



## Medically Tailored Meals: Cost Savings and Client Benefits

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### Background

The “Food is Medicine” movement has grown dramatically in the past few years, driven by a dual interest in addressing food and nutrition security and reducing diet-related illness which costs the U.S. economy an estimated \$1.1 trillion each year.<sup>1</sup> In 2022, the Biden-Harris Administration released a National Strategy on Hunger, Nutrition, and Health, which notes that expanding access to “food is medicine” interventions, including medically tailored meals, groceries, and produce prescription programs, can effectively treat or prevent diet-related health conditions, optimize well-being, reduce food insecurity, and reduce health care costs.<sup>2</sup> Almost concurrently, the Centers for Medicare & Medicaid Services (CMS) started encouraging and approving state plans to include nutrition services that address health-related social needs (HRSN).<sup>3</sup>

While there are many food and nutrition programs being implemented in Colorado and across the country, this report focuses specifically on the impact of medically tailored meals (MTMs). MTMs are designed by a Registered Dietitian Nutritionist (RDN) based on a nutritional assessment and provided as part of a person’s health care plan. These meals reflect appropriate dietary therapy based on evidence-based practice guidelines to address medical diagnoses, symptoms, allergies, medication management and side effects to ensure the best possible nutrition-related health outcomes.

### Studies Evaluating Cost Savings in Colorado

Project Angel Heart, the only Colorado-based medically tailored meal provider, conducted a research study in 2018 using medical claims data from the Colorado All Payer Claims Database to examine the health care costs of Project Angel Heart clients before, during, and after they received medically tailored meal deliveries. This study found that:

- Project Angel Heart clients saw a 13% reduction in hospital readmissions compared to individuals who did not receive Project Angel Heart meals
- Clients living with COPD, CHF, and diabetes saw their monthly medical costs go down an average of 24%<sup>4</sup>

Another evaluation was conducted by the Colorado Community Health Alliance (CCHA), the Regional Accountable Entity for Health First Colorado’s members in Boulder, Broomfield, Clear Creek, El Paso, Gilpin, Jefferson, Park, and Teller counties. CCHA and Project Angel Heart partnered to provide seven medically tailored, home-delivered meals per week for eight weeks to members living with diabetes. The study found that members who received meals had a 62% reduction in inpatient care costs. Factoring in the cost of meals and delivery, this amounted to \$1,142 in cost savings per member over an 8-month average after completion of meals.<sup>5</sup>

### Studies Evaluating Cost Savings in Other States

Some states have already seen cost savings data as a result of providing MTMs as a covered benefit.

In Massachusetts, all 17 Accountable Care Organizations (ACOs) in the state are offering nutrition supports within their Flexible Services programs. One ACO reported an \$11,309 reduction in the total cost of care for

<sup>1</sup> <https://www.rockefellerfoundation.org/wp-content/uploads/2021/07/True-Cost-of-Food-Full-Report-Final.pdf>

<sup>2</sup> <https://www.whitehouse.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf>

<sup>3</sup> <https://www.medicaid.gov/sites/default/files/2023-01/addrss-hlth-soc-needs-1115-demo-all-st-call-12062022.pdf>

<sup>4</sup> [https://www.projectangelheart.org/wp-content/uploads/2018/06/PAH\\_ImpactStudy\\_OnePager\\_FINAL.pdf](https://www.projectangelheart.org/wp-content/uploads/2018/06/PAH_ImpactStudy_OnePager_FINAL.pdf)

<sup>5</sup> [https://gazette.com/opinion/guest-column-whole-person-care-supports-patients-saves-money/article\\_5e68f1a8-a4cd-11ee-a9e4-efd46896e071.html#google\\_vignette](https://gazette.com/opinion/guest-column-whole-person-care-supports-patients-saves-money/article_5e68f1a8-a4cd-11ee-a9e4-efd46896e071.html#google_vignette)

members that received nutrition supports, as compared to a \$345 reduction during the same period for a comparison group of eligible members who declined nutrition supports.<sup>6</sup>

In New York, under their Medicaid Social Care Initiative, the state covered medically tailored meals for individuals diagnosed with cancer, diabetes, heart failure, and/or HIV/AIDS who have had one or more recent hospitalizations. They saw:

- 63% decrease in emergency department visits
- 66% decrease in urgent care visits
- 45% decrease in acute inpatient utilization<sup>7</sup>

### Peer Reviewed Cost-Savings Literature

There is substantial peer reviewed evidence that demonstrates the impact of medically tailored meals in reducing hospital visits and health care costs. Many states cited these references when shaping their nutrition benefits.

