 26.7 kg/m^2 (P<0.001)
Matsuda index increased from 4.98 to 8.18 (P=0.004)
TAR decreased significantly (P=0.007)

Conclusion

Caloric restriction significantly improved glycemic control, with increased TIR and reduced BMI. Improvements in TIR were primarily driven by enhanced insulin sensitivity associated with weight loss. Insulin secretion capacity was strongly associated with TIR, particularly among participants with higher insulin sensitivity

Publication	Population	Sample Size	Intervention
Hager 2026 **Study Design** Retrospective Cohort **Comparison** Eligible Medicaid members with food insecurity who did not receive MTMs **Length of Follow-up** 6 mo prior to program start through duration of programs	Adult Medicaid (MassHealth) accountable care organization members with diet-related conditions and food insecurity	N=3238	Receipt of MTMs through a Medicaid Section 1115 demonstration program; Mean duration 6.7 months; 10 meals per week (5 lunches, 5 dinners) plus snacks, home delivered weekly

Outcomes

Hospitalizations: aIRR 0.69 (95% CI 0.58–0.82); ED visits: aIRR 0.80 (95% CI 0.72–0.89); Total healthcare costs: −$3,433 (95% CI −$5,651 to −$1,215).

Conclusion

MTM receipt was associated with reduced healthcare utilization and costs compared with eligible non-recipients. Participants had fewer hospitalizations and ED visits and lower total healthcare costs, with cost reductions offsetting most program costs. Effects were consistent across analyses and were greater among participants with high comorbidity and chronic conditions such as cardiovascular disease, diabetes, and chronic kidney disease.

Table 2: Summary of Studies using Medically Tailored Groceries

Publication	Population	Sample Size	Intervention
Radtke 2025	Adults (>18 years) with type 2 diabetes and food insecurity receiving care at Castle Family Health Center in Merced County, California	N=165	Clinic-community FIM program providing weekly food vouchers redeemable at Merced County Food Bank (Weekly food vouchers; food boxes ~30lbs/week); optional health education sessions

Study Design
Prospective Cohort

Comparison
N/A

Length of Follow-up
Median 251 days (IQR 193.5–288.5)

Outcomes

HbA1c: -0.34% (95% CI -0.59 to -0.09), p=0.008
Clinically meaningful HbA1c reduction ≥0.5%: 38% (95% CI 31%-46%), p=0.002
BMI: -0.19 (95% CI -0.41 to 0.04), p=0.10
SBP: -1.16 mmHg (95% CI -3.90 to 1.57), p=0.40
DBP: 0.52 mmHg (95% CI -1.01 to 2.04), p=0.51

Conclusion

Significant improvement in HbA1c after adjusting for number of pickups and days enrolled; 38% achieved ≥0.5% clinically meaningful HbA1c reduction. No significant improvements in BMI or blood pressure.

Publication	Population	Sample Size	Intervention
Buadu 2025	Primary care patients aged ≥19 years with diabetes or prediabetes experiencing food insecurity or financial difficult	N=40	Monthly supermarket grocery voucher ($65 per month; $85 for households ≥6 people) for 6 months, intended for fruit and vegetable purchase

Study Design
RCT

Comparison
Usual Care (no voucher)

Length of Follow-up
6 mo

Outcomes

Whole fruit intake: 0.8 servings/day (95% CI 0.1 to 1.6), p=0.04
Refined grains: -1.0 servings/day (95% CI -1.9 to -0.1), p=0.04
NS changes in Total F&V, Whole grains, HEFI-2019 total score, HbA1c, Serum beta-carotene, Serum ascorbic acid

Conclusion

Voucher recipients consumed more whole fruit and fewer refined grains than controls. Overall dietary intake and most food group servings showed no substantial differences. HEFI-2019 scores were slightly higher in the intervention group but confidence intervals included no effect. HbA1c slightly decreased in the intervention group and slightly increased in controls, with no statistically significant between-group difference. Biomarkers showed no substantial differences.

Table 2: Summary of Studies using Medically Tailored Groceries

Publication	Population	Sample Size	Intervention
Gillespie 2025	Pregnant women between 20–28 weeks' gestation with food insecurity and a diagnosis of gestational diabetes, type 2 diabetes, or hypertension, receiving prenatal care at a large hospital system in Kentucky	N=14	12-week online grocery prescription program including $200/month in funds for healthy food purchases plus weekly text-message nudge

Study Design
Prospective Cohort-Pilot

Comparison
N/A

Length of Follow-up
12 weeks

Outcomes

- F&V spending: +4 percentage points
- Meat spending:-10 percentage points
- Blood glucose changed from 97 to 94 mg/dL
- BP changed from 121/80 to 118/79 mmHg
- HbA1c changed from 6.2% to 6.4%

Conclusion

39% of eligible patients were referred, 85% of referred patients were enrolled, and 82% (n=14) women completed the 12-week program with a 96.1% redemption rate of grocery benefits. Participants reported overall satisfaction but noted confusion with online fund redemption and desire for more food variety. Blood glucose and blood pressure showed slight improvements, with no clinically meaningful change in HgbA1c

Publication	Population	Sample Size	Intervention
Li 2025	Hospital inpatients residing in St. Louis City or North St. Louis County who screened positive for food insecurity or financial constraint and were being discharged home	N=90	HealthyLink: a co-designed FIM discharge program providing a one-time 3-day supply of heart-healthy, fresh/frozen/shelf-stable foods delivered to patients' homes immediately post-hospital discharge

Study Design
Prospective Cohort

Comparison
N/A

Length of Follow-up
3 days post-delivery

Outcomes

- Physical health (fair/poor): -27.1% (95% CI -44.0% to -10.3%), p=0.01
- Mental/emotional health (fair/poor): -22.0% (95% CI -37.0% to -7.1%), p=0.01
- Able to carry out everyday activities: NS
- Did not fill prescription/skipped dose: difference: NS
- Delayed prescription fill/reduced dose: NS
- Satisfaction ratings ranged 86.4%-98.3%.
- Average food cost per delivery: $108
- Average service/delivery/tip cost: $17

Conclusion

The HealthyLink pilot successfully integrated a FIM intervention into hospital discharge workflows through a partnership among Washington University, BJC HealthCare, and Schnucks. Participants reported that the program helped them eat healthier foods, gain nutrition knowledge, and follow discharge instructions. Significant improvements were observed in self-reported physical and mental health, while no significant changes occurred in cost-related medication underuse or ability to perform daily activities. The study demonstrated feasibility of a co-designed, delivery-based FIM model for hospitalized patients.

