Nutrition Counseling and Home-Delivered Meals Interventions Improve Client Outcomes

Moderated by ACL’s Nutrition and Aging Resource Center

ADvancing States HCBS Conference

December 2021
Agenda

• Overview
• Innovations in Nutrition Grantee Showcase
  – University of Utah, School of Medicine
  – LifeCare Alliance/The Ohio State University
  – Age Options, Illinois
• Panel Discussion
• Audience Questions/Answers
Nutrition and Aging Resource Center

Goals:

• Education and resources for senior nutrition programs
• Tiered, responsive technical assistance for ACL grantees
• National leadership by acting as an advocate
Nutrition and Aging Resource Center

acl.gov/senior-nutrition

@AgingNutrition
Nutrition Counseling

State Performance Report Definition
A standardized service as defined by the Academy of Nutrition and Dietetics that provides individualized guidance to individuals who are at nutritional risk because of their health or nutrition history, dietary intake, chronic illness, or medication use, or to caregivers. Counseling is provided one-on-one by a registered dietitian and addresses the options and methods for improving nutrition status with a measurable goal.
Medical Nutrition Therapy

Academy of Nutrition and Dietetics
Medical Nutrition Therapy (MNT) is the “Nutritional diagnostic, therapy, and counseling services for the purpose of disease management which are furnished by a registered dietitian or nutrition professional…” (source Medicare MNT legislation, 2000).

MNT is a specific application of the Nutrition Care Process in clinical settings that is focused on the management of diseases. MNT involves in-depth individualized nutrition assessment and a duration and frequency of care using the Nutrition Care Process to manage disease.
Innovations in Nutrition Programs & Services (INNU) Grant Program

• Since 2017: $8 million, 33 organizations
  • https://acl.gov/senior-nutrition/models
  • https://acl.gov/programs/nutrition/innovations-nutrition-programs-and-services-0

• 2022 grants, 3-year awards:
  • Research: $400,000-600,000 annually
  • Replication grants: $50,000-$150,000 annually

• Anticipated start date: August 1, 2022
Implementation of a Collaborative Malnutrition-Focused Transitions of Care and Referral Process Between Healthcare Entities and Aging Services

SUSAN SAFFEL-SHRIER MS, RDN, CD, PROFESSOR CERTIFIED GERONTOLOGIST

AMY COVINGTON MS, RDN, CD

CHARLOTTE VINCENT PHD, RDN
MALNUTRITION: AN OLDER ADULT CRISIS

UP TO 1 OUT OF 2 OLDER ADULTS are at risk for malnutrition¹

$51.3 BILLION Estimated annual cost of disease-associated malnutrition in older adults in the US²

MALNUTRITION LEADS TO more complications, falls, and 30-day readmissions³,⁴

MALNUTRITION IS HIGHEST IN OLDER ADULTS³

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Protein-Calorie Malnutrition Related Hospital Stays per 100,000 Population</th>
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<tbody>
<tr>
<td>Aged 85+</td>
<td>3,754</td>
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<tr>
<td>Aged 65-84</td>
<td>1,487</td>
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<tr>
<td>Aged 40-64</td>
<td>437</td>
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<tr>
<td>Aged 18-39</td>
<td>107</td>
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JUST 4 STEPS CAN HELP IMPROVE OLDER ADULT MALNUTRITION CARE

SCREEN all patients

ASSESS nutritional status

DIAGNOSE malnutrition

INTERVENE with appropriate nutrition

FOCUSING ON MALNUTRITION IN HEALTHCARE HELPS:

- Decrease healthcare costs¹
- Improve patient outcomes¹
- Reduce readmissions
- Support healthy aging
- Improve quality of healthcare

Support policies across the healthcare system that defeat older adult malnutrition.

Learn more at www.DefeatMalnutrition.Today


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High Quality Malnutrition Care

Improved quality of life (QoL)
Improved functionality
Decreased mortality rates
28% decrease in avoidable readmissions
25% reduction in pressure ulcer incidence
14% fewer overall complications
Reduced length of stay by 4-6 days
Study Goals

Primary:
- Reduce re-hospitalization among malnourished older adults

Secondary:
- Improve functionality, QoL, nutritional status, mental health, & coordination of services (SDoH)
Social determinants of health are conditions in the environment in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.
Malnutrition: Social Determinants of Health

**Socio-Economic**
- Food insecurity
- Low health literacy
- Social isolation
- Family support

**Physical Environment**
- Impaired physical function
- Transportation
- Adequate food prep
- Access to food
- Working appliances

