



NUTRITION EDUCATION & HEALTH PROMOTION TOOLKIT

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University of Georgia Nutrition Education Series

USDA Nutrition Education Series

Nutrition Education Toolkit

Nutrition Education is beneficial to older adults.

A review of research on nutrition education programs for older adults demonstrates statistically significant outcomes. Older learners improve in knowledge, attitudes, perceived and verified food practice behaviors, and health.

Components of successful nutrition education programs

Factors influencing older adults' willingness to learn

- They must see the purpose for learning experience.
- The learning experience needs to be challenging and satisfying to them.
- They must be able to see a benefit or how the learning will be useful to them.

Successful programs incorporate

- The learners' own experiences and expertise
- Only those issues with practical, relevant applications to the learners' situations
- Concrete & familiar informational topics
- Goal setting, active participation, and problem-solving

Determine your audience's needs and interests

- Conduct this step with representatives from the group
- Use results to tailor nutrition messages accordingly
- Conduct nutrition screenings such as the 10 nutrition questions in IAPRS participant registration to determine nutrition needs
- Use written surveys, and personal (telephone or face-face) or group discussions (informal groups or focus groups) to determine nutrition information interests

Educators need more than one educational strategy

- Responses of different groups are likely to be very different.
- Let the clients choose what they find useful
- Deliver messages through multiple and reinforcing media
- Engage a maximum number of senses to increase learning. Try to include vision, hearing, taste, smell, touch as well as humor and other emotions.
- Having participants write and talk about the key points of the lesson increases learning. Incorporate goal setting to begin the behavior change process. Using a worksheet, crossword puzzle based on lesson or review questions also increases learning.
- Adults retain new knowledge in relation to the following learning modes:
 - 10% of what they read
 - 20% of what they hear
 - 30% of what they see
 - 50% of what they see and hear
 - 70% of what they say
 - 90% of what they do

Examples of effective educational strategies

- Mentors- Use mentor to help with presentations. This could be an individual with experience on the topic to be presented and might be a meal participant who is considered a leader or someone from the community.
- Community settings, informal environments
- Oral presentations
- Discussions to include participants
- Storytelling, themes w/ cultural specificity
- Demonstrations
- Provide food samples for tasting
- Print materials
- Videos
- Small group discussions
- Answer questions
- Review key points of the lesson

Requirements for nutrition education (Iowa Administrative Code, 7/14/14)

321—7.12(231) Nutrition services.

7.12(1) Purposes of the program. The purposes of the nutrition services program are to:

- a. Provide meals and other nutrition-related services, including outreach and education to elders;
- b. Provide information and referral services, health and human service counseling, recreation activities, and access to nutrition services to participants when services are needed; and
- c. Provide activities of interest to elders on each day the congregate meal site is open including a monthly nutrition education program under the supervision of a licensed dietitian if the nutrition education provides medically oriented information.

7.12(2) Assessment of need. The AAA shall determine the best location for nutrition services within the planning and service area at least once during the long-range plan development cycle. The needs of the community will be considered in determining the locations for nutrition services.

7.12(3) Inspection of congregate nutrition sites. All congregate nutrition sites shall be inspected by the department of inspections and appeals and shall have a current food service establishment (restaurant) license posted in the congregate nutrition site.

7.12(4) The AAA shall ensure that nutrition funds are used to:

- a. Provide at least one meal per day in a congregate nutrition site or provide home-delivered meals based upon a determination of a participant's need.
- b. Provide other nutrition services to ensure that the maximum number of eligible elders, with emphasis on the frail, those with greatest social and economic need, and the isolated, shall have the opportunity to participate.
- c. Provide nutrition screening and counseling as appropriate and nutrition education services to address assessed needs.

7.12(5) Food assistance program. The AAA and nutrition services providers shall assist participants in taking advantage of benefits available to them under the food assistance program by providing current information to participants in both the congregate and home-delivered meals programs. Nutrition services providers shall be certified to accept food assistance as contributions for meals.

7.12(6) Licensed dietitian. Each AAA must utilize the services of a licensed dietitian to provide

technical assistance in nutrition program management and to ensure that the project provides meals that comply with the RDA/AI.

Assessment of nutrition education needs of Iowa congregate meal participants

1) Based on SFY13 INAPIS data.

The following table identifies *improvements in scores* for questions related to high nutrition risk for congregate and home delivered meal clients.

NAPIS Nutrition Questions	Congregate %	Home delivered %
Illness	21	20
Less than 2 meals	17	14
Few fruits, veg, dairy	28	24
Alcohol	4	2
Tooth or mouth problems	13	11
Money	25	18
Eat alone	16	7
Medication	11	7
Weight change	21	21
Difficulty shopping, cooking and feeding self	22	17

2) Based on Behavioral Risk Factor Surveillance System (BRFSS) data

Cardiovascular Diseases (CVD) (BRFSS, 2012)

In 2012, 5.1% of adult Iowans had been told by a doctor that they had had a heart attack or myocardial infarction, 4.6% had been told they had coronary heart disease or angina, and 3% had been told they had a stroke. Although these statistics may seem small, they represent around 90,000 Iowans with a heart attack or heart disease and around 60,000 with a stroke.