Table 2: Summary of Studies using Medically Tailored Groceries

Publication
Berkowitz 2025

Population
Adults with hypertension (SBP ≥130 mmHg), English or Spanish speaking, and reporting food insecurity across 2 clinical networks in North Carolina

Sample Size
N=458

Intervention
Food subsidy: $40/month redeemable for approved healthy foods; Food box: biweekly home delivery valued at ~$115/month including produce, healthy fats, and alternating prepared meal/eggs; Lifestyle counseling: monthly phone-based sessions using Med-South curriculum

Study Design
RCT

Comparison
Factorial assignment to: (1) healthy food subsidy via electronic card or biweekly home-delivered healthy food box; (2) telephone-based lifestyle counseling vs no counseling; (3) 6-month vs 12-month duration

Length of Follow-up
Up to 18 mo

Outcomes

6 months (mean difference food subsidy - food box):
- SBP: -2.5 mmHg (95% CI -4.1 to -0.9), p=0.003
- DBP: -1.6 mmHg (95% CI -2.5 to -0.6), NS
- Lifestyle counseling effect on SBP: 1.2 mmHg (95% CI -0.5 to 2.8), NS
- Duration effect on SBP: -1.6 mmHg (95% CI -3.2 to 0.1), NS

18 months:
- SBP: -2.2 mmHg (95% CI -4.3 to -0.1), NS
- DBP: -1.5 mmHg (95% CI -2.7 to -0.3), NS

Conclusion

Food subsidy modestly lowered SBP and DBP compared with food box at 6 months and 18 months. Lifestyle counseling and longer duration (12 months) did not significantly improve blood pressure relative to comparators. Food insecurity decreased across all groups without significant between-group differences.

Publication
Garcia 2025

Population
Under-resourced adults with food insecurity who were undergoing or had undergone metabolic and bariatric surgery at a tertiary care teaching hospital in Hartford, Connecticut

Sample Size
N=33

Intervention
Hospital-based food prescription program (Food4Health Clinic) with clinic visits prescribed for 6 or 12 months

Study Design
Qualitative

Comparison
N/A

Length of Follow-up
6 mo post-prescription

Outcomes

Clinic visits: 90.9% at least 1 visit; 83% returned
Attendance: median 5.5/26 visits

Conclusion

Major strengths included staff helpfulness, food quality, language concordance, and location convenience. Major barriers included health issues, transportation and parking difficulties, limited hours of operation, inadequate food supply, and inability to store or reheat food. Prescribing food alone did not ensure sustained utilization.

Table 2: Summary of Studies using Medically Tailored Groceries

Publication	Population	Sample Size	Intervention
Juraschek 2025	Black adults aged ≥18 years living in Boston-area urban communities with few grocery stores and untreated elevated blood pressure	N=180	Home-delivered, low-sodium DASH-patterned weekly grocery ordering plus weekly dietitian counseling calls - 12-week (3 mo) intervention; median grocery cost ~$240/household/week

Study Design
RCT

Comparison
Self-directed grocery shopping with unrestricted monetary stipends

Length of Follow-up
3 mo and 6 mo

Outcomes

- 3 mo SBP: −3.4 mmHg (95% CI, −5.9 to −0.8; p = .009).
- 3 mo DBP: −2.4 mmHg (95% CI, −4.2 to −0.5,).
- 3 mo LDL cholesterol: −8.0 mg/dL (95% CI, −13.7 to −2.3)
- 6 mo all variables NS

Conclusion

At 3 months, SBP decreased more in the DASH-patterned grocery group than in the self-directed group. The DASH group also had greater reductions in DBP, urinary sodium excretion, and LDL cholesterol. Effects were not maintained after the intervention ended.

Publication	Population	Sample Size	Intervention
Persaud 2025	Adults with prediabetes or diabetes experiencing food insecurity or financial insecurity in primary care settings in Toronto, Canada	n=390	Monthly grocery store voucher intended for purchase of healthy foods (primarily fruits and vegetables) - $65 per month ($85 for households with ≥6 individuals) for 6 months

Study Design
RCT

Comparison
Usual access to healthy foods with standard primary care and dietitian support

Length of Follow-up
6 months

Outcomes

Between-group difference:

- HbA1c change: −0.18% (95% CI, −0.41 to 0.05; p = .13). Food insecurity risk difference: −0.10 (95% CI, −0.18 to −0.02)
- Odds of good/very good general health: OR 1.6 (95% CI, 1.1–2.3)

Conclusion

The monthly food voucher did not significantly improve glycemic control as measured by HbA1c. The intervention increased self-reported fruit and vegetable consumption, reduced food insecurity, and improved self-rated general health, but did not improve objective biomarkers of diet quality or financial security.

Table 2: Summary of Studies using Medically Tailored Groceries

Publication	Population	Sample Size	Intervention
Short 2025	Food pantry clients with type 2 diabetes experiencing food insecurity in Northwest Arkansas	n=101	12 weekly home-delivered, medically tailored grocery boxes with diabetes self-management education and support (DSMES) handouts and videos

Study Design
Prospective Cohort

Comparison
N/A

Length of Follow-up
3 mo & up to 8 wk after final delivery

Outcomes

HbA1c: -0.56 percentage points (p = .01) at 3mo
No significant change in HEI-2015 score (p = .47)

Conclusion

Participation in a home-delivered MTG and DSMES intervention was associated with a statistically and clinically significant reduction in HbA1c, with no significant change in overall diet quality as measured by the Healthy Eating Index–2015

Publication	Population	Sample Size	Intervention
Axe 2025	Medicaid-insured or uninsured adults with diabetes, hypertension, and/or heart failure enrolled in a health system–based FIM program in New Castle County, Delaware	n=185	Weekly home-delivered DASH-aligned groceries for 6 months, plus cooking tools and ongoing community health worker support (Delaware Food Farmacy)

Study Design
Prospective Cohort

Comparison
N/A

Length of Follow-up
6 months

Outcomes

Food insecurity: -15 percentage points (p = 0.008)
HbA1c: -0.52 percentage points (p = 0.027)
BMI: -1.44 kg/m^2 (p = 0.020).
PHQ-9: -2.19 points (p < 0.001)
GAD-7: -1.76 points (p = 0.001

Conclusion

Participation in the Delaware Food Farmacy program was associated with significant improvements in food security, mental health symptoms, BMI, and glycemic control over 6 months. Blood pressure improved modestly but not significantly.

Table 2: Summary of Studies using Medically Tailored Groceries

Publication	Population	Sample Size	Intervention
Hao 2025	Adults aged 18–80 years recovering from an acute coronary event in New Zealand	N=309	Arm 1: 12 weeks of free provision of home-delivered MTG high in dietary fiber, in addition to usual post–coronary event care; quantities scaled to household size Arm 2: 12 weeks of free provision of home-delivered MTG high in unsaturated fats, in addition to usual post–coronary event care; quantities scaled to household size

Study Design
RCT

Comparison
Usual post-coronary event care

Length of Follow-up
3 mo & 12 mo

Outcomes

High-fibre vs usual care: potassium +279 mg during intervention (95% CI 0 to 558 mg); sodium −257 mg at 3 months (95% CI −512 to −1 mg) and −358 mg at 12 months (95% CI −644 to −71 mg)
Healthy fats vs usual care: sodium −342 mg at 12 months (95% CI −626 to −57 mg

Conclusion

Provision of MTG resulted in sustained reductions in sodium intake compared with usual care at follow-up. High-fibre grocery provision temporarily increased potassium intake during the intervention, but this effect was not maintained. Healthy-fat groceries reduced sodium intake only at 12 months.

