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BACKGROUND

Under the Older Americans Act (OAA), the Older Americans Nutrition Program (OANP) is the largest and most visible, federally funded community-based nutrition program for older adults. The Nutrition Program is administered by the US Department of Health and Human Services, Administration on Aging (AoA) who provides leadership, coordination and support to an Aging Network that includes 57 State Units on Aging (SUAs), 655 Area Agencies on Aging (AAAs) and thousands of local providers under Title III. The AoA provides Title III-C funds to SUAs to provide congregate and home-delivered meals, nutrition screening, education and counseling, as well as an array of other supportive and health services.

To carry out the responsibilities mandated by the OAA, SUAs are responding to the demographic changes in the U.S. population of older adults. The proportion of older adults is expected to double to about 70 million by the year 2030, reflecting an increase from 12.4% today to 20% (1). The year 2030 represents the demographic milestone when many Baby Boomers...
will attain the ranks of the "oldest old" (age 85 and older) and large numbers of Gen Xers will themselves reach age 65 (1). All may be eligible for or in need of nutrition services. Furthermore, food insecurity, chronic diseases, and functional disabilities are common to many older adults. At the same time, changes in the health care system and public policy have resulted in earlier discharge of ill older adults from hospitals to home and community-based care. As a result, nutrition service providers need to expand and enhance the delivery of food and nutrition services to meet the increased demand for their services.

**PURPOSE**

The goal of the *Toolkit* is to assist SUAs in revising and updating their nutrition-related regulations, policies, procedures, and guidelines. The objectives of the *Toolkit* include:

- To provide technical assistance and guidance to the Aging Network
- To identify best practices and emerging areas for planning new approaches to implementing the OAA
- To identify mechanisms for collaboration and partnership building
- To identify resources to improve methods of service delivery
- To provide continuous, up-to-date information and resources (The *Toolkit* will be updated regularly).

**1998 COLLECTION AND USE OF SUA DOCUMENTS**

To begin developing the *Toolkit*, the AoA regional offices requested all U.S. states and territories to send copies of all current documents pertaining to state policies, procedures, rules, regulations, operational manuals, guidelines and standards for administering OANPs to the Center. A list of 19 topics, along with 103 subtopics (Appendix), was provided to suggest content areas of documents submitted. Forty-four states and the District of Columbia, Guam and Puerto Rico responded, submitting files of existing documents ranging from 50 to about 800 pages, each. The Center maintains the *SUA Policies and Procedures: 1998 Collection of Information* and requests that new documents be sent as they are revised or developed.

A manual (page by page) content analysis of each states' documents was conducted to code each portion of each SUA document into categories represented by the topic and subtopic list. Descriptive statistics, such as frequencies and percentages, were
used to summarize the topics and subtopics. Limitations in the method of collecting and analyzing State documents for this Toolkit were that some topics or subtopics may not have been identified and counted in the survey or SUAs may not have submitted all pertinent documents. Given these limitations, the SUA Policies and Procedures: 1998 Collection of Information represents a more general, broad-based summary of current Nutrition Program practices. While this Toolkit contains sample SUA policies and procedures, there is the possibility of error or omission of other best practices.

ORGANIZATION OF THE TOOLKIT

The Toolkit is organized into the following chapters:
Chapter I: Provides a brief history and explains current issues of the Older Americans Nutrition Program; Describes the purpose of the Toolkit and a summary about the 1998 Collection of SUA Policies and Procedures.
Chapter II: Contains definitions of terms commonly used throughout SUA documents. Many are provided verbatim from Title I of the OAA to provide a framework for using and understanding OANP terminology.
Chapters III-XII: Each chapter is divided into sections that address the main components of the OANP. The following is included in each section:

- Citations from the 2000 OAA that provides the legislative foundation for each section and its subsections.
- Sample SUA policies and procedures that correspond to the OAA regulations.
- Links to additional resources (articles, internet websites, catalogs, state booklets) that SUAs can use to help plan, develop, implement, monitor, and evaluate their nutrition service systems.

Additional Resources

Additional Older Americans Act Aging Services Network Resources are available at:
http://www.fiu.edu/%7Enutreldr/Aging_Network/aging_network.htm

PowerPoint Presentations from the AoA Nutritionists / Administrators Conference (June 2-4, 2002):

- Administration on Aging and Nutrition Services (Edwin Walker)
• Older Americans Act Fundamentals (Jean Lloyd, Floristene Johnson, Jo Ann Pegues, Joesph Carlin)

References


SELECTED DEFINITIONS
FROM THE OLDER AMERICANS ACT OF 2000 (Sec. 102)

The following definitions are selected terms that relate to the Older Americans Act (OAA) Nutrition Program. These definitions are listed verbatim and in the order they appear in Title I of the OAA.

Assistive Technology
(10) The term "assistive technology" means technology, engineering methodologies, or scientific principles appropriate to meet the needs of, and address the barriers confronted by, older individuals with functional limitations.

Information and referral
(11) The term "information and referral" includes information relating to assistive technology.

Disease Prevention and Health Promotion Services
(12) The term "disease prevention and health promotion services" means--

(A) health risk assessments;

(B) routine health screening, which may include hypertension, glaucoma, cholesterol, cancer, vision, hearing, diabetes, bone density, and nutrition screening;
(C) nutritional counseling and educational services for individuals and their primary caregivers;

(D) health promotion programs, including but not limited to programs relating to prevention and reduction of effects of chronic disabling conditions (including osteoporosis and cardiovascular disease), alcohol and substance abuse reduction, smoking cessation, weight loss and control, and stress management;

(E) programs regarding physical fitness, group exercise, and music therapy, art therapy, and dance-movement therapy, including programs for multigenerational participation that are provided by--
(i) an institution of higher education;
(ii) a local educational agency, as defined in section 14101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801); or
(iii) a community-based organization;

(F) home injury control services, including screening of high-risk home environments and provision of educational programs on injury prevention (including fall and fracture prevention) in the home environment;

(G) screening for the prevention of depression, coordination of community mental health services, provision of educational activities, and referral to psychiatric and psychological services;

(H) educational programs on the availability, benefits, and appropriate use of preventive health services covered under title XVIII of the Social Security Act (42 U.S.C. 1395 et seq.);

(I) medication management screening and education to prevent incorrect medication and adverse drug reactions;

(J) information concerning diagnosis, prevention, treatment, and rehabilitation concerning age-related diseases and chronic disabling conditions, including osteoporosis, cardiovascular diseases, diabetes, and Alzheimer's disease and related disorders with neurological and organic brain dysfunction;

(K) gerontological counseling; and

(L) counseling regarding social services and follow-up health services based on any of the services described in subparagraphs (A) through (K).

The term shall not include services for which payment may be made under titles XVIII and XIX of the Social Security Act (42 U.S.C. 1395 et seq., 1396 et seq.).

**Aging network**

(14) The term "aging network" means the network of -
(A) State agencies, area agencies on aging, title VI grantees, and the Administration;

(B) Organizations that
   (i) are providers of direct services to older individuals; or
   (ii) are institutions of higher education; and
   (iii) receive funding under this Act.
Area agency on aging
(17) The term "area agency on aging" means an area agency on aging designated under section 305(a)(2)(A) or a State agency performing the functions of an area agency on aging under section 305(b)(5).

Case management
(21) The term "case management service"-

(A) means a service provided to an older individual, at the direction of the older individual or family member of the individual-
(i) by an individual who is trained or experienced in the case management skills that are required to deliver the services and coordination described in subparagraph (B); and
(ii) to assess the needs, and to arrange, coordinate, and monitor an optimum package of services to meet the needs, of the older individual

(B) includes services and coordination such as-
(i) comprehensive assessment of the older individual (including the physical, psychological, and social needs of the individual);
(ii) development and implementation of a service plan with the older individual to mobilize the formal and informal resources and services identified in the assessment to meet the needs of the older individual, including coordination of the resources and services-
(I) with any other plans that exist for various formal services, such as hospital discharge plans; and
(II) with the information and assistance services provided under this Act;
(iii) coordination and monitoring of formal and informal service delivery, including, coordination and monitoring to ensure that services specified in the plan are being provided;
(iv) periodic reassessment and revision of the status of the older individual with-
(I) the older individual; or
(II) if necessary, a primary caregiver or family member of the older individual; and (v) in accordance with the wishes of the older individual, advocacy on behalf of the older individual for needed services or resources.

Frail
(26) The term "frail" means, with respect to an older individual in a State, that the older individual is determined to be functionally impaired because the individual -

(A) (i) is unable to perform at least two activities of daily living without substantial human assistance, including verbal reminding, physical cueing, or supervision;
or (ii) at the option of the State, is unable to perform at least three such activities without such assistance

(B) due to a cognitive or other mental impairment, requires substantial supervision because the individual behaves in a manner that poses a serious health or safety hazard to the individual or to another individual.

**Greatest economic need**
(27) The term "greatest economic need" means the need resulting from an income level at or below the poverty line.

**Greatest social need**
(28) The term "greatest social need" means the need caused by non-economic factors, which include -

(A) physical and mental disabilities

(B) language barriers

(C) cultural, social, or geographical isolation, including isolation caused by racial or ethnic status, that-
(i) restricts the ability of an individual to perform normal daily tasks; or
(ii) threatens the capacity of the individual to live independently.

**Information and assistance**
(29) The term "information and assistance service" means a service for older individuals that-

(A) provides the individual with current information on opportunities and services available to the individuals within their communities, including information relating to assistive technology;

(B) assesses the problems and capacities of the individuals;

(C) links the individuals to the opportunities and services that are available;

(D) to the maximum extent practicable, ensures that the individuals receive the services needed by the individuals, and are aware of the opportunities available to the individuals, by establishing adequate follow-up procedures; and
(E) serves the entire community of older individuals, particularly -
(i) older individuals with greatest social need; and
(ii) older individuals with greatest economic need.

Multipurpose senior center
(33) The term "multipurpose senior center" means a community facility for the organization and provision of a broad spectrum of services, which shall include provision of health (including mental health), social, nutritional, and educational services and the provision of facilities for recreational activities for older individuals.

Older individual
(35) The term "older individual" means an individual who is 60 years of age or older.

Planning and service area
(37) The term "planning and service area" means an area designated by a State agency under section 305(a)(1) (E), including a single planning and service area described in section 305(b)(5)(A).

Additional Definitions

Administration on Aging (AoA)
The Older Americans Act (OAA) established the AoA under the U.S. Department of Health and Human Services. AoA is the federal focal point and advocacy agency for older persons, as mandated by the OAA, and administers most OAA programs at the federal level. These programs provide assistance to older persons and their caregivers, as well as critical support services, such as nutrition and transportation, for older persons at risk of being prematurely or unnecessarily institutionalized.

State Units on Aging
AoA awards funds for Title III to the 57 State Agencies on Aging which are located in every State and Territory. Program funding is allocated to each State Agency on Aging, based on the number of older persons in the State, to plan, develop, and coordinate systems of supportive in-home and community-based services. Most States are divided into Planning and Service Areas (PSAs) so that programs can be effectively developed and targeted to meet the unique needs of older adults residing in that area. States establish planning and service areas of the State (AAAs) or designate a State to be a single planning and service area.

Area Agencies on Aging
Nationwide some 655 Area Agencies on Aging (AAA) receive funds from their respective State Agencies on Aging to plan, develop, coordinate and arrange for services in
each PSA. In rural areas, an AAA may serve the needs of older adults living in a number of counties, while other AAA’s serve the elderly living in a single city. AAA’s contract with public or private groups to provide services. There are some 27,000 service provider agencies nationwide. In some cases, the AAA may act as the service provider, if no local contractor is available. There are approximately 4000 nutrition service providers in the country.

**Adult Day Care/Adult Day Health**
Provision of personal care for dependent adults in a supervised, protective, congregate setting during some portion of a twenty-four hour day. Services offered in conjunction of adult day care/adult day health typically include social and recreational activities, training, counseling, meals for adult day care and services such as rehabilitation, medications assistance and home health aide services for adult day health.

**Assisted Transportation**
Provision of assistance, including escort, to a person who has difficulties (physical or cognitive) using regular vehicular transportation.

**Congregate Meals**
Provision, to an eligible client or other eligible participant at a nutrition site, senior center or some other congregate setting.

**Home Delivered Meals**
Provision, to an eligible client or other eligible participant at the client's place of residence.

**Native Americans**
Grants for Native Americans are provided under Title VI of the Older Americans Act. It is the purpose of this title to promote the delivery of supportive services, including nutrition services to American Indians, Alaskan Natives, and Native Hawaiians that are comparable to services provided under Title III. A tribal organization of an Indian tribe is eligible for assistance if (1) the tribal organization represents at least 50 individuals who are 60 years of age or older; and (2) the tribal organization demonstrates the ability to deliver supportive services, including nutrition services. The terms "Indian Tribe" and "tribal organization" have the same meaning.

**Nutrition Counseling**
Provision of individualized advice and guidance to individuals, who are at nutritional risk, because of their health or nutritional history, dietary intake, medications use or chronic illnesses, about options and methods for improving their nutritional status, performed by a health professional in accordance with state law and policy.
**Nutrition Education**
A program to promote better health by providing accurate and culturally sensitive nutrition, physical fitness, or health (as it relates to nutrition) information and instruction to participants or participants and caregivers in a group or individual setting overseen by a dietitian or individual of comparable expertise. [Note: this is the only service of the 14 listed services in the SPR where the unit measure (one session) refers to either an individual or group service. In this case, for example, a group of people attending a session on nutrition issues for the elderly would count as one unit of "Nutrition Education".

**The Nutrition Services Incentive Program (NSIP)**
NSIP is the new name for the United States Department of Agriculture (USDA) cash or commodity program, known as the Nutrition Program for the Elderly (NPE). The NPE is administered by the Administration on Aging (AoA), but receives commodity foods and financial support from USDA's Food and Nutrition Service (FNS). The program is funded through an appropriation to USDA and administered by the FNS. For additional information, refer to AoA's website, *Nutrition Frequently Asked Questions*, #36, *What is the Nutrition Services Incentive Program?*

**Registered Dietitian / Diet Technician / Licensed Dietitian**
Registered Dietitians (RDs) are food and nutrition experts who have met the following criteria to earn the RD credential:

- Complete a minimum of a bachelor's degree at a US regionally accredited university or college and course work approved by the Commission on Accreditation for Dietetics Education (CADE) of The American Dietetic Association (ADA).

- Complete a CADE-accredited or -approved supervised practice program at a healthcare facility, community agency, or a foodservice corporation, or combined with undergraduate or graduate studies. Typically, a practice program will run six to twelve months in length.

- Pass a national examination administered by the Commission on Dietetic Registration (CDR).

- Complete continuing professional educational requirements to maintain registration.

Some RDs hold additional certifications in specialized areas of practice, such as pediatric or renal nutrition, nutrition support, and diabetes education. These certifications
are awarded through CDR, the credentialing agency for ADA, and/or other medical and nutrition organizations and are recognized within the profession, but are not required. In addition to RD credentialing, many states have regulatory laws for dietitians and nutrition practitioners. Frequently these state requirements are met through the same education and training required to become an RD. The ADA provides a number of resources concerning State Professional Regulation.

Registered Dietetic Technicians (DTRs) are trained in food and nutrition and are an integral part of health care and foodservice management teams. DTRs have met the following criteria to earn the DTR credential:

- Complete at least a two-year associate's degree at a US regionally accredited college or university.
- Complete a dietetic technician program approved by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association (ADA), including 450 hours of supervised practice experience in various community programs, health care, and food-service facilities.
- Pass a national, written examination administered by the Commission on Dietetic Registration (CDR).
- Complete continuing professional educational requirements to maintain registration.

**Rural**
Any area that is not defined as urban. Urban areas comprise (1) urbanized areas (a central place and its adjacent densely settled territories with a combined minimum population of 50,000) and (2) an incorporated place or a census designated place with 20,000 or more inhabitants.

**Transportation**
Provision of a means of going from one location to another. Does not include any other activity.

**Additional Resources**
Additional resources concerning the Administration on Aging, U.S. Department of Agriculture, Centers for Medicare and Medicaid, and OAA Aging Network Organizations are available at http://www.fiu.edu/~Enutrelr/Aging_Network/aging_network.htm
CONGREGATE NUTRITION SERVICES
Scientific evidence confirms that good nutrition helps older adults remain healthy and independent in their communities. Under the Older Americans Act (OAA), congregate meals help increase the nutrient intake of participants. Hot or other appropriate meals are served five or more days per week, where feasible. These meals are offered in a variety of settings, such as senior centers, community and faith-based facilities, schools, and adult day care facilities. In these settings, participants are given the opportunity to form new friendships and to interact in a social environment. A variety of nutrition services may also be provided, such as nutrition screening, assessment, education and counseling. Supportive services, such as transportation, assisted transportation, shopping assistance, physical activity programs, health screening, health promotion and other services are also often available. These services help participants identify their nutrition needs as well as enhance their health and well-being.

In 1998, the Older Americans Nutrition Program (OANP) served 147.2 million meals at congregate nutrition sites. However, for the last 12 years, both the number of congregate participants and meals served has been steadily declining nationwide (1). The 1995 National Evaluation of the Elderly Nutrition Program found that congregate nutrition services targeted individuals who were at greater health and nutritional risk than the general older adult population. Because congregate sites offer many benefits to participants, it is important for service providers to increase participation, particularly to those at nutritional risk, and to maintain and/or improve the nutritional health of program participants (2). The National Evaluation found that OANP participants were:

- significantly poorer than the general U.S. population,
- primarily women who live alone,
Older Americans Act 2000 Nutrition Requirements

PART C--NUTRITION SERVICE
SUBPART 1--CONGREGATE NUTRITION SERVICES
PROGRAM AUTHORIZED
SECTION 331
The Assistant Secretary shall carry out a program for making grants to States under State plans approved under section 307 for the establishment and operation of nutrition projects...

(1) which, 5 or more days a week (except in a rural area where such frequency is not feasible (as defined by the Assistant Secretary by regulation) and a lesser frequency is approved by the State agency), provide at least one hot or other appropriate meal per day and any additional meals which the recipient of a grant or contract under this subpart may elect to provide;
(2) which shall be provided in congregate settings, including adult day care facilities and multigenerational meal sites; and
(3) which may include nutrition education services and other appropriate nutrition services for older individuals.

Sample SUA Congregate Nutrition Services Standards / Guidelines

From Connecticut

- Provide at least one hot or other appropriate meal in a congregate setting at least once a day, five or more days per week.

- When necessary (in case of illness, injury, etc.) make home delivered meals
available to congregate meal participants.

- Serve a minimum of 98% of all meals to eligible participants and their spouses.

- Develop procedures for responding to emergency situations for all congregate sites and provide ongoing training on emergency procedures to all site managers and other site staff.

- Make nutrition education available to meal site participants at a minimum of once each quarter.

- Nutrition education subjects shall be based on the needs of the participants.
- Nutrition information and visual educational materials shall be available to the participants on a continuing basis.

- Each congregate nutrition site shall be open for at least three hours per mealtime unless a waiver is received from the Area Agency on Aging.

- Each congregate nutrition site shall be neat, clean and have adequate lighting, ventilation, and temperature control.

From New York

- To the maximum extent possible, sites are open at least five days a week in recognition of the greater impact on the nutritional status of participants.

- All sites are open at least one hour before and after the meal to permit all participants to eat a leisurely meal, enjoy social contact, and take advantage of other services at the site.

- To the maximum extent possible there is space available for supportive, educational and/or recreational services and activities.

Improving the Congregate Nutrition Program

There has been a steady decline in both the number of congregate participants and meals served (2). It is important that service providers identify means by which their congregate meal services can be expanded and improved. Ask the Experts Topics: Addressing the Image of Older Americans Congregate Nutrition Programs, Increasing Participation at Older Americans Act Title III Funded Congregate Meal Sites, and Res-
taurant-based Congregate Nutrition Sites and Restaurant Voucher Programs offer
guidance and suggestions, some of which are included below.
SUAs should have policies and procedures in place to help nutrition providers en-
hance their programs. The following are some examples to consider:

- Increase flexibility, provide food choices and culturally proficient services.
- Have programs at different times during the day, such as breakfast or dinner.
- Provide a variety of activities, transportation to sites, and linkages to other
  nutrition and social services.
- Expand outreach activities and improve marketing.
- Use a restaurant as an alternative site to provide ethnic meals or food
  choices.
- Provide vouchers for individuals to redeem at participating restaurants, cafe-
  terias (hospital or school lunchroom), grocery stores, food courts, etc.

The National Policy and Resource Center on Nutrition and Aging conducted a survey
of nutrition providers, the Nutrition 2030 Grassroots Survey. Providing outreach and
improved marketing were the top-ranked items in the congregate section.

HOME DELIVERED NUTRITION SERVICES

As with congregate meals, home-delivered meals (HDM) (sometimes called meals on
wheels) help increase the nutrient intake of older adults at nutrition risk. HDM partici-
pants tend to have more health problems than congregate participants. The HDM ser-
vice is associated with decreased hospital stays and allows participants to remain in
their homes. The OAA allows much flexibility in the type of HDMs provided to older
adults. Such meals may be delivered hot, cold, frozen, dried, canned or as supple-
mental foods. In addition, breakfast, lunch or dinner, or a combination of 2 or 3 meals,
may be provided 5 days per week, but can also be provided on weekends.
A case manager often plays an integral role in the cross-referral and coordination of
service delivery of home and community-based care services (HCBC). Since older
adults are being discharged earlier from hospitals and nursing homes, many require a
care plan that includes HDMs and other nutrition services, ie, nutrition screening, as-
seessment, education, and counseling. Many states enroll Medicaid beneficiaries in
Health Maintenance Organizations, use Medicaid HCBC waivers, and create state-
funded programs to provide necessary HCBC medical, social, and supportive services.
including HDMs and nutrition education and counseling services (4).
In contrast to congregate meals, the number of HDMs has been steadily increasing each year. In FY 1988 there were 94.7 million HDMs served compared to 130 million in FY 1998, a 27.2% increase (1). The demand for HDMs will continue to increase due to health care cost containment and rapid hospital discharge. States need to evaluate funding sources to maximize the availability of HDMs as well as expand and enhance their nutrition services in response to the diverse and burgeoning number of older Americans.

**Older Americans Act 2000 Nutrition Requirements**

**SUBPART 2--HOME DELIVERED NUTRITION SERVICES**
**PROGRAM AUTHORIZED**
**SECTION 336**
The Assistant Secretary shall carry out a program for making grants to states under State plans approved under section 307 for the establishment and operation of nutrition projects for older individuals which, 5 or more days a week (except in a rural area where such frequency is not feasible (as defined by the Assistant Secretary by regulation) and a lesser frequency is approved by the State agency), provide at least one home delivered hot, cold, frozen, dried, canned, or supplemental foods (with a satisfactory storage life) meal per day and any additional meals which the recipient of a grant or contract under this subpart may elect to provide.

**Sample SUA Home Delivered Nutrition Services Standards / Guidelines**

From Connecticut

- **Provide a nutritious home delivered meal at least once a day, 5 days a week.** Meals may be hot, cold, frozen, dried, or canned foods with a satisfactory storage life.

- **With the consent of the older person, or his/her representative, bring to the attention of appropriate officials for follow up conditions or circumstances which place the older person or the household in imminent danger.**

- **Make arrangement for the availability of meals to older persons in weather related emergencies.**

From Oklahoma

- **The Home Delivered Meals may be hot, cold, frozen, dried or canned with a**
satisfactory storage life, and must conform to procurement standards.

- The Home Delivered Meals service may include the delivery of more than 1 meal for each day’s consumption provided that proper storage and heating facilities are available in the recipient’s home.

The Nutrition 2030 Grassroots Survey found that increasing and maintaining volunteers and performing needs assessments were the top-ranked issues in the HDM section. The difficult challenge of deciding who has priority as a potential meal recipient when resources are limited is indicated by the emphasis on needs assessment as the second ranked item. There were differences by funding source for increasing and maintaining volunteers with privately-funded respondents giving that a higher ranking than did public or public/private, indicating that volunteers play even more important roles in privately-funded organizations.

**MEAL SERVICE OPTIONS**

### Multiple Meals

It is common to provide a combination of two or three meals including breakfast, lunch and/or dinner, to participants receiving HDMs. Multiple meal packages are typically delivered with the noon meal. Breakfast, a popular meal with older adults, contributes to their health and well being by increasing intakes of critical nutrient dense food groups associated with positive health outcomes: cereals and grains, complex carbohydrates, fruits, fiber, milk, and milk products (5). Written eligibility requirements can help determine a participant's need to receive one or more meals. A best practice is to conduct periodic reassessments to determine the continued need for HDMs and the number of meals per day. Congregate nutrition programs may also serve breakfast and/or dinner in addition to or instead of lunch. Such services reflect the needs of a particular community or group and may only be provided on a limited basis during the week or month (e.g., 1 day per week or month).

### Weekend Meals

Many homebound participants have functional impairments that make it difficult for them to shop and prepare meals. A number of nutrition programs offer weekend meals to frail, homebound participants receiving home-delivered meals. Weekend meals help contribute to a nutritionally adequate diet for these individuals and provides respite for family and friends. Written eligibility requirements, as noted above, would assist in determining a participant's need to receive weekend meals. Congre-
Frozen Meals

Frozen meals are often used in areas where daily delivery is limited, for weekend meal services, or to enable home delivered meal programs to offer more menu choices. The participant's kitchen (having appropriate appliances to store and reheat meals) and functional ability (can handle and/or heat meals) must be carefully considered when providing frozen meals. Frozen meals may also be used at congregate sites in rural areas where participation is small and other food service options are not feasible. Such meals would be heated and served at the site.

Shelf-stable / Emergency Meals

Emergency meals are generally shelf-stable ready to eat food products. Meal packages are generally provided to participants determined to need such food products if the program is unable to deliver meals due to weather or other problems. A best practice is to instruct participants on when and how they should use their emergency meal packages or to provide written suggestions for preparing their own emergency food stores. Program emergency preparedness is covered in Chapter X.

