

## Food and Nutrition Practices and Education Needs in Florida's Adult Family Care Homes

### Abstract

A statewide survey was carried out to determine food and nutrition practices and education needs of Florida's adult family care homes (AFCHs). The 30-item survey included questions on food and nutrition education, supplement use, and menu planning. Infrequent use of menus and nutrition supplements was reported. A strong need was indicated for education on special diets, menu planning, pureed food preparation, and the nutritional needs of the elderly. Extension programming to meet these educational needs may result in improved nutritional wellbeing of frail older adults in care.

**Wendy J. Dahl**  
Assistant Professor  
and Extension  
Specialist  
Food Science and  
Human Nutrition  
University of Florida  
Gainesville, Florida  
[wdahl@ufl.edu](mailto:wdahl@ufl.edu)

**Amanda L. Ford**  
Doctoral Student  
Food Science and  
Human Nutrition  
University of Florida  
Gainesville, Florida  
[gator888@ufl.edu](mailto:gator888@ufl.edu)

**Nancy J. Gal**  
Extension Agent IV  
Marion County  
Extension Service  
Ocala, Florida  
[nancy.gal@marioncou  
ntyfl.org](mailto:nancy.gal@marioncountyfl.org)

### Introduction

Florida is home to more than 1,700,000 individuals over the age of 65, and of those more than a million are over 75, and 300,000 are over the age of 85 (Florida's LTC Ombudsman, 2008). As many as 168,000 elderly individuals reside in long-term care facilities, including nursing homes, assisted living facilities, and adult family care homes (Florida's LTC Ombudsman, 2011). Many residents of long-term care facilities are frail older adults, experiencing muscle weakness, low physical activity levels, and unintentional weight loss (Milne, Potter, Vivanti, & Avenell, 2009).

Malnutrition is a common concern of elderly residing in care facilities, and this poor nutritional status is strongly associated with reduced quality of life and morbidity, and is a key factor leading to hospitalization, increased care, and mortality (Leydon & Dahl, 2008). Adequate food and nutrient intake is critical for optimum nutritional status. Although there are many factors that contribute to malnutrition in long-term care residents, dysphagia (difficulty with chewing and swallowing), lack of nutrient dense foods, and poor menu quality are key contributors (Dunne & Dahl, 2007). Provision of acceptable, nutritionally adequate food is critical to ensure quality of life and wellness of individuals residing in care facilities.

In Florida, there are approximately 4,000 long-term care facilities housing over 170,000 beds (Florida's LTC Ombudsman, 2008). The Long-Term Care (LTC) Ombudsman Program is a statewide "volunteer-based organization seeking to improve the quality of life of vulnerable elders who live in licensed long term care facilities, including nursing homes, assisted living facilities and adult family care homes" (Florida's LTC Ombudsman, 2008). The LTC Ombudsman Program has reported in recent years that menu quantity, quality, variation, and choice are common complaints reported by elderly living in assisted living facilities and adult family care homes and their families or representatives. Among assisted living facilities and adult family care homes, menu was the number one complaint from 2006 to 2011 (Florida's LTC Ombudsman, 2011). Because menu complaints may directly affect food acceptance and food intake of residents, leading to malnutrition, it is critical that quantity, quality, variation, and food choice be improved for those individuals residing in assisted living facilities and adult family care homes.

Adult Family Care Homes (AFCHs) are private licensed homes that provide the elderly who are unable to live independently with general supervision, meals, personal care services, and assistance with medications (DEA, 2011a). AFCHs in Florida are licensed by the Agency for Health Care Administration (AHCA) and are owned and operated by "providers" who live with the residents in a home-like setting (FAHCA Chapter 58A-14, 2010). These homes are allowed a maximum of five residents according to the State of Florida Department of Elder Affairs, and the care offered in these homes is considered "a less costly alternative to more restrictive institutional setting for individuals not needing 24-hour nursing supervision" (DEA, 2011a). To reside in an AFCH, an individual must meet certain requirements as outlined in the AFCH "residency criteria," which is defined by state regulations and by the provider's admission policy (DEA, 2011a).