**Health Behavior**
- Self-efficacy
- Resilience
- Life satisfaction
- Addictions
- Food safety
- Abuse

**Medical Care**
- Chronic/acute illness
- Pain
- Incontinence
- Sensory deficits
- Medications
- Depression

40% Malnutrition
Study Design

Recruitment
- Older adults 60+ living in home
- At risk of or have malnutrition
- Recent hospitalization
- Eligible for Meals on Wheels

Control group
- 1 & 6 month in-home nutrition visits with RDN
- Monthly phone calls

Intervention group
- Monthly in-home nutrition visits with RDN
- Monthly phone calls
- Personalized nutrition care plan
Partnerships

Utah Division of Aging Services
  ◦ Support and implementation

Four AAA
  ◦ Rural and urban sites
  ◦ Identify malnutrition risk during intake assessment

University Hospital Post Acute Care/Affiliates
  ◦ Referral at discharge
  ◦ Two home health agencies

Multi-directional communication
  ◦ RDN with the AAA’s and U Post-Acute Care Collaborative Affiliates
Clinical skill, resource availability, and the setting determine the specific methods used to perform a clinical nutrition assessment.

### Home Visit Malnutrition Assessment

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<tr>
<td>Energy intake</td>
<td>Food access, food present in home, IADLs, family and caregiver input</td>
</tr>
<tr>
<td>Weight loss within time frame</td>
<td>Self-reported, family and caregiver input, past photos, ill-fitting clothes</td>
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#### Physical Findings

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<tr>
<td>Muscle mass &amp; body fat</td>
<td>Nutrition focused physical exam</td>
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<tr>
<td>Fluid accumulation</td>
<td>Nutrition focused physical exam</td>
</tr>
<tr>
<td>Functional muscle strength</td>
<td>Hand grip strength, Get Up and Go Test, functional status</td>
</tr>
<tr>
<td>Micronutrient exam</td>
<td>Hair, tongue, teeth, swallowing, taste, fractures, skin</td>
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Preliminary Findings

Comprehensive Nutrition Assessment Outcomes:

- Improved:
  - Coordination of services
  - Dietary intake and functionality
  - Nutrition recommendation implementation
  - Quality of life
  - MOW retention
- Reduced social isolation
THANK YOU!
Going the Extra Step: A Pilot Model for Linking Older Adults to Registered Dietitian Services

Nutrition Counseling and Home Delivered Meals Interventions Improve Client Outcomes Session

Lisa Juckett, Melinda Rowe, Elana Burak, and The Lifecare Alliance Team
December 9, 2021
Disclosure

• 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.
Overview of Organization

Mission Statement
LifeCare Alliance leads Central Ohio in identifying and delivering health and nutrition services to meet the community's changing needs.

About Us

• Located in Columbus, Ohio, LifeCare Alliance was founded in 1898 and currently provides a wide array of services, including home-delivered meals, congregate dining centers, diabetes counseling, homemaker services, and wellness centers.

• LifeCare Alliance delivers hot meals 365 days a year through its home-delivered meal & congregate meals programs to over 8,000 consumers annually.

• LifeCare Alliance nutrition programs service five Ohio counties: four rural; one urban/suburban
Food 911: How Meals-on-Wheels Redefines Population Health

- Objective 1: Improve access to care for home-delivered meal clients who rely too heavily on emergency-based services
- Objective 2: Collect data to demonstrate the benefit of home- and community-based services offered through Lifecare Alliance

Goal for today:
Present a pilot model for connecting clients to registered dietitian services to improve overall health and wellness
But first...

How does an older adult become a home-delivered meal client through Lifecare Alliance?

**Phone**
- Self
- Family member
- Caregiver
- Healthcare provider
- Fire/police
- Other Lifecare service

**Online**
Refer client to Wellness/Nutrition Consultation

Case management call: Screen client’s nutritional needs and connect client to RD services, as needed

Registered dietitian call 1: Answer basic nutrition questions and provide basic nutrition education

Registered dietitian call 2: Complete a nutrition eval to determine ability to receive specialized meals

Registered dietitian call 3: Review specialized meals (if eligible) and provide advanced nutrition education
From Jan 2021 – Oct 2021

Refer client to Wellness/Nutrition Consultation

Case management call
250 calls

Registered dietitian call 1
145 calls

Registered dietitian call 2
57 calls

Registered dietitian call 3
142 calls
From Jan 2021 – Oct 2021

- Nutrition consultation services reached 290 clients (593 calls)
- CM provided over 3,700 minutes of service
- RDs provided over 6,000 minutes of consultation
Calls YTD 2021

