MEALS on WHEELS AMERICA

Empowering wellness

The significance of hospital-community collaboration in mitigating readmissions with home-delivered meal interventions

The WellSky Foundation

Introduction

Food insecurity is a major public health problem in the United States, and it contributes substantially to the burden of chronic disease and poor mental health. Accoring to the American Society for Parenteral and Enteral Nutrition (ASPEN):

160% higher

30-day hospital readmission rates are 160% higher in patients who are malnourished

22% higher

Readmitted malnourished patients have 22% higher hospital costs than those readmitted without malnutrition

20.4% higher

In the height of the COVID-19 pandemic, the prevalence of food insecurity skyrocketed. In some regions of the United States, it climbed as high as 20.4%. For programs like Meals on Wheels of America, the mission became more important than ever — to improve the health and quality of life for the seniors they serve so that no one is left hungry or isolated.

Background

In September 2020, Meals on Wheels America received a grant of $50,000 from the WellSky® Foundation. With this donation, Meals on Wheels America began a research project to determine how partnerships between healthcare and community organizations (in this case, local Meals on Wheels programs) could help reduce hospital readmission rates and improve health outcomes.

The intervention architecture for this research project was established prior to the onset of the COVID-19 pandemic. As a result, a meal-delivery referral program that required hospitals to facilitate the post-discharge service was no longer appropriate due to the tremendous strain that was placed on hospitals who were responding to new and different operational challenges presented by the pandemic. Overwhelmed with steadily high rates of very sick patients, shortages of staff, limited beds and other resources, hospitals were unable to dedicate resources to a new home-delivered meal research program.

Community-based organizations typically have more flexibility in their operations and decision-making processes (compared to hospitals). Participating Meals on Wheels programs were able to rapidly adjust their services and support structures to leverage secondary referral sources, ensuring seamless transitions for patients post-discharge. This was achieved by rebuilding the referral processes to obtain discharge notifications from in-home services, such as rehabilitation programs and home health. This change still allowed the Meals on Wheels programs to follow up with patients post-discharge, add them to their meal delivery program, and monitor their outcomes during the 90-day intervention period.

The approach

Meals on Wheels America identified two local program partners who had strong relationships with local area hospitals they could depend on for acute discharge referrals. This project measured the number of hospitalizations seniors had pre- and post-meal delivery from November 2020 through September 2021.

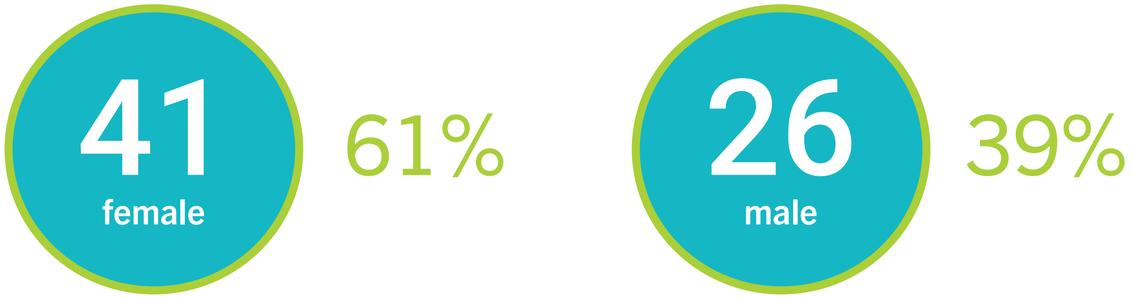
Meals on Wheels Program & Services of Rockland, Inc. (MOWR) of Rockland County, New York

Meals on Wheels of Indian River County (MOWIRC), a division of Senior Resource Association, Inc. of Indian River County, Florida.

Participant profiles

- At least 60 years of age
- At least one hospitalization 30 days prior to the referrals
- Cognitive capacity to agree to consent to participating in the program

Total # of participants: 67 (41 female | 26 male)



Number of qualifying co-morbidities

Participants had to have at least 1 of the 11 approved conditions:

- arthritis
- dementia
- high cholesterol
- cancer
- depression
- heart disease
- COPD
- diabetes
- hypertension
- congestive heart failure
- end stage renal disease/chronic kidney failure (ESRD/CKF)

The intervention

The intervention included the following for each participant:

- a meal program
- in-person visits
- social determinants of health assessment

Total number of visits and meals delivered

Total number of meals delivered:	1,637
Average meals delivered per client:	26
Total number of visits:	1,244
Average visits per client:	19

A single hot meal was delivered to the participant's home five times per week, and two extra frozen meals were delivered on Friday for the weekend.

