

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



Nutrition and Aging
Resource Center

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

The screenshot shows the homepage of the Nutrition and Aging Resource Center. At the top is a dark blue navigation bar with the logo and menu items: Home, About Us, Training & Tools, Success Stories, Data & Evaluation, More Resources, and COVID-19. Below the navigation bar is a search bar. The main header features the logo and the text "Nutrition and Aging Resource Center". A sub-header reads "Building the capacity of senior nutrition programs". The main content area includes a paragraph describing the center's mission and a grid of four featured sections: "Training & Tools" (with an image of a person writing), "Success Stories" (with an image of a "SUCCESS" sign), "Data & Evaluation" (with an image of a tablet showing charts), and "More Resources" (with an image of books). At the bottom of the page is a yellow button labeled "INFORMATION FOR OLDER ADULTS >".

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

JUST 4 STEPS CAN HELP IMPROVE
OLDER ADULT MALNUTRITION CARE



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



Protein-calorie
malnutrition
related hospital
stays are
2X LONGER³



**MALNUTRITION
LEADS TO**
more complications,
falls, and 30-day
readmissions^{3,4}



Protein-calorie
malnutrition related
hospital stays are
3X MORE LIKELY
to result in death³



SCREEN
all patients



ASSESS
nutritional status

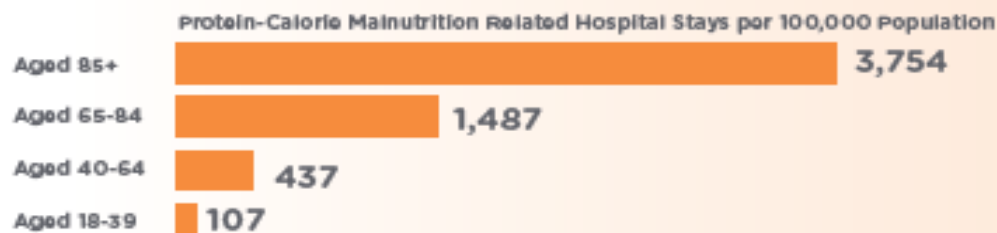


DIAGNOSE
malnutrition



INTERVENE
with appropriate
nutrition

MALNUTRITION IS HIGHEST IN OLDER ADULTS³



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

References: 1. Kaiser MJ, et al. *J Am Geriatr Soc.* 2010;58(9):1734-1738. 2. Snider JT, et al. *JPEN J Parenter Enteral Nutr.* 2014;38(2 suppl):775-855. 3. Barrett HL, Bailey MK, Owens PL. U.S. Agency for Healthcare Research and Quality. www.hcup-us.ahrq.gov/reports.jsp. Published 2018. 4. Norman K, et al. *Clin Nutr.* 2008;27(1):5-15. 5. Philipson TJ, et al. *Am J Manag Care.* 2013;19(2):121-128.

© Copyright 2019

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:

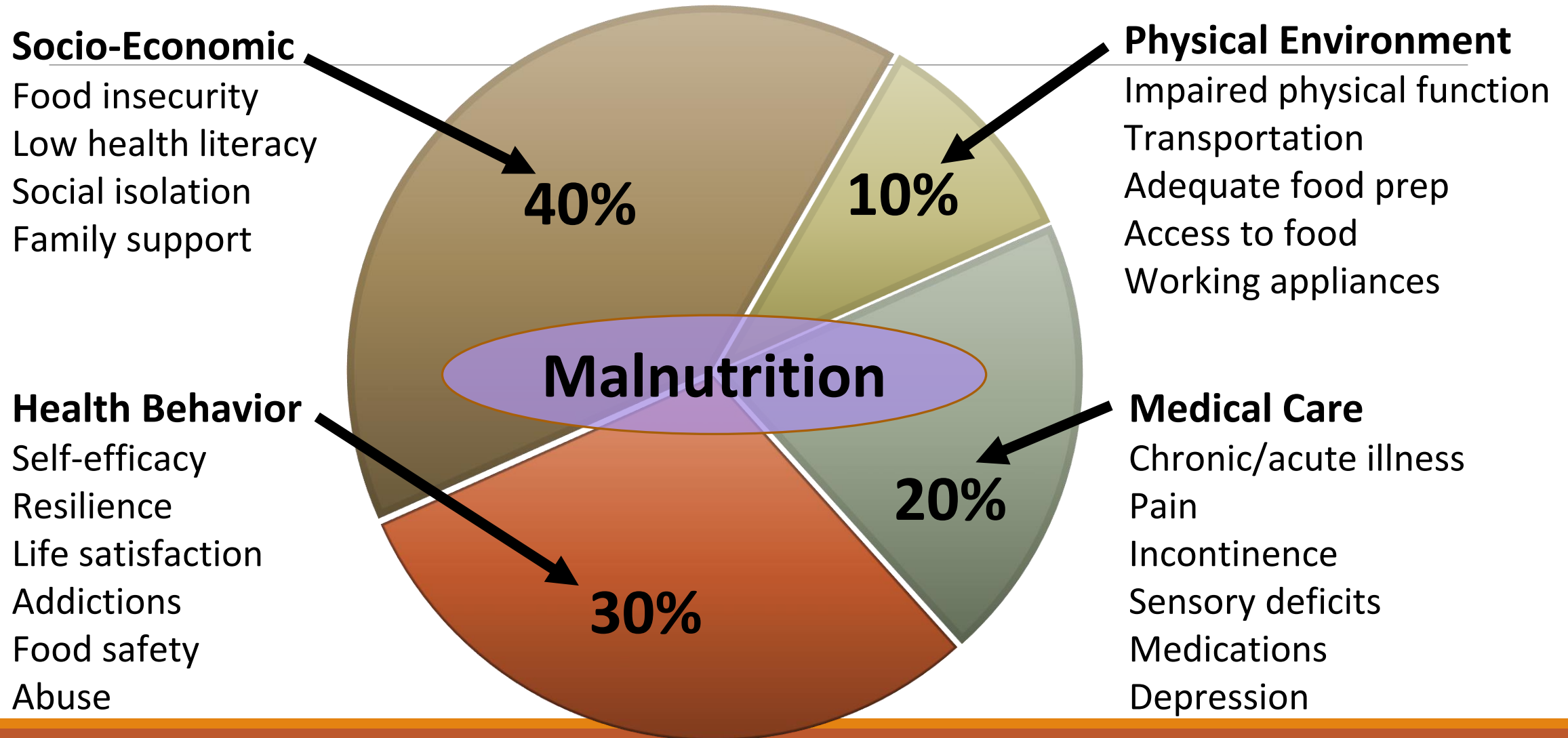
- Improve functionality, QoL, nutritional status, mental health, & coordination of services (SDoH)



Social Determinants of Health

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



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

Home Visit Malnutrition Assessment

Energy intake	Food access, food present in home, IADLs, family and caregiver input
Weight loss within time frame	Self-reported, family and caregiver input, past photos, ill-fitting clothes
Physical Findings	
Muscle mass & body fat	Nutrition focused physical exam
Fluid accumulation	Nutrition focused physical exam
Functional muscle strength	Hand grip strength, Get Up and Go Test, functional status
Micronutrient exam	Hair, tongue, teeth, swallowing, taste, fractures, skin

Clinical skill, resource availability, and the setting determine the specific methods used to perform a clinical nutrition assessment.

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



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

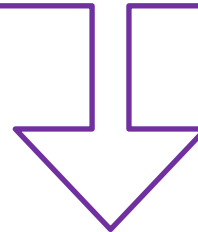
LifeCare Alliance leads Central Ohio in identifying and delivering health and nutrition services to meet the community's changing needs.