Sample SUA Emergency Meal Standards / Guidelines

From Massachusetts

All Nutrition Projects must offer all home delivered meals clients, at the time of assessment, a shelf stable emergency meal package, available for use during inclement weather or other emergency situations, when the Project is unable to deliver meals.

- The case manager may identify current clients who may require an emergency meals package.
- Congregate meals participants should be advised to keep an emergency foods shelf at home in case of inclement weather.
- The emergency meal package for home delivered meals participants shall be delivered to clients by November 1 of each year.
- The package should consist of two to three days of shelf stable foods and shall be replenished by the Nutrition Project.
- It is recommended that the emergency meal package contain one-third RDA; the package should, as much as possible, match the regular menu pattern.
- The no added salt policy is waived for these meals, however, low sodium items are encouraged.
- Persons requiring unsweetened foods must be provided with appropriate items.

NUTRITION SERVICES INCENTIVE PROGRAM AND COMMODITIES

Nutrition Services Incentive Program is the new name for the U.S. Department of Agriculture (USDA) cash allotment or commodity program. The OAA authorizes the USDA to provide state agencies with either a cash allotment or commodities to encourage the effective and efficient delivery of meals funded through Titles III and VI of the OAA. States have latitude regarding whether they offer one or both of these options to nutrition projects. Although very few area agencies or nutrition projects use the additional option to use commodities, this is part of the program. Most SUAs do not use the commodity option and only a cash allotment is available. About 98.5% of the USDA funding is distributed as cash; 11 states use commodities. Examples of commodities are frozen or chilled beef or poultry, cheese, pasta, rice, canned or frozen vegetables, flour, vegetable oil, and butter.

Nutrition projects equipped to handle commodities may find them more cost effective than cash in lieu of commodities. Furthermore, additional commodities are available for state or area agencies on aging that take at least 20% of their program benefits as commodities.

States need written policies and procedures for use of cash and commodities, as well as reporting the number of meals served. Accepting USDA assistance is a necessary component of maintaining solvency of the OANP.

Older Americans Act 2000 Nutrition Requirements

SECTION 311 NUTRITION SERVICES INCENTIVE PROGRAM

(a) The purpose of this section is to provide incentives to encourage and reward effective performance by States and tribal organizations in the efficient delivery of nutritious meals to older individuals.

(b)(1) The Secretary of Agriculture shall allot and provide in the form of cash or commodities or a combination thereof (at the discretion of the State) to each State agency with a plan approved under this title for a fiscal year, and to each grantee with an application approved under the title VI for such fiscal year, an amount bearing the same ration to the total amount appropriated for such fiscal year under subsection (e) as the
number of meals served in the State under such plan approved for the preceding fiscal year (or the number of meals served by the title VI grantee, under such application approved for the preceding fiscal year), bears to the total number of such meals served in all States by all title VI grantees under all such plans and applications approved for such preceding fiscal year.

(2) For purposes of paragraph (1), in the case of a grantee that has an application approved under title VI for a fiscal year but that did not receive assistance under this section for the preceding fiscal year, the number of meals served by the title VI grantee for the preceding fiscal year shall be deemed to equal the number of meals that the Assistant Secretary estimates will be served by the title VI grantee in the fiscal year for which the application was approved.

(c)(1) Agriculture commodities and products purchased by the Secretary of Agriculture under section 32 of the Act of August 24, 1935 (7 U.S.C. 612c), shall be donated to a recipient of a grant or contract to be used for providing nutrition services in accordance with the provisions of this title.

(2) The Commodities Credit Corporation shall dispose of food commodities under section 416 of the Agricultural Act of 1949 (7 U.S.C. 1431) by donating them to a recipient of a grant or contract to be used for providing nutrition services in accordance with the provisions of this title.

(3) Dairy products purchased by the Secretary of Agriculture under section 709 of the Food and Agriculture Act of 1965 (7 U.S.C. 1446a091) shall be used to meet the requirements of programs providing nutrition services in accordance with the provisions of this title.

(d)(1) In any case in which a State elects to receive cash payments, the Secretary of Agriculture shall make cash payments to such State in an amount equivalent in value to the donated foods which the State otherwise would have received if such State had retained its commodity distribution.

(2) When such payments are made, the State agency shall promptly and equitably disburse any cash it receives in lieu of commodities to recipients of grants or contracts. Such disbursements shall only be used by such recipients of grants or contracts to purchase United States agricultural commodities and other foods for their nutritional projects.

(3) Nothing in this subsection shall be construed to authorize the Secretary of Agriculture to require any State to elect to receive cash payments under this subsection.

(4) Among the commodities delivered under subsection (c), the Secretary of Agriculture shall give special emphasis to high protein foods. The Secretary of Agriculture, in consultation with the Assistant Secretary, is authorized to prescribe the terms and conditions respecting the donating of commodities under this subsection.
(e) There are authorized to be appropriated to carry out this section (other than sub-
section (c)(1)) such sums as may be necessary for fiscal year 2001 and such sums as
may be necessary for each of the 4 succeeding fiscal years.'

(f) In each fiscal year, the Secretary of Agriculture and the Secretary of Health and
Human Services shall jointly disseminate to State agencies, area agencies on aging,
and providers of nutrition services assisted under this title, information concerning-
(1) the existence of any Federal commodity processing program in which such State
agencies, area agencies on aging, and providers may be eligible to participate; and
(2) the procedures to be followed to participate in the program.

Sample SUA Nutrition Services Incentive Program Standards / Guidelines

NOTE: Because these SUA policies were collected prior to the 2000 reauthorization
of the OAA, authorizing Nutrition Services Incentive Program (NSIP) SUAs are revis-
ing policies to accommodate NSIP changes.

From Colorado

- Nutrition providers shall accept and use all commodities, including bonus com-
  modities, made available by the state agency and funded by the USDA.

- Nutrition projects shall store commodities as prescribed in the "Donated Food
  Standard Agreement".

- The nutrition project shall accept only the quantity and type of food stated on the
  invoice. If the quantity is less than shown on the invoice, the nutrition project
  shall note this on the invoice, and request the deliverer to initial.

- Nutrition projects shall report any irregularities in the commodity shipping in-
  voices to Food Assistance.

- Area agencies shall promptly and equitably disburse all USDA cash in lieu of
  commodities payments to nutrition providers that are funded with OAA funds.
  The distribution of such funds to the nutrition service provider(s) shall be in pro-
  portion to the number of meals served by each provider.

- Area agencies shall ensure that payments received by nutrition providers are
  used solely for the purchase of United States agriculture commodities and other
  foods produced in the United States; or Meals furnished under contractual ar-
  rangements with food service management companies, caterers, restaurants, or
institutions, provided that each meal contains United States produced commodities or foods at least equal in value to the per-meal cash payment which the nutrition service providers have received.

From Montana

- The nutrition provider shall ensure that adequate inventory records are maintained on commodities received. The inventory must show commodities received, used and on-hand.

From Massachusetts

- The provider shall receive, handle, store and utilize USDA commodities made available for Title III-C, in accordance with State Policy and Procedure for Distribution and Control of Commodity Foods. The provider agrees to comply with these regulations around the proper use, storage, loss or damage of commodities and recording/accounting procedures involved. The provider will be responsible to the Nutrition Project and the State Distributing Agency in the outlined areas of responsibility.

- The provider recognizes the following responsibilities to be its own:
  
  - The provider will make use of available USDA commodity foods made available by the Nutrition Project. The provider shall submit monthly credit vouchers for commodity foods received. The provider must use a minimum of $0.13 per meal for commodities for the month.
  
  - To confer with the Nutrition Program manager and nutritionist in the ordering of commodities in accordance with an accepted utilization rate and to work with the nutritionist in designing menus to incorporate the available commodities.
  
  - The provider shall properly store and mark for easy identification all commodity foods.
  
  - To sign for receipt of shipment of commodities and notify the Nutrition Project of such in writing.
  
  - The commodities to be credited will be the total value of the commodities received. Credit will be made on the month that the commodities are received.
A number of nutrition projects may also participate in the USDA Commodity Supplemental Food Program (CSFP). This program works to improve the health of low-income pregnant and breastfeeding women, infants, children up to age six, and people at least 60 years of age, by supplementing their diets with nutritious USDA commodity foods. It provides food and administrative funds to States to supplement the diets of these groups.

Additional Resources

**Research/Reports and Resources concerning OAA Meal Services are available on the Center’s website at:** [http://www.fiu.edu/~nutreldr/SubjectList/O/Older_American_Act_Nutrition_Programs.htm](http://www.fiu.edu/~nutreldr/SubjectList/O/Older_American_Act_Nutrition_Programs.htm)

**OAA Aging Services Network Programs and Organizations**

**References**


INTRODUCTION

Planning nutritious, appetizing, economical meals is a complex, multifaceted task. Menu planning plays a critical role in the delivery of quality services in Older Americans Nutrition Programs (OANPs). There are many factors to take into consideration in developing menus. The elements of menu planning noted below include suggested Best Practices.

BACKGROUND

Nutritional Needs of Older Adults

Scientific evidence increasingly supports the positive role nutrition plays in good health, self-sufficiency, and quality of life of older adults. Many older adults undergo changes in their lives (e.g., physiological, social, family, environmental, economic), which may affect their dietary intake. Nutrition-related risk factors include hunger, food security, poverty, inadequate food and nutrient intake, social isolation, depression, dementia, dependency, functional disability, chewing and swallowing difficulties, presence of diet-related acute or chronic diseases or conditions, polypharmacy, minority status, urban and rural geographic areas, advanced age, and living alone. If ignored, these risk factors could weaken nutritional status, increase medical complications, and result in loss of independence (1,2).

Malnutrition and dehydration are associated with delayed healing, altered immune response and increased risk of infections, increased severity of coexisting diseases, altered drug metabolism, decreased muscle strength, and behavioral symptoms such as confusion, apathy, depression, and memory loss. For the homebound, lack of transportation, weak family and social networks, physical barriers, and inadequate funds for food also contribute to inadequate nutrition (3).
Physiologic function gradually declines with age and may result in decreased taste, smell, and appetite. In addition, polypharmacy, functional impairment, and multiple medical and social problems all place older persons at higher risk than the general population. Malnutrition leads to increased difficulty with activities of daily living and decreased quality of life (4).

The need for and the success of the OANPs is based on the scientific evidence that indicates that adequate nutrition is necessary to maintain cognitive and physical functioning, to prevent, reduce, and manage chronic disease and disease-related disabilities, and to sustain health and a good quality of life (5,6). Millions of older adults lack access to adequate amounts and quality of food necessary to sustain health and decrease the risk of disability. The provision of meals helps older adults maintain their health (7) as well as minimize their out-of-pocket food expenses so they can purchase other necessities such as medications, utilities, and shelter. The OANP provides an opportunity to implement interventions to address obesity, multiple chronic diseases such as diabetes, heart disease, stroke, hypertension, osteoporosis, osteoarthritis, cancer, and hypercholesterolemia through healthy meals, nutrition education and counseling and linkages to physical activity and wellness programs.

**National Evaluation of Nutrition Program Meals**

The *National Evaluation of the Older Americans Nutrition Program 1993-95* (8) found that the average OANP meal provided more than 50% of the 1989 Recommended Dietary Allowances (RDAs) for many nutrients based on adult male values. The *National Evaluation* concluded that both congregate and home-delivered meals contributed significantly to participants' daily nutrient intake, and therefore, their nutritional status. When comparing the nutrient content of OANP meals at the time of the *National Evaluation* to newer Dietary Reference Intakes (DRIs) (including RDA and other values described below), the meals would have been deficient in vitamins D, E, folate, and magnesium.
Other nutrients met or exceeded the newer DRI/RDA values. See Table 2 Nutrient Availability of an Older Americans Nutrition Program Meal Relative to the Dietary Reference Intakes and Recommended Dietary Allowances compiled by the National Policy and Resource Center on Nutrition and Aging (Center).

The use of the newer DRI/RDA values to plan and evaluate OANP meals was addressed by an Issue Panel convened by the Center in February 2002 (reviewed later in this chapter). Recommendations from this and future Issue Panels will continue to shape OANP practice and guidelines.

NUTRITION RECOMMENDATIONS

Federal Nutrition Policy

Congress reauthorized the Older Americans Act (OAA) in 2000 for 5 years. OAA Section 339 requires that nutrition projects meet the Dietary Guidelines for Americans (9), published by the Secretaries of Health and Human Services and Agriculture and the RDAs (which are now included in the DRIs) established by the Food and Nutrition Board, Institute of Medicine of the National Academy of Sciences. The National Nutrition Monitoring and Related Research Act of 1990 (Public Law 101-445) requires that the Secretaries of Health and Human Services and Agriculture contract with a scientific body, such as the National Academy of Sciences, to publish reports on nutrient requirements and status of the United States on a 2 to 5 year basis and to develop Dietary Guidelines every 5 years. The Act requires that all federal food, nutrition, and health programs promote the Dietary Guidelines. Thus, the most recent versions of the DRIs and Dietary Guidelines serve as the cornerstone for federal nutrition policy.

Dietary Reference Intakes

The new DRIs (10-15) provide values for men and women aged 51-70 and over 70 years. The DRI values include an RDA or an Adequate Intake for nutrients with no established RDA, and a Tolerable Upper Intake Level. Refer to Table 1 Dietary Reference Intakes for Older Adults compiled by the Center for current nutrient values established by the Food and Nutrition Board.

The RDA is the average daily dietary intake level that is sufficient to meet the nutrient requirement for nearly all (97-98%) healthy individuals of a specified age range and gender.

The Adequate Intake (AI) is the daily dietary intake level of healthy people assumed to be adequate when there is insufficient evidence to set an RDA. It is based on observed mean nutrient intakes and experimental data. The National Academy of Sciences recommends that the Adequate Intake be used if an RDA is not available.
The Tolerable Upper Intake Level (UL) is the highest daily dietary intake that is likely to pose no risk of adverse health effects to almost all individuals of a specific age range.

The Estimated Energy Requirement (EER) is defined as the dietary energy intake that is predicted (with variance) to maintain energy balance in a healthy adult of defined age, gender, weight, height and level of activity, consistent with good health.

An Acceptable Macronutrient Distribution Range (AMDR) is defined as a range of intakes for a particular energy source (i.e., carbohydrates, proteins, fats) that is associated with reduced risk of chronic disease while providing adequate intakes of essential nutrients. The AMDR is expressed as a percentage of total energy intake because its requirement is not independent of other energy fuel sources or of the total energy requirement of the individual.

The newer DRIs include RDAs for older adults that are higher than the 1989 RDAs for vitamins B-12, C, D, E, K, folate, calcium, and magnesium. The DRIs provide equations to calculate an individual's energy requirements based on activity level (the EER). To meet the body's daily nutritional needs while minimizing risk for chronic disease, an AMDR was established for carbohydrate to be 45-65% of total calories, for fat, 20-35% of total calories, and for protein, 10-35% of total calories. The DRIs also suggests that no more than 25% of total calories come from added sugars (those incorporated into foods and beverages during production and processing). The DRIs now emphasize the importance of physical activity and recommends that adults strive for an "active" lifestyle that is equivalent to 60 minutes of moderately intense physical activity throughout each day (15).

**Dietary Guidelines for Americans**

The 2000 Dietary Guidelines for Americans (5th ed.) are the most current guidelines to be followed when planning and serving OANP meals. These guidelines are incorporated in the selection of foods and serving sizes for meals as well as the basis for nutrition guidance for individuals and groups. The 3 main themes are:

1. **Aim for Fitness**

Aim for a healthy weight. Choose a lifestyle that combines sensible eating with regular physical activity. To be at their best, adults need to avoid gaining weight, and many need to lose weight. Being overweight or obese increases your risk for high blood pressure, high blood cholesterol, heart disease, stroke, diabetes, certain types of cancer, arthritis, and breathing problems. A healthy weight is key to a long, healthy life.

Be physically active each day (a new recommendation). Being physically active and maintaining a healthy weight are both needed for good health, but they benefit health in different ways. Children, teens, adults, and the elderly—all can improve their health...
and well-being and have fun by including moderate amounts of physical activity in their daily lives.

2. Build a Healthy Base
Let the pyramid guide your choices. Different foods contain different nutrients and other healthful substances. No single food can supply all the nutrients in the amounts you need. For example, oranges provide vitamin C and folate but no vitamin B12; cheese provides calcium and vitamin B12; but no vitamin C. Choose the recommended number of daily servings from each of the five major food groups. If you avoid all foods from any of the five food groups, seek guidance to help ensure that you get all the nutrients you need.

Choose a variety of grains, especially whole grains. They provide vitamins, minerals, carbohydrates (starch and dietary fiber), and other substances that are important for good health. Whole grains differ from refined grains in the amount of fiber and nutrients they provide, and different whole grain foods differ in nutrient content, so choose a variety of whole and enriched grains. Eating plenty of whole grains may help protect you against many chronic diseases.

Choose a variety of fruits and vegetables daily. Eating plenty of fruits and vegetables of different kinds may help protect you against many chronic diseases. It also promotes healthy bowel function. Fruits and vegetables provide essential vitamins and minerals, fiber, and other substances that are important for good health. To promote your health, eat a variety of fruits and vegetables—at least 2 servings of fruits and 3 servings of vegetables—each day.

Keep food safe to eat (a new recommendation). Foods that are safe from harmful bacteria, viruses, parasites, and chemical contaminants are vital for healthful eating. Safe means that the food poses little risk of foodborne illness. Farmers, food producers, markets, food service establishments, and other food preparers have a role to keep food as safe as possible. However, we also need to keep and prepare foods safely in the home, and be alert when eating out.

3. Choose Sensibly

Choose a diet that is low in saturated fat and cholesterol and moderate in total fat. Fats supply energy and essential fatty acids, and they help absorb the fat-soluble vitamins A, D, E, and K, and carotenoids. Some kinds of fat, especially saturated fats, increase the risk for coronary heart disease by raising the blood cholesterol. In contrast, unsaturated fats (found mainly in vegetable oils) do not increase blood cholesterol. Eating lots of fat of any type can provide excess calories.

Choose beverages and foods to moderate your intake of sugars. Sugars are carbohydrates and a source of energy (calories). Dietary carbohydrates also include the complex carbohydrates starch and dietary fiber. Sugars and starches occur naturally in
many foods that also supply other nutrients. Choose and prepare foods with less salt. Many people can reduce their chances of developing high blood pressure by consuming less salt. Many studies in diverse populations have shown that a high sodium intake is associated with higher blood pressure. At present, the firmest link between salt intake and health relates to blood pressure. High salt intake also increases the amount of calcium excreted in the urine. Eating less salt may decrease the loss of calcium from bone. Loss of too much calcium from bone increases the risk of osteoporosis and bone fractures.

If you drink alcoholic beverages, do so in moderation. Alcoholic beverages supply calories but few nutrients. Current evidence suggests that moderate drinking is associated with a lower risk for coronary heart disease in some individuals. However, higher levels of alcohol intake raise the risk for high blood pressure, stroke, heart disease, certain cancers, accidents, violence, suicides, birth defects, and overall mortality (deaths). Older adults have a decreased ability to metabolize alcohol due to physiological changes and as a result may be at greater risk of adverse consequences.

**Older Americans Act 2000 Nutrition Requirements**

SECTION 339 Nutrition
A State that establishes and operates a nutrition project under this chapter shall
(1) solicit the advise of a dietitian or individual with comparable expertise in the planning of nutritional services, and
(2) ensure that the project --
(A) provides meals that --
(i) comply with the Dietary Guidelines for Americans, published by the Secretary and the Secretary of Agriculture,
(ii) provide to each participating older individual
(I) a minimum of 33 1/3 percent of the daily recommended dietary allowances as established by the Food and Nutrition Board of the Institute of Medicine of the National Academy of Sciences, if the project provides one (1) meal per day,
(II) a minimum of 66 2/3 percent of the allowances if the project provides two (2) meals per day, and
(III) 100 percent of the allowances if the project provides three (3) meals per day, and
(iii) to the maximum extent practicable, are adjusted to meet any special dietary needs of program participants.
(B) provides flexibility to local nutrition projects in designing meals that are appealing to program participants, …
The Center convened an Issue Panel: Dietary Reference Intakes and Dietary Guidelines in OANPs in February 2002. Panelists included nutrition and aging-related researchers, individuals involved in policy development, persons working at the federal, state, and local program level, and representatives from food industries. The *Issue Panel Report* includes a summary, backgrounder and working documents, and a directory of Issue Panelists (16).

The Issue Panel focused on the rationale for and the use of the most recent DRIs and *Dietary Guidelines* in the provision of OAA nutrition services, including nutrition education, nutrition counseling, and congregate and home-delivered meals. The *Issue Panel Report* was provided to the US Administration on Aging for consideration. These recommendations will assist in the development of guidance and technical assistance related to implementation of the DRIs and *Dietary Guidelines* in the OANP. State Units on Aging (SUAs), Area Agencies on Aging (AAAs), local service providers, and Title VI grantees can use these recommendations in the development of guidance and assistance for implementation. Recommendations from the report are included in applicable sections of the *Older Americans Nutrition Program Toolkit*.

The OAA states that a project shall provide a meal that complies with the *Dietary Guidelines* and a stated percentage of the RDAs which varies with the number of meals served to a participant. Because it is the responsibility of the SUA to implement the OAA, SUAs have incorporated these standards into their policies and procedures.

**Issue Panel Recommendations for Meeting Nutrition Requirements**

1. OANP meals should meet the current RDAs and AIs, and the 2000 Dietary Guidelines for Americans, as these reflect the most recent scientific evidence and provide the best-known guidance for meeting the nutrition needs of older adults in America.

2. OANPs should strive to ensure that each meal is reasonably well-balanced nutritionally and reflects the 2000 Dietary Guidelines since the meals provide a positive nutrition education model for participants. To best serve the nutrition and educational needs of participants, OANPs that serve 1 meal per day should ensure that each meal offers at least 33 1/3% of the RDAs/Adequate Intakes. OANPs that serve two meals per day should ensure that the sum of the two meals offers at least 66 2/3% of the RDAs/Adequate Intakes (but each meal itself does not have to be 33 1/3%) and those serving three meals per day should ensure that the sum of these three meals offers
100% of the RDAs/Adequate Intakes.

3. In addition to providing meals that meet the 2000 Dietary Guidelines and 1/3 of the RDAs/Adequate Intakes, OANPs should emphasize foods high in fiber, calcium, and protein. To the extent possible, programs should continue to target vitamins A and C, with vitamin A provided from vegetable-derived (carotenoid) sources. However, targeting specific nutrients such as those mentioned in this recommendation should not be misinterpreted as permission to ignore other nutrients. More specific recommendations regarding targeting nutrients should be addressed at a future Issue Panel.

4. OANPs should plan and evaluate meals for meeting the 2000 Dietary Guidelines and 1/3 RDA/Adequate Intake standards by computer-assisted analysis. Furthermore, Registered Dietitians (or individuals with comparable expertise) should be available at the SUA, AAA, and local provider level to assure nutrient adequacy of meals. If a meal pattern is used, it should be based on the food servings delineated in the Food Guide Pyramid that combined would meet 1/3 the RDAs/Adequate Intakes and the 2000 Dietary Guidelines, be tested for meeting standards, and include increased servings of fruits, vegetables, and whole grains.

5. Assuming culturally appropriate meals, OANPs should accommodate specific dietary needs to the extent possible. To better serve defined groups and individuals who require customization or therapeutic diets, OANPs would benefit from the availability of Registered Dietitians (or individuals with comparable expertise) -- who could also conduct needs assessments of the populations their programs serve.

Nutrient Values for Meal Planning and Evaluation

The table below presents the most current DRIs and other nutrient values to use when planning and evaluating meals. Values are provided for serving 1, or a combination of 2 or 3 meals for 1 day's consumption for the average older adult population served by the OANP. The nutrients selected include those recommended for emphasis by the Issue Panel and those found in a number of studies to be deficient or of concern in the diets of older adults. (See "Enhancing the Nutritional Quality of the Meal" section of this chapter). Refer to Table 1 Dietary Reference Intakes for Older Adults compiled by the Center for all DRI values and footnotes.
<table>
<thead>
<tr>
<th>Nutrient Values for Meal Planning and Evaluation</th>
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<td></td>
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<tr>
<td><strong>Macronutrients</strong></td>
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<tr>
<td>Kilocalories (Kcal) (1)</td>
</tr>
<tr>
<td>Protein (gm) (2,3)</td>
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<td>[20% of total Kcal (gm)] (4)</td>
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<tr>
<td>Carbohydrate (gm) (5)</td>
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<td>[50% of total Kcal (gm)] (4)</td>
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<tr>
<td>Fat (gm)</td>
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<td>[30% of total Kcal (gm)] (6)</td>
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<tr>
<td>Saturated Fat (&lt;10% of total Kcal) (7)</td>
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<tr>
<td>Cholesterol (&lt;300 gm/day) (7)</td>
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<tr>
<td>Dietary Fiber (gm) (3)</td>
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<tr>
<td><strong>Vitamins</strong></td>
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<tr>
<td>Vitamin A** (ug) (3)</td>
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<td>Vitamin C (mg) (3)</td>
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<td>Vitamin D (ug) (3)</td>
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<td>Vitamin E (mg)</td>
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<tr>
<td>Thiamin (mg) (3)</td>
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<tr>
<td>Riboflavin (mg) (3)</td>
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<tr>
<td>Vitamin B6 (mg) (3)</td>
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<tr>
<td>Folate (ug)</td>
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<tr>
<td>Vitamin B12 (ug)</td>
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<td>------------------</td>
</tr>
<tr>
<td><strong>Minerals</strong></td>
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<tr>
<td>Calcium (mg)</td>
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<tr>
<td>Copper (ug)</td>
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<tr>
<td>Iron (mg)</td>
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<tr>
<td>Magnesium (mg) (3)</td>
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<td>Zinc (mg) (3)</td>
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<tr>
<td><strong>Electrolytes</strong></td>
</tr>
<tr>
<td>Potassium (mg) (9)</td>
</tr>
<tr>
<td>Sodium (mg) (7)</td>
</tr>
</tbody>
</table>

* RDAs are in **bold type** and Adequate Intakes (AIs) are in ordinary type followed by an asterisk (*).
**Vitamin A should be provided from vegetable-derived (carotenoid) sources. See Issue Panel Report on Dietary Reference Intakes and Dietary Guidelines in Older Americans Act Nutrition Programs.**

1. Value for 75 year old male, height of 5'7", "low active" physical activity level (PAL). Using Table 5-22 Estimated Energy Requirements (EER) for Men and Women 30 Years of Age, calculated the median BMI and calorie level for men and subtracted 10 kcal/day (from 2504 kcal) for each year of age above 30.
2. The RDA for protein equilibrium in adults is a minimum of 0.8g protein/kg body weight for reference body weight.
3. Used highest DRI value for ages 51+ and male and female.
4. Acceptable Macronutrient Distribution Ranges (AMDRs) for intakes of carbohydrates, proteins, and fats are expressed as percent of total calories. The AMDR for protein is 10-35%, carbohydrate is 45-65%, total fat is 20-35%.
5. The RDA for carbohydrate is the minimum adequate to maintain brain function in adults.
6. Because the percent of energy that is consumed as fat can vary greatly while still meeting daily energy needs, an AMDR is provided in the absence of an AI, EAR, or RDA for adults.
7. Recommendations from the *Dietary Guidelines for Americans 2000.*
8. *Saturated fats, trans fatty acids, and dietary cholesterol have no known beneficial role in preventing chronic disease and are not required at any level in the diet. The recommendation is to keep intake as low as possible while consuming a nutritionally...*
adequate diet, as many of the foods containing these fats also provide valuable nutrients. Institute of Medicine, Food and Nutrition Board. Dietary Reference Intakes for Energy, Carbohydrates, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington, DC: National Academy Press; 2002.