Reducing CVD risk requires an integrated strategy that includes:

Lifestyle behavior change -- weight management; increased physical activity; no tobacco use; a low-fat, low-cholesterol diet with moderate sodium, sugar and alcohol intake; and control of high blood cholesterol, elevated blood pressure, and diabetes.

	Had any Heart Disease	Had Stroke	Had Any Cardiovascular Disease
65-74	16.6 %	7.7%	20.6%
75+	22.4%	11.0%	28.5%

Hypertension (BRFSS, 2011)

This disorder, which is often symptomless, is a major risk factor for heart disease and stroke. Lowering of diastolic blood pressure by a mere 2 mm could result in a 17% decrease in the prevalence of hypertension, a 6% decrease in coronary artery disease, and a 15% reduction in stroke.

Age had the greatest impact on the percentage of respondents reporting high blood pressure. The highest percentage was 65.4 percent among respondents age 75 years and older, while the lowest was among those age 18 to 24 (7.5%) (see figure 7.1). Therefore, high blood pressure is a condition that most people have at some point in their lives.

Primary prevention of hypertension can be accomplished through two complementary approaches: 1) a population strategy to lower the incidence of high blood pressure in the entire population by lowering individual blood pressure levels; and 2) a targeted strategy to lower blood pressure among populations at high risk.

Age	Iowans told they have high Blood Pressure
65-74	55.2%
75+	65.4%

Cholesterol (BRFSS, 2011)

High blood cholesterol is one of the major risk factors for heart disease. The higher your blood cholesterol level, the greater is your risk for developing heart disease or having a heart attack. Cholesterol is a fat-like substance in your blood. When there is too much cholesterol, it builds up in the walls of your arteries. Over time, this buildup causes "hardening of the arteries" so that arteries become narrowed and blood flow to the heart is slowed down or blocked. The blood carries oxygen to the heart, and if enough blood and oxygen cannot reach your heart, you may suffer chest pain. If the blood supply to a portion of the heart is completely cut off by a blockage, the result is a heart attack.

Age	Had cholesterol checked in last 5 yrs	Told they have high cholesterol
65-74	94.5%	54.2%
75	93.8%	55.1%

Physical Activity (BRFSS, 2012)

A lifestyle lacking in regular physical activity has been associated with an increased risk for cardiovascular illness, cancer, osteoporosis, and other debilitating conditions.^{39,43,55} Despite its risks, a large proportion of people remain inactive.

In 2012, 76.9 percent of respondents reported that they had engaged in some sort of physical activity for exercise during the past month other than their regular job. This is better than the 74.1 percent found in 2011. A larger proportion of younger respondents reported engaging in leisure physical activity than older respondents.

Age	Had any leisure activity in last month
65-74	72.4%
75+	61.4%

Diet and Nutrition (BRFSS, 2011)

Eating a diet high in fruits and vegetables as part of an overall healthful diet can help lower chronic disease risk and aid in weight management. Fruits and vegetables contain essential vitamins, mineral, fiber, and other bioactive compounds; a diet high in these foods is associated with lower risk for numerous chronic diseases, including certain cancers and cardiovascular disease.

Age	Eat 5+ fruits and vegetables daily
65-74	12.8%
75+	19.5%

Overweight & Obesity (BRFSS, 2012)

Overweight and obesity are probably the most serious health problems in America today. Obesity is a condition linked to risk factors for heart disease, cancer, and stroke, which are the first, second and third leading causes of death. It is associated with Type II diabetes, atherosclerosis (hardening of the arteries), gout, asthma, hypertension, sleep apnea, and osteoarthritis. Obesity has been increasing so rapidly that it may be regarded as an epidemic.

Age	Overweight	Obese	Combined
65-74	42.1%	34.6%	76.7%
75+	39.3%	24.2%	63.6%

Diabetes (BRFSS, 2012)

Diabetes rates in the United States are approaching epidemic proportions. Diabetes may affect all ages, but it increases in prevalence with age. Almost 18.8 million people live with the burden of diabetes daily, and another 7 million may have the disease and do not know it. In 2012, 9.7 percent of respondents had ever been told by a physician that they have diabetes, excluding women told only during pregnancy. This is higher than in 2011 when 8.2 percent of Iowans had ever been told that they have diabetes.

