



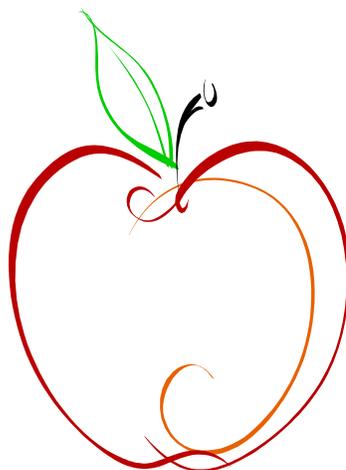
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DEPARTMENT OF ECONOMIC SECURITY

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*Your Partner For A Stronger Arizona*

**Arizona Department of Economic Security  
Division of Aging and Adult Services**



**Nutrition, Food Service,  
And Wellness Manual**

**2016**



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## **Introduction**

Adequate nutrition is critical to health, functioning, and the quality of life, and therefore an important component of home and community-based services for older people.

The Administration on Aging (AoA) Elderly Nutrition Program provides grants to support nutrition services to older people throughout the country. The Elderly Nutrition Program, authorized under Title III, Grants for State and Community Programs on Aging, and Title VI, Grants for Native Americans, under the Older Americans Act, is intended to improve the dietary intakes of participants and to offer participants opportunities to form new friendships and to create informal support networks. (ref. 14)

The Nutrition, Food Service and Wellness Manual is a reference guide for Area Agencies on Aging and local service providers in implementing and managing nutrition programs under the Older Americans Act. This manual covers the nutrition and food service standards from The Older Americans Act of 1965, amended in 2000, and re-authorized in 2006, in an agreement between the US House and Senate and sited as the Older Americans Act Amendments of 2006. (ref. 11)

The manual also provides tools in implementing and managing evidence-based health promotion and disease prevention programs. The purpose of these programs is to prevent or delay onset of adverse health conditions resulting from poor nutritional health and reduce the risk of injury, disease, and disability. The information provided in the manual will assist the AAAs and local service providers in complying with Federal and State Standards, various regulatory agency compliance requirements and the licensure requirements for which they are responsible. (ref. 11)

Components of this manual also include guidelines to assist AAAs and their providers, to meet the requirement to coordinate activities and develop long-range emergency preparedness plans in conjunction with local emergency response agencies, local governments, state agencies responsible for emergency preparedness, and other entities involved in disaster relief.

The President signed the Older Americans Act Amendments of 2006 into law on October 16, 2006. The law incorporates the following sense of Congress recognizing the contribution of nutrition to the health of older adults, finding that:

- “Good nutrition is vital to good health, and a diet based on the *Dietary Guidelines for Americans* may reduce the risk of chronic diseases such as cardiovascular disease, osteoporosis, diabetes, macular degeneration, and cancer;
- The American Dietetic Association and the American Academy of Family Physicians have estimated that the percentage of older adults who are malnourished is estimated at 20 to 60 percent for those who are in home care and at 40 to 85 percent for those who are in nursing homes;
- The Institute of Medicine of the National Academy of Sciences has estimated that approximately 40 percent of community-residing persons age 65 and older have inadequate nutrient intakes;
- Older adults are susceptible to nutrient deficiencies for a number of reasons, including a reduced capacity to absorb and utilize nutrients, difficulty chewing, and loss of appetite;
- While diet is the preferred source of nutrition, evidence suggests that the use of a single daily multivitamin-mineral supplement may be an effective way to address nutritional gaps that exist among the elderly population, especially the poor; and
- The *Dietary Guidelines for Americans* state that multivitamin-mineral supplements may be useful when they fill a specific identified nutrient gap that cannot be or is not otherwise being met by the individual’s intake of food.
- Meal programs funded by the Older Americans Act of 1965 contribute to the nutritional health of older adults;
- When the nutritional needs of older adults are not fully met by diet, use of a single, daily multivitamin -mineral supplement may help prevent nutrition deficiencies common in many older adults;
- Nutrition service providers under the Older Americans Act should consider whether individuals participating in congregate and home-delivered meal programs would benefit from a single, daily multivitamin-mineral supplement that is in compliance with all applicable government quality standards and provides at least 2/3 of the essential vitamins and minerals at 100 percent of the daily value levels as determined by the Commissioner of Food and Drugs.” (Amended 2006, SEC. 318, of the older Americans Act of 1965, SENSE OF CONGRESS RECOGNIZING THE CONTRIBUTION OF NUTRITION TO THE HEALTH. (ref. 3, 43)

# 1 Authority and Responsibility

## 1.1 Older Americans Act

### **Overview**

The Older Americans Act was originally signed into law by President Lyndon B. Johnson on July 14, 1965. In addition to creating the Administration on Aging, it authorized grants to States for community planning and services programs, as well as for research, demonstration and training projects in the field of aging. Later amendments to the Act added grants to Area Agencies on Aging for local needs identification, planning, and funding of services, including but not limited to nutrition programs in the community as well as for those who are homebound; programs which serve Native American elders; services targeted at low-income minority elders; health promotion and disease prevention activities; in-home services for frail elders, and those services which protect the rights of older persons such as the long term care ombudsman program.

The Older Americans Act Amendments of 2000 was signed into law by President Bill Clinton on November 13, 2000. Public Law 106 - 501 extended the Act's programs through FY 2005.

The Older Americans Act Amendments of 2006 was signed into law by President George W. Bush on October 16, 2006. Public Law 109 - 356 extended the Act's programs through FY 2011. (ref. 1, 2, 3, 5, 43, 54, 57) Specific language of various sections of the Older Americans Act Amendments of 2006 can be found in the Appendix under Older Americans Act Amendments of 2006 – Un-official language

Under the authority of the Older Americans Act Amendments of 2006, TITLE III, the State Agency and the Area Agencies on Aging are responsible to concentrate resources in order to develop greater capacity and foster the development and implementation of comprehensive and coordinated systems to serve older individuals by entering into new cooperative arrangements in each State for the planning, and for the provision of supportive services and multipurpose senior centers, in order to;

- Secure and maintain maximum independence and dignity in a home environment for older individuals capable of self care with appropriate supportive services;
- Remove individual and social barriers to economic and personal independence for older individuals;
- Provide a continuum of care for vulnerable older individuals; and
- Secure the opportunity for older individuals to receive managed in-home and community-based long-term care services.

This is accomplished, in part, by developing and providing comprehensive and coordinated nutrition based programs and services. The nutrition service system provides older Arizonans access to nutrition services, nutrition and health related education and nutritionally sound meals. The goal of the nutrition services system component is to promote better health through an adequate nutritional intake. Particular attention should be given to older adults who:

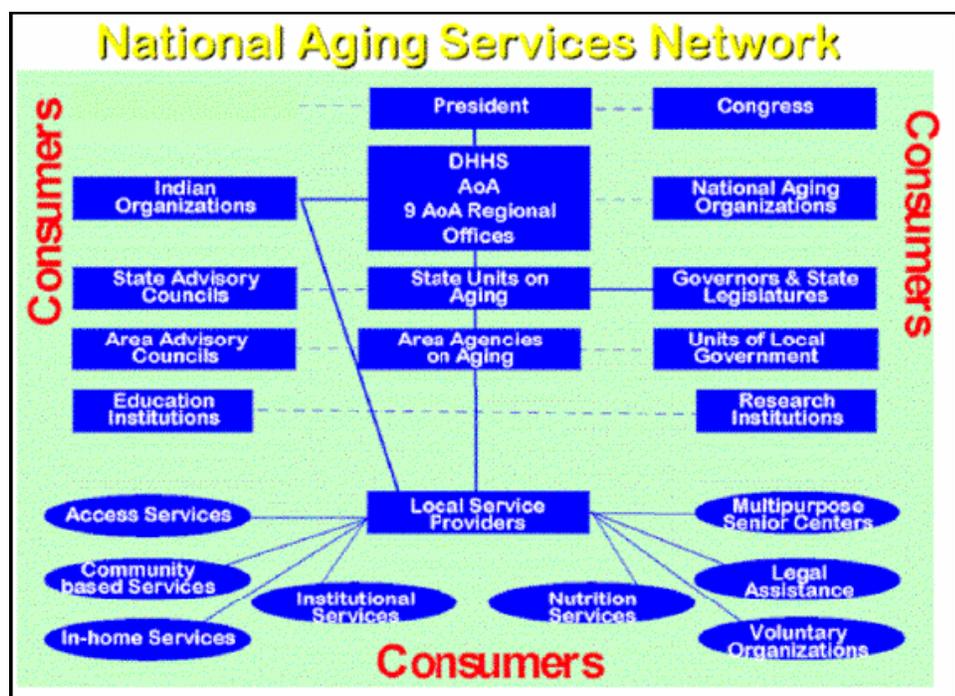
- Have the greatest economic need,
- Have lower incomes,
- Are low income minorities,
- Have limited English proficiency, and
- Reside in rural areas. (ref.2,11)

## 1.2 Administration on Aging

The Administration on Aging (AoA) is the official federal agency dedicated to policy and program development, planning, and the delivery of supportive home and community-based services to older persons and their caregivers. AoA's Mission is to develop a comprehensive, coordinated and cost-effective system of long term care that helps elderly individuals to maintain their independence and dignity in their homes and communities.

The following are AoA's priorities:

- To make it easier for older people to access an integrated array of health and social supports by re-balancing the long-term care system;
- To help older people stay active and healthy through health promotion and disease prevention activities; and
- To support families' efforts to care for their loved ones at home and in their communities.



(Source: [http://nutritionandaging.fiu.edu/OANP\\_Toolkit/toolkit%20update%202.7.06.pdf](http://nutritionandaging.fiu.edu/OANP_Toolkit/toolkit%20update%202.7.06.pdf))

The Federal Network consists of following:

- 56 State Units on Aging
- 655 Area Agencies on Aging
- 237 Tribal Organizations
- 10,000 Senior Centers
- 29,000 Providers
- 500,000 Volunteers

Additional information may be found on the Administration on Aging website at:  
[http://www.aoa.acl.gov/AoA\\_Programs/HPW/Nutrition\\_Services/index.aspx](http://www.aoa.acl.gov/AoA_Programs/HPW/Nutrition_Services/index.aspx)

### **1.3 State Unit on Aging**

In Arizona, the State Unit on Aging is the Division of Aging and Adult Services (DAAS) within the Department of Economic Security (DES). DES was established by the State Legislature in July 1972 by combining the Employment Security Commission, the State Department of Public Welfare, the Division of Vocational Rehabilitation, the State Office of Economic Opportunity, the Apprenticeship Council and the State Office of Manpower Planning. The State Department of Mental Retardation joined the Department in 1974. The purpose in creating the Department was to provide an integration of direct services to people in such a way as to reduce duplication of administrative efforts, services and expenditures. The DES Vision is that every child, adult, and family in the state of Arizona will be safe and economically secure. The DES Mission is to promote the safety, well-being, and self sufficiency of children, adults, and families. (ref. 19)

The mission of the DAAS is to support and enhance the ability of at-risk and older adults to meet their needs to the maximum of their ability, choice, and benefit. A variety of programs and services are made possible through the DAAS and its contractors that enable older persons and vulnerable adults to remain independent in their communities. Services funded through the Older Americans Act and other federal and state funds are provided under contract with eight Area Agencies on Aging.

The following is a listing of DAAS programs and services:

- **Home and Community Based Services** provides for non-medical home and community based services as an alternative to nursing home care. Examples of services delivered include: case management, home-delivered meals, housekeeping, personal care, respite care, adult day care/adult day health care, and home nursing. Services associated with access to services such as transportation, outreach, and information and assistance are also included.
- **Disease Prevention and Health Promotion Services** are intended to support healthy lifestyles and promote healthy behaviors. These services include evidence-based disease prevention and health promotion programs designed to reduce the need for more costly medical interventions.
- **Family Caregiver Support Program** provides services to family caregivers of older adults, as well as grandparents and other relative caregivers of children not more than 18 years of age. Services provided to family caregivers include: 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.
- **Long-Term Care Ombudsman Program** provides investigation and assistance in the resolution of complaints made by, or on behalf of older persons who are residents of long-term care facilities; advocacy for quality long-term care services; analysis and monitoring of issues and policies that relate to residents in long-term care facilities; and training to volunteers and designated representatives of the office.
- **Senior Community Service Employment Program (SCSEP)** provides subsidized part-time employment for low-income persons age 55 and older. The expectation is that these persons will become employed in unsubsidized positions.
- **State Health Insurance Assistance Program (SHIP)** receives its funding through the Centers for Medicare and Medicaid Services. SHIP assists Arizona's Medicare beneficiaries in understanding and accessing the healthcare benefits to which they are entitled and assists Medicare beneficiaries, caregivers, families and social services professionals seeking health insurance and benefits information and assistance. The Senior Medicare Patrol provides education on the detection of potential health care system fraud and abuse. Information and assistance is provided through a national toll free number, educational events, and face-to-face counseling. Volunteers provide outreach and deliver information and assistance in both programs.
- **Legal Services Assistance Program** provides legal assistance to older Arizonans who may be unable to appropriately manage their own affairs.
- **Adult Protective Services (APS) Program** is administered directly by the DAAS throughout its 31 offices within six districts. Adult Protective Services accepts and evaluates reports of abuse, neglect, and exploitation of vulnerable and incapacitated adults and offers appropriate services.

## 1.4 Policy and Procedure

It is the responsibility of the Division of Aging and Adult Services to develop Policies and Procedures for administered programs and services. The DAAS policy and procedure manual is available on the DAAS website:

<https://des.az.gov/services/aging-and-adult/partners/daas-policy-and-procedure-manual>

*(Scroll down and click on the "Aging and Adult Services Policy and Procedure Manual" link.)*

The purpose of the DAAS Policy and Procedure Manual is to document the program policies and requirements implemented by the Division of Aging and Adult Services for program contractors. The manual provides information regarding the administrative standards of Area Agencies on Aging, Area Plans on Aging, and Services and Programs for Arizonans. Policy changes can stem from several sources, including recently promulgated or revised Federal and State regulations, changes in accepted standards of practice, and emerging technology. The Division of Aging and Adult Services Policy and Procedure Manual consists of four chapters and a glossary. Each chapter contains sections that provide a policy overview, operational principles, and operational procedures. Exhibits, which pertain to a specific policy, are located at the end of the policy chapter.

For purposes of this manual, focus will be placed on sections 3100 and 3200 of the policy and procedure manual.

- § [Section 3100 –Non-Medical Home and Community-Based Services](#)
- § [Section 3200 – Nutrition Programs](#)

These sections shall be used as guidelines in carrying out responsibilities associated with nutrition, food service, and wellness.

## 1.5 Scope of Work

Each contract has a series of Scopes of Work which define the requirements for service provision. Scopes of work complement federal and state laws and the policies and procedures. For purposes of this manual, content may include requirements outlined within one or more of the following scopes of work, depending upon services contracted:

- Administrative Requirements
- Community Education and Information
- Congregate Meals
- Consultation
- Health Promotion and Disease Prevention
- Home Delivered Meals
- Home Health Aid
- Housekeeping/Homemaker
- Information and Referral
- Multipurpose Center Operations
- Nursing
- Public Health
- Personal Care
- Program Development
- Reassurances
- Socialization and Recreation
- Volunteer Services.

These Scopes of Work shall also be used as guidelines in carrying out responsibilities associated with nutrition, food service, and wellness.

## 1.6 Area Agencies on Aging

An Area Agency on Aging is a public or nonprofit private agency or office designated by the State Unit on Aging to carry out the Older Americans Act at the local level. Like its counterpart at the State level, an Area Agency on Aging serves both as the advocate and visible focal point in their planning and service area (PSA) to foster the development of more comprehensive and coordinated service systems to serve older individuals.

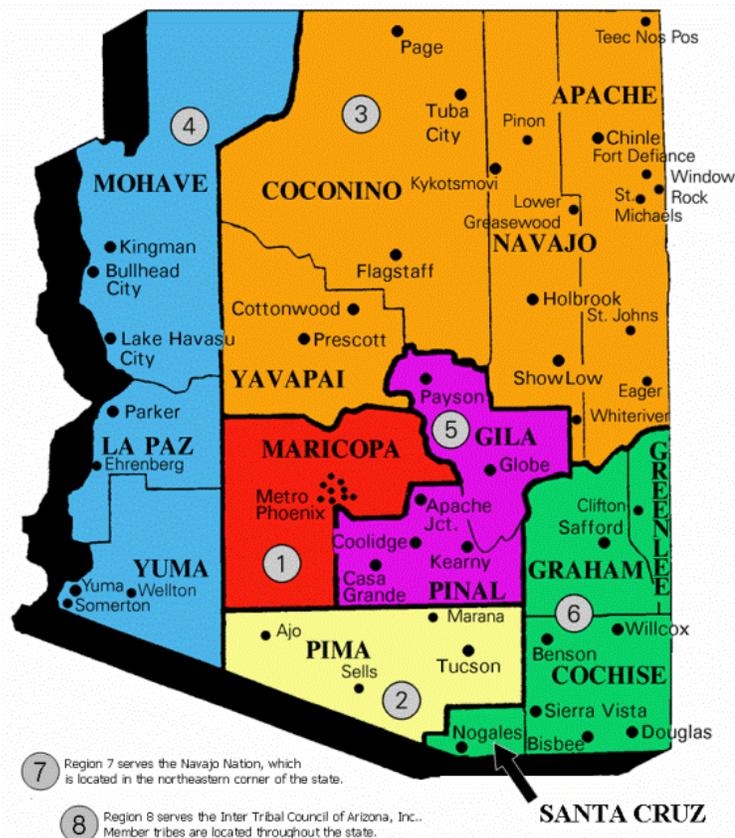
Within this context, Area Agencies on Aging have a clear responsibility to assure that supportive and nutrition services are made available to older persons in communities where they live. It is through the Area Agencies on Aging that most Older Americans Act services are funded, implemented, coordinated, expanded and updated.

