# Meals On Wheels

LEADERSHIP ACADEMY

## SENIOR NUTRITION INSTITUTE
***Sponsored by the Walmart Foundation***

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# PRESENTERS

**Linda Netterville**, MA, RD, LD, is MOWAA's vice president for grants management. Her 25 years of experience in nursing homes and community-based nutrition programs includes being state nutritionist for the Texas Department on Aging and executive director of a rural nutrition program. She has previously served as president of MOWAA and chairman of Gerontological Nutritionists—a Practice Group of the American Dietetic Association. Linda received a BS from the University of Missouri and an MA from the University of Texas.

**Dr. Audrey C. McCool**, EdD, RD, LD, is a professor emeritus at the University of Nevada Las Vegas. Prior to entering the education field, Audrey spent 20 years in health care foodservices. She has taught courses related to financial management, foodservice systems management and nutrition for the elderly. She has written multiple publications concerning foodservice management and nutritional care including a continuing education course regarding nutrition for older persons utilized by multiple allied health professionals for more than ten years.

After entering the academic field Audrey conducted research regarding the structure and management of nutrition programs for older persons, and continued to provide consultation and training for these programs. She was a consultant to the Congressionally-mandated evaluation of the Nutrition Programs for Older Americans, co-authoring the project report. She has previously presented Meals on Wheels workshops regarding program management and evidence based research. Audrey has an MS from the University of Illinois and an EdD from Texas Tech University.

**Bob Kollar**, CPA, has over 27 years of business and public accounting experience. Bob and his wife Kellie, also a CPA, own Kuhleman Kollar & Associates CPA's, P.C., an accounting and business consulting firm that works primarily with small businesses, mid-sized companies and non-profit organizations in a variety of industries. Bob's background includes 14 years of experience with the international professional services firm of Ernst & Young LLP.

In the fall of 2003, Bob accepted an appointment on the faculty of Duquesne University's Palumbo-Donahue School of Business as an Assistant Professor of Accounting. In March of 2004, Bob was appointed Director of the Master of Accountancy Program in Duquesne's John F. Donahue Graduate School of Business. Bob has developed specific training programs for non-profit organizations for Duquesne University's Non-Profit Leadership Institute. Bob received his Bachelor's and Master's Degrees in Business Administration from Duquesne University.

**Nadine Sahyoun,** PhD, RD**,** is an associate professor of nutritional epidemiology in the Department of Nutrition and Food Science at the University of Maryland. Prior to this she was a Senior Fellow at the National Center for Health Statistics. She is a Fulbright Scholar and has been teaching for many years on topics relating to nutrition and aging. Her research and publications focus on assessing the nutritional status of the older adult population and studying the relationship between nutrition and health in this population. Nadine received a BA from the University of Massachusetts, an MS from the University of Iowa and a PhD from Tufts University School of Nutrition.

TAB

# List of Participants
# Senior Nutrition Institute

## Cathy Arft
*Dietary Director*
Osceola Council on Aging
700 Generation Point
Kissimmee, FL 34744
407-847-2144
arftc@osceola-coa.com

*Home-delivered per year: 96,600*
*Congregate per year: 65,000*
*Clients served: 1,488*
*Annual budget: $1,178,951*
*Service area: Mixture of rural and urban*

## Donna Barrett
*Director*
North Area Meals on Wheels
413 Church Street
North Syracuse, NY 13212
315-452-1402
donnamb22@yahoo.com

*Home-delivered per year: 104,000*
*Clients served: 290*
*Annual budget: $150,000*
*Service area: Primarily urban/suburban*

## Wilda Belisle
*Nutrition Director*
Osceola Council on Aging
700 Generation Point
Kissimmee, FL 34744
407-847-2144
belislew@osceola-coa.com

*Home-delivered per year: 96,600*
*Congregate per year: 65,000*
*Clients served: 1,488*
*Annual budget: $1,178,951*
*Service area: Mixture of rural and urban*

## Marcy Berner-Reedy
*Executive Director*
Beloit Meals on Wheels Inc.
424 College Street
Beloit, WI 53511
608-362-3683
beloitmow@tds.net

*Home-delivered per year: 23,000*
*Clients served: 175*
*Annual budget: $252,000*
*Service area: Mixture of rural and urban*

## Sara Bumgarner
*Director of Nutrition Services*
Senior Resource Association
694 14th Street
Vero Beach, FL 32960
772-469-2061
sbumgarner@sramail.org

*Home-delivered per year: 66,000*
*Congregate per year: 48,000*
*Clients served: 450*
*Annual budget: $610,000*
*Service area: Mixture of rural and urban*

## Ann Chickowski
*Nutritionist*
Broward Meals on Wheels
3810 Inverrary Blvd. Suite 305
Lauderhill, FL 33319
954-714-6928
achickowski@bmow.org

*Home-delivered per year: 775,455*
*Congregate per year: 261,404*
*Clients served: 10,000*
*Annual budget: $4,080,931*
*Service area: Primarily urban/suburban*

## Michael Dennis
*Executive Director*
Wood County Senior Citizens Assoc. Inc.
914 Market Street
Parkersburg, WV 26101
304-485-6748
mdennis@suddenlinkmail.com

*Home-delivered per year: 30,000*
*Congregate per year: 15,000*
*Clients served: 300*
*Annual budget: $305,759*
*Service area: Primarily rural*

## Amy Falconer
Highland County Community Action
1487 N. High Street
Hillsboro, OH 45133
937-393-3458
periej@usa.net

*Home-delivered per year: 32,200*
*Congregate per year: 4,500*
*Clients served: 300*
*Annual budget: $275,000*
*Service area: Primarily rural*

## Jennifer Fralic
*Nutrition Programs Director*
LifeCare Alliance
1699 West Mound Street
Columbus, OH 43223
614-437-2863
jfralic@lifecarealliance.org

*Home-delivered per year: 1,000,000*
*Congregate per year: 150,000*
*Clients served: 5,000*
*Annual budget: $4,000,000*
*Service area: Mixture of rural and urban*

## Lamar Gailey
*Community Programs Manager*
Legacy Link, Inc.
P.O. Box 2534
Gainesville, GA 30503
770-538-2641
mlgailey@legacylink.org

*Home-delivered per year: 295,474*
*Congregate per year: 71,114*
*Clients served: 1,598*
*Annual budget: $2,483,022*
*Service area: Primarily rural*

## Sharon Geiss
*Executive Director*
Mid America Nutrition Program, Inc.
1538 Industrial Avenue
Ottawa, KS 66067
785-242-8341
sdgeiss@midamericanutrition.org

*Home-delivered per year: 82,000*
*Congregate per year: 86,000*
*Clients served: 2,200*
*Annual budget: $1,400,000*
*Service area: Primarily rural*

## Tim Getty
*Nutrition and Healthy Living Coordinator*
The Heritage Agency on Aging
6301 Kirkwood Boulevard SW Box 6301
Cedar Rapids, Iowa 52406
319-398-5559
tgetty@kirkwood.edu

*Home-delivered per year: 361,000*
*Congregate per year: 195,000*
*Clients served: 6,500*
*Annual budget: $1,900,000*
*Service area: Mixture of rural and urban*

## Mike Glasgow
*RD - OAA Consultant*
Greater Wisconsin Agency on Aging Resources
125 N. Executive Drive
Brookfield, WI 53005
262-432-7977
michael.glasgow@gwaar.org

*Home-delivered per year: 1,700,000*
*Congregate per year: 1,500,000*
*Clients served: 55,000*
*Annual budget: $14,000,000*
*Service area: Mixture of rural and urban*

## Holly Greuling
*SUA Dietitian*
Florida Department of Elder Affairs

4040 Esplanade Way
Tallahassee, FL
850-414-2000
greulingh@elderaffairs.org

## Sandra Hamilton
*Meals Coordinator*
SeniorCare Experts
145 Thierman Lane
Louisville, KY 40207
502-896-2316
s.hamilton@srcareexperts.org

*Home-delivered per year: 20,000*
*Clients served: 4,420*
*Annual budget: $47,655*
*Service area: Primarily urban/suburban*

## Ruth Hunstiger
*Director of Community Services*
Catholic Charities of the Diocese of St. Cloud
157 Roosevelt Road
Saint Cloud, MN 56301
320-229-4592
rhunstiger@ccstcloud.org

*Home-delivered per year: 180,000*
*Congregate per year: 198,000*
*Number of clients served: 8,000*
*Annual budget: $2,606,800*
*Service area: Primarily rural*

## Linda Jay
*Operations Manager*
Meals On Wheels of Texoma
4114 Airport Drive
Denison, TX 75090
903-786-3351
ljay@mowot.org

*Home-delivered per year: 375,000*
*Congregate per year: 37,525*
*Clients served: 1,650*
*Annual budget: $1,800,000*
*Service area: Mixture of rural and urban*

## Richard Kimberly
*Director of Food Service*
Sedona Community Center
2615 Melody Lane
Sedona, AZ 86336
928-282-2834
rkimberly@sccsedona.org

*Home-delivered per year: 12,500*
*Congregate per year: 8,500*
*Clients served: 21,000*
*Annual budget: $65,000*
*Service area: Primarily rural*

## Jeanne Martin
*Director*
Pascack Valley Meals on Wheels
P.O. Box 291
Westwood, NJ 07675
201-358-0050
director@pvmealsonwheels.org

*Home-delivered per year: 120,000*
*Clients served: 350*
*Annual budget: $300,000*
*Service area: Mixture of rural and urban*

## Lisa McCrystal
*Director of Nutrition Services*
Seniors First, Inc.
5395 LB McLeod Road
Orlando, FL 32811
407-615-8970
lmccrystal@seniorsfirstinc.org

*Home-delivered per year: 259,436*
*Congregate per year: 107,074*
*Clients served: 2,195*
*Annual budget: $1,943,617*
*Service area: Primarily urban/suburban*

## Kathy Paquet
*Nutrition and Wellness Coordinator*
Central VT Council on Aging
59 N. Main Street, Suite 200
Barre, VT 05641
802-476-2670
kpaquet@cvcoa.org

*Home-delivered per year: 134,223*
*Congregate per year: 56,383*
*Clients served: 2,200*
*Annual budget: $617,000*
*Service area: Primarily rural*

## George Popovich
*Director*
Mid Florida Community Services, Inc.
P.O. Box 896
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352-796-0485
george@mfcs.us.com

## Steve Schnabl
*Chief Executive Officer*
Partners in Prime
140 Ross Ave.
Hamilton, OH 45013
513-867-1998
sschnabl@partnersinprime.org

*Home-delivered per year: 150,000*
*Congregate per year: 150,000*
*Annual budget: $12,500,000*
*Service area: Mixture of rural and urban*

## Shawn Sredersas
*Nutrition & Health Director*
Mecosta County Senior Center/
Commission on Aging
12954 80th Avenue
Mecosta, MI 49332
231-972-2884
shawn.sredersas@mccoasc.org

*Home-delivered per year: 43,600*
*Congregate per year: 10,800*
*Clients served: 1,000*
*Annual budget: $350,000*
*Service area: Primarily rural*

## Alan Winstead
*Executive Director*
Meals on Wheels of Wake County
P.O. Box 37639
Raleigh, NC 27627
919-833-1749
alan@wakemow.org

*Home-delivered per year: 230,000*
*Congregate per year: 80,000*
*Clients served: 1,600*
*Annual budget: $2,450,000*
*Service area: Primarily urban/suburban*

## Julia Wise
*Executive Director*
Highland County Community Action
1487 N. High Street
Hillsboro, OH 45133
(937) 393-3458
periej@usa.net

*Home-delivered per year: 32,200*
*Congregate per year: 4,500*
*Clients served: 300*
*Annual budget: $275,000*
*Service area: Primarily rural*

## Roseland Worrell
*Executive Director*
Suffolk Meals on Wheels
2800 Godwin Blvd
Suffolk, VA 23434
757-934-4911
rlworrel@sentara.com

*Home-delivered per year: 45,300*
*Annual budget: $193,000*

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# DESIGNING FOOD DELIVERY SYSTEMS

A MOWAA Nutrition Specialist Certificate Program Workshop

**Presented by**

Audrey C. McCool, EdD, RD, LD

## COURSE OBJECTIVES

**On completion of this course, participants will:**

- **Recognize that an effective meal delivery system is an open system which consistently interacts with and gains feedback from the surrounding environment;**
- **Appreciate the impact that the meal preparation and food delivery processes have on the safety and quality of the meals provided to clients, as well as on the desired outcomes for clients;**
- **Evaluate the impact of proposed food product and equipment purchases on the safety and quality of the meals provided to clients;**

# COURSE OBJECTIVES

- **Understand the need to integrate all components of the meal delivery system to preserve the safety and quality of meals delivered to clients;**
- **Consider food safety and meal quality when determining program factors such as menu items, food product selection, packaging systems and transit time.**



# WHAT IS A SYSTEM??

- **A collection of parts integrated to accomplish an overall goal**
- **Parts comprising a system include:**
  - **Inputs**
  - **Processes**
  - **Outputs**
  - **Outcomes**
- **There is ongoing feedback among these parts**
- **Open system has ongoing feedback with the environment**

# Meal Delivery Program as a System

**A meal delivery program is a system in that it has multiple and varied inputs which are processed in varying ways to produce the output of meals for older persons**



# MEAL DELIVERY SYSTEM GOAL

**The overall goal of a meal delivery system is:**

- **Delivery of meals to program clients that are:**
  - **Nutritious**
  - **High Quality**
  - **Safe to Eat**
  - **Enjoyed by the Client**

# THE SYSTEM PARTS

- **Inputs:**
  - **Foods – Personnel – Facilities -- Equipment – Materials**
- **Processes:**
  - **Menu Preparation – Food Preparation - Meal Packaging – Meal Delivery**
- **Outputs:**
  - **Nutritious Meals Delivered to Clients**
- **Outcomes:**
  - **Clients Receive Safe, Nutritious Meals That They Enjoy**
  - **Clients Maintain/Improve Health**
  - **Clients May Be Able To Remain In Their Homes**
  - **Reduction in medical costs for clients**
  - **Important Community Need Met**



# SYSTEM INTEGRATION

- **All the parts of a meal delivery system MUST be integrated**
- **Each decision made about individual parts of a system impacts all of the other parts**
- ***Failure to consider the impact of any part of a system on other parts will likely be detrimental to the program's goal achievement***

# THE SYSTEM'S ENVIRONMENT

**Every system exists within a surrounding environment**

- **Community Needs**
  - **Clientele Assessment**
  - **Changing Clients and Client Needs – Program Flexibility**
- **Type of Community**
  - **Rural**

    **Urban - small/medium or large/very large**
- **Community Resources**
  - **Financial Support**
  - **In-kind Support**
  - **Volunteer Support**
  - **Revenue Generation Opportunities**



# ENVIRONMENTAL CHANGE

- **A program must continually interact with the surrounding environment to keep abreast of changes**
- **Programs must be flexible and, when necessary, make adjustments to keep the program viable**
- **The advent of the baby boomers will test a program's flexibility and ability to make creative changes**

# COMMUNITY NEEDS

- Short Term Services
- Different Incidence of Illnesses
- Different Nutritional Requirements
- Different Food Preferences
  - Ethnic Foods
  - Different Food Flavors and Means of Cooking
- Different Skills and Equipment in Homes



# TYPE OF COMMUNITY

Whether the community is rural, small/medium urban or large/very large urban will impact system factors such as:

- Program Size
- Type of Foods Served
- Food Resources
- Delivery Requirements
  - Route Distances
  - Delivery Types
  - Packaging
  - Delivery Vehicles
  - Delivery Personnel

# COMMUNITY RESOURCES

- Different types of community resources
  - Financial Contributions
  - In-Kind Contributions
  - Volunteer Time Contributions
  - Opportunities to Earn Revenue

- Community resources may be related to type of community
- Don't overlook opportunities to earn revenue – preparing meals for other venues, for example



# COMMUNITY DONATIONS

- All community donations can be used in some way by a program and should be considered valuable inputs
- Money donations are the most flexible type of community donations and are applicable to any type of system
- Some donations may have a direct impact on the type of system developed

# COMMUNITY RESOURCES

**Community resources are essential for sustaining a meal delivery system. Thus, consistent positive interaction with the community (the system's environment) and feedback from the community (environment) is essential for a system's sustainment**



# INPUTS

- **Inputs = Resources that are put into a system to be processed or to facilitate the processing of other inputs to create the outputs of the system.**
- **Examples of meal delivery program inputs:**
  - **Facilities**
  - **Equipment**
  - **Food Products**
  - **Materials (non-food supplies)**
  - **Personnel**
  - **Volunteers**
  - **Community Contributions**

# FACILITIES – PROGRAM SPACE

- What kind of facilities are available???
  - Office Space?
  - Warehouse – Dry Stores Space?
  - Food Production Space?
  - Cold Storage – Refrigeration/Freezer – Space?
- What are the costs associated with maintaining and/or acquiring different kinds of facilities/space???
- At a minimum, the available program facilities will influence food products used/type of foods served and may be a major consideration in contracting decisions.