- January: 24
- February: 27
- March: 49
- April: 39
- May: 57
- June: 97
- July: 80
- August: 83
- September: 92
- October: 45
Preliminary data (n = 41)

• 51% female
• 73.2 years
• 2.8 self-reported health conditions
  – 49% cardiovascular disease
  – 37% diabetes
• Frailty levels (Home Care Frailty Scale; 0-30)
  – 8.4 (baseline; n = 25)
  – 5.0 (3-months; n = 11)
Key take-aways

• This model of care connects home-delivered meal recipients to client-centered nutrition consultation services
• For replication, home-delivered meal agencies must be equipped with a strong internal referral process and skilled staff (e.g., RD, case manager)
• Continued consultations may maximize health and the ability for clients to age-in-place
• Longitudinal data can help elucidate the benefits of RD services for home-delivered meal recipients
References

Overview of INNU Grant Programs
Nutrition Counseling within the Older Americans Act

**Nutrition Counseling & Home-Delivered Meals Interventions Improve Client Outcomes**

Thursday, December 9, 2021 -- 4:00 pm

**Title III C 1.5 Demonstration**

Paul H Bennett, PhD, MSW
Agenda

• Brief Overview of Initiative
• Pilot Programs
• Nutrition Education
What is Title III C 1.5?

• With ACL (2020) funding through an Innovations in Nutrition grant, AgeOptions is developing a culturally inclusive meal box delivery program
  • Addresses a gap in services between Congregate (Title III C-1) and Home Delivered Meals (Title III C-2)
  • Creating Meal Boxes containing enough food for participants to prepare and eat 21 meals per week (3 meals per day for 7 days)
  • Within the Meal Box are menus that follow the federal nutritional guidelines, along with recipes
  • Menus are being created to include medically tailored for renal, diabetic, and cardiac diets
What is Title III C 1.5?

• AgeOptions is working with organizations serving racial and ethnic minority populations to create culturally competent menus

• To date, we have surveyed the Black, Jewish (Kosher), Arab (Halal), and Korean communities. Plans are in process to also survey the LatinX and Chinese Communities

• To date, we have piloted the program to 158 participants providing a general “American” diet to assess

• We anticipate T III C 1.5 to be fully running in mid-2022

• Currently, food boxes do not meet the definition of a meal per ACL SPR/OAAPS.
Goals of Title III C 1.5

The program's goal is the modernization of the nutrition infrastructure by:

- Targeting an unmet need through an alternative delivery mechanism using unique partnerships
- Providing a new lower cost decreased overhead option of 21 meals per week
- Providing opportunities for socialization by linking participants with other programs and services
- Decreasing food waste; increasing consumption
- Targeting an ethnically, racially diverse and limited English-speaking older adults and those with chronic conditions requiring tailor-made diets of fresh, frozen, and shelf stable food.
Objectives of Title III C 1.5

- Goals will be realized through a series of three phases which take the project from:
  - Year 1 – Development
  - Year 2 – Implementation
  - Year 3 -- Transition

- Objectives are to:
  - Create a program where older adults who are unable to shop or attend a congregate site, can maintain and sustain their ability to cook;
  - Address the needs of Congregate participants during and after the pandemic;
  - Provide healthful culturally competent and/or medically tailored at a low cost;
  - Address social isolation through socialization, nutrition education, exercise and chronic disease self-management opportunities;
  - Develop and disseminate replication materials.
Evaluation

• Throughout all phases we are surveying our identified populations in order to develop what we are calling “person-centered meals.”

• During each pilot we are assessing for client satisfaction and compliance to the menu which meets federal nutrition guidelines.
What Did We Learn from Our First Pilot?

- 50% reported following the meal plan as designed
- Participants ate the food; Several reported there was too much food
- Preparation time and recipes were supported by 86.7% indicating food preparation did not take too much time
  - 84.3% felt the recipes were easy.
  - However, when asked if recipes were not needed, 64.7% of respondents strongly agreed or agreed.
- When asked whether they enjoyed each of their three meals a day
  - 90.2% strongly agreed or agreed enjoyed breakfast;
  - 88.2% enjoyed lunch, and
  - 90.2% enjoyed dinner.
- In regards to why one did not follow the Meal Plan, the most frequent response was that “I plan my own meals.”
  - Handful of respondents reported they were unfamiliar with or did not think they would enjoy the recipes
- A few surveys were completed by home care workers who indicated appreciation for the menus
Question: Thinking back on the past two weeks of food provided to you, tell us the number of days you fully followed the meal plan given to you?