There are **eight** Area Agencies on Aging in Arizona:

• <a href="#">Region One</a>	Area Agency on Aging, Region One, Inc.
• <a href="#">Region Two</a>	Pima Council on Aging
• <a href="#">Region Three</a>	Northern Arizona Council of Governments
• <a href="#">Region Four</a>	Western Arizona Council of Governments
• <a href="#">Region Five</a>	Pinal/Gila Council for Senior Citizens
• <a href="#">Region Six</a>	SouthEastern Arizona Government Organizations
• <a href="#">Region Seven</a>	Navajo Nation Area Agency on Aging
• <a href="#">Region Eight</a>	Inter Tribal Council of Arizona

### 1.7 State Map of Regions

The map below depicts the counties served within the eight AAAs in Arizona:



Should an Area Agency on Aging or its provider develop additional standards to those contained in the DAAS Policy and Procedure manual or scopes of work, it is recommended that Area Agency on Aging or its provider submit changes for review by the DAAS to ensure standards are compliant.

Each region is responsible for compliance with local and County Health Codes. A list of Arizona County Health Code resources can be found in the Appendix.

## 1.8 Resources - Additional Authority Having Jurisdiction

Standards are also set by other entities that have jurisdiction over nutrition and food service management that both AAAs and its providers are responsible to use as references in carrying out responsibilities, include but are not limited to:

- U.S. Department of Health and Human Services; “The 1999 Food Code” (adopted by the State of Arizona), internet search November 25, 2006
- Arizona Department of Health Services, Office of Nutrition Services; US Department of Health and Human Services. AZ. Department of Health Services, *“Title 9, Chapter 8: Food, Recreation and Intuition Article 1: Food and Drink.”*
- Local and County Health Codes

The *Administrative Requirements Scope of Work* require that the AAAs comply with Arizona Department of Economic Security Policies and Procedures, and all applicable federal, state, and local laws, rules, and regulations, including, but not limited to the following:

- Workforce Investment Act of 1998, 20. CFR.660
- Jobs for Veterans Act of 2002
- 42 U.S.C. §3001, et. seq.; Title III of the Older Americans Act of 1965, as Amended, Grants for State and Community Program on Aging
- 45 CFR Part 1321, Grants to State and Community Programs on Aging (Regulations for implementation of Older Americans Act of 1965, as Amended)
- 45 CFR Part 74, Administration of Grants, and □Circular A-110 or □Circular A-128
- Omnibus Budget Reconciliation Act of 1981 (P.L. 97-35) including Section 2352 “Title XX Block Grants” and the Arizona Title XX Social Services Plan
- The Older Americans Act, 42 USC, Chapter 35, Sub-chapter I, Section 3002, paragraph 33
- Older Americans Act of 1965, as amended (U.S.C. 42 §3001, et. seq.), Title III §307(a)(12); Title VII §711-713; 45 CFR 1321.11, Part 1321.63, Grants for State and Community Programs on Aging; A.R.S. §46-452.01 and §46-452.02 (Chapter 215)

## 2 Nutrition Programs

### 2.1 Program Information

The Division of Aging and Adult Services (through contracts with the Area Agencies on Aging) provides nutrition services to older adults and eligible persons with disabilities. For older adults, adequate nutrition is vitally important because of their increased vulnerability to chronic disease and conditions which may impair their ability to function, their access to adequate food and nutrition, and their ability to live at home in the community. The individuals at highest risk for poor nutrition and the resultant health consequences include those 85+ years old with limited English proficiency, minorities, low-income, living alone, having a disabling condition particularly one that interferes with their ability to shop and cook for themselves, and having multiply chronic diseases. Adequate nutrition is integral to healthy aging and the prevention or delay of chronic disease and disease-related disabilities.

Congregate nutrition services improve a participant's physical and mental health and prevent more costly interventions. Home-delivered nutrition services enable older adults to avoid or delay costly institutionalization and allow her/her to stay in their home and community.

The AoA's Elderly Nutrition Program specifically provides grants to support nutrition services to older individuals. The Elderly Nutrition Program, authorized under Title III, Grants for State and Community Programs on Aging, and Title VI, Grants for Native Americans, under the Older Americans Act, is intended to improve the dietary intakes of participants and to offer participants opportunities to form new friendships and to create informal support networks. Two of these funded programs are for congregate and home delivered meals. (ref. 14)

The Elderly Nutrition Program also provides a range of related services through the aging network's nutrition service providers. Programs such as nutrition screening, assessment, education and counseling are available to help older participants meet their health and nutrition needs. These also include special health assessments for diseases such as hypertension and diabetes.

Through additional services, older participants learn to shop, plan, and prepare nutritious meals that are economical and optimize their health and well-being. The congregate meal programs provide older adults with positive social contacts with other seniors at the group meal sites.

Volunteers and paid staff who deliver meals to homebound older adults often spend some time with the elderly, helping to decrease their feelings of isolation. These volunteers and paid staff also check on the welfare of the homebound elderly and are encouraged to report any health or other problems that they may note during their visits. In addition to providing nutrition and nutrition-related services, the Elderly Nutrition Program provides an important link to other needed supportive in-home and community-based services such as homemaker-home health aid services, assistive devices, transportation, physical activity programs, and home repair and modification programs.

## 2.2 Congregate Meal Program

The Congregate Meal Program is a service that provides a nutritious meal for an individual in a congregate setting (CNG SOW). Nutrition sites provide at least one hot meal or other appropriate meal in a congregate setting at least once a day, five or more days a week (except in a rural area where such frequency is not feasible and a lesser frequency is approved by the Department of Economic Security (DES)). The congregate meal program is designed to increase nutrient intake, prevent disease onset or deterioration, and social isolation of the participants. The meals must comply with the current *Dietary Guidelines for Americans* and provide a minimum of one-third (1/3) of the current Dietary Reference Intakes (DRI's) as established by the Food and Nutrition Board of the National Research Council of the National Academy of Sciences. This service program provides for menu planning, meal preparation and service, staff training, nutrition education, and social interaction. The congregate sites may also offer a variety of health related services such as transportation, health screening and promotion, social service referrals, shopping assistance, physical and social activities, and volunteer opportunities to the participants (CNG SOW).

### 2.2.1 Eligibility

Title III, Grants to State and Community Programs on Aging, provides funding for congregate meal programs to serve individuals who are 60 or older. Others who are eligible include:

- The spouse of an individual age 60 or older. The spouse may be of any age;
- An individual under age 60 with a disability who resides in a housing facility occupied primarily by older individuals at which congregate nutrition services are provided;
- An individual under age 60 with a disability who resides at home with and accompanies an older individual who participates in the program;
- A volunteer under age 60 who provide services during the meal hour(s);
- An individual under age 60 with a disability not meeting the categories described above. Funds other than Older Americans Act must be expended for persons in this category.

Efforts should be made to target those eligible individuals with the greatest economic and social need, low income, rural, limited English proficiency, and eligible minorities.

American Indians, Alaskan Natives, and Native Hawaiians tend to have lower life expectancies and higher rates of illness at younger ages, therefore, tribal organizations, funded under Title VI, Grants for Native Americans, are given the option of setting the age at which older people can participate in the program.

Title VI of the OAA authorizes funds for supportive and nutrition services provided to older Native Americans. Funds are awarded directly by the Assistant Secretary to Indian tribal organizations, Native Alaskan organizations, and non-profit groups representing Native Hawaiians. To be eligible for funding, a tribal organization must represent at least 50 percent of the Native American individuals age 60 or older. (ref. 3, 22)

## 2.3 Home Delivered Meals

The Home-Delivered Meals Program, sometimes referred to as Meals on Wheels, is a service that provides a nutritious meal to an individual, delivered to his/her place of residence. (HDM SOW)

### 2.3.1 Eligibility

The following individuals are eligible to receive home-delivered meals:

- An individual 60 years of age or older who has functional limitations, as described in 3113.2.D of the Aging and Adult Administration Policy and Procedures Manual Chapter 3100-NMHCBS, which restricts their ability to obtain and prepare appropriate meals within their home and has no other meal preparation assistance;
- The spouse of an eligible individual, regardless of age or condition where receipt of the meal is in the best interest of the home delivered meal participant;
- An individual age 18-59 with a disability who resides with an eligible person and where receipt of the meal is in the best interest of the home delivered meal participant;
- An individual age 18-59 with a disability, who has functional limitations which restricts their ability to obtain and prepare appropriate meals within their home and has no other meal preparation assistance available (funds other than Older Americans Act must be expended for persons in this category). (ref 3,11,22)

Individuals must be assessed as moderately to severely impaired in two areas of Instrumental Activities of Daily Living in order to be eligible for home-delivered meals, one of which must be meal preparation (ref. 22).

The preferred target group consists of eligible persons with the greatest economic and/or social needs, who may not eat adequate or nutritious meals because they are incapacitated or disabled due to accident, illness, or frailty. This includes those unable to prepare meals due to their limited mobility, psychological or mental impairment; those unable to safely prepare meals and/or lacking knowledge to select and prepare nourishing and well-balanced meals; and those without resources such as family, friends or other community services to provide them with meals. (ref.11)

Eating at home, alone, does not allow for social interaction. Therefore, home-delivered meal recipients are encouraged to participate in the meals program at their congregate site if possible. This “social nutrition” approach is based on the premise that even elderly persons with limited mobility, such as those confined to wheelchairs or the blind, should attend the congregate program, at least occasionally.



## 3 Menu Development and Planning

### 3.1 Menu Development

There are numerous generally accepted menu development and planning guides from various sources, i.e., U.S. Department of Agriculture, American Diabetes Association, American Dietetic Association, and American Medical Association. Some of these guides are designed for healthy individuals and others for nutritionally compromised individuals and those with acute or chronic illness, such as diabetes or heart disease. There are a number of issues that must be considered in the development of a menu, including the following:

- Input from the participants
- Meeting the nutritional needs of the participants
- Quality of life
- Meeting all state and federal regulations
- Incorporating regional and cultural preferences
- Modified diets
- Budget
- Meeting new Dietary Reference Intakes (DRI'S)
- Meeting the most current *Dietary Guidelines for Americans*
- Appearance, taste, and texture
- The volume of food acceptable to the population served
- Chronic illnesses interfering with the consumption or absorption of food (ref.24,29)

Traditionally, food patterns for menu development have been based on various food patterns such as the USDA Food Pyramid. The difficulty with using these menu patterns is that they do not consistently equate to specific nutrients. The nutrients are based on an average content for foods within each grouping, and may not always meet the target groups' requirements for vitamins A, C, D, E, potassium and fiber. As a result, meal patterns needed to be more specific in terms of whole grains, legumes, dark green and orange vegetables. (ref.24,29)

## 3.2 Dietary Guidelines for Americans Summary

Over the past century, deficiencies of essential nutrients have dramatically decreased, many infectious diseases have been conquered, and the majority of the U.S. population can now anticipate a long and productive life. At the same time, rates of chronic diseases—many of which are related to poor quality diet and physical inactivity—have increased. About half of all American adults have one or more preventable, diet-related chronic diseases, including cardiovascular disease, type 2 diabetes, and overweight and obesity.

However, a large body of evidence now shows that healthy eating patterns and regular physical activity can help people achieve and maintain good health and reduce the risk of chronic disease throughout all stages of the lifespan. The [2015-2020 Dietary Guidelines for Americans](#) reflects this evidence through its recommendations.

The *Dietary Guidelines* is required under the 1990 National Nutrition Monitoring and Related Research Act, which states that every 5 years, the U.S. Departments of Health and Human Services (HHS) and of Agriculture (USDA) must jointly publish a report containing nutritional and dietary information and guidelines for the general public. The statute (Public Law 101-445, 7 U.S.C. 5341 et seq.) requires that the *Dietary Guidelines* be based on the preponderance of current scientific and medical knowledge. The 2015-2020 edition of the *Dietary Guidelines* builds from the 2010 edition with revisions based on the Scientific Report of the 2015 *Dietary Guidelines* Advisory Committee and consideration of Federal agency and public comments.

The *Dietary Guidelines* is designed for professionals to help all individuals ages 2 years and older and their families consume a healthy, nutritionally adequate diet. The information in the Dietary Guidelines is used in developing Federal food, nutrition, and health policies and programs. It also is the basis for Federal nutrition education materials designed for the public and for the nutrition education components of HHS and USDA food programs. It is developed for use by policymakers and nutrition and health professionals. Additional audiences who may use *Dietary Guidelines* information to develop programs, policies, and communication for the general public include businesses, schools, community groups, media, the food industry, and State and local governments.

The 2015-2020 *Dietary Guidelines* provides five overarching Guidelines that encourage healthy eating patterns, recognize that individuals will need to make shifts in their food and beverage choices to achieve a healthy pattern, and acknowledge that all segments of our society have a role to play in supporting healthy choices. These Guidelines also embody the idea that a healthy eating pattern is not a rigid prescription, but rather, an adaptable framework in which individuals can enjoy foods that meet their personal, cultural, and traditional preferences and fit within their budget. Several examples of healthy eating patterns that translate and integrate the recommendations in overall healthy ways to eat are provided.

### 3.2.1 The 2015-2020 Dietary Guidelines for Americans

Previous editions of the *Dietary Guidelines* focused primarily on individual dietary components such as food groups and nutrients. However, people do not eat food groups and nutrients in isolation but rather in combination, and the totality of the diet forms an overall eating pattern. The components of the eating pattern can have interactive and potentially cumulative effects on health. These patterns can be tailored to an individual's personal preferences, enabling Americans to choose the diet that is right for them. A growing body of research has examined the relationship between overall eating patterns, health, and risk of chronic disease, and findings on these relationships are sufficiently well established to support dietary guidance. As a result, eating patterns and their food and nutrient characteristics are a focus of the recommendations in the *2015-2020 Dietary Guidelines*.

#### The Guidelines:

- **Follow a healthy eating pattern across the lifespan.** All food and beverage choices matter. Choose a healthy eating pattern at an appropriate calorie level to help achieve and maintain a healthy body weight, support nutrient adequacy, and reduce the risk of chronic disease.
- **Focus on variety, nutrient density, and amount.** To meet nutrient needs within calorie limits, choose a variety of nutrient-dense foods across and within all food groups in recommended amounts.
- **Limit calories from added sugars and saturated fats and reduce sodium intake.** Consume an eating pattern low in added sugars, saturated fats, and sodium. Cut back on foods and beverages higher in these components to amounts that fit within healthy eating patterns.
- **Shift to healthier food and beverage choices.** Choose nutrient-dense foods and beverages across and within all food groups in place of less healthy choices. Consider cultural and personal preferences to make these shifts easier to accomplish and maintain.
- **Support healthy eating patterns for all.** Everyone has a role in helping to create and support healthy eating patterns in multiple settings nationwide, from home to school to work to communities.

#### Key Recommendations: Components of Healthy Eating

The *Dietary Guidelines'* Key Recommendations for healthy eating patterns should be applied in their entirety, given the interconnected relationship that each dietary component can have with others.

Consume a healthy eating pattern that accounts for all foods and beverages within an appropriate calorie level.

#### A healthy eating pattern includes:

- A variety of vegetables from all of the subgroups—dark green, red and orange, legumes (beans and peas), starchy, and other
- Fruits, especially whole fruits
- Grains, at least half of which are whole grains

- Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
- Oils

#### **A healthy eating pattern limits:**

- Saturated fats and trans fats, added sugars, and sodium

**Key Recommendations that are quantitative are provided for several components of the diet that should be limited. These components are of particular public health concern in the United States, and the specified limits can help individuals achieve healthy eating patterns within calorie limits:**

- Consume less than 10 percent of calories per day from added sugars
- Consume less than 10 percent of calories per day from saturated fats
- Consume less than 2,300 milligrams (mg) per day of sodium
- If alcohol is consumed, it should be consumed in moderation—up to one drink per day for women and up to two drinks per day for men—and only by adults of legal drinking age.

In tandem with the recommendations above, Americans of all ages—children, adolescents, adults, and older adults—should meet the [Physical Activity Guidelines for Americans](#) to help promote health and reduce the risk of chronic disease. Americans should aim to achieve and maintain a healthy body weight. The relationship between diet and physical activity contributes to calorie balance and managing body weight. As such, the Dietary Guidelines includes a Key Recommendation to:

- Meet the *Physical Activity Guidelines* for Americans.

### **Healthy Eating Patterns: Dietary Principles**

Healthy eating patterns support a healthy body weight and can help prevent and reduce the risk of chronic disease throughout periods of growth, development, and aging as well as during pregnancy. The following principles apply to meeting the Key Recommendations:

An eating pattern represents the totality of all foods and beverages consumed. All foods consumed as part of a healthy eating pattern fit together like a puzzle to meet nutritional needs without exceeding limits, such as those for saturated fats, added sugars, sodium, and total calories. All forms of foods, including fresh, canned, dried, and frozen, can be included in healthy eating patterns.

