CHAPTER 6

Older Adults

Introduction

Older adults include individuals ages 60 and older—a life stage that includes a broad range of ages and is influenced by a number of health and social changes that affect this population's nutritional status. Compared to younger adults, older adults are at greater risk of chronic diseases, such as cardiovascular disease and cancer, as well as health conditions related to changes in bone and muscle mass, such as osteoporosis and sarcopenia, respectively. An increasing number of older adults start this life stage with excess body weight. Preventing additional weight gain and achieving a healthy weight by following a healthy dietary pattern and adopting an active lifestyle can support healthy aging.

Selecting healthy food and beverage choices is important for people throughout this life stage, regardless of their race or ethnicity or their current health status. It is never too late to make improvements. Older adults should follow a healthy dietary pattern because of the changing dietary needs and the heightened risk of malnutrition that occurs with age. Older adults generally have lower calorie needs but similar or even increased nutrient needs compared to younger adults. The overall nutrient density of dietary patterns is particularly important to this age group. Lower calorie needs result from less physical activity, changes in metabolism, and/or age-related loss in bone and muscle mass. Other factors may affect nutrient needs and absorption of nutrients in older adults, including chronic disease and conditions, use of multiple medications, and changes in body composition. The healthy dietary patterns described below take the unique needs of older adults into account and are further supported by special considerations and strategies for professionals to support healthy aging.

Nutrient-Dense Foods and Beverages

Nutrient-dense foods and beverages provide vitamins, minerals, and other health-promoting components and have little added sugars, saturated fat, and sodium. Vegetables, fruits, whole grains, seafood, eggs, beans, peas, and lentils, unsalted nuts and seeds, fat-free and low-fat dairy products, and lean meats and poultry—when prepared with no or little added sugars, saturated fat, and sodium—are nutrient-dense foods.

Healthy Dietary Patterns

Older adults are encouraged to follow the recommendations on the types of foods and beverages that make up a healthy dietary pattern described in ***Chapter 1. Nutrition and Health Across the Lifespan: The Guidelines and Key Recommendations.*** **Table 6-1** displays the Healthy U.S.-Style Dietary Pattern to illustrate the specific food group amounts and limits for other dietary components that make up healthy dietary patterns at the six calorie levels most relevant to older adults.

Calorie needs are generally lower for females compared to males, and for those who are older, smaller, and less physically active. Females ages 60 and older require about 1,600 to 2,200 calories per day and males ages 60 and older require about 2,000 to 2,600 calories per day. Additional information on these estimates is provided in **Table 6-1 (footnote a)** and in ***Appendix 1. Estimated Calorie Needs***.

The USDA Food Patterns are discussed in greater detail in ***Chapter 1. Nutrition and Health Across the Lifespan: The Guidelines and Key Recommendations*** and ***Appendix 3. USDA Dietary Patterns***. The USDA Dietary Patterns provide a framework to help older adults follow a healthy dietary pattern and meet the Guidelines and their Key Recommendations. The Patterns provide a variety of food and beverage choices that allow individuals to customize their choices within each food group based on lifestyle, traditions, culture, and/or other individual needs.

Table 6-1

Healthy U.S.-Style Dietary Pattern for Adults Ages 60 and Older, With Daily or Weekly Amounts From Food Groups, Subgroups, and Components