Issue Panelists generally agreed that there might be circumstances when it is not always necessary for a single meal to meet the 1/3 requirement for every nutrient for which an RDA or Adequate Intake has been established. The idea of averaging nutrients over a longer period of time, such as a few days, or week was discussed. However, averaging was rejected overall by Panelists for periods longer than 1 day for the following reasons:

- The OANP meal can provide a good example of healthy food choices and balanced eating for participants, as well as demonstrate to federal policy makers the best that the OANPs offer;

- The availability of water-soluble nutrients, such as vitamin C, in foods may be reduced over long cooking or transporting times. Thus, participants may not be consuming the level of these nutrients that is planned; and

- The needs of congregate and home-delivered meal participants may not be equally met. Individuals who receive home-delivered meals five days per week may have better nutrient intakes over time than congregate participants that do not receive meals daily. Data indicate that only 60% of congregate participants attend a dining center 5 days a week. It is possible that participants might come on days when the meal contains less than requirements (16).

The Center plans to hold another Issue Panel (2003) regarding implementation of the DRIs. It is expected that the Panel will develop more specificity for energy (calories), the percentage of carbohydrate, protein, and fat to total calories, and key nutrients that should be included in computer-assisted menu analyses. The Issue Panel recommendations will be included in future modifications of the above table and other sections of this chapter.
MENU PLANNING

Menu Planning Process

In order to ensure nutrient quality for the health of older Americans and to comply with the requirements of the OAA, SUAs establish written standards and guidelines detailing the specific requirements for menu planning and approval. Planning menus that includes input from participants is a best practice. Information may be obtained through focus groups, advisory councils, suggestion boxes, or surveys. Suggestions may also come from food production staff, site managers, home-delivered meal drivers, and food purveyors. SUAs, AAAs, and local providers should rely on professionals, preferably registered dietitians or nutritionists, to assist in the development, implementation, and approval of menus for OANPs. (Chapter 2 provides a description of a registered dietitian). Ideally, the menu will reflect local food preferences, provide variety in shape, color, temperature, texture, and flavor, consider food availability (foods in season), and costs. Well planned menus improve meal quality and increase client satisfaction (17).

The Issue Panel recommended that OANPs plan and evaluate meals for meeting nutritional requirements using computer-assisted nutrient analysis and that Registered Dietitians (or individuals with comparable expertise) be available at the state, area, and local provider levels to assure nutrient adequacy of meals (16).

Nutrient Analysis Software

A variety of nutrient analysis and meal production software products are available and used by SUAs, AAAs, and providers. Some simply provide analysis of foods, recipes, and menus. Others offer food production, inventory, and costing capabilities. The National Policy and Resource Center on Nutrition and Aging surveyed SUAs (12/02) concerning their use and requirements to use nutrient analysis software. (Click here for complete survey). Below is a summary of some of the responses. Additional responses are included in the "Menu Review and Approval" section of this chapter.

State Unit on Aging Respondents (N = 33)

- 10 SUAs use computer software to analyze the nutrient content of meals. These include Food Processor (6 SUAs), Nutritionist Pro (2 SUAs), FoodWorks (1), Compu-trition (1), and Nutritionist V (1).

- Factors influencing the selection of Food Processor software were cost, ease of use, ability to add to the data base, completeness of the database, and technical support. Nutritionist Pro and Foodworks were selected for similar reasons. Nutritionist V
was selected because it provided quantity recipes. Compurition was used by a large vendor to do forecasting, inventory control, etc.

- 6 SUAs recommended a particular brand of nutrient analysis software for AAA and provider use: Food Processor (4 SUAs), NutritionistPro (1), and Nutritionist IV or more (1). Several SUAs indicated they provide no specific recommendations.

- SUAs identified nutrient analysis software commonly used by AAAs and providers: Food Processor (9 SUAs), Nutritionist IV or V (5), Nutritionist Pro (4), Compurition (4), and Master cook (2).

The following list of nutrition software products was compiled by the Center:

- CALCMENU [www.calcmenu.com/](http://www.calcmenu.com/)
- Compurition [www.computrition.com/](http://www.computrition.com/)
- Dave Johnson Nutrition [www.djsoft.com/](http://www.djsoft.com/)
- DietAid [www.shannonsoft.com/](http://www.shannonsoft.com/)
- DietMaster [www.lifestyletech.com/](http://www.lifestyletech.com/)
- Dine Healthy [www.dinesystems.com/](http://www.dinesystems.com/)
- Food Processor, Esha Research [www.esha.com](http://www.esha.com)
- Food Smart [www.food-smart.com/](http://www.food-smart.com/)
- FoodWorks, Nutrition Company [www.nutritionco.com](http://www.nutritionco.com)
- Fuel Nutrition Software [www.logiform.ca/fuel/pro_an.htm](http://www.logiform.ca/fuel/pro_an.htm)
- Nutribase 2001 Clinical, CyberSoft, Inc. [www.nutribase.com](http://www.nutribase.com)
- Nutritionist Pro, First Databank [www.firstdatabank.com](http://www.firstdatabank.com)
- SureQuest Software [www.surequest.com/products.htm](http://www.surequest.com/products.htm)
Meal Patterns

A meal pattern is best used as a menu-planning tool (ensuring food plate coverage, and as a component of a catering contract) rather than as a standard for nutritional adequacy or as a compliance tool. Use of computerized nutrient analysis rather than a meal pattern helps ensure nutritional adequacy of meals and increases menu planning flexibility. Many SUAs require documentation that menus meet nutrient requirements using computer-assisted nutrient analysis. Some SUAs specify that meals must follow a meal pattern with no deviation.

Additional guidance is often provided for accompaniments such as desserts, condiments including margarine, salad dressings, and relishes, and beverages other than milk. Specific guidance is frequently included to ensure that foods high in key nutrients are provided. Recommendations for inclusion of foods high in vitamins A and C and fiber are common. In addition, information is typically provided in SUA guidelines to ensure that menus incorporate foods that are lower in sodium, fat, saturated fat, and cholesterol.

The 1972 meal pattern (still used by many OANPs today) first appeared in the Guide to Effective Project Operations, The Nutrition Program for the Elderly (the Oregon Guide, 1973). It was assumed that if a variety of foods were provided daily in the amounts indicated and proper food preparation and handling was practiced, the meal would provide at least 1/3 of the 1968 RDAs. The pattern became the quick checklist for determining the nutritional adequacy of a meal. Some SUAs added requirements that meals provide foods high in specific nutrients, such as vitamins A and C, as well as some others. This pattern does not ensure that the new DRI requirements are met for calories, carbohydrates, magnesium, folate, vitamin E, and fiber as noted in the Issue Panel Report: Table 4.1 Nutrient Composition of the 1972 Meal Pattern [page 53 of 62] (16). These variations in menu planning may be addressed in state guidelines.

Updated Sample Meal Pattern to Meet New DRIs

The updated sample meal pattern below is based on the newer DRIs for energy as calculated for the table above, "Dietary Reference Intakes for Meal Planning and Evaluation." It provides approximately 685 calories per meal. The number of servings for each food group are based on USDA's Food Guide: Background and Development, Table 5 Nutrient profiles for food groups and subgroup composites. These profiles represent the quantities of nutrients and other components that one would expect to obtain on average from a serving of food in each group (18). Information from Table 5 Nutrient profiles... and from USDA's Agricultural Research Service, Home and Garden Bulletin No.72 (Revised October 2002) was used to determine the appropriate
number of food group servings to best meet the new DRIs. See table, "Nutrient Composition of a Sample Meal Pattern."

The updated sample meal pattern includes 1 additional serving of bread or bread alternate and another serving of vegetable or fruit compared to the 1972 meal pattern. Serving sizes are based on the Food Guide Pyramid. The number of servings reflects an appropriate distribution of foods for the day, particularly for lunch or supper. Servings from a food group may be combined as one larger serving. For example, 2 servings from the bread or bread alternate food group may include 2 slices of bread for a sandwich or 1 cup of pasta or rice or it may include 1/2 cup pasta and 1 slice of bread. Likewise, 2 servings of vegetable may be 1/2 cup mashed potato and 1/2 cup green beans or 1 cup of either vegetable. The pattern provides the option for substituting 1 fruit serving for a vegetable serving and vice versa.

This updated sample meal pattern, although based on the food servings recommended in the Food Guide Pyramid, does not assure that meals meet 1/3 the DRIs and the 2000 Dietary Guidelines. Meals are likely to require specific types of fruits and vegetables, whole grains, and high fiber foods. Based on the information used from USDA's Food Guide: Background and Development, Table 5 Nutrient profiles for food groups and subgroup composites, the updated meal pattern may be deficient in vitamin E, requiring extra care in the selection of foods that are good sources of this nutrient (see "Sources of Key Nutrients" section of this chapter). Because of the increased nutrient requirements, it may be difficult for some participants to eat the amount of food for 1 meal at 1 sitting. The use of nutrient dense foods as well as fortified and enriched products should be a priority. In addition, calories from carbohydrates, fats, and/or proteins will require adjustment for underweight or overweight individuals. As appropriate for the weight status of participants, the provision of food supplements and modifications in serving sizes of particular food groups may be needed.
Suggested Food Group Components and Serving Size

The food group information below generally follows the 2000 Dietary Guidelines and Food Guide Pyramid. Although some foods are classified in more than 1 food group, a serving of a food can only be counted in 1 food group within the same meal. For example, dried beans may be counted as either a meat alternate serving or as a vegetable serving but not both in the same meal. Likewise, cottage cheese may be counted as either meat alternate serving or milk alternate serving but not both. Compiled from the Dietary Guidelines for Americans 2000 and Florida, Massachusetts, and Ohio standards:

1. Bread or Bread Alternate
   - A serving of bread is generally 1 slice (1 ounce); ½ cup pasta or grain product; or 1 ounce of ready-to-eat cereal. Bread and bread alternates include:

   - 1 small 2 ounce muffin
   - 2" cube cornbread
   - 1 biscuit, 2.5" diameter
   - 1 waffle, 7" diameter
   - 1 slice French toast
   - 1/2 English muffin
   - 1 tortilla, 6" diameter
   - 2 pancakes, 4" diameter
   - 1/2 bagel
   - 1 small sandwich bun
   - 1/2 cup cooked cereal
   - 4-6 crackers
   - 1/2 large sandwich bun
   - 3/4 cup ready to eat cereal
   - 2 graham cracker squares
   - 1/2 cup bread dressing/stuffing
   - 1/2 cup pasta, noodles, rice

   - A variety of enriched and/or whole grain bread products, particularly those high in fiber, are recommended.

   - Bread alternates do not include starchy vegetables such as potatoes, sweet potatoes, corn, yams, or plantains. These foods are included in the vegetable food group.
2. Vegetables
- A serving of vegetable (including dried beans, peas and lentils) is generally ½ cup cooked or raw vegetable; or ¾ cup 100% vegetable juice; or 1 cup raw leafy vegetable. For prepacked 100% vegetable juices, a ½ cup juice pack may be counted as a serving if a ¾ cup pre-packed serving is not available).

- Fresh or frozen vegetables are preferred, canned vegetables.

- Vegetables as a primary ingredient in soups, stews, casseroles or other combination dishes should total ½ cup per serving.

3. Fruits
- A serving of fruit is generally a medium apple, banana, orange, or pear; ½ cup chopped, cooked, or canned fruit; or ¾ cup 100% fruit juice. For prepacked 100% fruit juices, a ½ cup juice pack may be counted as a serving if a ¾ cup pre-packed serving is not available).

- Fresh, frozen, or canned fruit will preferably be packed in juice, light syrup or without sugar.

4. Milk or Milk Alternates
- One cup whole, low fat, skim, buttermilk, low-fat chocolate milk, or lactose-free milk fortified with Vitamins A and D should be used. Low-fat or skim milk is recommended for the general population. Powdered dry milk (1/3 cup) or evaporated milk (½ cup) may be served as part of a home-delivered meal. (Some states restrict serving reconstituted powdered milk.)

- Milk alternates for the equivalent of one cup of milk include:
  - 1 cup yogurt
  - 1½ cups cottage cheese
  - 8 ounces tofu (processed with calcium salt)
  - 1½ ounces natural or 2 ounces processed cheese
  - 1½ cups ice milk/ice cream

5. Meat or Meat Alternate
- Three ounces of meat or meat alternate should generally be provided for the lunch or supper meal. Meat serving weight is the edible portion, not including skin, bone, or coating.

- 1 egg
- 1 ounce cheese (nutritionally equivalent measure of pasteurized process cheese
cheese food, cheese spread, or other cheese product)

- ½ cup cooked dried beans, peas or lentils
- 2 tablespoon peanut butter or 1/3 cup nuts
- ¼ cup cottage cheese
- ½ cup tofu
- A one ounce serving or equivalent portion of meat, poultry, fish, may be served in combination with other high protein foods.

- Except to meet cultural and religious preferences and for emergency meals, avoid serving dried beans, peas or lentils, peanut butter or peanuts, and tofu for consecutive meals or on consecutive days.

- Imitation cheese (which the Food and Drug Administration defines as one not meeting nutritional equivalency requirements for the natural, non-imitation product) cannot be served as meat alternates.

- To limit the sodium content of the meals, serve no more than once a week cured and processed meats (e.g., ham, smoked or Polish sausage, corned beef, wieners, luncheon meats, dried beef).

**Accompaniments**

Include traditional meal accompaniments as appropriate, e.g., condiments, spreads, garnishes. Examples include: mustard and/or mayonnaise with a meat sandwich, tartar sauce with fish, salad dressing with tossed salad, margarine with bread or rolls. Whenever feasible, provide reduced fat alternatives. Minimize use of fat in food preparation. Fats should be primarily from primarily vegetable sources and in a liquid or soft (spreadable) form that are lower in hydrogenated fat, saturated fat, and cholesterol.

**Desserts**

Serving a dessert may or may not be required by the SUA. Healthier desserts generally include fruit, whole grains, low fat products, and/or limited sugar. States may limit the number of times a high sugar or high fat item is provided (e.g., cakes, cookies, pies). Fresh, frozen, or canned fruits packed in their own juice are often encouraged as a dessert item in addition to the serving of fruit provided as part of the meal.

**Beverages**

Fluid intake should be encouraged as dehydration is a common problem in older adults. It is a good practice to have drinking water available. Other beverages such as juices, coffee, tea, decaffeinated beverages, soft drinks, and flavored drinks, may be served. Nonnutritive beverages do not help meet nutrition requirements but can help
with hydration. Alcoholic beverages should not be provided with OAA funds.

**Enhancing the Nutritional Quality of the Meal: Key Nutrients**

The Issue Panel recommended that OANPs emphasize foods that are high in fiber, calcium, and protein, and continue to target vitamins A and C, with vitamin A provided from vegetable-derived (carotenoid) sources. Targeting specific nutrients mentioned in this recommendation should not be misinterpreted as permission to ignore other nutrients (16). A number of studies found specific nutrients to be deficient in diets of older adults (8,19,20). While the National Evaluation revealed that OANP meals supplied over 33% of the 1989 RDAs for key nutrients. When compared to the newer DRIs, meals were inadequate in vitamins D and E, folate, calcium, and magnesium (8). The Continuing Survey of Food Intakes by Individuals 1994-1996 found older adults' dietary intake to be low in calories, total fat, fiber, carbohydrate, vitamin E, folate, calcium, and magnesium (19). The Third National Health and Nutrition Examination Survey (NHANES III) found older adults' dietary intake to be low in calories, total fat, fiber, calcium, magnesium, zinc, copper, folate, and vitamins B6, C and E (20). Therefore, the following require special attention: vitamins A, B-6, C, D, E, and folate; calcium, copper, magnesium, zinc; and calories, carbohydrates, total fat, protein, and fiber. More definitive guidance concerning targeting key nutrients will be developed as part of the next Issue Panel on the implementation of the DRIs.

**Sources of Key Nutrients**

Foods considered good sources of specific nutrients are shown in the following table prepared by the Center. Information provides "good" and "high" food sources of specific nutrients. A "high source" is defined as providing 20% or more of the Daily Value for a given nutrient per serving. A "good source" is federally defined as providing 10-19% of the Daily Value for a given nutrient per serving. See summary of the use and meaning of Daily Values that follows the table. Foods selected for the table meet the above parameters using typical serving sizes.

The USDA's National Nutrient Database for Standard Reference, Release 15 Nutrient List was used to develop the table (21). The database contains reports of selected food items and nutrients sorted by food description or in descending order by nutrient content in terms of common household measures. The food items and weights are adapted from Home and Garden Bulletin No. 72, Nutritive Value of Foods.
<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Food</th>
<th>Serving Size</th>
<th>Amt</th>
<th>% DV c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Yogurt, plain, low fat</td>
<td>8 oz</td>
<td>345</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Milk 1% w/ added Vit A</td>
<td>1 cup</td>
<td>300</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Good Cheddar cheese</td>
<td>1 oz</td>
<td>204</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Collard greens, cooked</td>
<td>1/2 cup</td>
<td>179</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Turnip greens, cooked</td>
<td>1/2 cup</td>
<td>125</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Spinach, cooked</td>
<td>1/2 cup</td>
<td>123</td>
<td>10</td>
</tr>
<tr>
<td>Magnesium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Finfish, Halibut</td>
<td>1/2 fillet</td>
<td>170</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Good Spinach, cooked</td>
<td>1/2 cup</td>
<td>79</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Soybean, cooked</td>
<td>1/2 cup</td>
<td>74</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Beans, white, canned</td>
<td>1/2 cup</td>
<td>67</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Beans, black, cooked</td>
<td>1/2 cup</td>
<td>60</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Artichokes, Cooked</td>
<td>1/2 cup</td>
<td>51</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Beet greens, cooked</td>
<td>1/2 cup</td>
<td>49</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Lima beans, cooked</td>
<td>1/2 cup</td>
<td>47</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Okra, frozen, cooked</td>
<td>1/2 cup</td>
<td>47</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Oat bran, cooked</td>
<td>1/2 cup</td>
<td>44</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Brown rice, cooked</td>
<td>1/2 cup</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td>Vitamin B12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Yogurt, plain. low fat</td>
<td>8 oz</td>
<td>0.49</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Milk 1%, w/ added vit A</td>
<td>1 cup</td>
<td>0.41</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Egg whole, scrambled/hard-boiled</td>
<td>1 Lg</td>
<td>0.27</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Good Soybeams, cooked</td>
<td>1/2 cup</td>
<td>0.25</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Ricotta cheese, whole milk</td>
<td>1/2 cup</td>
<td>0.24</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Mushrooms, cooked</td>
<td>1/2 cup</td>
<td>0.23</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Spinach, cooked</td>
<td>1/2 cup</td>
<td>0.21</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Beet greens, cooked</td>
<td>1/2 cup</td>
<td>0.21</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Cottage cheese, low fat</td>
<td>1/2 cup</td>
<td>0.19</td>
<td>14</td>
</tr>
<tr>
<td>Folate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Lentils, cooked</td>
<td>1/2 cup</td>
<td>179</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Pinto beans, cooked</td>
<td>1/2 cup</td>
<td>147</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Chickpeas, cooked</td>
<td>1/2 cup</td>
<td>141</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Okra, frozen, cooked</td>
<td>1/2 cup</td>
<td>134</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Spinach, cooked</td>
<td>1/2 cup</td>
<td>132</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Asparagus, cooked</td>
<td>1/2 cup</td>
<td>122</td>
<td>30</td>
</tr>
<tr>
<td>Food</td>
<td>Serving Size</td>
<td>Vitamin E</td>
<td>Fiber</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------</td>
<td>-----------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Turnip greens, cooked</td>
<td>1/2 cup</td>
<td>85</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Brussels sprouts, frozen, cooked</td>
<td>1/2 cup</td>
<td>78</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Good White rice, long-grain, cooked</td>
<td>1/2 cup</td>
<td>77</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Broccoli, frozen, cooked</td>
<td>1/2 cup</td>
<td>52</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Mustard greens, cooked</td>
<td>1/2 cup</td>
<td>52</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Green peas, frozen, cooked</td>
<td>1/2 cup</td>
<td>47</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>1 med</td>
<td>39</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vitamin E</th>
<th>mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Vegetable oil, sunflower linoleic (&gt;60%)</td>
<td>1 tbsp</td>
</tr>
<tr>
<td>Tomato products, canned, puree</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Vegetable oil, canola</td>
<td>1 tbsp</td>
</tr>
<tr>
<td>Good Turnip greens, frozen, cooked</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Peaches, canned</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Tomato products, canned, sauce</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Broccoli, frozen, cooked</td>
<td>1/2 cup</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fiber</th>
<th>gm</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Pears, Asian, raw</td>
<td>1 pear</td>
</tr>
<tr>
<td>Beans (pinto, black, kidney)</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Dates, dry</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Good Chickpeas, cooked</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Artichokes, cooked</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Green peas, Frozen, cooked</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Raspberries, raw</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Vegetables, mixed, frozen, cooked</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Apple, raw, with skin</td>
<td>1</td>
</tr>
</tbody>
</table>

a High Source: 20% or more of Daily Value (DV) for given nutrient per serving.
b Good Source: 10-19% of Daily Value (DV) for given nutrient per serving.
c Daily Values (DV) for each nutrient based on RDA/AI.
d Based on DV for fiber of 35gm.

A number of SUAs and service providers have developed lists of foods considered good sources of specific nutrients but do not necessarily follow the federal food labeling definitions of good and high sources above. Such lists are commonly available for food sources of calcium, vitamins A and C, and fiber. An example from Colorado SUA is available. A number of websites provide lists of foods that are good sources of selected nutrients. Resources include Room 42 Health Tools, Nutrition Tools, Fitness Tools Resource Center and Healthcheck Systems.
Nutrition Labeling/Daily Values

Federal law requires that nutrition label information enable the public to readily comprehend the information and to understand its relative significance in the context of a total daily diet. Daily Values is the dietary reference labeling standard developed by the Food and Drug Administration (FDA) to help consumers plan a healthy overall diet. For various nutrients, it allows consumers to determine the percentage of the Daily Value provided by a serving of a food. It also provides a basis for defining descriptor terms, such as "high fiber" and "low fat" (22).

Daily Values include 2 sets of reference values for nutrients: Daily Reference Values (DRVs) and Reference Daily Intakes (RDIs). DRVs are for nutrients for which no set of standards previously existed, such as fat, saturated fat, cholesterol, carbohydrate, protein, fiber, sodium, and potassium. DRVs for the energy-producing nutrients (fat, carbohydrate, protein, and fiber) are based on the number of calories consumed per day. For labeling purposes, 2,000 calories was established as the reference for calculating percent Daily Values in 1990.

Because of the links between certain nutrients and certain diseases, DRVs for some nutrients represent the uppermost limit that is considered desirable. Eating too much fat or cholesterol, for example, has been linked to an increased risk of heart disease. Too much sodium can heighten the risk of high blood pressure in some people.

**DRV Label Values for Fats and Sodium**
- total fat: less than 65 g
- saturated fat: less than 20 g
- cholesterol: less than 300 mg (milligrams)
- sodium: less than 2,400 mg

RDIs replaced the term "US RDAs" (Recommended Daily Allowances). The US RDAs are a set of values, based on the 1968 RDAs, that are used as the food labeling standard by the FDA. These nutrient values are approximately equivalent to the highest number recommended in the 1968 RDAs for each of the included nutrients. US RDAs should not be confused with RDAs. The latter are short for Recommended Dietary Allowances, which are set by the National Academy of Sciences, and revised periodically. Food label definitions and nutrient values used generally lag behind the latest scientific knowledge. Plans are underway to revise the Nutrition Facts portion of the food label to comply with the newer DRI values.
SPECIAL DIETARY NEEDS

Today, menu planning is more challenging due to changes in the nutrient requirements as well as the need to accommodate the growing diversity of older adults. Increasing the number and variety of meal choices can help meet both the personal preferences of program participants and nutritional or special health needs. Meals should be adjusted to meet special dietary needs of program participants to the maximum extent possible (OAA, Section 339). The definition of "maximum extent practical" takes into consideration factors such as characteristics of the older adults served in the community, number of people with a specific need, capacity and capability of the provider, availability of different caterers/vendors, requirements of different funding sources, provider expertise, etc.

The term "special dietary needs" has been variously interpreted to mean: providing meals to meet cultural or ethnic preferences, i.e., culturally appropriate; tailoring menus to conform to religious requirements (e.g., Kosher, Hallal); and the provision of therapeutic or meals that are modified for health conditions (e.g., 2 gm sodium, diabetic, renal, texture-modified). Other interpretations include meals that provide client "choice" or selection of different meal components (e.g., 2 different entrees or 3 different vegetables, choice of milk).