Currently, Florida regulations state, that "[s]taff who prepare or serve food, who have not taken the assisted living facility core training must receive a minimum of 1-hour-in-service training within 30 days of employment in safe food handling practices" (FAHCA Chapter 58A-5.0191, 2010). There are currently no regulations requiring these staff to have training specialized in food and nutrition for the frail older adult. All adult family care home owners are required to complete a 12-hour basic adult family-care home initial training program, which meets the minimum requirements of Section 429.75, F.S. This regulation states, "providers must annually obtain 3 hours of continuing education in topics related to the care and treatment of frail elders or disabled adults, OR the management and administration of an adult family-care home" (DEA, 2011b).

The owner of an AFCH is responsible for food service standards set by the AHCA. The AHCA states that according to state regulation CHAPTER 58A-14, meals provided to residents should be based on the U.S. Department of Agriculture's Food Guide Pyramid - A Guide to Daily Food Choices, dated August 1992 (FAHCA Chapter 58A-14, 2010). A total of three meals should be served during each 24-hour period for in-house residents and should accommodate special diets issued by health care provider, assistance with use of adaptive eating equipment should be given, opportunities for food selection should be given to residents, and consideration should be given to cultural and ethnic background (FAHCA Chapter 58A-14, 2010).

As elderly individuals residing in care are at high risk for weight loss and malnutrition, it is critical that food offered to these individuals be nutritious and acceptable. A review of the above regulations suggests that staff of adult family care homes may not be receiving adequate education as to best meet the food and nutrition needs of the older adults in their care, and there may well be a role for Extension in filling this educational gap.

Marsden (1990) suggested that Extension may have a role in educating family members and facility caregivers of long-term care residents. Bailey and Paul (2008) reported on the development and evaluation of an educational series on Alzheimer's caregiving for information family caregivers. The program, including one unit on nutrition, resulted in the caregivers having a better understanding of the food/nutritional needs of people with Alzheimer's. Barrett, Swanson, and Song (2005) reported on the development and evaluation of a training program for in-home caregivers of aging adults with nutrition sessions covering the former food guide pyramid, meal planning, food shopping, and food safety. Participants reported that the training improved their knowledge, skill/ability, attitude, interest, and self-confidence.

Because food and nutrition education has been successful for family caregivers of older adults, programming for staff at adult family care homes is a logical next step if need for such a program is established. To this end, we conducted an educational needs assessment of staff of adult family care homes, to determine current food and nutrition practices and educational needs related to the nutritional needs and food texture requirements of frail older adults.

## Methods

A 30-item questionnaire was developed to explore the food and nutrition practices and education needs in Florida's AFCHs. A list of licensed AFCHs was obtained from the Florida Agency for Health. Only AFCHs with active status (n=370) according to AHCA were included in the survey. AFCHs whose status was "in review" or "litigation" were excluded. AFCHs were contacted by phone and asked to complete a voluntary questionnaire either by telephone

interview or online through Survey Monkey®. The survey included questions on food and nutrition education, nutritional supplement use and menu planning at their residence. A Likert-type scale was used when respondents were asked to rate the food served at the residence. Ethics approval for the study was sought and deemed exempt by the Institutional Review Board 2 at the University of Florida.

## Results

A total of 115 questionnaires were completed by AFCHs, a response rate of 55% for the 210 homes contacted, representing 31 of the 42 counties in Florida with AFCHs according to the Florida Agency for Health Care Administration website. Reasons for non-response included: non-English speaking homes, homes with disconnected or non-working phones, no published number, homes that were licensed but never had any residents, and homes that declined participation. Of all AFCHs (n=370) in Florida, 31% completed the questionnaire. Of the homes contacted, 82% of the participants reported their job title as owner of the AFCH and reported doing the majority of cooking and meal planning in the home. The average number of residents living in the homes was  $3 \pm 1.5$  (mean  $\pm$  SD), with two respondents declining to answer.

### Food and Nutrition Education

In general, nutrition and food education was lacking in the AFCHs in Florida. Seventeen percent of responders indicated, that during the past 2 years, food service staff (any staff including themselves involved in meal planning, food preparation and meal service) at the facility had not received any education in the following nutrition and food topics: food safety, meal planning, special diets such as diabetic or gluten-free, pureeing foods, or the nutritional concerns of the elderly. Of the total responders, 35% of home staff had received education on meal planning, 25% on special diets such as diabetic or gluten-free, 13% on pureeing of foods and 20% on the nutritional concerns of the elderly. Respondents felt strongly that there is a definite need for nutrition and food education. Nutrition education and food preparation information on menu planning and special diets such as diabetic or gluten-free was indicated as needed by 83% of AFCHs. Respondents suggested that education was also needed on special diets such as cardiac diet, low-sodium diet, vegetarian diet, and portion control.