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

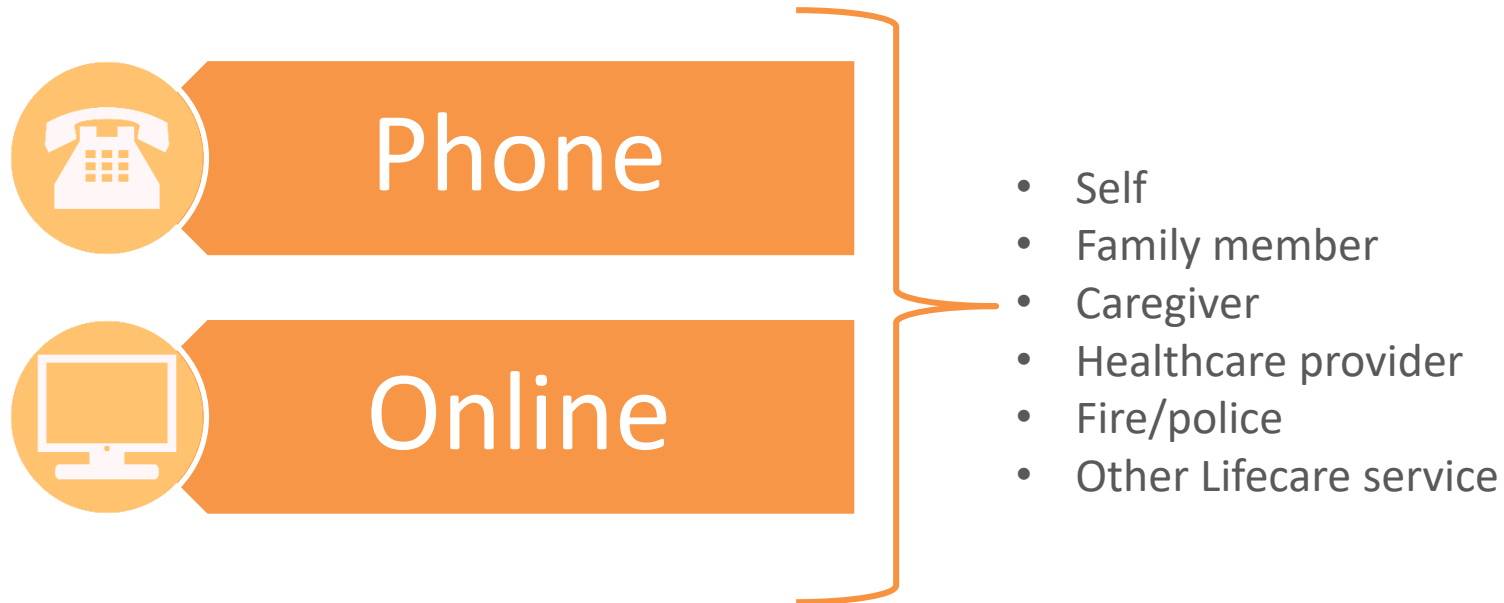