To better serve defined populations and individuals who require menu customization or therapeutic diets, the Issue Panel recommended that OANPs utilize Registered Dietitians in conducting needs assessments of the program population and in developing appropriate interventions (16). The American Dietetic Association addressed the use of dietetics professionals in the assessment, planning and provision of liberalized diets for older individuals. When appropriate, such diets can enhance both quality of life and nutritional status, thus increasing the participants satisfaction with the meals provided and reducing noncompliance to their special dietary needs as well as any risks of malnutrition and weight loss (23).

Sample SUA Modified and Therapeutic Diet Standards/Guidelines

Wisconsin

Using the knowledge and expertise of a consultant dietitian or qualified nutritionist, programs should determine the need, feasibility, and cost effectiveness in establishing a service for special menus using the following criteria:

- there are sufficient number of persons who need the special menus to make this service a practical and cost effective use of funds;
• the food and skills necessary to prepare the special menus are available in the planning and service area; and

• the type of special diet considered for service can be produced and delivered safely and cost effectively.

Modified meals meet the regular menu pattern, but contain modifications to one or more menu items. The types and amounts of all items must conform to the regular menu pattern. A health professional’s authorization is not needed for a participant to receive a modified meal. However, a nutrition program may wish to prioritize the requests for modified meals. The following are examples of modified meals that a nutrition program may provide:

• meal with a lower sodium entrée if the regular entrée is of significantly higher sodium content than usually served;

• meal with fresh fruit, or juice-packed canned fruit in place of a concentrated sweet dessert;

• a modified meal may have an altered texture to accommodate the needs of an individual with problems chewing or swallowing. Examples of such meals include ground meat, thickened liquids or all pureed foods. "Clear liquid" meals are not allowed.

• A therapeutic meal changes the meal pattern significantly by either limiting or eliminating one or more menu items, or by limiting the types of foods allowed and resulting in a meal that does not meet the nutrition guidelines of the Program.

• Nutrition programs may obtain complex therapeutic meals from a local hospital or other facility under the supervision of a registered dietitian.

New York
General modifications to the regular menu should be provided (e.g., substitutions for high sodium foods, substitutions for high concentrated carbohydrates, and texture modifications) for those individuals who do not require a more defined therapeutic diet.

Therapeutic diets, such as two grams sodium, 40 grams protein, 1200 Calories, and/or 40 grams fat, may be provided, if feasible, under the supervision of a registered dietitian. A written physician’s order may be required to provide such diets. Overly restrictive diet prescriptions with less than these amounts or with multiple restrictions should be discouraged.
Nutrition Supplements

The use of medical foods, foods for special dietary uses, dietary supplements and functional foods is increasing. See definitions of "Supplements" at the end of this chapter. These products can play a positive role in people's health and may help improve the poor nutritional status of needy older adults. Many older adults are at nutrition risk because of low calorie intakes, poor food choices, economic reasons, chronic diseases (e.g., osteoporosis), and/or special needs (e.g., dysphasia). Also, many congregate and home delivered meal participants are unable to consume a complete meal when served or delivered. Therefore, greater flexibility in what constitutes a meal and other ways to provide meals that, to the maximum extent practical, are adjusted to meet special dietary needs of program participants may be allowed when prescribed by a registered dietitian (RD) or physician in conjunction with an individualized nutrition care plan.

Dietary supplements encompass a wide range of products, including vitamins, minerals, amino acids, herbs, and other botanicals. Although some older adults may need dietary supplements for health enhancement and/or to assist in meeting daily nutrient needs, the OAA cannot be used to pay for them. Funds from the OAA can be used for food as a part of a conventional meal.

The use of medical foods, foods for special dietary uses, and/or functional foods may allow OANPs to appropriately address individual nutrition needs in a comprehensive individualized nutrition care plan under the direction of an RD or MD. By using functional foods, the OANP may be able to more directly address public nutrition issues commonly seen in later years, such as osteoporosis. Functional foods should not be used as a replacement for important conventional foods, for example, replacing dairy products with calcium-fortified orange juice. Because of interrelationships among DRIs, Dietary Guidelines for Americans, and the Food Guide Pyramid, meals should include appropriate numbers of servings from each food group. To appropriately address the use of medical foods, foods for special dietary uses, and/or functional foods, SUAs and/or AAAs need to establish policies and procedures for their use. Such policies may reflect different program and funding requirements such as the Medicaid Waiver program.

Sample SUA Use of Nutrition Supplements Standards/Guidelines

New York

Nutrition supplements (e.g., canned formulas, powdered mixes, food bars) may be made available to participants based on documented, assessed need as determined
by a registered dietitian. Such products cannot replace conventional meals unless a physical disability warrants their sole use.

Wisconsin

Follow-up by health professionals is essential to follow progress, monitor nutrient intake, and to measure the success of the therapy. Health professionals who may make a written referral to the nutrition program for supplement meals include physicians, registered or certified dietitians, nurses, and public health nurses. A nutrition program participant's diet order may require a nutrition supplement to:

- replace a meal for an individual with profound dietary needs. The professional making the referral, or program dietitian must determine how much supplement would constitute 1 meal;

- in addition to a complete meal, or to replace 1 item in the meal pattern. (This is counted as 1 meal.); and

- provide a supplement-only meal in addition to a regular meal (To be counted as 2 meals, together they must provide 66% of the RDA).

Products not to be funded under the OAA include those used for weight loss and have reduced calories and/or fat; single or multiple vitamin or mineral supplements in tablets, capsules, liquids or any form, whether prescribed or over-the-counter; herbal remedies, teas, medicinal oils, laxatives, fiber supplement, etc; and products that require preparation such as powdered mixes or concentrated liquids.

The following products are not allowed for use in the OANP:

- Liquid supplement products which are used for weight loss, have reduced calories and/or fat. Examples include "SlimFast", "Ensure light", "Boost", and "Carnation Instant Breakfast".

- Single or multiple vitamin or mineral supplements in tablets, capsules, liquids or any form, whether prescription or over-the-counter. Examples include "One-A-Day", "Geritol", vitamin B-6 and iron supplement.

- Herbal remedies, teas medicinal oils, laxatives, fiber supplements, etc... Supplemental nutrition products that require preparation such as powdered mixes or concentrated liquids.
Texture Modified Meals

Modifying food texture and consistency may help older adults with chewing and swallowing problems. Chopping, grinding, pureeing or blending foods are common ways to modify food textures. Texture modified food has the same nutritive value of solid foods and it can be just as tasty and appealing. Serving sizes should account for any dilution to the food item during the preparation process. Texture modified foods can be purchased in a variety of forms, may be prepared by the production kitchen, or may possibly be modified in an older adult’s home. Thickened liquids are often required for individuals with dysphasia. The provision of such foods should be planned and prepared under the advice of a Registered Dietitian or other appropriate professional, such as an Occupational Therapist or Speech Pathologist.

Ethnic and Religious Meals

Meeting the food preferences of program participants can be challenging. Nonetheless, making adaptations to menus is essential. Today's menus often contain common ethnic foods like spaghetti and lasagna, chow mein and stir-fry beef and broccoli, corned beef and cabbage, and fried chicken and sweet potatoes. However, there may be many entrees and side dishes representative of other cultures that are often overlooked. The good feeling that participants have when served favorite ethnic foods partly comes from the recognition that their cultural preferences are important and respected. Providing culturally appropriate, nutritious, high quality, and tasty meals can be effective as outreach to bring in the target population, improve customer satisfaction, promote health and reduce health disparities.

An Ask the Experts: Providing Food Services to Meet the Needs of Your Culturally Diverse Participants offers guidance and suggestions such as:

• Include community input when developing programs and planning menus.

• Target outreach to specific ethnic, cultural, or religious communities. Many programs have an advisory or community council with participants of various ethnicities to assist with menu planning.

• Employ staff and volunteers who reflect the diversity of the community served. Use bilingual staff, volunteers and/or interpreters to solicit menu and program ideas.

• Provide authentic ethnic cuisine. Although programs may do their best to provide ethnic meals, providing authentic ethnic cuisine may be difficult for cooks without such native experience. Having a cook "experienced" with traditional ethnic cooking be a
"guest" cook or use an ethnic restaurant in the community as a caterer. This is particularly important during special occasions and holidays to carry on cultural traditions.

- Use an ethnic caterer or restaurant to serve specific ethnic and/or religious communities. The restaurants follow a meal pattern provided by the nutrition provider and the caterer develops the actual menu based on the known preferences of the group.

- Offer a variety of meals and/or foods from different ethnic groups. Introduce new foods to coincide with ethnic and religious holidays and nutrition education activities. Offer cultural food items as side dishes, desserts, or snacks, if not the entrée on a regular basis.

**MENU REVIEW AND APPROVAL**

Reviewing menus at State, AAA, or local levels involves verifying that they conform to nutrition standards and menu policies. Computer analysis ensures that menus conform to the *Dietary Guidelines* and provide at least minimal levels of RDAs for older adults. Reviews may also include recommending changes when menus contain errors, discouraging the use of extra items to avoid added food costs, and commenting on the variety of foods, color appeal, texture, consistency, and use of seasonal foods. States may or may not require submission of menus for review at that level, but no matter what level, a registered and/or licensed dietitian (or individual of comparable expertise) is usually required to complete the review and approval of menus or certify the menus (17).

**Sample SUA Menu Approval Standards/Guidelines**

**New York**

*The AAA shall ensure that menus are certified by a Registered Dietitian that each meal offers at least 33 1/3% of the RDAs, for two meals per day, the sum of the two meals is at least 66 2/3% of the RDAs (but each meal itself does not have to be 33 1/3%) and for three meals per day the sum of these three meals is 100% of the RDA; a nutrient analysis is available for all meals provided to participants; any deviation from the planned menu is noted and approved by a Registered Dietitian, project director or other designated person(s).*

**Massachusetts**

*Programs that prepare their own meals (and not using a set of rotating menus) must submit the nutrition analysis for three days meals once per fiscal year quarter to the SUA. Programs that use a set of rotating menus (such as frozen meals under state contract, catered Kosher or ethnic meals), must submit the nutrition analysis for all menus once per year to the SUA.* (edited)
A complete nutritional analysis of the menu shall contain a minimum of: macronutrients:

- macronutrients: calories, protein, fat (including the % of total calories from fat).
- vitamins: A, B-6, B-12, C, and D, thiamin, riboflavin, niacin, and folate.
- minerals: calcium, iron, zinc, and magnesium.

The nutritional analysis form or equivalent computer analysis sheet should be used for the submission of the nutritional analysis. Nutrition projects are encouraged to utilize the nutritional information of the actual food products. However, if sources of food products vary, an average nutritional analysis may be used (i.e., USDA Handbook No. 8).

If a 2nd (and 3rd) meal is provided to any clients for consumption on the same day as the meals mentioned above, nutrient analysis shall be performed on the same Nutritional Analysis Form. For example, if an evening, multiple meal or breakfast menu is provided to clients in addition to a noon, regular meal, the 2nd (and 3rd) meal(s) should be submitted along with the "main" meals even if these meals are considered limited selection.

The specific meals that are analyzed may be chosen by the Nutrition Project. Different meals should be selected each quarter (i.e., analyzed meals may not be identical to those chosen previously). The SUA may request that a nutritional analysis be performed on any meal which appears not to meet State requirements or for "spot-checking" purposes.

Nutritional analysis and/or full product descriptions for individual items used within Title III meals must be provided or made available by caterers. For consortium or joint menus, only one menu/nutritional analysis is required per menu cycle. It is the decision of the Nutrition Projects which agency(s) shall submit this information to Elder Affairs. If more than one Nutrition Project provides the same frozen/limited selection meal, only one nutritional analysis needs to be submitted. It is the decision of the Nutrition Projects which agency(s) shall submit this information to the SUA.

**Menu Substitutions**

Menu substitutions should be comparable in nutrient content to the original menu item. SUAs often provide guidance as to the type of substitutions allowed, number of
substitutions allowed during a given period of time, and the process to approve such menu changes by nutrition projects and caterers. Some states require that the nutrition program and/or a dietitian approve substitutions before they are served. Other states may also require that menu changes not only be documented and on file with the program but be submitted to the SUA within a certain time after the meal was served. Alabama requires that all menu deliveries to a dining center include an official notice of a menu change. Otherwise, the item must not be served for food safety reasons.

Some States or AAAs have written lists of acceptable food substitutions for each food group on a meal pattern. These list are similar to those in this Chapter: "Suggested Food Group Components and Serving Size," "Some High and Good Sources of Selected Nutrients," and those developed by SUAs and service providers. For example, substitute a high vitamin C source for a fruit; use a high vitamin A source for a vegetable substitute; and replace a meat with cottage cheese or peanut butter. Using a substitution list limits the need for staff to contact the dietitian each and every time there is a need to make a menu change.

MEAL SERVICE OPTIONS

Multiple Meals

It is common to provide a combination of 2 or 3 meals including breakfast, lunch and/or dinner, to participants receiving home-delivered meals. Multiple meal packages are typically delivered with the noon meal. Breakfast, a popular meal with older adults, contributes to their health and well being by increasing intakes of critical nutrient-dense foods associated with positive health outcomes: cereals and grains, complex carbohydrates, fruits, fiber, milk, and dairy products (24). Congregate nutrition programs may also serve breakfast and/or dinner in addition to or instead of lunch.

Weekend Meals

A number of nutrition programs offer weekend meals to higher risk congregate participants or to frail, homebound participants receiving meals on weekdays. Table IV.9 of the Mathematica Report indicates that 11% of congregate nutrition programs offer weekend meals and 35% of home-delivered nutrition programs offer weekend meals.
Frozen Meals

Frozen meals are often provided in areas where daily delivery is limited, for weekend meal services, or to enable home delivered meal programs to offer more menu choices. Frozen meals may also be used at congregate sites in rural areas where participation is low and other food service options are not feasible. Such meals are heated and served at the site.

Menu Choice

Menu choice using a selective menu can increase participant satisfaction by offering choices for 1 or more food items. For example, nutrition programs may offer 1 entrée but several vegetable or dessert choices. There may be ethnic and religious-based alternatives to choose from or a choice of hot, cold, or ready-to-heat entrees. Home-delivered meal participants may be offered choices of hot meals or frozen meals delivered in advance. Menu choices may also be provided by offering participants a choice of 2 distinct and complete menus. The menus may vary in their ethnic offering (i.e., choice of an American or Asian menu), be based on religious custom (e.g., Kosher or Hallal), or vegetarian observance.

Shelf-stable/Emergency Meals

Emergency meals generally consist of shelf-stable items. Meal packages are provided to participants determined to need at times when the program is unable to deliver meals due to weather or other problems.

Definitions of "Supplements"

Medical food, as defined in Public Law 100-290, The Orphan Drug Amendment of 1988, is food which is formulated to be consumed or administered enterally under supervision of a physician and which is intended for the specific dietary management of a disease or condition for which distinctive nutritional requirements, based on recognized scientific principles, are established by medical evaluation.

Medical foods are known by a variety of names, such as nutrition supplements, "liquid meals," and oral supplements. However, the most appropriate statutory term is medical food. It is interesting to note that the very same product, depending on where it is used (and how it is labeled), may at times qualify as a medical food (e.g., in an institutional setting) and at other times, if purchased at retail, does not qualify as a medical food. "Non-medical" foods sold at retail always have the mandatory "Nutrition Facts" label.
Food for special dietary uses, according to Section 201 of the Federal Food, Drug, and Cosmetic Act, as the term is applied to food for humans, means particular (as distinguished from general) uses of food, as follows: (i) uses for supplying particular dietary needs which exist by reason of a physical, physiological, pathological or other condition, including but not limited to the conditions of diseases, convalescence, … underweight and overweight; (ii) uses for supplying particular dietary needs which exist by reason of age, …; (iii) uses for supplementing or fortifying the ordinary or usual diet with any vitamin, mineral or other dietary property.

Food for special dietary uses are often useful when there are chewing and swallowing problems and to speed recovery when there is illness-related cachexia and/or to halt unintended weight loss.

A dietary supplement is defined in Section 201 of the Federal Food, Drug, and Cosmetic Act as a product (other than tobacco) intended to supplement the diet that bears or contains one or more of the following ingredients: (A) a vitamin; (B) a mineral; (C) an herb or other botanical; (D) an amino acid; (E) a dietary substance for use by man to supplement the diet by increasing the total dietary intake; or (F) a concentrate, metabolic, constituent, extract, or combination of any ingredient described in clause (A), (B), (C), (D), or (E).

In the 2000 Dietary Guidelines for Americans, older adults are mentioned specifically as a group who may benefit from dietary supplements to meet specific nutrient needs. Older adults and people with little exposure to sunlight may need a vitamin D supplement. People who seldom eat dairy products or other rich sources of calcium need a calcium supplement, and people who eat no animal foods need to take a vitamin B12 supplement. The Food and Nutrition Board of the Institute of Medicine of the National Academy of Sciences recommends that adults over age 50 get their vitamin B12 from a supplement or from fortified foods.

Functional foods have no universally accepted definition. However, 2 definitions provide insight into this category. The American Dietetic Association broadly defines functional foods to include whole foods and fortified, enriched, or enhanced foods that have a potentially beneficial effect on health when consumed as part of a varied diet on a regular basis (25). The Institute of Medicine defines functional foods as those foods in which the concentrations of one or more ingredients have been manipulated or modified to enhance their contribution to a healthful diet (26).
Additional Resources

Menu Planning Resources listed by the Center

Use of Medical Food and Food for Special Dietary Uses In Elderly Nutrition Programs: Backgrounder. Prepared for the AoA by the Center, May 1996.

PowerPoint Presentations from the AoA Nutritionists / Administrators Conference (June 2002):

- Dietary Reference Intakes & Dietary Guidelines in Older Americans Act Nutrition Programs (Nancy Wellman and Jean Lloyd)
- Dietary Reference Intakes and Dietary Guidelines: Nutrition Standards for Today’s Older Americans (Nancy Wellman and Jean Lloyd)
- Computer-assisted Menu Analysis for the Elderly Nutrition Program (Kathy Stroh)

American Dietetic Association: Related Position Statements


References


Food safety and sanitation is an important public health concern. In the United States, it is estimated that 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths are attributed to foodborne illness each year. The annual cost of foodborne illness is estimated to be from $10 to $83 billion (1). For some individuals, foodborne illness may result in a mild, temporary discomfort. Because older adults are a highly susceptible population, foodborne illness may have serious or long-term consequences, and may be life threatening. Older adults are vulnerable to foodborne illness for several reasons. Some of these include (2):

1. **Weakened immune systems**: As part of the aging process, the ability of the immune system to function at normal levels decreases. A decrease in the level of disease-fighting cells is a significant factor in making the average older adult highly susceptible to harmful microorganisms in food.

2. **Inflammation of the stomach lining and a decrease in stomach acid**: The stomach plays an important role in limiting the number of bacteria that enter the small intestine. During the natural aging process, an older person’s stomach tends to produce less acid. The decrease or loss of stomach acidity increases the likelihood of infection if a pathogen is ingested with food or water.

3. **Decline in sense of smell and taste**: Many contaminated foods do not smell or taste bad. However, for foods like spoiled milk, a person who does not no-
practice "off" odors and flavors is more likely to eat the food and more likely to become ill.

4. Living on their own: For an older person, preparing meals may pose special challenges. A widower who has not cooked for himself may not know how to prepare food safely. A person receiving home-delivered meals may not be familiar with safe handling and storage practices for meals and leftovers.

The causes of foodborne illness are multifaceted. Some major risk factors of foodborne illness are related to employee behaviors and preparation practices in food service establishments. The principle known risk factors include:

- Improper holding temperatures,
- Inadequate cooking, such as undercooking raw shell eggs,
- Contaminated equipment,
- Food from unsafe sources,
- Poor personal hygiene, and
- Others (such as, pest and rodent infestation and improper food storage).

There are a number of foodborne disease organisms, toxins, and chemicals that affect the public health. It is important for SUAs to provide the OANP with general information about new emerging concerns that relate to foodborne diseases. For example, Noroviruses are the most common cause of gastroenteritis in the US. They cause an estimated 23 million cases of acute gastroenteritis (AGE) annually (3). The Norwalk virus has received recent attention as a number of outbreaks of AGE were reported on cruise ships sailing into US ports between June and December 2002 (3). Since October 2002, several states have noted an increase in outbreaks of AGE consistent clinically and epidemiologically, with norovirus infection, particularly in institutional settings such as nursing homes (CDC, unpublished data, 2002). Although attention has been drawn recently to outbreaks of norovirus on cruise ships, an estimated 60%-80% of all AGE outbreaks occur on land, particularly in institutional settings, through nonfoodborne modes of transmission (4-6). CDC's Emerging Infections Program Foodborne Diseases Active Surveillance Network (FoodNet) collects data on
about 10 foodborne diseases in nine US sites to quantify and monitor foodborne illnesses (7). Some other common foodborne infections are those caused by the bacteria Campylobacter, Salmonella, Listeria and E. coli O157:H7. It is important for SUAs to inform OANPs about the emergence of these foodborne diseases and provide the necessary resources to assist OANPs in minimizing the risk of foodborne illness outbreaks.

The following resources provide additional information on foodborne diseases: Bad Bug Book: [http://www.cfsan.fda.gov/~mow/intro.html](http://www.cfsan.fda.gov/~mow/intro.html)

CDC Division of Bacterial and Mycotic Diseases: [http://www.cdc.gov/ncidod/dbmd/diseaseinfo/default.htm](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/default.htm)

The 2001 Model Food Code (8) released by the Food and Drug Administration (FDA) and the Centers for Disease Control and Prevention (CDC) of the US Department of Health and Human Services (DHHS) and the Food Safety and Inspection Service of the US Department of Agriculture (USDA), provides practical and science-based guidance for foodservice establishments. The Food Code ([http://www.cfsan.fda.gov/~dms/fc01-toc.html](http://www.cfsan.fda.gov/~dms/fc01-toc.html)) addresses controls for risk factors. It established 5 key public health interventions to protect consumer health:

- Demonstration of knowledge,
- Employee health controls,
- Controlling hands as a vehicle of contamination,
- Time and temperature parameters for controlling pathogens, and
- Consumer advisory.

The 2001 Food Code is a model code, which FDA regularly updates. It provides a scientifically sound, legal basis for regulating the retail food market at the state and local level. The 2001 Food Code is neither federal law nor federal regulation and does not preempt state and local food law. It and its predecessor have been written so that it is easy to adopt at state and local levels. Through the years, state and local jurisdictions have adopted some of the model food code. A list of jurisdictions that have adopted the 2001 Food Code is available at [http://www.cfsan.fda.gov](http://www.cfsan.fda.gov) under Federal/State Food Programs-Retail Food Safety References.

Food safety is a priority action area of Healthy People 2010. Priority action areas include: reducing infections caused by foodborne pathogens, reducing outbreaks of
foodborne illness, and improving food employee behaviors and food preparation practices that directly relate to foodborne illnesses in retail food establishments (9).

The FDA, USDA, US Environmental Protection Agency, and CDC maintain a collaborative website on national food safety programs at: http://vm.cfsan.fda.gov/~dms/fs-toc.html. It contains a variety of government-generated information on food safety for the food industry and food consumers. The website www.FoodSafety.gov is the gateway to government food safety information. Medline Plus also provides access to current food safety information: http://www.nlm.nih.gov/medlineplus/foodsafety.html

The OAA emphasizes the importance of food safety and sanitation in nutrition projects. It requires them to comply with state or local laws regarding the safe and sanitary handling of food, equipment, and supplies. SUAs are encouraged to use the 2001 Model Food Code and the objectives in Healthy People 2010 as reference documents to assist in developing policies and procedures that comply with state and local food laws.

It is important that SUAs examine the food safety and sanitation requirements in their current policies and procedures and take the necessary steps to ensure that OANPs comply with their state and local food law. It is equally important for OANPs to ensure that their caterers and vendors comply with state and local food law. Rather than review 56 different state and territory food laws as well as hundreds of local regulations and ordinances, this chapter reviews the provisions in the 2001 Food Code upon which many state and local jurisdictions base their food statutes, regulations, and ordinances. The chapter addresses the following:

B. Management and Personnel,
C. Food,
D. Equipment/Facilities/Supplies, and
E. Compliance and Enforcement.

Older Americans Act 2000 Requirements

SECTION 339 Nutrition

(2) ensure that the project ---

(3)(C) encourages providers to enter into contracts that limit the amount of time meals must spend in transit before they are consumed.

(F) comply with applicable provisions of State or local laws regarding the safe and sanitary handling of food, equipment, and supplies used in the storage, preparation,
service, and delivery of meals to an older individual.

**MANAGEMENT AND PERSONNEL**

Management primary responsible is to provide safe food to consumers. All levels in the network, whether at a state, AAA, or local provider level, have a management function of assuring safe food in the OANP. To ensure food safety, management has the responsibility and duty of demonstrating knowledge of foodborne disease prevention and implementing Hazard Analysis Critical Control Point (HACCP) principles and requirements of the Model *Food Code*. Other important responsibilities referenced the Model *Food Code* include:

- Complying with the state and local food codes,
- Minimizing liability issues,
- Dealing with crises, such as food recalls, food illness outbreaks, equipment breakdowns, and other emergencies,
- Ensuring personnel follow appropriate food safety and hygiene practices,
- Being a certified food handler,
- Providing a safe place to work,
- Keeping equipment in good operating order,
- Publishing rules for good safety, and
- Training employees in proper food safety principles

Food safety is achieved in a foodservice establishment when both employees and management properly perform their duties. Below are additional examples of management responsibilities from the 2001 Model *Food Code* and SUA policies and procedures.

**2001 Model Food Code**

Supervision (*Part 2-1*):

- It is recommended that the *supervision* of the foodservice establishment shall
be designated to management or an individual in charge who has the responsibility and duty of ensuring that personnel follow appropriate food safety and hygiene practices. Management or person(s) in charge shall also demonstrate knowledge of foodborne disease prevention, application of the Hazard Analysis Critical Control Point principles, and the requirements of the Model Food Code.

