CHAPTER 10

Nutrition and Meal Programs

The door opens, and Alice beams with pride as she ushers you into her apartment. She prepares lunch, but you notice that there’s nothing in the fridge. It’s empty. That’s the first sign. She offers you coffee, and you get Nescafé. That’s the second sign. You know that she’s giving you the last food she has until she visits a food pantry later in the week, a wonderful, welcoming agency that receives its food from the Greater Boston Food Bank. You have no choice but to eat Alice’s food. Refusing to do so would hurt her more than the hunger that hurts her most every day. Alice relies on emergency food assistance to survive. She lives on her small Social Security income to pay her rent and utility bills and to buy clothes and food. “I have lived through the Depression, and know how to stretch a dollar,” she explains. “But it’s just not enough.”

The consumption of food is not only a biological necessity for health and vitality but also a social activity that is rich with symbolism. It is often an integral part of holiday gatherings and celebrations of all types. Although most of us are aware of the social nature of food consumption, we are only vaguely aware of the necessity of good nutritional habits. Good nutritional habits are important in all stages of life, but in later life, as individuals grow older, age-related changes in various body systems as well as in social relationships can place them at risk of inadequate nutritional intake. In this chapter, we review the extent of malnutrition and hunger among older adults, the physical and psychosocial factors that influence nutritional status in later life, the policies that support nutrition programs of older adults, the types of nutrition programs available, and the characteristics of those who use such programs.

NUTRITIONAL STATUS AMONG OLDER ADULTS

When reviewing the literature concerning the nutritional status among older adults, one can easily be confused by the different terminology used. For example, malnutrition, although usually linked to a lack of sufficient food intake, literally means “bad nutrition” and includes nutritional states of undernutrition and overnutrition (Keller, 1993). With regard to undernutrition, evidence supports the notion that many older adults are at risk of

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1This story is based on true events and provided by the Greater Boston Food Bank and the Food Bank for New York City website in 2007.
poor nutritional intake, food insecurity, or hunger (see Exhibit 10.1 for definitions and questions used to measure these terms). A study conducted by the U.S. Department of Agriculture’s (USDA) Economic Research Service found that 7.9% (2.33 million) of adults aged 65 and older experienced food insecurity and 2.6% (773,000) of elderly households experienced very low food security with hunger (Coleman-Jensen, Nord, Andrews, & Carlson, 2011). Ziliak and Gundersen (2011) examined data from the Current Population Survey, which is a nationally representative survey conducted by the U.S. Census Bureau, to examine the extent of food insecurity among people aged 40 and older. The survey includes 18 questions that compose the Core Food Security Module, which measures the food insecurity status of households in the United States. They found that in 2009, among adults age 50 and older, 15.6 million persons faced the threat of hunger (i.e., marginally food insecure), 8.8 million faced the risk of hunger (i.e., were food insecure), and 3.5 million faced hunger (i.e., were low food secure). This is an increase of 66%, 79%, and 132%, respectively, from the levels of food insecurity in 2001 among this population. For those in their preretirement years, aged 50 to 59 years, 8.1 million were marginally food insecure, 4.9 million were food insecure, and 2.1 million were very low food secure. Among older adults aged 60 and older, the comparable numbers were 7.5 million, 3.9 million, and 1.4 million, respectively. Data also showed that food insecurity of any type increased among older adults during the two years between 2007 and 2009. The percentage increase in marginal food insecurity among those aged 50 to 59 from 2007 to 2009 was 38% and 20% among those over age 60 and over. Food insecurity increased by 38% among those aged 50 to 59, and 25% among those aged 60 and over. The percentage increase for those aged 50 to 59 with very low food security rates was 69% and 17% for those over age 60.

In another attempt to measure the extent of food insecurity in the United States, Feeding America (formally America’s Second Harvest) conducted a study of more than 37,000 agencies operating food programs across the country and more than 62,000 clients of emergency food programs (Mabli, Cohen, Potter, & Zhao, 2010). Results indicated that 18.6% of the clients served by Feeding America’s food program sites have elderly adults (age 65 and over) as members of the household. Of the adult clients (excluding food program clients under age 18), 29.6% were between the ages of 50 to 64 and 14.2% were over age 65, and the majority accessed food at a food pantry rather than at a food kitchen or shelter. Thirty-nine percent of households with older adults reported being food insecure without hunger, with 18.8% reporting being food insecure with hunger, up from 2005 percentages of 35.8% and 16.2%, respectively. In addition, many of the elderly clients who received food from pantries, kitchens, or shelters reported that they were making choices between purchasing food and paying for household expenses. For example, 34.9%, 23.3%, and 29.6% reported having to choose between food purchases and utilities or heating fuel, rent or mortgage, and medical care, respectively.

Older adults who do not have adequate nutritional intake are at risk of negative physical outcomes. Researchers have found a link between food insecurity and increased risk of additional health problems, reduced muscle mass, a compromised immune system, and mortality (Chandra, 1992; N. G. Choi, 1999; DiMaria-Ghalili & Amella, 2005; Kamp, Wellman, & Russell, 2010; Roberts, Hajduk, Howarth, Russell, & McCrory, 2005; W. S. Wolfe, Olson, Kendall, & Frongillo, 1998). Furthermore, inappropriate diets may induce diseases such as coronary heart disease and a reduction in general well-being (Kannel, 1986; J. S. Lee & Frongillo, 2001; Saxon, Etten, & Perkins, 2010).

With regard to overnutrition, the growing number of adults in the United States who have been classified as overweight or obese is a growing public health concern (Flegal, Carroll, Ogden, & Curtin, 2010). In 2007–2008, the prevalence of obesity among men and women aged 60 and over was 37% and 33%, respectively. Given the prevalence of obesity
among younger adults, this percentage is expected to increase (Flegal et al., 2010; Salihu, Bonnema, & Alio, 2009). Similar to undernutrition, overnutrition has negative health consequences, including overall poor health outcomes, mobility disability, and increased risk of diabetes, arthritis, stroke, and mortality (Salihu et al., 2009; H. K. Vincent, Vincent, & Lamb, 2010). We discuss the issue of obesity in more detail in Chapter 11.

PHYSICAL AND PSYCHOSOCIAL FACTORS THAT INFLUENCE NUTRITIONAL STATUS

A number of physical and psychosocial factors are thought to influence nutritional status (see Exhibit 10.2). For example, changes that older adults experience in taste, smell, and vision may inhibit their ability to enjoy food (Morley, 2001; Saxon et al., 2010). In addition,
changes in the digestive system and the ability to chew may impair the digestion of food and make eating less enjoyable. Chronic conditions such as arthritis, orthopedic impairments, cataracts, and hypertension have been found to be negatively associated with poor nutritional intake (Dwyer, 1991; Payette & Shatenstein, 2005). For example, impairments that affect mobility, such as arthritis, can make shopping, preparing, and eating difficult. Individuals with cognitive impairments are at obvious risk of poor nutrition. Loss of memory, disorientation, and impaired judgment can reduce food intake (J. V. White, Ham, & Lipschitz, 1991). Because the use of medications—either over-the-counter or prescribed—is high among older adults, they are at risk of experiencing adverse drug-nutrient interactions as well as adverse effects on appetite and cause the depletion of certain minerals (Omran & Morley, 2000; J. V. White et al., 1991).