Nutritional needs should be met primarily from foods. Individuals should aim to meet their nutrient needs through healthy eating patterns that include nutrient-dense foods. Foods in nutrient-dense forms contain essential vitamins and minerals and also dietary fiber and other naturally occurring substances that may have positive health effects. In some cases, fortified foods and dietary supplements may be useful in providing one or more nutrients that otherwise may be consumed in less than recommended amounts.

Healthy eating patterns are adaptable. Individuals have more than one way to achieve a healthy eating pattern. Any eating pattern can be tailored to the individual's socio-cultural and personal preferences.

## Nutrition and Health Are Closely Related

Over the past century, essential nutrient deficiencies have dramatically decreased, many infectious diseases have been conquered, and the majority of the U.S. population can now anticipate a long and productive life. However, as infectious disease rates have dropped, the rates of non-communicable diseases—specifically, chronic diet-related diseases—have risen, due in part to changes in lifestyle behaviors. A history of poor eating and physical activity patterns have a cumulative effect and have contributed to significant nutrition- and physical activity-related health challenges that now face the U.S. population. About half of all American adults—117 million individuals—have one or more preventable chronic diseases, many of which are related to poor quality eating patterns and physical inactivity. These include cardiovascular disease, high blood pressure, type 2 diabetes, some cancers, and poor bone health. More than two-thirds of adults and nearly one-third of children and youth are overweight or obese. These high rates of overweight and obesity and chronic disease have persisted for more than two decades and come not only with increased health risks, but also at high cost. In 2008, the medical costs associated with obesity were estimated to be \$147 billion. In 2012, the total estimated cost of diagnosed diabetes was \$245 billion, including \$176 billion in direct medical costs and \$69 billion in decreased productivity.

Concurrent with these diet-related health problems persisting at high levels, trends in food intake over time show that, at the population level, Americans are not consuming healthy eating patterns. For example, the prevalence of overweight and obesity has risen and remained high for the past 25 years, while Healthy Eating Index (HEI) scores, a measure of how food choices align with the *Dietary Guidelines*, have remained low (Figure I-1). Similarly, physical activity levels have remained low over time (Figure I-2). The continued high rates of overweight and obesity and low levels of progress toward meeting *Dietary Guidelines* recommendations highlight the need to improve dietary and physical activity education and behaviors across the U.S. population. Progress in reversing these trends will require comprehensive and coordinated strategies, built on the *Dietary Guidelines* as the scientific foundation that can be maintained over time. The *Dietary Guidelines* is an important part of a complex and multifaceted solution to promoting health and helping to reduce the risk of chronic disease.

### Opportunities for Shifts in Food Choices

To support a healthy body weight, meet nutrient needs, and lessen the risk of chronic disease, shifts are needed in overall eating patterns—across and within food groups and from current typical choices to nutrient-dense options. Eating patterns are the result of choices on multiple eating occasions over time, both at home and away from home. As a result, individuals have many opportunities to make shifts to improve eating patterns.

The majority of the U.S. population consumes three meals a day plus more than one snack. Children ages 2 to 5 years are most likely to consume three meals a day, with 84 percent consuming three meals and most often, two or more snacks. In contrast, only half of adolescent females and young adult males consume three meals a day, but most also have two or more snacks per day. Also, among most age groups, 40 to 50 percent consume two to three snacks a day, and about one-third consume four or more snacks a day.

About two-thirds (67%) of the calories consumed by the U.S. population are purchased at a store, such as a grocery store or supermarket, and consumed in the home. However, Americans have increased the proportion of food they consume away from home from 18 percent in 1977-1978 to 33 percent in 2009-2010.

These data suggest that multiple opportunities to improve food choices exist throughout the day and in varied settings where food is obtained and consumed. Small shifts made at each of these many eating occasions over time can add up to real improvements in eating patterns.

Additional information may be found at the Dietary Guidelines for Americans website at:  
<http://health.gov/dietaryguidelines/2015/guidelines/>

### **3.3 Dietary Reference Intakes and Calorie Requirements**

From 1941 until 1989, the Recommended Dietary Allowances RDAs were used to evaluate and plan menus that would meet the nutrient requirements of various groups. They were also used to interpret food consumption records of populations and establishing guidelines for nutrition labeling. The RDAs were often used to evaluate the diets of individuals, but were not intended for that purpose. (ref.34)

In the early 1990s, the Food and Nutrition Board, began revising the RDAs creating nutrient reference values - the Dietary Reference Intakes (DRIs). In 1997, the creation of the Dietary Reference Intakes (DRIs) by the Food and Nutrition Board of the National Academy changed the way nutritionists and nutrition scientists evaluate the diets of healthy people. The new DRI values were released in stages between 1997 and 2005.

There are four types of DRI reference values: the Estimated Average Requirement (EAR), the Recommended Dietary Allowance (RDA), the Adequate Intake (AI) and the Tolerable Upper Intake Level (UL). The primary goal of having new dietary reference values was to prevent nutrient deficiencies (same as the RDA's), and the addition of reducing the risk of chronic diseases such as osteoporosis, cancer, and cardiovascular disease (ref.34).

DRI values have been mainly used by scientists and nutrition professionals who work in research or academic settings. Nutrition professionals who develop menus that must meet certain nutritional requirements such as elderly meal programs also need to become familiar with the DRIs. The DRIs establish the nutrient levels that are now required under the Older Americans Act Amendment (OAA) of 2006. (ref.34)

Each meal under Title III must contain at least one third (1/3) of the current Dietary Reference Intakes (DRI's). Based on the DRI's reference 51+ year old male, a one-week menu cycle shall contain an average of 650 calories per meal with a minimum of 500 calories and a maximum of 800 calories; the sodium content per meal of 500mg to 800mg (occasionally may be 1000mg). Menus shall meet the recommendations from the Dietary Guidelines for each meal offered. (ref 3,11)

### 3.4 Cycle Meal Patterns

Menus must be planned in advance using a standardized meal planner equivalent to the recommended menu pattern, USDA Food Guide or DASH Eating Plan outlined in the most current edition of the Dietary Guidelines for Americans. See Table 1 or Menu Spreadsheet Form

Menus are to be prepared with input from the participant group, i.e., site council, menu planning sessions, suggestion box and surveys. Menus are to be prepared in the dominant language(s) of the participant group. Menu preparation shall accommodate ethnic, cultural and religious preferences. (ref.11)

Menus must consist of a minimum of a six weeks cycle rotation of different food combinations to assure variety of colors, flavors and textures. Cycle menus shall run for a maximum of six months before changing. Minor changes can be made every three months. Food items shall not be repeated on two consecutive days or on the same days of consecutive weeks except with documented preference of the participants receiving the meal, i.e., mashed potatoes two days in a row or every Wednesday. (ref.11)

With written approval, meals may be prepared and served for persons needing diabetic, renal or restricted sodium diets when feasible, appropriate and cost effective, to meet particular dietary needs. Written approval is a diet order from the participant's physician. Special diet menus must be approved by a Registered Dietitian or Nutritionist. (ref.22).

Meal Pattern Standards		Recommended Diabetic Meal Pattern for 1500 Calories
Protein	2-3 ounces	2-3 ounces
Vegetables	2 (1/2 cup) Servings	2 (1/2 cup) servings
Grains	2 Servings/1 oz equiv. (1 as Whole Grain)	Grains/Bread 1 serving (whole grain)
Fruit	1 Serving (3/4 cup) Daily	1 serving (3/4 cup)
Milk	2%, 1% or Skim, 8 ounces	Skim Milk 8 ounces
Fat	1 serving	1 serving (optional)
Dessert	Extra Item, 2 Times/Week (optional)	Extra Item 1-2 times/week

Menus must be planned as hot meals. A cold meal may be planned occasionally to add variety to the menu, i.e., chef salad, sub sandwich. (ref.11)

Standardized recipes are required for an efficient food service operation to ensure that the product will be consistent, and yield the same number of servings and nutritional value at approximately the same cost. Nutrition providers are encouraged to share their favorite recipes with other nutrition providers. (ref.11)

Menus are to be prepared considering the availability of foods. Seasonal fruits and vegetables should be used as often as possible. (ref.11) Each provider should check with their supplier for a schedule of seasonal food availability. Fruits and vegetables available yearly in Arizona include: citrus, melons, dry beans, peppers, cauliflower, broccoli, cabbage, cucumbers, carrots, garlic, dry onions, green onions, potatoes, radishes, squash, and tomatoes.

Seasonal foods available in Arizona include: apples, peaches, grapes, fresh beans & peas, asparagus, chili peppers, cilantro, sweet corn, greens, turnips, lettuce, spinach, okra, pumpkins, berries, watermelon.

Menus, as served, must be retained by the nutrition provider for monitoring one year after the meals have been served. (ref.22)

### **3.5 Menu Planning Requirements – Nutrients**

Based on dietary intake data or evidence of public health problems, intake levels of the following nutrients may be of concern for adults: vitamins A (as carotenoids), C, and E and the minerals: calcium, magnesium, potassium, and fiber. (ref. 57).

The following nutrients will be targeted for nutrient analysis: Calories; Protein; Fat; Calcium; Magnesium; Sodium; Fiber; Zinc; Vitamin B6; Vitamin B12; Vitamin C; Vitamin A.

#### **Vitamin A**

Low intakes of vitamins A (as carotenoids) tend to reflect low dietary intakes of fruits and vegetables. (ref.56) **Vitamin A rich foods shall be served 4 times/week. See Tables 4** for dietary sources of vitamin A.

#### **Vitamin C**

Low intakes of vitamin C tend to reflect low intakes of fruits and vegetables. (ref.56). **One serving of vitamin C rich food or a combination of two or more foods containing vitamin C shall be served daily.** A vitamin C rich food is a single serving that contains at least one-third (1/3) of the DRI's for vitamin C. Fortified, full strength juices, defined as fruit juices that are 100% natural juice with vitamin C added may be counted as a vitamin C rich food. (ref.11) See **Tables 5** for dietary sources.

#### **Vitamin E**

Efforts may be warranted to promote the possible increased dietary intakes of vitamin E, regardless of age. The vitamin E content in both the USDA Food Guide and the DASH Eating Plan found in **Table 1** is greater than current consumption, and specific vitamin E-rich foods need to be included in the eating patterns to meet the recommended intake of vitamin E. Vitamin E rich foods shall be served in sufficient quantities and frequencies to assure meal plans provide an average of at least one-third 1/3 of the DRI's for vitamin E over any 7 meal period. **See Table 8** for dietary sources of vitamin E.

#### **Calcium**

Those who avoid all milk products need to choose rich sources of the nutrients provided by milk, including calcium (ref. 57). **See Table 7a** for dairy sources of calcium and **Table 7b** for non-dairy sources of calcium.

#### **Magnesium**

Low intakes of magnesium tend to reflect low intakes of fruits and vegetables. Milk product consumption has been associated with overall diet quality and adequacy of intake of many nutrients, including magnesium. Those who avoid all milk products need to choose rich sources of the nutrients provided by milk, including magnesium. (ref. 57) **See Table 9** for dietary sources of magnesium.

## **Potassium**

Most Americans of all ages also need to increase their potassium intake. To meet the recommended potassium intake levels, potassium-rich foods from the fruits and vegetables must be incorporated in the menu. The majority of servings from the fruit group should come from whole fruit (fresh, frozen, canned, dried) rather than juice in order to increase fiber intake. However, inclusion of some juice, such as orange juice, can help meet recommended levels of potassium intake.

A dietary measure to lower blood pressure is to consume a diet rich in potassium. A potassium-rich diet blunts the effects of salt on blood pressure, may reduce the risk of developing kidney stones, and possibly decrease bone loss. (ref.56) **See Tables 6** for dietary sources of potassium.

## **Fiber**

Dietary fiber is composed of non-digestible carbohydrates and intact plants. The recommended dietary fiber intake is 14 grams per 1,000 calories consumed. Initially, some aging Americans will find it challenging to achieve this level of intake. However, making fiber-rich food choices more often will move people toward this goal and is likely to confer significant health benefits, including decreased risk of coronary heart disease and improvement in intestinal motility.

Since constipation may affect up to 20 percent of people over 65 years of age, older adults should choose to consume foods rich in dietary fiber. In addition to fruits and vegetables, whole grains are an important source of fiber and other nutrients.

In the fruit group, consumption of whole fruits (fresh, frozen, canned, dried) rather than fruit juice for the majority of the total daily amount is suggested to ensure adequate fiber intake. An individual should consume at least half the grains as whole grains to achieve the fiber recommendation.

Consuming at least 3 or more ounce-equivalents of whole grains per day can reduce the risk of several chronic diseases and may help with weight maintenance. Thus, daily intake of at least 3 ounce-equivalents of whole grains per day is recommended by substituting whole grains for refined grains at all calorie levels, for all age groups.

All grain servings can be whole-grain; however, it is advisable to include some folate-fortified products, such as folate-fortified whole-grain cereals, in these whole-grain choices. **See Table 11** for a list of whole grains available in the United States.

Legumes—such as dried beans and peas—are especially rich in fiber and should be consumed several times per week. They are considered part of both the vegetable group and the meat and beans group as they contain nutrients found in each of these food groups. **Menus shall provide an average of 8 grams fiber for one meal.** (ref.57) **See Table 10** for dietary sources of fiber.

## 3.6 Menu Planning Requirements – Foods

### Fruits and Vegetables

The strength of the evidence for the association between increased intake of fruits and vegetables and reduced risk of chronic diseases is variable and depends on the specific disease, but an array of evidence points to beneficial health effects. Compared with the many people who consume a dietary pattern with only small amounts of fruits and vegetables, those who eat more generous amounts as part of a healthful diet are likely to have reduced risk of chronic diseases, including stroke and perhaps other cardiovascular diseases, type 2 diabetes, and cancers in certain sites (oral cavity and pharynx, larynx, lung, esophagus, stomach, and colon-rectum). (ref.24)

Four and one-half cups (nine servings) of fruits and vegetables are recommended daily for the reference 2,000-calorie level, with higher or lower amounts depending on the caloric level. The range is 2.5 to 6.5 cups (5 to 13 servings) of fruits and vegetables each day for a range of 1,200 to 3,200 calorie levels. Fruits and vegetables provide a variety of micronutrients and fiber. **Table 4** provides a list of fruits and vegetables that are good sources of vitamins A (as carotenoids) and C, folate, and potassium. In the fruit group, consumption of whole fruits (fresh, frozen, canned, dried) rather than fruit juice for the majority of the total daily amount is suggested to ensure adequate fiber intake. Different vegetables are rich in different nutrients. In the vegetable group, weekly intake of specific amounts from each of five vegetable subgroups (dark green, orange, legumes [dried beans, peas], starchy, and other vegetables) is recommended for adequate nutrient intake. Each subgroup provides a somewhat different array of nutrients.

**Following the guidelines at the reference 2,000-calorie level, the following weekly amounts shall be included when serving one meal/day:**

Dark green vegetables	2-3 servings/week
Orange vegetables	2 servings /week
Legumes (dried beans, peas)	2 servings/week
Starchy vegetables	2-3 servings /week
Other vegetables	2-3 servings /week (Can use vegetable blends)
Fruits	5 servings/week (3/4 cup portion)

Most current consumption patterns do not achieve the recommended intakes of many of these vegetables. The *Dietary Guidelines for Americans* suggest increasing intakes of dark green vegetables, orange vegetables, and legumes (dried beans, peas) as part of the overall recommendation to have an adequate intake of fruits and vegetables

The key recommendation from the current *Dietary Guidelines* include consuming a sufficient amount of fruits and vegetables while staying within energy needs. Two cups of fruit and 2.5 cups of vegetables per day are recommended for a reference 2,000-calorie intake, with higher or lower amounts depending on the calorie level. A variety of fruits and vegetables must be planned into the menu each day. In particular, select from all five vegetable subgroups (dark green, orange, legumes, starchy vegetables, and other vegetables) several times a week. Choose fiber-rich fruits and vegetables. (ref. 24)

Each meal must contain the serving amount of fruits or vegetables specified on the menu in accordance with the most current *Dietary Guidelines for Americans*. Fruit may be fresh; water packed, juice packed or in light syrup. Heavy syrup packs should not be used.

A serving of vegetable soup that contains at least ½ cup of vegetables per serving may be counted as a vegetable serving. (ref.11) Condiments such as ketchup, salsa, and relish or items such as potato chips, or pickles may not be counted as a fruit or vegetable serving.