CALORIE LEVEL OF PATTERN[a]	1,600	1,800	2,000	2,200	2,400	2,600
FOOD GROUP OR SUBGROUP[b]	Daily Amount of Food From Each Group (Vegetable and protein foods subgroup amounts are per week.)					
Vegetables (cup eq/day)	**2**	**2 ½**	**2 ½**	**3**	**3**	**3 ½**
	Vegetable Subgroups in Weekly Amounts					
Dark-Green Vegetables (cup eq/wk)	1 ½	1 ½	1 ½	2	2	2 ½
Red & Orange Vegetables (cup eq/wk)	4	5 ½	5 ½	6	6	7
Beans, Peas, Lentils (cup eq/wk)	1	1 ½	1 ½	2	2	2 ½
Starchy Vegetables (cup eq/wk)	4	5	5	6	6	7
Other Vegetables (cup eq/wk)	3 ½	4	4	5	5	5 ½
Fruits (cup eq/day)	**1 ½**	**1 ½**	**2**	**2**	**2**	**2**
Grains (ounce eq/day)	**5**	**6**	**6**	**7**	**8**	**9**
Whole Grains (ounce eq/day)	3	3	3	3 ½	4	4 ½
Refined Grains (ounce eq/day)	2	3	3	3 ½	4	4 ½
Dairy (cup eq/day)	**3**	**3**	**3**	**3**	**3**	**3**
Protein Foods (ounce eq/day)	**5**	**5**	**5 ½**	**6**	**6 ½**	**6 ½**
	Protein Foods Subgroups in Weekly Amounts					
Meats, Poultry, Eggs (ounce eq/wk)	23	23	26	28	31	31
Seafood (ounce eq/wk)	8	8	9	9	10	10
Nuts, Seeds, Soy Products (ounce eq/wk)	4	4	5	5	5	5
Oils (grams/day)	**22**	**24**	**27**	**29**	**31**	**34**
Limit on Calories for Other Uses (kcal/day)[c]	**100**	**140**	**240**	**250**	**320**	**350**
Limit on Calories for Other Uses (%/day)	7%	8%	12%	12%	13%	5

[a] Calorie level ranges: Females: 1,600-2,200 calories; Males: 2,000-2,600 calories. Energy levels are calculated based on median height and body weight for healthy body mass index (BMI) reference individuals. For adults, the reference man is 5 feet 10 inches tall and weighs 154 pounds. The reference woman is 5 feet 4 inches tall and weighs 126 pounds. Calorie needs vary based on many factors. The DRI Calculator for Healthcare Professionals, available at **nal.usda.gov/fnic/dri-calculator**, can be used to estimate calorie needs based on age, sex, height, weight, and physical activity level.

[b] Definitions for each food group and subgroup and quantity (e.g., cup or ounce equivalents) are provided in ***Chapter 1*** and are compiled in ***Appendix 3.***

[c] All foods are assumed to be in nutrient-dense forms; lean or low-fat and prepared with minimal added sugars; refined starches, saturated fat, or sodium. If all food choices to meet food group recommendations are in nutrient-dense forms, a small number of calories remain within the overall limit of the pattern (i.e., limit on calories for other uses). The number of calories depends on the total calorie level of the pattern and the amounts of food from each food group required to meet nutritional goals. Calories up to the specified limit can be used for added sugars, saturated fat, and/or alcohol, or to eat more than the recommended amount of food in a food group.

NOTE:** The total dietary pattern should not exceed *Dietary Guidelines* limits for added sugars, saturated fat, and alcohol; be within the Acceptable Macronutrient Distribution Ranges for protein, carbohydrate, and total fats; and stay within calorie limits. Values are rounded. See ***Appendix 3 for all calorie levels of the pattern.