Not only do physical changes make the task of eating more difficult, but changes in the social environment can also have a detrimental effect on dietary patterns. Throughout our lives, eating is an activity that we rarely do in isolation. It is a social activity associated with various rituals in our culture. Think about the food rituals in your family. Do you have a special place you like to go to eat when celebrating a birthday? Do you look forward to eating or cooking certain meals during the holidays? Are there special restaurants you enjoy? Chances are that these rituals are enjoyed with friends and family. And on those occasions when you are alone, you are probably less likely to cook and more likely to eat something of questionable nutritional value from a fast-food restaurant. Because eating is such a social activity, social isolation can result in negative changes in eating patterns. Indeed, researchers have found that living alone is associated with a lack of interest in preparing and consuming food and a less favorable dietary pattern (Davis, Randall, Forthofer, Lee, & Margen, 1985; Locher et al., 2005; V. C. Ryan & Bower, 1989; U.S. Census Bureau, 2004a). For example, in a national study of 6,525 adults aged 50 or older, Davis, Murphy, Neuhaus, Gee, and Quiroga (2000) found favorable dietary patterns among those adults living with a spouse compared to those in other living arrangements. Men living alone had a higher mean number of low nutrient diets compared with men who were living with a spouse. Among women, those living alone compared to those living with a spouse had a higher mean number of low nutrients.

Included among those living alone are widowed older adults. Older adults who are widowed may be at risk of poor nutritional habits because of changes in income and social interaction patterns. Moreover, being responsible for new roles associated with meal preparation (e.g., shopping, cooking) for which they were not previously responsible can have negative dietary consequences. Although some evidence supports the relationship between living arrangement and dietary intake, other studies have found no relationship (Green et al., 1993; Schafer & Keith, 1982). Such variations may suggest that simply measuring whether one lives alone does not adequately capture other life circumstances that may be confounding nutritional intake, such as the

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**Exhibit 10.2 Factors Affecting Nutritional Status in Older Adults**

<table>
<thead>
<tr>
<th>Physical</th>
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<tbody>
<tr>
<td>Cognitive status</td>
<td>Cognitive status and dementia-related behaviors</td>
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<tr>
<td></td>
<td>Chronic and acute illness</td>
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<tr>
<td></td>
<td>Oral/dental health status</td>
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<td></td>
<td>Chronic medication use</td>
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<td></td>
<td>Dependence and disability</td>
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<table>
<thead>
<tr>
<th>Psychosocial</th>
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</thead>
<tbody>
<tr>
<td>Social support</td>
<td>Social support</td>
</tr>
<tr>
<td>Economic status</td>
<td>Economic status</td>
</tr>
<tr>
<td>Emotional problems</td>
<td>Emotional problems</td>
</tr>
<tr>
<td>Ethnic status</td>
<td>Ethnic status</td>
</tr>
<tr>
<td>Accessibility and availability of food programs</td>
<td>Accessibility and availability of food programs</td>
</tr>
<tr>
<td>Advanced age</td>
<td>Advanced age</td>
</tr>
</tbody>
</table>

*Source: Adapted from J. S. Goodwin (1989), Omran and Morley (2000), and J. V. White et al. (1991).*
length of time one has lived alone, degree of loneliness, number of social contacts, and living with others in a non-spouse household (Davis et al., 2000).

Income has an obvious effect on the quality and amount of nutritional intake, and older adults with low incomes have less money to spend on food, thus increasing chances of an inadequate diet. The U.S. Government Accountability Office (2011) reported that among elderly households with incomes below 150% of poverty, the proportion classified as food insecure rose from 17.6% in 2006 to 24.0% in 2010. Various researchers have found that poor elderly persons compared to nonpoor elders consumed less of essential nutrients and have a greater level of nutritional risk (Bowman, 2007; J. S. Lee & Frongillo, 2001; Locher et al., 2005). In addition, those living in poverty may not have accessibility to health care services needed to diagnose and treat diseases linked to poor nutritional status.

Rural older adults are also at risk of inadequate nutritional intake (Sharkey & Haines, 2002). This may partly be because rural older adults have more risk factors associated with increased food insecurity. Rural elders are more likely than their urban counterparts to have incomes below the poverty level, to have more health problems, to have fewer social and health services, and to be socially isolated (Administration on Aging [AoA], 2010d; Gamm, Hutchison, Bellamy, & Dabney, 2002; Quandt & Rao, 1999; Schwenk, 1992; U.S. Department of Health and Human Services [USDHHS], 2011c). Rural elders who are older, male, and non-White and have low incomes are more likely to have inadequate nutritional intake (Ralston & Cohen, 1994; Vitolins et al., 2007).

Older adults of different racial and ethnic groups are also at risk of experiencing nutritional problems. A national study found that the level of food insecurity among African American and Hispanic elders was more than double that of White elders (Ziliak & Gundersen, 2011). Although tremendous variations exist among and between ethnic groups in their history and cultural characteristics, they often share some sociodemographic characteristics that make them susceptible to poor nutritional intake. In general, Black, Hispanic, and Native American older adults are more likely than their White counterparts to have incomes below the poverty line, to have lower levels of education and poorer health status, and to need assistance with everyday activities than do older Whites (Federal Interagency Forum on Aging-Related Statistics, 2010). These increased levels of functional impairment, low income, and education put older adults of color at an increased risk of malnutrition and unbalanced diets (Saxon et al., 2010). Moreover, language difficulties that exist among some older adults such as first-generation Asian Americans and Hispanics can act to isolate them from nutrition education and programs. The promotion of optimal nutritional status among older adults of different race and ethnicities requires staff to be culturally competent to be sensitive to the cultural variations in diets (Kamp et al., 2010).

In response to the nutritional needs of older adults, a network of nutrition services and programs has been created. We describe these efforts in the following section.

POLICY BACKGROUND

Congress initiated nutrition programs for older adults with the passage of research and demonstration projects in 1968 under Title IV of the Older Americans Act (OAA). Four years later, Congress authorized the Nutrition Program for Older Americans as Title VII; however, the program was not implemented until 1973 (U.S. Senate Special Committee on Aging, 1995). Congress reorganized the nutrition program in 1978 by placing it under Title III in the OAA.

The purpose of the nutrition program for older adults under the OAA is to provide nutritionally balanced meals and nutrition education, opportunities for social interaction, and
other support services (U.S. Senate Special Committee on Aging, 1993). In the 2006 amendments of the OAA, specific goals for the program identified were

- to reduce hunger and food insecurity;
- to promote socialization of older individuals; and
- to promote the health and well-being of older individuals by assisting such individuals to gain access to nutrition and other disease prevention and health promotion services to delay the onset of adverse health conditions resulting from poor nutritional health or sedentary behavior.

Under the 2006 OAA legislation, congregate meal programs were required to provide at least one hot meal five or more days a week in a congregate setting, adult day program, or multigenerational site (except in rural areas and where it is deemed unfeasible); such programs may include nutrition education services. The act also authorizes home-delivered meal programs that deliver at least one hot, cold, frozen, dried, or supplement meal at least five days a week (except in rural areas and where it is not feasible). Each meal must provide a minimum of one third of the recommended daily allowances and be prepared with the advice of dietitians. The 2006 amendments also provided for nutrition screening, nutrition education, nutrition assessment, and counseling. Finally, the OAA legislation authorized an evaluation of the effect of the nutrition projects on improvement of the health status, including nutritional status, of participants; prevention of hunger and food insecurity of the participants; and continuation of the ability of the participants to live independently. Research will also examine the cost-benefit analysis of nutrition projects, including the potential to affect costs of the Medicaid program, and an analysis of how nutrition projects may be modified to improve the nutritional outcomes of the participants.