# EQUIPMENT AVAILABLE

- Equipment is expensive. Thus equipment decisions will impact:
  - Resource Usage
  - Continuing Cost of Meal Production, Packaging, and Delivery
- When considering equipment purchases, calculate a cost/benefit analysis and consider all alternatives before making a final decision.
- Specific equipment may be required for some system structure options

# FOOD PRODUCTION EQUIPMENT

- If food production equipment is available – have option to do some/all food production "from scratch"
  - Food production equipment may be available
    - In the program facilities
    - Other community facilities as in-kind community resources– churches, schools
- Key questions for this decision include:
  - Capacity of available equipment
  - Appropriate type of equipment
  - Availability of personnel with appropriate skills
  - Total meal cost (raw product + labor + all overhead)



# FOOD PRODUCTION EQUIPMENT

**If a program wants to prepare foods "from scratch", appropriate food production equipment with the capacity to meet the production quantity required to serve the number of clients anticipated by the program must be available. This equipment must be clean, sanitary, and in good working order.**

# FOOD STORAGE EQUIPMENT

- Food storage equipment is concerned with the availability of space for refrigerated, frozen, and dry stores products
- May include free standing refrigerators or freezers as well as walk-ins that may be added to the building
- Considers the type of racks and shelving in all types of storage areas – shelving related to product shelf life and potential for contamination



# FOOD STORAGE EQUIPMENT

**Food storage equipment must be considered when making system decisions as available food storage space and shelving can impact the type of products that can be used as well as the shelf life and potential for contamination of stored products.**

# FOOD PRODUCTS

- Food product selection has a major impact on all other aspects of the meal delivery system
- Food product selection may be impacted by facilities and equipment available
- Conversely food products desired by a program may impact decisions about facilities and equipment
- Food product decisions are integrated with all facets of the meal delivery program system -- impact all system decisions



## FOOD PRODUCT OPTIONS

| Type of Food Product | "Raw Foods To Be Used In "From Scratch" Preparation | Refrigerated Prepared Foods Or Meals | Frozen Prepared Foods Or Meals | Shelf Stable Meals |
|---|---|---|---|---|
| Facilities – Equipment Required  | Refrigerated, frozen, and dry storage; Separate refrigerated and/or frozen storage for raw foods and prepared foods; Array of food production equipment, including sinks and pot washing equipment; "Dish-up" equipment (steam table), possible wrapping/sealing equipment - large volume of meals; insulated or possibly heated or cooled transport equipment | Large capacity for refrigerated storage; dry storage; separate refrigerated areas may be required if foods purchased in bulk; ovens may be required if foods rethermalized at program site; "Dish-Up" equipment (steam/cold table) may be required if prepared products purchased in bulk: possible wrapping/sealing equipment - large volume - bulk foods repackaged for distribution; insulated or possibly heated or cooled transport equipment | Large capacity for frozen storage; dry storage; refrigerated storage if foods purchased in bulk, thawed, rethermalized, and repackaged for distribution at program site; "Dish-Up" equipment (steam/cold table) may be required if prepared products purchased in bulk: possible wrapping/sealing equipment - large volume - bulk foods repackaged for distribution; insulated or possibly heated or cooled transport equipment | Dry storage - areas to separate foods from other materials and supplies |

# FOOD PRODUCT OPTIONS

| Type of Food Product | "Raw Foods To Be Used In "From Scratch" Preparation | Refrigerated Prepared Foods Or Meals | Frozen Prepared Foods Or Meals | Shelf Stable Meals |
|---|---|---|---|---|
| Personnel Considerations   | Need personnel skilled in food preparation and portion control; need personnel trained in food safety and safe food handling practices | Need personnel trained in food safety and safe food handling practices; may need personnel trained in proper food rethermalization techniques and portion control | Need personnel trained in food safety and safe food handling practices; may need personnel trained in proper food rethermalization techniques and portion control | Need personnel trained in food safety and safe food handling practices |



# FOOD PRODUCT OPTIONS

| Type of Food Product | "Raw Foods To Be Used In "From Scratch" Preparation | Refrigerated Prepared Foods Or Meals | Frozen Prepared Foods Or Meals | Shelf Stable Meals |
|---|---|---|---|---|
| Advantages  | Food product specifically tailored to program clientele and their needs; meals may have "home cooked" quality that may be desirable to clients; may be a lower per meal cost -- depending on product costs, waste management, portion control, & personnel costs | Meals purchased packaged, ready-to-serve - maintenance of meal quality, reduction in labor costs, portion size consistency, possible improvement in food safety; Prepared, refrigerated bulk foods purchases - potential meal quality consistency ; labor cost reduction; saving on capital equipment investment | Meals purchased packaged, ready-to-serve - maintenance of meal quality, portion size consistency, reduction in labor costs, possible improvement in food safety; Prepared, frozen bulk foods purchases - potential meal quality consistency ; labor cost reduction; saving on capital equipment investment | Reduction in labor costs, improved food safety, potential meal quality consistency, portion size consistency, savings on capital equipment investment |

# FOOD PRODUCT OPTIONS

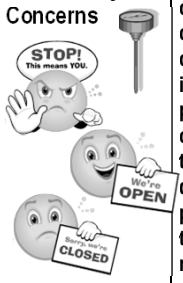
| Type of Food Product | "Raw Foods To Be Used In "From Scratch" Preparation | Refrigerated Prepared Foods Or Meals | Frozen Prepared Foods Or Meals | Shelf Stable Meals |
|---|---|---|---|---|
| **Disadvantages**  | Inconsistency in food product quality; inconsistency in food portions; excess cost from product waste; multiple opportunities for food contamination; difficulties in hiring adequately skilled personnel | Possible higher food cost; increased cost for large amount of refrigerated storage; possible food safety problems if products mishandled; if bulk products purchased - excess cost from product waste, multiple opportunities for food contamination; inconsistency in portions | Possible higher food cost; increased cost for large amount of frozen storage space; possible food safety problems if products mishandled; if bulk products purchased - excess cost from product waste, multiple opportunities for food contamination; inconsistency in portions | High product costs; Reliance on clients to reconstitute correctly - possible product quality and consistency problems; possible food safety problem if foods mishandled by clients once reconstituted |



# FOOD PRODUCT OPTIONS

| Type of Food Product | "Raw Foods To Be Used In "From Scratch" Preparation | Refrigerated Prepared Foods Or Meals | Frozen Prepared Foods Or Meals | Shelf Stable Meals |
|---|---|---|---|---|
| **Quality Concerns**   | Poor food preparation; product deterioration for foods delivered hot; product deterioration when client reheats foods | Product deterioration if not held at proper temperatures; clients may not like the "TV dinner" type meals and foods; product deterioration from foods not rethermalized properly; product deterioration if food rethermalized at program site and delivered hot | Product deterioration if not held at proper temperatures; clients may not like the "TV dinner" type meals and foods; product deterioration from foods not rethermalized properly; product deterioration if food rethermalized at program site and delivered hot | Poor product quality if not reconstituted properly by client; may have poor taste - not "real food" taste for client |

## FOOD PRODUCT OPTIONS

| Type of Food Product | "Raw Foods To Be Used In "From Scratch" Preparation | Refrigerated Prepared Foods Or Meals | Frozen Prepared Foods Or Meals | Shelf Stable Meals |
|---|---|---|---|---|
| **Food Safety Concerns**   | Multiple opportunities for contamination & cross-contamination in storage and during preparation; foods out of time & temperature range during and after preparation, food temperatures not maintained properly during meal packaging and/or delivery; clients leaving foods out at room temperature if not eaten right away | Out of acceptable time & temperature range if not held at proper temperatures during storage and transport or client leaves meal on counter at room temperature; If bulk foods rethermalized and packaged at program site - multiple opportunities for contamination at all stages | Out of acceptable time & temperature range if not held at proper temperatures during storage and transport or client leaves meal on counter at room temperature; If bulk foods rethermalized and packaged at program site - multiple opportunities for contamination at all stages | Food spoilage and contamination if reconstituted and not eaten right away - time & temperature problems; contaminated water used for reconstitution |



# SYSTEM PROCESSES

- Processes are internal to the system – transform system inputs into system outputs
- A meal delivery system has multiple processes:
  - Food Preparation
  - Menu Planning
  - Food Product and Materials Selection and Acquisition
  - Food Product and Materials Storage
  - Packaging
  - Meal Delivery

# MENU PLANNING


- Menu planning process must:
  - Reflect the selected food preparation process
  - Be closely integrated with decisions regarding the type of food products to be used in the program
- Greatest menu flexibility realized from the use of "raw" food products processed at the program site
- When using pre-prepared meals, menu options are limited to the specific products available
- Pre-prepared meals (refrigerated, frozen, shelf stable) offer client flexibility as to when to eat the meals



# FOOD PREPARATION PROCESS OPTIONS

| Process Option | All Food prepared in program facilities | Some food prepared in program facilities; some purchased pre-prepared | All Food purchased pre-prepared in bulk-refrigerated, Frozen, or Shelf Stable | All food purchased pre-prepared pre-packaged into individual meals - refrigerated, frozen or shelf stable | Caterer produces hot meals; delivers to program in bulk | Caterer produces, packages, and delivers hot meals directly to clients |
|---|---|---|---|---|---|---|
| Food Production Equipment Require-ments | All types of production equipment necessary for all types of food product production required | Some production equipment required - equipment dependent of type of products produced in facilities | No production equipment required | No production equipment required | No production equipment required | No production equipment required |

# FOOD PREPARATION PROCESS OPTIONS

| Process Option | All Food prepared in program facilities | Some food prepared in program facilities; some purchased pre-prepared | All Food purchased pre-prepared in bulk-refrigerated, Frozen, or Shelf Stable | All food purchased pre-prepared pre-packaged into individual meals - refrigerated, frozen or shelf stable | Caterer produces hot meals; delivers to program in bulk | Caterer produces, packages, and delivers hot meals directly to clients |
|---|---|---|---|---|---|---|
| Facility Space Require-ments | Large space for production, packaging, all types of storage, administrative offices, personnel areas (locker room, break areas) | Limited space for food production; large space for all types of storage; packaging area; administrative offices, moderate space for personnel areas | No space for food production; large space for all types of storage; packaging area; administrative offices, moderate space for personnel areas | No space for food production; large space for refrigerated and/or frozen storage; limited space for dry storage and for packaging area; administrative offices; limited space for personnel areas | No space for food production; limited space for all types of storage; moderate space for packaging area (hot steam tables); administrative offices; limited space for personnel areas | No space for food related activities; administrative offices; limited space for personnel areas |



# FOOD PREPARATION PROCESS OPTIONS

| Process Option | All Food prepared in program facilities | Some food prepared in program facilities; some purchased pre-prepared | All Food purchased pre-prepared in bulk-refrigerated, Frozen, or Shelf Stable | All food purchased pre-prepared pre-packaged into individual meals - refrigerated, frozen or shelf stable | Caterer produces hot meals; delivers to program in bulk | Caterer produces, packages, and delivers hot meals directly to clients |
|---|---|---|---|---|---|---|
| Probable per meal Food Cost | Low (with good purchasing & product control) | Moderate | Moderate to High | High | High | Very High |
| Probable per meal overhead costs | High | Moderate to High | Moderate | Moderate | Moderate to Low | Low |
| Personnel Requirements | High; specialized skill requirements | Moderate to high; some specialized skill requirements likely | Moderate; limited specialized skill requirements | Low - few, if any, specialized skill requirements | Low; limited specialized skill requirements | Low - few specialized skill requirements |

## FOOD PREPARATION PROCESS OPTIONS

- There are "trade-offs" between the types of costs and the resources required among the different food processing options that might be selected by a meal delivery program
- The cook-chill (cook-freeze) process is another option available to very large programs
  - Foods prepared "from scratch", then quickly chilled or frozen
  - Foods chilled/frozen either in bulk or as individual meals
  - System not cost effective for small/medium programs



## FOOD PREPARATION PROCESS OPTIONS

**Just because a meal delivery program contracts with a caterer for food and/or meal services, it is not relieved of responsibility for the quality and safety of the meals served. The program still has responsibilities and related overhead costs to be sure that the caterer's services are monitored to ensure performance to contract standards . Remedial actions must be taken when there are deviations from the contract standards.**

# PRODUCT SELECTION AND STORAGE

**The process of selection and acquisition (purchasing) of food products and materials, such as packaging materials, and the storage process for foods and materials will not be discussed here as these processes are covered in the Food Cost Control course that is part of this certification program.**



# PACKAGING PROCESS

- **Generally the packaging process required will be determined by the food preparation process that is selected**
- **The type of food used will impact the resources required (equipment, personnel, space)**
- **Hot meal packaging process is complex compared to cold food packaging**
- **Use of pre-prepared meals simplifies the packaging process**

# PACKAGING PROCESS

- Hot food packaging process:
  - Requires use of steam tables or similar equipment to keep foods at proper temperatures
    - Packaged at 180 degrees F or higher
  - Foods must be packaged/plated quickly
    - Maintain appropriate temperatures
    - Preserve product quality
  - Packaged/plated foods must be sealed quickly
  - Sealed foods must be placed into insulated or heated containers quickly
  - Delivery process must take place as soon as possible



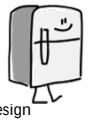
# PACKAGING PROCESS

- Critical issues for hot food packaging and delivery are:
  - Maintaining temperature levels so the food is delivered to the client at a minimum temperature of 140 degrees F

    - Temperature maintenance is <u>CRITICAL</u> for food safety
  - Having the shortest possible delivery time for transporting the meals from the program site to the client
    - Short delivery times are <u>ESSENTIAL</u> for temperature maintenance (food safety) and for product quality as the food continues to "cook" throughout the packaging, sealing, storage, and delivery processes.

