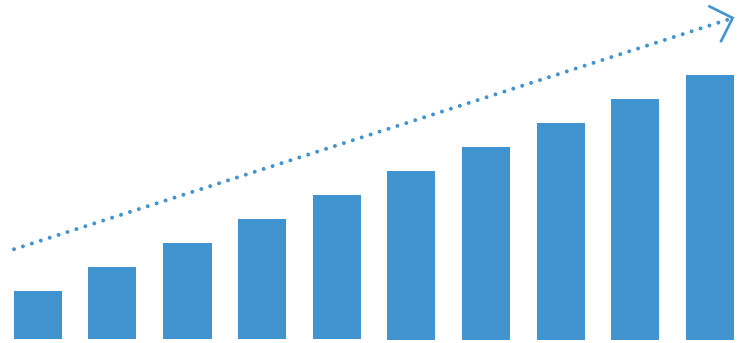


# Estimated Impact of National Medically Tailored Meal Insurance Coverage on U.S. Hospitalizations and Healthcare Expenditures: A Cost-Effectiveness Analysis

Study published in JAMA Open Network by investigators at the Tufts University Friedman School of Science and Policy  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2797397>

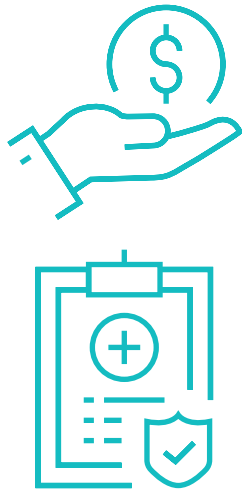
## Overview

This NIH funded research modeled the 1- and 10-year impacts of a national MTM program on hospitalizations, healthcare expenditures, and costs for Medicare, Medicaid, and private payers.



## Eligible Population

**US adults age 18+** covered by Medicare, Medicaid, or private payers, with at least one diet-sensitive condition (diabetes, heart disease, emphysema, stroke, non-melanoma cancer, kidney disease, and HIV) and one or more limitations in instrumental activities of daily living. This represents **6.3 million eligible Americans** nationally, including 2.6 million in Medicare, 0.7 million in Medicaid, 1.6 million dually eligible for Medicare and Medicaid, and 1.4 million covered by private payers.



## MTM Intervention

Provision of **10 nutritionally tailored meals** per week, for an average of **8 months per year**, in each year of intervention. The average total intervention cost was **\$9.20 per meal** (based on 2019 contracts with health systems and payers among 11 MTM organizations).



## Study Findings

If all **6.3 million eligible individuals** received MTMs, the intervention cost would be **\$24.8 billion** in the first year. In one year, the intervention would prevent an estimated **1,154,000 hospitalizations** and save **\$38.7 billion** in healthcare expenditures.

**Overall, MTMs would produce a net cost savings of \$13.6 billion** in the first year including **\$3.4 billion** in Medicare, **\$1.7 billion** in Medicaid, **\$5.9 billion** among Dual Eligible, and **\$3.0 billion** for private payers.



**Over 10 years**, the MTM intervention would reduce hospitalizations by **18,257,000** and reduce healthcare expenditures by **\$484.5 billion** for a net policy cost savings of **\$185.1 billion** (in 2019 USD). This includes net savings of **\$30.2 billion** in Medicare, **\$22.6 billion** in Medicaid, **\$88.0 billion** among Dual Eligible, and **\$45.5 billion** for private payers.

# MTM Impacts on Health Outcomes: Overview of Recent Research

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The potential utility of MTMs in clinical care is now supported by studies observing improved diet quality, food security, and disease management when high-risk patients with diet-sensitive conditions receive MTMs.<sup>1-5</sup> These findings suggest that MTMs may improve health through multiple pathways including improved nutrition, less food insecurity, better financial wellbeing, reduced stress and anxiety, and improved medication adherence and self-management. Studies documenting improvements in health outcomes due to MTM receipt include:

1. In a recent randomized controlled trial, **600 patients** hospitalized with chronic heart failure were assigned to receive either usual hospital meals or medically tailored meal plans, nutritional counseling, and if necessary, supplemental IV nutrition. The tailored nutritional support led to a **56% reduction** in mortality at **30 days**.<sup>6</sup> While the tailored meals in the latter trial were provided in-hospital rather than home-delivered, this research supports the benefits of comprehensive, tailored nutritional support for high-risk patients.
2. Patients with advanced cirrhosis and ascites required **fewer weekly paracenteses** and reported **improved ascites-specific quality of life** after three months of MTMs.<sup>4</sup>
3. Among patients with HIV receiving MTMs, **antiretroviral therapy adherence increased** and among patients with diabetes, **diabetes self-management also improved**.<sup>1,5</sup>
4. MTMs have been associated with **reduced depressive symptoms** and **fewer dilemmas** between paying for either food, healthcare or prescriptions.<sup>1</sup>
5. Among patients with recent heart failure hospitalization, 1 month of MTMs **improved clinical summary scores** on the Kansas City Cardiomyopathy Questionnaire.<sup>3</sup>

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1. Palar K, Napoles T, Hufstедler LL, et al. Comprehensive and Medically Appropriate Food Support Is Associated with Improved HIV and Diabetes Health. *J Urban Health* 2017;94(1):87-99. (In eng). DOI: 10.1007/s11524-016-0129-7.
  2. Berkowitz SA, Delahanty LM, Terranova J, et al. Medically Tailored Meal Delivery for Diabetes Patients with Food Insecurity: a Randomized Cross-over Trial. *J Gen Intern Med* 2019;34(3):396-404. (In eng). DOI: 10.1007/s11606-018-4716-z.
  3. Hummel SL, Karmally W, Gillespie BW, et al. Home-Delivered Meals Postdischarge From Heart Failure Hospitalization. *Circulation: Heart Failure* 2018;11(8):e004886. DOI: doi:10.1161/CIRCHEARTFAILURE.117.004886.
  4. Tapper EB, Baki J, Nikirk S, Hummel S, Asrani SK, Lok AS. Medically tailored meals for the management of symptomatic ascites: the SALTFOOD pilot randomized clinical trial. *Gastroenterology Report* 2020;8(6):453-456. DOI: 10.1093/gastro/goaa059.
  5. Berkowitz SA, Shahid NN, Terranova J, et al. "I was able to eat what I am supposed to eat"-- patient reflections on a medically-tailored meal intervention: a qualitative analysis. *BMC Endocrine Disorders* 2020;20(1):10. DOI: 10.1186/s12902-020-0491-z.
  6. Hersberger L, Dietz A, Bürgler H, et al. Individualized Nutritional Support for Hospitalized Patients With Chronic Heart Failure. *Journal of the American College of Cardiology* 2021;77(18):2307-2319. DOI: 10.1016/j.jacc.2021.03.232.
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