The complications of diabetes are many and severe. They can include heart disease, stroke, high blood pressure, kidney disease, blindness, diseases of the nervous system, dental disease, lower extremity amputations, biochemical imbalances such as ketoacidosis and diabetic coma, and lower resistance to other diseases. The good news is that research studies have found that positive lifestyle changes can prevent or delay the onset of Type 2 diabetes among high-risk adults. Lifestyle interventions included diet modification, weight loss and moderate-intensity physical activity (such as walking for 2 ½ hours each week).

Age	Have been told they have diabetes
65-74	21.5%
75+	18.7%

Alcohol Intake (BRFSS, 2012)

Alcohol dependency and abuse are major public health problems carrying a large economic cost and placing heavy demands on the health care system. Chronic alcohol use affects every organ and system of the body. It also can lead to medical disorders (e.g., liver disease, cardiomyopathy, and pancreatitis). Heavy drinking can increase the risk for certain cancers. Drinking increases the risk of death from automobile crashes as well as recreational and on-the-job injuries. Furthermore, both homicides and suicides are more likely to be committed by persons who have been drinking.

In the BRFSS survey, a standard drink is defined as one 12-ounce beer, one 5-ounce glass of wine, or a drink with one shot of hard liquor. A person is considered to binge if a man drinks more than five drinks or a woman drinks more than four drinks on one occasion. Chronic heavy drinking is defined to be greater than two drinks per day for men and one drink per day for women.

Age	Binge drinking	Heavy Drinking
65-74	6.8%	4.4%
75+	1.4%	2.1%

Food Safety

Changes that accompany the aging process increase susceptibility to foodborne illness or food poisoning. For example, the stomach and intestinal tract hold foods for a longer period of time; the liver and kidneys may not readily rid toxins; and the sense of taste and/or smell may be altered.

The side effects of some medications and/or the chronic disease process may weaken the immune system, thus increasing susceptibility to foodborne illness.

The Centers for Disease Control and Prevention (CDC, 2014) estimates that 1 in 6 Americans (48 million people) get sick, 128,000 people are hospitalized and 3,000 people die each year due to foodborne illnesses. Many of these people are very young, very old, or have weakened immune systems and may not be able to fight infection normally.

Malnutrition and chronic illnesses can depress the immune system and increase susceptibility to infection and foodborne illness. Unsafe food-handling contributes to infirmity in older adults. Compared to younger adults, mortality rates are higher for older adults who come in contact with *Listeria monocytogenes*, particularly when immune function is impaired. Invasive *Salmonella* infections cause the highest hospitalization and death rate among older adults. Those living in their own homes are also at risk for foodborne illnesses as 13% admit to not washing their hands or cutting boards after touching raw meats. Men and individuals living alone have significantly worse food handling skills. (Kendall PA, Hillers VV, Medeiros LC. Food safety guidance for older adults. *Clin Infect Dis.* 2006;42:1298-1304).

Knowledge gap exists among public on meat, poultry handling, cooking, safety (6-16-09 Meat Institute Study): A new poll reveals a significant knowledge gap among the public about meat and poultry handling, cooking, and safety. Only a third (34%) of Americans correctly answered that a hamburger is ready to eat when the internal temperature has reached 160°F. One in five said that checking the middle of the hamburger to ensure that it is brown is the best approach—a practice that experts say is not an accurate indicator

that a burger is thoroughly cooked. Likewise, 18% wrongly said that checking to see if juices run clear ensures food safety.

The poll, which surveyed 1,000 Americans in May, found that many misconceptions remain, particularly when it comes to preparing and storing raw meat and poultry products. The survey, conducted by the American Meat Institute (AMI), found that men are much more likely than women to know how to identify when a hamburger is thoroughly cooked. While four in 10 (41%) men know that the internal temperature of a hamburger must reach 160°F before it can be consumed; only 26% of women knew this fact.

Consumers also were uncertain about proper storage temperatures. Only 36% of women are aware that refrigerators should be set at 40°F or below. An additional one-third (33%) of women simply admit that they don't know the correct temperature for a refrigerator.

Nutrition Education defined by AoA in SPR Manual

Nutrition Education (1 session per participant) -- A program to promote better health by providing accurate and culturally sensitive nutrition, physical fitness, or health (as it relates to nutrition) information and instruction to participants, caregivers, or participants and caregivers in a group or individual setting overseen by a dietitian or individual of comparable expertise.

Examples for reporting nutrition education in IAPRS:

1. A nutrition education program is provided on how the Food Assistance Program can help purchase the fruits and vegetables needed for good health. The instructor gives a one-half hour session for 30 participants. This would be counted as one nutrition education session for each registered congregate meal participant.
2. Information on MyPlate is placed on the back of the menu. Menus are distributed to 15 congregate meal site participants. The meal site manager discusses how to use MyPyramid for identifying the recommended number of daily servings for each food group. This would be counted as one nutrition education session for each registered congregate meal participant.
3. Information on MyPlate is placed on the back of the menu and the menus are distributed to all home delivered meal participants. This is not counted as a nutrition education session as no nutrition education session was provided. To help visualize the reporting, consider one session is between one presenter and one participant.