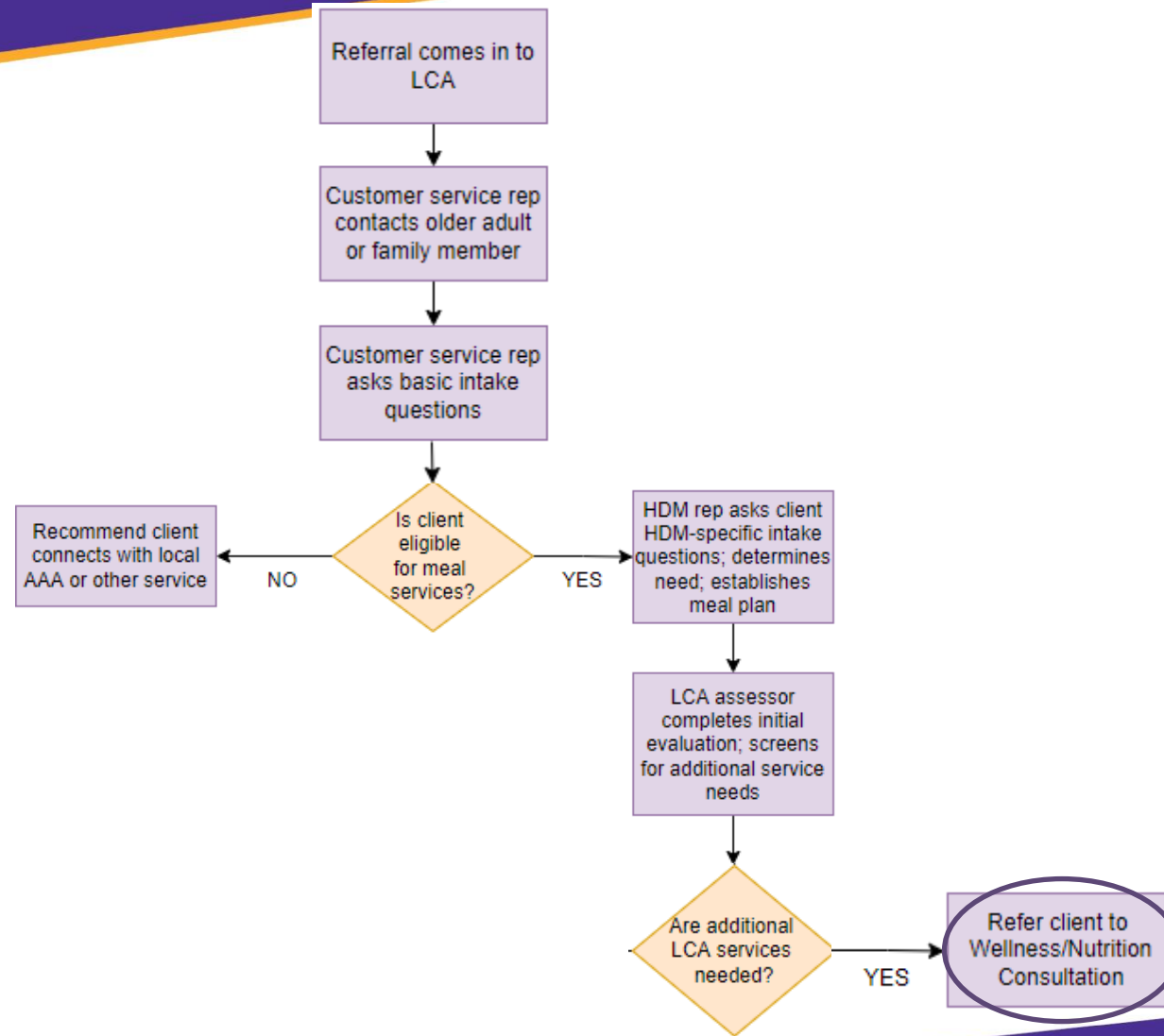
Goal for today:

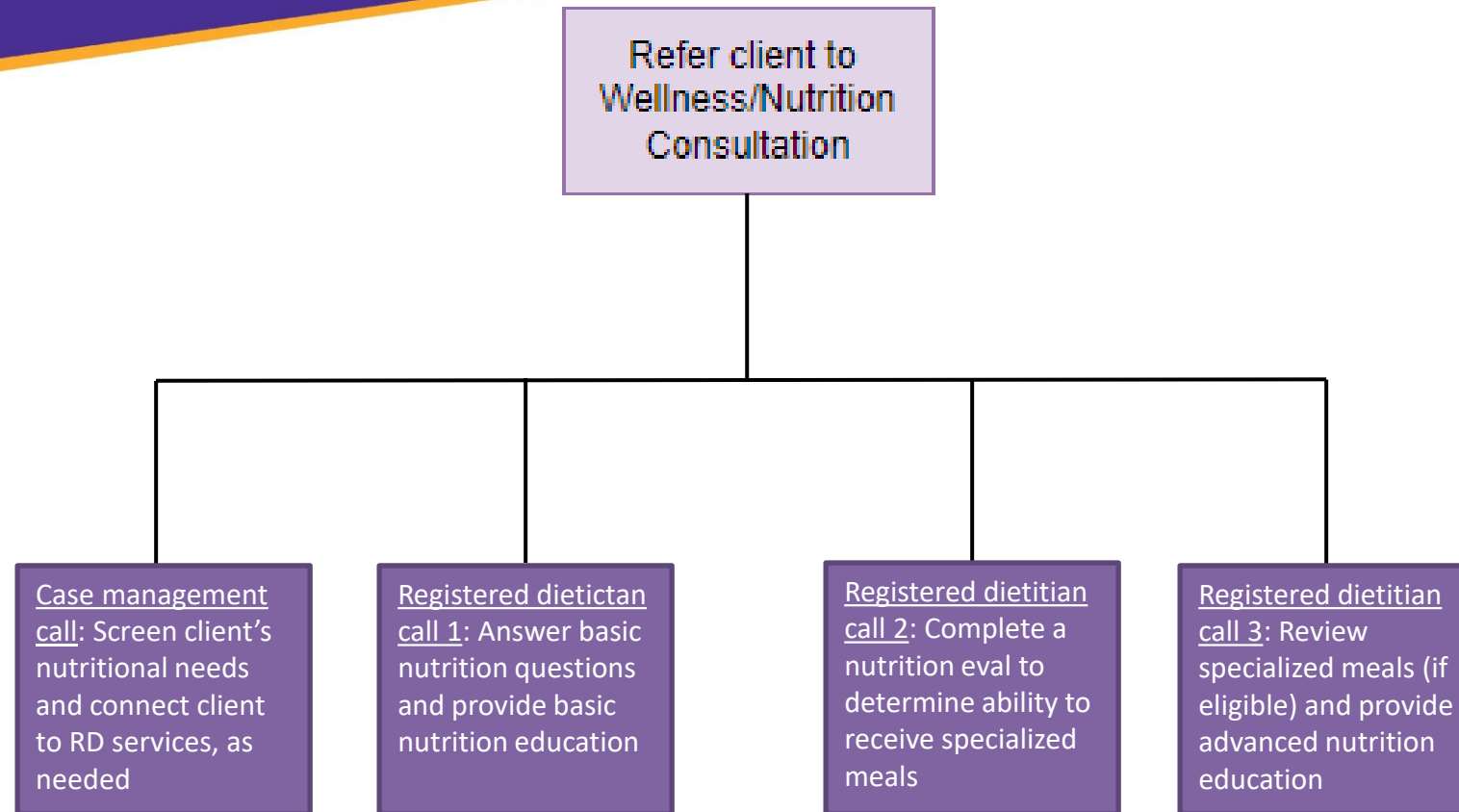
Present a pilot model for connecting clients to registered dietitian services to improve overall health and wellness