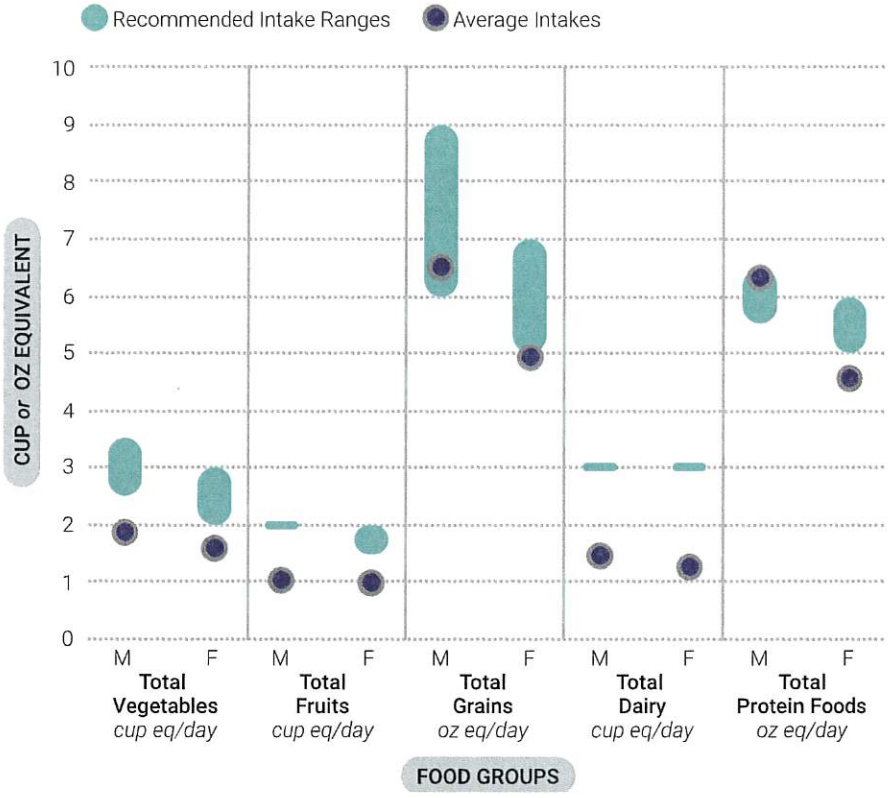
Current Intakes

Figures 6-1 and **6-2** highlight the dietary intakes of older adults, including the Healthy Eating Index-2015 score, which is an overall measure of how intakes align with the *Dietary Guidelines*, as well as information on the components of a healthy diet—specifically, the food groups. **Figure 6-1** displays the average intakes of the food groups compared to the range of recommended intakes at the calorie levels most relevant to males and females in this age group. Additionally, the percent of older adults exceeding the recommended limits for added sugars, saturated fat, and sodium are shown, along with average intakes of these components.