**Employee Health (Part 2-2):**

- Management or person in charge shall require foodservice personnel (applicants to whom a conditional offer of employment is made and current foodservice employees) to report information about their health and activities as they relate to diseases that are transmissible through food.

**Personal Cleanliness (Part 2-3) and Hygienic Practices (Part 2-4):**

- Good hygienic practices are important to ensuring that food is not contaminated with bacteria, foreign objects or chemicals. It is important that all foodservice workers maintain a high standard of personal hygiene and cleanliness. Some hygienic practices that every foodservice worker should follow include:
  - frequent hand-washing,
  - personal hygiene
  - hair restraints
  - wearing appropriate attire (clean clothes, aprons, closed-toe shoes) and limited jewelry
  - keeping fingernails trimmed, filed, and maintained
  - abstaining from smoking, chewing gum and other unhygienic practices in food handling areas, and
  - covering all wounds on hands or arms.

**Sample SUA Food Handling Standards/Guidelines**

**California**

- All food handlers and servers shall be free of communicable disease. If an employee or volunteer is believed ill or a carrier of a communicable disease, she/he shall be restricted from performing food preparation and service activities. Clearance from a physician may be requested by the provider prior to permitting the employee to return to work.
• All food handlers and servers shall wear clean, washable clothing, close-toed protective footwear, and hairnets, caps, or other suitable hair coverings to prevent contamination of foods, beverages and/or utensils.

• All food handlers and servers are prohibited from using tobacco in any form while preparing, handling, or serving food or beverages. Tobacco shall not be used in any form in any room or space used primarily for the preparation or storage of food. Projects shall post and maintain No Smoking signs in such rooms or places.

• All food handlers and servers shall use tongs or other implements while serving food. If hand contact with the food is unavoidable, disposable hand coverings shall be worn.

• All food handlers and servers shall thoroughly wash their hands prior to beginning work, after using the toilet and every time hands are soiled.

• Hand washing facilities in good repair and equipped with hot and cold running water shall be provided for employees within or adjacent to the food preparation area.

• A permanently installed detergent or soap dispenser and single use paper towels or hot air blowers shall be provided at or adjacent to all hand washing facilities.

• Legible signs shall be posted in each toilet room directing employees that they shall wash hands with soap before returning to work.

Food Safety Training and Education

Providing OANP staff and participants with information and educational materials for food safety is important in reducing the risk of food-borne illness. Because there are large numbers of volunteers who work in OANP dining centers and who deliver meals to homes, providing them with food safety training is important. It is recommended that either SUAs or AAAs indicate in their policies and procedures that OANP providers, including caterers, train staff in food safety and that this recommendation be included in any service contract.

The 1995 National Evaluation of the OANP found about 36% of SUAs reporting state certification for food service sanitation in their state. The Evaluation also found that sanitation and food safety training was mandatory for different program personnel in a number of states. Such training was most frequently mandatory for food service
aides, site managers, and nutrition project directors. Thirty-three percent of the SUAs reported that training was not mandatory at the project or site levels (10).

Training of OANP staff and volunteers is an important component to ensure food safety. Managers and/or supervisors must assume a primary responsibility for food safety and sanitation training in a food establishment. Some SUAs require training for all program personnel. For example, food service managers and other staff members may be required to complete a course provided by their local Health Department to be certified as a Food Handler. Certification of specific food service personnel is often required by the State Health Department.

**Foodservice Certification Courses**

Below are some programs that provide certification for food protection managers. For certification requirements, contact the local regulatory agency. A list of State health agencies can be found at: [www.fda.gov/oca/sthealth.htm](http://www.fda.gov/oca/sthealth.htm)

**ServSafe**

A comprehensive food safety education and training program developed by the Educational Foundation of the National Restaurant Association that is widely recognized by many federal, state and local jurisdictions. The program combines thorough training in all areas of food safety. The ServSafe certificate verifies that an individual has successfully passed the ServSafe Food Protection Manager Certification Examination. [www.edfound.org](http://www.edfound.org)

**Certified Food Protection Professional (CFPP)**

The Dietary Managers Association's CFPP credential is geared toward the food-service professional. Options for the food protection course are a 16-hour classroom food safety training course, independent study via print materials, or independent online study. [www.dmaonline.org](http://www.dmaonline.org)

**National Certified Professional Food Manager (NCPFM)**

Experior AssessmentsTM administers the NCPFM exam, which tests knowledge, skills, and abilities related to food protection, and the ability to organize and supervise employees within the work environment. The NCPFM exam is appropriate for site supervisors, managers, or first line supervisors in establishments that prepare and serve food. [www.experioronline.com](http://www.experioronline.com)
Certified Food Safety Manager

This certification, offered by the National Registry of Food Safety Professionals, Inc., serves the foodservice industry, regulatory agencies, and academia. The Food Safety Manager Certification Examination is designed to be used with any food safety training program available on the market. Visit www.nrfsp.com for more information.

Food Safety Information and Training Resources for Professionals

A number of food safety and sanitation training resources are available. Below are several websites that provide training information:


Foodborne Illness Education Information Center: Provides links to information on distance learning, on-line courses and curriculums. http://www.nal.usda.gov/foodborne/fbindex/032.htm

Many resources are also available in languages other than English. A few sources are listed below:


Food Safety Information and Material for Consumers/OANP Participants

Food safety education for OANP participants, especially those receiving home delivered meals, helps prevent foodborne illness. Studies show that home-delivered meal participants often save food from their meals to eat later in the
day (11-13). Most home-delivered meal participants do not consume their meal immediately upon delivery (13). Therefore, it is important that OANPs educate participants and their caregivers about proper storage and heating of meals not immediately consumed and/or if portions of the meal are saved to eat later in the day. Dining center participants should also be educated about the risks associated with taking food out from the dining site.

Resources and materials for consumers and older adults include:

- To Your Health!?Food Safety for Seniors [http://www.foodsafety.gov/~fsg/sr2.html](http://www.foodsafety.gov/~fsg/sr2.html)

Sample SUA Food Safety Training Standards/Guidelines

California

- **Quarterly in-service training shall be provided for all paid and volunteer food service personnel, including home-delivered meal personnel.**

- **At least two of the quarterly in-service training sessions shall include the prevention of foodborne illness and all food service personnel as defined in Subsection 147.5c. shall attend.**

- **Prevention of foodborne illness training shall include the principles of Hazard Analysis Critical Control Point (HACCP).**
Connecticut

- Appropriately instruct clients or their caregivers on the following safe practices for handling delivered food, as they may apply:
  - to eat hot food within 1 hour of delivery.
  - to eat cold foods immediately or place them in the refrigerator.
  - to eat fast chilled meals within 3 days of delivery and to store them at 40 degrees or less (edited).
  - to eat frozen meals within 1 month of delivery and to store them at 10 degrees or less.
  - to have an accurate thermometer in their refrigerator if they store fast chilled meals, and one in their freezer if they store frozen meals.

FOOD

Food Safety

Inadequate food temperature controls are common factors contributing to foodborne illness. Unless food is properly handled when purchased, stored, prepared, and served, contamination may occur. Proper food handling practices help prevent foodborne illness. Written guidelines should reflect the type of foodservice operations in place. There are different requirements to prepare and serve hot meals at dining centers and to the homebound than for meals prepared and delivered from a central kitchen. Likewise, the preparation and/or service of frozen meals require specific procedures. Regardless of the type of congregate or home delivered meal prepared and/or served, a critical element in maintaining food safety is to cook foods to appropriate temperatures and to keep perishable food products out of the temperature danger zone (between 41 and 140 degrees Fahrenheit).

Food and other products such as utensils and dinnerware must be packaged and delivered in a manner that prevents contamination and maintains proper food temperatures. State of the art food carrier and transport systems can safely deliver cold and hot food items and/or meals at proper temperatures within acceptable time frames. Protecting food from contamination is dependent upon the development of suitable standards and procedures and ensuring that these guidelines are followed. The Partnership for Food Safety Education's Fight BAC! formed in 1997, is a public-private coalition dedicated to educating the public about safe food handling to help reduce foodborne illness. Members represent industry, government (including USDA, FDA, CDC) and consumer groups, as well as alliances with corporate America. Below are four steps (verbatim) for keeping food safe developed for the Fight BAC! campaign (http://www.fightbac.org/foursteps.cfm). The website has many other resources and links. Also refer to Chapter 3 in the Model Food Code for additional guidance.
Step 1. Clean: Wash hands and surfaces often

According to food safety experts, bacteria can spread throughout the kitchen and get on to cutting boards, knives, sponges and counter tops. Here's how to Fight BAC:

- Wash hands in hot soapy water before preparing food and after using the bathroom, changing diapers and handling pets. For best results, consumers should use warm water to moisten their hands and then apply soap and rub their hands together for 20 seconds before rinsing thoroughly. Twenty seconds is the same amount of time it takes to sing two choruses of Happy Birthday. After hands are washed, they should be dried with a paper towel or with an air hand-drying device.

- Wash cutting boards, knives, utensils and counter tops in hot soapy water after preparing each food item and before going on to the next one.

- Use plastic or other non-porous cutting boards. Cutting boards should be run through the dishwasher or washed in hot soapy water after use. Consider using paper towels to clean up kitchen surfaces. Or, if using cloth towels, consumers should wash them often in the hot cycle of the washing machine.

Step 2. Separate: Don't cross-contaminate

Cross-contamination is how bacteria spread from one food product to another. This is especially true for raw meat, poultry and seafood. Experts caution to keep these foods and their juices away from ready-to-eat foods. Here's how consumers can Fight BAC:

- Separate raw meat, poultry and seafood from other food in the grocery-shopping cart.

- Store raw meat, poultry and seafood on the bottom shelf of the refrigerator so juices don't drip onto other foods.

- If possible, use one cutting board for raw meat products and another for salads and other foods that are ready to be eaten.

- Always wash cutting boards, knives and other utensils with hot soapy water after they come in contact with raw meat, poultry and seafood.
• Never place cooked food on a plate which previously held raw meat, poultry or seafood

Step 3. Cook: Cook to Proper Temperatures

Food safety experts agree that foods are properly cooked when they are heated for a long enough time and at a high enough temperature to kill the harmful bacteria that cause foodborne illness. The best way to Fight BAC is to:

• Use a meat thermometer, which measures the internal temperature of cooked meat and poultry, to make sure that the meat is cooked all the way through.

• Cook roasts and steaks to at least 145°F. Whole poultry should be cooked to 180°F for doneness.

• Cook ground meat, where bacteria can spread during grinding, to at least 160 degrees Fahrenheit. Information from the Centers for Disease Control and Prevention (CDC) links eating undercooked, pink ground beef with a higher risk of illness. If a thermometer is not available, do not eat ground beef that is still pink inside.

• Cook eggs until the yolk and white are firm, not runny. Don't use recipes in which eggs remain raw or only partially cooked.

• Cook fish until it is opaque and flakes easily with a fork.

• Make sure there are no cold spots in food (where bacteria can survive) when cooking in a microwave oven. For best results, cover food, stir and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking.

• Bring sauces, soups and gravy to a boil when reheating. Heat other leftovers thoroughly to 165 degrees Fahrenheit.

Step 4. Chill: Refrigerate promptly

Food safety experts advise consumers to refrigerate foods quickly because cold temperatures keep most harmful bacteria from growing and multiplying. So, public health officials recommend setting the refrigerator at 40°F and the freezer unit at 0°F and oc-
casionally checking these temperatures with an appliance thermometer. Then, Americans can Fight BAC by following these steps:

- Refrigerate or freeze perishables, prepared food and leftovers within two hours.
- Never defrost (or marinate) food on the kitchen counter. Use the refrigerator, cold running water or the microwave.
- Divide large amounts of leftovers into small, shallow containers for quick cooling in the refrigerator.
- With poultry and other stuffed meats, remove the stuffing and refrigerate it in a separate container.
- Don't pack the refrigerator. Cool air must circulate to keep food safe.

Other Guidelines include:

From Health Services Agency-County of Santa Cruz Environmental Health Services. Available at: [http://www.co.santa-cruz.ca.us/eh/consumer/food/holding_temperatures.pdf](http://www.co.santa-cruz.ca.us/eh/consumer/food/holding_temperatures.pdf)

**Correct holding temperature**

- Keep hot foods hot and cold foods cold.
- Hot foods keep at 140°F or above.
- Cold foods refrigerate at 41°F or below.
- Use a calibrated probe thermometer to check internal food temperatures.

**Holding hot foods**

- Transfer hot foods directly to an oven, steam table, or other holding unit. Do not heat foods in a steam or holding unit.
- Reheat leftover foods to 165°F prior to placing in a holding unit. If possible, avoid cooking foods more than one day ahead of time.
• Stir foods at frequent intervals to evenly distribute heat. Keep a cover on foods to help maintain temperatures. Break the chain of possible food contamination.

• Never combine an old batch of food with a new batch. Check the temperature of the foods on a frequent and regular basis. Use a clean and sanitized thermometer.

• Don’t rely solely on the thermostat gauges of the holding equipment. They may not accurately indicate the internal temperature of the food.

**Holding cold foods**

• Keep foods in cold-holding tables, commercial refrigerated display cases, and refrigerators.

• Keep food in salad bars and display units, set the food containers in ice to keep them below 41°F.

• Keep a cover on foods held in cold holding units to help maintain temperatures.

• Check the temperature of the foods on a frequent and regular basis. Use a clean, sanitized thermometer.

**Calibrating a thermometer using the ice method**

Immerse the temperature probe at least two inches into a glass of finely crushed ice. Add cold tap water to remove air pockets. Wait at least 30 seconds. The gauge should read 32°F; if not, adjust it accordingly.
Thermy, developed by the USDA, Food Safety and Inspection Service, is an educational site (http://www.fsis.usda.gov/thermy/). It focuses on cooking temperatures needed to ensure food safety. It discusses the different types of thermometers and why food color does not indicate that the minimum internal temperature has been reached.

### Hazard Analysis Critical Control Point (HACCP)

The HACCP system, developed by the FDA, Center for Food Safety and Applied Nutrition, should be applied throughout any foodservice operation. HACCP is a proactive, comprehensive, science-based food safety system that allows operators to continuously monitor their establishments and reduce the risk of foodborne illness. The successful application of HACCP requires the responsibility, commitment, and involvement of management and every employee and volunteer involved in the handling, delivery, and service of congregate and home-delivered meals. Following HACCP guidelines allows for a thorough monitoring of meals that will help ensure food safety. The HACCP system comprises seven principles:

1. Conduct a hazard analysis. Potential hazards associated with a food and measures to control those hazards are identified. The hazard could be biological, such as a microbe; chemical, such as a toxin; or physical, such as ground glass or metal fragments.
2. Determine Critical Control Points (CCPs). These are points in a food's production--from its raw state through processing and shipping to consumption by the consumer--at which the potential hazard can be controlled or eliminated. Examples are cooking, cooling, packaging, and metal detection.

3. Establish critical limits. For a cooked food, for example, this might include setting the minimum cooking temperature and time required to ensure the elimination of any harmful microbes.

4. Establish monitoring procedures. Such procedures might include determining how and by whom cooking time and temperature should be monitored.

5. Establish corrective actions when monitoring shows that a critical limit has not been met. For example, reprocessing or disposing of food if the minimum cooking temperature is not met.

6. Verification procedures to confirm that the system is works. For example, testing time-and-temperature recording devices to verify that a cooking unit is working properly.

7. Establish record keeping and documentation procedures. This would include records of hazards and their control methods, the monitoring of safety requirements and action taken to correct potential problems. Each of these principles must be backed by sound scientific knowledge: for example, published microbiological studies on time and temperature factors for controlling foodborne pathogens.


Sample SUA Food Safety Standards/Guidelines

Arizona

All foods shall be of good quality and shall be obtained from sources which conform to federal, state and local regulatory standards for quality, sanitation, and safety. The following shall not be used:
• Foods prepared or canned in the home,
• Cans which are bulging, dented, leaking, rusty or which spurt liquid when opened,
• Foods with an off odor, and
• Foods which show signs of mold.

The following may be used:
• Donated bakery products, and
• Donated fruits and vegetables

All other food contributions shall be cleared, prior to serving, with Local County Sanitarian or the Department consulting Registered Dietitian or Nutritionist.

California

• Food in hermetically sealed containers shall be processed in a licensed establishment. No home-prepared or home-canned food shall be used.

• Food from broken containers, unlabeled, rusty, or leaking cans or cans with side seam dents, rim dents, or swells shall not be used.

• Adequate and suitable space free from dirt, vermin and contamination or adulteration shall be provided for the storage of food, beverages, and cooking, serving, and eating utensils.

• The dry storage area shall be cool, dark, well ventilated, clean, orderly, and free from leakage, insects, rodents, and vermin, or other contamination. It shall have at least 10 foot-candles of light. It is recommended that the temperature of the dry storage area be maintained at 50-70 degrees Fahrenheit.

• All foods shall be stored at least 6 inches above the floor, 18 inches from the ceiling and away from the wall to permit free circulation of air and prevent contamination.

• All food and non-food items shall be clearly labeled so that their contents are easily identifiable.

• All chemicals and cleaning supplies shall be stored in an area separate from food.
• Opened packages of foods, such as sugar, flour and noodles shall be stored in tightly closed containers and clearly labeled on the main part of the container.
• Refrigerators and freezers shall be kept clean and in good repair.

• All refrigerators shall maintain a maximum temperature of 40 degrees Fahrenheit.
• All freezers shall maintain a maximum temperature of 0 degrees Fahrenheit.

• An accurate and readily visible thermometer shall be installed in all refrigerators and freezers.

Georgia

• Food must be attractive, palatable, and appealing to the older persons to assure maximum individual consumption.

• All raw food used in the preparation of meals shall be high quality. The following minimum standards must be met:

  • Canned fruits and vegetables: USDA Grade A
  • Fresh fruits and vegetables: #1 Quality
  • Poultry: USDA Grade A or better
  • Beef: USDA Choice or better
  • Pork: USDA #1 or better
  • Eggs and dairy products: USDA Grade A or better
  • Salt: Iodized
  • Milk: Grade A Pasteurized

• Food items used in the preparation/serving of nutrition program meals must meet the expiration date usage requirements. Food items beyond the indicated expiration date on the package are not allowed.

• Preparation methods designed to conserve the nutritive value of food should be followed at all times. Specific attention should be given to short cooking periods and minimum use of water in preparation of vegetables.
Iowa

- All satellite or catered meals shall be delivered to the site(s) by the project or caterer at an agreed upon time, in good condition and at temperatures of at least 140°F for hot foods and 40°F or below (edited) for cold foods.

- Appropriate temperatures shall be maintained throughout the period of meal service. In order to retain maximum nutritional value and food quality, foods should be served as soon as possible after preparation. Holding time between the completion of cooking and beginning of food service shall not exceed two hours.

Massachusetts

Food storage systems shall ensure a First-In, First-Out? use of foods. All foods stored in freezers shall be dated and labeled.

Minnesota

- The AAA reserves the right to inspect such foods to determine compliance with the specifications and to reject any food not meeting such specifications.

- Insulated containers or other appropriate materials that are easily cleaned and sanitized each day must be used to maintain acceptable temperatures during the transport of bulk foods to serving centers, and for home delivered meals on delivery routes.

- Insulated containers or other appropriate materials that are easily cleaned and sanitized each day must be used to maintain acceptable temperatures during the transport of bulk foods to serving congregate dining centers, and for home delivered meals on delivery routes.

North Carolina

All food shall be packaged and transported in a manner to protect against potential contamination including dust, insects, rodents, unclean equipment and utensils, and unnecessary handling.
Tennessee

- Foods purchased for use in the nutrition program shall be of good quality and shall be obtained from sources, which conform to federal, state and local regulatory standards.

- Each food carrier must be tightly closed after each meal is removed.

- From the time of packaging of home delivered meals to the receipt by participants, hot food shall be kept at 140°F or above, and cold foods at 40°F or below (edited).

- Frozen meals shall be maintained in a frozen state during delivery. When the meal has completely thawed, it shall not be refrozen for later use.

- All meals must be individually portioned. Cold and hot foods must be packed in separate insulated food carriers with tight fitting lids and transported immediately.

- No food with the exception of fresh fruit and milk shall be taken from the congregate meal site after it has been served.

- Nutrition service providers shall have a written policy posted regarding the removal of food from the congregate meal site.

Utah

- All food transported to sites which becomes leftover, except unopened pre-packed food, must be properly disposed of at the meal site or the main food preparation site in compliance with local Health Department regulations.

- AAAs shall develop policies and procedures to minimize leftover meals to 1.5% or less.

- Leftovers (which should be minimal) shall be offered to all participants as second helpings at those congregate settings which do not have on site cooking facilities or methods to preserve leftover food to meet the nutritional standards for later consumption (approved by the local Health Department).

- The AAA shall cause to have placed at each nutrition site, in a location that is easily visible to patrons, a disclaimer which shall state: For Your Safety: Food removed from the center must be kept hot or refrigerated promptly. We cannot be responsible for illness or problems caused by improperly handled food. No food shall be taken
Food Product Recalls

All OANPs need to pay attention to food product recalls and be familiar with the appropriate steps for handling food recalls. A food recall is a voluntary action by a food manufacturer or distributor to protect the public from products that may cause health problems and even death. The type of food product determines which federal agency is responsible for regulation (14). The USDA Food Safety and Inspection Service (FSIS) inspects and regulates meat and poultry products, as well as pasteurized egg products (eggs that have been removed from their shells for further processing) produced in federally inspected plants. The FDA regulates all other food products, including fruits, vegetables, dairy, fish, grains, and nuts. FDA is responsible for ensuring that foods are safe, wholesome, and correctly labeled. However, because FSIS is the primary agency for USDA commodity foods, it is the liaison agency in all recalls of USDA commodity foods including those regulated by the FDA.

The FDA has guidelines for companies to follow with respect to their voluntary removal or correction of marketed violated products under the Agency's jurisdiction. These guidelines are published in Title 21 of the Code of Federal Regulations, Part 7. FDA expects companies to take full responsibility for product recalls, including follow-up checks to assure that recalls are successful. FDA's role under the guidelines is to monitor company recalls and assess the adequacy of a firm's action. After a recall is completed, FDA makes sure that the product is destroyed or suitably reconditioned and investigates why the product was defective.

When a food product is recalled, FSIS and FDA are responsible for determining a recall classification based on the health risk to consumers. A recall classification is always listed in the recall notification. FSIS and FDA use a code to help consumers know the seriousness of the effects of consuming the product. The following is a list of definitions of the classification of a food recall:

Class I: A health hazard situation with a reasonable probability that consuming the product will cause serious health problems or death.

Class II: A health hazard situation with a remote probability of health problems from consuming the product.
Handling Food Product Recalls

It is recommended that SUAs and/or AAAs implement policies and procedures that include information on responding to a Food Recall Notice. OANPs should be aware of the standard food recall procedures in their state. Important procedures to consider include:

- Completing a food recall action checklist.
- Identifying the recalled food product.
- Counting the recalled product in inventory.
- Identifying where and how to segregate the recalled food product.
- Placing warning labels on the segregated food product.
- Notifying site staff not to use the segregated food product.
- Counting the amount of the recalled food product used.
- Accounting for the entire recalled food product by consolidating counts for product used and product in inventory.
- Obtaining information needed for public communications: whether the product was served, to whom it was served, and date served

The following are some resources regarding handling a food product recall:

Print Materials:


Consumer Information and Education:

- US Food and Drug Administration Recalls and Safety Alerts: [http://www.fda.gov/opacom/7alerts.html](http://www.fda.gov/opacom/7alerts.html)
Sample SUA Food Product Recall Standards/Guidelines

Alabama

- A designated individual at the Contractor's corporate offices will maintain a current vendor listing for food purchases made at the corporate or the local level. Information will be readily available for identifying the product lines purchased by manufacturer, brand, and item number.

- The Contractor shall require, as a condition of purchase, that all vendors (food brokers, wholesalers, distributors, manufacturers, etc.) immediately alert the Contractor in the event that notification of a food recall is received from a manufacturer, the Health Department, or other governmental agency.

- Upon receiving notification of a food recall, the Contractor will take the necessary steps to determine if the recalled product was a brand and item purchased for meals served in the State of Alabama. In that event, the Commission and the appointed representative of the Commission will be immediately advised of the potential problem.

- The Contractor will also (a) check purchasing records to determine which production units, if any, received the recalled lot numbers and the date and amounts received (b) check production unit records to determine the recent history for serving the recalled product line and (c) check all storage, production, and service areas to locate any recalled products. The Commission will be advised of these determinations. If a recalled product has been or may have been served within the State of Alabama, the Commission will advise the Area Agencies on Aging of the potential problem and will consult with officials at the Alabama State Department of Public Health to determine the appropriate course of action. If the product recall results in meals or portions of meals not being served or injury to persons consuming the contaminated food, the Contractor will bear the loss and will be liable for all damages.

Foodborne Illness Outbreaks

Data from the Foodborne-Disease Outbreak Surveillance System (15) indicate that the most commonly reported factors that contributed to foodborne disease between 1993-1997 were improper holding temperature and inadequate cooking of food. The annual number of outbreaks reported ranged from 477 to 653. Objectives 10-1 and 10-2 in Healthy People 2010 aim at reducing the number of foodborne illness cases and foodborne illness outbreaks by 50% respectively.

A foodborne illness outbreak is when a group of people consumes the same contami-
nated food and two or more of them come down with the same illness. This may occur when a group eats the same contaminated meal together at a foodservice establishment, or it may occur among a group of people who do not know each other, but who all happen to buy and eat the same contaminated food from a grocery store or restaurant. Usually a number of factors contribute to a foodborne illness outbreak. Many are local in nature. For example, a food item can become easily contaminated when it is inadequately cooked or when it is left out at room temperature for many hours. Foodborne illness outbreaks are often recognized when a group of people realizes that they all became ill after a common meal, and someone calls the local health department. For example, a common local outbreak might occur after eating a catered meal at a reception or a meal at an understaffed restaurant on a particularly busy day. Cases of foodborne illness can either be confirmed through laboratory analysis of the patients’ stools or remain probable or suspect. Reports of outbreaks to local health departments usually come from individuals who are ill or health care providers and hospitals. Local health departments investigate reported outbreaks and report the results to the state Department of Health, which subsequently reports them to the US Centers for Disease Control and Prevention (CDC). The CDC: Foodborne Infections provides up-to-date information about foodborne infection on their website: http://www.cdc.gov/ncidod/dbmd/diseaseinfo/foodborneinfections_g.htm.

