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# **Local Area Agency on Aging Supports In-Home Nutrition Education for High-Nutritional Risk Seniors**

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**Abstract:** Area Agency on Aging (AAA) and University of Idaho Extension created the Senior Extension Nutrition Program (SENP) to help high-nutritional risk seniors understand the importance of using food to better manage their health and/or health conditions. Paraprofessionals from Food Stamp Nutrition Education are funded using AAA funds and provide in-home visits to at risk seniors. Paraprofessionals receive oversight from UI faculty and a registered dietitian. A retrospective pre-test survey indicates behavior changes in fruit, vegetable, dairy, and water consumption and food frequency intake. The program gives these seniors an increase confidence in how to manage their health.

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## **Introduction**

Nutrition plays multiple roles in successful aging; it helps promote health and functionality, lessens chronic disease, and slows disease progression. (American Dietetic Association, 2005). Older adults at nutritional risk include the older-old, the poor, the functionally impaired, minorities, women, and those with little or no outside support (Sharkey, Branch, Zohoori, Giuliani, Busby-Whitehead, & Haines, 2002). Sufficient food intake requires adequate resources to buy food, the ability to prepare and eat food, and the ability to gain access to food (Lee & Frongillo, 2001). Meals provide a sense of security, meaning, and structure to an older adult's day, providing a person with feelings of independence and control and a sense of mastery over his/her environment (Amarantos, Martinez, & Dwyer, 2001). Nutrition education that can help seniors achieve sufficient food intake and, furthermore, empower them to take an active role in their nutritional status is greatly needed to help seniors realize those feelings of security, meaning, independence, and control.

This article highlights the development of an in-home nutrition education program targeting high-nutritional risk seniors. The goals of this program were to increase the number of fruits, vegetables, and dairy products eaten daily; to increase eating frequency; to enhance the understanding of how to use food to better manage health and/or health conditions; to benefit their overall nutritional status; and to provide each individual with feelings of independence and control over their own health. While there is excellent research published in the *Journal of Extension* highlighting nutrition programs targeted at seniors, none of them discuss the unique partnership created by this program between a local Area Agency on Aging and a land-grant university administering Food Stamp Nutrition Education (FSNE). This article additionally identifies a potential funding stream, separate from FSNE, for nutrition education targeted at seniors, and discusses program

replication.

## Program Development

Area Agency on Aging (AAA) assists elderly adults in obtaining services needed to maintain their maximum level of health, safety, and independence in their homes and in their communities. AAA case managers perform several evaluations in clients' homes to assess needs. The Determine Your Nutritional Health (DYNH) assessment is part of this in-home assessment. DYNH, developed by the Nutrition Screening Initiative, identifies seniors at increased risk of poor nutritional status. (Nutrition Screening Initiative, 1991, 1992). This screening asks 10 questions that examine eating habits, health status, living arrangements, and functional ability. The DYNH can be viewed at <http://www.healthcare.uiowa.edu/igec/tools/nutrition/determineNutrition.pdf>. A score of 6 or more categorizes a person at high-nutritional risk. These seniors are told of their status and are encouraged to speak to their health care professional about ways of improving their nutritional status. In an effort to better serve their high-nutritional risk seniors, Area Agency on Aging of North Idaho, which serves the five northern counties in Idaho, made available their health promotion funds for an outside contractor to develop an in-home nutrition education program targeting high-nutritional risk seniors.

University of Idaho Extension developed the Senior Extension Nutrition Program (SENP). The health promotion funds were awarded based on University of Idaho's long-standing experience in providing quality nutrition education through home visitation, experience gained through 13 years of overseeing an EFNEP modeled FSNE project. Paraprofessionals working for FSNE are separately funded by AAA for their SENP hours and are therefore not held to the same program requirements stipulated by FSNE. As part of the contractual agreement with AAA, paraprofessionals are overseen by a registered dietitian (RD).

## Program Implementation

AAA case managers discuss SENP with all high-nutritional risk seniors during their in-home assessment. The files of each interested client are then forwarded to University of Idaho Extension. Each file contains contact information and the DYNH assessment. Initial contact is made by telephone from a paraprofessional. During this initial contact the first home visit is determined.

During the first home visit, the paraprofessional reviews the DYNH assessment with the client, discusses client expectations, and takes a 24-hour recall. Paraprofessionals then tailor each visit, based upon the need of the client, by choosing from 12 different nutrition-related topics. Topics include the importance of a healthy diet for long-term health, how to plan meals using MyPyramid, dehydration, the importance of fiber, snacking, how to make eating alone a pleasant experience, the Plate Method for managing diabetes, heart health, and blood pressure management. Each topic is presented to the client in a flip chart format with a graphic on one side for the client to see and the lesson text on the other side for the paraprofessional to read. Each handout, which uses a minimum size 14 font, highlights the most important components of the lesson. Recipes that use few ingredients and serve only one are also included. Finally, a hands-on activity is shared to further enhance the learning experience. These activities include menu planning and cooking demonstrations.

Clients receive a minimum of six home visits from their paraprofessional. Additionally, paraprofessionals are constantly in contact by telephone or email with the RD overseeing this project. A face-to-face meeting among all the paraprofessionals, RD, and program administrator is conducted every 2 weeks to discuss client needs. After the goals of the client and paraprofessional have been achieved, clients receive a graduation certificate. Since September 2002, SENP has worked with 276 seniors and awarded graduation certificates to

150 graduates. Many of the 126 seniors who did not graduate from the program received the information they needed within just a few lessons, not enough to graduate from the SENP. Additionally, some seniors with only a few lessons dropped out due to loss of interest, death, relocation, or hospitalization. SENP paraprofessionals have taught over 1,948 lessons.

## Evaluation

A retrospective pre-test survey was used to assess behavior change in 116 graduating senior clients. The non-parametric sign test was used to determine significance for six nutrition related questions. (Conover, 1999). Responses to each question were either "yes" or "no." Table 1 shows the questions asked to each participant, percent outcome scores and significance.

**Table 1.**  
Outcome Scores and Significance using Retrospective Pretest and Posttest (n=116)

Question	Pretest	Posttest	P-value
1. Do you eat 2 or more cups of fruit per day?	34%	84%	<.01
2. Do you eat 2 1/2 cups or more of vegetables per day?	25%	53%	<.01
3. Do you drink or eat 3 or more cups of milk, yogurt, cheese or other calcium rich foods per day?	38%	68%	<.01
4. Do you drink 8-1 cup servings of water each day?	32%	47%	<.01
5. Do you understand how to use food to better manage your health or health condition?	32%	94%	<.01
6. How many times a day do you eat?			
1 Time:	4%	0%	<.01
2 Times:	17%	4%	
3 Times:	38%	35%	
4 Times:	23%	37%	
5+ Times:	17%	25%	

## Next Step

A curriculum called Healthy Eating, Healthy Aging, A Nutrition Program Promoting Senior Independence, funded by University of Idaho Extension, is currently being developed to better serve SENP clients. An evaluation tool designed to follow up with clients 1 year after program completion is also being developed for this curriculum.

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