Figure 6-1

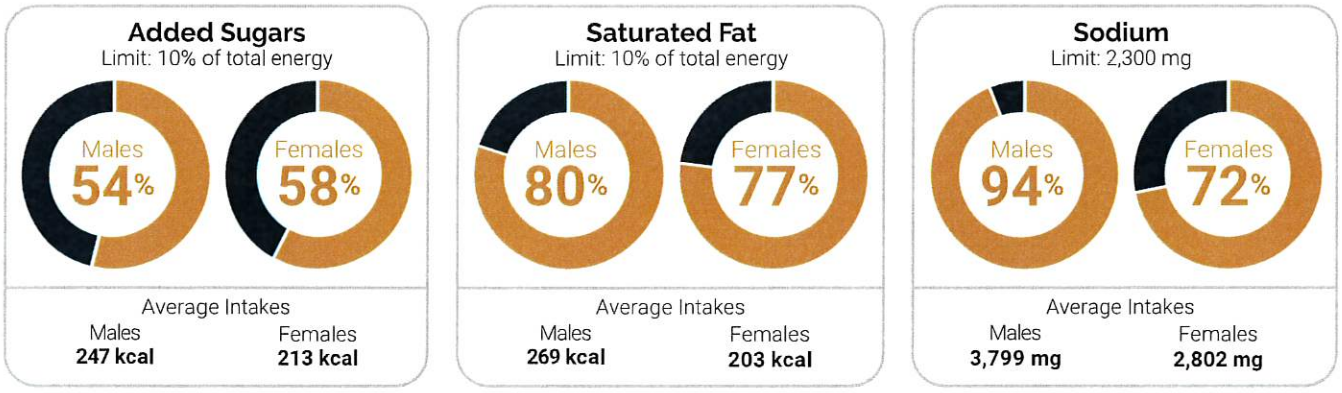
Current Intakes: Ages 60 and Older

Average Daily Food Group Intakes Compared to Recommended Intake Ranges



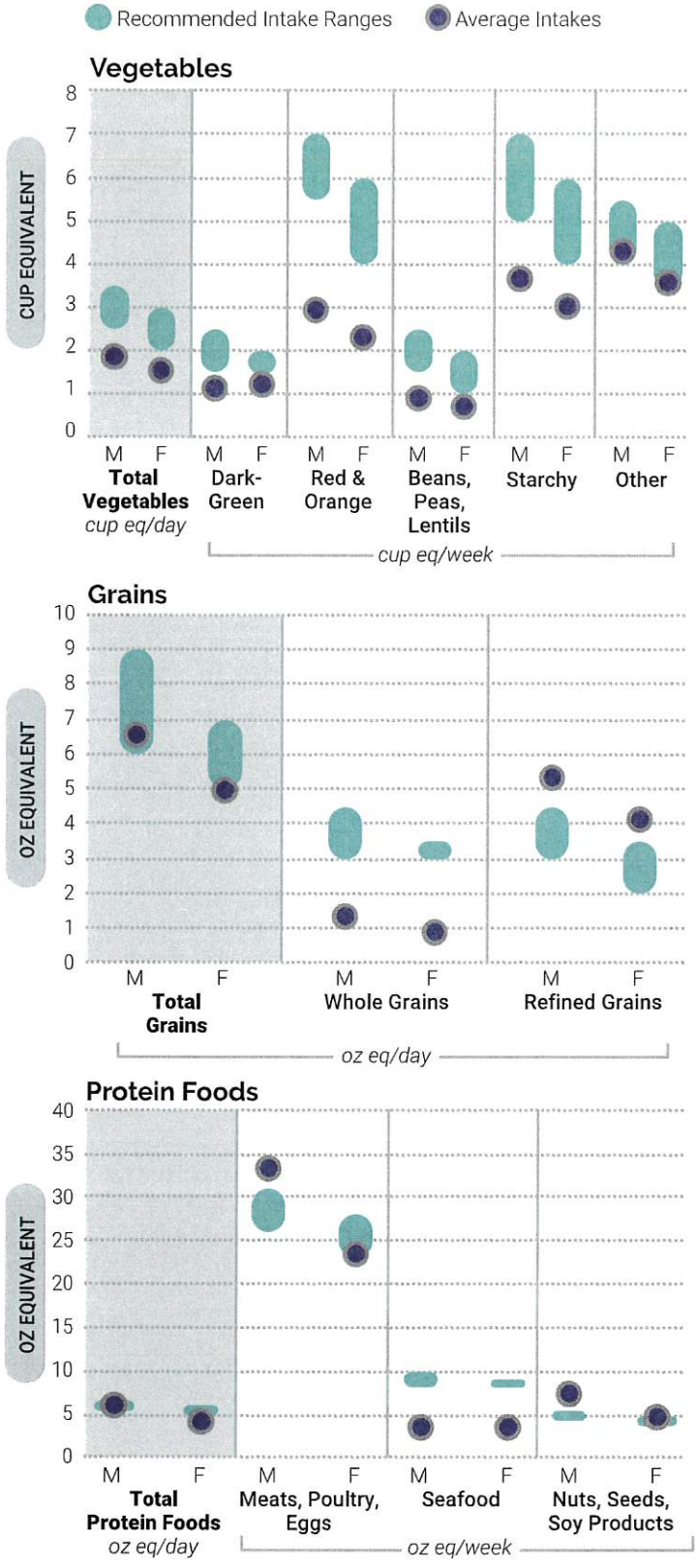
Healthy Eating Index Score (on a scale of 0-100)

Percent Exceeding Limits of Added Sugars, Saturated Fat, and Sodium



Data Sources: *Average Intakes and HEI-2015 Scores*: Analysis of What We Eat in America, NHANES 2015-2016, day 1 dietary intake data, weighted. *Recommended Intake Ranges*: Healthy U.S.-Style Dietary Patterns (see ***Appendix 3***). *Percent Exceeding Limits*: What We Eat in America, NHANES 2013-2016, 2 days dietary intake data, weighted.