Respondents were asked, "If Extension provided food and nutrition education programming, what would be the preferred method(s) of program delivery?" Respondents chose a food and nutrition resource manual or binder with background information and teaching resources most frequently (74%), followed by on-site training by trained Extension staff in their county (28%), instructional DVD or flash drive (27%), and online video tutorials (15%). Respondents noted that their available time was extremely limited and that binders would provide an available resource that they could reference at their convenience. Additionally, some respondents commented that they either did not have computer access or their access was limited, thus limiting the usefulness of online resources.

### Menu Planning

Education on menu planning was uncommon, with 35% receiving education in the past 2 years. A total of 37% of respondents reported using a menu at their residence, with an average menu rotation of 2 weeks, and of those using a menu, 63% reported that a registered dietitian (RD) was involved in creating the menu. Fewer respondents (37%) had an RD evaluate the menu. Of the AFCHs who reported using a menu, 47% had not received any education in menu planning in the last 2 years.

Chewing and/or swallowing problems were reported in 17% of homes. Of these, 35% served puréed foods, 15% served ground or minced foods, and 25% served thickened beverages. The large majority (80%) of AFCHs serving puréed foods had not received any education on puréed food preparation in the past 2 years.

### Nutritional Supplements

Use of nutritional supplements, such as Boost® or Ensure®, was reported in 30% of responding AFCHs. Vitamin and

supplement usage among residents in AFCHs was variable among residences, but had an apparent low usage among AFCHs (Table 1). Most AFCHs (87%) do not add any fiber or bran to foods served to residents, and the use of protein powders in food was low (3%). Vitamin D and calcium supplements were not used frequently among residents at AFCHs, with over 60% of AFCHs reporting that none of their residents were receiving vitamin D or calcium (Table 1).

**Table 1.**  
Frequency of Supplement Use by Residents in AFCHs (n= 115)

	<b>No Residents n (%)</b>	<b>One Residents n (%)</b>	<b>Two Residents n (%)</b>	<b>Three Residents n (%)</b>	<b>Four Residents n (%)</b>	<b>Five Residents n (%)</b>	<b>N/A or Unknown n (%)</b>
<b>Fiber Supplement</b>	88 (77)	10 (9)	4 (4)	1 (1)	2 (2)	1 (1)	9 (8)
<b>Multivitamin/Mineral Supplement</b>	43 (37)	22 (19)	22 (19)	4 (4)	14 (12)	6 (5)	4 (4)
<b>Calcium</b>	68 (59)	21 (18)	9 (8)	2 (2)	7 (6)	3 (3)	5 (4)
<b>Vitamin D</b>	71 (62)	22 (19)	9 (8)	2 (2)	4 (4)	2 (2)	5 (4)

No AFCHs reported their food as below average or poor. AFCHs felt that the food they served was above average for "appetizing," above average for "nutritional quality," and average for "healthy." However, it is important to note that respondents were the same individuals carrying out the meal preparation in the homes.

## Discussion

The results of the statewide survey suggest that AFCHs in Florida are not receiving standardized education in menu planning, special diets, pureed food preparation, and nutritional needs of frail older adults. Managers of AFCHs must follow regulations regarding meal preparation and nutrition for residents with outdated reference information (USDA's 1992 Food Guide Pyramid) that may not be meeting the nutritional needs of their high-risk clientele. Although frail older adults in care often require nutrient supplementation (Dunne & Dahl, 2007), few homes surveyed provide micronutrient or macronutrient supplementation.

Managers of the AFCHs recognized the need for food and nutrition education. Providing food and nutrition education programming to staff of AFCHs may be an effective way to improve the nutritional wellbeing of older adults in care. An implication for Extension professionals, who provide programming in food and nutrition, is the understanding that there may be this serious unmet educational need in their counties. With the provision of in-service training focusing on the unique food and nutritional needs of the frail older adult, Extension professionals may be ideally suited to educate the staff of AFCHs, given that few have direct access to registered dietitians.