Full strength (100%) vegetable or fruit juices may be substituted occasionally, particularly when needed to meet vegetable or fruit requirements. Partial strength or simulated fruit juices or drinks, even when fortified, may not count as a vitamin or fruit source. (ref.11)

### **Enriched/Whole Grain Bread or Alternate**

Based on the USDA Food Guide Amount for a reference 2000 calorie diet; each meal must contain at least 2 ounce equivalents of grain products, one of which must be a whole grain. Biscuits, muffins, rolls, sandwich buns, cornbread and other hot breads may be used. Bread alternates (½ cup serving) such as enriched or whole grain cereals, rice, pasta, dressing, macaroni, dumplings, pancakes, waffles or tortillas may also be used. (ref.11)

In addition to fruits and vegetables, whole grains are an important source of fiber and other nutrients. Whole grains, as well as foods made from them, consist of the entire grain seed, usually called the kernel. The kernel is made of three components—the bran, the germ, and the endosperm. If the kernel has been cracked, crushed, or flaked, then it must retain nearly the same relative proportions of bran, germ, and endosperm as the original grain to be called whole grain. In the grain-refining process, most of the bran and some of the germ is removed, resulting in the loss of dietary fiber, vitamins and minerals. Some manufacturers add bran to grain products to increase the dietary fiber content. Refined grains are the resulting product of the grain-refining processing. Most refined grains are enriched before being further processed into foods. Enriched refined grain products that conform to standards of identity are required by law to be fortified with folic acid, as well as thiamin, riboflavin, niacin, and iron. (ref.24)

### **Milk**

Based on the USDA Food Guide Amount for a reference 2000 calorie diet; each meal must contain at least 8 ounces (1 cup or ½ pint) of fortified fat free skim or low fat milk or the equivalent such as yogurt, frozen yogurts, dairy desserts, cheeses (except cream cheese), including lactose-free and lactose-reduced products. All milk shall contain the equivalent of 5,000 IU of vitamin A and 400 IU of vitamin D per quart. (ref. 11,24) Table 7a illustrates equivalent dairy food sources of calcium ranked by milligrams of calcium per standard amount and calories in the standard amount.

Note: For a kosher meal, it is recommended that 8 ounces (8 oz.) of milk or any of the above substitutions be served as a snack within the culturally accepted time period. (ref.11)

All milk products must be pasteurized and comply with grade A standards as specified in the law. (ref. 55) Powdered milk is acceptable for use when added to a recipe during cooking. Reconstituted powdered milk is acceptable as a beverage when reconstituted at a temperature of 40 degrees F. or lower, in single portions for immediate consumption unless otherwise prohibited by the authority having jurisdiction.

Milk product consumption has been associated with overall diet quality and adequacy of intake of many nutrients, including calcium, potassium, magnesium, zinc, iron, riboflavin, vitamin A, folate, and vitamin D. (ref. 56) The intake of milk and dairy products is especially important to bone health.

Adults should not avoid milk and milk products because of concerns that these foods lead to weight gain. There are many fat-free and low-fat choices without added sugars that are available and consistent with an overall healthy dietary plan. If a person wants to consider milk alternatives because of lactose intolerance, the most reliable and easiest ways to derive the health benefits associated with milk and milk product consumption is to choose alternatives within the milk food group, such as yogurt or lactose-free milk, or to consume the enzyme lactase prior to the consumption of milk products.

For individuals who choose to or must avoid all milk products (e.g., individuals with lactose intolerance, vegans), nondairy calcium-containing alternatives may be selected to help meet calcium needs such as calcium-fortified soy beverages. **Table 7b** contains a list of non dairy calcium containing foods and beverages. (ref. 24)

Since milk and milk products provide more than 70 percent of the calcium consumed by Americans, guidance on other choices of dietary calcium is needed for those who do not consume the recommended amount of milk products. People may avoid milk products because of allergies, cultural practices, taste, or other reasons. Those who avoid all milk products need to choose rich sources of the nutrients provided by milk, including potassium, vitamin A, and magnesium in addition to calcium and vitamin D. (ref 56)

### **Meat or Meat Alternate**

Each meal must contain between 2 – 3 ounce (2 – 3 oz.) cooked edible portion of meat, fish, poultry, eggs, cheese or a meat alternate such as cooked dried beans, peas, lentil, nuts or peanut butter. (ref.11)

Ground meat may be used in entrees no more than twice every seven consecutive days of menus served, to ensure variety and the use of leaner meats. The use of high fat cheeses as a main entrée and cuts of meat with high fat content such as hot dogs, Polish sausage or lunchmeats should be limited to once per seven days. (ref.11)

### **Fats, Oil, Margarine, and Butter**

Each meal may contain between 2 – 4 tsp oil in the preparation of foods and may include one teaspoon of solid fat in the form of fortified margarine or butter if necessary to increase the palatability and acceptability of the meal or in the preparation of food or included as part of the discretionary calories. (ref.11) The recommendation is to limit trans fats to as little as possible. The use of soft margarine is recommended; however the use of solid margarine is acceptable as a cost saving measure. One teaspoon of solid margarine contains approximately 1 gram of trans fat.

Fats and oils are part of a healthy diet, but the type of fat makes a difference to heart health, and the total amount of fat consumed is also important. Fats supply energy and essential fatty acids and serve as a carrier for the absorption of the fat-soluble vitamins A, D, E, and K and carotenoids. Fats serve as building blocks of membranes and play a key regulatory role in numerous biological functions.

Dietary fat is found in foods derived from both plants and animals. The recommended total fat intake is between 20 and 35 percent of calories for adults. High intake of saturated fats, trans fats, and cholesterol increases the risk of unhealthy blood lipid levels, which, in turn, may increase the risk of coronary heart disease. A low intake of fats and oils (less than 20 percent of calories) increases the risk of inadequate intakes of vitamin E and of essential fatty acids and may contribute to unfavorable changes in high-density lipoprotein (HDL), cholesterol and triglycerides. (ref.24)

### **Discretionary Calories and Desserts**

Each meal may contain between 90 and 215 additional discretionary calories. The sources of these calories can be derived from between 1 – 2 ½ tsp. solid fats and/or 2 ½ - 6 tsp. sugar daily.

- Discretionary calorie desserts should be limited to once or twice a week. (Note: Desserts cannot replace the fruit requirement with one exception);
- Incorporating a 1/2 cup fruit in a dessert recipe such as apple crisp or strawberry shortcake may be counted as a full serving of fruit.
- No meal shall include more than three high carbohydrate items, including the dessert. High carbohydrate foods include pasta, breads, cereals, grains, rich sweet desserts and starchy vegetables and fruits, i.e., corn, peas, winter squash, lima beans, potatoes, baked beans. (ref.11)

### **Optional Beverages**

Coffee, tea, decaffeinated and sugar free flavored beverages may be served as desired. (Note: Eight ounces (8 oz.) of milk is required as part of the meal and must not be considered an optional beverage. Fruit or vegetable juices counted as a fruit or vegetable serving must not be considered as an optional beverage). (ref. 11)

### **Vitamin/ Mineral and Dietary Supplements**

Participants screened to be at high nutritional risk may benefit from a multi vitamin/mineral supplement, and may be a consideration by their physician. Participants should seek medical advice regarding vitamin/mineral supplements. If appropriate, sites may consider providing a fluid supplement such as instant breakfast packets, Ensure, Boost etc. as a supplement, not as a meal replacement to nutritional high risk participants.

### 3.7 Modifying Recipes

Cooking within the dietary guidelines does not require sacrificing quality or flavor. Existing menus and recipes used by the nutrition providers can be modified to reduce fat, sugar, sodium and increase fiber. The **Dietary Guidelines for Americans** can be met by providing meals that include a variety of foods and by making gradual changes such as: (ref.11)

#### **Reducing the Use of High Fat Foods and High Fat Preparation Methods**

Oils are not considered to be part of discretionary calories because they are a major source of the vitamin E and polyunsaturated fatty acids, including the essential fatty acids, in the food pattern. In contrast, solid fats (i.e., saturated and *trans* fats) are listed separately as a source of discretionary calories. (ref.24)

#### **General Cooking Tips**

- Foods containing coconut and palm oils should be avoided. (ref 11)
- The use of fried foods, bacon, sausage, pastries, whole milk, and mayonnaise should be limited.
- The use of low fat salad dressings, cheeses and gravies made without drippings and fats is strongly encouraged.
- A combination of lean ground turkey and ground beef can be substituted in entrees calling for ground beef.
- Meats can be browned without fat and fat can be removed from foods before and after cooking. (ref.11)
- Choose cuts of meat that are lean, with little visible fat. Trim off visible fat before cooking. (ref.50)
- Try ground turkey for a lower fat alternative to ground beef. Read the label—some brands contain about the same amount of fat as lean ground beef.
- Try fresh ground fish, like ahi, or soy-based products in recipes.

#### **Try these lower-fat cooking methods:**

- Baking, broiling, grilling and steaming food is strongly encouraged. Frying in fat should be avoided. (ref.11)
- Roasting – Place meat on a rack in the roasting pan so that the fat drips away during cooking. (ref.50)
- Braising or Stewing – To get rid of the fat that remains in the cooking liquid, refrigerate overnight and then remove the hardened fat. Longer cooking times helps tenderize tougher cuts of meat.
- Use a bulb baster or fat separator to remove liquid fat. (ref. 51)
- Drain meats after browning.
- Sauté onions and garlic in 1 Tablespoon or less olive oil to start and then add water or broth to steam and sauté.

### **Sauces, Gravies, and Dressings:**

- Low fat or fat free milk should be substituted for milk and cream in recipes. (ref.11)
- To make gravies or sauces with less fat but without lumping, mix the flour or cornstarch with a small amount of cold liquid until smooth. Stir this mixture slowly into the hot liquid you want to thicken and bring to a boil. (ref.51)
- If a sauce made with yogurt is to be heated, add 1 Tablespoon of cornstarch for each cup of yogurt to prevent separation.
- For homemade salad dressings, use less oil in proportion to other ingredients. For creamy dressings, add yogurt to replace some of the oil.
- Try lemon juice or herbed vinegar for fat-free dressings, and reduced calorie or fat-free salad dressings. (ref.51)

### **Baked Products**

Use vegetable oil instead of solid fats (ref.50)

- Instead of using solid fats such as shortening, lard and butter, use vegetable oil in your recipes. Types of vegetable oils include corn oil, canola oil and peanut oil. To substitute liquid oil for solid fats, use about 1/4 less than the recipe calls for. For example, if a recipe calls for 1/4 cup shortening or butter (4 tablespoons), use 3 tablespoons oil instead.
- Use plain low fat or nonfat yogurt instead of sour cream in baking, use plain low fat or nonfat yogurt in the same proportion as sour cream and save on saturated fat calories. You can also substitute buttermilk or blended low fat cottage cheese. This method produces a savings of 44 grams of fat.
- Another way to decrease the amount of fat and calories in your recipes is to use skim milk or 1% milk instead of whole milk or half and half. For extra richness, try evaporated skim milk. This method produces a savings of 25 grams of fat!
- Make one-crust or “no crust” pies rather than two crust pies. (ref.51)
- Substitute dried fruits and raisins for chocolate chips.
- Use 2 egg whites instead of one whole egg, for half to all the eggs in a recipe.
- Make angel food cake in place of other cakes. It uses egg whites and has only a trace amount of fat. (ref 51)

### **Reducing the use of Sodium**

To decrease the amount of sodium in your foods, use low sodium or unsalted ingredients in your recipes. Sodium intake for adults should be 1,300 - 3,300 mg per day. This equals about 1 to 1 1/2 teaspoons salt. (Do not omit salt in yeast breads because it controls the rising action of yeast.)

- 1 teaspoon salt = 2,130 milligrams sodium
- 1 teaspoon soda = 820 milligrams sodium
- 1 teaspoon baking powder = 330 milligrams sodium
- Salt should be used lightly in cooking with emphasis placed instead on herbs and spices. Onion or garlic powders can be used, rather than using seasoned salts, i.e., onion or garlic salt. (ref.11)

- The use of low sodium soups, gravies, and stocks is strongly encouraged. Unsalted broth, low salt tomato juice or fruit juice to can be used, rather than drippings, to baste meat, poultry, or fish. (ref.11)
- The use of processed meats, i.e., bologna, hot dogs, veal patties and frozen Salisbury steak should be restricted. (ref.11)
- Fresh or frozen vegetables, rather than canned, should be used when possible to reduce salt content. (ref.11)
- Low sodium or no salt varieties, rather than regular canned soups should be used when possible to reduce salt content. (ref.11)
- Condiments such as low sodium soy sauce should be substituted whenever possible.
- In place of ketchup, make salsa using vinegar instead of salt. (ref.11)

**See Table 18** for a list of herbs and spices

### **Reducing the use of Sugar**

Reduce sugar by 1/4 to 1/3 in baked goods and desserts. Cookies, quick breads and cakes can be successfully baked this way. Substitute flour for the omitted sugar. (Do not decrease sugar in yeast breads because sugar feeds the yeast.) Prepare desserts with a sugar substitute appropriate for baking and heating.

## 4 Food Safety & Sanitation

Service providers must adhere to all state and local health laws, ordinances and codes. Foodborne illness is an important concern for older adults who are a highly susceptible population. Foodborne illness risk can come from organisms, toxins and chemicals. The principle known risk factors includes:

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

When sanitation guidelines are followed, the health and safety of both the food service workers and the participants are assured.

### 4.1 Hazard Analysis Critical Control Point (HACCP)

This is a systematic preventive approach to food safety that addresses physical, chemical and biological hazards. The system can be used at all stages of food production and preparation. A plan can be developed by employing the seven basic principles.

Principle 1.	Conduct a hazard analysis. A hazard is a biological, chemical, or physical agent that is reasonably likely to cause illness or injury in the absence of control.
Principle 2.	Determine the critical control points (CCP). These are the points where control steps should be applied that can prevent or eliminate a food hazard or reduce it to an acceptable level.
Principle 3.	Establish critical limits for each critical control point. A critical limit is the maximum or minimum value to which a physical, biological, or chemical hazard must be controlled at a critical control point to prevent, eliminate, or reduce to an acceptable level.
Principle 4.	Establish critical control point monitoring procedures. Monitoring activities are necessary to ensure that the process is under control at each CCP.
Principle 5.	Establish corrective actions. These are actions to be taken when monitoring indicates a deviation from an established critical limit.
Principle 6.	Establish record keeping and documentation procedures.
Principle 7.	Establish procedures for verifying the HACCP system is working as intended (ref FDA, USDA, National Advisory Committee on Microb. Criteria for Foods Aug 14, 1997).

## 4.2 Food Quality and Sources

All foods shall be of good quality and shall be obtained from sources that conform to federal, state and local regulatory standards for quality, sanitation, and safety.

All food purchased and contributions received for service to C-1 and C-2 participants shall be from an approved source and documented as such. The following items are not approved and shall not be accepted, stored, prepared, or served:

- Cans which are bulging, dented, leaking, rusty or which spurt liquid when opened
- Food with an off-odor
- Food which shows signs of mold
- Food prepared or canned in the home

## 4.3 Food Equipment Requirements

Nutrition service providers must utilize equipment which can maintain safe temperatures of all menu items throughout the entire serving period. (ref.11)

## 4.4 Food Handler Safety

Good hygienic practices are important to ensuring that food is not contaminated with bacteria, foreign objects or chemicals. The foodservice staff must maintain a high standard of personal hygiene and cleanliness.

- Food service workers must thoroughly wash their hands with soap and warm water for 20 seconds before and during work as often as necessary, after smoking, eating, drinking, touching the face, scalp, nose, mouth and after using the rest room. Proper hand washing procedures should be posted at designated hand washing sinks in the kitchen and rest rooms.
- Natural rubber latex gloves have been reported to cause allergic reactions in some individuals during food preparation and in individuals consuming food prepared by employees wearing latex gloves (ref.55) Non latex single use disposable sanitary gloves must be used in conjunction with proper hand washing procedures when mixing or handling ready- to- eat foods, such as serving bread, making sandwiches, or assembling salads. (ref.11,12)
- Daily personal grooming and hygiene habits must be observed.
- Acceptable hair restraints such as hairnets or caps must be worn.
- Sites should establish policies for proper attire.

## 4.5 Chemical Safety

Proper use of chemicals is essential to the safety of the food service operation. Training in the use, dangers, storage and handling of chemicals should be included as part of staff orientation and on-going training.

### Storage and Use

- Chemicals must not be stored with food items.
- Two chemicals should never be mixed or used together.
- Materials Safety Data Sheets (MSDS) provide emergency treatment information if a chemical accident occurs.
- Sanitizing agents; follow manufacturers' recommendations for concentrations and temperatures.
- Chlorine; add small amount to a 50 to 100 ppm concentration; surface contact time 10 seconds.
- Container solutions of chemicals for cloths to sanitize surfaces and cleanup should be changed every 2 hours. Cleaning cloths should never be left on working surfaces.

## 4.6 Dish Machines and Sinks

Two methods are used to sanitize surfaces; heat and high temperatures or chemical sanitizing. Follow manufactures recommendations for temperatures and concentrations.

### Three-compartment Sink

- Pots and pans should be scraped, rinsed or soaked before washing in a three-compartment sink. Proper use of the sinks includes: Sink # 1 – washing; Sink# 2 – Rinsing; Sink #3 – Sanitizing.
- Chlorine solutions should be added in a small amount to achieve a 50-100ppm concentration. Follow manufactures recommendations or trial method.
- Quaternary sanitizing solutions should be added in an amount to a 200ppm solution.
- All items should always be air-dried.

## 4.7 Safe Transport and Packaging for Home Delivered Meals

Home delivered meal clients tend to have more health problems than congregate participants, and therefore at higher risk for foodborne illness. Food safety and sanitation practices are essential to the well-being of the participants.

### Transport

All food for home delivered meals shall be packaged and transported in a manner which protects it from potential contamination, dust, insects, rodents, unclean equipment/utensils, and unnecessary handling. Packaging and transport equipment must be capable of supporting or maintaining appropriate food temperatures. Cold foods must be packaged separately from hot foods so that correct temperatures can be maintained. (ref.11)

### Carriers for Home Delivered Meals

If the delivery route takes longer than 20 to 30 minutes and/or if there are many stops on the route requiring the carrier to be opened numerous times, hot meals should be transported with an added source of heat (heat stone, hot salt, etc.) and cold food carriers should include ice and/or commercial freezing rings. Opening of the insulated carrier should be minimized because heat escapes with each opening. (ref.11)



## 5 Nutrition and Health Promotion

The aging of the population has heightened the necessity to develop effective and efficient nutrition and health services for older adults. Good nutrition is important in maintaining the health and functional independence of older adults. It can reduce hospital admissions and delay the need for alternative placement. Service networks that provide a continuum of home and community-based services have become increasingly important because they allow older adults to preserve their independence and ties to family and friends.

