Nutrition and Aging Resource Center

SixtyPLUS: How Meals-on-Wheels Redefines Population Health

Principle Investigator: Leah Bunck, MSW, LSW, Assistant Director Nutrition Programs, LifeCare Alliance

Authors:

Andrea Devier, Vice President of Grants & Strategic Planning, LifeCare Alliance

Leah Bunck, MSW, LSW, Assistant Director Nutrition Programs, LifeCare Alliance

Lisa Juckett, PhD, OTR/L, CHT, Assistant Professor Occupational Therapy Division, The Ohio State University

December 22, 2022

ACL Disclaimer: This project was supported, in part by grant number 90INNU0016, from the Administration for Community Living, U.S. Department of Health and Human Services, Washington, D.C. 20201. Grantees undertaking projects with government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official ACL policy.

Table of Contents

Background and Purpose

A. Goal:

The goal of the project is to measure the effectiveness of LifeCare Alliance's "one-stop-shop" model as an innovation in nutrition programming for older adults by partnering. By partnering with local fire/EMS departments to gather referrals of "frequent flyers", LifeCare Alliance will provide home-delivered meals and Registered Dietitian consultation services, thus reducing expensive healthcare utilization and institutional care.

B. Objectives:

The project objectives include:

1) Maintain and establish new partnerships with local townships and healthcare conglomerates who can refer residents for services and thus improve access to care for individuals that rely too heavily on emergency services.

2) Use a signed Business Associate Agreement (BAA) with our partners to share HIPAA-protected information about clients.

3) Intervene for referred clients with range of services LifeCare Alliance offers.

4) Gather and publish data to demonstrate the replicable benefit of the model that ultimately costs taxpayers less money.

C. Overview of Project:

LifeCare Alliance received a 2019 Administration for Community Living Nutrition Innovations Grant to create and test nutrition innovations designed to improve health outcomes for older adults. In partnership with Dr. Lisa Juckett with The Ohio State University and Dr. Govind Hariharan of Kennesaw State University, the Agency focused on three key innovations in nutrition programming – 1) building and formalizing partnerships with local fire/EMS departments; 2) combining Registered Dietitian consultation services with home-delivered meals; and 3) implementing the frailty scale to measure client changes across a broad spectrum of five functional and health domains.

D. Preliminary Project Results:

Between June 2020 and December 2021, LifeCare Alliance staff implemented the Home Care Frailty Scale (HCFS; Morris et al., 2016) with 1,736 home-delivered meal clients at baseline (i.e., meal enrollment), 3-months, and 6-months. The HCFS assessed changes over time in the following five frailty domains: function (max = 8 points), mobility (max = 4 points), cognition and communication (max = 5), social interaction (max = 4), and nutritional status (max = 3). Higher total HCFS scores are indicative of greater levels of frailty whereas a HCFS score of "0" suggests that frailty is not present.

From baseline to 6-month follow-up, clients who completed the HCFS experienced a downward trend (i.e., improvement) in all five frailty areas with statistically significant improvements in the areas of

mobility, cognition and communication, and nutritional status as well as total HCFS score (Table 1). Although the function and social interaction domains of the HCFS also experienced a downward trend (i.e., improvement) from baseline to the 6-month follow-up time point, changes in these domain scores were not statistically significant. Figure 1 depicts these downward trends in all HCFS domains based on estimated means, after adjusting for gender, race, and age at baseline.

	Δ (95% CI)	p-value
Function	-0.2 (-0.5, 0)	0.07
Mobility	-0.2 (-0.4, -0.1)	0.003
Cognition/ Communication	-0.8 (-1, -0.7)	<0.001
Social	-0.2 (-0.4, 0)	0.10
Nutrition	-0.3 (-0.5, -0.2)	<0.001
Total HCFS	-1.8 (-2.3, -1.2)	<0.001

Table 1. Differences (Δ) in mean frailty domains from baseline to 6 mo. follow-up among Meals-on- Wheels clients, controlling for age at baseline, race, and gender

Given that a primary purpose of home-delivered meals is to provide nutritional support to older adults, LifeCare Alliance's Registered Dietitians (RDs) began tracking the *type* and *frequency* of dietetic interventions provided to home-delivered meal clients. A custom tracking tool was developed that enabled dietitians to document the number of "touch points" made with clients and the specific services (e.g., nutrition education; meal selection) delivered by RDs. Tracking this information allowed for LifeCare Alliance team members to characterize the complexity and quality of dietitian services – beyond simply the provision of meals – implemented with meal clients. Services ranged from basic nutrition education phone calls to in-depth nutritional counseling and custom meal planning. Please see the attached *Nutrients* article for further details about the implementation of tailored dietitian services provided by LifeCare Alliance's RD staff.