Funding for nutrition services is allotted to the states and U.S. territories based on a formula that is reflective of their relative share of people age 60; to receive the allotment, states are required to provide a matching share of 15% (Colello, 2011). Exhibit 10.3 shows the level of OAA funding for nutrition services both in actual dollars and 2010 constant dollars, which adjusts the amounts for inflation. Although the amount of funding has increased slightly from 1990, when the amounts are adjusted for inflation, the amount has dropped steadily from 1990 funding levels, which was $958.5 million, to $817.8 million in 2011, which reduces the purchasing power and therefore number of meals served (Colello, 2011). The congregate meal and home-delivered meals programs use funds from other sources to supplement the costs of providing meals. Based on the most recent data available, only 37% of the cost of a congregate meal and 23% of the cost of home-delivered meals comes from Title III funds. The remainder comes from participant contributions; state, local, and private funds; and the Nutrition Services Incentive Program, which provides cash or commodities to support the meal program (Millen, Ohls, Ponza, & McCool, 2002). The Nutrition Services Incentive Program, formally administered by the USDA until it was transferred to the AoA in 2000, provides nutrition programs with high-protein foods, meat, and meat alternative commodities. Programs can opt to receive a cash payment in place of donated food (AoA, 2003). As shown in Exhibit 10.3, funding for the Nutrition Services Incentive Program in 2011 was $160.9 million (AoA, 2012e). Funding for nutrition services is also provided under Title VI, which is a grant program for tribal organizations to help them deliver social and nutrition services to older American Indians, Alaskan Natives, and Native Hawaiians. In 2011, Title VI grantees received $27.6 million in Title VI funds for nutrition and supportive services.
Exhibit 10.3  Funding for Nutrition Services Programs Under the Older Americans Act for Selected Years Between 1990 and 2011

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Congregate Meals</th>
<th>Home-Delivered Meals</th>
<th>Total</th>
<th>NSIP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>$351.9 ($587.2)</td>
<td>$78.9 ($131.8)</td>
<td>$430.8 ($719.0)</td>
<td>$143.4 ($239.5)</td>
<td>$574.3 ($958.5)</td>
</tr>
<tr>
<td>2000</td>
<td>$374.3 ($474.1)</td>
<td>$146.9 ($218.2)</td>
<td>$521.2 ($660.3)</td>
<td>$140.0 ($159.8)</td>
<td>$661.4 ($837.6)</td>
</tr>
<tr>
<td>2005</td>
<td>$387.2 ($432.5)</td>
<td>$182.8 ($204.1)</td>
<td>$570.0 ($636.6)</td>
<td>$148.5 ($165.9)</td>
<td>$718.6 ($802.6)</td>
</tr>
<tr>
<td>2007</td>
<td>$398.9 ($419.7)</td>
<td>$188.3 ($198.1)</td>
<td>$587.2 ($617.8)</td>
<td>$147.8 ($155.5)</td>
<td>$735.0 ($773.4)</td>
</tr>
<tr>
<td>2009¹</td>
<td>$434.2 ($441.6)</td>
<td>$214.4 ($218.1)</td>
<td>$648.6 ($659.7)</td>
<td>$161.0 ($163.7)</td>
<td>$809.7 ($823.3)</td>
</tr>
<tr>
<td>2010</td>
<td>$440.7 ($440.7)</td>
<td>$217.6 ($217.6)</td>
<td>$658.3 ($658.3)</td>
<td>$161.0 ($161.0)</td>
<td>$819.4 ($819.4)</td>
</tr>
<tr>
<td>2011</td>
<td>$439.9 ($439.9)</td>
<td>$217.2 ($217.2)</td>
<td>$657.1 ($657.1)</td>
<td>$160.9 ($160.7)</td>
<td>$818.0 ($817.8)</td>
</tr>
</tbody>
</table>


¹ In 2009, American Recovery and Reinvestment Act funds added $100 million to the initial FY 2009 appropriations of for nutrition services programs; this amount is not included in the total for 2009.

**Supplemental Nutrition Assistance Program (Food Stamp Program)**

The first U.S. food assistance programs were developed in the 1930s during the Depression, when the government purchased surplus agricultural commodities and distributed them to the poor (Kuhn et al., 1996). In 1964, Congress established the Food Stamp Program using coupons, and in 1971, it enacted national eligibility standards, although the states still had a choice of food assistance programs. By 1974, however, the Food Stamp Program became a nationwide mandatory program (Lipsky & Thibodeau, 1990). In 2008, Congress enacted significant changes to the Food Stamp Program, including changing the name of the legislation from the Food Stamp Act to the Food and Nutrition Act, and encouraged states to change the name of the program to Supplemental Nutrition Assistance Program (SNAP).² The goal of SNAP is

²Although states continue to use various names for their food stamp program, we will use the new name Supplemental Nutrition Assistance Program (SNAP) for clarity.
To promote the general welfare, to safeguard the health and well-being of the Nation’s population by raising levels of nutrition among low-income households . . . to alleviate . . . hunger and malnutrition . . . [by] permit low-income households to obtain a more nutritious diet . . . by increasing food purchasing power for all eligible households. (P.L. 110–246 [Sec. 2])

To be eligible for benefits, participants must meet a somewhat complicated mix of gross, net income, and asset guidelines, and those over age 60 have slightly different eligibility guidelines. In addition, states have the option to slightly vary the eligibility and assets requirements. Older adults who receive Supplemental Security Income (SSI) automatically meet the eligibility requirements for SNAP; however, SSI recipients in California are not eligible for SNAP because the state includes extra money in the amount it adds to the federal SSI payment instead of adding SNAP benefits (USDA, 2012b). In 2010, SNAP served approximately 2.9 million older adults aged 60 and over, representing almost 16% of all SNAP participants, up from 15% in 1992 (A. Barrett, 2006; Eslami, Filion, & Strayer, 2011); 18%, 10%, and 6% of elderly SNAP participants are African American, Hispanic, and Native American elders, respectively. The participation rate for SNAP-eligible elderly adults has been and continues to be significantly lower than for any other age group (Cunnyngham, 2004; Leflin, 2010; Rosso, 2001), although the percentage of participants increased slightly between 2008 and 2009 (Leflin, 2010). In 2008, Fuller-Thomson and Redmond conducted a national study to identify the characteristics of eligible older adults who were not receiving SNAP benefits. Their research found that two thirds of older adults living in poverty were not receiving benefits, and that those aged 85 and over were three times less likely than those aged 65 to 74 to be participating in SNAP. Reasons for nonparticipation include perceived lack of need, lack of information about the program, low expected benefits, and stigma associated with applying for assistance (McConnell & Ponza, 1999; Sing, Cody, Sinclair, Cohen, & Ohls, 2005). In 2010 the average monthly SNAP benefit for elderly individuals varied by household type. For all elderly individuals, the average SNAP benefit was $144, compared to $119 for elderly beneficiaries living alone, $198 for elderly-only households, and $285 for elders living with nonelderly individuals (Eslami et al., 2011).