### 5.1 Health Promotion and Disease Prevention

The four leading causes of death in Arizona adults, according to Arizona 2020, are chronic diseases, including cardiovascular, cancer, stroke, and pulmonary. Such diseases disproportionately affect older adults. Appropriate nutrition interventions and health services can successfully manage these chronic conditions and improve quality of life outcomes.

Services include disease prevention and health promotion programs designed to reduce the need for more costly medical interventions and that **meet the [current definition](#) of evidence-based set forth by the Administration for Community Living.**

## 5.2 Evidence Based Health Promotion/Disease Prevention Programs

Section 306(7)(C) of the OAA (42 U.S.C. 3026) is amended with the following inclusion, “(7) Provide that the Area Agency on Aging shall, consistent with this section, facilitate the area-wide development and implementation of a comprehensive, coordinated system for providing long-term care in home and community based settings, in a manner responsive to the needs and preferences of older individuals and family caregivers, by\_(C) Implementing, through the agency or service providers, evidence-based programs to assist older individuals and their family caregivers in learning about and making behavioral changes intended to reduce risk of injury, disease, and disability among older individuals”. (ref. 5)

Evidence-based health promotion programs include programs related to the prevention and mitigation of the effects of chronic disease (including osteoporosis, hypertension, obesity, diabetes, and cardiovascular disease), alcohol and substance abuse reduction, smoking cessation, weight loss and control, stress management, falls prevention, physical activity and improved nutrition.

The term “evidence-based disease prevention” program refers to a program that closely replicates a specific intervention that has been tested through randomly controlled experiments with results published in peer-reviewed journals. Sources of evidence include Health and Human services sponsored research funded by the National Institute of Health (including National Institute on Aging), the Centers for Disease Control and Prevention (CDC) (including work in the Prevention Research Centers for Medicaid and Medicare Services (CMS) or other research organizations are also acceptable. Additional important criteria include the program’s effectiveness with older adults and whether it can be adapted to various community settings.

There are a number of specific programs that the administration on Aging and its partners have identified that meet the criteria of being evidence-based and are suitable for the specific older adult populations. These programs can be directly implemented through community-based aging services provider organizations working in collaboration with health organizations and other potential partners. There are additional programs that are excellent and fulfill the evidence-based requirements but are not listed here:

- Stanford University Chronic Disease Self-Management Program:  
<http://patienteducation.stanford.edu/>
- Enhanced fitness:  
<http://www.projectenhance.org/>
- Matter of Balance:  
[www.mainehealth.org/mh\\_body.cfm?id=432](http://www.mainehealth.org/mh_body.cfm?id=432)
- Enhance Wellness:  
<http://www.projectenhance.org/>

Additional information may be found at the Administration for Community Living’s website at:

[http://www.aoa.acl.gov/AoA\\_Programs/HPW/Title\\_IIID/index.aspx](http://www.aoa.acl.gov/AoA_Programs/HPW/Title_IIID/index.aspx)

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### 5.3 Nutritional Screening and Counseling

Nutrition projects are required, by the OAA, to provide nutritional screening using the 10 question Nutrition Screening Intake Checklist (**see Forms**) for the purpose of identifying the nutritional risk status of participants who receive congregate and home-delivered meals. All participants must be screened annually (ref. 22).

Once screened, those individuals found to be at high nutritional risk (score of six or higher), must be referred to a health care professional. (ref. 5) Nutritional assessments and counseling can be conducted by professionals demonstrating competency in conducting such assessments. Those at high risk can be assessed by a Registered Dietitian or Medical Personnel. Individuals at moderate risk (score four or five) can be assessed further by a Registered Dietitian, Diet Technician, Medical Personnel or Case Manager. Nutritional Assessments must be conducted in accordance with HIPAA regulations, and if appropriate, recorded in the client's file.

### 5.4 Nutrition Education

Nutrition education promotes health and helps prevent disease, and effective programs can improve diets and allow older adults to achieve and maintain optimal nutritional status. The OAA requires a minimum of two nutrition education components per quarter for both congregate and home-delivered meal participants. Nutrition education activities must be posted four weeks in advance, and outlines submitted quarterly to the Area Agencies on Aging. These activities should be in accordance with the participants' needs, behaviors, motivations and desires. Nutrition education may utilize written materials, demonstrations, audio-visual, lecture, presentations, and small group discussions. Topics may include:

- Food pyramid
- Hydration
- DASH eating plan
- Diet and disease relationships
- Avoiding weight gain or loss
- Nutrient/drug interactions
- Shopping for one or two
- Cooking demonstrations
- Physical fitness
- Keeping caregivers nutritionally fit
- Nutrient needs after 50
- Reading and understanding labels
- Food safety
- Gardening

Documentation of nutrition education must be kept on file for one year and include the topic, date, presenter and number of attendees.

## 5.5 Oral Health

Oral health is identified as a focus area of Healthy Aging 2010. Optimal nutrition health can be compromised due to ill-fitting dentures, missing teeth, problems with chewing and swallowing, and poor oral hygiene. Partnering with community resources that can assist in providing dental services and oral health education will help ensure that older adults can live a full and independent life.

## 5.6 Vaccination

Annual influenza vaccinations have resulted in a savings of medical costs through indirect benefits such as prevention of complications, death and suffering, and incapacity.

Information should be provided to participants and homebound older adults on where vaccines for influenza, pneumonia, and shingles can be obtained in their community.

## 5.7 Home and Community Based Services (HCBS)

Many older adults lead active and independent lives and remain engaged in their communities, but others need additional nutrition and health services. Three of the Administration on Aging top priorities include:

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

Home and community based services refers to a variety of services available to older adults and persons with disabilities living in their own homes or residential setting. Some in-home services require authorization. Basic services may include:

- Information and assistance
- Personal care, homemaker and chore services
- Congregate and home delivered meals
- Adult day care
- Home health care
- Transportation assistance
- Home repairs and assistive devices
- Caregivers' support, assistance and respite care
- Consumer protection and advocacy
- Outreach to the community
- Food assistance programs

## 5.8 Caregiver Programs

The caregiver is a person who provides assistance to another individual who has limitations in daily activities that may include personal care and/or mobility. Caregivers can be a family member, volunteer, neighbor or friend that assists full or part-time. These caregivers require respite services to provide temporary relief such as in-home respite, adult day care, and overnight respite.

The OAA established the National Family Caregiver Support Program that provides funding for the aging network to develop services and programs to respond to the needs of the caregivers. These basic services may include:

- Information about available services
- Assistance to caregivers to access supportive services
- Individual counseling, organizing support groups, and caregiver training
- Respite care

## 6 Site Administration

The senior center and congregate meal program can become the focal point for many seniors. It is vital to provide a welcoming and inviting atmosphere where participants can socialize and receive a nutritious meal. The staff and volunteers should be well trained and knowledgeable in the policies and procedures necessary to run a successful center.

### 6.1 Facility Requirements

All providers of meal and nutritional services funded under Title III of the Older Americans Act Amendments of 2006 shall comply with the additional following standards and/or licensure requirements: (ref. 28)

- Non-discriminatory practices will be observed for participation. Facilities operated by specific groups will not restrict participation to their own membership nor show discriminating preference for such membership. (ref.11)
- Location – Congregate meal sites will be as close as possible to the majority of eligible persons in the preferred target group in the service area. Approval for changes or additions of locations will be obtained in writing from the Area Agency on Aging. There must be a physical and distinct separation of dining facilities from food preparation facilities. (ref.11)
- Written procedures will assure that the facility is clean and comfortably maintained.
- Facilities and equipment used to provide meals must be suitable for use by aged and/or disabled individuals. Adequate aisle space must be provided between tables for the use of wheelchairs, or to allow persons with canes or other support devices to walk with ease. In no case shall aisle space be less than 32 inches wide. (ref.11)
- There must be physical separation between the dining area and the kitchen
- All facilities that prepare congregate and home-delivered meals and shall meet local fire, building and sanitation codes, regulations as well as with Federal, State and local laws regarding public facilities and licensures. (ref.11,26)
- A basic first aid kit must be on premises at all times. Supplies should be restocked as they become outdated.
- A fire extinguisher with a current inspection tag must be on the premises at all times.
- Initiatives should be implemented on improving indoor air quality in buildings where individuals congregate. Area agencies are responsible to assure that providers meet all regulatory agency standards concerning air quality at facilities where clients congregate, are met and maintained.
- Sites must be accessible to persons with disabilities.
- Sites must have a sign that is clearly visible with its name.

## 6.2 Participant Registration

All new eligible participants shall be registered and receive orientation in the site's policies and procedures i.e., reservations, swipe cards, sign-in sheets. Registration can be completed in the computer and/or registration form. Participant information must be kept in a secured area such as a locked file and/or password protected computer.

## 6.3 Participant Contributions

Amended 2006, SEC. 310. **CONSUMER CONTRIBUTIONS**, Section 315 of the Older Americans Act of 1965 (4218 U.S.C. 3030c-2)

- **IN GENERAL** - Voluntary contributions shall be allowed and may be solicited for all services for which funds are received under this Act if the method of solicitation is non-coercive, and such contributions shall be encouraged for individuals whose self-declared income is at or above 185 percent of the poverty line.
- **LOCAL DECISION** - The Area Agency on Aging shall consult with the relevant service providers and older individuals in agency's planning and service area in a State to determine the best method for accepting voluntary contributions under this subsection.
- **PROHIBITED ACTS** - The Area Agency on Aging and service providers shall not means test for any service for which contributions are accepted or deny services to any individual who does not contribute to the cost of the service.
- **REQUIRED ACTS** - The Area Agency on Aging shall ensure that each service provider will:
  - Provide each recipient with an opportunity to voluntarily contribute to the cost of the service
  - Clearly inform each recipient that there is no obligation to contribute and that the contribution is voluntary
  - Protect the privacy and confidentiality of each recipient with respect to the recipients' contribution or lack of contribution
  - Establish appropriate procedures to safeguard and account for all contributions
  - Use all collected contributions to expand the service for which the contributions were given and supplement funds received under this Act (ref. 3).

## 6.4 Menu Approval and Nutritional Analysis

### 6.4.1 Menu Approval

The Dietitian, Registered Dietitian, Nutritionist, Diet Tech Registered or Certified Dietary Manager is responsible to review and approve that all menus comply with the contractor service requirement of assuring that each meal contains at least 1/3 of the current DRI's and meets the most current edition of the Dietary Guidelines for Americans. Menus shall be prepared as written and approved. All substitutions must be documented on the menu for site review. Menus must be planned as hot meals. A cold meal may be planned occasionally to add variety to the menu. Menus must be submitted on a standardized menu form prior to posting. (ref. 22)

Approval implies some sort of assessment or "analysis" during the review process. It is expected that the person responsible for approving the menus will be able to support their "analysis" that resulted in the menu approval. This would require the application of a professionally recognized "analysis" tool, method or criteria. This can be accomplished in a number of ways, including but not limited to; adhering to a specific quantity of prescribed foods planned into the meal based on food categories (i.e.: a good source of vitamin "C" daily), a manual calculated analysis, a computerized analysis. The *Dietary Guidelines for Americans* for example, outlines a specific meal pattern.

### 6.4.2 Menu Analysis

When meal patterns are followed to plan menus, a nutrient analysis is still required to verify nutrient content. The extent to which a computerized nutrient analysis verification is conducted, is dependant upon the acceptability and accuracy of the non-computerized nutrient analysis. The targeted nutrients for analysis shall include: Calories; protein; fat ( including saturated); calcium; magnesium; sodium; potassium; fiber; zinc; vitamin B6; vitamin B12; folate; vitamin C; vitamin A.

Meal patterns can be used efficiently as a checklist, however, they do not assure that DRI's requirements are met for protein, fat, fiber, calories or other nutrients. To assure nutrient requirements are met, nutrient analysis of one meal per week of the cycle menu shall be conducted, utilizing an approved tool, method or criteria, and signed by the person with the credentials to approve menus.

The Scopes of Work require that cycle menus be developed every 6 months and that during any 6 month period, there must be at least 6 weeks (or more) worth of menus within the cycle. Nutrition analysis must be conducted on one meal per week of the cycle. Menus, as served, are required to be maintained on file for one year.

## 6.5 Food Inventory Systems

Maintaining an inventory system of foods and supplies on hand is recommended for good food service management, cost control, and efficiency in purchasing. Inventory records should include (ref. 28):

- Name of food item/description i.e., sliced, diced
- Unit size
- Unit purchase price
- Date purchase received
- Number of items received on this date
- Supplies on hand

## 6.6 Food Storage

Food and supply stock must be rotated (old inventory to front, new to back). Use the first in first out (FIFO) principle. (ref. 11) **(See Tables 14, 15, 16 for Food Storage Guides)**

### Dry Storage

- Storerooms should be kept dry, clean and well vented.
- Chemicals can not be stored next to food items.
- Can lids should be free of dust, and foods removed from their original containers should be placed in airtight containers and labeled.
- All dented cans should be removed.
- Food must be stored 6 inches above the floor to allow for cleaning.

### Refrigerators

- Temperature must be 40° F or below
- Use open shelving to allow for air flow, do not store food on the floor
- Cool hot foods prior to placing in the refrigerator
- Store eggs on bottom shelf
- Store raw meats, poultry and fish below and separate from ready to eat items such as ham
- Wrap food properly and label

### Freezers

- Temperatures must be 0° F or below
- Place frozen food in the freezer as soon as possible after receiving
- Keep doors closed and light off when possible
- Wrap and label all site prepared items

## **6.7 Meal Service**

Menus must be posted one week in advance in an area that is visible to the participants.

## **6.8 Adherence to Menu**

Menus shall be prepared as written. Substitutions, which must be made because of a temporary inability to obtain, prepare or serve certain foods, must be selected from the same food group, i.e., ½ cup orange vegetable equivalent for ½ cup orange vegetable, 1 ounce of whole grain equivalent for 1 ounce of whole grain or 1 cup of milk equivalent for 1 cup of milk. All substitutions must be documented on the menu, approved by the Registered Dietitian, Nutritionist, Diet Tech Registered or Certified Dietary Manager, and maintained on file with the menu of the food or beverage item substituted for site review.

## **6.9 Protect Nutritional Value**

In the preparation, service and delivery of meals, the nutrition services provider must follow appropriate procedures to preserve the nutritional value and safety of the food. (ref. 20)

## **6.10 Leftover Foods**

Nutrition service providers must take appropriate action to minimize leftovers at each site. Leftover food at on-site cooking facilities shall be properly refrigerated and incorporated into subsequent meals whenever possible. Sites with proper storage facilities may want to freeze leftovers. Leftover food at facilities that do not have on site cooking may be offered as seconds to all participants as leftovers but NOT as take home food. Participants may take home ONLY fresh fruits, cakes and cookies, and non perishable foods not consumed with their meal unless otherwise approved and appropriate education is offered on the storage, handling and use of leftovers. No food shall be taken from the site by the staff. (ref.11,20)

## **6.11 Limitation of Food Holding Time**

There should be no more than 2 hours between the time of completion of cooking and the beginning of serving. Products which do not need to be held over 140° F are exempt. To stay within the recommended time period it may be necessary to adjust the serving schedule. (ref.11)

## **6.12 Meal Packaging**

Hot foods must be packaged in individual containers with the following characteristics: (ref.11)

- Firm, compartmentalized, with deep enough sections that foods do not mix with one another
- Closeable, so that heat is retained
- Impermeable, so that liquids do not soak through
- Reheatable; if possible
- Stackable for storing, carrying and transporting
- Easily opened
- Economical

## 6.13 Carriers for Packaged Meals

It is essential that temperature control be maintained during the delivery of the meal. Carriers used should have the following characteristics (ref.11):

- The packaging materials must maintain proper temperatures.

<b>Hot foods – 140* F or above; Cold Foods – 40* F or below.</b>
--

- Packaging should be non-porous and easy to handle.
- Material should help maintain the flavor and odor of the food.
- Ability to meet the special needs of the program, i.e., length of delivery route.

Look for ease of cleaning, time required to open and close the carrier, warranty and procedure for replacement if the carrier should prove defective. Ask to borrow a unit for field testing before purchasing, if possible. (ref.11)

If the time between the packaging of the food and the delivery is short (20 to 30 minutes), insulated carriers such as Styrofoam or insulated plastic should be adequate. Other packaging materials have been developed for transport of home delivered meals. Before any carrier is purchased, be sure it meets the particular needs of the program in terms of:

- Size and shape of the meal packages
- Size of the delivery vehicle
- Amount of weight and size of carrier a single deliverer can lift
- Cost
- Durability

## 6.14 Meal Delivery Requirements

- All meals must be delivered to an individual, i.e., not left on doorsteps, mailboxes, porches or in outside ice-chests. (ref. 11)
- Temperature of the meals, using a test meal or unused meal, shall be documented at least two times a month to ensure that hot foods are delivered at 140° F or above, and cold foods delivered at 40° F or below. Temperatures shall be taken at the end of the route.
- Route sheets shall be used to obtain authorized signatures.
- All unused meals shall be discarded at the end of the route and not reused.