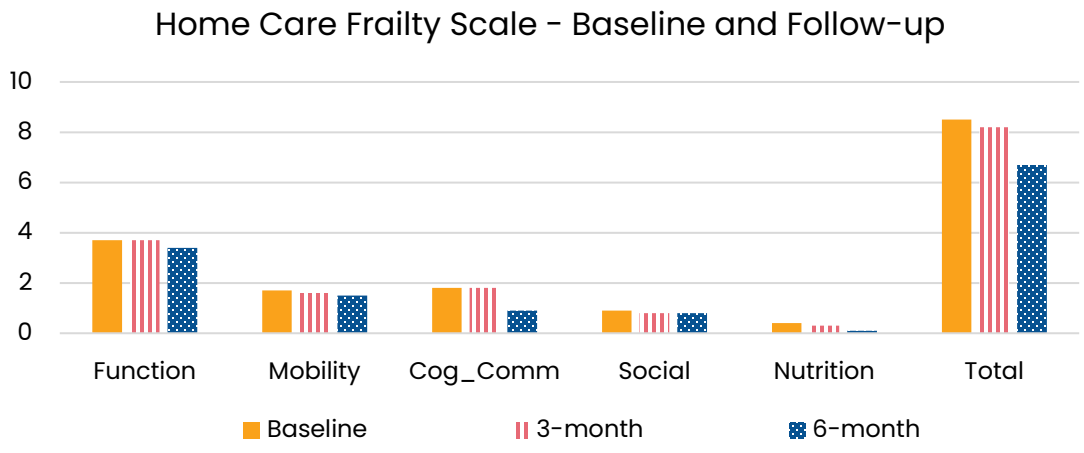

Figure 1. Baseline, 3-month, and 6-month trends in individual HCFS domains

Partners and Project Staff

A. Partners:

- Prairie Township: Referral partner from suburban area
- Norwich Township Fire Department: Referral partner from suburban area
- Jackson Township: Referral partner from suburban area
- Truro Township Fire Department: Referral partner from suburban area
- The City of London: Referral partner from a rural county
- Marion Police Department: Referral partner from a rural county

B. Project Staff Roles:

a. List number of FTEs
- 7 FTEs; 2 consultants

b. List staff title and general responsibilities
- Assistant Director, Nutrition Programs: Oversight of project
- Director, Wellness Services: Oversight of Dietitians and Social Worker, referral loop
- Community & Client Liaison / Occupational Therapist: Regular contact with referral partners, client consultation
- Registered Dietitians: Provide nutrition consultation with Meals-on-Wheels clients
- Social Worker (Wellness Department): Coordinate incoming referrals, dispatch client calls
- Assessment Team: Complete frailty scales with clients
- IT Support: Assist in general IT/infrastructure/web support and trouble shooting
- Academic Consultant: Provide content expertise on frailty scale administration and data analysis
- Health Economist: Produce cost savings analysis on services

Funding and Sustainability

A. Initial Funding:

- 2019 Administration for Community Living Nutrition Innovations Grant
- In Kind Match including volunteer time to deliver meals, social work student intern time, and Academic Consultant matching time

B. Continued Funding:

- Federal and state funding
- Grant funding from local corporations and foundations
  - In-kind match from community partners through volunteer time to deliver meals
- Specific funding sources
  - Older Americans Act Title III-C
  - Franklin County Senior Options
  - Medicare/Medicaid

C. Sustainability:

Administration of the HCFS allowed LifeCare Alliance team members to identify areas of high need among home-delivered meal clients. These areas included impairments in functional activities (e.g., housework, meal preparation), mobility status, and social interaction. To address these areas, LifeCare Alliance hired its own occupational therapist (OT) who provides tailored services that optimize client function, safety, quality of life, and independence. The OT is now embedded into the Wellness department to continue assisting clients. Furthermore, RD staff continue to provide customized dietitian services to clients and have sustained use of their service tracking tool to further characterize the types of dietetic interventions provided that can be replicated by RDs within LCA and by other HDM agencies.

LifeCare Alliance has assessed and planned for continuation of this program through ongoing fundraising including the following efforts: submitting grant proposals to foundations and other funding sources; soliciting donations from the community at-large through website and appeal outreach; securing volunteers to provide their time and service, reducing the need for paid staff; and hosting annual fundraising events with proceeds benefitting LifeCare Alliance programs.

Recruitment

A. Participants

a. List Requirements

- Older Americans Act nutrition program participants age 60+

b. What recruitment methods were used?