Nutrition Screening

As we discussed previously, older adults are at risk of malnutrition, and a nutritional assessment is a critical first step in early intervention. Of the many nutrition assessment tools that have been used over the last 20 years, the Mini Nutritional Assessment (MNA) has become one of the most highly regarded assessment tools among researchers and geriatricians (Bauer, Kaiser, Anthony, Guigoz, & Sieber, 2008; Charney, 2008). The development of the MNA began in 1990 in an effort to identify a valid and reliable nutrition assessment tool that could be used with elders regardless of their level of dependence, cognitive functioning, and residential setting. The MNA, both the full version (18 questions) and short form (6 questions; see Exhibit 10.4), is thought to be the most established tool for nutrition screening in older adults as it has been well validated in international studies in a variety of settings (Bauer et al., 2008; Guigoz, 2006). The MNA is now available in 24 different languages as well as an iPhone application (Nestlé Nutrition Institute, n.d.).

In the next section, we discuss the various nutrition programs that have emerged from both the public and private sectors, and provide a profile of nutrition program participants. We end this chapter with a discussion of the challenges facing nutrition programs.
Exhibit 10.4 Mini Nutritional Assessment (MNA)® Short Form Nutritional Screening Tool

Source: Reprinted with permission from the Société des Produits Nestlé S.A.
USERS AND PROGRAMS

Nutrition programs for older adults, much like the continuum-of-care model discussed in Chapter 1, exist on a continuum based on functional status and socioeconomic need. Balsam and Osteraas (1987) developed the continuum of community nutrition services. As shown in Exhibit 10.5, older adult nutrition programs exist within a continuum of community nutrition programs and serve both independent and frail older adults. We explain the different nutrition programs that serve older adults in more detail below.

Congregate Meal Sites

As previously mentioned, the OAA nutrition program under Title III-C provides funds to support congregate meal programs. The program, funded by OAA dollars, reaches millions of older adults. In 2009–2010, congregate meal sites funded under the OAA provided almost 96.4 million meals to 1.7 million older persons (AoA, 2012h). The goals of congregate meal programs are to (a) provide low-cost meals to older adults; (b) encourage well-being through social interaction and maintenance of good health; and (c) provide nutrition education, screening, counseling, and outreach (AoA, 1995c; Mullins, Cook, Mushel, Machin, & Georgas, 1993). For both the congregate and home-delivered programs (discussed below), services must be targeted at persons with the greatest social and economic need, with particular attention to low-income older persons, including low-income minority older persons, older persons with limited English proficiency, older persons residing in rural areas, and those at risk for institutionalization. Individuals 60 years of age and older and their spouses can eat a nutritionally balanced hot meal for a suggested donation, and programs are not allowed to base participation on income level. Other groups eligible for congregate meals include persons under age 60 with disabilities who live in housing occupied primarily by elderly

Exhibit 10.5 Continuum of Community Nutrition Services

Source: Adapted from Balsam and Osteraas (1987). Used with permission.
adults where congregate meals are served; persons with disabilities who reside at home with, and accompany, older persons to meal sites (Colello, 2011). Suggested donations range from $2 to $4; 94% of congregate meal participants and 73% of home-delivered meal participants make a contribution for their meal (Ponza, Ohls, & Millen, 1996). Congregate meal sites are located in a variety of places, including senior centers, schools, churches, and restaurants. Meals, which must be offered at least one per day, five or more days per week, may be prepared on site or prepared at a central kitchen and delivered to sites. All congregate meal programs serve lunch. Approximately 13% have a supper option during the week, and 11% serve weekend congregate meals. Almost 75% of the programs offer modified meals (e.g., low fat, low cholesterol, low salt) to accommodate special diets.

Congregate meal programs also offer nutrition education programs, screening, and information about other community programs. Approximately 85% of congregate meal programs offer information and referral services to participants (Ponza, Ohls, Millen, et al., 1996). Providing participants with information and referral services makes congregate meal programs an important link in coordinating and delivering non-nutrition programs to older adults. Other congregate meal programs sponsored by nonprofit organizations such as the Salvation Army provide meals to low-income individuals and families of all ages. Unfortunately, the number of older adults who receive meals through these community congregate meal sites has not been documented.

**Home-Delivered Meals**

Home-delivered meals in most communities are provided by private nonprofit agencies or programs funded under the OAA. More than one home-delivered meal program may exist in any community and serve different target populations; Meals on Wheels is perhaps the most recognized home-delivered meal program in the country. Individuals aged 60 and older, who are homebound and their spouses of any age, as well as those under age 60 with disabilities if they reside at home with the homebound elder, may participate in home-delivered meal programs (Colello, 2011). Most programs have a suggested donation amount or a sliding fee scale based on income. Programs deliver one or more hot, chilled, or frozen meals directly to the recipient’s home each day during the week. Many programs offer frozen meals for recipients to use during the weekend.

More recently, nutrition programs have begun offering medical nutrition therapy for older adults who are nutritionally at risk or malnourished. According to the National Policy and Resource Center on Nutrition and Aging (1996), the medical nutrition therapy process is designed to help older adults who are at risk of malnutrition to obtain appropriate nutrition. On the basis of an assessment of the nutritional status of an at-risk older adult by a dietitian, a nutritional care plan is developed. The plan might recommend a change in daily diet or the incorporation of high-nutrient food into the diet. In addition, the food itself may need to be altered—for example, chopped or pureed to help those who have difficulty chewing or swallowing. Nutritional supplements or liquid meals might also be needed to meet an individual’s nutritional needs. Because of the increased cost of providing medical nutrition therapy, the funding for such programs comes from client fees, contributions, and private payers.

In addition to the nutritional value that home-delivered meal programs offer their participants, volunteers play an important role in meeting clients’ social needs. Volunteers who deliver the meals are often the only source of social contact for meal recipients, and in some cases, they help clients with grocery shopping or other errands. Because of the increase in the number of frail older persons, many home-delivered meals have waiting lists. The most recent national survey found that 41% of home-delivered meal programs have waiting lists.
of persons needing home-delivered meals, and the mean length of time on a waiting list is between two and three months (Ponza, Ohls, Millen, et al., 1996). The total number of home-delivered meals has increased dramatically over the past 20 years. From 1980 to 1996, it increased by 227%, due in part to an increase in funding for home-delivered meals over the years (U.S. Senate Special Committee on Aging, 2000). In 1998, home-delivered meals funded under Title III-C of the OAA provided some 129.7 million meals to 896,153 older adults; in 2004, the number of home-delivered meals totaled 143 million to 968,062 older adults (AoA, n.d.-b; AoA, 2001a). The most recent data available show that in 2009–2010, 145.4 million home-delivered meals were provided to 868,076 older adults (AoA, n.d.-e, n.d.-g).

**Best Practice: Two Coasts, Two Meals on Wheels Programs**

### San Francisco

In 1970, a group of civic-minded individuals living in San Francisco noticed a need among their elderly community. The people in need required nutritious meals delivered to their homes and friendly assistance with small tasks that they were unable to take care of themselves. To fill the need, this small group of dedicated volunteers started Meals on Wheels of San Francisco (MOWSF). They fixed the meals in their own neighborhood kitchens and then delivered them to their homebound neighbors. As the need for this service grew beyond anyone’s expectations, Meals on Wheels volunteers, in their own cars, were supplemented with professional drivers and refrigerated delivery vehicles. Eventually, full-time social workers, nutritionists, and administrative staff were hired. In 1995, MOWSF opened its own state-of-the-art kitchen.