But first...

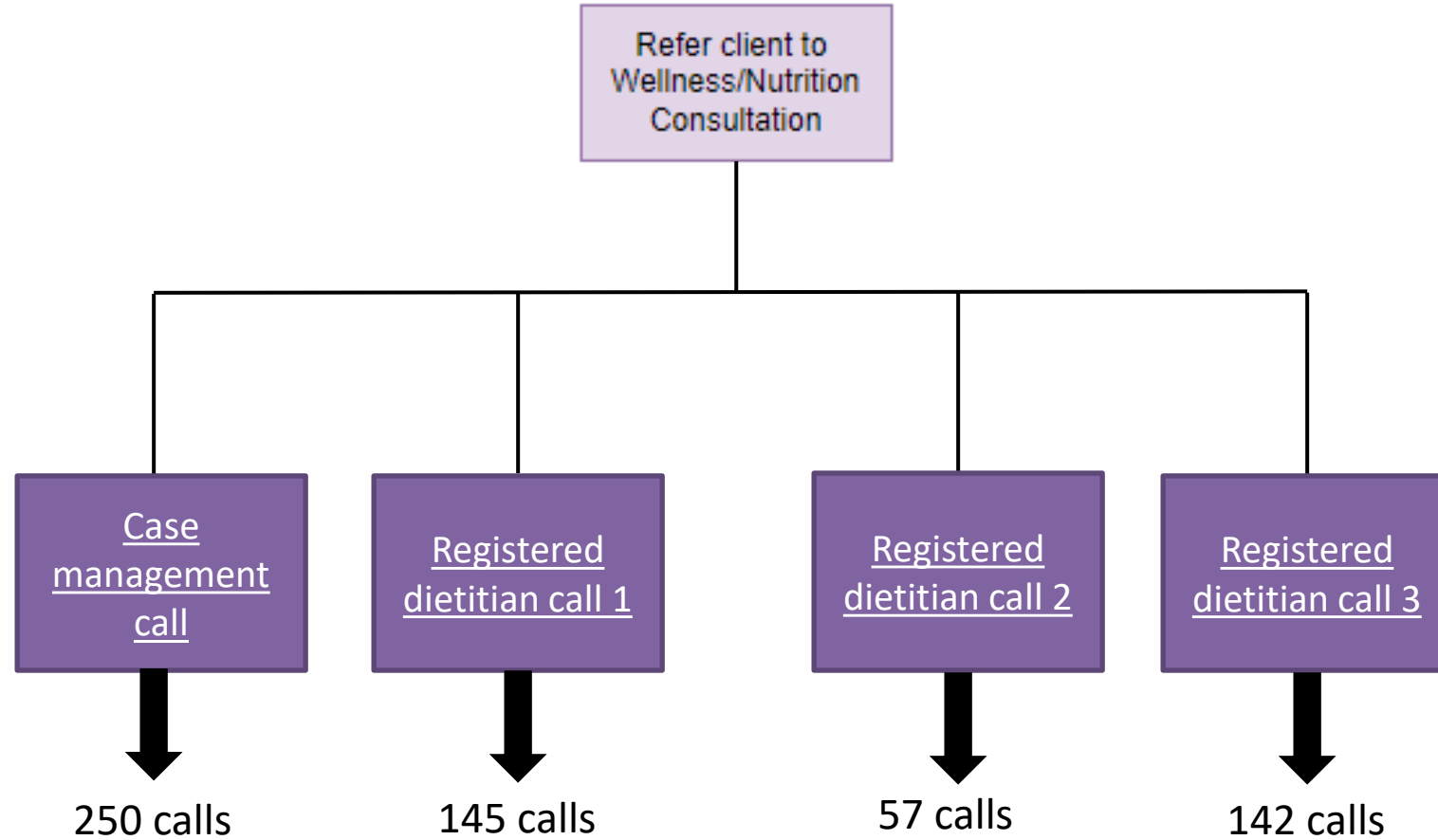
How does an older adult become a home-delivered meal client through Lifecare Alliance?