- About 20% of respondents followed the meal plan for all 14 days; about 22% followed for 8-12 days
- Of the respondents who ate from the Meal Box for at least 8 days:
  - 45% ate most of the food AND followed most of the meal plan
  - 28% ate most of the food but did NOT follow the meal plan
  - 39% ate most of the food AND followed the recipes
  - 29% ate most of the food but did NOT follow the recipes
Pilot Program Meal Boxes

TOP BOX FOODS

Great Affordable Food for All

www.topboxfoods.com
(312) 527-7890
<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overnight oats</td>
<td>Overnight oats</td>
<td>Overnight oats</td>
<td>2 slices whole wheat toast with 2TBS peanut butter</td>
<td>2 slices whole wheat toast with 2TBS peanut butter</td>
<td>Egg sandwich w/ 1 egg, 2 pieces whole wheat toast, and cheese</td>
<td>Egg sandwich w/ 1 egg, 2 pieces whole wheat toast, and cheese</td>
</tr>
<tr>
<td>Banana</td>
<td>Banana</td>
<td>Banana</td>
<td>¼ cup fresh berries</td>
<td>1 orange</td>
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<tr>
<td>¼ cup milk or yogurt</td>
<td>1 cup milk or yogurt</td>
<td>1 cup milk or yogurt</td>
<td>1 cup yogurt or milk</td>
<td>1 cup yogurt or milk</td>
<td>1 cup yogurt or milk</td>
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<tr>
<td>Peanut butter and jelly sandwich</td>
<td>1 cup berry chicken salad</td>
<td>1 cup berry chicken salad</td>
<td>1 cup berry chicken salad</td>
<td>Lentil vegetable stew</td>
<td>Lentil vegetable stew</td>
<td>Lentil vegetable stew</td>
</tr>
<tr>
<td>2 slices whole wheat bread</td>
<td>1 cup fresh baby spinach</td>
<td>1 cup fresh baby spinach</td>
<td>1 cup fresh baby spinach</td>
<td>Side salad (1 cup lettuce, tomato, onion, 1TBS quick vinaigrette)</td>
<td>Side salad (1 cup lettuce, tomato, onion, 1TBS quick vinaigrette)</td>
<td>Side salad (1 cup lettuce, tomato, onion, 1TBS quick vinaigrette)</td>
</tr>
<tr>
<td>2TBS peanut butter</td>
<td>1 small muffin</td>
<td>1 small muffin</td>
<td>1 small muffin</td>
<td>1 apple</td>
<td>1 apple</td>
<td>1 apple</td>
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<tr>
<td>1TBS fruit spread</td>
<td>1 cup yogurt or milk</td>
<td>1 cup yogurt or milk</td>
<td>1 cup yogurt or milk</td>
<td>2 pieces bread/toast with margarine</td>
<td>2 slices bread/toast with margarine</td>
<td>2 slices bread/toast with margarine</td>
</tr>
<tr>
<td>1 banana</td>
<td>1 cup spinach salad with quick vinaigrette</td>
<td>1 banana</td>
<td>1 banana</td>
<td>1 cup yogurt or milk</td>
<td>1 cup yogurt or milk</td>
<td>1 cup yogurt or milk</td>
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<tr>
<td>Honey-glazed chicken quarters</td>
<td>Honey-glazed chicken quarters</td>
<td>1 Italian stuffed pepper</td>
<td>1 Italian stuffed peppers</td>
<td>Honey mustard</td>
<td>Sheet pan chicken fajita bowls</td>
<td>Sheet pan chicken fajita bowls</td>
</tr>
<tr>
<td>1 cup steamed frozen broccoli</td>
<td>1 cup steamed frozen broccoli</td>
<td>1 cup steamed green beans</td>
<td>1 cup steamed green beans</td>
<td>baked salmon</td>
<td>1 cup brown rice</td>
<td>1 cup brown rice</td>
</tr>
<tr>
<td>1 cup brown rice</td>
<td>1 cup steamed green beans</td>
<td>1 small muffin</td>
<td>1 small muffin</td>
<td>1 cup steamed frozen broccoli</td>
<td>½ cup black beans, rinsed</td>
<td>½ cup black beans, rinsed</td>
</tr>
<tr>
<td>Side salad (1 cup lettuce, tomato, onion, 1TBS quick vinaigrette)</td>
<td>1 orange</td>
<td>1 orange</td>
<td>1 apple</td>
<td>1 cup brown rice</td>
<td>1 apple</td>
<td>1 apple</td>
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<tr>
<td>1 apple</td>
<td>1 cup yogurt or milk</td>
<td>1 cup yogurt or milk</td>
<td>1 cup yogurt or milk</td>
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<td>1 cup yogurt or milk</td>
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<td>Sheet pan chicken fajita bowls</td>
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Pilot Program Recipe Examples

**Overnight Oats**

Yields 1 serving, can prepare multiple servings at once

**Ingredients**
- \(\frac{1}{2}\) Cup rolled oats
- \(\frac{1}{2}\) cup milk
- \(\frac{1}{2}\) cup Greek yogurt
- Banana
- Fresh berries

**Instructions:**
1. Combine oats, milk, and yogurt in container with a lid
2. Stir well to completely mix ingredients
3. Refrigerate overnight
4. In the morning, chop banana and place banana and berries on top
5. Double or triple to prepare for multiple mornings.