In 1988, Meals on Wheels served 500 seniors per day. In 2010, the program served an average of 1,700 homebound participants daily and delivered 922,530 meals to older adults over a 12-month period. The MOWSF launched home-delivered grocery pilot program to assist homebound elders. There is also a large volunteer force that provides additional services such as shopping, reading, and helping with pet care. Dieticians provide nutrition education services and case managers, and other professional staff assist clients with referrals to help meet social or health needs.

For more information, contact Meals on Wheels of San Francisco, Inc., 1375 Fairfax Avenue, San Francisco, CA 94124, phone: 415-920-1111; www.mowsf.org.

### New York City

In 1981, Gael Greene and James Beard founded Citymeals-on-Wheels by raising private funds to supplement the government-funded weekday meal delivery program. Citymeals now funds weekday and weekend, holiday, or emergency meals to homebound elderly New Yorkers who can no longer shop or cook for themselves. The program also provides Vitamin D supplements and a mobile food pantry that contains canned goods and rice. The program served 6,000 older adults in its first year. During 2010–2011, Citymeals funded the preparation and delivery of 1.7 million meals to more than 16,918 homebound elderly New Yorkers.

For more information contact Citymeals-on-Wheels, 355 Lexington Avenue, New York, NY 10017, phone: 212-687-1234; www.citymeals.org; e-mail: info@citymeals.org.

**Sources:** MOWSF (2010) and Citymeals-on-Wheels (2012).
Senior Farmers’ Market Nutrition Program

The Senior Farmers’ Market Nutrition Program (SFMNP), was established through the 2008 Farm Bill and provided $20.6 million annually through FY 2012. The purpose of the SFMNP is to (a) provide fresh, nutritious, locally grown fruits, vegetables, herbs, and honey from farmers’ markets, roadside stands, and community-supported agriculture (CSA) programs; and (b) increase the consumption of agricultural commodities by expanding or aiding in the development and expansion of domestic farmers’ markets, roadside stands, and CSA programs (USDA, 2011b). The SFMNP awards grants to states, territories, and Indian tribal governments who in turn provide coupons to low-income elders, aged 60 and older, with incomes not greater than 185% of the federal poverty rate. Eligible elders receive coupons that can be exchanged for the locally grown items listed above. The SFMNP benefit level may not be less than $20 per year or more than $50 per year, and in FY 2010, 844,999 older adults participated in the program. The program currently operates in 42 states and six tribal nations, and over 25,000 farmers, farmers’ markets, and roadside stands, as well as 163 CSAs, participate in the program.

Food Banks

Many communities have created food banks that serve families and individuals with low incomes. Food banks distribute to qualified individuals government commodities or food that has been donated by private citizens, farmers, food manufacturers, grocery stores, and restaurants. The Food and Nutrition Service, under the USDA, supports two community food security programs: the Commodity Supplemental Food Program (CSFP) and the Emergency Food Assistance Program (TEFAP). The CSFP assists low-income older adults over 60 years of age in addition to low-income pregnant and breastfeeding women, new mothers up to one year postpartum, infants, and children up to age 6. The program is available in 38 states and the District of Columbia. To qualify for assistance, older adults must be residents and have incomes at or below 130% of the poverty income guidelines. Food packages include items such as cereal, rice, pasta, canned meat, fruits, and vegetables (USDA, 2011a). The number of older adults participating in the CSFP has increased over the past 15 years from 219,000 persons in 1996 to 568,854 in 2011 (USDA, 2011a; U.S. Senate Special Committee on Aging, 2000). The TEFAP, administered by the USDA, distributes to low-income individuals foods such as butter, flour, cornmeal, green beans, tomatoes, beef, and pork at no cost. In 2005, the program donated $154 million worth of surplus food. In 2010, that amount totaled $565.6 million to purchase food under the TEFAP (USDA, 2006b, 2012a).

Food recovery and gleaning are programs that collect excess food for delivery to community food banks. Food recovery programs work with wholesale food markets or retail grocers to salvage edible but not sellable ripe fruits and vegetables. In Portland, Oregon, a program called “Fork It Over” coordinates a food rescue program where food banks and pantries pick up surplus restaurant food. Many fresh and prepared foods are donated, including unserved menu items, unserved buffet foods, produce, dairy items, deli items, catered foods, baked goods, meats, and seafood. This program recovered approximately 10,614 tons of food, much of which would have otherwise been landfilled had it not been donated (McGuire, 2002). Another way communities have gathered surplus food to distribute to low-income individuals is to harvest unusable produce left after a commercial harvest. These “gleaning projects” have played an important role in preventing hunger in their communities. One gleaning program, through the faith-based organization called the Society of St. Andrew, had more than 30,000 volunteers who...
helped salvage and distribute more than 18 million pounds of produce through their Gleaning Network in 15 states in 2010 (Society of St. Andrew, n.d.).

**Brown Bag Programs**

Brown bag programs are also supplemental food programs for low-income seniors. Typically, low-income older adults can receive a grocery bag containing fresh or frozen produce, breads, and canned foods. Food for these programs comes from local grocery stores and private donations from food drives. Distribution sites, home-delivery availability, frequency of distribution, and eligibility guidelines vary by community and by program. One example of a brown bag program is the Greater Boston Food Bank’s “Let’s Bag Hunger” program. The program has seven Elderly and Family Brown Bag programs in the Boston area, which serve more than 7,400 participants each month. This initiative provides a free 15-pound grocery bag filled with milk, cheese, pasta, rice, ground beef, tuna, peanut butter, green beans, and oatmeal once a month (Greater Boston Food Bank, 2012).

**Shopping Assistance Programs**

As noted above, many older adults have difficulty grocery shopping. Chronic conditions make traveling to grocery stores and selecting and carrying groceries home problematic. Lack of private transportation makes shopping burdensome as well. No doubt many of the participants who receive home-delivered meals are in need of assistance with grocery shopping. Communities have responded by offering shopping assistance services that escort older adults to food markets or deliver groceries to their homes. Volunteers, in conjunction with public transportation, often help with shopping assistance. Volunteers travel to the homes of older adults, escort older adults to the grocery store, assist them in shopping, and return home. Grocery delivery programs allow older adults to call in their grocery order to be filled and delivered by volunteers. A study that surveyed a random sample of nutrition programs across the country found that approximately 43% of meal programs for older adults provided escort shopping services and that 15% offered grocery delivery services (Balsam & Rogers, 1988).

**For Your Files: Campus Kitchens Project**

The Campus Kitchens Project (CKP) is a community service for high school and college students and resourceful anti-hunger program for communities around the country. As they note on their website, “What we do is kind of a no-brainer. We know there are people in every community who need nourishing meals. And, we know that every college campus has unserved food in its dining halls and brilliant students in its classrooms. So we put them all together.”

The CKP is a student-run program that works with thousands of students each year to recycle food from their high school or college cafeterias, the leftover food is turned into nourishing meals, and then delivered to those who need it most. An example of CKP outreach to older adults is from the University of Nebraska at Kearney. The program helps Arlene Jones, 92, a retired school teacher, with
Users of Congregate and Home-Delivered Meal Programs

Who attends congregate meal programs? Who participates in the home-delivered meal program? Do these programs serve the neediest among the older population? To answer these questions, researchers have conducted studies to identify participant characteristics and benefits of attending meal programs on both the national and local levels.