Successful:

Participants were not recruited for this project specifically. We included any new Older Americans Act Title III-C home-delivered meal clients that sought services from LifeCare Alliance in the study. Additionally, Registered Dietitians worked with some case-managed clients on their meal plans/selections. Primary sources of referrals to the program include word-of-mouth and existing outreach/advertising to promote services.

Not successful:

- Refrigerator magnets designed to remind seniors about services
- Securing appropriate referrals from fire/EMS partners was often inconsistent and challenging

B. Volunteers or Students, if used

a. List Requirements

- Utilized BSSW and MSW student interns to assist with frailty scale assessments
  - Must complete training session and attend subsequent check-in trainings
- Utilized home-delivered meal volunteers to deliver the meal to clients throughout their time receiving services from LifeCare Alliance
  - Must have a valid driver's license and auto insurance
  - Required to receive home-delivered meal training from Volunteer department

b. What recruitment methods were used? What was successful or not successful?

Successful:

- Radio advertisements
- Interviews on local television stations highlighting need for volunteers

C. Marketing Tips

Successful:

- Logoed pens and post-its
- One-page flyer with LifeCare Alliance services
- Word of mouth about LifeCare Alliance services
- In-person meetings/presentations with potential partners about SixtyPLUS attended by Community & Client Liaison and Academic Consultant
- Yard signs for volunteers and partners highlighting participation and engagement with LifeCare Alliance

Tools

A. Technology

- LifeCare Alliance's website: online referral form for partners
- LifeCare Alliance's website: built custom form on HIPAA-protected website to collect all frailty scale assessments
- ServTracker: LifeCare Alliance's client database and home-delivered meal routing system
- SPSS version 25: data analysis software used by Dr. Lisa Juckett

B. Resources

- interRAI Home Care Frailty Scale

Project Timeline

2019

Spring 2019

- Wrote grant proposal for 2019 ACL Innovations in Nutrition Grant
- Obtained Letters of Commitment from project partners

Fall 2019

- Received ACL Innovations in Nutrition Grant award
- Selected the Home Care Frailty Scale to use in client assessments

Winter 2019

- Trained assessment staff on use of Home Care Frailty Scale
- Conducted pilot test of Home Care Frailty Scale with 27 clients; adjusted Home Care Frailty Scale implementation procedures based on staff feedback

2020

Summer 2020

- Began collecting frailty scale data (continued through August 2022)
- Formalized collaboration with Dr. Lisa Juckett through contract with The Ohio State University
- Initiated and formalized partnerships with 3 rural fire/EMS and police departments through signed BAAs/MOUs

Winter 2020

- Obtained IRB approval
- Registered Dietitians implemented tracking mechanism for time spent with MOW clients, their menu selection, and basic meal questions

2021

Summer 2021

- Contracted with health economist Dr. Govind Hariharan
- Retrained/completed brush-up training with Dr. Lisa Juckett on frailty scale assessments

Fall 2021

- Hired new Community and Client Liaison with an Occupational Therapy background

2022

Winter 2022

- Published article in *Nutrients* – Implementing a Community-Based Initiative to Improve Nutrition Intake among Home-Delivered Meal Recipients
- Community & Client Liaison completed touch base meeting with all partners

Summer 2022

- Article moved to review process in *Frontiers* – Strategies for Implementing the Home Care Frailty Scale with Home-Delivered Meal Clients

Frequently Asked Questions

Q: What were the benefits of partnerships?

A: Partnering with fire/EMS departments allowed for LifeCare Alliance to expand its pool of referral sources in the community. This also allows for the fire/EMS departments to expand what they can do for their residents.

Q: How did partnering with fire/EMS departments facilitate your goal?

A: It was our goal to increase referrals to LifeCare Alliance while reducing the number of "frequent flyers" (individuals who rely on emergency services for non-emergent needs). These partnerships were essential to reaching seniors who otherwise were not connected to services. However, it was discovered that these individuals typically have levels of need that cannot be addressed solely through our services.

Q: What were the challenges of the partnerships?

A: Given the emergent nature of their roles, firefighters and EMTs are not always trained to evaluate a senior's needs beyond the immediate medical emergency that resulted in the 911 call. Nutrition is not always top of mind or seen as a root factor to a senior's status. It was a challenge to help them learn to identify the markers of who would make for a good referral. To assist, LifeCare Alliance staff began to ride along with them on calls to provide training and education in real-time. Additionally, it took approximately 10-20 touch points with each partner before an MOU/BAA was signed so cultivation time with the partners must be included for planning purposes.

Q: What does an MOU/BAA allow you to do that you otherwise couldn't?