# PACKAGING PROCESS

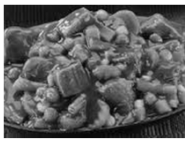
- Packaging process is simplified for cold items
- Cold items:
  - Can be packaged well ahead of delivery time and will maintain temperature when stored correctly
  - Can be packed for delivery well ahead of time and stored in refrigerators or freezers until needed
  - Are easier to pack to maintain safe temperature level of less than 40 degrees F (< 10 degrees F for frozen) for longer delivery times
- Food quality does not deteriorate in chilled or frozen products





# PACKAGING PROCESS

- Pre-packaged refrigerated, frozen, or shelf-stable meals ⇨ the simplest packaging process
- No packaging required other than to pack them for the delivery process, along with beverages and any accompanying side items



# PACKAGING EQUIPMENT

- Some type of packaging equipment needed by all programs. Might include:
  - Steam tables for hot food plating
  - Cold tables for packing cold items
  - Equipment to wrap and seal plated meals
  - Insulated containers for packing meals
  - Heated or cooled containers for packing meals

- Factors impacting packaging equipment needs
  - Program size
  - Type of meal to be delivered
  - Packaging materials selected
  - Transit time for meal deliveries
  - Mode of meal delivery



# PACKAGING MATERIALS

Factors to consider in selection of packaging materials include:

- Food items to be packaged
- Temperature of the items to be packaged
- Whether or not clients need to rethermalize the food prior to eating
- Type of equipment clients have available for food rethermalization
- Amount of liquid in the food

# PACKAGING MATERIALS OPTIONS

| Materials | Aluminum containers | Aluminum Foil (cover containers) | Ovenable Paperboard Containers | Ovenable Plastic Containers | Plastic film (cover containers) | Soup Cups | Portion Cups |
|---|---|---|---|---|---|---|---|
| Holds Heat Well | No | Yes | Yes | No | Yes | Yes | No |
| Usable in oven | Yes | Yes | Yes - to 180˚F sealed; 400˚F open | Yes to 350˚F for 30 minutes on sheet pan | Yes - to 180˚F | No | No |
| Usable in Microwave | No | No | Yes | Yes | Yes | Yes | No |
| Usable in Freezer | Yes | Yes | Yes - good to -40˚F | Yes - good to -40˚F | Yes | No | Yes |
| Recyclable | Yes | Yes | No | Yes | No | No | No |
| Bio-degradable | No | No | Yes | No | No | No | No |



# PACKAGING MATERIALS

- Packaging materials selection must be integrated with type of food product used
- Packaging materials decision cannot be made until a decision is made regarding the type of food products to be used
- Pre-Packaged meals eliminate the need for further meal plating and packaging materials for the main entrée plate
- May still need packaging materials for side items

# PACKAGING MATERIALS OPTIONS

**The packaging materials selected will impact the packaging process selected for the system. Some of these materials lend themselves to automated machine packaging; others do not. Programs serving a large volume of meals need to consider the automation factor, as well as the other factors related to the choice of packing materials.**



# PACKING FOR DELIVERY

- **Hot Meals:**
  - **Short delivery times – insulated containers**
  - **Longer delivery routes/times – heated "hot" boxes**
  - **Pack meals tightly in container**
    - **Reduce air circulation around meals**
- **Test containers on longest route with meal least likely to maintain temperature before purchasing**
- **Large program – long delivery times for multiple clients – consider a specialized van to accommodate electrically heated "boxes"**

# PACKING FOR DELIVERY

- Cold Meals , Beverages and Side Items:
  - Insulated containers and/or coolers usually adequate
  - Use frozen gel packs or "blue ice" to keep foods chilled
  - Do not use ice – possible contamination of foods from melting ice
  - Can used chilled "carry boxes" with frozen packs for chilling
  - Consider dry ice for frozen foods to be delivered on long routes




# PACKING FOR DELIVERY

- If meals are composed of a combination of hot and cold items, is it ESSENTIAL that the meal components be packed separately.
- Hot items must be packed into a HOT container; cold items in a COLD container.
- Delivery person combines items correctly to make the complete meal at the client's home

# MEAL DELIVERY PROCESS

- Factors to consider when making meal delivery process decisions:
  - How close together do clients live?
  - How difficult is it to reach clients' homes?
  - What type of vehicles are available for meal delivery?

  - How many vehicles (of each type) are available?
  - Are the meals to be delivered hot or cold?
  - What kind of containers are being used to pack the meals for delivery?



# MEAL DELIVERY PROCESS

Key Consideration:

Meals need to reach the clients at safe temperatures and must not be contaminated in any way during the delivery process

- Consider the route structure carefully
  - Keep delivery times as short as possible for hot meals
  - Rural areas with very long delivery distances and route times likely require the use of refrigerated, frozen, or shelf stable meals to preserve meal safety and food quality

# MEAL DELIVERY PROCESS

**Key Consideration: Who is going to deliver the meals?**

- **Once meals have left the program site with the delivery persons, there is no opportunity for meal "recovery"**
- **All delivery personnel must have training in:**
  - **Food handling and food safety**
  - **How to observe and check on clients' condition**
  - **How to handle problems observed or difficulties that arise during the delivery period**



# MEAL DELIVERY PROCESS

- **If volunteers are making the meal deliveries and they are using their own vehicles, need to:**
  - **Consider insurance coverage**
  - **Consider cleanliness of vehicle interior and the trunk – wherever the meal containers are being placed**
  - **Have a process in place for periodically inspecting delivery vehicles**
    - **Make sure they are well maintained and clean**
    - **Vehicle cleanliness essential to prevent meal contamination**
    - **Inspect any vehicle before a volunteer makes his/her first deliveries**
- **Clean and sanitize any program-owned delivery vehicles daily as soon as they return from delivery route**

# PERSONNEL (PAID EMPLOYEES)

- Paid personnel are a critical input to any meal delivery system
- If an adequate supply of personnel with the skills necessary for a particular system is not available as a resource within the community, then that type of system must be eliminated from consideration.
  - If it is not eliminated and inappropriate personnel are employed by the program, the quality of the meals produced will not meet the program's standards for quality
  - The safety of the produced meals may also be in question



# PERSONNEL (PAID EMPLOYEES)

Challenges regarding personnel:

- Recruiting an adequate number of personnel with the appropriate skill level if food products are prepared "from scratch" on site
- Recruiting available skilled personnel as employees for salaries available, considering programs' resources
- Finding a balance between needed skill level and resources available for salaries
- Making sure that ALL personnel, regardless of skill level or position, are trained in SAFE FOOD HANDLING PROCEDURES

# VOLUNTEERS

- **Volunteers are an important input for any program**
- **The availability and skill levels of volunteers can impact many decisions regarding the structure of a meal delivery system**
- **ALL volunteers – not matter what they are doing for the program – must be trained in SAFE FOOD HANDLING PRACTICES**



# PROGRAM VALUE

✓ **The value of the system (the meal delivery program) to the environment (the community) can be evaluated by reviewing the outcomes achieved by the system's outputs.**

# OUTCOMES AND GOAL ACHIEVEMENT

- **Goal: Provide Safe Meals**
  - **Were there any reported incidents of foodborne illness tracked back to the program?**
  - **Did quality control checks show food temperatures were maintained throughout the system?**
  - **Were foods handled in such a way that contamination was prevented?**



# OUTCOMES AND GOAL ACHIEVEMENT

- **Goal: Were meals nutritious enabling clients to maintain or improve their health status?**
  - **Were they able to remain longer in their homes?**
  - **Was unplanned weight loss reduced?**
  - **Was the incidence of illness reduced?**

# OUTCOMES AND GOAL ACHIEVEMENT

- **Goal: Did the clients enjoy the meals provided to them?**
  - **Were the provided meals eaten regularly or often left uneaten in the refrigerator or on the counter?**
  - **Did clients complain about the meals?**
    - **The taste?**
    - **The menu items?**
    - **How the foods were prepared and served?**
  - **Were compliments about the meals and/or "thank-yous" often received from the clients?**



# THANK YOU!!!

# QUESTIONS????

TAB

# MEALS ON WHEELS ASSOCIATION OF AMERICA

## BUSINESS PLANNING

Presented by: Robert J. Kollar, CPA
Director, Master of Accountancy Program
Duquesne University
January 19, 2012

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## Learning Objectives

At the end of this program, participants should be able to:

1. Understand the basics of business planning.
2. Understand the various factors that influence business planning.
3. Perform a basic SWOT Analysis.
4. Explain the difference between objectives, strategies and tactics.

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## Learning Objectives

5. Prepare a simple “strategy map” that can be used to develop a plan to address a specific objective(s).
6. Monitor the execution of a strategy map.
7. Develop measurements to monitor the achievement of organizational objectives.

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## Thanks to our Sponsor!

Meals on Wheels Association of America extends its sincere thanks to the:

**Walmart Foundation**

for making this program possible through its generous financial support.

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## Introduction to Business Planning

Some quotes on planning:

"If you don't know where you're going, how can you expect to get there?"

"You can always amend a big plan, but you can never expand a little one. I don't believe in little plans. I believe in plans big enough to meet a situation which we can't possibly foresee now." (Harry Truman)

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## Introduction to Business Planning

More quotes on planning:

"If you fail to plan…you plan to fail."

"When there is no vision…the people perish." (Proverbs, 29:18)

"Have a plan. Follow the plan, and you'll be surprised how successful you can be. Most people don't have a plan. That's why its easy to beat most folks." (Bear Bryant)

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## Introduction to Business Planning

So what is business planning?

A systematic and methodical approach to assessing the internal and external factors facing an organization, and after assessing these factors, developing a sequence of actions that will both address these factors and enable the organization to achieve its objectives. (Kollar)



## Introduction to Business Planning

Business planning is typically documented in the following:

A. Business Plan – usually for start-up companies or organizations
B. Strategic Plan – used for established entities to "map out" their future goals and objectives

## Factors Influencing Business Planning

- General economic conditions
- Customers—their needs; changing demographics, etc.
- Availability and talent of labor
- Financial resources and constraints
- Other external forces that may impact the organization

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## SWOT Analysis

- Prior to a business planning exercise, perform a SWOT Analysis
- Strengths-
- Weaknesses-
- Opportunities-
- Threats-

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## Incorporate SWOT Analysis into Business Planning

- "Play to" your strengths
- Acknowledge and address weaknesses
- Capitalize upon and pursue opportunities
- Prepare for and respond to threats

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## SWOT Exercise

Group Exercise - Sample SWOT Analysis

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## Components of Planning

- Objectives
- Strategies
- Tactics
- Examples

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## Components of Planning

Objectives should be SMART:

- Specific
- Measurable
- Achievable
- Realistic
- Time-bound

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## Why do a lot of business planning efforts fail?

- Planning is challenging!
- No execution
- Lack of monitoring
- "Prediction is difficult, especially about the future." (Yogi Berra)
- "When you come to the fork in the road, take it." (Yogi Berra)

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## Use a Strategy Map to Achieve Objectives

- What is a Strategy Map?
- How can it help with business planning?
- Example

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## Strategy Map Exercise

Group exercise in preparing a strategy map to achieve a specific objective or objectives.

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## It's All About Execution!

- Failure to execute a great plan is exactly that—an overall failure of the plan!
- In a sluggish economy, execution takes on greater importance.
- Separates the organizations that survive from those that won't.

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## It's All About Execution!

Three ways to ensure successful implementation of a planning effort:

A. Communicate the key points
B. Develop tracking/monitoring systems that facilitate solving problems (checklists can be very helpful!)
C. Establish formal reviews of the plan—is it on track?

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## Key Performance Indicators

- Many organizations develop Key Performance Indicators (KPI's) to monitor organizational operations and effectiveness.
- What is a KPI?
- How would/could they be useful in managing the organization?
- Potential problems or pitfalls in using KPI's???

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## Performance Dashboards

- What do you think of when you hear the term “dashboard?”
- What does a dashboard convey?
- How could the dashboard concept be applied to a corporate or an organizational setting?

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## Example Financial Indicators for Non-Profit Organizations

- Current ratio
- Debt ratio
- General & administrative expense %
- Fund-raising expense %
- Operating margin %
- Revenue mix
- Net asset mix

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## Performance Dashboards

- What elements are necessary for a meaningful and useful dashboard?
- Exercise on dashboards/KPI's

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## Business Planning—References

- Lots of books, business articles on planning, strategic planning, etc.
- See separate handout for a partial listing of some recommended reading on business planning

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## Summary and Wrap-Up

- Business planning is essential, especially in tough economic times
- Business planning will only succeed if it is clearly communicated, effectively monitored, and regularly reviewed
- Monitoring can be tricky but is essential if objectives are to be achieved

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TAB

# Screening and Prioritizing Clients for Nutrition Risk

**Nadine Sahyoun, PhD, RD**
**University of Maryland**

**January 19, 2012**

## Overview

- Why prioritize nutrition service delivery?
- Key nutrition risk factors among homebound older adults
- Screening and assessment tools currently used to identify nutritional needs
- Do we need new screening tools?
- Approaches and feasibility in screening, prioritization and outreach.