There have only been two national studies investigating Title III nutrition program participants and outcomes. One of those studies was the longitudinal study of the OAA nutrition program outcomes initiated in 1978 (U.S. Department of Health, Education, and Welfare, 1979). The purpose of the evaluation was to assess program impacts on participants and to identify program characteristics and other factors that influence participant outcomes. Researchers collected information from a random sample of 91 meal sites and conducted interviews with program staff and representatives from related organizations. In addition, a sample of nutrition program participants was compared with a sample of nonparticipants. The evaluation gathered specific information about dietary and health status, isolation, life satisfaction, longevity, and independent living. Results revealed that the majority of participants had incomes below the poverty level and that one quarter of the participants were minority group older adults. Participants had higher rates of social activity compared with the sample of nonparticipants. The majority attended once a week or more, and the more frequent attendees were long-term participants who were poor, more than 75 years of age, in poor health, living alone, and ethnic minorities. In the final report, Kirschner Associates (1983) concluded that the attendance did increase the nutrient intake of participants; participants also ranked the benefits of social interaction higher than the benefits of the meals.

Almost 15 years later, another comprehensive two-year evaluation of the Title III nutrition program was undertaken. The purposes of the study were to evaluate the program’s effect on participants’ nutrition and socialization compared with those of similar nonparticipants; to evaluate who used the program and how effectively the program served targeted groups in need of its services; to assess how efficiently and effectively the program was administered and delivered services; and to clarify funding sources and allocation of funds among program components (Ponza, Ohls, Millen, et al., 1996). Data were collected from 55 State Units on Aging, 350 Area Agencies on Aging, 100 Indian tribal organizations, a representative sample of 200 nutrition projects, a nationally representative sample of 1,200 congregate meal participants and 800 home-delivered meal participants, and personal interviews with a nationally representative sample of 600 nonparticipants eligible for the congregate meal program and 400 nonparticipants eligible for the home-delivered meal program. The evaluation gathered specific information about dietary and health status, isolation, life satisfaction, longevity, and independent living. Results revealed that the majority of participants had incomes below the poverty level and that one quarter of the participants were minority group older adults. Participants had higher rates of social activity compared with the sample of nonparticipants. The majority attended once a week or more, and the more frequent attendees were long-term participants who were poor, more than 75 years of age, in poor health, living alone, and ethnic minorities. In the final report, Kirschner Associates (1983) concluded that the attendance did increase the nutrient intake of participants; participants also ranked the benefits of social interaction higher than the benefits of the meals.
meal program. The majority of congregate meal participants were women (69%); 45% had been participating in the congregate meal program for more than five years (Ponza, Ohls, Millen, et al., 1996). The average age of the participants was 76 years, and 26% needed special transportation to get to the meal site.

Ponza, Ohls, Millen, and colleagues (1996) found that participants were more disadvantaged regarding income, living arrangements, and physical health than the older adult population in general. For example, between 80% and 90% of participants had incomes that were 200% below the poverty level—a rate that was two times higher than that of the overall U.S. older adult population. Moreover, more participants were living alone (60%) than the overall older population (25%). With regard to physical health, participants typically had two chronic health conditions, and almost a quarter reported difficulty in doing one or more everyday tasks. Racial and ethnic minorities accounted for 27% of congregate meal participants. The congregate meal participants were also found to be nutritionally at risk. Following the protocols under the Nutritional Screening Initiative, 64% of participants had characteristics associated with moderate to high nutritional risk, and over 55% received half or more of their daily food intake from their congregate meal. Approximately two thirds of participants were either over- or underweight, placing them at increased risk for nutritional and health problems. This same research also evaluated specific outcomes of improved nutritional status and increased social contacts. They found that the nutrition program significantly influenced participants’ overall nutritional intake. On a daily basis, participants had higher percentages of recommended daily allowances than did nonparticipants, and overall dietary intakes were better than those of nonparticipants as well. Results indicated that when compared with nonparticipants, participants had, on average, more social contacts per month. Overall, the results indicate that nutrition programs are accomplishing the mission of improving the dietary and social well-being of an at-risk population.

More recently, a national survey of OAA congregate meal program participants shows that slightly more than half were aged 75 and older, 48% lived alone, 13% had annual incomes of less than $10,000, and 57% indicated that the congregate meals provided one half or more of their daily food intake (Colello, 2011). The results also confirmed that socialization provided by congregate meal programs plays an important role among participants. Eighty-seven percent of participants indicated that they see friends more often due to their participation in the congregate meal program.

Over the years since the inception of congregate meal sites, researchers conducting studies of local older adult nutrition programs report similar outcomes, with some variation of the ethnic makeup of participants. A study in the late 1970s of the Boston area congregate meal program participants (\(N = 174\)), found that the majority of participants were White (93%), female (69%), and widowed (44%; Posner, 1979). The average age of participants was 73 years, and most participants were living alone. One fifth had incomes below the poverty level, and 44% had incomes that were at or below 125% of the poverty level. Respondents were asked to identify what they thought was the program’s value for them. The opportunity for a nutritious meal and the opportunity for socialization were the two top reasons given by respondents for attending the meal program. Participants indicated that they realized financial as well as food-purchasing benefits (31% and 50%, respectively). That is, their participation in the nutrition program helped reduce the amount of food they bought. Significantly more older adults who lived alone realized these benefits. More than half the respondents indicated that attending the program had a positive impact on the social aspects of their lives. This included meeting more people and socializing more with peers (26%), reduced loneliness and improved morale (22%), and
increased social activities outside their homes (22%). Finally, 47% of participants indicated that they engaged in social activities outside the meal program with peers whom they had first met at the site.

Similarly, in their study of 888 local congregate meal participants, Mullins et al. (1993) found that the majority of participants were female (70%), White (65%), widowed (47%), and living alone (51%). A surprising number had relatively few associations with children, grandchildren, and siblings, and had fewer close relationships than did respondents who received home-delivered meals. Moreover, more than one quarter (26%) reported levels of loneliness greater than the median. Half the congregate meal participants rated their health as either fair or poor, and 66% indicated that they had a health problem that affected their daily activities. Many of the participants also indicated that their economic condition was problematic; more than half (54%) reported that not having enough money to live on was a somewhat or very serious problem. Respondents were also asked if they felt healthier because of their participation in the nutrition program. More than three quarters of congregate meal participants indicated that attending the program was related to feeling healthier and making more friends.

Another study investigated the social and nutritional outcomes of a random sample of participants (N = 140) at 13 rural areas and eight urban congregate meal sites in Colorado (Wacker, 1992). The majority of respondents were female (83%), and 43% were widowed. Slightly more than half the respondents reported their health status was good (52%), and 31% indicated their health was fair. Most had a high school education (47%), whereas 29% reported having less than a high school education. Reflecting data from national studies showing that meal programs primarily serve those with low incomes, many of the study participants reported a similar financial picture. When asked about their financial well-being, 32% said they had just enough income to make ends meet; 47% indicated that they had enough to make ends meet, with a little extra left over sometimes. A significant majority of respondents had been attending the program for three or more years, and attended at least once per week. When participants were asked why they attended the program, the most popular reasons given were socializing with others (84%), getting an affordable meal (75%), and liking the food being served (72%). In addition, 75% indicated that the meal program was an important part of their diet. Of those who indicated that they had changed their health habits (e.g., reduced amount of fat and sodium in their diets), 17% said that the nutrition education presented at the meal program influenced them to change.