An economic evaluation from the Tufts University Friedman School of Nutrition Science and Policy found that if every eligible patient were able to access medically tailored meals in just the first year, our country would realize 1.6 million avoided hospital visits and \$14 billion in savings for our health care systems. The modelled intervention consisted of ten MTMs per week for a mean of eight months.<sup>8</sup>

Additional research includes:

Population	Intervention	Results	Source
Cirrhosis and ascites (chronic liver disease)	3 meals per day for 4 weeks	Fewer days spent in hospital Improved quality of life Required fewer paracenteses	Tapper et al., 2020 <sup>9</sup>
Serious medical conditions (cancer, diabetes)	10 meals per week	49% fewer inpatient admissions Increase in diet quality and adherence to disease management plans 72% fewer admissions into skilled nursing facilities 16% reduction in total health care costs	Berkowitz et al., 2019 <sup>10</sup>
Diabetes and food insecurity	10 meals per week for 12 weeks	Improvements in Healthy Eating Index (HEI) score Lower food insecurity Less hypoglycemia Fewer days where mental health interfered with quality of life	Berkowitz et al., 2019 <sup>11</sup>
Dual-eligible Medicare/Medicaid	10 meals per week	52% fewer inpatient admissions 70% fewer emergency department visits 72% fewer uses of emergency transportation 16% savings as a result of lower medical expenditures	Berkowitz et al., 2018 <sup>12</sup>

<sup>6</sup> <https://www.mass.gov/doc/1115-waiver-extension-request/download>

<sup>7</sup> [https://www.health.ny.gov/health\\_care/medicaid/redesign/med\\_waiver\\_1115/docs/2022-09-02\\_final\\_amend\\_request.pdf](https://www.health.ny.gov/health_care/medicaid/redesign/med_waiver_1115/docs/2022-09-02_final_amend_request.pdf)

<sup>8</sup> <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2797397>

<sup>9</sup> <https://pubmed.ncbi.nlm.nih.gov/33442478/>

<sup>10</sup> <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2730768>

<sup>11</sup> <https://pubmed.ncbi.nlm.nih.gov/30421335/>

<sup>12</sup> <https://pubmed.ncbi.nlm.nih.gov/29608345/>

Type 2 diabetes, HIV, and co-morbid diagnoses	3 meals/day for 6 months	63% reduction in hospitalizations 50% increase in medication adherence 58% decrease in emergency department visits	Palar et al., 2018 <sup>13</sup>
Chronic medical conditions	3 meals/day for 1 year	Meal recipients had \$13,000 less in medical expenses per month 60% reduction in inpatient costs 50% reduction in hospitalizations 37% shorter hospital stays for those hospitalized	Gurvey et al., 2013 <sup>14</sup>

### Client Reported Outcomes

Community-based MTM providers conduct internal evaluations to ensure that their clients' needs are being effectively and efficiently met. Project Angel Heart sought to independently confirm its results so, in 2022, the organization partnered with Kaiser Permanente's Institute for Health Research to validate client self-reported outcomes. That analysis found that as a result of receiving MTMs:

- 73% of meal recipients reported improvements to their overall stress
- 59% reported improvements to their ability to adhere to their prescribed health regimen
- 63% reported improvements to their overall health
- 64% reported improvements to their ability to live independently at home
- 63% reported improvements to their ability to afford other basic needs, such as housing and medication
- 57% reported improvements to their energy levels<sup>15</sup>

<sup>13</sup> <https://link.springer.com/article/10.1007/s11524-016-0129-7>

<sup>14</sup> <https://pubmed.ncbi.nlm.nih.gov/23799677/>

<sup>15</sup> Green, S., McPhail, T., Martin, D., Comer, A., Hwang, M., & Boxer, R. (2022). Project Angel Heart: Supplemental Nutrition Services Evaluation Report. PiER Center at the Institute for Health Research, Kaiser Permanente Colorado.