**Berry Chicken Salad**

Yields 3, 1 cup servings.

**Ingredients**
- \(\frac{1}{2}\) cup mayonnaise
- \(\frac{1}{6}\) tsp dried dill
- Black pepper to taste
- 2 cups cooked chicken breast, cubed
- 1 cup quartered fresh strawberries or whole fresh blueberries
- \(\frac{1}{4}\) cup celery, chopped
- 1 cup fresh baby spinach per serving

**Instructions**
1. In a medium bowl, mix mayonnaise, and dill together. Add black pepper to taste
2. Add chicken, berries, and celery, and mix well to combine.
3. Scoop chicken salad over baby spinach to serve.
Challenges and Opportunities -- Identified

To-date

Food Sourcing

- In response to COVID and the closure of our congregate sites, AgeOptions contracted with a not-for-profit company that creates boxes of food – a food pantry in a box. Using this company, for our initial pilot, they created our “American” Meal Box and distributed it to 158 participants of their program. Initial cost is a challenge.

- For some of our ethnic providers, for some AgeOptions and the provider will be sourcing the food.

- Exploring obtaining food from food pantries for the staple items with fresh fruits and vegetables obtained through some of our farm-to-table operations

Securing Partners and Meal Box Creation

- AgeOptions identified partners by who are currently providing congregate and/or Home Delivered Meals.

- Challenge is few of the providers are able to perform: food sourcing, meal box creation and meal box distribution.

- Challenged in finding a LatinX provider.

Meal Box Distribution

- For the “Food Pantry in a Box” program, they are distributing the food. The Meal Box program will employ several strategies. Meal Boxes will be integrated in existing Home Delivered Meal programs and in some areas may have a pick-up system
Nutrition Education

• Menu planning is a key component to educating the participant on healthful foods and meeting the nutrition standards
  • Providing healthful foods and the development of medically tailored meal plans will indirectly educate participants
• Providing healthful food for 21 meals per week is addressing food insecurity and will help to mitigate the complications of poor diet and its impact on health. Food is Medicine
• Future Meal Boxes will include educational materials pertaining to eating healthfully. The meal box provides a vehicle for much information and education
• When fully operational, plan is to offer to Meal Box participants opportunities to participate in Zoom cooking classes once program is fully operational. AgeOptions is also engaging older adults in Uniper Cares which is being used for education.
Thank you

Contact information:
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  paul.bennett@ageoptions.org

• Emma Kidder, MPH, MSW, Program Coordinator Title III C 1.5
  emma.kidder@ageoptions.org
Panel Discussion

• What have been your biggest challenges in providing nutrition counseling/MNT or nutrition education?

• What are some best practices and resources regarding nutrition therapy and nutrition education?

• Do you have suggestions regarding how to fund these services?
Resources

- Medical Nutrition Therapy
- Funding MNT/Nutrition Counseling
  - Academy of Nutrition and Dietetics (membership required)
    https://www.eatrightpro.org/payment/medicare/mnt/mnt-forms-and-resources
Questions and Answers
Contacts

Moderator
• Alexandra Bauman, MS,RD, LD, Director, National Resource Center on Nutrition and Aging, Alexandra.Bauman@iowa.gov

Presenters
• Susan Saffel-Shrier, MS, RDN, CD, Cert. Gerontologist, Professor (clinical), University of Utah School of Medicine Susan.Saffel-Shrier@hsc.utah.edu
• Lisa Juckett, PhD, OTR/L, CHT, Assistant Professor, The Ohio State University Wexner Medical Center, Lisa.Juckett@osumc.edu
• Paul H. Bennett, PhD, MSW, Manager of Community Initiatives AgeOptions, Paul.Bennett@ageoptions.org
Thank you

Funded by the Administration for Community Living (ACL), the Resource Center works to build the capacity of senior nutrition programs to provide high-quality, person-centered services, and assists ACL and stakeholders with identifying opportunities to enhance program sustainability and resiliency.