It is important for SUAs to provide AAAs and OANPs with the appropriate guidance on responding to foodborne illness outbreaks. While there have been instances of foodborne illnesses associated with the OANP, the reported incidence of such outbreaks has been relatively low. The 1995 National Evaluation found that among the 400 AAAs surveyed (which represent 60% of the AAAs in the country), there were only six incidents of illness associated with the OANP in the past three years. The AAAs reported that 175 older persons became ill from these six incidents. Meat and poultry products were associated with the reported food-borne illnesses (10).

If a foodborne disease outbreak occurs in an OANP, the impact can be devastating for the program and its participants. The following are some examples from the Idaho Food Safety & Sanitation Manual (http://www2.state.id.us/dhw/behs/FoodSafety/Sec6.htm) on what to do if a foodborne disease outbreak takes place:

- Staff and/or volunteers should direct all calls and/or complaints from a customer claiming that they became sick from a food and/or beverage they consumed to the manager or person in charge immediately. The following information should be obtained from the caller:
  - Name, address and telephone number of person calling;
Who became ill and what were their symptoms;

Was the illness diagnosed by a physician (get physician's name if diagnosed);

What foods and/or drinks were consumed;

What was the day and time the food was consumed;

Who was the person who served or provided the food, if any;

Other information that may seem important at the time.

Write the information down. Include the date and time the person called. Inform the caller that the complaint will be investigated immediately, and the management will call back within a specified period of time.

The information needs to be promptly evaluated and a decision made on the likelihood that an outbreak has occurred. There are no clear cut guidelines. The best rule of thumb is to consider that a foodborne disease outbreak may have occurred when two or more persons experience a similar illness, usually gastrointestinal, after eating a common food.

After giving the matter proper consideration and the management has reason to believe that a foodborne disease outbreak may have occurred, the following contacts are important:

Health Department. Contact your local health department immediately.

Your Attorney. Advise your attorney of the situation and the action taken. Although your attorney will most likely recommend that you cooperate fully with the health department, he or she may want to be included in the investigation to ensure that the rights of all concerned are properly respected.

Your Insurance Agent. Depending on the nature and the extent of the outbreak, your insurance company may become involved. It is advisable to inform your agent at the beginning of an official investigation.

Once an official foodborne disease outbreak investigation has begun, the management needs to be aware of the following health department activities:

Interviews. Investigating a foodborne disease outbreak is a lot like detective work. Health department staff will be asking a lot of questions, not only of
food establishment employees, but also of people who allegedly have become ill. Two fundamental questions need to be answered:

+ What food caused the illness; and
+ What went wrong to cause the illness

- Isolating the Disease. Depending on the nature of the foodborne disease outbreak, preventing additional cases is paramount. Such control measures that may need to be implemented immediately are as follows:

+ Excluding sick employees from food-contact work,
+ Using alternate food processing or preparation methods, and/or
+ Closing the establishment.

- Sampling. Collecting food and environmental samples is an important activity during a foodborne disease outbreak investigation. Finding or not finding the suspected organism or agent in a specific food is significant in determining the cause of the outbreak. Also, it is not uncommon to obtain stool, vomitus and/or blood samples from victims and employees.

- Embargo. Suspected foods in foodborne disease outbreak investigations may be placed under embargo until a determination can be made as to its safety or status. Such foods will be properly identified, and the food must remain undisturbed until the embargo is lifted.

- Reports. Several reports are generated as a result of the investigation. A special inspection report is generally completed during the course of the investigation. It is similar to a regular inspection but only addresses conditions relating to the outbreak. Also, case investigation reports are generated.
Sample SUA Foodborne Illness Standards/Guidelines

Alabama

- The Contractor will make reasonable effort to avoid problems with food product contamination, natural or otherwise, and with foodborne illnesses through the food purchasing specifications and buying practices; the product receiving and storage procedures; and the food handling and delivery practices. In the event of a problem or suspected problem, the Commission, the appointed representative of the Commission, and the affected Area Agency (ies) will be notified. The Contractor will cooperate with the Commission and any officials of the Alabama Department of Public Health investigating the incident(s). Client notification will be as recommended by the Alabama Department of Public Health and the Commission. Any and all media communications will be coordinated with the Commission; both the Commission and the Contractor will have designated spokespersons for handling the media communications.

- The Contractor will develop plans for handling food product recalls; food contaminants; and outbreaks/suspected outbreaks of foodborne illnesses or other reported injury from food contaminants. A copy of said plans shall be submitted with the Invitation to Bid. At the beginning of the contract year, the Contractor will provide copies of the plans to each Area Agency on Aging and to the appointed representative of the Commission. In the event of a problem, the Contractor will aim to identify the source of the contamination and take any needed steps to avoid future problems. The Contractor will be liable for all medical expenses and damage claims resulting from a medically documented foodborne illness.

New York

- Outbreaks of suspected foodborne illness are reported to the local Health Department and SUA immediately.
EQUIPMENT/WATER/PHYSICAL FACILITIES

EQUIPMENT

Contaminated equipment is one of the major causes of foodborne disease outbreaks. Thus, it is crucial that the foodservice facility and its equipment are properly maintained, cleaned, and sanitized to prevent the transmission of foodborne diseases. Effective cleaning and sanitization of equipment and utensils serve two primary purposes. They:

- Reduce chances for contaminating safe food during processing, preparation, storage, and service by physically removing soil and bacteria and other microorganisms; and
- Minimize the chances of transmitting disease organisms to the consumer by achieving bacteriologically safe eating utensils.

The task of choosing equipment designed for sanitation has been simplified by organizations such as the National Sanitation Foundation (NSF) International. NSF International develops and publishes standards for sanitary equipment design. A clean and sanitary food establishment is a prerequisite to an effective food-safety program. A routine cleaning program must be established and monitored.

WATER SUPPLY SYSTEM

Proper sanitary controls for the water supply system and sewage and liquid waste disposal systems are necessary in food establishments to prevent the food contamination and the creation of public health hazards.

Because water is so common in place for food establishments, its availability, purity, and safety are taken for granted. The protection of water is provided through compliance with local and state regulations of public drinking water systems and plumbing codes. However, hazards through repairs, emergencies, changes, and/or alterations in the water delivery system and distribution system within the establishment may occur. Therefore, the water supply systems in a food establishment also need special attention and must be monitored to prevent food, equipment, and supplies from becoming contaminated.

PHYSICAL FACILITIES

Well-designed, constructed, installed, operated and maintained physical facilities of a
foodservice establishment are important to ensure adequate food safety and sanitation. Other key considerations in helping keep food safe include adequate hand-washing and toilet facilities and prohibiting pets and other animals on the premises of the foodservice establishment. Pests such as insects and rodents can also pose serious problems for establishments. The greatest danger from pests comes from their ability to spread disease, including foodborne illness. Developing policies and procedures to ensure that the physical facilities of the establishment are maintained in good repair and implementing a pest management program will help prevent contamination and pests from infesting foodservice establishments.

**Sample SUA Equipment/Water/Physical Facilities Standards/Guidelines**

Idaho

Equipment

**WAREWASHING CYCLE**

The following numerated list and comments pertaining to the wash cycle of food contact surfaces will help supervisors and managers appreciate why there is a particular order in the process:

1. **Equipment and Utensils Clean Prior to Use.** Properly cleaned and sanitized equipment and utensils should be bacteriologically safe prior to use. Should contamination be suspected, the equipment and/or utensils should not be used, but re-cleaned and sanitized.

2. **Soiled Equipment and Utensils.** During use, equipment and utensils become soiled and contaminated with bacteria.

3. **Scraping, Preflushing and Presoaking.** Scraping, preflushing and presoaking, as necessary, are methods for removing gross amounts and stubborn soil from equipment and utensils.

4. **Cleaning.** There are two steps in the cleaning process - washing and rinsing:

   - **Washing,** when using proper detergents, cleaners, chemicals and abrasives, remove the remaining soil from equipment and utensils. This is a physical and a chemical process. The soil and bacteria, as well as cleaning compounds, are suspended in the wash water; and
• Rinsing removes most of the suspended soil, bacteria and cleaning compounds from the equipment and utensils. Although the equipment and utensils look visibly clean at this point, they are still contaminated with many bacteria.

5. Sanitizing. Sanitizing kills the remaining pathogenic organisms on the equipment and utensils. Sanitization will occur when certain specific chemical concentrations, temperature requirements, time requirements and water conditions are satisfied. These conditions are crucial for effective sanitization. Therefore, precise measurements of the sanitization process are made periodically. NO RINSING OR ANY OTHER CLEANING PROCESS SHOULD TAKE PLACE AFTER THE SANITIZING PROCESS.

6. Air Drying. The only acceptable method of drying equipment and utensils is air drying. The use of towels for drying, polishing or any other purpose re-contaminates equipment and utensils with bacteria.

7. Proper Storage and Handling. Proper storage and handling of cleaned and sanitized equipment and utensils is very important to prevent recontamination prior to use. Cleaned and sanitized equipment and utensils must be:
   • stored on clean surfaces, and
   • handled to minimize contamination of food contact surfaces.

SANITIZATION PROCEDURE

Chemical sanitization requires greater controls than hot water sanitization. The following factors must be considered in order to obtain effective sanitization by chemical sanitization methods:
• Amount of water used;
• pH of the water;
• Hardness of the water;
• Temperature of the water; and
• Contact time.
The pH and hardness needs to be determined. Should the water supply be from a municipal supply, the water company may already have this information. If not, the water will need to be tested periodically.

MANUAL SANITIZATION

The following table provides information pertaining to minimum and maximum chemical sanitization requirements for manual operations (in parts per million-ppm)

<table>
<thead>
<tr>
<th>Chemical Solutions</th>
<th>Temp (°C)</th>
<th>pH</th>
<th>Maximum Allowed</th>
<th>Contact Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120°</td>
<td>25</td>
<td>25</td>
<td>200</td>
<td>10 sec</td>
</tr>
<tr>
<td>100°</td>
<td>50</td>
<td>50</td>
<td>200</td>
<td>10 sec</td>
</tr>
<tr>
<td>75°</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>10 sec</td>
</tr>
<tr>
<td>55°</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>10 sec</td>
</tr>
</tbody>
</table>

<8.0

<5.0*

Iodine 75° 12.5 As specified by manufacturer, see label; hardness 500 ppm or less* 25 30 sec

Quats** 75°  200 30 sec

* unless container label specifies a higher pH and/or water hardness limit
** Quaternary ammonium compounds

OBTAINING PROPER SANITIZATION

All chemical sanitizer instructions call for a given amount of sanitizer per gallon of water. The following are two methods of determining the amount of water used for sanitization:

- Use a gallon container and pour a gallon of water at a time into the sink until the water is at a suitable depth; or

- Use the following formula:

  \[
  \text{width} \times \text{length} \times \text{water depth} = \text{total gallons}
  \]

  \[
  231 \text{ (cu. in. in one gallon)}
  \]

  The following will serve as an example:
Length of sink - 24" Width of sink - 24" Depth of sink = 16"

\[24 \times 24 \times 16 = 9,216 = 40\text{ gallons}\]

- Use the test kit each time and adjust water amount or sanitizer amount until proper concentration is obtained.

In the first two methods, the same amount of water must be used each time, unless the amount is recalculated.

Another problem in measuring the right amount of sanitizing chemical is the method of measure stated on the label. The following table provides equivalents of various measurements:

<table>
<thead>
<tr>
<th></th>
<th>drops</th>
<th>ml.</th>
<th>tsp.</th>
<th>tbsp.</th>
<th>f.o.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ml.</td>
<td>20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1 tsp.</td>
<td>60</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1 tbsp.</td>
<td>-</td>
<td>15</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1 f.o.</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>1 cup</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>16</td>
<td>8</td>
</tr>
</tbody>
</table>

ml. = milliliter  tbsp. = tablespoon
tsp. = teaspoon  f.o. = fluid ounce

Household bleach is often used as a sanitizer. When used, only pure bleach (without additives) is acceptable. The amounts of bleach (which contains 5.25% sodium hypochlorite) needed to obtain certain concentrations are as follows:

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Amount of bleach/gallon(s) water</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 ppm</td>
<td>3/4 teaspoon/2 gallons</td>
</tr>
<tr>
<td></td>
<td>1 1/2 teaspoons/4 gallons</td>
</tr>
<tr>
<td></td>
<td>1 tablespoon/8 gallons</td>
</tr>
<tr>
<td>50 ppm</td>
<td>3/4 teaspoon/1 gallon</td>
</tr>
<tr>
<td></td>
<td>1 1/2 teaspoons/2 gallons</td>
</tr>
<tr>
<td></td>
<td>1 tablespoon/4 gallons</td>
</tr>
<tr>
<td></td>
<td>1/4 cup/16 gallons</td>
</tr>
<tr>
<td>100 ppm</td>
<td>1 1/2 teaspoons/1 gallon</td>
</tr>
<tr>
<td></td>
<td>1 tablespoon/2 gallons</td>
</tr>
<tr>
<td></td>
<td>1/2 cup/16 gallons</td>
</tr>
<tr>
<td>200 ppm</td>
<td>1 tablespoon/1 gallon</td>
</tr>
<tr>
<td></td>
<td>1 cup/16 gallons</td>
</tr>
</tbody>
</table>
MANUAL WAREWASHING METHODS

Three-Compartment Sink Method (hot water sanitization)

<table>
<thead>
<tr>
<th>Scrap</th>
<th>Detergent</th>
<th>Clear Water</th>
<th>Chemical</th>
<th>Air Dry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wash - 95°F&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Rinse</td>
<td>Sanitization&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Or as specified on the manufacturer's label
2 Immersed for at least 30 seconds

Three-Compartment Sink Method (chemical sanitization)

<table>
<thead>
<tr>
<th>Scrap</th>
<th>Detergent</th>
<th>Clear Water</th>
<th>Chemical</th>
<th>Air Dry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wash - 95°F&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Rinse</td>
<td>Sanitization&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Or as specified on the manufacturer's label
2 According to chemical sanitization schedule

When a two-compartment sink cleaning method is used, a special sanitization formulation must be used in both sink compartments.

SPECIAL CLEANING AND SANITIZATION

Food processing equipment and some vending equipment that requires in-place cleaning shall be designed and fabricated so that:

1. Washing and sanitizing solutions can be circulated throughout a fixed system using an effective cleaning and sanitizing procedure, and
2. Cleaning and sanitizing solutions will contact all food contact surfaces,
3. The system is self-draining or capable of being completely evacuated, and
4. The procedures utilized result in thorough cleaning of the equipment,
5. Equipment used in production-line food processing shall be cleaned and sanitized according to the following schedule:

- Each time there is a change in processing between types of animal products (consider exceptions),
- Each time there is a change from raw to ready-to-eat foods,
• After substantial interruptions,
• Throughout the day as necessary, and
• After final use each working day.

Water Supply

With improved water system technology, monitoring and regulatory control, water supplies are safer than ever. However, contamination does occur as a result of system failure or cross-connections. Give special attention to the following:

• Water Status Notices. Be alert to public notices that pertain to your water supply. To ensure a safe water supply for food establishment operations and for drinking purposes during such notices, contact your local health department for assistance.

• Changes in Water Quality. Be aware of changes in water quality such as taste, odor, or clarity or changes in water pressure. Such changes may be an indicator of a possible cross-connection.

• Cross-connections. Check your establishment for cross-connections mentioned above.

• Repairs and alterations to the water system or equipment connected to a water system must be done only by a licensed plumber who is familiar with cross-connection prevention.

Physical Facilities

Adequate Handwashing Facilities. Handwashing facilities shall be adequate. Adequacy pertains to the following design requirements:

• Provided with hot and cold or controlled temperature water (90°F to 105°F) through a mixing valve or combination faucet;

• Self-closing, slow-closing or metering faucets shall provide a continuous flow of water for at least fifteen seconds without reactivating the faucet; and

• Steam mixing valves shall not be used.
In addition, handwashing facilities shall be provided with a continuous supply of:

- Hand soap or similar hand cleanser; and
- Individual disposable sanitary paper towels; or
- A continuous towel system supplied with a clean towel; or
- A heated air hand-drying device.

**COMPLIANCE AND ENFORCEMENT**

The key to food safety is controlling time and temperature throughout the flow of food, practicing good hygiene, preventing cross contamination, and purchasing food supplies from approved suppliers. In addition to being monitored by health inspectors, it is also important that each foodservice operation inspects its own facilities.

The number of problems identified by SUAs during site inspections stresses the importance of meal site sanitation and food safety monitoring. The 1995 National Evaluation of the OANP (10) found that about 28% of SUAs reported sanitation and food safety problems in their last assessments of AAAs or projects. According to the Evaluation, 73% of SUAs require all sites, both OANP production and service sites, be inspected. However, only 18% of SUAs require only sites preparing food be inspected. Dining centers that serve meals should also be routinely monitored to ensure the maintenance of appropriate food temperatures and safe handling practices. It is also important that vendors and caterers be monitored. Sample [Dining Center](#) and [Kitchen](#) monitoring tools are available from Florida. The National Evaluation found that only 75% of SUAs require vendor sites to be monitored.

Below is a list of common violations from actual inspections, along with suggestions for correcting them (16):

Violation #1: Potentially hazardous food at room temperature.
Suggestions: Monitor the receiving area and be sure perishable food deliveries are reaching refrigerators and freezers promptly. Evaluate whether delivery times are coordinated with staffing, and make any needed adjustments. In the kitchen, watch for overzealous employees who may be removing products for preparation too far in advance. In serving areas, be sure that cold food is going directly into cold holding units, and hot food is going directly into hot serving units — no pans on counters.
Violation #2: Bare hands are contacting food.
Suggestions: Train all employees about the need to use a barrier between food and hands. The barrier may be a utensil or a clean plastic glove (changed regularly) or a sheet of deli paper. Then, be sure that sanitary utensils are available in all areas. Sometimes it takes planning to match the utensil to the job. Employees given utensils that are awkward to work with often give up and use bare hands.

Violation #3: No thermometers in use.
Suggestions: Recognize thermometers as one of the chief controls for keeping food out of the hazard zone. In cold storage areas without a built-in thermometer, a hanging thermometer can be secured inside. Then, check and log the temperature regularly. For food preparation and holding areas, be sure everyone who needs one has and uses a calibrated thermometer. In holding, emphasize that cold holding below 41°F is just as critical as hot holding above 140°F. FDA researchers noted this year that many foodservice professionals have done a great job of paying attention to endpoint cooking temperatures, but are overlooking holding and storage issues with cold food.

Violation #4: Improper thawing.
Suggestions: Use one of the approved methods for thawing food: thaw in the refrigerator, or under cold running water, or in the microwave (and then begin cooking immediately). What really goes wrong with thawing? Sometimes it is a matter of last-minute efforts to get food ready. A reminder to transfer frozen ground beef to the refrigerator two to three days before it will be cooked can help a great deal.

Violation #5: Food not protected from dirt.
Suggestions: Check all storage areas to be sure food is at least 6 inches off the floor. This includes in refrigerators and freezers. Elevation protects food from dirt as you sweep floors, and also makes food slightly less accessible to pests. Meanwhile, when serving and transporting food, be sure all food is covered. Again, a close look at the tools provided to employees can help. Do they have to tear off sheets of plastic wrap one-by-one to cover food? Are there snug-fitting lids available that you could use instead?

Violation #6: Employees are eating in preparation and/or service areas.
Suggestions: To change this practice, first establish policies clearly. Then, monitor all areas and remind employees as needed. It’s helpful to explain the rationale behind this policy: Eating makes your own hands unclean, and facilitates transfer of pathogens to the food that others will eat. The irony of this policy is not to encourage cooks to taste their own food and take responsibility for ensuring quality. Is there a solution? Some managers set up a taste panel in a controlled area every day, inviting employ-
ees to taste the food and comment.

Violation #7: Improper dishwashing.
Suggestions: Review dish-machine maintenance plan as recommended by the manufacturer. Inspectors say they often find heavy lime build-up, clogged rinse jets, or broken temperature gauges. Each of these violations is preventable with some attention to maintenance.

Violation #8: Chemical sanitizers not tested.
Suggestions: Whether in the pot and pan sink or in a bucket of solution used for wiping tables, the concentration of chemical sanitizer must be correct. Explain to employees that too low a concentration may not work, and too high a concentration may not be safe. Also, explain that sanitizing solutions lose their strength over time. Finally, be sure that test kits are available where needed, and spend the time to show employees how to use them.

Violation #9: Wiping cloths improperly handled.
Suggestions: Sometimes, an employee will use a cloth for tables to grab a spill on the floor. Encourage employees to use separate cloths for separate purposes, and keep wiping cloths in the sanitizing solution between uses. Of course, cloths should be changed as they become soiled, and every time you make a fresh solution of sanitizer.

Violation #10: Walls, ceiling or floor in disrepair.
Suggestions: Continue to monitor the condition of these surfaces to ensure integrity is intact. This may mean patching and finishing a crumbling spot on a wall, or replacing loose or chipped tiles on a floor. All of this protects food in two ways: It prevents the physical hazard of having loose construction fragments enter food, and it ensures that these surfaces are cleanable.

Violation #11: Lighting is not shielded.
Suggestions: Recognize broken glass as another physical hazard to food. Check to be sure that fixtures are shielded.

Violation #12: Employees are promoting cross contamination.
Suggestions: Cross contamination is the transfer of pathogens from one food to another.

It can happen in the refrigerator when an employee places raw meat above fruit and the drippings contaminate the fruit. It can happen in the kitchen when a cook slices turkey on the slicer and then slices roast beef without sanitizing the equipment in between. It can happen in the serving area when an employee wearing plastic gloves
picks up a hamburger to place it on the grill, and then picks up deli meat for a sandwich to order without changing gloves in between. Explain to employees that utensils, equipment, gloves, and even hands can all boil down to a personalized taxi service for harmful bacteria and viruses.

Internal monitoring procedures are critical in ensuring that appropriate sanitation standards and food handling procedures are followed. Best practices include the regular monitoring and documentation of compliance and that corrective actions are completed appropriately. Participant satisfaction surveys, focus groups, and other consumer-oriented meal service evaluations on a regular basis also provide information on program compliance and need for quality improvement.

**Sample SUA Food Safety Monitoring Standards/Guidelines**

**Massachusetts**

- *Every kitchen utilized for the preparation of Title IIIC meals shall be inspected twice per year by the Nutrition Project/Area Agency on Aging using the Elder Affairs Kitchen inspection form. Inspections shall occur at approximately six-month interval.*

**Minnesota**

- *Nutrition contractors must utilize temperature probes for checking food temperatures. In addition, refrigerators and freezers located at food preparation and service sites must have thermometers.*

**Ohio**

- *A provider cited for critical items during the local health department inspection must furnish a copy of that inspection report and the follow-up report to the AAA within five working days of receipt from the inspecting agent.*

- *A provider cited by the Ohio Department of Agriculture or USDA Regulatory Agents must furnish a copy of the findings and corresponding corrective plans within five working days of receipt from the regulatory agent to the AAA.*

- *These aspects of provider operations require monitoring:*
  - *Food temperatures during storage, preparation, transport and delivery*
of food to the dining site; holding food before and during the meal service.
  - Food packaging and transporting systems.
  - Preparation, holding, and delivery practices; ensuring retention of food quality and characteristics (e.g., flavor and texture).

- A provider must monitor all aspects of the operation and take immediate action to improve practices. Aspects that require monitoring are:
  - Client satisfaction by eliciting their comments about dining environment, type of food, portion size, temperatures, meal delivery, meal service schedules and staff professionalism.

Tennessee

- Food temperatures shall be recorded by the name of each specific food item. Exceptions are bread products, crackers, cake and fresh fruit. Temperature reports must be kept on file for three years plus the current year.

- Temperature checks of hot and cold food must be taken and recorded at least one time per week on selected routes. The last meal delivered on the route shall be the one checked to assure that hot food is delivered at a minimum of 140°F and cold food is delivered at 40°F or below (edited). Records of temperatures shall be maintained and kept on file by the provider.

- Temperature retention problems involving the entire meal shall be monitored on a daily basis until the problems are identified and corrected.

- Temperature retention problems with individual food items shall be followed up immediately in order to correct the problems.

- Each nutrition project shall establish a monitoring schedule that insures that standards are met on all routes.

- A sample of all food items shall be saved at each food preparation site at least 72 hours for checking purposes should food borne illness occur.

**Additional Resources**


**References**


BACKGROUND

**Nutrition and Health Concerns of Older Adults**

Evidence confirms that good nutrition is important in maintaining the health and functional independence of older adults. It can reduce hospital admissions and delay nursing home placement. The aging of the US population has heightened the interest in developing effective and efficient nutrition and health services for older people. Service networks that a continuum of home and community-based services have become especially important because they allow older adults to preserve their independence and ties to family and friends.

The nutritional status of older adults can be easily compromised given their number of chronic conditions and functional impairments. About 87% of older adults in the US have diabetes, hypertension, dyslipidemia or a combination of these chronic conditions (1). These can be successfully managed with appropriate nutrition interventions that will improve health and quality of life outcomes. Left unchecked, these conditions result in poorer health, dependence, and increased costs, especially among minorities (2).

Although many older adults remain fully independent and actively engaged in their communities, many need additional nutrition and health services (2). Three of the AoA's top priorities include:

1. Make it easier for older people to access an integrated array of health and social supports.
2. Help older people to stay active and healthy.
3. Support families in their efforts to care for their loved ones at home and in the community.

Older Americans Act (OAA) Nutrition Programs provide supportive in-home and community-based services to improve quality of life of community residing individuals as follows:

- Home-delivered and congregate meals,
- Nutrition education and counseling,
- Care (Case) management services,
- Care plan development and implementation, and
- Health promotion and disease prevention activities such as exercise, diabetes management, medication management, and smoking cessation programs.