## 6.15 Delivery Routes

Careful planning of deliver routes reduces the time needed for delivery and can prevent much frustration. To ensure an efficient route:

- Obtain a detailed map of the area;
- Design each route to include sufficient time for the meal deliverer to assist with opening the meal if indicated and do a wellness check;
- Determine the number of recipients per route based on the distances between recipients and travel times. Fewer recipients can be served per route in a rural or suburban area than in a densely populated urban area;
- For each stop on the route, note details necessary for gaining access to the recipient's home such as: at which door to knock, which floor of the apartment house, which number, etc.
- Be sure each route sheet also includes the phone number of the kitchen and the phone number of the main office of the program. If an emergency situation is encountered at a recipient's home, the main office of the program can call the emergency numbers which should be in the recipient's file;
- Include on the route sheet explanations of any special recipient and environmental problems about which the driver should be aware, such as hearing deficiencies, inability to open the food package, unusual slowness in answering the door, unstable health problems, unsafe pet, loose steps etc.
- If at all possible, a trial run of any new route should be made before the first meal delivery day, to test the feasibility of the route;
- If possible, two people should go on the delivery route to expedite service and provide added security for the vehicle and staff. One can stay with the vehicle and one can deliver the meals.

## 6.16 Frozen & Freeze Dried Meals

A frozen or freeze dried meal may be provided for non-delivery days, additional meals for the same day, or where it is cost effective to service expansion to provide frozen meals beyond the limitations of a hot meal delivery route, provided that: (ref.11)

- The meal and its preparation meet all of the standards of the scope of work.
- It is verified and documented in the case record that the individual has the facilities to properly store and prepare frozen meals.
- If an individual is to receive more than one meal per delivery, then the reason for delivery of multiple meals must be documented in the individual's case record.

## 6.17 Temperature Monitoring

The temperatures of all food items must be checked with a probe type thermometer. Serving temperatures for hot foods must be 140° F or above and cold foods at 40° F or below. These temperatures must be maintained throughout the entire meal service.

A random spot check of temperatures should be done at least two times per month and documented. All food items delivered to a meal site (satellite) must be checked upon arrival and prior to congregate meal service.

Twice each month the temperatures of home delivered meals must be checked at the time of packaging and at the time of the delivery of the last meal, using a test or unused meal. These temperatures must be documented and kept on file. Problems with temperatures should be evaluated and addressed.

## 6.18 Thermometers

Probe thermometers should be calibrated weekly following the manufactures procedures. If the standard probe thermometer is used, it can be calibrated using the ice method: Fill a small container with crushed ice or ice cubes, fill with water; insert the sensing area into the ice water; the thermometer should read 32° F. If the thermometer is not accurate, turn the calibration nut until the indicator reads 32° F. For hot temperatures, place the thermometer in boiling water. The temperature should read 212° F (high altitudes above 5,000 feet should read 198° F). If the thermometer is not accurate, throw it away.

Make sure the thermometer is clean and sanitized with an appropriate sanitizer (100ppm bleach solution or alcohol wipe). The thermometer should be sanitized and cleaned between each product testing.

### Temperature Do's and Don'ts

- Do stir hot food from the middle of the pan outward during the meal service to maintain an even temperature.
- Do insert the thermometer into the thickest portion of the food or middle of the pan. The sensing area (usually a line or continued dimple etched into the thermometer stem) should be covered approximately 1/8 to ¼ inch above the staking dimple with the food being tested. Allow the temperature to stabilize for 15 to 20 seconds and record the temperature.
- Do Not submerge the entire thermometer into the liquid portion of foods; the thermometer could be damaged.
- Do Not insert the probe next to a bone or allow the thermometer to touch the bottom or sides of the pan.
- Do Not tap the thermometer on the pans.
- Do Not use the thermometer to remove the lids from the pans or pans from the serving line.

## 6.19 Outreach

These activities are important as a means to identify and target services to older individuals who may have difficulty accessing services, and to reach those need assistance under the OAA and other programs. These activities may include:

- Participation in community activities such as health fairs
- Speaking engagements
- Special mailings and announcements in local water or utility bills
- Distribution of flyers throughout the community such as places of worship, grocery stores, doctors' offices, and local businesses.
- Visiting seniors in their homes
- Advocating on behalf of older adults

## 6.20 Emergency Management Planning

### Area Plan - Emergency Management

**Amended 2006, SEC. 306. AREA PLANS, Section 306 of the Older Americans Act of 1965 (4216 U.S.C. 3026);**

(17) Include information detailing how the Area Agency on Aging will coordinate activities, and develop long-range emergency preparedness plans, with local and State emergency response agencies, relief organizations, local and State governments, and any other institutions that have responsibility for disaster relief service delivery.

### Special Needs of Older Disaster Victims

Area Agencies on Aging, and local service providers – have a vital role in delivering assistance and resources to seniors during disasters and emergencies. Because senior populations pose special challenges for emergency management, it is imperative that the entities comprising the federal, state, and local emergency management systems work hand-in hand in all phases of disaster. Relationship-building between the Area Agencies on Aging and emergency managers, combined with planning and open communication pre-disaster, will facilitate disaster responses that are better informed and include all sectors of the community. Forging partnerships with other federal, state, and local emergency managers prior to the incidence of disasters, will allow the delivery of efficient, timely, and consistent response and recovery services when a disaster occurs.

## **Emergency Management Suggested Checklist**

- Determine how your jurisdiction carries out emergency management.
- Set up meetings with essential players (i.e., Office of Emergency Management, fire department, law enforcement, and emergency medical services).
- Establish working relationships by sharing contact information and setting up notification systems.
- Identify resources and skill sets that will be useful for both senior service agencies and emergency management officials.
- Participate in plan development, drills and exercises, and other preparedness activities.
- Be sure to develop an internal Business Continuity Plan for your agency to ensure that your mission can be carried out with special emphasis on communications, back-up systems for data, emergency service delivery options, and transportation.
- Identify other partners including the American Red Cross, the Salvation Army, and other members of the Voluntary Organizations Active in Disaster, and any other senior-focused agencies/organizations.
- Work with partner agencies to identify potential areas of unmet needs and plan for them.
- Have a system in place to track emergency expenditures as they may be reimbursable.
- Talk to similar agencies in other jurisdictions. They may have systems and literature in place that you can adapt for your locality.

## **Preparing Older Adults for Emergencies**

The American Red Cross and other volunteer agencies provide individuals with food, water, and clothing. People should listen to the radio or watch a local television station for the location of the nearest shelter or emergency facility. The Area Agencies and/or Nutrition Programs should ensure that:

- Older adults are knowledgeable about food and environmental safety when there are power outages, water supply disruptions, severe weather emergencies, and other threats to their safety;
- Older adults have information on the types of foods and other necessities to have on hand for emergencies;
- A 3-day supply of water for each family member should be available. Replace water every six months. The hot water heater is an excellent source of water in emergencies. Turn off the power that heats the tank and let it cool. When water is needed, place a container underneath the tank, and open the drain valve on the bottom of the tank.

## **Emergency Preparedness Policy**

The details of the Emergency Management Policy can be found in the Area Agencies on Aging contractual agreement. The policy outlines specific requirements for coordinating activities, and developing long-range disaster/emergency preparedness plans, with local and state disaster/emergency response agencies, relief organizations, local and state governments, and any other institutions that have responsibility for disaster relief service delivery. The Disaster/Emergency Management Plan includes components of disaster/emergency preparedness, disaster/emergency response, and disaster/emergency recovery.

## **The Five Phases of Disaster Planning**

Emergency management is based upon what is referred to as the “life-cycle” of the disaster situation. The following information is taken from the Department of Health and Human Services’ Administration on Aging: Emergency Assistance Guide. (ref.23)

### **Phase 1: AWARENESS**

Educating businesses, communities, and individuals about safety precautions that can be taken to prevent avoidable disasters and improve emergency detection.

### **Phase 2: PREVENTION**

Avert loss of life and property by improving construction, reducing hazard sites, and improving land use.

### **Phase 3: PREPAREDNESS**

Having specific plans for saving lives, lessening the impact of an emergency and facilitating response and recovery; educating the public about what they can do; evacuating designated persons and sheltering them until the threat passes.

- Prepare older adults for emergencies with knowledge about food and environmental safety when there are power outages, water supply disruptions, and severe weather emergencies;
- Develop a list of older persons who may be at risk in an emergency;
- Periodically update and practice emergency plans;
- Plan for back-up power sources such as a generator;
- Keep emergency supplies on hand such as potable water, radios, batteries, and flashlights;
- Have a back-up system for computer files;
- A plan to provide food to the community (e.g., in emergency shelters, senior housing);
- Three days worth of shelf-stable food on hand;
- A plan for alternative cooler space. Food vendors may provide freezer/cooler trucks for emergencies;
- Food and transport equipment kept on hand at kitchens, disposable pans and utensils, Sterno, hot blocks, and blue ice; and
- Food suppliers that can respond in an emergency

**Emergency Feeding Plan:**

The Provider must have a written emergency feeding plan and menu for one day which can be implemented immediately in any situation where the meal cannot be prepared, delivered or is unsuitable for consumption. Shelf-stable and/or frozen meals can be purchased from distributors and provided to high-risk congregate and homebound participants in an emergency. Emergency meals must include one-third of the DRI's. Food items kept on hand may include:

- Entrees; beef ravioli, beef stew, legumes, cheese sauce, peanut butter
- Fruits; canned fruits and juices, raisins
- Vegetables; canned vegetables, canned juices, canned soups
- Starches; crackers, energy bars, breads and rolls, fortified cereal
- Desserts; canned puddings, cookies
- Bottled water, nonfat dry milk

**Phase 4: RESPONSE**

During an emergency or disaster, the Area Agencies and service providers must respond to meet the immediate needs of those affected. Most often, the Area Agency or service program director will be first informed of an impending or potential emergency by the local Office of Emergency Management (OEM). When staff is alerted, they should immediately contact their director. In his/her absence, the next individual in the chain of command should be contacted and proceed as follows:

- Communicate with other departments and agencies through the local OEM to ensure coordination of status reports, resources available, and assistance needs;
- Relocate to a designated emergency/evacuation center as necessary;
- Institute evacuation and/or sheltering procedures as necessary;
- Provide the EOC with information and support to assist older persons during the emergency;
- Maintain contact with staff via the service program director and others to provide direction, materials, and support as needed;
- Ensure that all congregate dining and senior centers, kitchens, program offices, and drivers are contacted;
- Ensure that staff contacts high-risk older adults when there are service disruptions (e.g., no home-delivered meals) to check on their status. Any problems or concerns should be directed to appropriate staff;
- Contact the local OEM to obtain Ham, CB, and/or police department assistance in the event telephones are inoperable; and
- Provide other assistance as necessary;
- Crisis counseling for older adults, caregivers, and staff;
- Adequate shelter, toilet facilities, as well as potable water and food;
- First aid and medical care to anyone who is hurt or becomes ill; and
- Care to individual's pet(s) as some persons may refuse to leave without them.

Using the congregate dining or senior center for sheltering may be coordinated with the local OEM. Sheltering in place procedures include:

- Using these facilities as an emergency measure until the local on-scene commander (generally the Fire Chief) determines that older adults can be relocated to a Red Cross shelter or be taken home;
- Closing all windows and doors. In the event of a chemical or hazardous materials disaster, doors, and windows should be sealed immediately with masking or duct tape and doorways blocked with towels, rags, or blankets;
- Listening to the radio for further instructions; and
- Making individuals as comfortable as possible by providing meals and activities.

### **Phase 5: RECOVERY**

Damage assessment, financial assistance, outreach, ongoing care, and restoration to a functioning community.

## 6.20.1 Additional Emergency Management Resources

- U.S. Government website. Consumer guidance on emergency preparedness. <http://www.ready.gov>
- US Department of Homeland Security. Develops and coordinates the implementation of a comprehensive national strategy to secure the United States from terrorist threats or attacks: <http://www.dhs.gov/>
- Federal Emergency Management Agency (FEMA). Primary government website for emergency preparedness and response; Current status of nationally designated emergencies. [www.fema.gov](http://www.fema.gov)
- FEMA - Are You Ready? A Guide to Citizen Preparedness: up-to-date information for the public about hazard awareness and emergency education: <http://www.fema.gov/areyouready/>
- The Extension Agent's Handbook for Disaster Preparedness and Response. For emergencies or as an aid in preparedness education activities: [www.fema.gov/txt/library/eprhb.txt](http://www.fema.gov/txt/library/eprhb.txt)
- U.S. Department of Health and Human Services, Disasters and Emergencies. Lead federal agency for health and medical services within the Federal Response Plan. <http://www.dhhs.gov/>
- □Administration on Aging. Resources, Eldercare Locator, MOU with Red Cross. <http://www.aoa.gov/naic/elderloc.html>
- □Center for Disease Control and Prevention, Public Health, and Emergency Preparedness and Response. Information and resources. <http://www.bt.cdc.gov/>
- US Department of Agriculture (USDA), Food Safety Inspection Service (FSIS) Homeland Security Council. Guidance for consumers, professionals on food security, emergency preparedness. [http://www.fsis.usda.gov/Food Defense & Emergency Response/index.asp](http://www.fsis.usda.gov/Food_Defense_&_Emergency_Response/index.asp)
- □USDA, Food and Nutrition Service, Food Distribution Division. Supplies food to disaster relief organizations for mass feeding or household distribution. [www.fns.usda.gov/fdd/programs/fd-disasters/](http://www.fns.usda.gov/fdd/programs/fd-disasters/)
- US Department of Transportation (USDOT), Office of Emergency Transportation. Coordinated crisis management for multimodal transportation emergencies. [www.its.dot.gov/eto/](http://www.its.dot.gov/eto/)
- Small Business Administration (SBA). Information on disaster recovery, SBA Loans, IFG Grants; Financial assistance for older disaster applicants. [www.sba.gov/disaster\\_recov/index.html](http://www.sba.gov/disaster_recov/index.html)
- How to Apply for SBA Disaster loan Assistance after a Declared Disaster. [http://www.sba.gov/disaster\\_recov/loaninfo/dloanassit.html](http://www.sba.gov/disaster_recov/loaninfo/dloanassit.html)

## **7 Personnel Requirements**

### **7.1 Staff Orientation and Training Requirements**

Providers should employ adequate staff to assure satisfactory performance of all services, and provide opportunities for volunteers. Hiring practices should assure the safety of the vulnerable older adult participants.

The major objective of a staff training program is to create employee awareness and understanding of food service safety and sanitation concepts, which serves to protect the health of the participants and the workers.

Newly hired staff and volunteers should receive orientation training to the facility and position as soon as possible after starting. (Example: Job Description; Appendix 19) On-going staff training is necessary to assure staff has the knowledge and skills needed to handle food safely, and to perform their job effectively.

### **7.2 Fingerprinting**

An individual that contracts with the Department of Economic Security to provide direct services to juveniles or vulnerable adults must certify whether or not he or she has a criminal history which would prevent the issuance of a fingerprint clearance card. Entities that contract with the Department who have employees that provide direct services to juveniles or vulnerable adults must have those employees certify whether or not they have a criminal history which would prevent the issuance of a fingerprint clearance card.

Area Agencies on Aging, defined in, shall establish a process for mandating contracted employees who have direct contact with vulnerable individuals (mentally disabled, frail or chronic disease states that put them at risk for abuse) or personal information on clients at time of hire, or as a result of reassignment after hire, to complete a fingerprint based criminal background before starting work. Source: A.R.S. § 46-141, A.R.S. § 13-3623, and A.R.S. § 41-1758.03. (ref. 48)

Application forms for Fingerprint Clearance Cards can be obtained from the Arizona Department of Public Safety at the website listed below. Employees with expired Fingerprint Clearance Cards must be re-submitted. Copies of applications are to be kept on file for review by the Division of Aging and Adult Services staff.

## Additional Resources

- Formal document  
<http://www.azleg.state.az.us/FormatDocument.asp?inDoc=/ars/13/03623.htm&Title=13&DocType=ARS>
- State of Arizona Department of Public Safety  
<http://www.dps.state.az.us/reports/fingerprint/default.asp>
- Frequently asked Questions – Fingerprint Clearance Cards  
<http://www.azdps.gov/reports/fingerprint/faq/default.asp>
- ARIZONA DEPARTMENT OF ECONOMIC SECURITY **CERTIFICATION OF CRIMINAL OFFENSE**  
<http://www.azdes.gov/hra/pdf/DES-1027A.pdf>

The purpose of the following reference is to provide information to the public concerning the location of **Level 2 and 3 sex offenders within Arizona:**

Phone or fax requests: Arizona Department of Corrections

Phone: 602-542-5586

Fax: 602-542-2859

Sex Offender Information Website: <http://www.azsexoffender.com/>

### **7.3 New Employee and Annual Tuberculoses (TB) Testing**

Employees may be required to be tested and be found negative for TB before they are permitted to begin work and once annually thereafter within every 12 month period. All TB records shall be handled within HIPAA regulations.

### **7.4 Training Plan**

Newly hired staff and volunteers should receive orientation training to the facility within one month after starting. (Example: Job Description; Appendix 19) On-going staff training is necessary to assure staff has the knowledge and skills needed to handle food safely, and to perform their job effectively.