Publication	Population	Sample Size	Intervention
Karpyn 2025	Postpartum women who participated in a Food Is Medicine pilot program during pregnancy in Delaware	N=7	Weekly home-delivered MTG with CHW support and nutrition education during pregnancy (~22–42 weeks depending on gestational age)

Study Design
Qualitative

Comparison
N/A

Length of Follow-up
up to 14 mo postpartum

Outcomes

N/A

Conclusion

Participants reported improved food security, healthier eating behaviors, emotional well-being, and economic relief. Community health workers and respectful, participant-centered delivery were perceived as central to program success, while limited program duration and some food selection constraints were noted as challenge.

Table 2: Summary of Studies using Medically Tailored Groceries

Publication	Population	Sample Size	Intervention
Bridges 2026	Primary care adult patients with self-reported food insecurity and diagnosed type 2 diabetes receiving care at an academic medical center in the Midwest United States	N=31	12 weekly MTG deliveries + CHW support including nutrition education, cooking instruction, and resource linkage (Food + CHW)

Study Design
RCT-Pilot

Comparison
12 weekly MTG deliveries only (Food-only)

Length of Follow-up
6 mo

Outcomes

Food + CHW: HbA1c change −0.85% (95% CI −0.048 to −1.66; p=0.039) at 3 mo and −1.65% (95% CI −2.84 to −0.472; p=0.012) at 6 mo. Food-only: no significant HbA1c change. DBP +6.5 mmHg at 3 months (p=0.02)

Conclusion

The Food + CHW group experienced statistically significant reductions in HbA1c at 3 months and sustained at 6 months, while the Food-only group showed no significant change. DBP increased in the Food-only group but remained stable in the Food + CHW group. The Food + CHW group also reported significant improvements in fruit intake, nutrition label reading, cooking from scratch, meal preparation skills, and farmers' market utilization

Publication	Population	Sample Size	Intervention
Gardiner 2026	Charitable food staff and health care partners involved in collaborative Food Is Medicine (FIM) programming with a large midwestern regional food ban	N=23	Participation in collaborative FIM programming partnerships between charitable food organizations and health care organization

Study Design
Mixed-Methods

Comparison
N/A

Length of Follow-up
N/A

Outcomes

Overall partnership satisfaction score 3.96/5.
Charitable food partners reported higher agreement regarding improved funding opportunities than health care partners (mean 4.00 vs 3.00; t(21) = −2.307; p = 0.03; 95% CI −1.910 to −0.090)

Conclusion

Most FIM programs were on-site pantries or pre-prepared food boxes. Overall partnership satisfaction was high across both stakeholder groups. Charitable food partners reported significantly greater agreement that partnerships improved their ability to achieve higher funding compared with health care partners.

Table 2: Summary of Studies using Medically Tailored Groceries

Publication	Population	Sample Size	Intervention
Ul-Haq 2026 **Study Design** Qualitative **Comparison** N/A **Length of Follow-up** up to 6 months	Adult primary care patients with diabetes or prediabetes experiencing food insecurity or difficulty making ends meet, enrolled in a randomized controlled trial in Ontario, Canada	N=20	Monthly healthy food voucher ($65 CAD; $85 CAD for households with more than five individuals) redeemable at a national grocery chain for 6 months

Outcomes

Conclusion

Participants reported that the voucher enabled them to purchase healthier foods aligned with diabetes management, improved agency over food choices, and positively affected mental and emotional well-being. Reported drawbacks included embarrassment for some participants, insufficient voucher amount, and limited flexibility in eligible grocery stores. Benefits were not sustained after the voucher ended.

Table 3: Summary of Studies using Produce Prescriptions

Publication
Branley 2025

Study Design
Retrospective Cohort

Comparison
WE CARE food-help response: Maybe later, No (reference), unmarked

Length of Follow-up
6 mo

Population
Caregivers of pediatric patients completing WE CARE screening at urban primary care well-child visits

Sample Size
N=1049

Intervention
Fresh Connect PRx offered to all screened families; $80/month for 6 months (WE CARE food-help response: Yes)

Outcomes

Overall enrollment: 20%;
"Yes" vs "No" aOR 1.04 (0.56–1.96), NS;
"Maybe later" vs "No" aOR 3.18 (1.22–8.28);
91.6% of enrollees used card

Conclusion

Food-help screening response did not predict PRx uptake

Publication
Braun 2025

Study Design
Quasi-Experimental

Comparison
N/A

Length of Follow-up
6 mo and 12 mo

Population
Adults living with and beyond cancer (LWBC) with overweight or obesity, post-active treatment (within past 48 months), participating in a multicomponent FIM intervention

Sample Size
N=54

Intervention
RDMI offered weekly during the 6-month intensive phase and up to once per month by request during the 6-month maintenance phase. Dose quantified as number of reciprocal interactions (RI Dose Received). RDMI engagement defined as the percentage of attempted contacts resulting in meaningful interactions (i.e., participant response leading to MI or counseling).

Outcomes

- Completion of ≥1 telephone RDMI encounter predicted post-intervention weight loss: R^2=0.07, p=0.03
- RI Dose Received during baseline to 6 mo correlated with 6-mo & 12-mo weight loss: r=0.43, p<0.01; r=0.33, p=0.02
- RDMI Engagement during baseline to 6 mo correlated with 6-mo weight loss: r=0.28, p≤0.05
- Average weight loss: 3.37 ± 3.09 kg (6 mo) & 2.37 ± 2.23 kg (12 mo)
- No significant differences by communication mode for weight change (p=0.84), dose received (p=0.20), or engagement (p=0.76)
- Correlation between RI Dose Received and SBP change at 6 months: r=-0.04, p=0.78 (not significant)

Conclusion

Higher doses of dietitian-delivered motivational interviewing were associated with greater weight loss among adult cancer survivors with overweight or obesity enrolled in a FIM intervention. Completion of at least one telephone-based RDMI encounter significantly predicted post-intervention weight loss. Dose of RDMI showed moderate positive correlations with weight loss at both 6 and 12 months, while engagement showed weaker associations. No significant differences in weight loss, RDMI dose, or engagement were observed by primary communication mode (phone, text, or email). No significant associations were observed between RDMI measures and blood pressure changes.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Brubacher 2025	Adults in Guelph, Ontario, with food insecurity and ≥1 cardiometabolic condition or micronutrient deficiency	N=57	52-week fresh food prescription with weekly produce vouchers ($10/person/week, up to $50/household/week), nutrition/cooking information, online produce ordering with free delivery, and dietitian referral if needed

Study Design
Mixed-Methods

Comparison
Single Arm Pre-Post

Length of Follow-up
26 & 52 weeks

Outcomes

Severe food insecurity:
- 38.1% to 23.8%;
- Total F&V: 21.8 times/week ($p<0.05$);
- triglycerides, fasting insulin, and ascorbic acid improved ($p<0.05$);
- mean voucher redemption 88%