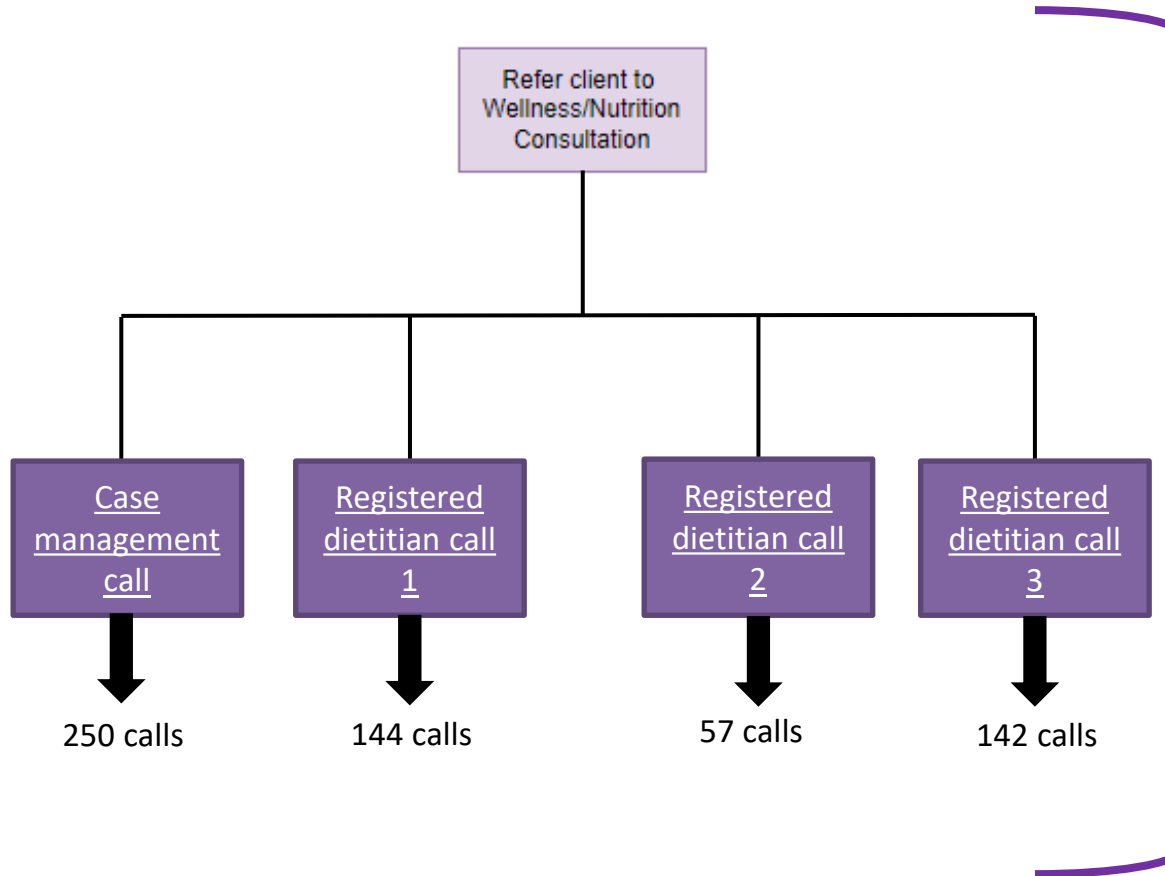




From Jan 2021 – Oct 2021

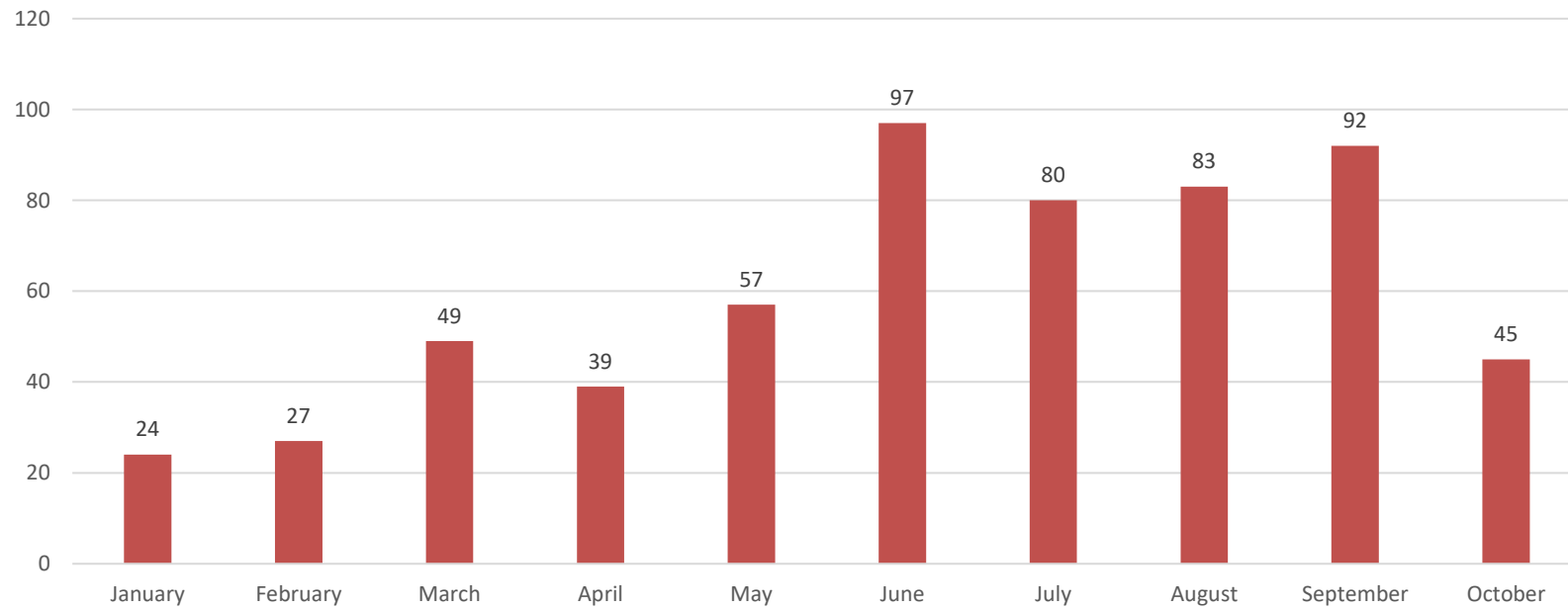


From Jan 2021 – Oct 2021



- 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



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

- Administration for Community Living. (2018). Home-delivered meals. Retrieved January 6, 2021, from https://agid.acl.gov/DataFiles/Documents/NPS/HomeDeliveredMeals2018/Codebook_Home_Meals_2018.pdf
- Ahn, M., Kwon, H. J., & Kang, J. (2017). Supporting Aging-in-Place Well: Findings From a Cluster Analysis of the Reasons for Aging-in-Place and Perceptions of Well-Being. *Journal of Applied Gerontology*, 0733464817748779. <https://doi.org/10.1177/0733464817748779>
- Choi, N. G., Sullivan, J. E., & Marti, C. N. (2019a). Low-income homebound older adults receiving home-delivered meals: Physical and mental health conditions, incidence of falls and hospitalisations. *Health & Social Care in the Community*, 27(4), e406–e416. <https://doi.org/10.1111/hsc.12741>
- Friedman, C., Caldwell, J., Rapp Kennedy, A., & Rizzolo, M. C. (2019). Aging in Place: A National Analysis of Home- and Community-Based Medicaid Services for Older Adults. *Journal of Disability Policy Studies*, 29(4), 245–256. <https://doi.org/10.1177/1044207318788889>
- Hutchins-Wiese, H. L., & Walsh, S. E. (2020). Frailty and Nutrition Risk Screening in Home-Delivered Meal Clients. *Journal of Nutrition in Gerontology and Geriatrics*, 39(2), 114–130. <https://doi.org/10.1080/21551197.2020.1719258>
- Morris, J. N., Howard, E. P., & Steel, K. R. (2016). Development of the interRAI home care frailty scale. *BMC Geriatrics*, 16(1), 188. <https://doi.org/10.1186/s12877-016-0364-5>
- Szanton, S. L., Leff, B., Wolff, J. L., Roberts, L., & Gitlin, L. N. (2016). Home-Based Care Program Reduces Disability And Promotes Aging In Place. *Health Affairs (Project Hope)*, 35(9), 1558–1563. <https://doi.org/10.1377/hlthaff.2016.0140>