Training must be provided for all food service personnel and volunteers, including home delivered meal drivers on a quarterly basis. Training plans should be designed to improve staff performance and should be responsive to identified needs and staff requests. Materials for training should come from reputable sources and include areas such as food safety, sanitation, personal hygiene, chemical use, food preparation and service, customer relations, and menu planning. Document training in the employee file.

A yearly written plan for training should be developed and kept on file. The training plan should identify who will conduct the training and when it will be conducted. Training topics may include:

- Portion control
- Food preparation
- Food safety and sanitation
- Food delivery
- Prevention of Foodborne illness
- Equipment operation
- Nutrition service standards

Staff and volunteers should be given the opportunity to attend outside training sessions whenever appropriate.



## 8 Reports and Fiscal Management

### 8.1 Programmatic Reports

The Division of Aging and Adult Services enforces the planning, coordination, evaluating, and reporting requirements established by the Older Americans Act and the Terms and Conditions of other grants, such as the State Health Insurance Assistance Program. The Division of Aging and Adult Services, through the Area Agencies on Aging collect statistical data and analyze the information regarding the effectiveness of program delivery. Data collected is then reported in systems such as the National Aging Program Information System and National Ombudsman Reporting System that serve as sources for performance and descriptive data (ref.20).

Chapter 1000, Administrative Standards, Reporting, and Functions, of the “Division of Aging and Adult Services Policy and Procedure Manual”, defines operational principles and procedures on reporting requirements for Area Agencies on Aging. The reports document the number of individuals who have received services, the demographics of the individuals receiving services, and the number of units provided to the aging population during the state fiscal year (ref.20).

Operational Principles include the requirement that performance and descriptive data be collected as a means of measuring the effectiveness of Area Agencies on Aging in targeting services to older individuals with greatest economic need and older individuals with greatest social need, with particular attention to low-income minority individuals, older individuals residing in rural areas, low-income individuals, frail individuals (including individuals with any physical or mental functional impairments), and those with limited English ability. (ref.20)

In addition Area Agencies on Aging report on programs and services funded under the Older Americans Act and other funding sources through the Aging Information Management System (AIMS) or on forms containing information identified by the Division of Aging and Adult Services. These include:

- Client supported data are reported in the AIMS.
- Non-client supported data are reported on forms identified in the policy.

Unless otherwise specified, programmatic monthly reports shall be completed and submitted to the Division of Aging and Adult Services by the 30th day of the following month. An Area Agency on Aging may also be required to submit reports in addition to those currently identified in policies and scopes of work, as determined necessary by the Division of Aging and Adult Services. (ref.20)

#### **Audits and Assessments**

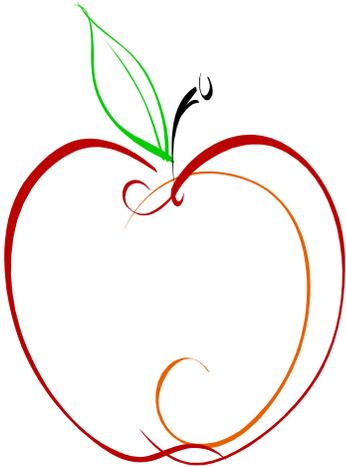
Annual assessments of the service providers by the Area Agencies on Aging must be conducted to ensure compliance with requirements, standards and regulations. In addition, audits and monitoring may also occur from other sources.

#### **Response to Monitoring Reports**

Service providers must respond in writing to the Area Agencies on Aging within 30 days of receiving notification of any deficiencies. The response should include corrective action taken to achieve compliance. (ref.11)



# 9 APPENDICES



## 9.1 Tables and Resources

### 9.1.1 Table 1 – USDA and DASH Meal Plans

#### Sample USDA Food Guide and the DASH Eating Plan at the 2,000-Calorie Level (a)

Amounts of various food groups that are recommended each day or each week in the USDA Food Guide and in the DASH Eating Plan (amounts are daily unless otherwise specified) at the 2,000-calorie level. Also identified are equivalent amounts for different food choices in each group. To follow either eating pattern, food choices over time should provide these amounts of food from each group on average.

Food Group	USDA Food Guide Amount (b)	DASH Eating Plan Amount	Equivalent Amounts
<b>Fruit Group</b>	2 cups (4 servings)	2 to 2.5 cups (4 to 5 servings)	½ cup equivalent is:
			½ cup fresh, frozen, or canned fruit, 1 med fruit
			¼ cup dried fruit
			USDA: ½ cup fruit juice
			DASH: ¾ cup fruit juice

Food Group and Subgroups	USDA Food Guide Amount (b)	DASH Eating Plan Amount	Equivalent Amounts
<b>Vegetable Group</b>	2.5 cups (5 servings)	2 to 2.5 cups (4 to 5 servings)	½ cup equivalent is:
• Dark green vegetables	3 cups/week		½ cup of cut-up raw or cooked vegetable
• Orange vegetables	2 cups/week		1 cup raw leafy vegetable
• Legumes (dry beans)	3 cups/week		USDA: 1/2 cup vegetable juice
• Starchy vegetables	3 cups/week		DASH: 3/4 cup vegetable juice
• Other vegetables	6.5 cups/week		

Food Group and Subgroups	USDA Food Guide Amount (b)	DASH Eating Plan Amount	Equivalent Amounts
<b>Grain Group</b>	6 ounce-equivalents	7 to 8 ounce-equivalents (7 to 8 servings)	1 ounce-equivalent is:
• Whole grains	3 ounce-equivalents		1 slice bread
• Other grains	3 ounce-equivalents		1 cup dry cereal
			½ cup cooked rice, pasta, or cereal
			DASH: 1 oz dry cereal ½ -1¼ cup depending on cereal type - check label)

Food Group	USDA Food Guide Amount (b)	DASH Eating Plan Amount	Equivalent Amounts
<b>Meat and Beans Group</b>	5.5 ounce-equivalents	6 ounces or less meat, poultry, fish 4 to 5 servings per week nuts, seeds, and dry beans (c)	1 ounce-equivalent is:
			1 ounce of cooked lean meats, poultry, fish
			1 egg
			USDA: ¼ cup cooked dry beans or tofu, 1 Tbsp peanut butter, ½ oz nuts or seeds
			DASH: 1½ oz nuts, ½ oz seeds, ½ cup cooked dry beans

Table 1 Continued...

Food Group	USDA Food Guide Amount (b)	DASH Eating Plan Amount	Equivalent Amounts
Milk Group	3 cups	2 to 3 cups	1 cup equivalent is:
			1 cup low-fat/fat-free milk, yogurt
			1 ½ oz of low-fat or fat-free natural cheese
			2 oz of low-fat or fat-free processed cheese

Food Group and Subgroups	USDA Food Guide Amount (b)	DASH Eating Plan Amount	Equivalent Amounts
Oils	24 grams (6 tsp)	8 to 12 grams (2 to 3 tsp)	1 tsp equivalent is:
			DASH:
			1 tsp soft margarine
			1 Tbsp low-fat mayo
			2 Tbsp light salad dressing
1 tsp vegetable oil			

Food Group and Subgroups	USDA Food Guide Amount (b)	DASH Eating Plan Amount	Equivalent Amounts
Discretionary Calorie Allowance	267 calories	2 tsp (5 Tbsp per week)	1 Tbsp added sugar equivalent is:
Example of distribution: Solid fat (d) Added sugars	18 grams 8 tsp		DASH: 1 Tbsp jelly or jam ½ oz jelly beans, 8 oz lemonade

- All servings are per day unless otherwise noted. USDA vegetable subgroup amounts and amounts of DASH nuts, seeds, and dry beans are per week.
- The 2,000-calorie USDA Food Guide is appropriate for many sedentary males 51 to 70 years of age, sedentary females 19 to 30 years of age, and for some other gender/age groups who are more physically active. See **table 3** for information about gender/age/activity levels and appropriate calorie intakes. See appendixes **A-2** and **A-3** for more information on the food groups, amounts, and food intake patterns at other calorie levels.
- In the DASH Eating Plan, nuts, seeds, and dry beans are a separate food group from meat, poultry, and fish.
- The oils listed in this table are not considered to be part of discretionary calories because they are a major source of the vitamin E and polyunsaturated fatty acids, including the essential fatty acids, in the food pattern. In contrast, solid fats (i.e., saturated and *trans* fats) are listed separately as a source of discretionary calories.

**DIETARY GUIDELINES FOR AMERICANS, 2005**

### 9.1.2 Table 2 – USDA Sample Menus

<b>SAMPLE MENUS (Food Groups based on USDA Food Guide Meal Plan)</b>					
<b>FOOD GROUP</b> →	<b>GRAIN</b>	<b>VEGETABLE</b>	<b>FRUIT</b>	<b>MILK</b>	<b>MEAT &amp; BEANS</b>
Servings for 500-700 calorie meals	1.7 – 2 oz equivalents	1.5 – 2 servings	1-1.3 servings	1 cup	1.7 – 1.8 oz equivalents
<b>DAY 1</b>					
Roast Turkey Baked Sweet Potato Broccoli Whole Wheat Roll Apple Raisin Crisp Fat-free Milk	2 oz equivalents 1 small roll ½ cup topping on crisp	2 servings	1 serving	1 cup	2 oz equivalents
<b>DAY 2</b>					
Latin Roasted Pork Cuban Style Black Beans Rice Garden Salad/Italian Dressing Strawberries /Graham Crackers Fat-free Milk + Coffee/Tea	2 oz equivalents ½ cup rice 2 graham crackers	2 servings ½ cup salad ½ cup black beans	1 serving	1 cup	3 oz equivalents 2 oz pork ½ cup black beans
<b>DAY 3</b>					
Open-faced Meatloaf Sandwich Baked Winter Squash Waldorf Salad on Bed of Greens Orange – Rice Pudding Fat-free Milk + Coffee / Tea	2 oz equivalents 1 oz slice of bread ½ cup rice pudding	2 servings	1.25 servings ½ cup apples & raisins ¼ cup orange juice	1.5 cups 1 cup milk ½ cup pudding	
<b>DAY 4</b>					
Stewed Chicken with Vegetables Egg Noodles, 5-Bean Salad Fresh Fruit with Yogurt Dip Fat-free Milk + Coffee/Tea	2 oz-equivalent 1 cup noodles	2 servings	1 serving	1.25 cups 1 cup milk ¼ cup yogurt	3 oz-equivalents 2 oz chicken ½ cup beans
<b>DAY 5</b>					
Baked Salmon Wild Rice with Dried Apricots Creamed Spinach Whole Wheat Roll Fresh Fruit - Melon Ball Salad Fat-free Milk + Coffee/Tea	2 oz-equivalents ½ cup rice 1 small roll	1 serving	1.5 servings ½ melon ball salad ¼ cup dried apricots	1.5 cups 1 cup milk ½ cup milk in spinach	2 oz-equivalents

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### 9.1.3 Table 3 – Dietary Reference Intakes

DRI's originally compiled by the National Center on Nutrition, Physical Activity and Aging for all DRI values with footnotes based on the Dietary Guidelines for Americans 2000, and updated to reflect changes in the Dietary Guidelines for Americans 2005. (ref.7, 30, 31, 34).

<b>Nutrient Values for Meal Planning and Evaluation</b>			
	<b>1 meal/day 33% RDA/AI</b>	<b>2 meals/day 67% RDA/AI</b>	<b>3 meals/day 100% RDA/AI</b>
<b>Macronutrients</b>			
Kilocalories (Kcal)(1)	685	1369	2054
Protein (gm)(2,3) [20% of total Kcal (gm)] (4)	<b>19</b> 34	<b>37</b> 69	<b>56</b> 103
Carbohydrate (gm) (5) [50% of total Kcal (gm)] (4)	<b>43</b> 86	<b>87</b> 171	<b>130</b> 257
Fat (gm) [30% of total Kcal (gm)] (6)	23	46	68
Saturated (<10% of total Kcal) (7) Fat	Limit intake (8)		
Cholesterol (<300 gm/day) (7)	Limit intake (8)		
Dietary Fiber (gm)(3)	10*	20*	30*
<b>Vitamins</b>			
Vitamin A**(ug) (3)	<b>300</b>	<b>600</b>	<b>900</b>
Vitamin C (mg) (3)	<b>30</b>	<b>60</b>	<b>90</b>
Vitamin D (ug) (3)	5*	10*	15*
Vitamin E (mg)	<b>5</b>	<b>10</b>	<b>15</b>
Thiamin (mg) (3)	<b>0.40</b>	<b>0.80</b>	<b>1.20</b>
Riboflavin (mg) (3)	<b>0.43</b>	<b>0.86</b>	<b>1.30</b>
Vitamin B6 (mg) (3)	<b>0.57</b>	<b>1.13</b>	<b>1.70</b>
Folate (ug)	<b>133</b>	<b>267</b>	<b>400</b>
Vitamin B12 (ug)	<b>0.79</b>	<b>1.61</b>	<b>2.4</b>
<b>Minerals</b>			
Calcium (mg)	400*	800*	1200*
Copper (ug)	<b>300</b>	<b>600</b>	<b>900</b>
Iron (mg)	<b>2.70</b>	<b>5.30</b>	<b>8.00</b>
Magnesium (mg) (3)	<b>140</b>	<b>280</b>	<b>420</b>
Zinc (mg) (3)	<b>3.70</b>	<b>7.30</b>	<b>11.00</b>
<b>Electrolytes</b>			
Potassium (mg) (7)	1566	3133	4700
Sodium (mg) (7)	<766	<1533	<2300

\* 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.

(1) Value for 75 year old male, height of 5'7", " low active" physical activity level (PAL). Using Estimated Energy Requirements (EER) for Men and Women 30 Years of Age, calculated the median BMI & 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 2005*.

(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.

Ref. 30

## 9.1.4 Table 4 – Food Source Vitamin A

### Food Sources of Vitamin A

Food Sources of Vitamin A ranked by micrograms Retinol Activity Equivalents (RAE) of vitamin A per standard amount; also calories in the standard amount.

(All are > 20% of RDA - DA for adult men, which is 900 mg/day RAE.)

Food, Standard Amount	Vitamin A (µg RAE)	Calories
Organ meats (liver, giblets), various, cooked, 3 oz (a)	1490—9126	134—235
Carrot juice, 3 /4 cup	1692	71
Sweet potato with peel, baked, 1 medium	1096	103
Pumpkin, canned, 1/2 cup	953	42
Carrots, cooked from fresh, 1/2 cup	671	27
Spinach, cooked from frozen, 1/2 cup	573	30
Collards, cooked from frozen, 1/2 cup	489	31
Kale, cooked from frozen, 1/2 cup	478	20
Mixed vegetables, canned, 1/2 cup	474	40
Turnip greens, cooked from frozen, 1/2 cup	441	24
Instant cooked cereals, fortified, prepared, 1 packet	285—376	75—97
Various ready-to-eat cereals, with added vit. A, ~1 oz	180—376	100—117
Carrot, raw, 1 small	301	20
Beet greens, cooked, 1/2 cup	276	19
Winter squash, cooked, 1/2 cup	268	38
Dandelion greens, cooked, 1/2 cup	260	18
Cantaloupe, raw, 1/4 medium melon	233	46
Mustard greens, cooked, 1/2 cup	221	11
Pickled herring, 3 oz	219	222
Red sweet pepper, cooked, 1/2 cup	186	19
Chinese cabbage, cooked, 1/2 cup	180	10

“A” High in cholesterol.

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

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### 9.1.5 Table 5 - Food Sources of Vitamin C

Food Sources of Vitamin C ranked by milligrams of vitamin C per standard amount; also calories in the standard amount.

(All provide > 20% of RDA - DA for adult men, which is 90 mg/day.)

Food, Standard Amount	Vitamin C (mg)	Calories
Guava, raw, 1/2 cup	188	56
Red sweet pepper, raw, 1/2 cup	142	20
Red sweet pepper, cooked, 1/2 cup	116	19
Kiwi fruit, 1 medium	70	46
Orange, raw, 1 medium	70	62
Orange juice, 3/4 cup	61—93	79—84
Green pepper, sweet, raw, 1/2 cup	60	15
Green pepper, sweet, cooked, 1/2 cup	51	19
Grapefruit juice, 3/4 cup	50—70	71—86
Vegetable juice cocktail, 3/4 cup	50	34
Strawberries, raw, 1/2 cup	49	27
Brussels sprouts, cooked, 1/2 cup	48	28
Cantaloupe, 1/4 medium	47	51
Papaya, raw, 1/4 medium	47	30
Kohlrabi, cooked, 1/2 cup	45	24
Broccoli, raw, 1/2 cup	39	15
Edible pod peas, cooked, 1/2 cup	38	34
Broccoli, cooked, 1/2 cup	37	26
Sweet potato, canned, 1/2 cup	34	116
Tomato juice, 3/4 cup	33	31
Cauliflower, cooked, 1/2 cup	28	17
Pineapple, raw, 1/2 cup	28	37
Kale, cooked, 1/2 cup	27	18
Mango, 1/2 cup	23	54

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

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## 9.2 Table 6 - Food Sources Of Selected Nutrients

### 9.2.1 Food Sources of Potassium

Food Sources of Potassium ranked by milligrams of potassium per standard amount, also showing calories in the standard amount. (The AI for adults is 4,700 mg/day potassium.)