Conclusion

52-week fresh food prescription improved food security and fruit/vegetable intake, with modest biomarker improvements; longer-term and more rigorous studies are needed to confirm health impacts

Publication	Population	Sample Size	Intervention
Zimmer 2025	Medicaid-insured adults in North Carolina with food insecurity and a metabolic condition	N=15	12-month produce prescription with weekly produce deliveries, personalized nutrition coaching, and community-based education sessions

Study Design
Qualitative

Comparison
N/A

Length of Follow-up
12 mo

Outcomes

Participants reported improved dietary knowledge, community engagement, self-care, and perceived physical/mental health benefits; engagement facilitated by weekly produce access, financial relief, and staff/peer relationships; barriers included transportation, scheduling conflicts, financial constraints, and limited produce customization

Conclusion

PRx engagement was supported by consistent produce access, nutrition coaching, and social connection, but long-term maintenance was threatened by structural barriers to healthy food access

Table 3: Summary of Studies using Produce Prescriptions

Publication
Adeleye 2025

Population
Black and Hispanic adults with hypertension, health care provider, food system representatives, and community leaders

Sample Size
N=36

Intervention
Co-design of THRIVE PRx-based FIM program with dietitian coaching, produce prescriptions, FARMacy/mobile market or home delivery, adaptive messaging, and social service linkages

Study Design
Qualitative

Comparison
N/A

Length of Follow-up
N/A

Outcomes

- 3 themes: health care system integration, food access/education, and community empowerment
- 100% reported valued contributions; 92% would recommend similar co-design approaches
- Participant feedback refined dietitian coaching, produce prescriptions, delivery options, adaptive messaging, and social service linkages

Conclusion

Using human-centered design, researchers co-developed a culturally tailored, produce prescription–based FIM intervention for Black and Hispanic adults with hypertension, with the potential to improve the acceptability, feasibility, and sustainability of future cardiovascular interventions.

Publication
Wang 2025

Population
Adults aged 40–79 years with both diabetes and food insecurity

Sample Size
N=7,000 - 693,000 (per state)

Intervention
Modeled implementation of produce prescription (PRx) programs integrated into health care, using pooled effects and costs from 20 PRx programs.

Study Design
Microsimulation study

Comparison
Status quo/no PRx

Length of Follow-up
5 & 10 yr

Outcomes

- Over 10 years, PRx projected to avert ~94 to 9,240 CVD events across states
- Projected QALYs gained ranged from 92 to 9,990 across states
- Net cost-saving in 43/50 states from a healthcare perspective; cost-effective in all 50
- Nationally: $2.68B healthcare savings and $4.17B societal savings over 10 years

Conclusion

PRx for adults with diabetes and food insecurity could substantially improve health and be cost-saving or highly cost-effective across U.S. states, especially for Medicare populations.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Hatfield 2025	Adults with type 1 or type 2 diabetes	N=79	8-week food bank-delivered DSME and support program: DSME plus six produce packages provided during weeks 2–7 (DHO+)

Study Design
Quasi-Experimental

Comparison
8-week food bank-delivered DSME alone (DHO)

Length of Follow-up
8 wks

Outcomes

- DHO & DHO+ improved in HbA1c, BMI, diabetes distress, self-efficacy, knowledge, vegetable intake, and some diabetes-specific food security outcomes
- DHO+: Fruit intake increased significantly >95% of participants rated both programs overall as "excellent"

Conclusion

Food bank-delivered DSME, with or without produce packages, was associated with improvements in HbA1c and multiple behavioral and psychosocial outcomes. The additional benefit of produce packages beyond DSME alone remained unclear.

Publication	Population	Sample Size	Intervention
Merritt 2025	Adults with diabetes or prediabetes as well as food insecurity	N=140	Fresh fruits and vegetables voucher program for 6 months; participants received $30/month for single-person households or $60/month for families to purchase produce at participating stores, with CHW outreach and regular check-ins

Study Design
Quasi-Experimental

Comparison
Waitlisted eligible participants who agreed to participate and provided pre-HbA1c

Length of Follow-up
6 wk

Outcomes

- Pre-post HbA1c: 8.39% to 7.54% (mean difference: −0.857, $p<0.001$)
- Matched effects were not statistically significant
- Voucher redemption rate: 74%–75%; median 80% of vouchers and 83.5% of dollars redeemed

Conclusion

Although the treated group showed a significant pre-post HbA1c reduction, matched analyses did not find a statistically significant effect of the voucher program versus controls. Findings suggest larger, more robust studies are needed.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Rayala 2025	Uninsured adults with type 2 diabetes or prediabetes	N=150	20-week Fresh Start FIM intervention including 9 group culinary/lifestyle medicine classes, a PRx (3–5 lb per class), and telephone-based health coaching with individualized diet and physical activity goals

Study Design
Quasi-Experimental

Comparison
No control group

Length of Follow-up
20 weeks

Outcomes

- Food skills confidence: 89.1 to 100.9 (p<0.001)
- DSM: 25.8 to 30.0 (p<0.001)
- Perceived stress: 15.2 to 12.9 (p=0.01)
- Improved Fruit (p=0.03), vegetable (p<0.001), and whole grain (p<0.001) intake
- SBP: - 6.7 mmHg (p=0.007)
- DBP: - 5.1 mmHg (p=0.02)
- HbA1c: -0.19%, p=0.24
- Weight: -2.76 kg, p=0.82

Conclusion

A comprehensive FIM intervention combining PRx, food-skills education, diabetes self-management education, and health coaching improved psychosocial, dietary, and blood pressure outcomes in medically underinsured adults with T2DM; food skills confidence and diabetes self-management were key contributors to stress reduction.

Publication	Population	Sample Size	Intervention
Esquivel 2025	Children aged 2–17 years with food insecurity or a nutrition-related chornic condition	N=121	6-month Keiki PRx (KPRx) program providing $50/month in vouchers for local fruits and vegetables redeemable at a community farmers' market or online food hub, plus monthly take-home nutrition education kits

Study Design
Quasi-Experimental

Comparison
No control group

Length of Follow-up
6 mo

Outcomes

- Child fruit intake: +1.0 cup/day (from 1.9 to 2.93 cups/day), p = 0.014
- Parent fruit intake: +1.2 cups/day (from 1.4 to 2.7 cups/day), p = 0.0001
- Total child fruit & vegetable intake: −1.6 cups/day (NS, p = 0.38)
- Household food insecurity: NS (p = 0.16)
- Voucher redemption: mean 70% of $300 total benefit redeemed (about $210 per participant)

Conclusion

The community-designed pediatric PRx program significantly increased fruit intake among both children and parents, with high engagement and voucher redemption, but did not significantly change household food security.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Fach 2025	Low-income adults experiencing food insecurity and chronic disease risk factors and program staff	N=19	16-week pilot PRx program with weekly voucher ($50/month), monthly in-person nutrition education, and monthly one-on-one calls with RDs or CHW using SMART goal-setting

Study Design
Qualitative

Comparison
No control group

Length of Follow-up
16 wk

Outcomes

- Identified 19 implementation themes across 14 CFIR constructs
- Identified barriers: market logistics, limited staffing, communication between providers and program staff, funding instability
- Identified facilitators: integration into existing systems, nutrition education, dedicated program leaders and staff, person-centered care

Conclusion

CFIR-guided qualitative findings suggest that successful PRx implementation in community health settings depends on strong system integration, nutrition education, program champions, and a person-centered, team-based approach. Addressing staffing constraints, referral communication gaps, market logistics, and sustainable funding is critical for scalability and long-term sustainability.