A: Without an MOU/BAA, we are not able to share client information and health data with our partners. Signing these agreements allows for both parties to follow-up on the services provided and what their results were, if any. This could also lead to additional support services provided either by LifeCare Alliance or another agency. The referral loop does not get fully completed without this information sharing.

Q: Could anyone implement the Frailty Scale?

A: With proper training and adequate chart audits, any staff member could implement the Frailty Scale with clients. It is important to administer monthly chart audits in the beginning to ensure all staff are completing the Frailty Scale assessments correctly and consistently.

Q: Was the frailty scale challenging to implement with clients?

A: The most challenging part of the frailty scale plan was the 9- and 12-month follow-up schedule. We found that most clients discontinued service for a variety of reasons and thus we were not able to collect longer term data. Additionally, the frailty scale is not embedded in the client database ServTracker, which makes it difficult to track frailty scale results with the rest of the client data.

Q: How did fire/EMS partners make referrals for services?

A: Referrals could be made quickly on our customized website. This still presented a barrier for some partners, as it was still not short enough. Each partner had a unique set of needs. Providers should work with the partners individually to remove barriers for referrals.

Frequently Asked Questions Continued

Q: How much time should a staff person spend on site with EMS/911 staff?

A: Our team member spent one day a week onsite. This could be enough to foster a strong relationship, but we believe each site will need to assess how frequent staff should be onsite to meet the needs of the community and cultivate a relationship that fosters referrals.

Q: Is this program possible with only one Registered Dietitian on staff?

A: Yes – given the proper resources, one Registered Dietitian can implement client calls on a smaller scale with fewer clients.

Q: Is having a formal process in place for speaking with the RD necessary?

A: Yes – not having a tracking process in place increases risk of missing a client, especially if multiple calls are needed before contact is made. Also, if requests come in multiple forms to the RD, it can become easy to lose track of the requests.

Advice for Replication

- Securing a Business Associate Agreement/Memorandum of Understanding is a critical piece of this project as it allows both entities to share information about clients that have been referred. Without these, the feedback loop never gets closed from referring partners about what interventions were provided and how/if those interventions impacted the client.

- A HIPAA-compliant online referral form allows for ease of referral by partners, as they often will not make a referral if the process is too cumbersome. They also will not make a referral if they must call or fax.

- It is imperative to nurture partner relationships beyond establishing the formal agreement. Consider visiting partners once a week or twice per month by working on-site with them. This reminds them of the services available and can provide for organic troubleshooting opportunities that would not happen without an in-person presence. Many fire and EMS departments are turning to community paramedicine to solve this problem on their own; however just as many departments do not have the resources to tackle this issue by themselves. It allows them to meet the needs they are seeing every day without investing resources they do not have.

- We intended to implement the frailty scale at 9-months and 12-months with each client, but learned there were too many clients that discontinued meal service (deceased, nursing home, long-hold, etc.). As such, we did not collect enough assessments in the 9- and 12-month period to include in the data evaluation.

- It is very helpful for the RDs to have as much medical information about the client as possible before they make their calls. This assists with the success of their consultations and helps with barriers that seniors often have with visual, hearing, and cognitive limitations. A best-practice recommendation is to build as much information into initial client intake to include medical conditions/diagnoses and any current medications.

Appendix List

A. Home Care Frailty Scale – LifeCare Alliance: Assessment tool used on participants

B. Frailty Scale Training – LifeCare Alliance: Training provided by Dr. Lisa Juckett to all LifeCare Alliance assessment staff

C. Development of the interRAI home care frailty scale: Article published on the development of the frailty scale

D. Implementing a Community-Based Initiative to Improve Nutritional Intake among Home-Delivered Meal Recipients: Article published in *Nutrients* demonstrating effects of RD intervention with HDM clients

E. Strategies for Implementing the Home Care Frailty Scale with Home-Delivered Meal Clients: article under review with *Frontiers*

F. Yard Signs: F.1 – For referral partners to display outside their building; F.2 – For volunteers to display in their yards

G. Magnet: Provided to clients by referring partners to raise awareness of LifeCare Alliance services

H. Partner Presentation: Example of approach with fire/EMS departments to become referral partners

I. Partner Meeting Questions: Template to use with referral partners to cultivate relationship and improve communication

J. Functional Home Assessment: Assessment tool used with homebound clients to determine needs and health status

K. SixtyPLUS Flyer: Marketing tool to share about the project (customized for each geography)

L. Business Associate Agreement Template: Agreement signed between organization and referral partner to share client data

M. HIPAA-Compliant Online Referral Form: Referral form for partners to use; converted to website for online use

N. Registered Dietitian Call Tracker: Spreadsheet used by RDs to track their calls with Meals-on-Wheels clients