Special Nutrient Needs of Older Adults

Eating right and staying fit are important no matter what your age. As we get older our bodies have different needs, so certain nutrients become especially important for good health.

Calcium and Vitamin D

Older adults need more calcium and vitamin D to help maintain bone health. Have three servings of vitamin D-fortified low-fat or fat-free milk or yogurt each day. Other calcium-rich foods include fortified cereals and fruit juices, dark green leafy vegetables and canned fish with soft bones. If you take a calcium supplement or multivitamin, choose one that contains vitamin D.



Vitamin B12

Many people older than 50 do not get enough vitamin B12. Fortified cereal, lean meat and some fish and seafood are sources of vitamin B12. Ask your doctor or a registered dietitian if you need a vitamin B12 supplement.

Fiber

Eat more fiber-rich foods to stay regular. Fiber also can help lower your risk for heart disease, control your weight and prevent type 2 diabetes. Eat whole-grain breads and cereals, and more beans and peas. Fruits and vegetables also provide fiber.

Potassium

Increasing potassium along with reducing sodium (salt) may lower your risk of high blood pressure. Fruits, vegetables and low-fat or fat-free milk and yogurt are good sources of potassium. Also, select and prepare foods with little or no added salt.

Know Your Fats

Foods that are low in saturated fats, *trans* fats and cholesterol help reduce your risk of heart disease. Most of the fats you eat should be polyunsaturated and monounsaturated fats. Check the Nutrition Facts panel on food labels for total fat and saturated fat.

Reviewed December 2012

Eat Right

Food, Nutrition and Health Tips from the Academy of Nutrition and Dietetics

Eating Right for Older Adults

Eating right doesn't have to be complicated. Before you eat, think about what goes on your plate or in your bowl. Choose foods that provide the nutrients you need without too many calories. Build your healthy plate with foods like vegetables, fruits, whole grains, low-fat dairy and lean protein foods. Try these eating right tips.



Make half your plate fruits and vegetables.

Eat a variety of vegetables, especially dark-green, red and orange vegetables plus beans and peas. Fresh, frozen and canned vegetables all count. Choose “reduced sodium” or “no-salt-added” canned vegetables.

Add fruit to meals and snacks. Buy fruits that are dried, frozen or canned in water or 100% juice, as well as fresh fruits.

Make at least half your grains whole.

Choose 100% whole-grain breads, cereals, crackers, pasta and brown rice. Also, look for fiber-rich cereals to help stay regular.

Switch to fat-free or low-fat milk, yogurt and cheese.

Older adults need more calcium and vitamin D to help keep bones healthy. Include three servings of fat-free or low-fat milk, yogurt or cheese each day. If you are lactose intolerant, try lactose-free milk or a calcium-fortified soy beverage.

Vary your protein choices.

Eat a variety of foods from the protein food group each week, such as seafood, nuts, and beans and peas, as well as lean meat, poultry and eggs.

Cut back on sodium and empty calories from solid fats and added sugars.

Look out for salt (sodium) in foods you buy. Compare sodium in foods and choose those with lower numbers. Add spices or herbs to season food without adding salt.

Make major sources of saturated fats such as desserts, pizza, cheese, sausages and hot dogs occasional choices, not every day foods.

Switch from solid fats to oils when preparing food.

Drink water instead of sugary drinks. Select fruit for dessert. Eat sugary desserts less often.

Enjoy your food but eat less.

Most older adults need fewer calories than in younger years. Avoid oversized portions. Try using a smaller plate, bowl and glass.

Cook more often at home, where you are in control of what's in your food.

When eating out, choose lower calorie menu options. Choose dishes that include vegetables, fruits and whole grains. When portions are large, share a meal or take half home for later.

Write down what you eat to keep track of how much you eat.

Be physically active your way.

Pick activities that you like and start by doing what you can. Every bit adds up and health benefits increase as you spend more time being active.

If you are currently inactive, start with a few minutes of activity such as walking. Gradually increase the minutes as you become stronger.

Consult a registered dietitian nutritionist

if you have special dietary needs. A registered dietitian nutritionist can create a customized eating plan for you. Visit www.eatright.org to find a registered dietitian nutritionist near you.

For a referral to a registered dietitian nutritionist and for additional food and nutrition information visit www.eatright.org.



The Academy of Nutrition and Dietetics is the largest organization of food and nutrition professionals. The Academy is committed to improving the public's health and advancing the profession of dietetics through research, education and advocacy.

This tip sheet is provided by:

Authored by Academy of Nutrition and Dietetics staff registered dietitian nutritionists.
Sources: U.S. Department of Health and Human Services, ADA Complete Food & Nutrition Guide.