- Thomas, K. S. (2015). Outcomes Matter: The Need for Improved Data Collection and Measurement in Our Nation’s Home-Delivered Meals Programs. *Journal of Nutrition in Gerontology and Geriatrics*, 34(2), 85–89. <https://doi.org/10.1080/21551197.2015.1031591>
- Thomas, K. S., Akobundu, U., & Dosa, D. (2016). More Than A Meal? A Randomized Control Trial Comparing the Effects of Home-Delivered Meals Programs on Participants’ Feelings of Loneliness. *Journals of Gerontology Series B: Psychological Sciences & Social Sciences*, 71(6), 1049–1058. <https://doi.org/10.1093/geronb/gbv111>
- Yamashita, T., Jeon, H., Bailer, A. J., Nelson, I. M., & Mehdizadeh, S. (2011). Fall Risk Factors in Community-Dwelling Elderly Who Receive Medicaid-Supported Home- and Community-Based Care Services. *Journal of Aging and Health*, 23(4), 682–703.



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 I.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



Pilot Program Week 2

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

Pilot Program Recipe Examples

Overnight Oats

Yields 1 serving, can prepare multiple servings at once

Ingredients

- ½ Cup rolled oats
- ½ cup milk
- ½ 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

- ¼ cup mayonnaise
- ½ tsp dried dill
- Black pepper to taste
- 2 cups cooked chicken breast, cubed
- 1 cup quartered fresh strawberries or whole fresh blueberries
- ¼ 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:

- Paul H. Bennett, PhD, MSW, Manager of Community Initiatives
paul.bennett@ageoptions.org
- Emma Kidder, MPH, MSW, Program Coordinator Title III C I.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



Nutrition and Aging Resource Center

acl.gov/senior-nutrition

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.