Figure 6-2
Average Intakes of Subgroups Compared to Recommended Intake Ranges: Ages 60 and Older



Average intakes compared to recommended intake ranges of the subgroups for grains are represented in daily amounts; subgroups for vegetables and protein foods are represented in weekly amounts in **Figure 6-2**.

Diet quality is highest among older adults compared to other ages. Consistent with the general U.S. population, however, this age group is not meeting the recommendations for food group and nutrient intakes and has a Healthy Eating Index score of 63 out of 100. Older adults can improve dietary intake by increasing consumption of fruit, vegetables, whole grains, and dairy, while ensuring protein intake meets recommendations. Reducing intakes of added sugars, saturated fat, and sodium also will help older adults achieve recommendations and manage and avoid chronic conditions (**Figure 6-1**). Older adults should choose nutrient-dense options within each food group and consume appropriate portion sizes because calorie needs decline with age.

Data Sources: *Average Intakes*: Analysis of What We Eat in America, NHANES 2015-2016, day 1 dietary intake data, weighted. *Recommended Intake Ranges*: Healthy U.S.-Style Dietary Patterns (see ***Appendix 3***).

Special Considerations

The nutrition considerations for the general U.S. population described in ***Chapter 1***. apply to older adults. For example, the nutrients of public concern—calcium, vitamin D, potassium, and dietary fiber—apply to this age group as well. However, this age group also has some special nutrition considerations that are discussed in the following sections of this chapter. For example, several additional nutrients are more likely to be underconsumed during this life stage. These include dietary protein and vitamin B_{12}. Beverage intake, particularly as it relates to hydration status, also is an area of special consideration.

Protein

Consuming enough protein is important to prevent the loss of lean muscle mass that occurs naturally with age. Monitoring protein intake is especially important as older adults transition through this life stage. Intake patterns show average intakes of protein foods is lower for individuals ages 71 and older compared to adults ages 60 through 70. About 50 percent of women and 30 percent of men 71 and older fall short of protein foods recommendations.

The majority of protein in the Healthy U.S.-Style Dietary Pattern is accounted for in the protein foods subgroups: seafood; meats, poultry and eggs; nuts, seeds, and soy products; and the vegetable subgroup of beans, peas, and lentils, which also is considered a protein foods subgroup. The dairy and fortified soy alternatives food group is another source of dietary protein. Most older adults are meeting or exceeding weekly recommendations for meats, poultry, and eggs, making this subgroup a common source of protein foods for older adults (**Table 6-1**). However, seafood, dairy and fortified soy alternatives, and beans, peas, and lentils are underconsumed, yet provide important nutrients that support healthy dietary patterns. For example, the dairy food group provides calcium, vitamin D, and vitamin B_{12} and the beans, peas, and lentils subgroup provides dietary fiber. Many choices within the seafood subgroup also provide vitamins D and B_{12} and calcium (if eaten with bones), and beneficial fatty acids. Food sources of calcium, vitamin D, and dietary fiber are available at **DietaryGuidelines.gov**.

Many older adults can improve their dietary pattern and better meet nutrient needs by choosing from a wider variety of protein sources. In some cases, this may mean using seafood more often in place of meats, poultry, or eggs or using beans, peas, and lentils in mixed dishes, such as soups, rice, or pasta dishes. For others, it may mean maintaining current intakes of protein and finding enjoyable ways to add protein foods from underconsumed food groups and subgroups in order to ensure that overall protein needs are met.