## Purpose of OAANP

- Decrease hunger and food insecurity
- Promote socialization
- Promote the health and well-being of older individuals and delay adverse health conditions through access to nutrition and other disease prevention and health promotion services.

http://www.aoa.gov/aoaroot/aoa_programs/hcltc/nutrition_services/index.aspx

## Who qualifies for HDM?

At minimum, Fed regulations:

- Ages 60 +
- Spouse of any age
- Homebound due to illness, disability, or geographic isolation
- Disabled individual residing with an eligible older adult

- Not means tested
- Criteria somewhat broad

## OAA Eligibility for HDM

- Service priority for frail, homebound or isolated elderly
- Most states develop policy, regulations, standards, guidance to implement OAA & regulations
- There may be different criteria for other funding sources: Medicaid Waiver, State/county/city funded programs; privately funded programs

## Also .....

- OAA states:
  - Services targeted to those at greatest social and economic needs, especially,
    - low-income
    - minority
    - living in rural communities
    - limited English proficiency
    - At-risk of institutional care

## % of Low-Income Older Adults with Specific Characteristics that Did/Did Not Received Meal Services

GAO, February, 2011, Based on CPS Analysis

| Characteristic | % | Receive HDMs | Receive Cong Meals | Received Neither |
|---|---|---|---|---|
| **Food Security** | | | | |
| **Food Secure** | 81.4 | 3.3 | 5.7 | 91.7 |
| **Food Insecure** | 18.6 | 7.4 | 4.9 | 88.9 |
| **# of Impairments** | | | | |
| **0** | 65.2 | 2.3 | 5.1 | 93.1 |
| **1** | 18.0 | 3.6 | 6.3 | 91.2 |
| **2+** | 16.8 | 11.5 | 6.4 | 83.3 |
| **Social Isolation** | | | | |
| **Less isolated** | 31.8 | 2.5 | 6.1 | 92.1 |
| **More isolated** | 41.4 | 5.0 | 5.0 | 91.0 |
| **Missing** | 26.8 | 4.5 | 5.8 | 90.3 |

# Funding

| Year of funding | Home-Delivered Nutrition Services | Congregate Nutrition Services |
|---|---|---|
| FY 2006 | 181,780,000 | 385,054,000 |
| FY 2007 | 188,305,000 | 398,919,000 |
| FY 2008 | 193,858,000 | 410,716,000 |
| FY 2009 | 214,459,000 | 434,269,000 |
| FY 2010 | 217,676,000 | 440,783,000 |

## Older Americans Act
## Unmet Need for Services

- 79% of AAAs saw increased requests for HDM
- 47% of AAAs saw increased requests for congregate meals since the start of the economic downturn
- 22% of AAAs were unable to serve all clients who requested HDMs & 5% of agencies were unable to serve all who requested congregate meals

US Accountability Office, February 2011

## AARP Public Policy Institute/NASUAD survey summer 2010

- 31 states cut aging and disability services in FY2010
- 28 states were expecting to cut those services in FY 2011
- > 50% of states increased demands for HDM, and other programs for older adults
- Expiration of Funds from the American Recovery and Reinvestment Act (ARRA) stimulus funds

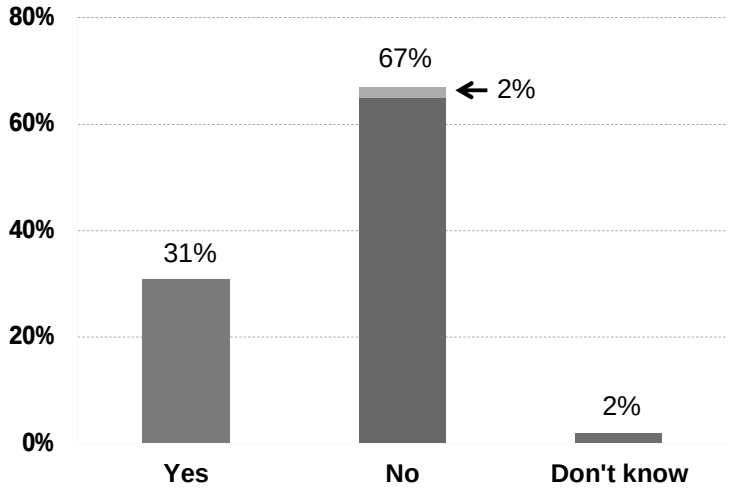
http://www.nasuad.org/documentation/nasuad_materials/weathering_the_storm/weathering_the_storm.pdf

## AARP Public Policy Institute/NASUAD survey summer 2010

- States indicated that in 2011 they would be :
  - Cutting services
  - Eliminating programs
  - Starting waiting lists

http://www.nasuad.org/documentation/nasuad_materials/weathering_the_storm/weathering_the_storm.pdf

## Waiting list for HDM nationwide, 2009 (n=348)



## Waiting Lists

- AoA does not require the reporting on waiting list data
- Some states require reporting of waiting list data
- No uniform agreement on criteria for waiting list
- Reflection of Short Term Need
  - Acute illness
  - Hospital/rehabilitation discharge
  - Transition care

## Waiting Lists

- Reflection of Long Term Need
  - Chronic conditions
  - Functionally impaired
  - Transition care
- Waiting list issues
  - Administrative burden, updating & managing
  - Geography/non service areas
    - Do not provide service in some areas, especially in rural/frontier areas
  - Service expenses
    - Do not have the equipment, funding, volunteers, staff to expand

## Why Prioritize Services Among Individuals Who Are Eligible?

- Increasing demand, increasing need
- Shrinking budget (public/private resources)
- All states will continue to face severe budgetary issues in FY2012 and beyond
- Prioritization used by USDA food assistance programs
- Desire to provide services to most needy
- Demonstrate accountability
- Demonstrate need

## Other Solutions

- Collaborate, coordinate, integrate with other programs in the parallel systems

- USDA Food Assistance Programs for older adults
  - Supplemental Nutrition Assistance Program, previously known as the Food Stamp Program
  - Child and Adult Care Food Program
  - Commodity Supplemental Food Program
  - The Emergency Food Assistance Program
  - Senior Farmers' Market Nutrition program

## Other Solutions

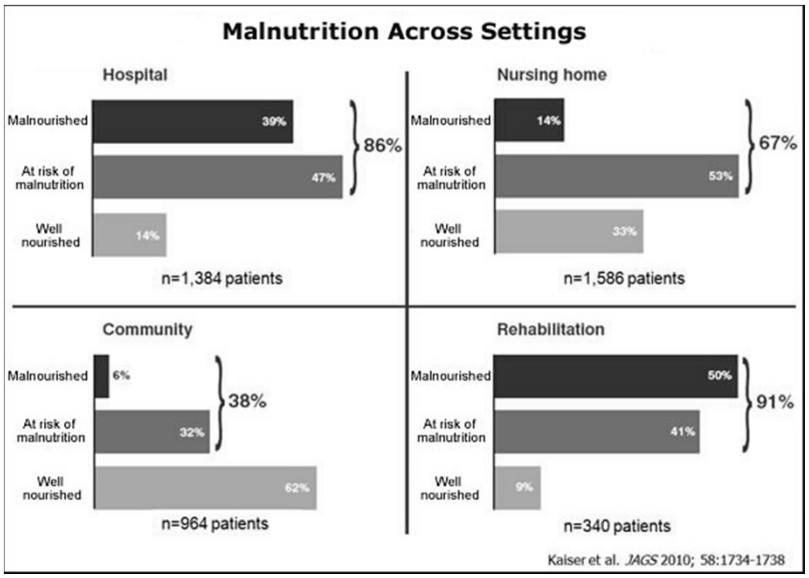
- Collaborate, coordinate, integrate with other programs in the parallel systems
  - OAA Title III B service: homemaker
  - State 1915 Medicaid Waiver programs
  - USDA Food Assistance Programs
  - Utilization of private pay or fee for service

## How to Prioritize?

- Purpose of HDM
  - Decrease hunger and food insecurity
- Assessing eligibility—broad criteria
- Assessing need
- Providing service to the most needy

# What Do We Mean by “Need” ?

- ??????????????

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# Malnutrition

- Most often used in medical/clinical situations
- Indicative of poor clinical outcomes
- May be associated with both overweight/obesity AND underweight/undernutrition
- Influences
  - Health, mortality, morbidity
  - Functionality
  - Quality of life
  - Health care costs

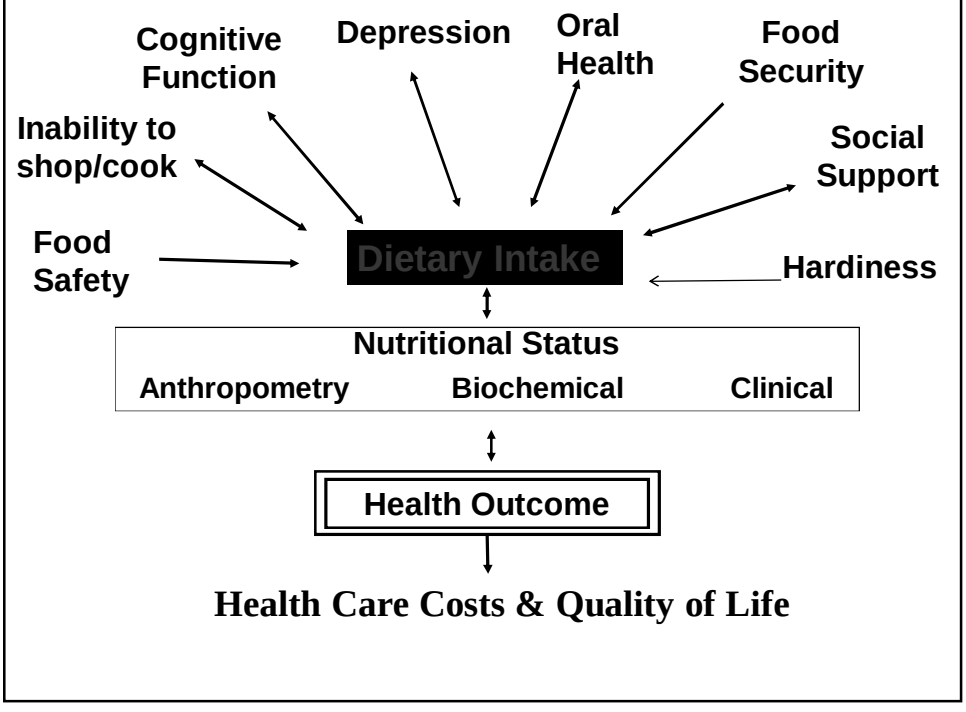
# OAA Nutrition Program Purposes

- **The purpose of the OAA Nutrition Program is NOT to:**
  - **Determine malnutrition**
  - **Treat malnutrition**
- Purposes
  - Decrease food insecurity & hunger
  - Promote socialization
  - Promote health & well-being
- Grants for Congregate Nutrition Services and Home-Delivered Nutrition Services are allocated to States and Territories by a formula based on their share of the population aged 60 and over.
- Services: meals, nutrition education, nutrition counseling, nutrition screening & assessment

## Older Americans Act
## More Should Be Done to Measure the Extent of Unmet Need for Services

- Definition of Need
  - AoA does not provide a standardized definition of need or unmet need
  - AoA does not provide measurement procedures for need or unmet need that states are required to use
  - States use a variety of approaches to measure need & measure unmet need to varying extents
  - No agency that GAO spoke with could estimate the number of older adults in need or the level of unmet need
- Recommended Action
  - GAO recommended that AoA study definitions & measurement procedures for need & unmet need

Us Government Accountability Office, February 2011



## Risk Factors that determine who is most at need

**Risk factors:**

- Physiologic --
  - Having 2+ chronic diseases
  - Inability to shop and cook
  - Recently hospital-discharged
  - Involuntary weight loss
  - Cognition
  - Oral health
- Economic
  - Income
  - Food security
- Psychological --
  - Depression
  - Live alone
  - Dementia

## How do we determine who is most at need for nutrition services?

**Risk factors:**

- Physiological --
  - Having 2+ chronic diseases
  - Inability to shop and cook
  - Recently hospital-discharged
  - Involuntary weight loss
  - Cognition
  - Oral health
- Economic
  - Income
  - Food security
- Psychological --
  - Depression
  - Live alone
  - Dementia

## Nutrition Risk Factors

- **Functionality**
  - Activities of daily living
    - Ability to feed oneself
  - Instrumental activities of daily living
    - Ability to shop
    - Ability to cook and prepare meals
- **Food Security**
- **Social Isolation**

## Food Security

- Access by all members of a household to food sufficient for a healthy life, including at a minimum, the ready availability of nutritionally adequate and safe foods and the assured ability to acquire acceptable food in socially acceptable ways.

Economic Research Service, USDA

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## Social Isolation

- Family/Community Resources
  - Living arrangements
  - Living alone
  - Marital status
  - Family caregiver
  - Neighbors/friends
  - Elder abuse, self-neglect

## How do we assess need?

- Available tools—
  - – Are the available tools adequate to assess need for a meal?
  - – What tools do you use??????
- New tools –
  - – do we need to develop them?

## Nutrition Screening
## Nutrition Assessment

- Nutrition Screening
  - Process of identifying individuals at risk for poor nutritional status
  - Short process, limited prioritized questions
  - Performed by non healthcare professional
- Nutrition assessment
  - Process of determining an individuals' nutritional status
  - Long process, includes medical history, diet history, physical examination, anthropometric parameters, laboratory values, economic, food access, IADL/ADL impairments, individual /family information
  - Performed by a healthcare professional e.g. dietitian

## Expected Outcomes of Nutrition Screening & Assessment

- Screening
  - Determination of need
  - Prioritizing of individuals based on need
  - Research informed
- Assessment
  - Individualized nutrition care plan
  - Determination & implementation of appropriate interventions
  - Research informed
  - Interventions available under OAA: meals, nutrition education & nutrition counseling

## Characteristics of Effective Screening Tools

- Quick & simple
- Inexpensive
- Able to be implemented in any setting
- Easily administered with minimal nutrition expertise
- Collection of relevant data, based on research/evidence
- Reliable, valid, reproducible results
- Determines the need for assessment & interventions
- Facilitates early interventions

Abbott Laboratories presentation, February, 2007; Nutrition Care of the Older Adult, American Dietetic Association, 2009

## Nutrition Screening & Assessment Tools

Many screening tools, depends on where it is used

- Nutrition Screening Initiative (NSI)
  - DETERMINE Your Nutritional Risk
  - Level 1, Level 2
- Mini-Nutritional Assessment (MNA)
- Malnutrition Universal Screening Tool (MUST)

## Nutrition Screening Initiative Checklist (NSI)

- Public Awareness Purpose: to increase awareness of nutrition risk factors by community dwelling older adults
- Not designed as a clinical tool, not designed to measure malnutrition
- Level 1 Screen – to be used by social service professionals in community programs to determine nutrition risk & community interventions
- Level 2 Screen – to be used as an assessment by health care professionals in clinical settings
- Developed by the NSI, a collaborative group of the American Dietetic Association, the American Academy of Family Medicine, and the National Council on the Aging
- Funded by Abbott Laboratories

## Nutrition Screening Initiative Checklist (NSI)

- AoA does not use the NSI Checklist to determine malnutrition
- AoA does not use the NSI Checklist as a Performance Measurement Tool
- AoA uses the NSI Checklist to characterize the population served
- Easy to use tool, can be completed by older adults themselves in congregate settings
- Ways to use NSI data
  - Develop interventions to match the questions
  - Use to determine need for nutrition assessment or nutrition counseling
  - Use in budget justifications and compare with previous data

## Mini-Nutritional Assessment (MNA)

- Purpose: To screen for malnutrition or risk of malnutrition
- Reliable, valid, sensitive clinical tool
- Recommended for clinical use as part of a Comprehensive Geriatric Assessment (CGA)
- Developed & funded by Nestle

## Food Security Measurement Tool 6 Question Module

30 Day Time Period

- Questions 1 & 2:
  - During the last 30 days, how often was this statement true:
    - The food that we bought just didn't last, and we didn't have money to get more.
    - We couldn't afford to eat balanced meals.
  - Response categories:
    - Often
    - Sometimes
    - Never

## Food Security Measurement Tool
## 6 Question Module

30 Day Time Period

- Questions 3 & 4:
  - During the last 30 days, did you or other adults in your household ever
    - Cut the size of your meals because there wasn't enough money for food?
    - Skip meals because there wasn't enough money for food?
  - Response categories:
    - Yes, on 3 or more days
    - Yes, on 1 or 2 days
    - No

## Food Security Measurement Tool
## 6 Question Module

**30 Day Time Period**

- Questions 5 & 6:
  - In the last 30 days,
    - Did you ever eat less than you felt you should because there wasn't enough money to buy food?
    - Were you ever hungry but didn't eat because you couldn't afford enough food?
  - Response categories:
    - Yes
    - No

## Food Security Status Assessment

- Food security status is assigned as follows:
  - Raw score 0-1 High or marginal food security
  - Raw score 2-4 Low food security
  - Raw score 5-6 Very low food security

## When to Screen for OAA Nutrition Programs

- Initial contact ?
  - Enrollment in HDM/Congregate Nutrition Program
  - ADRC
- How often?
  - 4-8 weeks after service initiation for short term participants?
  - 6-8 months after service initiation for long term participants?
- At service reassessment time (6 months, 1 year, 2 years)?
- Who does it?
  - Nutrition Program
  - AAA

## Screening vs. Assessment

- How to screen?
  - Should we administer telephone screening?
  - When are clients assessed?
  - How often should clients be reassessed?