Publication	Population	Sample Size	Intervention
Arnold 2025	Food-insecure adults (heads of household) and household members in rural Charleston, Mississippi	N=55 households	Bi-weekly pre-assembled produce boxes (average $30 value) for 24 months (Produce box every 2 weeks containing ~5 fruit items, 5 vegetable items, and 1 leafy green item; valued $20–$40)

Study Design
Prospective Cohort

Comparison
N/A

Length of Follow-up
24 mo

Outcomes

- Total F&V consumption ≥1 time/week: 33.2% to 53.6% &38.5% to 55.9%, respectively.
- Food insecurity: 98.5% to 79.2% (McNemar p=0.125)

Adults:

- Weight: -7.15 lbs (SD 14.9), p<0.001
- BMI: -1.22 kg/m^2 (SD 2.4), p<0.001
- Waist circumference: -3.50 inches, p<0.001
- Triglycerides: -30.0 mg/dL, p=0.004
- DBP: +4.93 mmHg, p=0.020
- LDL cholesterol: +10.0 mg/dL, p=0.011

Conclusion

Weekly produce consumption increased; food insecurity initially decreased but was not significantly different from baseline at 24 months. Adults experienced significant reductions in weight, BMI, waist circumference, and triglycerides. Children showed expected physiological increases in weight without significant BMI or waist changes.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Byker-Shanks 2025	Adults enrolling in Gus Schumacher Nutrition Incentive Program (GusNIP) produce prescription programs between 2020 and 2024; eligibility included low income with food insecurity and/or diet-related chronic disease risk	N=21,635	Nationwide across 96 GusNIP-funded PRx projects operating at 1,992 sites.

Study Design
Cross-sectional

Comparison
N/A

Length of Follow-up
N/A

Outcomes

Demographics:
- Mean age 51.6 years; 43.2% aged 45–65
- 77% women
- 32.7% Hispanic, 24.3% non-Hispanic Black, 29.1% non-Hispanic White

Health & Food Security:
- 67.2% experienced food insecurity in the past 30 days
- 59.4% rated their health as poor or fair
- 79.2% screened positive for a diet-related chronic disease risk

Dietary Intake at Enrollment:
- Mean F&V intake: 2.39 cups/day
- Fruit: 0.92 cups/day; Vegetables: 1.48 cups/day

Geographic Patterns:
- Participants in the North Central, Southern, and Western regions had slightly lower F&V intake than those in the Northeast ($p<0.05$), though differences were modest.

Conclusion

GusNIP PRx are successfully reaching their intended populations, including adults with low income, high food insecurity, and elevated chronic disease risk. Baseline fruit and vegetable intake remains below national recommendations, underscoring the potential for PRx programs to improve diet quality. Geographic differences suggest opportunities to expand reach and tailor outreach to underserved regions and populations (e.g., younger adults and men).

Publication	Population	Sample Size	Intervention
Mathur 2025	Medicaid-eligible children (ages 5–12) with overweight/obesity	N=150	• Biweekly $25 produce vouchers + nutrition education for 32 weeks • Biweekly produce delivery + nutrition education for 32 weeks

Study Design
RCT-Pilot

Comparison
Usual care (waitlist control)

Length of Follow-up
32 wk

Table 3: Summary of Studies using Produce Prescriptions

Outcomes

Implementation:
- Program retention: up to 96%
- Voucher: 92% activated; 88.3% redeemed (mean $353/$400)
- Delivery: 100% received all 16 deliveries (average of 51.9 servings/week)

Other outcomes:
- AST (liver enzyme): - 5.50 (p=0.006) (voucher vs control)
- F&V intake, BMI, HbA1c, lipid panel, nutrition security, food insecurity: NS between groups

Conclusion

Both FIM strategies (produce vouchers and home delivery) were feasible and highly acceptable for at-risk pediatric populations. While clinical changes were limited in this pilot, the voucher model showed a significant improvement in AST, and both interventions trended toward better dietary intake and nutrition security. Larger, adequately powered trials with improved follow-up are needed to determine effectiveness and to balance choice (vouchers) versus access (delivery).

Publication
DeBate 2026

Study Design
Qualitative

Comparison
N/A

Length of Follow-up
N/A

Population
Adults enrolled in a clinic-based food pharmacy produce prescription program in Southwest Florida; all screened food insecure and smartphone user

Sample Size
N=16

Intervention
Semi-structured interviews exploring needs, preferences, and contextual factors for an AI-based personalized food-as-medicine mobile app prototype (MyFoodRx)

Outcomes

N/A

Conclusion

Participants expressed strong need for tailored educational materials, condition-specific eating plans, and personalized recipes. Motivations centered on improving health, reducing medication reliance, and minimizing food waste. Skill gaps included grocery planning, portion control, and food preparation, especially for unfamiliar foods. Participants emphasized the importance of personalization based on health conditions, family history, medications, kitchen resources, and skill level.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Minkah-Premo 2025	Children aged 0–18 years and caregiver dyads screening positive for food insecurity and/or diet-related disease risk; one child per household	N=176 dyads	6-month family-based PRx including home delivery of fresh produce every other week (8 lb per delivery; up to 16 lb/month) + nutrition & culinary education

Study Design
Quasi-Experimental

Comparison
No control group

Length of Follow-up
6 mo

Outcomes

Program engagement
- Average produce utilization: 79%
- ≥50% of education classes: 59%
- Satisfaction: 94.5% (very or completely satisfied)

Fruit intake increased significantly ($R = 0.21$, $p = 0.004$)
Vegetable intake increased significantly ($R = 0.30$, $p < 0.0001$)

Conclusion

6-month family-based produce prescription with home delivery and culinary nutrition education was associated with modest but statistically significant increases in child fruit and vegetable intake.