Vitamin B_{12}

Vitamin B_{12} is of concern for some older adults because the ability to absorb this nutrient can decrease with age and use of certain medications can decrease absorption. Older adults are encouraged to meet the recommendations for protein foods, a common source of vitamin B_{12}, and include foods fortified with vitamin B_{12}, such as breakfast cereals. Some individuals also may require vitamin B_{12} dietary supplements. Individuals are encouraged to speak with their healthcare provider to determine what, if any, supplementation is appropriate.

Dietary Supplements

Many adults in the United States take one or more dietary supplements either as a pill or drink. Popular supplements include some nutrients that are underconsumed among older adults, including calcium and vitamins D and B_{12}. All sources of a nutrient or food component—whether from food or a dietary supplement—should be considered when assessing an individual's dietary pattern, including any added sugars that may come from supplement drinks. Older adults should track and discuss all dietary supplement use with their healthcare provider. Beverage supplements should not replace regular food intake unless instructed by a health professional. The National Institutes of Health, Office of Dietary Supplements provides the **My Dietary Supplement and Medicine Record**[1], to help individuals track supplement and medicine use.

[1] Available at: **ods.od.nih.gov/pubs/DietarySupplementandMedicineRecord.pdf**

Beverages

Many older adults do not drink enough fluids to stay hydrated. One reason for this is that the sensation of thirst tends to decline with age. Concerns about bladder control or issues with mobility also may hinder intake of fluids among older adults. Mean intakes of beverages show adults ages 60 and older consume significantly fewer fluid ounces across all beverage types compared to adults ages 59 and under—about 2 fewer cups per day, most of which is due to drinking less water.

It is important that older adults drink plenty of water to prevent dehydration and aid in the digestion of food and absorption of nutrients. In addition to water, choosing unsweetened beverages such as 100% fruit or vegetable juice and low-fat or fat-free milk or fortified soy beverage can support fluid intake to prevent dehydration while helping to achieve food group recommendations. The water that is contained in foods, such as fruits, vegetables, and soups, contributes to hydration status and is a contributor to total fluid intake.

ALCOHOLIC BEVERAGES

The *Dietary Guidelines* do not recommend initiating alcohol consumption for any reason. To help older adults move toward a healthy dietary pattern and minimize risks associated with drinking, older adults can choose not to drink or drink in moderation—limiting intakes to 2 drinks or less in a day for men and 1 drink or less in a day for women, when alcohol is consumed. Older adults who choose to drink may experience the effects of alcohol more quickly than they did when they were younger. This puts older adults at higher risk of falls, car crashes, and other injuries that may result from drinking. In addition, older adults tend to have a greater number of comorbid health conditions than younger adults, and alcohol use or misuse may adversely affect the condition or interfere with management of the disease. Certain older adults should avoid drinking alcohol completely, including those who:

- Plan to drive or operate machinery, or participate in activities that require skill, coordination, and alertness.
- Take certain over-the-counter or prescription medications.
- Have certain medical conditions.
- Are recovering from alcohol use disorder or are unable to control the amount they drink.
- More information on alcoholic beverages and their relationship to health is provided in ***Chapter 1***.

Supporting Healthy Eating

Similar to other life stages, older adults can be supported by professionals, family, and friends to achieve a healthy dietary pattern that accounts for factors such as cost, preferences, traditions, and access. Additional factors to consider when supporting healthy eating for older adults include:

- **Enjoyment of food:** Sharing meals with friends and family can help increase food enjoyment and promote adequacy of dietary intake for older adults.
- **Ability to chew or swallow foods:** Experimenting with the preparation of foods from all food groups can help identify textures that are acceptable, appealing, and enjoyable for adults who have difficulties chewing or swallowing. Good dental health is critical to overall health, as well as the ability to chew foods properly.
- **Food safety:** Practicing safe food handling procedures is of particular importance for older adults due to a decline in immune system function that accompanies age and that increases the risk of foodborne illness. For more information: **Foodsafety.gov** for older adults: **foodsafety.gov/people-at-risk/older-adults** or FDA: **fda.gov/media/83744/download**.