  What does your agency do?

## Outreach

Outreach involves

- Identifying target population
  - low-income
  - minority
  - living in rural communities
  - limited English proficiency
  - At-risk of institutional care
  - Recently hospital-discharged
- Establishing the outreach goal
- Assessing eligibility
- Prioritizing and providing services

## Discussion

In your agency:

- What screening tool do you use?
- Do you follow up on screening results?
- How often do you reassess clients?

- Do you have a waiting list?
- Do you prioritize? If so how?
- Should we prioritize? If so how?

TAB

# Menu Planning for Customer Satisfaction

**A MOWAA Specialist Certificate Program Workshop**

**Presented by**
**Audrey C. McCool, EdD, RD, LD**

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## Importance of Menu Planning

- **Well-planned menus are essential for a program that successfully serves meals which meet the needs of older persons**

  - **Special needs of older persons must be considered in menu planning, food selection, meal preparation and meal presentation**
  - **Program customers should be involved in the menu planning process**
  - **Customer food preferences must be solicited in the menu development process**

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# Importance of Menu Planning

- **Menu Planning Impacts All Facets of a Meal Delivery Program**
  - **Customer Satisfaction**
  - **Cost**
  - **Program Facility Requirements**
  - **Equipment Requirement**
  - **Personnel Requirements**


- **Poor menu planning ⟹ poor program success**

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# Types of Menus

- **Cycle Menu:**
  **A series of menus offering different items each day on a monthly or some other basis, after which the cycle is repeated**
- **Choice Menu:**
  **A menu which provides options from which customers can choose when selecting their meal**


- **A cycle menu may offer choices;**
  **a choice menu may be a cycle menu**

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# Menu Choices

- Generally, in the past, most meal programs for older persons have not provided menu choice options for their customers
- Menu choice is, and will be, increasingly important for successful meal programs
  - Health care now focuses on self-directed care practices which allow persons to make choices about their care
  - Aging baby boomers, programs' future customers, expect to have choices in their foods and meal practices

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# Menu Choices

- Customers might have different types of menu choices, such as:
  - Choosing from alternatives for some of the menu items, such as the entrée or one or more of the side items
  - Choosing a meal from 2 or 3 distinct complete meal options
  - Selecting an alternative meal type (refrigerated, frozen, or shelf-stable meal)
  - Selecting frequency of meal deliveries to their home

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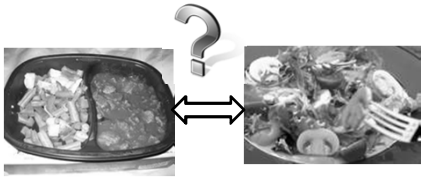
## Menu Choices

**Programs need to start making adjustments NOW so they will be able to cost- effectively implement choice menus.**

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## Factors to Consider in Menu Planning

- **Important considerations in menu planning are:**
  - **Customer Satisfaction**
  - **Customers' Nutritional Needs**
  - **Aesthetic Factors**
  - **Government and Other Agency Regulations**
  - **Cost**
  - **Feasibility Within Program Structure**

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# Customer Satisfaction

- **Know your customers – seek their advice**
  - **Customer demographics**
  - **Socio-cultural factors**
    - **Ethnicity – Values - Mores**
  - **Regional & local food habits**
  - **Food preferences**
    - **How food is prepared**
    - **Popular foods in your region?**

- **Consider focus groups, menu committees, product sampling, customer surveys, comment cards, food waste surveys to help you with menu planning**
- ***If your customers don't like your food and won't eat it, all your program's efforts are wasted!***

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# Customer Satisfaction

- **Menu adjustments for the future**
  - **Advent of the baby boomers**
    - **Want more variety in their food**
    - **Like varied methods of food preparation**
    - **Want a voice in determining what they eat**
    - **Don't always eat "traditional" 3 meals a day**
  - **Changes in ethnic composition of customers**
    - **Increased presence of Latinos**
    - **Customers representative of many ethnic minorities**
    - **Increased ethnic diversity means more variance in religious food preferences/restrictions**
- **Need to consider development of choice menus**

***If your customers don't like your food and won't eat it, all your program's efforts are wasted!***

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# Customer Satisfaction

- **Need for menu choice reflected in current food trends:**

| | |
|---|---|
| **Customer Driven** | **Comfort Foods** |
| **International Foods** | **Ethnic Foods** |
| **Tasty, Has Eye Appeal** | **Variety** |
| **Healthy** | **Nutrient Dense** |
| **Homemade** | **Lighter Fare** |

***If your customers don't like your food and won't eat it, all your program's efforts are wasted!***

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# Customer Satisfaction

- **Many persons, including older persons – especially the baby boomers, believe:**
  - **Food and nutrition play a role in health & wellness**
  - **Certain foods have benefits beyond basic nutrition. These benefits include:**
    - **Heart, bone, eye, circulatory, & digestive health**
    - **Contribution to healthy body weight**


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# Customer Nutritional Needs

- **To achieve your program's goals, the meals served must contribute to the nutritional needs of your customers.**
  - **Two sources used to set standards for older persons' nutritional needs**
    - **DRIs (Dietary Reference Intakes)***
      ***Dietary Guidelines for Americans 2010*****
  - **Consideration of customers' needs for menu modifications and/or special diets**
    - **What menu modifications are needed**
    - **Feasibility of offering menu modifications or special diet menus**
    - **To the extent practical, menus are to be adjusted to meet any special dietary needs of program customers**


****Developed by National Academy of Sciences, Institute of Medicine, Food and Nutrition Board.***
*****Developed by the USDA and USDHHS***

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# Customer Nutritional Needs

## Dietary Reference Intakes for Key Nutrients

| Gender | Calories (Estimated Energy Requirement) | Protein (g per kg per day) | Calcium (mg per day) | Vitamin A – (mcg per day) | Vitamin C - (mg per day) | Potas-sium - (mg per day) | Fiber – (g per day) | Sodium - (mg per day) |
|---|---|---|---|---|---|---|---|---|
| Males age 51-70 | 2750 | 0.66 | 800 | 625 | 75 | 4700 | 30 | 1300 |
| Females age 51-70 | 2200 | 0.66 | 1000 | 500 | 60 | 4700 | 21 | 1300 |
| Males > age 70 | 2550 | 0.66 | 1000 | 625 | 75 | 4700 | 30 | 1200 |
| Females > age 70 | 2050 | 0.66 | 1000 | 500 | 60 | 4700 | 21 | 1200 |

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# Customer Nutritional Needs

- **Some states have simplified the DRIs for key nutrients to indicate the nutrient levels required when one meal is served.**
- **Generally the states' tables focus on the nutrients indicated in the previous table. However, there is sometimes a caveat that meeting those requirements does not mean all necessary nutrients are provided in the meal**

- **Other nutrients which should be considered when planning & evaluating menus include vitamin B6, vitamin B12, vitamin D, vitamin E, magnesium & zinc**

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# Customer Nutritional Needs

- **Sample of states' per meal target nutrient requirements:**

| State | Kcal | Pro - g | Vit A – ug | Vit C - mg | Ca - mg | Na - mg | K - mg | Fiber - g | Vit D - IU | Vit B12 - ug | Zn - mg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State #1 | 600 - 750 | ≥ 20 | 250 – 300 | 25 - 30 | ≥400 | 800 – 1000 | ≥ 1500 | ≥ 7 | not listed | not listed | not listed |
| State #2 | > 550 – 700 | 14 | 250 | 25 | 400 | < 800 | 1565 | >7 | 200 IU | 0.8 ug | 2.6 |
| State #3 | not listed | >21 | not listed | ≥30 | ≥400 | ≤1000 | ≥1567 | ≥8 | ≥2.5 ug (100IU) | not listed | not listed |
| State #4 | 685 | 19 | 300 | 30 | 400 | 767 | 1050 | 9 | 3.33 ug | 0.8 ug | 3.7 |

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# Customer Nutritional Needs

**Additional recommendations from the Food and Nutrition Board, Institute of Medicine, National Academies include:**

- **Calories should be distributed as follows:**
  - **45 – 65% from Carbohydrate; 10-35% from protein; 20-35% from fat**
- **While consuming a nutritionally adequate diet:**
  - **Dietary cholesterol should be as low as possible**
  - **Trans fatty acids should be as low as possible**
  - **Saturated fatty acids should be as low as possible**
  - **Added sugars should be limited to no more than 25% of total energy (though this level of added sugars is not a recommended amount – no recommended intake of added sugars has been set)**


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# Dietary Guidelines 2010

- **Key recommendations include:**
  - **Maintain calorie balance over time to achieve and sustain a healthy weight**
  - **Focus on consuming nutrient-dense foods and beverages**

  - **Foods and nutrients to increase:**
    - **Vegetables and Fruits: Eat a variety of vegetables, especially dark-green and red and orange vegetables, beans, and peas**

    - **Consume at least half of all grains as whole grains: Increase whole-grain intake by replacing refined grains with whole grains**

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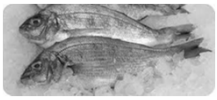
# Dietary Guidelines 2010

- **Foods and nutrients to increase (con't):**
  - **Increase intake of fat-free and low-fat milk and milk products**

  - **Choose a variety of protein foods, including seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds**
  - **Increase the amount and variety of seafood consumed**
  - **Use oils to replace solid fats where possible**
  - **Choose foods that provide more potassium, dietary fiber, calcium, and vitamin D**
  - **Replace protein foods that are higher in solid fats with choices that are lower in solid fats and calories and/or are sources of oils**



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# Dietary Guidelines 2010

- **Foods and food components to reduce:**
  - **Reduce daily sodium intake to less than 2,300 mg/day and further reduce intake to 1,500 mg among persons who are 51 and older and those of any age who are African American or have hypertension, diabetes, or chronic kidney disease**
  - **Reduce the intake of calories from solid fats and added sugars**


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# Dietary Guidelines 2010

- **Foods and food components to reduce, cont.:**
  - **Limit the consumption of foods that contain refined grains, especially refined grain foods that contain solid fats, added sugars, and sodium**

  - **If alcohol is consumed, it should be consumed in moderation – up to one drink per day for women and two drinks per day for men**
  - **Consume less than 300 mg of dietary cholesterol per day**
  - **Consume less than 10% of calories from saturated fatty acids by replacing them with monounsaturated and polyunsaturated fatty acids**

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# Customer Nutritional Needs

- **Concerns with targeted sodium requirements per meal:**
  - **Based on the *Dietary Guidelines for Americans 2010*, the sodium allowance per meal = 800 mg**
  - **Most states allow up to 1000 mg/meal based on a weekly average**
  - **Some allow a limited number of meals to have 1200 mg provided the meals are labeled as high sodium**
  - **Higher levels of sodium in meals (1000-1200 mg) should be offset by a high potassium content in that meal**
  - **Some studies have shown that the elderly nutrition program meal provides 40 – 50% of customers' daily nutrient intake; so higher sodium content in the program meal may represent 40 – 50% of their daily sodium intake, not 33.3%.**

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# What do these requirements mean for menu planning??

- **Working within the parameters of their states' nutrient content guidelines, menu planners should consider innovative ways to incorporate**
  - **Vegetables, fruits, whole grains, low-fat or fat-free milk, yogurt or fortified soy beverages, seafood, and vegetable oils such as canola, olive, corn, peanut, and soybean**

- **And find ways to limit foods with added sugars, solid fats – especially trans fats - refined grains, and sodium**

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# Government Regulations

- **Federal government standards provide limited direction:**
  - **Meals must provide a minimum of 33-1/3% of the Dietary Reference Intakes (DRIs) if the program provides 1 meal per day**
  - **The minimum increases to 66-2/3% of the DRIs if 2 meals are provided and 100% if 3 meals are provided per day**
  - **Meals must comply with the most recent Dietary Guidelines for Americans**

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# State Regulations

- Each state has the responsibility for establishing nutrient standards for meal programs within that state
- Programs within a state must comply with that state's nutritional requirements for meals served to be eligible for government funding support
- Each state is unique in it's nutrient standards and in the requirements relative to programs meeting those standards

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# Government Regulations

- The Older Americans Act states that nutrition programs need to have their menus planned or reviewed by a dietitian or other individual with equivalent education and training in nutrition science
  - If such a person is not available, then an individual with comparable expertise in the planning of nutritional services must be similarly involved in a program's menu planning
- This requirement is generally reflected in state regulations

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# Menu Evaluation

- **States require planned menus to be evaluated to verify that the nutritional requirements have been met.**
- **Programs are encouraged to analyze the nutrient content of their menus by using a nutrient analysis computer program**
- **In most states, each day's menu does not necessarily need to meet the nutritional requirements as the requirements can generally be met by averaging the nutritional content of a week's menus**
- **Calorie and protein requirements per meal may be an exception to averaging in some states. These requirements should be met in each meal.**

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# Menu Evaluation

- **If a program does not have access to computerized nutrient analysis for their menu evaluation, states allow these programs to follow a prescribed menu pattern for their menus.**
- **This pattern varies from state to state, but generally follows the USDA's *My Pyramid* pattern of food group servings**
- **Regardless of the evaluation procedure, a registered dietitian or an individual with comparable experience must certify that each meal or the week's meals meets the state's nutrient requirements**

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# Sample State Meal Patterns

**California 1600 Calorie per Day Component Meal Pattern**

| Food Group | Required Servings for 550 Calories per Meal | Serving Sizes for 1600 Calorie Level |
|---|---|---|
| Lean meat or beans | 1 serving – 2 ounces per meal | 2 ounces = 1 serving |
| Vegetable | 1 – 2 servings | ½ cup = 1 serving |
| Fruit | 1 serving | ½ cup = 1 serving |
| Bread or Grain<br>At least ½ whole grain | 1-2 servings | 1 slice bread = 1 serving; ½ cup of rice or pasta = 1 serving |
| Low-fat milk or milk alternate | 1 serving | 1 cup or measured equivalent |
| Fat | optional | |
| Dessert | optional – limit sweets; use fruit | Select foods high in fiber and low in fat and sugar |