It is important for OAA Nutrition Programs to be aware of health trends, so that nutrition and health promotion services are targeted. Accordingly, SUAs need to be familiar with trends in:

- Mortality and the leading causes of death in older adults,
- Health disparities,
- Quality of life including measures of illness and disability,
- Factors associated with healthy aging, and
- The cost of illness (3).

*Chartbook on Trends in the Health of Americans. Health, United States, 2002.*

The *Older Americans 2000: Key Indicators of Well-Being* report focuses on a number of key areas effecting older adults.
Evidence for Nutrition and Health Promotion Services

- The *Health and Aging Chartbook, 1999* provides important data on the population, health status and health care access and utilization from national data sources. The *Chartbook* supports the importance of nutrition and health promotion services and addresses many risk factors that contribute to nutritional concerns.

- The Institute of Medicine (IOM) report, *The Role of Nutrition in Maintaining Health in the Nation's Elderly: Evaluating Coverage of Nutrition Services for the Medicare Population* (1), examined the nutrition services that older adults receive along the continuum of care, the role of nutrition therapy in the management of diseases, and the expertise needed to provide appropriate nutrition therapy. The following recommendations pertain to home and community based care:

Recommendation 1: Nutrition therapy, upon referral by a physician, be a reimbursable benefit for Medicare beneficiaries. This is based on the high prevalence of individuals with conditions for which nutrition therapy was found to be of benefit. Eighty-six percent of Medicare beneficiaries over 65 years of age have diabetes, hypertension, and/or dyslipidemia alone.

Recommendation 2: Registered dietitians be directly reimbursed as providers of nutrition therapy. In addition, a registered dietitian should be involved in educating other members of the health care team regarding nutrition interventions and practical aspects of nutrition. This is of particular importance in the areas of home care, ambulatory care, and care given in skilled nursing and long-term care facilities, where basic nutrition advice or reinforcement of nutrition plans will likely be provided by other health professionals.

Recommendation 4: The Centers for Medicare and Medicaid Services (formally the Health Care Financing Administration) as well as accreditation and licensing groups should reevaluate existing reimbursement systems and regulations for nutrition services along the continuum of care to determine the adequacy of care delineated by such standards. The committee found numerous inconsistencies with regard to regulations and reimbursement systems related to the provision of nutrition services across the continuum of care.
Recommendation 4.2: The availability of nutrition services be improved in the home health care setting. Both types of nutrition services are needed in this setting: nutrition education and nutrition therapy. A registered dietitian should be available to serve as a consultant to health professionals providing basic nutrition education and follow-up, as well as to provide nutrition therapy, when indicated, directly to Medicare beneficiaries being cared for in a home setting.

In summary, the IOM committee found that expanded coverage for nutrition therapy would be economically beneficial to participants and Medicare. Nutrition therapy in the context of multidisciplinary care has potential short term cost savings for populations with hypertension, dyslipidemia, and diabetes. In addition to decreased mortality and morbidity, nutrition therapy can have impact quality of life in less tangible ways that cannot be measured quantitatively. Meals provide the social context for many experiences across the course of life, including holidays. Because food is central to an individual's social attachment and role, dietary problems that require significant behavior change or interfere with long-established social relationships can have a significant impact on well-being independent of their impact on mortality or morbidity. Nutrition therapy translates the care plan into daily life skills such as grocery shopping, food preparation, and menu selection. Nutrition therapy that assists homebound individuals to participate in family meals may have a greater impact on subjective well being than many other interventions that have an equal impact on physical health (1).

- **Healthy People 2010** is a set of disease prevention and health promotion objectives for the Nation to achieve during the first decade of the new century. The national health objectives are designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats. *Healthy People 2010* has two goals:
  1) Increase quality and years of healthy life, and
  2) Eliminate health disparities.
Each health indicator has one or more objectives in Healthy People 2010 associated with it. Of the 467 objectives in Healthy People 2010, 76 specifically related to older adults can be found at: http://www.healthypeople.gov/hpscripts/KeywordResult.asp?n270=270&Submit=Submit

Healthy People 2010 can be used as a framework to guide nutrition and health promotion activities. By using the national objectives, OAA Nutrition Programs can develop appropriate nutrition and health promotion programs to help improve health and prevent disease in older adults. OAA Nutrition Programs are encouraged to integrate Healthy People 2010 into their current community programs, special events and publications.
The USDA Food and Nutrition Service (FNS) developed Promoting Healthy Eating: An Investment in the Future—A Report to Congress. It focused on issues that require congressional action and concludes that the Nation must enhance the investment in nutrition education in order to promote food security, avoid preventable deaths, eliminate nutrition-related health disparities, and address the obesity epidemic. The needed changes can only be achieved through a sustained, integrated, long-term nutrition education effort.

HOME AND COMMUNITY BASED CARE

Home and community-based care (HCBC) refers to a variety of services and settings available to older and disabled people living in their own homes or in residential care settings. Basic community services available through an HCBC system include:

- Information and assistance
- Personal care, homemaker and chore services
- Congregate and home-delivered meals
- Adult day care
- Rehabilitative care
- Transportation assistance
- Home health care
- Caregivers' support, assistance and respite care
- Housing options, including assisted-living arrangements
- Consumer protection and advocacy.

Frequently older and disabled persons often have multiple and changing health and social service needs. Therefore, effective HCBC programs facilitate services at a consolidated location for comprehensive assessment, care planning or case management, pre-nursing home admission screening, and/or referrals to medical care providers.
The network of SUAs and AAAs are in position to provide a full range of HCBC services and administrative systems to meet the needs of the older adults and their caregivers. Many AAAs, through state allocations of Older Americans Act funds, state and local revenues, Social Services Block Grant funds, and other resources, fund local service providers to deliver basic HCBC services.

**Caregiver Support, Assistance and Respite Care**

A caregiver is a person who provides assistance to someone else who experiences limitations in activities of daily living (ADLs) and/or instrumental activities of daily living (IADLs). Informal and/or family caregivers are unpaid individuals such as family members, friends, neighbors and volunteers who provide help or arrange for help. They may be primary or secondary caregivers, full time or part time, and may or may not live with the person recipient. Caregivers may assist with household chores, finances, or with personal or medical needs (5). Family caregivers provide ongoing assistance to allow loved ones to remain in the comfort of their own home and community. Caregivers require respite and such assistance should be available. Respite care services provide temporary relief to family caregivers and include in-home respite, adult day care, and overnight respite (6).

The 2000 amendments to the OAA established the National Family Caregiver Support Program (NFCSP). Funded at $125 million in fiscal year 2001, approximately $113 million was allocated to states to work in partnership with AAAs and local providers. The NFCSP is a significant addition to the OAA because it enables the aging network to develop caregiver support programs. It provides an opportunity for the aging network to develop services and programs to respond to the needs of our Nation’s caregivers. The basic services for family caregivers are:

1. Information to caregivers about available services,

2. Assistance to caregivers in gaining access to supportive services,

3. Individual counseling, organization of support groups, and caregiver training to caregivers to assist the caregivers in making decisions and solving problems relating to their caregiving roles,

4. Respite care to enable caregivers to be temporarily relieved from their caregiving responsibilities, and

5. Supplemental services, on a limited basis, to complement the care provided by caregivers.
The following link to AoA provides helpful information, resources and tools on implementing caregiver services: [http://www.aoa.gov/carenetwork/](http://www.aoa.gov/carenetwork/)

A number of states that provide innovative services and programs for caregivers are described in the following reports:

- **Survey of Fifteen States' Caregiver Support Programs**: [http://www.caregiver.org/issues/execsum9910.html](http://www.caregiver.org/issues/execsum9910.html)

**Older Americans Act 2000 Requirements**

SEC 321
PART B-SUPPORTIVE SERVICES AND SENIOR CENTERS PROGRAM AUTHORIZED

(5) services designed to assist older individuals in avoiding institutionalization and to assist individuals in long-term care institutions who are able to return to their communities, including--

(A) client assessment, case management services, and development and coordination of community services;

(B) supportive activities to meet the special needs of caregivers, including caretakers who provide in-home services to frail older individuals; and

(C) in-home services and other community services, including home health, homemaker, shopping, escort, reader, and letter writing services, to assist older individuals to live independently in a home environment.

Part E--National Family Caregiver Support Program

Sections 371, 372, 373, and 374 of the Older Americans Act of 1965, as Amended (P.L. 106-501), Grants for State and Community Programs on Aging

**SECTION 373 PROGRAM AUTHORIZED**

(a) IN GENERAL- The Assistant Secretary shall carry out a program for making grants to States with State plans approved under section 307, to pay for the Federal share of the cost of carrying out State programs, to enable area agencies on aging, or entities
that such area agencies on aging contract with, to provide multifaceted systems of support services--

(1) for family caregivers; and
   (2) for grandparents or older individuals who are relative caregivers.

(b) SUPPORT SERVICES- The services provided, in a State program under subsection (a), by an area agency on aging, or entity that such agency has contracted with, shall include--

(1) information to caregivers about available services;
(2) assistance to caregivers in gaining access to the services;
(3) individual counseling, organization of support groups, and caregiver training to caregivers to assist the caregivers in making decisions and solving problems relating to their caregiving roles;
(4) respite care to enable caregivers to be temporarily relieved from their caregiving responsibilities; and
(5) supplemental services, on a limited basis, to complement the care provided by caregivers.

(c) POPULATION SERVED; PRIORITY-

(1) POPULATION SERVED- Services under a State program under this subpart shall be provided to family caregivers, and grandparents and older individuals who are relative caregivers, and who--

(A) are described in paragraph (1) or (2) of subsection (a); and
(B) with regard to the services specified in paragraphs (4) and (5) of subsection (b), in the case of a caregiver described in paragraph (1), is providing care to an older individual who meets the condition specified in subparagraph (A)(i) or (B) of section 102(28).

(2) PRIORITY- In providing services under this subpart, the State shall give priority for services to older individuals with greatest social and economic need, (with particular attention to low-income older individuals) and older individuals providing care and support to persons with mental retardation and related developmental disabilities (as defined in section 102 of the Developmental Disabilities Assistance and Bill of Rights Act (42 U.S.C. 6001)) (referred to in this subpart as `developmental disabilities').
(d) COORDINATION WITH SERVICE PROVIDERS- In carrying out this subpart, each area agency on aging shall coordinate the activities of the agency, or entity that such agency has contracted with, with the activities of other community agencies and voluntary organizations providing the types of services described in subsection (b).

NUTRITION SCREENING AND ASSESSMENT

Nutrition Screening Initiative Checklist and Mini Nutritional Assessment

Nutrition screening is a first step in identifying individuals at nutritional risk or with malnutrition. Screening tools, such as the Nutrition Screening Initiative (NSI) and the "Mini Nutritional Assessment" (MNA) have been used in different settings to screen older adults for nutrition risk. The NSI Checklist was designed to increase older adults' awareness about nutrition and health. The Mini Nutrition Assessment (MNA®) was designed to identify older adults (>65 years) at risk of malnutrition. Both help differentiate among adequate nutritional status, malnutrition risk, and malnutrition.

Title III, Section 339 of the OAA requires that nutrition projects provided nutrition screening. The AoA as part of its reporting requirements in the State Performance Report requires that states report on nutrition risk status of individuals who receive home-delivered and congregate meals, nutrition counseling, and/or case management. The NSI Checklist, was initially developed as a public awareness tool. AoA does not require that the NSI Checklist be used verbatim. States can organize the questions in their own client assessment instruments or add to the 10 checklist questions. However, AoA requests that States report, through NAPIS, the 10 questions and the related score for consistency from state to state.

Under ideal circumstances when an older adult is identified as being at nutritional risk, it is recommended that a referral be made to a dietitian. A dietitian then conducts a nutrition assessment to obtain more specific information regarding the individual's anthropometric, biochemical, clinical, dietary, psychosocial, economic, functional, mental health, and oral health status. Nutrition screenings and/or assessments may be administered at a individual's home, congregate dining center, health fair, doctor's office, etc. Such information is necessary to develop a care plan that will best meet the needs of the individual and his/her situation. Care plans include interventions, expected outcomes, and monitoring strategies.

Although there are nutrition programs that refer to the dietitians they employ, many nutrition programs do not have dietitians and thus have to refer to a dietitian in their local communities. These referrals may be made to dietitians in outpatient clinics, hospitals, health clinics, home health agencies or dietitians in private practice.
The National Evaluation of the Older Americans Nutrition Program 1993-95 (7) found that only 25% of Title III congregate dining sites offered nutrition screening and that a registered dietitian administered the screening at about half of those sites. The National Evaluation found 64% of congregate and 88% of homebound participants at moderate to high nutrition risk, using an approximation of the NSI Checklist. About 66% were either under- or overweight, placing them at increased risk for nutritional and health problems. Over 50% of participants usually ate alone and about 25% ate fewer than 3 meals per day. One in 3 had an illness/condition that required a special diet. Forty-one percent of the homebound clients could not prepare meals. About 25% of congregate participants and more than 75% of the homebound clients had difficulty doing everyday tasks (7).

Today, nutrition screening of congregate and homebound participants is routine at most OAA Nutrition Programs. The National Aging Program Information System (NAPIS) reporting requirements are being revised. Once the revision is complete, this section will be updated. It is anticipated that nutrition screening will be included in the revision.

Title III and Title VII State Program Reports Definitions

Questions and Answers About the National Aging Program Information System (State Performance Reports)

Performance Outcomes Measures Project (POMP)

The AoA continues to develop and field-test a core set of performance measures for state and community OAA programs. Called the Performance Outcomes Measures Project (POMP), this project will help SUAs and AAAs address their own planning and reporting requirements, while assisting AoA to meet the accountability provisions of the Government Performance and Results Act (GPRA). POMP developed measures for 8 client-service domains. The nutritional risk performance measure can be used to determine whether a nutritional service, such as home delivered meals or congregate meals, helps to sustain or improve the nutritional status of clients over time. The Nutrition Performance Indicator and other performance indicators are available at: http://www.gpra.net/main.htm

Older Americans Act 2000 Requirements

SECTION 339 Nutrition
(2) ensure that the project ---
(J) provide for nutrition screening and, where appropriate, for nutrition education and counseling.

**SUA Standards/Guidelines: Screening and Assessment**

**Utah**
The State developed a screening system using the NSI DETERMINE Checklist as part of a complete process to identify needs and make appropriate referrals (link to this document).

**Delaware**
- At least once a year, all homebound clients will complete a nutrition screening checklist provided by the Delaware Division of Services for Aging and Adults with Physical Disabilities. Appropriate counseling, nutrition information and/or referrals will be offered to all high-risk clients. Clients designated as high-risk will be contacted within six months of the screening.

- All congregate clients will be offered the opportunity to complete a nutrition screening checklist provided by the Delaware Division of Services for Aging and Adults with Physical Disabilities (DSAAPD). At least once a year, clients will complete the checklist and be provided with appropriate counseling, information or other interventions. Those designated as high-risk will be contacted within six months of the nutrition screening.

**Nutrition Screening Tasks**

**Homebound Clients**
- Provide copies of a DSAAPD-approved checklist to all homebound clients at least once. All new clients should complete a checklist as well as all current clients, on an annual basis.

- Checklists will be scored and separated according to risk status

- All high-risk clients will be provided with appropriate nutrition education materials, dietary counseling or other interventions) as deemed necessary.

- Those clients identified as high-risk must be contacted within six months to re-evaluate their status and provide necessary counseling/referrals.

- All clients receiving nutritional supplements must be visited at least once a year to assess their status. If possible, weight should be determined.
• Clients receiving nutritional supplements must be contacted by telephone at least every four months. A home visit may substitute for this phone contact.

• Printed nutrition education topics should be developed, based on responses to the checklist.

• Accurate records of screening activities will be maintained.

• Quarterly reports of screening activities will be prepared and sent to the Delaware Nutrition Screening Program (DNSP) Coordinator. Information will be forwarded to the DSAAPD Nutritionist.

Congregate Clients

• Provide copies of a DSAAPD-approved checklist to all congregate clients at least once a year.

• Contact high-risk clients within six months of screening to reevaluate nutritional status.

• Score checklists and separate according to risk status.

• Provide all high-risk clients with appropriate nutrition education materials, dietary counseling or other intervention as deemed necessary.

• Contact clients receiving adult nutritional supplements every four months.

• Develop group nutrition education topics based on responses from the nutrition screening checklists.

• Provide on-going support groups for diabetes and other relevant topics.
• Maintain accurate records of activities.

• Prepare quarterly report of screening activities and send to the Delaware Nutrition Screening Program (DNSP) Coordinator. Information will be forwarded to the DSAAPD Nutritionist.

Documentation of Nutrition Screening Activities

• Completed and scored checklists will be kept on file at the agency.

• Educational materials mailed and/or nutritional counseling provided will be noted on the client’s checklist.
• Where possible, contacts related to nutrition screening will be noted in the client’s chart.
• Number of total and high-risk clients will be calculated.
• Contacts made with non-risk and high-risk clients will be documented.
• Attendance at support groups and nutrition programs must be maintained.
• Quarterly reports must be submitted to the DNSP Coordinator

North Dakota
All congregate and home-delivered meals clients must be screened for nutritional risk using the Nutrition Screening Checklist, which is part of the Adult Services Intake Form.
• The screenings should be conducted a minimum of one time during the contract agreement.
• Data on the number of clients screened 'at high nutritional risk' will be reported on the Adult Services Intake Form.

NUTRITION COUNSELING/MEDICAL NUTRITION THERAPY

"Eighty-seven percent of older Americans have either diabetes, hypertension, dyslipidemia, or, or a combination of these chronic diseases" (1). These can be successfully managed with appropriate nutrition interventions that will improve health and quality of life outcomes. Nutrition counseling or medical nutrition therapy (MNT) is the provision of individualized comprehensive guidance to persons who are at nutritional risk because of their health or nutritional history, dietary intake, medications use, or chronic illnesses. It takes into consideration the client’s desires, health, cultural, socioeconomic, functional, and psychological factors, as well as home and caregiver resources. Nutrition counseling is provided in accordance with state law and policy. It provides individuals with options and methods for improving their nutritional status. The Institute of Medicine recommended that MNT be provided by registered dietitians as part of the health-care team (1). In 2000, Medicare coverage was expanded by Congress to include registered dietitians providing MNT to diabetes and renal disease patients.
Insurance Coverage for Medical Nutrition Therapy (MNT)

The availability of nutrition services under Medicare, Medicaid, and private insurers is expanding. Increasing health care and consumer demand for MNT provides dietitians an opportunity to expand nutrition counseling services. Understanding funding sources for nutrition services by Medicare, Medicaid, managed care organizations (MCOs), and in alternate care settings is essential. Obtaining payment from these insurers involves learning the language of reimbursement, including coding systems and billing essentials. Selected reimbursement resources are highlighted in a reimbursement bibliography. Each affiliate and several Dietetic Practice Groups (DPGs) have a reimbursement representative. For the name of your state's affiliate/DPG reimbursement representative, contact the affiliate/DPG directly or e-mail reim-burse@eatright.org for the name and for answers to specific reimbursement questions.

Registered and Licensed Dietitian Credentials

A number of States require nutrition education and/or counseling (MNT) to be provided by or under the direction of a registered and/or licensed dietitian/nutritionist. Registered dietitians (RDs) are food and nutrition experts who have completed a minimum of a bachelor's degree at a US regionally accredited university or college and course work approved by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association (ADA), completed a CADE-accredited or -approved supervised practice program at a healthcare facility, community agency, or a foodservice corporation, or combined with undergraduate or graduate studies, passed a national examination administered by the Commission on Dietetic Registration (CDR), and complete continuing professional educational requirements to maintain registration (8). Medicaid and Medicare nutrition services often require the use of a registered and/or licensed dietitian/nutritionist. The ADA provides a number of resources concerning State Professional Regulation (9).

The ADA defines licensing as statutes that include an explicitly defined scope of practice. Performance of the profession is illegal without first obtaining a license from the state. Statutory certification limits the use of particular titles to persons meeting pre-determined requirements, while persons not certified could still practice the occupation or profession. Registration is the least restrictive form of state regulation. As with certification, unregistered persons may be permitted to practice the profession if they do not use the state-recognized title. Typically, exams are not given and enforcement of the registration requirement is minimal (9).
Older Americans Act 2000 Requirements

SECTION 339 Nutrition
(2) ensure that the project ---
(J) provide for nutrition screening and, where appropriate, for nutrition education and counseling.

Sample SUA Nutrition Counseling Standards/Guidelines

Kansas
Provision of individualized advice and guidance to individuals who are at nutritional risk because of their health or nutritional history, dietary intake, medications use or chronic illnesses, about options and methods for improving their nutritional status, performed by a health professional in accordance with state law and policy.

Nebraska
• A more specialized activity which may be included as a component of the nutrition education program is dietary screening and counseling.

• Dietary screening and counseling is the process of providing individualized and group professional guidance to assist people in adjusting their daily food consumption to meet their health needs. The objective is modification of behavior. This objective is accomplished when individuals understand how to make wise food choices.

• Dietary screening and counseling is a component of a nutritional care program in which a Registered Dietitian gives professional guidance to an individual, working with the individual's physician as appropriate. The service includes:
  • Assessing present food habits, eating practices and related factors.
  • Developing a written plan for appropriate dietary screening and counseling. Translating the written plan into a daily meal plan with the individual.
  • Planning follow-up care and evaluating achievement of objectives.

Florida
Individuals to receive counseling may be identified through a screening/intake process, self-referred, or referred by a caregiver or other concerned party. A licensed dietitian/nutritionist (LD/N) or a Registered Diet Technician (RDT) under the supervision of
a LD/N evaluates the participants nutritional needs, conducts a comprehensive nutrition assessment, and develops a nutrition care plan in accordance with Chapter 64B8-43, Florida Administrative Code. Based on the individual’s needs and with appropriate contact with the individual’s physician and caregiver, the LD/N develops and implements or supervises the development and implementation of the nutrition care plan.

Nutrition counseling shall be provided by a Licensed Dietitian (LD/N) (Chapter 468 Part X, Florida Statues, Dietetics and Nutrition Practice, Chapter 468.504, Florida Statues) who is covered by liability insurance. A Registered Dietetic Technician may assist the LD/N in the screening and assessment process.

Licensed Dietitians/Nutritionists shall keep applicable written participant records that shall include the nutrition assessment, the nutrition counseling plan, dietary orders, nutrition advice, progress notes, and recommendations related to the participant’s health or the participant’s food or supplement intake, and any participant examination or test results, in accordance with Chapter 64B8-44, Florida Administrative Code.

**NUTRITION EDUCATION**

Nutrition education helps promote health and prevent disease. Research confirms that well-designed, behavior-focused interventions can effectively improve diets and nutrition-related behaviors. OAA Nutrition Programs provide unique opportunities to deliver nutrition and healthy lifestyle messages to older adults. Nutrition education is essential for helping older adults achieve and maintain optimal nutrition status. Older adults are eager for health information and tend to be active in community health promotion programs. Therefore, nutrition education activities are well received by older adults especially if these activities are developed according to their needs, behaviors, motivations, and desires.

Nutrition education, by a dietitian (or individual of comparable expertise), provides accurate and culturally sensitive nutrition, physical fitness, and health (as it relates to nutrition) information and instruction to participants and/or their caregivers in groups or individually. (See Chapter II: Definitions). Nutrition education programs must go beyond providing information alone. To be effective, programs must incorporate methods for creating behavior change (10). To do so, nutrition education must be provided on a continuous basis to OAA Nutrition Program participants. As the OAA does not specify the frequency of providing nutrition education, the SUAs may specify this in their policies and procedures.

Although nutrition education is a fundamental OANP component, there are few nutri-
tion education tools for older participants and there has been minimal assessment of their effectiveness. Older adults are willing to change their eating habits when they understand the benefits. They are more receptive to the positive messages of health promotion and disease prevention through better nutrition (11-13). Many older adults are in the pre-contemplation stage of change for losing weight and exercising (14). Nutrition education based on appropriate behavior change and adult learning theories is more likely to be effective. It is recommended that resources be allocated to develop and evaluate nutrition materials and methods. OAA Nutrition Programs can take the lead in demonstrating how to effectively reach older adults in congregate sites and homes with important nutrition information that helps maintain independence and quality of life. Topics could include eating healthy to prevent or treat disease(s), interpreting nutrition messages in the media (15), hydration (16,17), avoiding unintended weight loss, changing nutrient needs with age, drug/nutrient interactions, keeping caregivers nutritionally healthy, etc.

The 1995 *Journal of Nutrition Education* Special Issue included a chapter on the effectiveness of nutrition education in older adults (18). The extensive search revealed only 14 nutrition education intervention studies that had acceptable evaluation criteria and measured behavioral outcomes. The authors attributed this lack of evaluation "partly due to the fact that, although nutrition education is mandated as part of some federal food programs for older adults, evaluations of such efforts are not required." The lack of clarity and ambiguity regarding the goals for nutrition education for older adults was also noted. Consortiums in several states, such as Kansas (19), Ohio (20), and Georgia (21), have recently developed nutrition education programs for older adults and there is interest in evaluating their effectiveness. Many more are needed, especially those that are culturally and ethnically diverse.

There are a variety of theoretical framework models (see below) that can be used to develop nutrition education strategies to achieve a change in nutrition-related behaviors (22). These include:

- **Knowledge-attitude-behavior model:** A gain in new knowledge leads to changes in attitude, which, in turn, result in improved dietary behavior or practices. The knowledge provided must be motivational for changing attitudes and behaviors.

- **Health belief model:** Emphasizes perceived threat as a motivating force and perceived benefits as providing a preferred path to action.

- **Social learning theory:** Emphasizes the interactive nature of the effects of cognitive and other personal factors and environmental events on behavior.
Nutrition education needs to be culturally appropriate. The Ask the Experts Cultural Diversity as Part of Nutrition Education and Counseling helps guide to individuals providing nutrition services to ethnic and cultural groups. A "one size fits all" program is not usually effective. To target diverse participant groups, use print and broadcast media, nutrition contests, table tents in the dining room, group nutrition education classes, clinic based programs, food taste testing sessions, nutritious potluck dinners, etc. Other innovative approaches include nutrition-through-gardening and computerized programs. Many ideas and suggestions could be successfully implemented with various groups, including home-delivered and congregate meal participants. Refer to the American Dietetic Association, Cooperative Extension Services including the University of Nebraska Cooperative Extension and Nutrition for Older Adults Health (NOAHnet from the University of Georgia) for nutrition education resources as well as those on the Center's Resources section online.