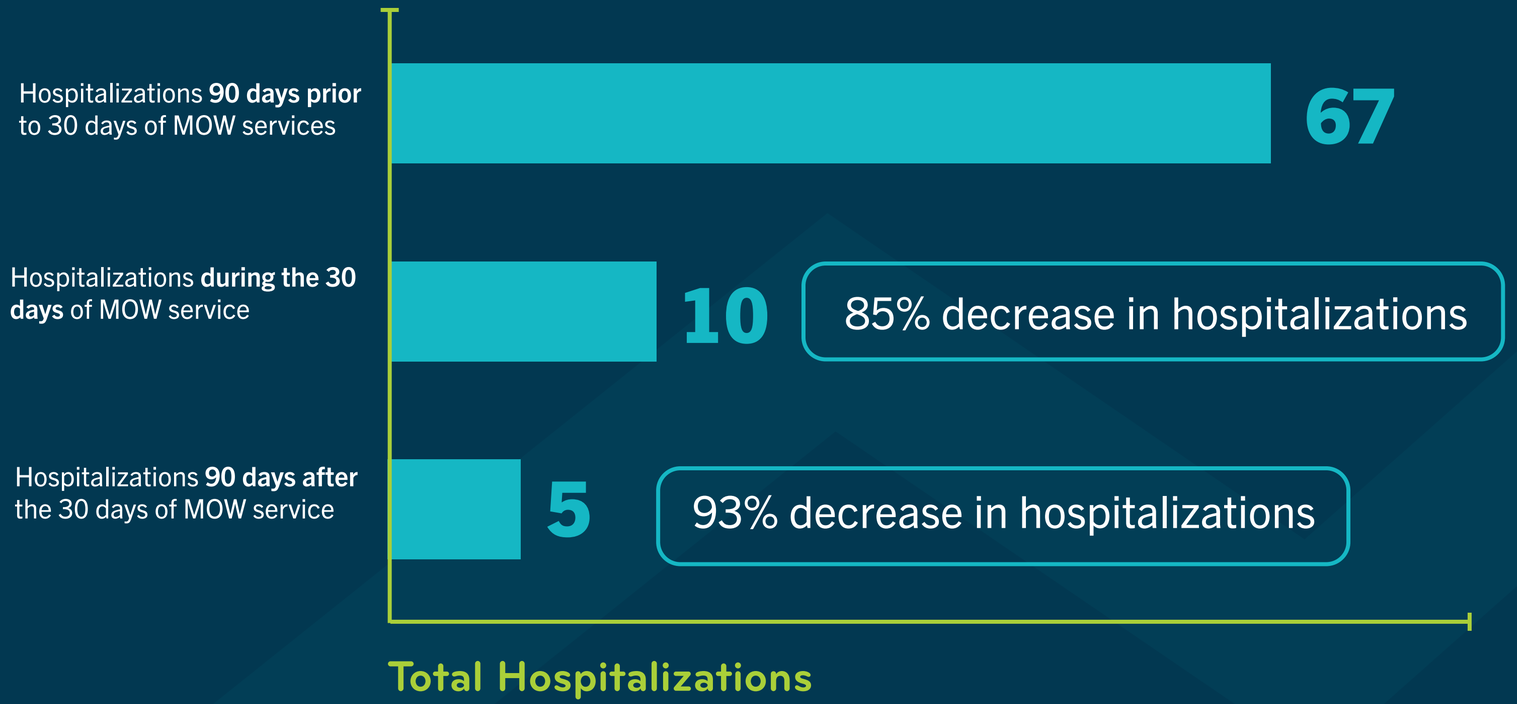
Delivery staff engaged with the participant during each visit and made observations on visible wellness and safety. This information was reported back to the appropriate program.

Readmissions were monitored at the 30, 60, and 90-day benchmarks

For those participating in the MOWR program in New York, an SDOH assessment was completed after a week of meals.

Results

This table shows the reduced hospitalizations between the two Meals on Wheels programs when food intervention was a key priority.



Client could not stop singing praises for our food program. She said that before receiving our meals, her cholesterol was through the roof and she was diabetic. She did not feel well at all. Thanks to her diet change, she no longer has to take cholesterol medications and her doctor now declared her a pre-diabetic. She also lost 15 lbs. She said meals taste delicious and she loves that they are healthy for her.

Participants reported that Meals on Wheels had positive impacts on individual health and wellness.

> Client wanted the agency to know how grateful and what a lifesaver these meals are. He said as a 72-year-old he is able to get around, but when the inclement weather comes in, it is not as easy. He wanted to express his gratitude for the meal delivery.

- **98%** believed Meals on Wheels facilitated their recovery
- **91%** felt Meals on Wheels reduced stress levels during recovery
- **82%** felt Meals on Wheels helped them to achieve their health goals
- **61%** felt Meals on Wheels reduced their social isolation during recovery

The opportunity to connect more individuals to food resources.

- **61%** said the meal provided by Meals on Wheels was their primary meal of the day
- **48%** reported they were unable to prepare meals independently after 30 days
- **19%** reported Meals on Wheels was their only food source during recovery

Lessons learned: Tips for building a successful intervention

The pandemic presented unforeseen obstacles that health systems and community organizations had not navigated before. But through the turmoil, the biggest lessons came from pivoting during a time of uncertainty and social flux:

Community-based organizations need to network with healthcare providers to build stronger relationships.

Healthcare providers need to be willing to be a part of the community and understand the available resources available for those in need.

Organizations partnering to impact health outcomes should be flexible and able to pivot when needed and align on the same end goal.

The path forward

Strategically planned partnerships between healthcare entities and community-based organizations require flexible processes and dynamic resource allocation, allowing resources be channeled to where they are most needed to capitalize on the respective strengths of the partners.

The biggest opportunity in creating a successful process is the implementation of technology-driven architecture that creates a person-centered, closed loop referral system. This allows organizations to:

- Ensure that the needs of clients are met at the right time and enable care teams to appropriately screen and understand the community resources available.
- Provide a system of communicating the referral, the referral status and outcomes among all stakeholders.

Partnerships between healthcare providers and community-based organizations like Meals on Wheels show great promise in successfully reducing hospital readmissions by addressing social determinants of health.

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