Finally, a study of OAA nutrition program participants in Georgia showed that congregate meal participants were predominately female (75.3%) and White (67.8%), had at least a high school education (67.3%), and rated their health as good or excellent (54.7%; J. S. Lee, Sinnett, Bengle, Johnson, & Brown, 2011). Results also showed that 29.8% of participants were food insecure, and 51.4% were deemed to be at high nutritional risk. The study also identified that 47.2% of those on a wait list for congregate meal programs were food insecure.

Examinations of users of home-delivered meal programs have shown that recipients have more physical limitations, are more socially isolated, and have lower incomes than those who attend congregate meal programs (AoA, 1983; Colello, 2011; Joung, Kim, Yuan, & Huffman, 2011; Mullins et al., 1993; Ponzia, Ohls, Millen, et al., 1996). Home-delivered meal participants are a more frail and at-risk population than those who attend congregate meal programs. According to the national study of the OAA Title III meal program mentioned above, the average age of a home-delivered meal participant is 78 years; 70% are female, 60% live alone, and 95% receive five or more meals per week. One quarter were minority and ethnic
elders, and almost half (48%) of participants had incomes below 100% of the DHHS poverty guidelines. When meal participants were asked how many times per month they saw relatives, friends, or neighbors, 38% reported never or less than once. Home-delivered meal participants have more than twice as many physical impairments as the overall elderly population. Over 75% report experiencing difficulty doing one or more everyday tasks, and 43% reported a recent stay in a hospital or nursing home. Approximately one third also receive personal care and homemaker services from other agencies. These meal participants are also nutritionally at risk. Eighty-eight percent were determined to be at moderate or high nutritional risk, and more than one third saved part of the program meal to eat as a second meal or as part of a second meal or snack. Other research has confirmed that the majority of homebound older adults have poor diets compared with persons who attend congregate meal programs (Ponza, Ohls, Millen, et al., 1996; Steele & Bryan, 1986; Stevens, Grivetti, & McDonald, 1992). J. S. Lee and colleagues (2011) found that among their Georgia sample of home-delivered meal participants, 74.3% had high nutritional risk and 48.7% were food insecure.

These demographic and health characteristics of home-delivered meal participants were also found in the 2009 national survey of OAA participants—70% were aged 75 or older, 56% lived alone, and 25% had annual incomes below $10,000 (Colello, 2011). Recipients of home-delivered meals were frailer than congregate meal participants, as 40% and 15% needed assistance with one or more activities of daily living (ADLs), and three or more ADLs, respectively; 85% reported needing assistance with one or more instrumental ADLs. In summary, both congregate meal and home-delivered meal participants are among the most vulnerable elderly adults with regard to their levels of social interaction, nutritional status, and physical health.

CHALLENGES FOR NUTRITION PROGRAMS

On the basis of empirical research during the past two decades evaluating the outcomes of nutrition programs, one can conclude that these programs are indeed successful and that programs funded under the OAA are serving older adults who are at risk of poor nutritional intake with meals that are critical to their daily food consumption. These programs also provide older individuals with social contacts that are beneficial for their psychological well-being. Despite these successes, meal programs for older adults face a number of critical issues.

Enhancing Awareness and Use of Nutrition Programs

Older adults who participate in nutrition programs derive nutritional and psychological benefits, yet many other older adults who also could benefit from attending do not participate. S. A. Peterson and Maiden (1991) explored the variables associated with awareness and use of congregate meal programs in a sample of 358 community-dwelling older adults. Those who were aware of the programs had more personal and social resources and less nutritional need. Those using nutrition programs, however, had fewer personal and social resources and greater nutritional need. Such research illustrates the need for more studies about the factors associated with awareness and use of programs to assist with outreach efforts. On the basis of their two-year evaluation of the senior
nutrition program, Ponza, Ohls, Millen, and colleagues (1996) made the following recommendations for future directions of nutrition programs:

- As the percentage of persons in the oldest-old category increases, the need for home-delivered meals may increase.
- Programs must endeavor to better meet the specialized nutrition needs of their participants, including more choices in types of meals, and more options for meals available during the day and on weekends.
- Changes in the delivery of health care will also have an impact on nutrition programs. As individuals continue to be discharged more quickly from hospitals and nursing homes, nutrition programs will be serving an even more frail and functionally impaired population than in the past.
- There continue to be waiting lists at some nutrition sites for home-delivered and congregate meals, and high percentages of home-delivered and congregate meal participants continue to be nutritionally at risk. Programs will be challenged to serve the underserved population in an era of shrinking public and private dollars.

The demand for OAA Nutrition Program (OAANP) services over the past few years during the Great Recession has increased dramatically, whereas the funding, when adjusted for inflation, has declined substantially over the last 20 years (Colello, 2011). In 2009, local AAA meal programs reported a 79% increase in demand for home-delivered meals, and a 42% increase for congregate meals (K. E. Brown, 2010). Within one state, Georgia, approximately 5,000 older adults requested OAANP services and 57.4% were placed on a waiting list (J. S. Lee et al., 2011). Supplementing OAA funding with alternative funding from businesses, civic organizations, and foundations will be sources of financial support that programs must tap to maintain and expand services (Balsam & Rogers, 1991).

**Serving a Diverse Older Population**

Meal programs for older adults must be ever mindful of meeting the nutritional needs of an ethnically diverse population. Programs must ensure that the social atmosphere, as well as the meals, is welcoming to racial and ethnic elders by having culturally sensitive staff, preparing ethnic meals, offering culturally appropriate nutrition education materials, and obtaining input from minority participants (Briggs, 1992; Mower, 2008). Others have commented on the need to reach out to the most needy older persons. For example, Balsam and Rogers (1991) argue that outreach for nutrition programs must include older adults who are “socially impaired”—those who are socially isolated, homeless, live in single-room occupancy dwellings, suffer from substance abuse, or are deinstitutionalized. Because such persons might not be readily welcomed at congregate meal sites, programs targeted to older adults at the margins of society might be created (Doolin, 1985). Adding to and customizing meals will also mean that more dieticians knowledgeable in working with older adults will be needed to help guide and advise expanding nutrition programs (N. S. Wellman, Rosenzweig, & Lloyd, 2002).

**Implementing Meal Programs for a New Generation of Older Adults**

Finally, nutrition programs will have to change as the population ages and as cohorts with different needs and preferences replace the current participants. Because evidence
indicates that nutrition and eating habits vary across age groups (Wurtman, Lieberman, Tsay, Nader, & Chew, 1988), the menus and meals offered through nutrition programs will no doubt need to accommodate those differences as well.

**Supporting the Future of Senior Nutrition Programs**

The delegates at the White House Conference on Aging (2006) passed a resolution and strategies that address a number of the challenges previously discussed. The delegates recommended the following to promote the importance of nutrition in health promotion and disease prevention and management:

- Form a public–private nutrition and fitness alliance that would become the authoritative source for seniors and caregiver, and promote through a national media campaign.
- Respond to the special nutritional needs of individual seniors to enhance independent living by reauthorizing the OAA to include the flexibility to use nontraditional food sources and by strengthening the congregate and home-delivered meal programs to increase services up to seven days and expanding Senior Farmers’ Market Nutrition Program nationwide.
- Through the reauthorization of the OAA (Title III), expand funding to ensure adequate nutrition (eliminate undernutrition) and provide reliable nutrition education/information delivered by registered dieticians or technology that can then empower individuals.
- Use existing nutrition sciences to concurrently deliver physical activity and exercise information and programs to older adults.

