



**MEALS on WHEELS**  
AMERICA



# MORE THAN A MEAL

## PILOT RESEARCH STUDY

## EXECUTIVE SUMMARY

### BACKGROUND

In light of a rapidly aging population, increasing costs, and funding that is not keeping pace, programs like Meals on Wheels face unprecedented challenges to meet the growing demand and need for meal and nutrition services, particularly among homebound seniors. As a result, decision-makers at all levels of government and community-based organizations within the Aging Network are increasingly seeking lower cost solutions to stretch constrained budgets. One such method is drop-shipping frozen meals with limited to no personal contact, in lieu of the traditional Meals on Wheels delivery model, a 'more than a meal' model of daily in-home visits, nutritious meals, and safety-checks.

It is important to evaluate whether trade-offs are being made that pit shorter-term meal cost savings against longer-term health benefits and health care expenditure reductions, particularly in light of the abundance of past research demonstrating the value of the traditional Meals on Wheels model.<sup>1-7</sup>

Accordingly, Meals on Wheels America, with financial support from AARP Foundation, commissioned investigators at Brown University's Center for Gerontology and Healthcare Research to investigate the impact of meal service delivery on the health and well-being of adults 60 years of age and older.

### METHODOLOGY

This 15 week pilot study was designed as a three-arm, parallel, fixed, single-blinded randomized controlled trial. Beginning in late 2013, 626 seniors were selected to participate from waiting lists of eight Meals on Wheels programs across the United States. Each senior participant was randomly assigned to one of three groups: (1) daily, traditional meal delivery; (2) once-weekly, frozen meal delivery; and (3) continuance on the waiting list<sup>1</sup>. All meals served met Older Americans Act nutritional standards.

To establish a baseline, senior participants were surveyed in their homes by local Meals on Wheels staff or their trained volunteers. Data were collected on their individual health, socialization, mental health, quality of life, and healthcare utilization. In addition, information on community connectedness, social support, feelings of loneliness, history and fear of falling, and the availability of helpers was also obtained. Interviewers were also invited to provide their observations of the interior and exterior of the senior's home. To gauge changes, participants were also surveyed after 15 weeks.

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## KEY FINDINGS

**1** THOSE RECEIVING AND/OR REQUESTING MEALS ON WHEELS SERVICES ARE SIGNIFICANTLY MORE VULNERABLE COMPARED TO A NATIONALLY REPRESENTATIVE SAMPLE OF AGING AMERICANS.

Specifically, seniors on Meals on Wheels waiting lists were significantly more likely to:

- Report poorer self-rated health
- Screen positive for depression and mental health challenges (i.e., anxiety)
- Report recent falls and fear of falling that limited their ability to stay active
- Require assistance with shopping or preparing food
- Have health and/or safety hazards both inside and outside the home

**2** THOSE WHO RECEIVED DAILY-DELIVERED MEALS EXPERIENCED THE GREATEST IMPROVEMENTS IN HEALTH AND QUALITY OF LIFE INDICATORS OVER THE STUDY PERIOD COMPARED TO THE OTHER TWO GROUPS (INDIVIDUALS WHO RECEIVED FROZEN, WEEKLY-DELIVERED MEALS AND THE CONTROL GROUP).

Specifically, between baseline and follow-up, respondents receiving daily-delivered meals were more likely to exhibit:

- Improvement in mental health (i.e., anxiety)
- Improvement in self-rated health
- Reductions in the rate of falls
- Improvement in feelings of isolation and loneliness
- Decreases in worry about being able to remain in home

**3** THOSE RECEIVING DAILY-DELIVERED MEALS REPORTED GREATER BENEFITS FROM THEIR HOME-DELIVERED MEAL EXPERIENCE COMPARED TO THE GROUP RECEIVING FROZEN MEALS.

- Specifically, participants receiving daily-delivered meals were more likely to attribute their meals to making them feel safer and report that their meals helped them to eat healthier foods than the group receiving frozen meals.
- In addition, those receiving daily-delivered meals were more likely to note that their meals resulted in more social contact and less loneliness than the group receiving frozen meals.

**4** THOSE WHO LIVED ALONE AND RECEIVED DAILY-DELIVERED MEALS WERE MORE LIKELY TO REPORT DECREASES IN WORRY ABOUT BEING ABLE TO REMAIN IN HOME, AND IMPROVEMENTS IN FEELINGS OF ISOLATION AND LONELINESS OVER THE STUDY PERIOD, COMPARED TO THE OTHER TWO GROUPS (INDIVIDUALS LIVING ALONE, WHO EITHER RECEIVED FROZEN, WEEKLY-DELIVERED MEALS OR WERE IN THE CONTROL GROUP).

## CONCLUSION

Seniors who are in need of home-delivered meal services represent an extremely frail and vulnerable population, one with significant health and social support needs. The More Than a Meal study supports the wealth of past research, indicating that home-delivered meals improve the health and well-being of older adults, particularly those who receive daily-delivered meals and those who live alone.

Although lower cost options may be available to states, caregivers and Aging Network service providers, the findings of the More Than a Meal study demonstrate the superior strengths and

long-term benefits of daily, home-delivered meals and social contact for homebound older adults. By lessening feelings of isolation and loneliness and reducing the rate of falls, our findings in combination with previous research suggest the traditional Meals on Wheels service delivery model has the greatest potential to decrease healthcare costs. While alternative service models such as weekly frozen meal delivery may be less costly on the front end, this study suggests that sacrifices related to health and quality of life must be considered, the specific costs of which will be assessed in a follow-on study.

## REFERENCES

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  3. Zhu H, An R. *Impact of home-delivered meal programs on diet and nutrition among older adults: A review*. *Nutr Health* 2014;
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  6. Thomas KS, Mor V. *The relationship between Older Americans Act Title III state expenditures and prevalence of low-care nursing home residents*. *Health Serv Res* 2012;
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- i Eligible seniors were pulled from waiting lists of at least six months to ensure that meals would not be unethically withheld from participating seniors and to ensure that the control group would likely remain on the waiting list during the study period.