Publication	Population	Sample Size	Intervention
Bettini 2026	High-risk patients with Medicaid	N=884	AI and NLP-enabled risk identification + targeted care coordination + lifestyle and enabling services (including PRx)

Study Design
Value-based care pilot/program evaluation

Comparison
No control group

Length of Follow-up
6 mo

Outcomes

- First-year total cost reduction: $806,208 among 884 patients.
- Produce prescription program for 6 months:
  - net savings of $118 per patient per month
  - HbA1c reduction of 0.18 among patients with diabetes
  - BMI reduction of 1.04 points among patients with Class II or greater obesity

Over 4 years, cost saving: about $4 million for more than 3000 patients

Conclusion

An AI-enabled, payer-provider value-based care model in an Federally Qualified Health Center was associated with reduced healthcare costs and improved clinical outcome, supporting lifestyle medicine and produce prescription as cost-effective strategies for high-risk Medicaid populations.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Breinholt 2026	Rural, uninsured adults with prediabetes or type 2 diabetes	N=150	20-week program with: 9x 1.5-hour group food literacy and DSME classes, PRx distributed during group classes (3–5 pounds of non-starchy vegetable), and 1-on-1 telephone-based health coaching.

Study Design
Quasi-Experimental

Comparison
No control group

Length of Follow-up
20 wk

Outcomes

Total food literacy scores significantly improved from 89.1 ± 19.5 to 100.9 ± 19.5. (p=0.006)
Significant improvements were also observed in meal planning/prepping, shopping, budgeting, nutrition resourcefulness, and label reading/consumer awareness. Hispanic participants had lower food literacy scores than White participants across several domains.

Conclusion

PRx combined food literacy education and health coaching improved food literacy among rural, uninsured adults with diabetes. However, persistent differences by race/ethnicity suggest that culturally tailored food literacy education may be needed, especially for Hispanic participants.

Publication	Population	Sample Size	Intervention
Caldwell 2026	Medicaid adult patients with type 2 diabetes or prediabetes	N=1309	PRx program; $40 per month for 6 months through an electronic debit card to purchase fresh fruits and vegetables at participating grocery stores/supermarkets.

Study Design
Quasi-Experimental

Comparison
No control group

Length of Follow-up
6 mo

Outcomes

- Household nutrition security: +15.5% (23.2% to 38.7%)
- Household food security: +17.7 % (25.2% to 42.9%)

Barriers to healthy eating:
- Most participants still reported healthy foods were too expensive at follow-up, although this decreased slightly. Participants also reported improvements in knowing what foods are healthy and identifying stores with healthy food options.

Conclusion

A 6-month PRx program was associated with short-term improvements in nutrition security and food security among Medicaid patients with diabetes or prediabetes. However, persistent affordability barriers suggest that future programs may need larger incentives, household-size adjustments, or partnerships that lower produce costs.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Drake 2026	Adults with diabetes and food insecurity	N=2155	PRx arm: a restricted-use debit card loaded with $80 per month for up to 12 months + DSME material by email

Study Design
RCT

Comparison
Usual care (including same DSME material by email)

Length of Follow-up
2 mo

Outcomes

HbA1c: NS
ER visit: NS
BMI: NS
SBP: NS
DBP: NS
Inpatient visits: NS

Conclusion

A 12-month $80/month PRx subsidy did not improve cardiometabolic outcomes or healthcare utilization among adults with diabetes who were at risk for food insecurity. The findings suggest that a PRx subsidy alone may be insufficient to improve diabetes-related outcomes without stronger targeting, enrollment support, adherence support, or additional behavioral and social support components.

Publication	Population	Sample Size	Intervention
Zigmont 2026	Adults with food insecurity and/ or diet-related chronic disease	N=1489	4 heterogeneous PRx programs providing free or reduced-cost fruits and vegetables (coupons, vouchers for farmers markets and grocery stores, weekly nutrition education-linked vouchers, monthly electronic benefit cards for fresh produce at grocery stores, and farmers market tokens plus nutrition education) Program duration: 12 weeks - 6 months.

Study Design
Retrospective Cohort

Comparison
No control group

Length of Follow-up
Post-Intervention

Outcomes

HbA1c: - 0.54 percentage points (95% CI, -0.6 to -0.5; $p < 0.01$)

Among participants with baseline HbA1c >9%: - 1.9 percentage points (95% CI, -2.06 to -1.67; $p < 0.01$)
- SBP: - 1.77 mmHg (95% CI, -2.91 to -0.62; $p < 0.01$)
- DBP: - 2.03 mmHg (95% CI, -2.70 to -1.37; $p < 0.01$)

Among participants with stage 2 hypertension at baseline
- SBP: - 10.7 mmHg ($p < 0.01$)
- DBP: - 5.7 mmHg ($p < 0.01$)

Conclusion

Across 4 real-world PRx programs, participants experienced significant improvements in HbA1c and blood pressure, with the largest improvements among those with poorer baseline glycemic control or stage 2 hypertension. However, because the study lacked a control group, findings should be interpreted as within-participant improvements rather than causal effects of PRx.

Table 3: Summary of Studies using Produce Prescriptions

Publication
Sastre 2026

Study Design
Mixed-Methods

Comparison
No control group

Length of Follow-up
20 wk

Population
Adults with type 2 diabetes or prediabetes

Sample Size
N=150

Intervention
The 20-week Fresh Start PRx: 9 biweekly community-based group education classes, PRx/provision of fresh fruits and vegetables, nutrition and culinary medicine education, cooking demonstrations, taste testing of medically tailored recipes, telephone-based health coaching, physical activity education and demonstrations, and provision of resistance bands. The physical activity component included chair-based exercises, stretching, balance, gait, yoga, dancing, step aerobics, and resistance training.

Outcomes

- PA self-efficacy/confidence: improved (p = 0.02)
- Days/wk engaging in PA: Increased from 2.8 to 4.0 days/wk; mean increase = 1.2 days/wk (p < 0.001)
- Total minutes of PA/wk: Increased from 124.3 to 176.2 min/wk; mean increase = 51.9 min/wk (p = 0.079)
- After adjustment: were not significant predictors of post-intervention DSM scores after adjustment (PA days/wk: p = 0.860; PA min/wk: p = 0.676; PA self-efficacy: p = 0.317)
- HbA1c: Decreased from 7.98% to 7.79%; mean decrease = - 0.19 percentage points (p = 0.24)
- Group Class satisfaction: 98.9% of class survey responses indicated participants were "very satisfied" or "satisfied"

Conclusion

Integrating physical activity support into a PRx program was acceptable and associated with improvements in physical activity confidence and frequency among rural, uninsured adults with type 2 diabetes or prediabetes. However, physical activity changes were not significantly linked to DSM improvements or glycemic control in this study.

Publication
Zimmer 2026

Study Design
Quasi-Experimental

Comparison
Matched SNAP-only cohort (no nutrition intervention during the study period)

Length of Follow-up
18 mo

Population
Medicaid-insured, food-insecure adults with at least one diet-related chronic metabolic condition

Sample Size
N=217

Intervention
12-month PRx: weekly home-delivered produce boxes valued at $25 per week, with standard, mixed, or culturally tailored box options + up to 3 individualized RD coaching sessions using motivational interviewing, quarterly group education sessions on food budgeting, cooking, seasonal produce preparation, and meal planning, plus newsletters and reminders.