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# Menu Evaluation

- **Other possible state requirements include:**
  - **Using standardized recipes for all meal items**
  - **Having programs secure approval for the nutrient analysis program they intend to use**
  - **Keeping documentation of menu reviews and approvals on file**
  - **Having menu substitutions approved by a registered dietitian before service or have substitutions selected from a list approved by a registered dietitian**
  - **Documenting menu substitutions & maintaining documentation of menu substitutions on file**

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# Menu Evaluation

- In addition to the required nutrient analysis, some states may conduct additional reviews and recommend improvements such as:
  - Recommendations for ways to avoid added food costs
  - Commentary on the variety of foods and other aesthetic factors
  - Recommendations for the use of seasonal foods or locally grown foods

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# Menu Evaluation

- You may satisfy all of the state and federal requirements for planned menus, but you still need to know what your customers think about your menus
- Need to routinely conduct customer menu evaluations
  - Collect and review customer comments
  - Conduct periodic customer satisfaction surveys
  - Evaluate participation rates
  - Collect comments from meal delivery personnel

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# MOWAA Accreditation Nutrition Requirements

- **Menus must:**
  - **Comply with the latest DHHS and USDA *Dietary Guidelines for Americans*; and**
  - **Provide a minimum of 25% of the latest Dietary Reference Intakes for calories, protein, calcium, vitamin A, vitamin C, potassium, and fiber with sodium less than 1,200 mg if one meal is provided.**
  - **If 2 meals/day are provided, them the meals must provide 50% of the DRIs and sodium less than 2000 mg;**
  - **If 3meals are provided, then 75% of the DRIs must be provided with sodium less than 2,300 mg.**
  - **Fat content of the meals will average 35% or less of the total calories per meal.**

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# Menu Planning Process

- **Effective menu planning follows a planning process**
  - **Entrees for all the lunches in the cycle are planned first**

    - **Consideration should be given to entrée ingredients that are:**
      - **Appropriate for special diet needs**
      - **Usable in multiple menu items and preparation options**
  - **Next plan the starch/grain items for all lunches**
  - **Then plan the side items (vegetables/salads/breads)**
  - **Finally, plan the desserts**
  - **If more than one meal if provided, plan the second meal after all the lunch meals are completed**

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# Menu Planning Process

- **Two additional considerations when planning menus for meal programs:**
  - **Substitute menu items which can be used if the planned item is not available or can't be tolerated by the customer may be designated in the planning process**
  - **When choice menus are planned, the choice options must be nutritionally comparable**
- **When included in the planning process, both the substitute menu items and choice options should be planned during each step of the planning process, as appropriate**

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# Menu Planning Process

- **When planning allowable food substitutions:**
  - **Food substitutions should be of similar nutritional value as the original menu item**
  - **Food substitutions may not reduce or significantly alter the nutritional content of the meal**
  - **States often limit the number of substitutions allowed during a given time period**
  - **Generally, menu substitutions must be documented by the program and may need to be reported to the state**

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# Menu Planning Process

- **Since food substitutions often need to be approved prior to service, incorporating allowable food substitutions into the menu planning process can save time and effort when substitutions are needed**
- **Some states or area agencies have written lists of acceptable food substitutions for the several types of menu items**

  - **Lists are an alternative to planning menu item substitution options as a part of the menu planning process**

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# Menu Planning Process

- **Example of menu and approved substitutions**

| **Menu Item** | **Approved Substitution** |
|---|---|
| **Turkey Meatballs** | **Sliced Turkey Breast** |
| **Whole Kernel Corn** | **Any Potato or Rice** |
| **Steamed Broccoli** | **Any Green Vegetable, (spinach, green beans, etc.)** |
| **Whole Wheat Roll** | **Whole Wheat Bread** |
| **Pumpkin Cake** | **Any Fruit or Fruit Cookie or Cake** |
| **Milk** | **Skim or 1% Milk** |

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# Aesthetic Factors

- Well-planned menus consider more than customer nutritional needs
- People "eat" with all their senses
- Effective menu planning is an "art" as the aesthetic factors of the foods planned for each meal must be considered
- Aesthetic factors include
  - Flavor
  - Texture
  - Color
  - Shape
  - Preparation methods

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# Aesthetic Factors

- Flavor:
  - Foods of the same or similar flavors generally should not be repeated in a meal
  - A variety of flavors within a meal is more enjoyable than flavor duplications
- Texture:
  - Refers to the structure of foods and is detected by the feel of foods in the mouth
  - Crisp, soft, grainy, smooth, hard, and chewy are texture descriptors
  - Textures should be varied within a meal
  - Texture may need to be modified for some customers' special meal needs

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# Aesthetic Factors

- **Color:**
  - **Color has eye appeal and makes the meal more appetizing**
  - **Color combination should always be considered when planning a meal**

- **Shape:**
  - **Shape can be used to create interest in a meal by presenting food in a variety of forms**
- **Preparation Method**
  - **Combinations of foods using different preparation methods add variety and appeal to a meal**
  - **The nutritional needs of older persons should be considered when selecting preparation methods**

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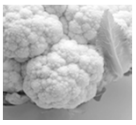
# Aesthetic Factors

**Compare these menus:**

**Chicken and Rice Casserole**
**Steamed Cauliflower**
**Pear and Cottage Cheese Salad**
**White Dinner Roll, Butter**
**Baked Custard**



**Chicken Tetrazzini**
**Steamed Broccoli**
**Coleslaw (carrots, red & green cabbage)**
**Whole Wheat Bread, Spreadable butter (with olive or canola oil)**
**Apple & Cranberry Crisp**

**Which menu would you prefer if you were homebound or maybe not feeling very hungry???**

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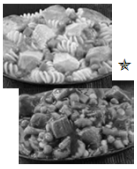
# Program Operation Considerations

- **Program structure impacts the menu planning process**
  - **Programs purchasing frozen or refrigerated prepared meals (entrée and side items [starch & vegetables]):**
    - **Menu planning restricted to meals available from the supplier of the prepared meals**
    - **Nutritional evaluation of the plated meals the responsibility of the meal supplier**
    - **Program needs to get meal nutritional content of the plated meals from supplier to incorporate into nutritional evaluation of the total meal (includes plated meal, bread, beverages, and any other items the program distributes with the plated meal)**



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# Program Operation Considerations

- **Program structure impacts the menu planning process**
  - **Programs contracting with a supplier to prepare meals for them at their site:**
    - **Menu planning can be done by either qualified program personnel or contractor's dietitian**
    - **If menu planning done by the contractor, program still needs to have oversight over the menu planning process**
      - **Qualified program personnel need to review the menus**
        - **For production feasibility**
        - **Customer acceptance**
        - **Cost considerations**
      - **Program needs to either conduct the nutritional analysis or review the nutritional analysis done by the contractor**
      - **Program needs to verify that the planned menu is being followed when meals are prepared for customers**

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# Program Operation Considerations

- **Program structure impacts the menu planning process**
  - **Programs preparing their own meals:**
    - **Must have a dietitian or other qualified personnel on staff to plan and evaluate their menus**
    - **Can contract with a dietitian to do the menu planning and/or the required nutritional evaluation**
    - **Must be sure that they have the production capability to prepare and serve menus that meet both the nutritional requirements and are aesthetically appealing**

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# Program Operation Considerations

- **Many factors should be considered when determining whether programs will purchase prepared meals or prepare their own meals**
- **These factors also impact the type of meal provided – whether hot, cold, frozen, or shelf stable**
- **Some factors to consider include:**
  - **Program facilities and equipment**
  - **Skills of program staff**
  - **Number of customers**
  - **Where customers are located**
  - **Frequency of meal service**
  - **Number of meals provided per day**
  - **Program resources**
  - **Compliance with state & local health codes**

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# Program Structure

- **The factors impacting the structure of a meal program and decisions regarding the type of meal to provide to customers and the menu planning process will be discussed in tomorrow's workshop entitled**

  ***Designing Meal Delivery Systems***

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# Menu Cost

- **Cost is always a consideration in menu planning**
- **However, just serving the lowest cost meal to program customers may be self-defeating for a program**
- **Cost effective menus balance cost with meal quality, nutritional content, and customer satisfaction**
  - **Low cost meals which customers don't eat mean programs do not meet program goals and/or may soon be "out of business"**

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# Menu Cost

- **In general, meal cost will be lowest for meals prepared on-site by the program and highest for meals that are purchased as complete meals with all accompaniments ready for distribution to customers**
- **Factors impacting meal costs include:**
  - **Purchasing practices**
  - **Contract provisions**
  - **Product receiving and storage practices**
  - **Inventory management practices**
  - **Controlling product waste**


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# Menu Cost


- **Ways to control menu costs while striving to meet both the DRIs and the *Dietary Guidelines for Americans 2010* as well as offering choice menus:**
  - **Use competitive bidding when contracting for meals or purchasing program foods/supplies**
  - **Join group purchasing groups**
  - **Limit number of products held in inventory; select products with multiple uses**
  - **Purchase locally grown products in season when available**

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# Menu Cost

- **Ways to control menu costs while striving to meet both the DRIs and the *Dietary Guidelines for Americans 2010* as well as offering choice menus:**
  - **Plan and serve meals appropriate for multiple diets**
    - **Use herbs and spices for flavor; eliminate salt**
    - **Use vegetable and fruit purees for sauces; eliminate high fat, high starch gravies and sauces and high sugar icings**
    - **Use vegetable and/or meat trimmings or "left-overs" to make homemade fat free, sodium free broth for soups and cooking; eliminate commercial soup or gravy base**

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# Menu Cost

- **Ways to control menu costs while striving to meet both the DRIs and the *Dietary Guidelines for Americans 2010* as well as offering choice menus:**
  - **Plan and serve meals appropriate for multiple diets, continued:**
    - **Use canola or corn oil sparingly when fat is needed; eliminate hard fats, such as butter, in cooking**
    - **Use whole grain pastas and breads**
    - **Use sweet potatoes or yams in varied ways as a starch item**

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# Menu Cost

- **Ways to control menu costs while striving to meet both the DRIs and the *Dietary Guidelines for Americans 2010* as well as offering choice menus:**
  - **Plan and serve meals appropriate for multiple diets, continued:**
    - **Use beans and other legumes frequently as an entrée component or as a starch side item**
    - **Use fruit and fruit based items as desserts**
    - **Incorporate fruit, nuts, vegetables into baked items such as cookies and breads**
    - **Replace some fat and/or sugar in baked goods with fruit purees**

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# Menu Cost

**NOTE THAT MANY OF THE MODIFICATIONS TO MENU ITEMS THAT MAKE THE MENUS APPROPRIATE FOR MULTIPLE DIETS ALSO HELP THE MENUS MEET BOTH THE 2010 DIETARY GUIDELINES AND THE REQUIRED NUTRITIONAL REQUIREMENTS**

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# Menu Cost

- **Ways to control menu costs while striving to meet both the DRIs and the *Dietary Guidelines for Americans 2010* as well as offering choice menus:**
  - **Use basic ingredients in different ways for choice options (if preparing meals on-site for service)**
  - **If different ingredients are desired for choice options; then use basic ingredients in different ways on consecutive days**
  - **Incorporate lower cost protein items (beans, legumes, eggs) as choice entrees (use fewer red meat entrees)**

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# Menu Cost

- **For example (use basic ingredient 2 different ways on same day):**
  - **<u>Menu 1:</u> Baked chicken with vegetable/mushroom sauce – served with brown rice pilaf, green beans, diced tomato salad, whole wheat bread slice, gingerbread with apricot puree topping**
  - **<u>Menu 2:</u> Chef salad with grilled chicken strips, diced tomatoes, black beans, whole grain roll, gingerbread with apricot puree topping**

**Or the choice entrée might be:**

- **<u>Menu 3:</u> Chicken fajitas with black beans & rice, guacamole, diced tomatoes, whole grain tortillas, gingerbread with apricot puree topping**

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# Menu Cost

- **For example (use basic ingredient 2 different ways on consecutive days):**

  - **Today's entrée is baked chicken with vegetable/mushroom sauce**
  - **Tomorrow's entrée could be chicken pot pie (or shepherd's pie) with a potato topping instead of a pastry crust**
    - **Unused (never served) baked chicken becomes part of the pot pie**
    - **Potatoes (either white or sweet) are used as the topping – adds vegetables to the menu and eliminates high fat crust.**

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# Menu Cost

- **Choice menus may increase labor cost if meals are prepared on-site.**
- **Labor cost can be controlled by:**

  - **Preparing fewer portions of any one item**
  - **Careful planning of food production operations so that items to be used in different ways or on consecutive days can be prepared at one time**
  - **Careful scheduling of personnel, using volunteers or lower cost personnel where appropriate, so that higher cost personnel are used more effectively**

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## Menu Planning: A Challenge

- **Planning menus that are cost effective, pleasing to the program's customers, and meet the required nutritional standards is a challenging task**
- **Quality menus are essential to a successful meal program, and careful menu planning should be a program priority**


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## THANK YOU!!!

# QUESTIONS????

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TAB

# My Vision - Nutrition Program in the Year 2017

**#1**

**#2**

**#3**

**#4**

**#5**

## Top Priorities For My Program for the Next Five Years

**#1**

**#2**

**#3**

**#4**

**#5**

# What Action Steps Can I Accomplish-

**Within the next six months?**

**#1**

**#2**

**Within the next 12 months?**

**#1**

**#2**

Administration on Aging

Putting Data to Work for Older People

RESEARCH BRIEF NUMBER 1 • JULY 2010

# Aging in Place: Do Older Americans Act Title III Services Reach Those Most Likely to Enter Nursing Homes?

by Norma Altshuler and Jody Schimmel, Mathematica Policy Research

*Since the Older Americans Act (OAA) was passed in 1965, the Administration on Aging (AoA) has provided services to elderly Americans, helping them maintain independence and remain in their own homes. Through its "Aging Services Network," including State Units on Aging (SUAs), Area Agencies on Aging (AAAs), and tribal partners, AoA works to provide services designed to mitigate the effects of declining physical health and functioning experienced by frail older adults. This brief, the first in a series that presents findings from AoA's National Survey of OAA Program Participants, assesses whether Title III services are reaching adults at higher risk of nursing home entry than the elderly population overall. The observed differences between Title III participants and other older adults point to the effective targeting of services by the Aging Services Network.*

## Background

Increasing emphasis is being placed on helping older individuals in declining health or with disabilities to maintain their independence and remain living in the community. Nonetheless, nursing home stays among the elderly are common. In 2008, 2.8 million adults over the age of 65, or 7.2 percent of the over-65 population, had at least one stay in a nursing home (Centers for Medicare & Medicaid Services 2009).

AoA services help the elderly "age in place"—or remain in their homes and communities even as their health and functioning decline—by targeting the most vulnerable older adults. OAA Title III services such as case management, home-delivered meals, and homemaker services serve some of the frailest elderly, many of whom are homebound. The National Family Caregiver Support Program (NFCSP), also part of Title III, provides support including information and assistance and respite services to those who care for frail elderly.[1] Title III also covers transportation, congregate meals, preventative health, and other community-based services, which provide important avenues for community and social involvement.