Older adults have access to a variety of Government resources to support a healthy dietary pattern as part of overall healthy aging. Professionals working with older Americans can use these resources to better support access to healthy, safe, and affordable food choices.

- **Congregate Nutrition Services:** The Older Americans Act authorizes meals and related services in congregate settings for any person age 60 and older and their spouse of any age. Program sites offer older individuals healthy meals and opportunities to socialize. Congregate meals are typically provided in senior centers, schools, churches, or other community settings.
- **Supplemental Nutrition Assistance Program (SNAP):** Older adults with limited income may qualify for SNAP, a Federal program that provides temporary benefits to help individuals purchase foods and beverages to support a healthy dietary pattern when resources are constrained.

Physical Activity and Older Adults

The benefits of regular physical activity occur throughout life and are essential for healthy aging. It is never too late to start being physically active. For older adults, regular physical activity supports a number of additional health benefits including improved cognition, balance, and bone strength. These benefits make it easier to perform activities of daily living, preserves function and mobility, and lowers the risk of falls and injuries from falls.

Adults should move more and sit less throughout the day. Some physical activity is better than none. To attain the most health benefits from physical activity, older adults need at least 150 to 300 minutes of moderate-intensity aerobic activity per week. The talk test is a good way to assess moderate intensity for older adults. A person doing moderate-intensity aerobic activity can talk, but not sing. Older adults also need muscle-strengthening activity at least 2 days each week. Older adults should incorporate multicomponent physical activity that includes balance training as well as aerobic and muscle-strengthening activities.

The U.S. Department of Health and Human Service's *Physical Activity Guidelines for Americans* and the related Move Your Way® resources have information about the benefits of physical activity and tips to get started. Available at **health.gov/paguidelines**.

- **Commodity Supplemental Food Program (CSFP):** The CSFP supplements the diets of low-income older adults by providing nutritious USDA packaged food to support a healthy dietary pattern. The CSFP is federally funded, and private and nonprofit institutions facilitate the distribution of monthly CSFP packages to eligible older adults.

- **Home-Delivered Nutrition Services:** The Older Americans Act authorizes meals and related services in a person's home for individuals ages 60 and older and their spouse of any age. Older adults who experience difficulty leaving the home due to frailty, health concerns, or certain medical conditions may benefit from home-delivered meals offered under the Older Americans Act.

- **Child and Adult Care Food Program (CACFP):** The CACFP is a Federal program that provides reimbursements for nutritious meals and snacks to older adults enrolled in daycare facilities. Older adults receiving care at nonresidential care centers may receive meals and snacks that meet nutrition standards of the CACFP.

Additional resources to support older adults exist at the community level. For example, the **Senior Farmers Market Nutrition Program (SFMNP)** provides many low-income seniors with access to fruits and vegetables grown in their local communities. **SNAP Education (SNAP-Ed)** programming may also be offered and teach older adults cooking and shopping skills. Individuals working within these settings must ensure the availability of nutrient-dense foods and assist older adults in choosing a healthy dietary pattern that fits in their cultural and food preferences.

Healthy Eating Through the Lifespan

This chapter has focused on the unique nutritional considerations of the older adult life stage. It also has reinforced the idea that the core elements of a healthy dietary pattern are remarkably consistent across the lifespan and across health outcomes. More than that, a healthy dietary pattern is flexible—people can customize the *Dietary Guidelines* recommendations to suit their personal preferences, cultural traditions, and budget considerations.

Beginning at the earliest life stage—infancy and toddlerhood—a healthy dietary pattern can help people achieve and maintain good health and reduce the risk of chronic diseases. However, it is never too late to make improvements. People at any stage of life can benefit by changing to nutrient-dense forms of foods and beverages across all food groups, in recommended amounts, and within calorie limits. **The bottom line: For lifelong good health, make every bite count with the *Dietary Guidelines for Americans*!**