Outcomes

- F&V intake: between-group difference in change = +0.3 cups/day (95% CI, 0.1 to 0.5; p = 0.002)
- Loneliness: between-group difference in change = -0.6 points (95% CI, -1.1 to -0.1; p = 0.022)
- Low/very low food security: between-group difference in change = -8.2 percentage points (95% CI, -22.4 to 6.1; p = 0.260)
- Moderate/severe depression: between-group difference in change = -10.8 percentage points (95% CI, -22.5 to 0.9; p = 0.070)
- Healthcare utilization/costs: no statistically significant between-group differences at 6, 12, or 18 months

Table 3: Summary of Studies using Produce Prescriptions

Outcomes Continued

Within intervention cohort at 12 months:

- low/very low food security decreased by 17.1 percentage points (95% CI, -28.4 to -5.9; p = 0.003)
- F&V intake increased by 0.4 cups/day (95% CI, 0.2 to 0.6; p < 0.001)
- moderate/severe depression decreased by 14.3 percentage points (95% CI, -22.5 to -6.0; p = 0.001)
- fatigue improved by 3.1 points (95% CI, 0.5 to 5.7; p = 0.019)
- weight: -2.0 kg (95% CI, -3.5 to -0.4; p = 0.015)
- waist circumference: -2.6 cm (95% CI, -4.6 to -0.5; p = 0.015)
- SBP: -2.1 mmHg (95% CI, -7.6 to 1.8; p = NS)
- DBP: -5.1 mmHg (95% CI, -8.0 to -2.3; p = 0.001)

Among participants with elevated baseline BP:

- systolic BP decreased by 8.6 mmHg (95% CI, -14.0 to -3.1; p = 0.003)
- diastolic BP decreased by 8.5 mmHg (95% CI, -11.8 to -5.2; p < 0.001)

Conclusion

A 12-month PRx program for Medicaid-insured adults with food insecurity and chronic metabolic conditions was associated with improved fruit and vegetable intake and reduced loneliness compared with a SNAP-only matched comparison group. Within the intervention cohort, improvements were also observed in food security, depression, fatigue, weight, waist circumference, and blood pressure, although causal inference is limited by the non-randomized design.

Publication
Owens 2026

Population
Adults with prediabetes, type 2 diabetes, or hypertension

Sample Size
N=100

Intervention
Weekly PRx box (fruits and vegetable boxed valued about $25) for 6 months + 6-week nutrition and cooking curriculum + monthly reunion sessions + supports (cooking tools, transportation or delivery service)

Study Design
Mixed-Methods

Comparison
No control group

Length of Follow-up
6 mo post-intervention

Outcomes

Food insecurity: NS
F&V intake: NS
BMI: NS
SBP/DBP: NS
Qualitative findings: perceived improvements in diet, well-being, social connection, and health, but participants had difficulty maintaining food security after the program ended.

Conclusion

The weekly PRx program for 6 months did not show statistically significant improvement in food insecurity, F&V intake, BMI, and blood pressure. The longer term program may be needed to see meaningful improvement.

Table 3: Summary of Studies using Produce Prescriptions

Publication	Population	Sample Size	Intervention
Rader 2026	Adults with type 2 diabetes and at risk for food insecurity	N=2,177	PRx with $80/month for 12 months to purchase dried legumes and fresh, frozen, or canned F&V

Study Design
Secondary analysis of an RCT

Comparison
Participants not enrolled

Length of Follow-up
12 mo

Outcomes

Enrolled vs not enrolled:
Lower enrollment was associated with older age, male gender, Medicaid enrollment, high Area Deprivation Index, and non-Hispanic White or Hispanic/Latino race/ethnicity compared with non-Hispanic Black participants.

Among PRx participants:
Card activation was 79.2% (n= 1148) with median monthly spending of $53.48 among activators
Older age was associated with higher spending (>$53/month vs ≤$53/month);
Highest spending (>$70/month) was associated with being married and black race

Conclusion

Demographic and socioeconomic factors were associated with PRx enrollment and benefit use.

Publication	Population	Sample Size	Intervention
Wood 2026	Adults with a diet-sensitive chronic condition (hypertension, overweight/obesity, hyperlipidemia, prediabetes, or diabetes), and at risk for food insecurity	N=1,092	FARMacy WV: 15-week rural clinic-community PRx program delivered through 16 health centers across 17 WV counties. Participants received weekly PRx/vouchers ($20/week; increased to $25/week in 2023) redeemable at on-site pop-up farmers markets, plus optional nutrition education/ culinary sessions with recipe demonstrations, taste tests, and recipe cards.

Study Design
Quasi-Experimental

Comparison
No control group

Length of Follow-up
15 wk intervention + 1 mo post-intervention

Outcomes

Attendance: mean 10.9 ± 4.3 sessions; overall attendance rate 72.3%.

Clinical outcomes:
- HbA1c improved overall by −0.31% ($p<0.0001$)
- among participants with baseline HbA1c >7.0%, change was - 0.84 ± 1.56 ($p<0.0001$)
- HbA1c 6.5%–7.0% improved by −0.22 ± 0.72 ($p=0.0059$)

Total cholesterol, HDL, DBP, weight, BMI, and waist circumference improved statistically, but effect sizes were small and only HbA1c was clinically significant.

Food security/behavior:
- Food insecurity items improved ($p<0.0001$)
- Fruit and vegetable consumption, affordability of fresh produce, cooking at home, and food preparation confidence improved significantly (but p-value is not available)

Table 3: Summary of Studies using Produce Prescriptions

Outcomes Continued

1 month post-program:
89.7% reported improved access to fresh produce
>97% would recommend the nutrition education program and PRx program

Conclusion

A 15-week rural PRx program using weekly produce vouchers, on-site farmers markets, and optional nutrition education was feasible and associated with improved food security, diet-related behaviors, and HbA1c, especially among participants with higher baseline HbA1c.

Publication
Bleck 2026

Study Design
Quasi-Experimental

Comparison
No control group

Length of Follow-up
6 months post-intervention

Population
Adults ≥18 years enrolled in a clinic-based food pharmacy; all were identified as food insecure and diagnosed with at least one diet-related chronic condition (prediabetes, diabetes, hypertension, and/or obesity).

Sample Size
N=62

Intervention
TampaWell FoodRx clinic-based food pharmacy/PRx: participants could "shop" once every 2 weeks for 6 months and choose 4 fruits, 6 vegetables, and other foods (grains, proteins, and spices). No formal nutrition counseling was provided; informal RD guidance was available upon request.

Outcomes

Food security improved: marginal food security increased from 0% to 22.6%; low food security decreased from 50.0% to 33.9%; very low food security decreased from 50.0% to 43.5% (adjusted $\beta = -0.726$; $p = 0.005$; aOR = 0.484)
Fruit intake increased from 1.89 to 2.53 servings/day (+0.65; $\beta = 0.645$; $p < 0.001$)
Vegetable intake increased from 2.11 to 2.71 servings/day (+0.60; $\beta = 0.597$; $p < 0.001$)
General health status improved (aOR = 1.85; $p = 0.020$)
BMI did not significantly change (32.55 to 32.38; $p = 0.542$; adjusted $p = 0.239$)

Conclusion

A 6-month clinic-based PRx/food pharmacy program was associated with improved food security, fruit and vegetable intake, and perceived health among food-insecure adults with diet-related chronic conditions, but no significant BMI change.