[1]Caregivers of adults age 60 and over are eligible for support under the NFCSP, even if they are under 60. Because of differences in the age profile of caregivers and other Title III participants, we focus on NFCSP care recipients.

### What Is The Aging Services Network?

The Aging Services Network provides a range of community-based services—home-delivered and congregate meals, case management, transportation, and homemaker and caregiver support. Such services enhance both the quality of life and social interaction, and reduce the effects of disability for homebound and more active seniors. Funded under Title III of the OAA, services are available to individuals age 60 and older, though delivery is targeted to the most vulnerable elderly.

## Nursing Home Predictors

Many studies have explored key determinants of nursing home entry. Drawing on two recent, comprehensive analyses of research on nursing home predictors (see Methods section), we identified the following factors as leading to increased risk of nursing home entry:

- *Demographic characteristics*: Older individuals and those who are non-Hispanic white
- *Socioeconomic status*: Individuals with low incomes
- *Health status and physical functioning*: Those with certain health conditions (such as cognitive impairment, cancer, high blood pressure, diabetes, and a history of strokes and falls) and those who have difficulty performing activities of daily living

- *Prior health care utilization*: Individuals who have spent time in the hospital or in a nursing home
- *Living arrangements and family structure*: Those who live alone (including widowed and divorced individuals), do not own their home, and have fewer children than their peers not in nursing homes
- *Availability of support*: Individuals who lack caregiver support

Respondents to AoA's Fifth National Survey of Program Participants, conducted in 2009, provided information about many, though not all, of these predictors. Using this information and nationally representative data about all older adults eligible to receive Title III services by virtue of age, we compared participants receiving Title III services to older Americans across the U.S. ages 60 and older to assess relative risk of nursing home entry. Although we examine each characteristic in isolation, many characteristics of Title III participants are correlated. For example, the oldest are also usually the least healthy and most likely to be widowed or live alone.

## Are Title III Participants at Greater Risk?

Title III participants share many of the characteristics that make older Americans more vulnerable to nursing home admissions (Table 1). Title III participants are older than their peers nationally. In each surveyed group, at least 5 out of 10 (and, in most cases, 7 out of 10) are age 75 or older, compared with only 35 percent of the national elderly population. Title III participants are also more likely to live in poverty and not be married. However, the racial and ethnic profile of Title III participants is similar to that of older adults nationally.

People who live by themselves are at higher risk of nursing home entry because they may be isolated or lack supports to assist with activities of daily living (ADLs). In part because of this risk, AoA targets services to those who live alone, and participants in many Title III programs are more likely to live by themselves than older Americans nationally (Figure 1). Between 48 and 69 percent of participants receiving case management; congregate or home-delivered meals; or homemaker

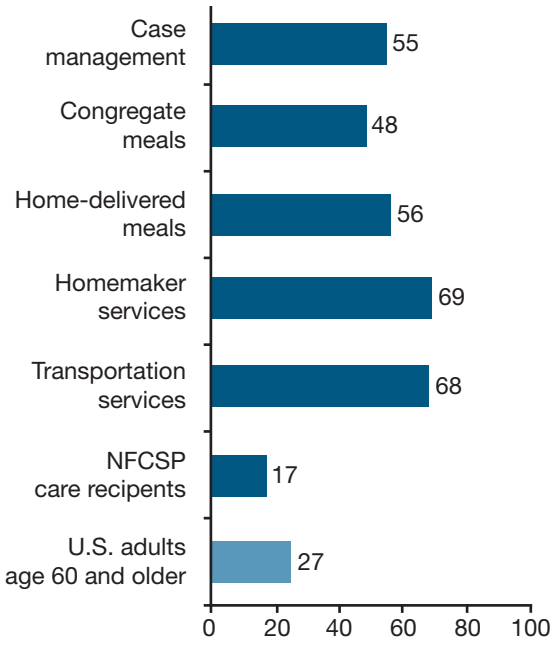
**Table 1: Demographic and Socioeconomic Characteristics, by Title III Program and Nationally (Percentages)**

| | National population age 60 and older | Case management | Congregate meals | Home-delivered meals | Homemaker services | Transportation services | NFCSP care recipients |
|---|---|---|---|---|---|---|---|
| **Age** | | | | | | | |
| 60–64 | 29 | 8 | 10 | 9 | 2 | 10 | 3 |
| 65–74 | 38 | 29 | 33 | 22 | 24 | 28 | 17 |
| 75–84 | 24 | 40 | 39 | 40 | 37 | 36 | 39 |
| 85 or older | 8 | 22 | 18 | 30 | 36 | 26 | 39 |
| **Race and ethnicity** | | | | | | | |
| Non-Hispanic white | 79 | 74 | 80 | 76 | 78 | 77 | N/A |
| Other | 21 | 26 | 18 | 23 | 19 | 22 | N/A |
| **Marital status** | | | | | | | |
| Married | 60 | 28 | 38 | 25 | 13 | 13 | N/A |
| Not married | 40 | 71 | 61 | 74 | 87 | 86 | N/A |
| **Income relative to poverty** | | | | | | | |
| Below | 7 | 29 | 14 | 24 | 25 | 28 | N/A |
| At or near | 8 | 31 | 19 | 28 | 46 | 24 | N/A |
| Above | 85 | 26 | 51 | 35 | 21 | 35 | N/A |
| Unknown | N/A | 13 | 16 | 13 | 8 | 13 | N/A |

Source: Fifth National Survey of OAA Program Participants (2009); Current Population Survey (2009).
Notes: Data not available for care recipients because caregivers are the direct AoA participants. Caregivers have different age eligibility criteria than other participants and are therefore much younger and not directly comparable to other service categories. Not married includes those who have never been married, as well as those who are widowed, divorced, or separated. See Methods section for detail on construction of the poverty measure.

or transportation services live alone, compared with a national average of 27 percent of adults age 60 and older. Title III participants are also less likely to live with a spouse; between 13 and 38 percent of participants live with a spouse, compared with 60 percent of all Americans age 60 and older (not shown). Only 17 percent of Title III care recipients live alone, in part because about 7 in 10 live with the person who is caring for them and receiving NFCSP caregiver support services.

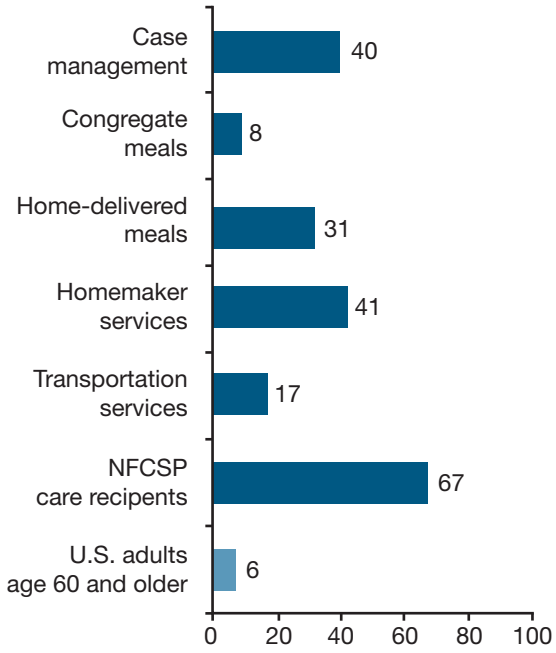
**Figure 1: Percentage Living Alone, Title III Participants and Those Age 60 and Older Nationally**




Source: Fifth National Survey of OAA Program Participants (2009); Current Population Survey (2009).

People who have difficulty performing three or more ADLs are at increased risk of nursing home placement, and Title III participants—especially those receiving home-delivered meals, case management, homemaker services, and NFCSP care recipients—are much worse off than the national population in this regard (Figure 2). For example, compared with less than six percent of the national population age 60 and older with three or more ADLs, participants in these three services are six to eight times more likely to have this level of functional limitations. In general, Title III participants also have a higher average number of difficulties with ADLs, and more have been diagnosed with health conditions like stroke and diabetes, which also make nursing home entry more likely (not shown).

**Figure 2: Percentage Reporting Difficulty with Three or More ADLs, Title III Participants and Those Age 60 and Older Nationally**




Source: Health and Retirement Study (2008); Fifth National Survey of OAA Program Participants (2009).
Note: Difficulty with three or more ADLs based on six ADLs contained in both data sources; eating, bathing, dressing, using the toilet, getting in and out of bed, and walking across a room.

Title III participants share patterns of prior health care use with other older adults that may put them at increased risk of a nursing home stay. Nationwide, 17 percent of adults over 60 spent at least one night in the hospital in the past year, compared to between 20 and 42 percent of Title III participants (not shown). In addition, many Title III participants had nursing home stays in the past year; ranging from 5 percent of congregate meals participants to 16 percent of case management participants (not shown). Unfortunately, there is no directly comparable national statistic for the population over age 60. However, as mentioned previously, 7 percent of the over-65 population had at least one nursing home stay in 2008.

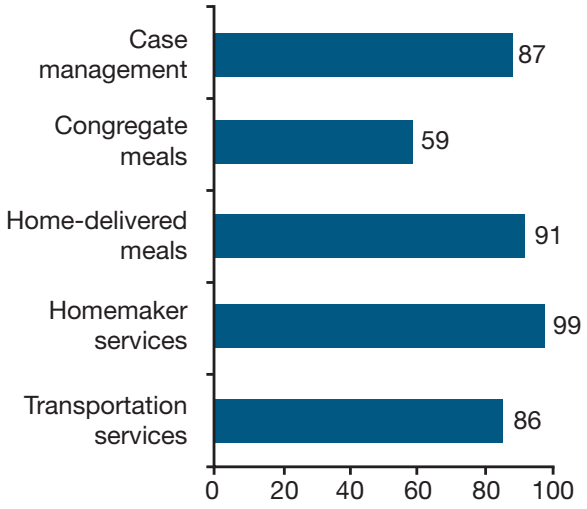
## Do Services Support Aging in Place?

Title III participants report that AoA services are important in allowing them to remain in their homes (Figure 3). More than 85 percent of those receiving homemaker services, case management, transportation, and home-delivered meals said this assistance helped them remain at home. Congregate meal participants were less likely to report this effect of services, though a majority still reported services helped them to remain in their homes.

The difference between congregate meals and other participants possibly exists because the former tend to be younger, in overall better health, and less reliant on this help to maintain independence.

Caregiver support services also help care recipients avoid institutionalization. Most care recipients benefitting from the NFCSP live with a caregiver or their family, and 41 percent of caregivers said that without the NFCSP, the care recipient would not live in the same residence. Further, 32 percent said that the care recipient would be in a nursing home or assisted living facility without caregiver services (not shown).

**Figure 3: Percentage Reporting That Services Allow Them to Remain in Their Homes, Title III Participants**




Source: Fifth National Survey of OAA Program Participants (2009).

## Conclusions and Implications

Title III participants are at higher risk of nursing home placement than others in their age group nationally, based on common predictors of nursing home entry. Those who receive homemaker services, home-delivered meals, and case management appear especially vulnerable; this likely reflects AAAs' targeting of services to those most in need. Even though they receive extensive supports from friends and family, care recipients are also vulnerable to future nursing home placement, although we do not have as much information about them on key predictors. The design of the National Survey of Program Participants does not allow us to conclude that Title III programs help keep participants out of nursing homes, but does show that most participants believe that the services help.

With the number of elderly individuals in the United States increasing, the number wanting to remain independent in their homes will continue to grow. Our analysis confirms that AoA is effectively reaching those most at risk of institutionalization, and that Title III services play an important role in helping elderly adults remain living independently in the community.

## Data Sources

The Fifth National Survey of OAA Program Participants was conducted in 2009 by Westat, Inc. via telephone and administered to more than 5,000 individuals who reported receiving Title III services. The survey used a two-stage sample design, first selecting a sample of AAAs, then randomly sampling participants from each selected AAA by service type. The number of participants selected from each AAA was proportional to the number of participants served in that particular program by the sampled AAA. All analyses use sample weights to account for this design. Additional data from and more detailed documentation are available on the AGing Interactive Database (AGID) at http://data.aoa.gov.

This brief looks at participation in six service types: NFCSP caregiver support (1,793 respondents), home-delivered meals (1,030 respondents), homemaker services (459 respondents), transportation services (824 respondents), congregate meals (903 respondents), and case management (486 respondents). Respondents are categorized as program participants based on the program for which they were surveyed, but in many cases, individuals receive services from multiple OAA programs.

Demographic characteristics for the national population of older adults were drawn from the U.S. Census Bureau's 2009 Annual Social and Economic Supplement to the Current Population Survey. Data and documentation for this survey are available at http://www.census.gov/cps/. Health and physical functioning characteristics of the national population of older adults were drawn from the Health and Retirement Study (HRS), a nationally representative panel survey of the noninstitutionalized United States population over the age of 50, funded by the National Institute on Aging and the Social Security Administration. The HRS data used in this brief are based on respondents to the 2008 survey wave who were age 60 and older and residing in the community at the time of the interview. These data were extracted from RAND's analytic file from the HRS, available at http://hrsonline.isr.umich.edu.

## Methods

We identified predictors of nursing home entry using two comprehensive analyses of predictors of nursing home entry (Gaugler et al. 2007; Miller and Weissert 2000). Gaugler et al. used meta-analysis, a more rigorous methodology than Miller and Weissert's synthesis of longitudinal data. Consequently, in the few instances in which these articles differed in identifying predictors of nursing home entry, we deferred to the Gaugler et al. study. We report on factors that the Gaugler et al. study found to be statistically important using the odds ratios reported in Table 2. Gaugler et al. also conducted a meta-analysis using the time to nursing home entry (hazard ratio); in general, these results confirmed the odds ratios results, except for health impairments such as cancer, stroke, high blood pressure, diabetes, and falls, which were only reported in the hazard ratio analysis.

**Table 2: Odds Ratios on Selected Predictors of Nursing Home Entry**

| Predictor | Odds Ratio (95% Confidence Interval) |
|---|---|
| Prior nursing home use | 3.47 (1.88, 6.37) |
| Three or more ADLs | 3.25 (2.59, 4.09) |
| Cognitive impairment | 2.54 (1.43, 4.51) |
| Lives alone | 1.90 (1.54, 2.35) |
| Non-Hispanic white | 1.61 (1.22, 2.11) |
| Annual income < $5,000 (vs. $5,000 - 10,000) | 1.45 (1.15, 1.82) |
| Available informal caregiver | 1.23 (1.04, 1.46) |
| Formal help | 1.23 (0.93, 1.62) |
| Prior hospitalization | 1.19 (1.07, 1.33) |
| Age | 1.11 (1.08, 1.14) |
| ADLs | 1.11 (1.07, 1.16) |
| Number of children | 0.88 (0.80, 0.97) |
| Homeowner | 0.82 (0.71, 0.95) |
| Married | 0.63 (0.41, 0.95) |

Source: Gaugler et al. (2008).
Note: Only significant predictors reported.