The results of the reported here study suggest that distributing the education in the form of a resource manual may be an effective and preferred method; however, there is also an opportunity to provide direct training and online resources. Evidence-based menu, nutrition, and food preparation resources available for the training of staff involved in menu development and food preparation in adult family care homes are needed. Improving the knowledge and skills of staff responsible for the planning and preparation of foods provided to older adults in care may result in improved menu acceptance and may lead to improved quality of life and wellness of residents.

## References

Bailey, S., & Paul, L. (2008). Meeting the Needs of Rural Caregivers: The Development and evaluation of an Alzheimer's caregiving series. *Journal of Extension* [On-line], 46 (1) Article 1FEA1. Available at:

<http://www.joe.org/joe/2008february/a1.php>

Barrett, G. J., Swanson, P. W. & Song, A. V. (2005). Evaluation of training program for caregivers to aging adults. *Journal of Extension* [On-line], 43(3) Article 3RIB6. Available at: <http://www.joe.org/joe/2005june/rb6.php>

Department of Elder Affairs (DEA). State of Florida. (2011a). Adult Family Care Home. Retrieved from: <http://elderaffairs.state.fl.us/doea/afch.php>

Department of Elder Affairs (DEA). State of Florida. (2011b). Adult Family Care Home Training Requirements. Available at: <http://elderaffairs.state.fl.us/faal/operator/afchtrain.html>

Dunne, J., & Dahl, W. J. (2007). A novel solution is needed to correct low nutrient intakes in long-term care residents. *Nutrition Reviews*, 65(3), 135-1238.

Florida Agency for Health Care Administration (FAHCA). (2010). Chapter 58A-5.0191. Staff Training Requirements and Competency Test. Retrieved from: <http://www.floridaaffordableassistedliving.org/faalEs/documents/58A-5-0191.pdf>

Florida Agency for Health Care Administration. (2010). Chapter 58A-14 Adult Family-Care Homes. Retrieved from: [http://ahca.myflorida.com/mchq/long\\_term\\_care/Assisted\\_living/afc/58A-14.pdf](http://ahca.myflorida.com/mchq/long_term_care/Assisted_living/afc/58A-14.pdf)

Florida's Long Term Care Ombudsman Program. (2008). 2007-2008 Annual Report. Our 2 cents is no small change. Retrieved from: [http://ombudsman.myflorida.com/Publications/ar/08\\_09\\_AnnualReport.pdf](http://ombudsman.myflorida.com/Publications/ar/08_09_AnnualReport.pdf)

Florida's Long Term Care Ombudsman Program. (2011). 2010-2011 Annual Report. Retrieved from: [http://ombudsman.myflorida.com/Publications/ar/10\\_11\\_Annual\\_Report.pdf](http://ombudsman.myflorida.com/Publications/ar/10_11_Annual_Report.pdf)

Leydon, N., & Dahl, W. J. (2008). Improving the nutritional status of long term care residents. *Journal of Health Services Research and Policy*. 13 (Suppl.1), 25-29.

Marsden, A-M. (1990). Education for support of nursing home residents. *Journal of Extension* [On-line], 28(3) Article 3FEA2. Available at: <http://www.joe.org/joe/1990fall/a2.php>

Milne, A. C., Potter, J., Vivanti, A., & Avenell, A. (2009). Protein and energy supplementation in older adult people at risk from malnutrition. *Cochrane Database Syst Rev*. 15(2):CD003288. Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003288.pub3/abstract?jsessionid=2E3A1616532086D3916E77AC95A05EB6.d01t03?systemMessage=Wiley+Online+Library+will+be+disrupted+on+15+December+from+10%3A00-12%3A00+GMT+%2805%3A00-07%3A00+EST%29+for+essential+maintenance>

*Copyright* © by Extension Journal, Inc. ISSN 1077-5315. Articles appearing in the Journal become the property of the Journal. Single copies of articles may be reproduced in electronic or print form for use in educational or training activities. Inclusion of articles in other publications, electronic sources, or systematic large-scale distribution may be done only with prior electronic or written permission of the *Journal Editorial Office*, [joe-ed@joe.org](mailto:joe-ed@joe.org).

If you have difficulties viewing or printing this page, please contact [JOE Technical Support](#)