Table 4: Summary of Studies using Mixed FIM Models

Publication
Pandey 2026

Study Design
RCT pilot

Comparison
FIM interventions (MTM and PRx) vs usual care (control group)

Between FIM interventions conditional vs unconditional food delivery

Length of Follow-up
N/A

Population
Adults hospitalized for heart failure and enrolled within 14 days of discharge

Sample Size
N=150

Intervention
2x2 factorial design:

One of three arms for 90 days: MTM (14 meals/week; DASH diet for HF patients), MTG (fruits, vegetables, whole grains, dairy products, lean protein, olive oil, spices, pantry staples, and recipes), or usual care. Two intervention received virtual RD consultations at baseline, 30 days, and 60 days.

FIM intervention delivery: conditional delivery, linked to clinic attendance and medication fills, or unconditional delivery.

Outcomes

Delivery completion: 93.6%.
Self-reported consumption adherence:

- MTM = 4.7 days/week; MTG = 5.5 days/week (p = 0.001)
- Acceptability: MTG = 4.16 vs MTM = 3.62 (p = 0.005)
- Net Promoter Score: MTG = 8.62 vs MTM = 7.27 (p = 0.02)

HF readmission or ED visit:

- FIM interventions vs usual care: NS
- MTM vs usual care: NS
- MTG vs usual care: NS
- Hierarchical composite outcome: win ratio = 1.21 (95% CI, 1.14 to 1.29; p < 0.001), favoring food supplementation

KCCQ-CSS at 90 days:

- FIM interventions vs usual care: aOR = 2.09 (95% CI, 1.01 to 4.31; p = 0.046)
- MTM vs usual care: NS
- MTG vs usual care: aOR = 2.80 (95% CI, 1.16 to 6.72; p = 0.02)

Conditional vs unconditional delivery - HF readmission or ED visit: NS

Conclusion

90-day FIM interventions after HF hospitalization was feasible and well accepted, especially MTG. However, FIM interventions did not reduce HF readmissions or ED visits compared with usual care. Exploratory findings suggested potential improvement in HF related quality of life, particularly for MTG, but larger trials are needed.

Table 4: Summary of Studies using Mixed FIM Models

Publication	Population	Sample Size	Intervention
Gustafson 2026	Adults with hypertension and food-insecurity	N=144	Screening decision tool allocated participants to a 3-month FIM program based on preferences/constraints: MTM: 5 meals/week for 12 weeks, delivered every other week. MTG: $100/month for 3 months for hypertension via urban grocery card, rural mailed vouchers, or online grocery credits.

Study Design
Mixed method - feasibility pilot

Comparison
Baseline vs 12 week (3 month)

Length of Follow-up
45 days

Outcomes

Screening tool match/agreement:
- Online MTG = 100% (n=1/1)
- MTG rural = 94.3% (n=66/70)
- MTG urban = 97.8% (n=44/45)
- MTM rural = 76.5% (n=13/17)
- MTM urban = 73.1% (n=19/26)
- 16/159 chose a different program after matching.
- (MTM to MTG (n) = 11; MTG to MTM (n) = 5)

Engagement/acceptability:
- 151/159 completed the program (95%)
- 144/159 completed all follow-up measures (91%)
- Net Promoter Score = 9.45/10
- MTG funds used averaged 84.1%
- MTM delivered 99.5% of intended meals

Clinical/self-reported outcomes:
- MTG was associated with significant SBP/DBP reductions in rural and urban groups. ($p<0.05$)
- Urban MTM was associated with significant SBP/DBP reductions ($p<0.05$); rural MTM was not
- F/V intake increased among women (+0.22 cups, $p=.002$) and men (+0.25 cups, $p=.002$)
- Overall food security and nutrition security status did not significantly change

Cost:
- MTG arms cost about $400/participant for 3 months
- MTM arms cost about $600/participant for 3 months

Qualitative insights:
The tailored screening decision tool were highly acceptable and perceived as convenient, supportive in reducing food-cost burden. Key implementation improvements include longer duration, larger benefits, clearer eligible-food guidance, better balance tracking, more variety, and improved delivery logistics

Conclusion

The tailored screening decision tool appeared feasible and acceptable for allocating food-insecure adults with hypertension to FIM programs, especially MTG, with high engagement, high benefit use, and improvements in dietary intake and blood pressure in some groups. MTM matching may require refinement.

Table 4: Summary of Studies using Mixed FIM Models

Publication	Population	Sample Size	Intervention
Nirula 2026	Adults ≥18 years participating in cardiac rehabilitation at University of California, San Francisco	N=6	Human-centered design process to develop navigation scripts and text messaging interventions for a FIM program; three virtual human-centered design sessions (90–120 minutes each)

Study Design
Qualitative

Comparison
N/A

Length of Follow-up
N/A

Outcomes

N/A

Conclusion

Participants identified barriers including cost, cultural appropriateness, transportation, access to healthy foods, and scheduling flexibility. Social influence and financial strain were major determinants of eating behaviors. Navigation scripts were improved to emphasize clarity, personalization, and addressing barriers. Text messages were refined to be concise, empathetic, positively framed, and actionable. Trust in the healthcare system, endorsement by clinicians, and personalized support were critical for engagement and retention.

Publication	Population	Sample Size	Intervention
O'Neil 2026	FIM research stakeholders involved in HCXF™-funded projects, including researchers, CBO representatives, and one food vendor representative.	N=26	Participation in virtual focus groups and an interview exploring experiences with implementing HCXF-funded research projects

Study Design
Qualitative

Comparison
N/A

Length of Follow-up
N/A

Outcomes

N/A

Conclusion

Themes spanned all EPIS phases. Exploration themes included a fragmented evidence base, measurement/data infrastructure gaps, uncertainty regarding payer evidence requirements, and policy instability. Preparation themes included the need for earlier engagement of CBOs and vendors, limited CBO research capacity, infrastructure constraints, and tensions between standardization and cultural tailoring. Implementation themes included unclear roles and communication, logistical complexity, recruitment and retention challenges, reliance on trust-based engagement, variable partner capacity, and mixed benefits/limitations of technology. Sustainment themes included broader outcomes beyond clinical measures, the importance of messaging, champions and advocacy for coverage decisions, and the need for stronger national leadership and coordination. Participants emphasized larger coordinated studies, clearer partnership governance, improved measurement, investment in research readiness, and balancing standardization with adaptation.

American Heart Association.

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Health Care by Food integrates rigorous research and guidance from experts in the field to address the complex relationship between food and health outcomes. The Association is funding robust studies to demonstrate the efficacy and cost-effectiveness of food is medicine interventions that will then be used to advocate for public and private insurance coverage.

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