Gaugler et al. found that income below $5,000 in 1982 dollars predicts nursing home entry. In today's dollars, this amount is roughly equivalent to $10,830, the 2009 U.S. Department of Health and Human Services (DHHS) poverty threshold for a one-person household in the mainland United States. Unfortunately, the article does not specify whether this threshold applies to individuals or to households. Because of this ambiguity, we used the federal poverty threshold to compare Title III participants to other Americans over 60. Using respondents' reported income category, household size, and the 2009 DHHS poverty guidelines, respondents were classified as definitely in poverty (reported income category below 100 percent of the federal poverty level [FPL]), definitely not in poverty (reported income category above 100 percent of the FPL), or possibly in poverty (reported income category included values below and above the FPL). A comparable value was created for 2009 Current Population Survey respondents using reported income (adjusted for inflation between the survey years) and household size.

In some cases, data in the categories reported in this brief were not collected for AoA participants. For all of the variables reported, missing data comprised 5 percent or less of total responses. Percentages reported in this brief are based on the full sample of participants and use survey weights to construct population estimates.

## References


Centers for Medicare & Medicaid Services (CMS). "Nursing Home Data Compendium, 2009 Edition." Baltimore, MD: CMS, 2009.

Gaugler, Joseph E., Sue Duval, Keith A. Anderson, and Robert L. Kane. "Predicting Nursing Home Admission in the U.S.: A Meta-Analysis." *BMC Geriatrics*, vol. 7, no. 13, 2007.

Miller, Edward Alan, and William G. Weissert. "Predicting Elderly People's Risk for Nursing Home Placement, Hospitalization, Functional Impairment, and Mortality: A Synthesis." *Medical Care Research and Review*, vol. 57, no. 3, 2000.


### About This Series


This series is funded by AoA, and presents analyses conducted by Mathematica Policy Research using data from AoA's National Surveys of Program Participants. These surveys collect information from Title III participants about their demographics, socioeconomic status, health, and functioning, as well as their service use and client-reported service impact and quality.



For more information about this study, please contact Jody Schimmel, senior researcher at Mathematica, jschimmel@mathematica-mpr.com.

**[Begin Six-Item Food Security Module]**

**Transition into Module :**
These next questions are about the food eaten in your household in the last 12 months, since (current month) of last year and whether you were able to afford the food you need.

**NOTE:** If the placement of these items in the survey makes the transition/introductory sentence unnecessary, add the word "Now" to the beginning of question HH3: "Now I'm going to read you...."

FILL INSTRUCTIONS: Select the appropriate fill from parenthetical choices depending on the number of persons and number of adults in the household.

HH3. I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for (you/your household) in the last 12 months—that is, since last (name of current month).

The first statement is, "The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

[ ] Often true
[ ] Sometimes true
[ ] Never true
[ ] DK or Refused

HH4. "(I/we) couldn't afford to eat balanced meals." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

[ ] Often true
[ ] Sometimes true
[ ] Never true
[ ] DK or Refused

AD1. In the last 12 months, since last (name of current month), did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?

[ ] Yes
[ ] No (Skip AD1a)
[ ] DK (Skip AD1a)

AD1a. [IF YES ABOVE, ASK] How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

[ ] Almost every month
[ ] Some months but not every month
[ ] Only 1 or 2 months
[ ] DK

AD2. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?

[ ] Yes
[ ] No
[ ] DK

AD3. In the last 12 months, were you every hungry but didn't eat because there wasn't enough money for food?

[ ] Yes
[ ] No
[ ] DK

**[End of Six-Item Food Security Module]**

# Determine Your Nutritional Health

*The warning signs of poor nutritional health are often overlooked. Use this checklist to find out if you or someone you know is at nutritional risk.*

Read the statements below. Circle the number in the yes column for those that apply to you or someone you know. For each yes answer, score the number in the box. Total your nutritional score.

| | YES |
|---|---|
| I have an illness or condition that made me change the kind and /or amount of food I eat. | 2 |
| I eat fewer than two meals per day. | 3 |
| I eat few fruits or vegetables, or milk products. | 2 |
| I have three or more drinks of beer, liquor or wine almost every day. | 2 |
| I have tooth or mouth problems that make it hard for me to eat. | 2 |
| I don't always have enough money to buy the food I need. | 4 |
| I eat alone most of the time. | 1 |
| I take three or more different prescribed or over-the-counter drugs a day. | 1 |
| Without wanting to, I have lost or gained 10 pounds in the last six months. | 2 |
| I am not always physically able to shop, cook and/or feed myself. | 2 |
| **TOTAL** | |

## Total your nutritional score. If it's --

0-2 **Good!** Recheck your nutritional score in 6 months.

3-5 **You are at moderate nutritional risk**. See what can be done to improve your eating habits and lifestyle. Your office on aging, senior nutrition program, senior citizens center or health department can help. Recheck your nutritional score in 3 months.

6 or more **You are at high nutritional risk**. Bring this checklist the next time you see your doctor, dietitian or other qualified health or social service professional. Talk with them about any problems you may have. Ask for help to improve your nutritional health.

**Remember that warning signs suggest risk, but do not represent diagnosis of any condition. Turn the page to learn more about the Warning Signs of poor nutritional health.**

**The Nutrition Checklist is based on the warning signs described below. Use the word DETERMINE to remind you of the warning signs.**

## Disease

Any disease, illness or chronic condition that causes you to change the way you eat, or makes it hard for you to eat, puts your nutritional health at risk. Four out of five adults have chronic diseases that are affected by diet. Confusion or memory loss that keeps getting worse is estimated to affect one out of five or more of older adults. This can make it hard to remember what, when or if you've eaten. Feeling sad or depressed, which happens to about one in eight older adults, can cause big changes in appetite, digestion, energy level, weight and well-being.

## Eating Poorly

Eating too little and eating too much both lead to poor health. Eating the same foods day after day or not eating fruit, vegetables and milk products daily will also cause poor nutritional health. One in five adults skips meals daily. Only 13 percent of adults eat the minimum amount of fruits and vegetables needed. One in four older adults drinks too much alcohol. Many health problems become worse if you drink more than one or two alcoholic beverages per day.

## Tooth Loss/Mouth Pain

A healthy mouth, teeth and gums are needed to eat. Missing, loose or rotten teeth or dentures which don't fit well or cause mouth sores make it hard to eat.

## Economic Hardship

As many as 40 percent of older Americans have incomes of less than $6,000 per year. Having less--or choosing to spend less--than $25 to $30 per week for food makes it very hard to get the foods you need to stay healthy.

## Reduced Social Contact

One-third of all older people live alone. Being with people daily has a positive effect on morale, well-being and eating.

## Multiple Medicines

Many older Americans must take medicines for health problems. Almost one half of older Americans take multiple medicines daily. Growing old may change the way we respond to drugs. The more medicines you take, the greater the chance for side effects such as increased or decreased appetite, change in taste, constipation, weakness, drowsiness, diarrhea, nausea and others. Vitamins or minerals when taken in large doses act like drugs and can cause harm. Alert your doctor to everything you take.

## Involuntary Weight Loss/Gain

Losing or gaining a lot of weight when you are not trying to do so is an important warning sign that must not be ignored. Being overweight or underweight also increases your chance of poor health.

## Needs Assistance in Self Care

Although most older people are able to eat, one of every five has trouble walking, shopping, buying and cooking food, especially as they get older.

## Elder Years Above Age 80

Most older people lead full and productive lives. But as age increases, risk of frailty and health problems increase. Checking you nutritional health regularly makes good sense.

# Mini Nutritional Assessment
# MNA®

Last name: First name:

Sex: Age: Weight, kg: Height, cm: Date:

Complete the screen by filling in the boxes with the appropriate numbers. Add the numbers for the screen. If score is 11 or less, continue with the assessment to gain a Malnutrition Indicator Score.

## Screening

**A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?**
0 = severe decrease in food intake
1 = moderate decrease in food intake
2 = no decrease in food intake ☐

**B Weight loss during the last 3 months**
0 = weight loss greater than 3kg (6.6lbs)
1 = does not know
2 = weight loss between 1 and 3kg (2.2 and 6.6 lbs)
3 = no weight loss ☐

**C Mobility**
0 = bed or chair bound
1 = able to get out of bed / chair but does not go out
2 = goes out ☐

**D Has suffered psychological stress or acute disease in the past 3 months?**
0 = yes 2 = no ☐

**E Neuropsychological problems**
0 = severe dementia or depression
1 = mild dementia
2 = no psychological problems ☐

**F Body Mass Index (BMI) (weight in kg) / (height in $m^2$)**
0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater ☐

Screening score ☐☐
(subtotal max. 14 points)

12-14 points: Normal nutritional status
8-11 points: At risk of malnutrition
0-7 points: Malnourished

For a more in-depth assessment, continue with questions G-R

## Assessment

**G Lives independently (not in nursing home or hospital)**
1 = yes 0 = no ☐

**H Takes more than 3 prescription drugs per day**
0 = yes 1 = no ☐

**I Pressure sores or skin ulcers**
0 = yes 1 = no ☐

**J How many full meals does the patient eat daily?**
0 = 1 meal
1 = 2 meals
2 = 3 meals ☐

**K Selected consumption markers for protein intake**
- At least one serving of dairy products (milk, cheese, yoghurt) per day yes ☐ no ☐
- Two or more servings of legumes or eggs per week yes ☐ no ☐
- Meat, fish or poultry every day yes ☐ no ☐

0.0 = if 0 or 1 yes
0.5 = if 2 yes
1.0 = if 3 yes ☐.☐

**L Consumes two or more servings of fruit or vegetables per day?**
0 = no 1 = yes ☐

**M How much fluid (water, juice, coffee, tea, milk...) is consumed per day?**
0.0 = less than 3 cups
0.5 = 3 to 5 cups
1.0 = more than 5 cups ☐.☐

**N Mode of feeding**
0 = unable to eat without assistance
1 = self-fed with some difficulty
2 = self-fed without any problem ☐

**O Self view of nutritional status**
0 = views self as being malnourished
1 = is uncertain of nutritional state
2 = views self as having no nutritional problem ☐

**P In comparison with other people of the same age, how does the patient consider his / her health status?**
0.0 = not as good
0.5 = does not know
1.0 = as good
2.0 = better ☐.☐

**Q Mid-arm circumference (MAC) in cm**
0.0 = MAC less than 21
0.5 = MAC 21 to 22
1.0 = MAC 22 or greater ☐.☐

**R Calf circumference (CC) in cm**
0 = CC less than 31
1 = CC 31 or greater ☐

Assessment (max. 16 points) ☐☐.☐

Screening score ☐☐.☐

Total Assessment (max. 30 points) ☐☐.☐

## Malnutrition Indicator Score

| | | |
|---|---|---|
| 24 to 30 points | ☐ | normal nutritional status |
| 17 to 23.5 points | ☐ | at risk of malnutrition |
| Less than 17 points | ☐ | malnourished |


Ref. Vellas B, Villars H, Abellan G, et al. *Overview of MNA® - Its History and Challenges.* J Nut Health Aging 2006; 10: 456-465.
Rubenstein LZ, Harker JO, Salva A, Guigoz Y, Vellas B. Screening for Undernutrition in Geriatric Practice: *Developing the Short-Form Mini Nutritional Assessment (MNA-SF).* J. Geront 2001; 56A: M366-377.
Guigoz Y. The Mini-Nutritional Assessment (MNA®) *Review of the Literature – What does it tell us?* J Nutr Health Aging 2006; 10: 466-487.


**For more information:** www.mna-elderly.com

TAB

# Evaluation – January 18 & 19
# Walmart Foundation Senior Nutrition Institute

*Please take a moment to evaluate the Senior Nutrition Institute, provided as part of the MOWAA Leadership Academy and give us your feedback.*

**Please rate each of the Senior Nutrition Institute courses.**

### Surviving in a Changing Environment

| | Excellent | Good | Fair | Poor | N/A |
|---|---|---|---|---|---|
| Overall course content | | | | | |
| Relevance of content to your position | | | | | |
| New techniques or best practices provided | | | | | |
| Delivery of course content | | | | | |
| Time allowed for questions and discussion | | | | | |

### Designing Food Delivery Systems

| | Excellent | Good | Fair | Poor | N/A |
|---|---|---|---|---|---|
| Overall course content | | | | | |
| Relevance of content to your position | | | | | |
| New techniques or best practices provided | | | | | |
| Delivery of course content | | | | | |
| Time allowed for questions and discussion | | | | | |

### Business Planning

| | Excellent | Good | Fair | Poor | N/A |
|---|---|---|---|---|---|
| Overall course content | | | | | |
| Relevance of content to your position | | | | | |
| New techniques or best practices provided | | | | | |
| Delivery of course content | | | | | |
| Time allowed for questions and discussion | | | | | |

## Screening and Prioritizing Clients for Nutrition Risks

| | Excellent | Good | Fair | Poor | N/A |
|---|---|---|---|---|---|
| Overall course content | | | | | |
| Relevance of content to your position | | | | | |
| New techniques or best practices provided | | | | | |
| Delivery of course content | | | | | |
| Time allowed for questions and discussion | | | | | |

## Menu Planning for Customer Satisfaction

| | Excellent | Good | Fair | Poor | N/A |
|---|---|---|---|---|---|
| Overall course content | | | | | |
| Relevance of content to your position | | | | | |
| New techniques or best practices provided | | | | | |
| Delivery of course content | | | | | |
| Time allowed for questions and discussion | | | | | |

### What did you think about the level of the courses in this Institute overall?

[ ] Just right [ ] Too basic [ ] Too advanced

### Did the topics covered have practical applicability for implementation in your program?

[ ] Topics were extremely useful [ ] Topics were moderately useful [ ] Topics were not useful

### Overall were you satisfied with the quality of the courses offered through this Institute?

[ ] Extremely satisfied [ ] Satisfied [ ] Neither satisfied nor dissatisfied [ ] Dissatisfied [ ] Extremely dissatisfied

### Please provide any additional comments on the level, content, quality or relevance of the Institute courses below.

**Please share three to five concepts or best practices you learned in the Senior Nutrition Institute Courses.**

1.

2.

3.

4.

5.

**Please tell us how you plan to implement some of these concepts or best practices into your Program.**

**What suggestions, if any, do you have for additional courses to be provided at Conference or through webinars on topics discussed during the Senior Nutrition Institute?**

At Conference:

In a webinar:

**What types of learning opportunities would you like to see offered by the MOWAA Leadership Academy in the future?** *(Check all that apply.)*

[ ] Instructor led [ ] Webinars: Real time with instructor [ ] Webinars: On demand

[ ] Online courses [ ] Discussion forums

**Contact Information (Optional):**

Name: Organization:

City: State:

Testimonials from individuals are critical to the MOWAA Leadership's Academy's ability to provide future courses or Institutes.

We share these testimonials with MOWAA Members and others when promoting upcoming Institutes, but especially with funders like the Walmart Foundation, whose generous support enabled us to offer this program and other potential future funders to demonstrate the value and impact of their support.

If you would like to help support the work of the Academy, we ask that you write a few sentences describing your experience at the Institute, the impact it will have on your program and board, or any other comments that we may share.

**Thank you for taking your time to respond. Please return your completed form to the MOWAA staff at the end of the Institute.**