Older Americans Act 2000 Requirements

SEC. 214. NUTRITION EDUCATION.
The Assistant Secretary and the Secretary of Agriculture may provide technical assistance and appropriate material to agencies carrying out nutrition education programs in accordance with section 339(2)(J).

Sample SUA Nutrition Education Standards/Guidelines

Florida

Nutrition and related client and health instruction or information is provided by or under the direction of a licensed dietitian at each congregate site and distributed to each home-delivered meal participant a minimum of two times per year, with at least 3 months between each session.
Congregate Nutrition Education is a formal program of regularly scheduled health promotion presentations on culturally sensitive nutrition, or physical fitness, or health as they relate to nutrition information and instruction to participants in a group setting. Home Delivered Nutrition Education is a formal program of regularly scheduled individual distribution of health promotion information on culturally sensitive nutrition, or physical fitness or health as they relate to nutrition topics.

Nutrition education shall be planned and directed by a licensed dietitian/nutritionist (LD/N) (Chapter 468.504, Florida Statues) who is covered by liability insurance. Under the direction of the dietitian, individuals with comparable expertise or special training, e.g., Cooperative Extension agents or trained Meal Site Coordinators, may provide such education activities. An individual with comparable expertise is defined as a person who has a Bachelor's or Master's degree in Home Economics, Family and Consumer Sciences, or Human Sciences with an emphasis in Nutrition and Dietetics.

An annual nutrition education plan/schedule is developed. Participants' needs, comments and requests are considered when planning programs. Teaching methods and instructional materials must accommodate the older adult learner, e.g., large print handouts, demonstrations. Other resources are used to enhance programming as appropriate, e.g., Dairy Council, Cooperative Extension.

Kansas

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

Nevada

- Nutrition education services shall be provided no less than semi-annually to congregate and home-delivered meal participants

- The goal of nutrition education is to provide older persons with information that will promote improved food selection, eating habits and health related practices.

- Documentation shall include:
  - date of presentation or distribution of materials
  - name and title of presenter or title of materials distributed
  - topic discussed (if applicable)
  - number of persons in attendance
If materials are delivered to homebound participants, documentation shall include date of distribution, copy of distributed material, and number of participants receiving the information.

**Nebraska**

- **Nutrition education** is the process by which individuals gain the understanding, skills, and motivation necessary to promote and protect their nutritional well-being through their food choices.

- **Each congregate and home-delivered meal nutrition project** shall provide nutrition education a minimum of twice each year as an important and integral part of providing nutrition services to older individuals.

- **It is recommended** that nutrition education be provided quarterly to congregate and home-delivered meal participants.

- Nutrition education services shall be planned for congregate and home-delivered participants in accordance with AAA nutrition policy.

- **All nutrition education plans, activities, and materials** shall be approved by the nutrition coordinator and/or dietitian prior to presentation.

- Nutrition education services shall be provided by a dietitian or by someone of comparable expertise.

**Nutrition Education Goals**

- **To create positive attitudes** toward good nutrition and provide motivation for improved dietary practices conducive to promoting and maintaining the best attainable level of wellness for an individual.

- **To provide adequate knowledge and skills** necessary for critical thinking regarding diet and health so the individual can make appropriate food choices from an increasingly complex food supply.

- **To assist the individual** to identify resources for continuing access to sound food and nutrition information.

**Nutrition Education Content**
Care management is often referred to as "case" management, but the more socially acceptable phrase is care management. Care management provides an important framework for assessing participant needs and arranging for the delivery of services. For this reason, care management often transcends the boundaries of OAA services and assist participants in accessing other programs and services such as housing assistance, the Low Income Home Energy Assistance Program (LIHEAP), Medicaid, Social Security Income (SSI), and the Food Stamp Program.

Care management in the community setting aims to incorporate the range of medical, social, nursing, psychological and supportive services to maintain older adults in their homes and communities, i.e., to avoid both acute and long-term institutionalization (23). Through care management, the needs of each individual are assessed, a plan of services to meet those needs are developed, the delivery of services are arranged and monitored, and the effectiveness and need for continuation of services are evaluated.

Care managers work with clients to ensure that a care plan matches needs, values, and preferences. It is preferred that care managers refer older individuals at nutritional risk to a dietitian/nutritionist. This is a comprehensive way of providing nutrition

- **Food**, including the kinds and amounts of food that are required to meet one's daily nutritional needs.

- **Nutrition**, including how it relates to successful aging.

- **Behavioral practices**, including the factors which influence one's eating and food preparation habits.

- **Consumer issues**, including eating alone, cooking for one, and how to eat well on a limited income.

- **Diet and disease relationships** including risks for high blood pressure, heart disease, stroke, certain cancers, and diabetes.

- **Examples of nutrition education activities include**: cooking classes, food preparation demonstrations, field trips, plays, lectures, panel discussions, planning and/or evaluating menus, debates, food tasting sessions, question and answer sessions, gardening, physical fitness programs, motion pictures,
assessment and appropriate interventions rather than simply referring for meal services. Nutrition care management identifies the specific nutritional needs of participants and arranges for nutrition interventions, such as home-delivered meals, nutrition education, diet modification, adaptive eating devices, and medical nutrition therapy.

Nutrition care management of an older person helps prevent or delay chronic diseases and their complications, maintain or improve immune function and resistance to infection, shorten hospital stay, decrease surgical risk and postoperative complications, speed wound healing and recovery, and ultimately decrease health care utilization and costs (23).

Older Americans Act 2000 Requirements

SEC 321
PART B-SUPPORTIVE SERVICES AND SENIOR CENTERS PROGRAM AUTHORIZED
(5) services designed to assist older individuals in avoiding institutionalization and to assist individuals in long-term care institutions who are able to return to their communities, including--
(A) client assessment, case management services, and development and coordination of community services;
(B) supportive activities to meet the special needs of caregivers, including caretakers who provide in-home services to frail older individuals; and
(C) in-home services and other community services, including home health, homemaker, shopping, escort, reader, and letter writing services, to assist older individuals to live independently in a home environment.

PART E-NATIONAL FAMILY CAREGIVER SUPPORT PROGRAM
SEC 373 Program Authorized
(b) SUPPORT SERVICES- The services provided, in a State program under subsection (a), by an area agency on aging, or entity that such agency has contracted with, shall include-
(3) individual counseling, organization of support groups, and caregiver training to caregivers to assist the caregivers in making decisions and solving problems relating to their caregiving roles.

SEC 373 (b) SUPPORT SERVICES- The services provided, in a State program under subsection (a), by an area agency on aging, or entity that such agency has contracted with, shall include-(5) supplemental services, on a limited basis, to compliment the care provided by caregivers.
Tennessee

A service designed to help older individuals to assess the needs, and to arrange, coordinate, and monitor an optimum package of services to meet the needs of the older individual.

The program must individualize the situation of persons being served by such means as case assessment or diagnosis, periodic reassessment and, sometimes, counseling or, at least, effective communicative relationships between a worker and a client. The program should provide continuity and comprehensiveness of service to special subgroups of multi-problem clients through such activities as assigning a case manager or service team, maintaining a client-oriented tracking system, or arranging case conferences. While such case coordination also needs to occur within a single agency with multiple services to offer, this definition is restricted to those case coordination efforts which must involve other agencies in providing services on a client-by-client basis in a harmonious way by referral, purchase of service, written agreements, case advocacy, or appeals.

SERVICE ACTIVITIES: (REQUIRED)
Comprehensive assessment of the older individual - Administering structured assessment instruments which has been approved by the state agency to gather information about a participant to determine need and/or eligibility for services. Information collected must include health and nutritional status, financial status, activities of daily living status, physical environment, and social support system.

Development and implementation of a service plan with the older individual to mobilize the formal and informal resources and services identified in the assessment to meet the needs of the older individual, including coordination of the services and resources. Includes technical review and analysis of facts concerning an individual's social, psychological and physical health problems for the purpose of determining the types of services needed and resulting in a written plan for services and assistance. Purchasing services and/or arranging services with formal and informal service providers, including family, friends, and volunteers to perform services needed by the participant is also included.

Coordination and monitoring of formal and informal service delivery including activities to ensure that services specified in the plan are being provided. Periodic reassessment and revision of the plan based on changes in the status of the individual or his/her circumstances. Consists of evaluating the appropriateness and/or
effectiveness of service in meeting individual participant needs, includes the convening of case conferences and the joint review of care plans, when necessary.

Intake Screening
Each case management program must have uniform intake procedures and maintain consistent records. Intake may be conducted over the telephone. Intake records for each participant must include at a minimum:

Individual's name, address, and telephone number;
Individual's age or birthday;
Physician's name, address, and telephone number;
Name, address, and phone number of person, other than spouse or relative with whom individual resides, to contact in case of emergency;
Handicaps, as defined by Section 504 of the Rehabilitation Act of 1973, or other diagnosed medical problems;
Perceived supportive service needs as expressed by individual or his/her representatives;
Race;
Sex;
Whether or not the individual has an income at or below the poverty level for intake and reporting purposes.
If intake indicates that needs can be met by a single service, the individual should be provided Information and Referral Services. When intake suggests multiple service needs, a comprehensive individual assessment of need must be performed within ten (10) working days of intake.

Assessments
All assessments and reassessments must be conducted in person. Each assessment should provide as much of the following information as is possible to determine:
(Note: Caseworkers must attempt to acquire each item of information listed, but must also recognize and accept the client's right to refuse to provide requested items)

Basic Information

- Individual's name, address, and telephone number;
- Age, date, and place of birth;
- Gender
• Marital status;

• Minority status (African American, Hispanic, American Indian/Alaskan, Asian/Pacific Islanders, Non-minority)

• Living arrangements; (living alone or with others)

• Condition of environment;

• Income and other financial resources, by source (including SSI);

• Expenses; and,

• Religious affiliation, if applicable.

Functional Status

• ADL/IADL Status -- number and type of limitations in activities in daily living and instrumental activities of daily living;

• Cognitive impairment;

• Vision;

• Hearing;

• Speech;

• Oral status (condition of teeth, gums, mouth, and tongue);

• Prostheses;

• Psychosocial functioning;

• History of chronic and acute illness;

• Nutrition Screening risk status and diet restrictions, if any; and,

• Prescriptions, medications, and other physician orders.

Supporting Resources
- Physician's name, address, and telephone number;
- Pharmacist's name, address, and telephone number;
- Services currently receiving or received in past (including identification of those funded through Medicaid);
- Extent of family and/or informal support network;
- Hospitalization history;
- Medical/health insurance available; and,
- Clergy name, address and telephone number, if applicable.

Need Identification

- Participant/family perceived;
- Assessor perceived and/or identified from referral source/professional community; and,
- Each participant is to be reassessed every six months, or as needed, to determine the results of implementation of the care plan. If reassessment determines the participant's identified needs have been adequately addressed, the case should be closed.

Care Plan

A written care plan must be developed for each person determined in need of and eligible for case management. The care plan must be developed in cooperation with and be approved by the participant (or participant's guardian or designated representative, if applicable). The care plan must contain at a minimum:

- statement of the participant's problems, needs, strengths, and resources;
- Statement of the goals and objectives for meeting identified needs;
- Description of methods and/or approaches to be used in addressing needs;
• Identification of services to be provided by other agencies and the service schedules;

• Treatment orders of qualified health professional, when applicable.

• Participants with unmet health needs (physical or mental) are to be referred to appropriate health care provider(s).

• Each program must have a written policy/procedure to govern the development, implementation, and management of care plans.

Record Keeping

Each program must maintain comprehensive and complete case files which include at a minimum:

• Details of participant’s referral to case management program;

• Intake records;

• Comprehensive individual assessment and reassessment;

• Care Plan (with notation of any revisions);

• Listing of all contacts (dates) with participants (including units of service per participant);

• Case notes in response to all participant or family contacts (telephone or personal);

• Listing of all contacts with service providers on behalf of participant;

• Comments verifying participant’s receipt of services from other providers and whether service adequately addressed participant need; and,

• Record of release of any personal information about the participant and copy of signed release of information form.

• In order to maintain confidentiality, all case files must be stored in controlled-access files. Each program must use a standardized release of information form, which is time limited and specific as to the information being released.
HEALTH PROMOTION/DISEASE PREVENTION and WELLNESS ACTIVITIES

Health promotion and disease prevention programs are key to helping improve the health of Americans. National programs such as the President's Healthier US Initiative, USA on the Move: Steps to Healthy Aging and Healthy People 2010 recognize the importance of activities that promote health and address the relationship between nutrition, physical activity, and chronic disease (1). Health promotion and disease prevention programs help minimize health-related risk factors associated with aging. The programs can help older adults understand the factors associated with optimal psychosocial and physical well-being and provide resources to help them cope with the psychological and physical changes of aging (24).

Health promotion programs for older adults focus on increasing control over and improving their health in a variety of areas; for example, nutrition, physical activity, mental health, alcohol and substance reduction, tobacco use. Wellness programs--a type of health promotion program--involve all aspects of the individual: mental, physical, and spiritual. Both types of programs provide structured opportunities to increase knowledge and skills in specific areas, such as stress management, or environmental sensitivity. The supportive environment nurtures the emotional and intellectual aspects of participants, and helps them become increasingly responsive to their health needs and quality of life (7). These programs are usually short-term and educational rather than therapeutic in nature.

A sedentary lifestyle, due to age, depression, obesity, arthritis, stroke or respiratory diseases, is a major risk factor for disability in older adults (25-28). Research supports the importance of physical activity in reducing the risk of these debilitating conditions (26-32). The well documented benefits of physical activity include increased appetite, increased mobility and flexibility, and improved muscle strength and aerobic capacity (33). Active participants have better dietary intakes, improved functional capacity to perform activities of daily living, reduced risk for falls, improved bone health, and improved responses to coronary heart disease, hypertension, diabetes, and osteoarthritis than their non-active counterparts (26-31).

According to National Evaluation, 80% of nutrition sites that provided recreation and social activities (or 67% of all congregate sites) offered these activities at least twice per week (7). Physical activity programs were included in this category but were not listed as a separate activity. The Surgeon General, supported by American Association of Retired Persons (AARP), the American College of Sports Medicine, the American Geriatrics Society, the National Institute on Aging, the Center for Disease Control and Prevention, and the Office of the Assistant Secretary for Planning and Evaluation
in the US Department of Health and Human Services, recommend community-based physical activity programs or community activities that include physical activity opportunities to achieve health benefits in older adults (31,34,35). Some congregate nutrition programs offer resistance training (e.g., strength training via free-weights or machines), endurance training (e.g., aerobics, walking, swimming), flexibility training (e.g., stretching, yoga), and balance training (e.g., Tai-chi). These help older adults in their pursuit of a healthy lifestyle (33,36).

The **2000 Dietary Guidelines for Americans** (DGs) is an essential health promotion/disease prevention document that focuses on the relationship between nutrition, food, health, and physical activity. The *Dietary Guidelines* provide consumers and professionals good information about nutrition and physical activity. Because the OAA requires compliance with the *Dietary Guidelines*, this document can assist states, AAAs, and local providers to address nutrition and physical activity in their programs.

A *National Survey of Health and Supportive Services in the Aging Network*, by the National Council on the Aging (Summer 2001) describes the impact of organizations in improving health outcomes and supporting older people in their homes (37). It shows the vitality and diversity of agencies and services in the aging network. It illuminates the range of innovative services in diverse settings and geographic areas. For example, these programs operate in clinics, churches, community centers and in residences of the homebound in inner cities, urban, suburban and rural areas. It identifies the resourcefulness of agencies in recruiting and employing certified professionals and engaging well-trained volunteers. The study reports successes in measuring program outcomes via positive changes in health status, health practices, and quality of life. These high quality programs make extensive use of partnerships to leverage funding and meet participant needs. More than 50% partner with health care providers. Others partner with universities, public agencies, and local businesses. Cost sharing is common with 67% reporting fees and donations as important funding sources.

**Examples of Wellness and Physical Activity Programs**

*Steps to Healthy Aging: Eating Better and Moving More* is a two-part program designed to improve nutrition and physical activity in older adults. It is sponsored by AoA and the National Policy and Resource Center on Nutrition and Aging. Simple, modest increases in daily activities can improve overall health, prevent disease and disability, and reduce health care costs for our nation. The *Steps to Healthy Aging: Eating Better and Moving More Guidebook* will be available in late 2003.
The Ask the Experts Wellness Activities for Older Adults has examples from a wide variety of organizations and agencies. It summarizes objectives and activities of specific programs. It includes topic suggestions and additional resources such as state and county health departments, cooperative extensions, hospitals and health clinics, colleges and universities, health care practitioners, federal and state public health agencies, and other agencies, organizations, and businesses in relation to specific diseases, services, and/or products.

Information from the National Policy and Resource Center on Nutrition and Aging:

Hotlinks: Nutrition / Health Information

Resources: Education and Health Promotion

Bibliographies: Education and Health Promotion

The Role of Dietitians/Nutritionists in Health Promotion and Disease Prevention

It is the position of the American Dietetic Association that health promotion and disease prevention endeavors are the best population strategies for reducing the current burden of chronic disease. Dietetics professionals should be actively involved in promoting optimal nutrition in community settings and should advocate for the inclusion of healthy eating, in addition to other health-promoting behaviors, in programs and policy initiatives at local, state, or federal levels (13).

There is an increasing need for nutrition services in OAA Nutrition Programs because so many older adults have chronic conditions which can be managed with appropriate nutrition interventions. Dietitians and nutritionists are the primary information resource regarding the relationships among diet, health, and disease prevention. When OAA Nutrition Programs integrate Healthy People 2010 into their programs, dietitians and nutritionists are vital to helping meet these objectives. They can contribute significantly to the design, delivery, and evaluation of health programs and services in the OAA Nutrition Program.

Older Americans Act 2000 Requirements

Part B-Supportive Services and Senior Centers Program.
Section 321
(a) The Assistant Secretary shall carry out a program for making grants to States under State Plans approved under section 307 for any of the following supportive services:
(1) health (including mental health), education and training, welfare, informational,
recreational, homemaker, counseling, or referral services:
(7) services designed to enable older adults to attain and maintain physical and mental well-being through programs of regular physical activity, exercise, music therapy, art therapy, and dance-movement therapy;
(8) services designed to provide health screening to detect or prevent illnesses, or both, that occur most frequently in older individuals;
(17) health and nutrition education services, including information concerning the prevention, diagnosis, treatment, and rehabilitation of age-related diseases and chronic disabling conditions…

Part D - Disease Prevention and Health Promotion Services Program
Section 361
(a) The Assistant Secretary shall carry out a program for making grants to States under State Plans approved under section 307 to provide disease prevention and health promotion services and information at multipurpose senior centers, at congregate meal sites, through home-delivered meals programs, or at other appropriate sites. In carrying out such programs, the Assistant Secretary shall consult with the Directors of the Centers for Disease Control and Prevention and the National Institute on Aging.
(b) The Assistant Secretary shall, to the extent possible, assure that services provided by other community organizations and agencies are used to carry out the provisions of this part.

Sample SUA Health and Wellness Standards/Guidelines

Pennsylvania

Primetime Health Program: Philosophy and Goals:

PrimeTime Health is unique in that it is the first substantial effort by the national aging network to increase efforts at disease prevention. Providing support and education to older people before they become ill is a creative and cost-effective way to reduce the demand for medical treatment. The Department believes this affords an important opportunity for the network to attract a new, sometimes younger and healthier clientele into the aging services system. As such, PrimeTime Health can play an especially significant role in senior community center revitalization.

The Department’s primary intent was, and is, to creatively assist AAAs to develop their local programs. Paperwork and reporting requirements remain minimal. The major source of PrimeTime Health funding comes from the Federal Older Americans Act which provides overall direction on the use of health promotion funding. The Department has the responsibility to insure that PrimeTime Health operates within these
PROGRAM REQUIREMENTS:

Each AAA is responsible for the continued delivery of a local PrimeTime Health Promotion program. Each AAA must:

(A) Retain one or more individuals to provide local health promotion services. Staff may or may not be attached to the AAA complement. In fact, attaching such staff senior centers or other appropriate community organizations is encouraged. AAAs with large grants are encouraged to dedicate a portion of their PrimeTime funds to pay for a health promotion specialist to concentrate on the coordination of health promotion activities.

(B) Establish a PrimeTime Health Advisory Committee consisting of older adults, representatives from community health organizations, senior community center directors, physicians and other health care providers, agencies serving older adults, local businesses, local, community clubs and associations, the PrimeTime Health Coordinator and other interested individuals. This committee should meet at least twice a year to discuss goals and plans for the program. This committee may be a subcommittee of an existing AAA advisory committee.

The purpose of this advisory committee is to create a sense of community ownership for this program so that the community sees this as something they are doing for older adults. Committee members should be encouraged to make their resources available to the program. This committee is to be advisory in nature. The AAA maintains policy control of the program.

Establish yearly program goals within one or more of the allowable state-level priority areas including activities outlined in the Federal Older Americans Act. These activities include: health risk assessments; routine health screening; nutritional counseling; health promotion programs, including programs relating to chronic disabling conditions such as alcohol and substance abuse reduction, smoking cessation; weight loss and control, and stress management; physical fitness including group exercises, music, art, dance movement programs and multi-generational health and fitness programs; home injury control services; screening for prevention of depression and coordination of community mental health services; medication management screening and education; information on age-related diseases and chronic disabling conditions; education programs, including programs on the appropriate use of preventative health services; counseling regarding social services and follow-up services; and gerontological counseling.
AAAs may wish to reference Healthy People 2000 goals, state and local demographic data and consumer interest when establishing goals. PrimeTime Health funds are not to be used for programs that are purely social or recreational in nature.

(C) Conduct all health promotion activities offered through the aging network under the name PrimeTime Health, regardless of how they are funded. We strongly encourage the use of PrimeTime Health marketing materials to create a consistent PrimeTime Health look and message across the State, so that the name "PrimeTime Health" will become well known by older people throughout the Commonwealth. We recognize that there may be times this may be difficult because of funding by outside sources or because an activity has a long standing history under another name. In this case, we ask that, somewhere within the advertisement for the program, a reference be made to PrimeTime Health. For example: "Golden Achiever, a PrimeTime Health Program." Please insure that AAA staff and volunteers who answer the phone are aware of the name and refer calls to the appropriate person ? the designated PrimeTime Health Coordinator.

(D) Offer activities without charge to participants, if those activities can be directly traced to older Americans Act funding. Voluntary contributions which respect the privacy of each older person may be collected as long as no older person is denied a service because of unwillingness or inability to contribute.

(E) Submit a report at the end of each fiscal year reflecting progress on the AAA goals for the year (see section C above), and the AAA's plans for the following year. The format will be supplied to the AAAs by mid-May of each year, beginning in May, 1998. In reporting activities and persons served during the program year, AAAs are to be guided by the most current SEY reporting document used by the Department.

South Carolina

Disease Prevention and Health Promotion Services
Purpose: To improve the quality of life for older adults and prevent premature institutionalization by:

1. Maintaining and/or improving health status

2. Increasing years of healthy life by minimizing period of morbidity/disability

3. Reducing risk factors associated with illness, disability or disease
4. Delaying onset of disease
5. Preserving functional abilities
6. Managing chronic diseases

The following Disease Prevention and Health Promotion Services have been designated as priority services by the State Unit on Aging:

1. Routine Health Screening with Counseling and Referral as a component
2. Nutrition Risk Assessment Counseling and Follow-up
3. Health Promotion Programs
4. Physical Fitness Programs
5. Home Injury Prevention and Control Services

Service Activities: All activities shall be performed according to the State Unit on Aging Quality Assurance standards for disease prevention and health promotion services:

1. Programs and services, appropriate to the client population, consist of planned, progressive activities with measurable client outcomes.

2. Programs and/or individual client goals designed to maintain/improve the participants' health status and/or reduce risk of disease are established and progress toward those goals is measured.

3. Disease prevention and health promotion services are offered in addition to other program activities conducted in congregate nutrition centers.

4. Disease prevention and health promotion services are scheduled at times and in places that allow participation by individuals in need of these specific services.

5. Disease prevention and health promotion services are designed and carried out to maintain and/or improve participant health or to reduce risk factors in the targeted population.
Additional Resources

Nutrition screening, assessment, education, and counseling Resources and Bibliographies compiled by the National Policy and Resourc Center on Nutrition and Aging.


Nutrition Care of the Older Adult: A Handbook for Dietetics Professionals Working Throughout the Continuum of Care

http://www.cdhcf.org/products/index.htm

Links to nutrition and health information websites listed by the Center.

PowerPoint Presentations at the AoA SUA Nutritionists/Administrators Conference (June 2002):

- Why Wellness Programs? Jean Friend
- Nutrition Interventions In Wisconsin. Jennifer L. Keeley, WI
- What Do We Do After We Screen? Medical Nutrition Therapy & Other Cutting Edge Nutrition Interventions. Nancy Wellman, Center, Jennifer Keeley, MN, Suhda Reddy, GA, Bonnie Athas, UT.
- Nutrition Can Maintain Function at any Age. Mary Ann Johnson, UGA.

American Dietetic Association: Position Statements

Total diet approach to communicating food and nutrition information -- Position of the ADA. *J Am Diet Assoc.* 2002;102:100


The role of dietetics professionals in health promotion and disease prevention -- Position of ADA. *J Am Diet Assoc.* 2002;102:1680-1687


**References**


8. *Becoming a Registered Dietitian: A Food and Nutrition Expert*, American Dietetic Association


19. Senior Nutrition and Activity Program; Senior Services, Inc. Wichita, Kansas.


23. Johnson F. The Role of Nutrition in Home and Community-Based Long Term Care.

24. Older Adults and Mental Health: Issues and Opportunities, Chapter 4 - Supportive Services and Health Promotion. Administration on Aging. January 10, 2000.


Additional References


Older Adults and Mental Health: Issues and Opportunities, Chapter 4 - Supportive Services and Health Promotion. Administration on Aging. January 10, 2000.