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**CASE STUDY**

**Good Nutrition—Making Independence Possible**

Manuel, 75, is a shy bachelor who has lived with his mother all his adult life except during two years when he was stationed overseas with the army. After his discharge, he returned home and worked as a cook for the local National Guard for 12 years. Everyone in town talked about the good old-fashioned food that Manuel prepared. When the local National Guard facility closed, Manuel became a self-employed janitor. He continued to work without giving retirement a second thought. His work, his flower garden, and taking care of his mother were his main activities in life. Manuel’s income, barely $617 per month, supported his modest lifestyle.

One day, when Manuel was driving to the hardware store to buy garden supplies, a semitrailer broadsided him. The accident was serious and was Manuel’s fault. He was rushed to the hospital with internal injuries and a broken leg and collarbone. During the hospitalization, medical tests revealed that Manuel was diabetic. His diabetes had gone untreated because he had simply ignored
symptoms that had plagued him for many years. The untreated diabetes, it now seemed, was the cause of his eyesight deteriorating so rapidly in the year before the accident.

After four weeks, the hospital discharged him to a nursing home, where he spent three months in a skilled care unit. This was a difficult time for Manuel. He was making progress overcoming his injuries, but not the chronic pain in his neck. In addition, his mother died, and he felt terrible that he was unable to be with her before her death. His only remaining family was his estranged sister.

Manuel's greatest desire was to return home. He reminded the nursing home staff and his doctor of that at every opportunity. He desperately missed his garden and the few neighbors with whom he used to chat over the fence. Finally, after weeks of listening to Manuel complain about neck pain and not being able to go home, his doctor ordered more x-rays, which showed that Manuel's neck was broken. He was fitted for a halo cast and told by his doctor that he could return home only if he followed a strict diabetic diet and did not drive.

Case Study Questions

1. Why is nutrition such a central factor in Manuel's plan of care?
2. What community-based food programs would you recommend for Manuel? Which program would you choose as the best option for Manuel? Why?
3. Is Manuel a good candidate for living at home alone if he follows the doctor's instructions? Why or why not?
4. What reasons would you give to defend Manuel's chances for successfully returning home?
5. What reasons would you give to defend Manuel's chances for having to move back to the nursing home?

LEARNING ACTIVITIES

1. Have an older adult relative keep a nutrition diary for one week to track what was eaten and when. Keep track of your own nutritional intake for that same week. Examine both diaries. How are they different? Similar? Are there any deficiencies in either diet? What improvements could be made in both diets?
2. Visit or volunteer at the local food bank. How many of the clients are older adults? How often is food distributed? What are the eligibility criteria for participation? How does the food bank obtain food to distribute?
3. Sign up for a congregate meal at a nearby site. How many people attend? How many times during the week are meals served? What is the suggested donation? What was the ethnic makeup of participants? Would the type of meals served attract older adults of different ethnic backgrounds?
International Resources

1. The British Dietetic Association: www.bda.uk.com/about/index.html

   The British Dietetic Association is the professional association and trade union for dietitians. Their website has nutrition resources and publications on a wide variety of topics for both professionals and laypersons.


   The AgeUK’s website has a number of healthy eating resources for older adults including the “Healthy eating guide: Your guide to eating well” and “Healthy eating: fact vs fiction”.


   The Physical Activity and Nutrition (Project PAN) works to promote healthier lifestyles among people in their advanced years. One of their initiatives is called the “TAKE10!” for the elderly. The major features of the TAKE10! program include: 1) targeting behavioral changes such as increasing physical exercise and improving dietary practices, 2) ability to adapt the program at a reasonable cost to either the elderly and 3) ability to use the instruction package to easily incorporate the program into existing nursing care prevention programs or municipal peer-leader training programs.

National Resources

1. National Resource Center on Nutrition, Physical Activity & Aging, Florida International University, University Park, OE200, Miami, FL 33199; phone: 305-348-1517; http://nutritionandaging.fiu.edu; e-mail: nutritionandaging@fiu.edu

   The Resource Center on Nutrition, Physical Activity & Aging works with the AoA to improve the nutritional status of older adults by disseminating nutrition information, providing technical assistance and training, and examining nutrition policies.

2. American Dietetic Association, 216 West Jackson Boulevard, Chicago, IL 60606; phone: 800-877-1600, ext. 5000 (publications); www.eatright.com

   The American Dietetic Association is the professional society for dietitians. In addition to other services for its members and a consumer nutrition hotline, the association has numerous publications helpful to consumers, such as *Staying Healthy: A Guide for Elder Americans*, *Older Adults Food Guide Pyramid*, and *Recommendations of Food Choices for Women*.


   The Center provides information to professionals and the general public on nutrition and acquires and lends printed and audiovisual materials dealing with nutrition.
4. Meals on Wheels Association of America (formerly the National Association of Meal Programs), 203 S. Union Street, Alexandria, VA 22314; phone: 703-548-5558; www.mowaa.org
   The Meals on Wheels Association of America provides education and training to those who plan and conduct congregate and home-delivered meals programs.

   *The Journal of Nutrition in Gerontology and Geriatrics* publishes research on nutritional care for older adults. The journal includes client education suggestions and covers essential aspects of nutrition, from the clinical correlation between the pathophysiology of diseases and the role of nutrition to the psychosocial aspects of eating. In addition to scholarly studies, it also highlights evidence-based interventions for use in community settings.

   The National Association of Nutrition and Aging Services Programs (NANASP) is a professional membership organization with members drawn primarily from persons working in or interested in the field of aging, community-based services, and nutrition and the elderly. NANASP is recognized as a primary leadership organization in the field of aging in shaping national policy, training service providers, and advocating on behalf of seniors.

**Web Resources**

1. Food in Later Life Research Project, University of Surrey, Guildford, Surrey, GU2 7XH, UK; www.foodinlaterlife.org/senior410.html; e-mail: m.raats@surrey.ac.uk
   The Food in Later Life Research Project is a longitudinal research project funded by the European Union to examine the relationship between food intake, nutritional well-being, health, and quality of life among older people and to disseminate and consult with professionals who are in a position to enhance older people’s nutritional well-being, health, and quality of life through food and service provision. Twelve countries will be involved in the study, including the United Kingdom, Italy, Germany, Sweden, Denmark, Portugal, and Spain. The project website contains many resources on the topic of the nutritional well-being of older adults.

2. Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University, 711 Washington Street, Boston, MA 02111; 617- 556-3000; http://hnrcatufts.edu/
   The mission of the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University (HNRCA) is to explore the relationship between nutrition, aging, and health by determining the nutrient requirements that are necessary to promote health and well-being for older adults and examining the degenerative conditions associated with aging. In addition to providing nutrition resources and information, the HNRCA introduced the MyPlate for Older Adults, which corresponds with MyPlate, the federal government’s new food group symbol. MyPlate for Older Adults calls attention to the unique nutritional and physical activity needs associated with advancing years. MyPlate for Older Adults is available to print out on the USDA HNRCA website.