## Examples of Medically Tailored Meals in Medicaid 1115 Waivers

Several states received approval for 1115 waivers that include coverage of medically tailored meals as a benefit.

State	Population	Benefit	Status
Oregon <sup>16</sup>	<p>Eligibility requirements in process. In 2024, Oregon Health Authority first plans to cover HRSN benefits for members in life transitions, including:</p> <ul style="list-style-type: none"> <li>- Youth 19-26 with special health care needs</li> <li>- Youth involved with child welfare</li> <li>- People experiencing homelessness or at risk of homelessness</li> <li>- People transitioning from Medicaid-only to both Medicaid and Medicare coverage</li> <li>- People released from settings such as jail, residential facilities, and Oregon State Hospital</li> <li>- People who experience weather-related emergencies</li> </ul>	Medically tailored meals, up to 3 meals a day delivered in the home or private residence, for up to 6 months	Approved
New Jersey <sup>17</sup>	Pregnant individuals with a diagnosis of pre-existing diabetes or gestational diabetes (up to 300 individuals per year)	Medically tailored, home-delivered meals for 20 weeks	Approved
Massachusetts <sup>18</sup>	Members enrolled in the Flexible Services and Community Supports (in lieu of services) programs. Members are eligible for these programs if they are enrolled in one of MassHealth's Accountable Care Organizations, meet at least one of the Health Needs Based Criteria, and at least one of the Risk Factors identified in the Flexible Service Protocol	Medically tailored, home-delivered meals: up to 3 meals per day for up to 6 months	Approved
Washington <sup>19</sup>	All Medicaid enrollees, regardless of the delivery system in which they are enrolled	Medically tailored meals, home-delivered meals: up to 3 meals a day for up to 6 months	Approved
Arkansas	<p>Members:</p> <ul style="list-style-type: none"> <li>- With serious mental illness and/or substance use diagnoses who live in rural areas</li> <li>- With high-risk pregnancies</li> <li>- Who are young adults ages 19-24 at high risk for long term poverty and poor health outcomes due to involvement with the justice or foster care system</li> <li>- Who are veterans ages 19-30 at high risk of homelessness</li> </ul>	Nutrition supports, including healthy meal preparation	Approved

<sup>16</sup> <https://www.oregon.gov/oha/hsd/medicaid-policy/pages/waiver-renewal.aspx>

<sup>17</sup> [https://www.nj.gov/humanservices/dmahs/home/1115\\_NJFamilyCare\\_Comprehensive\\_Demonstration\\_Draft\\_Proposal.pdf](https://www.nj.gov/humanservices/dmahs/home/1115_NJFamilyCare_Comprehensive_Demonstration_Draft_Proposal.pdf)

<sup>18</sup> <https://www.mass.gov/doc/flexible-services-program-summary/download>

<sup>19</sup> <https://www.medicaid.gov/sites/default/files/2023-06/wa-medicaid-transformation-ca-06302023.pdf>

Illinois <sup>20</sup>	Individuals identified as being food insecure, and meet one of the following: <ul style="list-style-type: none"> <li>- Have a chronic condition, such as diabetes or cancer</li> <li>- Have a behavioral health condition (defined as behaviors that affect mental and physical well-being; encompassing mental health and SUD)</li> <li>- Are pregnant or up to 60 days postpartum</li> </ul>	Medically tailored, home-delivered (or for pick-up) meals: up to 3 meals per day for up to 12 months	Pending
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This list is not comprehensive but provides examples of how states are choosing to target medically tailored meal interventions. In line with CMS guidance that services and supports addressing health-related social needs must be clinically and medically appropriate<sup>21</sup>, these states demonstrate that there are options to implement reasonable limits within the target populations to avoid an overwhelming volume of members who are accessing and utilizing the benefit or sudden short-term costs that impede effective implementation before cost savings are realized.

Roadblocks to implementation have occurred in states without sufficient providers or infrastructure to scale programs. That is not the case in Colorado where many community-based food and nutrition support programs, including Project Angel Heart, have a demonstrated ability to deliver programs at scale.

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<sup>20</sup> <https://www.medicaid.gov/sites/default/files/2023-06/il-behave-health-transform-pa-06232023.pdf>

<sup>21</sup> <https://www.medicaid.gov/sites/default/files/2023-11/cib11162023.pdf>