Food, Standard Amount	Potassium (mg)	Calories
Sweet potato, baked, 1 potato (146 g)	694	131
Tomato paste, 1/4 cup	664	54
Beet greens, cooked, 1/2 cup	655	19
Potato, baked, flesh, 1 potato (156 g)	610	145
White beans, canned, 1/2 cup	595	153
Yogurt, plain, non-fat, 8-oz container	579	127
Tomato puree, 1/2 cup	549	48
Clams, canned, 3 oz	534	126
Yogurt, plain, low-fat, 8-oz container	531	143
Prune juice, 3/4 cup	530	136
Carrot juice, 3/4 cup	517	71
Blackstrap molasses, 1 Tbsp	498	47
Halibut, cooked, 3 oz	490	119
Soybeans, green, cooked, 1/2 cup	485	127
Tuna, yellow fin, cooked, 3 oz	484	118
Lima beans, cooked, 1/2 cup	484	104
Winter squash, cooked, 1/2 cup	448	40
Soybeans, mature, cooked, 1/2 cup	443	149
Rockfish, Pacific, cooked, 3 oz	442	103
Cod, Pacific, cooked, 3 oz	439	89
Bananas, 1 medium	422	105
Spinach, cooked, 1/2 cup	419	21
Tomato juice, 3/4 cup	417	31
Tomato sauce, 1/2 cup	405	39
Peaches, dried, uncooked, 1/4 cup	398	96
Prunes, stewed, 1/2 cup	398	133
Milk, non-fat, 1 cup	382	83
Pork chop, center loin, cooked, 3 oz	382	197
Apricots, dried, uncooked, 1/4 cup	378	78
Rainbow trout, farmed, cooked, 3 oz	375	144
Pork loin, center rib (roasts), lean, roasted, 3 oz	371	190
Buttermilk, cultured, low-fat, 1 cup	370	98
Cantaloupe, 1/4 medium	368	47
1%—2% milk, 1 cup	366	102—122
Honeydew melon, 1/8 medium	365	58
Lentils, cooked, 1/2 cup	365	115
Plantains, cooked, 1/2 cup slices	358	90
Kidney beans, cooked, 1/2 cup	358	112
Orange juice, 3/4 cup	355	85
Split peas, cooked, 1/2 cup	355	116
Yogurt, plain, whole milk, 8 oz container	352	138

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

## 9.2.2 Table 7a - Food Sources of Calcium

Food Sources of Calcium ranked by milligrams of calcium per standard amount; also calories in the standard amount.

(All are >20% of AI for adults 19-50, - 0, which is 1,000 mg/day.)

Food, Standard Amount	Calcium (mg)	Calories
Plain yogurt, non-fat (13 g protein/8 oz), 8-oz container	452	127
Romano cheese, 1.5 oz	452	165
Pasteurized process Swiss cheese, 2 oz	438	190
Plain yogurt, low-fat (12 g protein/8 oz), 8-oz container	415	143
Fruit yogurt, low-fat (10 g protein/8 oz), 8-oz container	345	232
Swiss cheese, 1.5 oz	336	162
Ricotta cheese, part skim, 1/2 cup	335	170
Pasteurized process American cheese food, 2 oz	323	188
Provolone cheese, 1.5 oz	321	150
Mozzarella cheese, part-skim, 1.5 oz	311	129
Cheddar cheese, 1.5 oz	307	171
Fat-free (skim) milk, 1 cup	306	83
Muenster cheese, 1.5 oz	305	156
1% low-fat milk, 1 cup	290	102
Low-fat chocolate milk (1%), 1 cup	288	158
2% reduced fat milk, 1 cup	285	122
Reduced fat chocolate milk (2%), 1 cup	285	180
Buttermilk, low-fat, 1 cup	284	98
Chocolate milk, 1 cup	280	208
Whole milk, 1 cup	276	146
Yogurt, plain, whole milk (8 g protein/8 oz), 8-oz container	275	138
Ricotta cheese, whole milk, 1/2 cup	255	214
Blue cheese, 1.5 oz	225	150
Mozzarella cheese, whole milk, 1.5 oz	215	128
Feta cheese, 1.5 oz	210	113

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

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### 9.2.3 Table 7b - Non-Dairy Food Sources of Calcium

Non-Dairy Food Sources of Calcium ranked by milligrams of calcium per standard amount; also calories in the standard amount. The bioavailability may vary. (The AI for adults is 1,000 mg/day.)<sup>a</sup>

Food, Standard Amount	Calcium (mg)	Calories
Fortified ready-to-eat cereals (various), 1 oz	236–1043	88–106
Soy beverage, calcium fortified, 1 cup	368	98
Sardines, Atlantic, in oil, drained, 3 oz	325	177
Tofu, firm, prepared with ½ cup nigari (b) ,	253	88
Pink salmon, canned, with bone, 3 oz	181	118
Collards, cooked from frozen, 1/2 cup	178	31
Molasses, blackstrap, 1 Tbsp	172	47
Spinach, cooked from frozen, 1/2 cup	146	30
Soybeans, green, cooked, 1/2 cup	130	127
Turnip greens, cooked from frozen, 1/2 cup	124	24
Ocean perch, Atlantic, cooked, 3 oz	116	103
Oatmeal, plain and flavored, instant, fortified, 1 packet prepared	99—110	97—157
Cowpeas, cooked, 1/2 cup	106	80
White beans, canned, 1/2 cup	96	153
Kale, cooked from frozen, 1/2 cup	90	20
Okra, cooked from frozen, 1/2 cup	88	26
Soybeans, mature, cooked, 1/2 cup	88	149
Blue crab, canned, 3 oz	86	84
Beet greens, cooked from fresh, 1/2 cup	82	19
Pak-choi, Chinese cabbage, cooked from fresh, 1/2 cup	79	10
Clams, canned, 3 oz	78	126
Dandelion greens, cooked from fresh, 1/2 cup	74	17
Rainbow trout, farmed, cooked, 3 oz	73	144

a) Both calcium content and bioavailability should be considered when selecting dietary sources of calcium. Some plant foods have calcium that is well absorbed, but the large quantity of plant foods that would be needed to provide as much calcium as in a glass of milk may be unachievable for many. Many other calcium-fortified foods are available, but the percentage of calcium that can be absorbed is unavailable for many of them.

b) Calcium sulfate and magnesium chloride.

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

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## 9.2.4 Table 8 - Food Sources of Vitamin E

Food Sources of Vitamin E ranked by milligrams of vitamin E per standard amount; also calories in the standard amount.

(All provide > 10% of RDA for vitamin E for adults, which is 15 mg - tocopherol [AT]/day.)

Food, Standard Amount	AT (mg)	Calories
Fortified ready-to-eat cereals, ~1 oz	1.6—12.8	90—107
Sunflower seeds, dry roasted, 1 oz	7.4	165
Almonds, 1 oz	7.3	164
Sunflower oil, high linoleic, 1 Tbsp	5.6	120
Cottonseed oil, 1 Tbsp	4.8	120
Safflower oil, high oleic, 1 Tbsp	4.6	120
Hazelnuts (filberts), 1 oz	4.3	178
Mixed nuts, dry roasted, 1 oz	3.1	168
Turnip greens, frozen, cooked, 1/2 cup	2.9	24
Tomato paste, 1/4 cup	2.8	54
Pine nuts, 1 oz	2.6	191
Peanut butter, 2 Tbsp	2.5	192
Tomato puree, 1/2 cup	2.5	48
Tomato sauce, 1/2 cup	2.5	39
Canola oil, 1 Tbsp	2.4	124
Wheat germ, toasted, plain, 2 Tbsp	2.3	54
Peanuts, 1 oz	2.2	166
Avocado, raw, 1/2 avocado	2.1	161
Carrot juice, canned, 3/4 cup	2.1	71
Peanut oil, 1 Tbsp	2.1	119
Corn oil, 1 Tbsp	1.9	120
Olive oil, 1 Tbsp	1.9	119
Spinach, cooked, 1/2 cup	1.9	21
Dandelion greens, cooked, 1/2 cup	1.8	18
Sardine, Atlantic, in oil, drained, 3 oz	1.7	177
Blue crab, cooked/canned, 3 oz	1.6	84
Brazil nuts, 1 oz	1.6	186
Herring, Atlantic, pickled, 3 oz	1.5	222

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

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## 9.2.5 Table 9 - Food Sources of Magnesium

Food Sources of Magnesium ranked by milligrams of magnesium per standard amount; also calories in the standard amount.

(All are >- 10% of RDA for adult men, which is 420 mg/day.)

Food, Standard Amount	Magnesium (mg)	Calories
Pumpkin and squash seed kernels, roasted, 1 oz	151	148
Brazil nuts, 1 oz	107	186
Bran ready-to-eat cereal (100%), ~1 oz	103	74
Halibut, cooked, 3 oz	91	119
Quinoa, dry, ¼ cup	89	159
Spinach, canned, ½ cup	81	25
Almonds, 1 oz	78	164
Spinach, cooked from fresh, ½ cup	78	20
Buckwheat flour, ¼ cup	75	101
Cashews, dry roasted, 1 oz	74	163
Soybeans, mature, cooked, ½ cup	74	149
Pine nuts, dried, 1 oz	71	191
Mixed nuts, oil roasted, with peanuts, 1 oz	67	175
White beans, canned, ½ cup	67	154
Pollock, walleye, cooked, 3 oz	62	96
Black beans, cooked, ½ cup	60	114
Bulgur, dry, ¼ cup	57	120
Oat bran, raw, ¼ cup	55	58
Soybeans, green, cooked, ½ cup	54	127
Tuna, yellow fin, cooked, 3 oz	54	118
Artichokes (hearts), cooked, ½ cup	50	42
Peanuts, dry roasted, 1 oz	50	166
Lima beans, baby, cooked from frozen, ½ cup	50	95
Beet greens, cooked, ½ cup	49	19
Navy beans, cooked, ½ cup	48	127
Tofu, firm, prepared with nigaria , ½ cup	47	88
Okra, cooked from frozen, ½ cup	47	26
Soy beverage, 1 cup	47	127
Cowpeas, cooked, ½ cup	46	100
Hazelnuts, 1 oz	46	178
Oat bran muffin, 1 oz	45	77
Great northern beans, cooked, ½ cup	44	104
Oat bran, cooked, 1/2 cup	44	44
Buckwheat groats, roasted, cooked, ½ cup	43	78
Brown rice, cooked, ½ cup	42	108
Haddock, cooked, 3 oz	42	95

a) Calcium sulfate and magnesium chloride.

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

## 9.2.6 Table 10 – Food Sources of Dietary Fiber

Ranked by grams of dietary fiber per standard amount; also calories in the standard amount.

(All are >-10% of AI for adult women, which is 25 grams/day.)

Food, Standard Amount	Dietary Fiber (g)	Calories
Navy beans, cooked, 1/2 cup	9.5	128
Bran ready-to-eat cereal (100%), 1/2 cup	8.8	78
Kidney beans, canned, 1/2 cup	8.2	109
Split peas, cooked, 1/2 cup	8.1	116
Lentils, cooked, 1/2 cup	7.8	115
Black beans, cooked, 1/2 cup	7.5	114
Pinto beans, cooked, 1/2 cup	7.7	122
Lima beans, cooked, 1/2 cup	6.6	108
Artichoke, globe, cooked, 1 each	6.5	60
White beans, canned, 1/2 cup	6.3	154
Chickpeas, cooked, 1/2 cup	6.2	135
Great northern beans, cooked, 1/2 cup	6.2	105
Cowpeas, cooked, 1/2 cup	5.6	100
Soybeans, mature, cooked, 1/2 cup	5.2	149
Bran ready-to-eat cereals, various, ~1 oz	2.6—5.0	90—108
Crackers, rye wafers, plain, 2 wafers	5.0	74
Sweet potato, baked, with peel, 1 medium (146 g)	4.8	131
Asian pear, raw, 1 small	4.4	51
Green peas, cooked, 1/2 cup	4.4	67
Whole-wheat English muffin, 1 each	4.4	134
Pear, raw, 1 small	4.3	81
Bulgur, cooked, 1/2 cup	4.1	76
Mixed vegetables, cooked, 1/2 cup	4.0	59
Raspberries, raw, 1/2 cup	4.0	32
Sweet potato, boiled, no peel, 1 medium (156 g)	3.9	119
Blackberries, raw, 1/2 cup	3.8	31
Potato, baked, with skin, 1 medium	3.8	161
Soybeans, green, cooked, 1/2 cup	3.8	127
Stewed prunes, 1/2 cup	3.8	133
Figs, dried, 1/4 cup	3.7	93
Dates, 1/4 cup	3.6	126
Oat bran, raw, 1/4 cup	3.6	58
Pumpkin, canned, 1/2 cup	3.6	42
Spinach, frozen, cooked, 1/2 cup	3.5	30
Shredded wheat ready-to-eat cereals, various, ~1 oz	2.8—3.4	96
Almonds, 1 oz	3.3	164
Apple with skin, raw, 1 medium	3.3	72
Brussels sprouts, frozen, cooked, 1/2 cup	3.2	33
Whole-wheat spaghetti, cooked, 1/2 cup	3.1	87
Banana, 1 medium	3.1	105
Orange, raw, 1 medium	3.1	62
Oat bran muffin, 1 small	3.0	178
Guava, 1 medium	3.0	37
Pearled barley, cooked, 1/2 cup	3.0	97
Sauerkraut, canned, solids, and liquids, 1/2 cup	3.0	23
Tomato paste, 1/4 cup	2.9	54
Winter squash, cooked, 1/2 cup	2.9	38
Broccoli, cooked, 1/2 cup	2.8	26
Parsnips, cooked, chopped, 1/2 cup	2.8	55
Turnip greens, cooked, 1/2 cup	2.5	15
Collards, cooked, 1/2 cup	2.7	25
Okra, frozen, cooked, 1/2 cup	2.6	26
Peas, edible-podded, cooked, 1/2 cup	2.5	42

Source: ARS Nutrient Database for Standard Reference, Release 17. Foods are from single nutrient reports, which are sorted either by food description or in descending order by nutrient content in terms of common household measures. The food items and weights in these reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted.

### 9.3 Table 11 - Comparison of Flours

#### 100 Grams of Whole-Grain Wheat Flour and Enriched, Bleached, White, All-Purpose Flour.

Some of the nutrients of concern and the fortification nutrients in 100 percent whole-wheat flour and enriched, bleached, all-purpose white (wheat) flour. Dietary fiber, calcium, magnesium and potassium, nutrients of concern, occur in much higher concentrations in the whole-wheat flour on a 100-gram basis (percent). The fortification nutrients—thiamin, riboflavin, niacin, and iron—are similar in concentration between the two flours, but folate, as Dietary Folate Equivalent (DFE),  $\mu\text{g}$ , is higher in the enriched white flour.

	100 Percent Whole-Grain Wheat Flour	Enriched, Bleached, All-Purpose White Flour
Calories, kcal	339.0	364.0
Dietary fiber, g	12.2	2.7
Calcium, mg	34.0	15.0
Magnesium, mg	138.0	22.0
Potassium, mg	405.0	107.0
Folate, DFE, $\mu\text{g}$	44.0	291.0
Thiamin, mg	0.5	0.8
Riboflavin, mg	0.2	0.5
Niacin, mg	6.4	5.9
Iron, mg	3.9	4.6

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## 9.4 Table 12 - Contribution of Various Foods to Trans Fat Intake

### • In the American Diet (Mean Intake = 5.84 g)

The major dietary sources of *trans* fats listed in decreasing order. Processed foods and oils provide approximately 80 percent of *trans* fats in the diet, compared to 20 percent that occur naturally in food from animal sources. *Trans* fats content of certain processed foods has changed and is likely to continue to change as the industry reformulates products.

Food Group	Contribution (percent of total trans fats consumed)
Cakes, cookies, crackers, pies, bread, etc.	40
Animal products	21
Margarine	17
Fried potatoes	8
Potato chips, corn chips, popcorn	5
Household shortening	4
Other (a)	5

a) Includes breakfast cereal and candy. USDA analysis reported 0 grams of *trans* fats in salad dressing.

Source: Adapted from *Federal Register* notice. *Food Labeling; Trans Fatty Acids in Nutrition Labeling; Consumer Research To Consider Nutrient Content and Health Claims and Possible Footnote or Disclosure Statements; Final Rule and Proposed Rule*. Vol. 68, No. 133, p. 41433-41506, July 11, 2003. Data collected 1994-1996.

### ***DIETARY GUIDELINES FOR AMERICANS, 2005***

## 9.5 Table 13 - Food Cooking Temperatures

165°F (for 15 seconds)	<u>Poultry</u> : whole or ground chicken, Turkey and duck
165°F (for 15 seconds)	<u>Stuffing</u> : made with potentially hazardous ingredients; stuffed meat, fish, poultry or pasta.
155°F (for 15 seconds)	<u>Ground meat</u> : beef, pork and other meat.
145°F (for 15 seconds)	Roasts, chops, steaks: beef, pork, veal, lamb.
165°F	Microwave cooked foods and reheated foods.
145°F (for 15 seconds)	Fish.
155°F (for 15 seconds)	Ground, chopped or minced fish.
145°F (for 15 seconds)	Eggs.

### **Cooling Foods**

Potentially hazardous foods must be cooled from cooking or holding temperature to 70°F within two hours; and then from 70°F to 40°F or lower in the next four hours.

Cooling methods:

- Reduce large items such as roasts to a smaller density, place in shallow metal pans or containers
- Place container in ice water bath
- Place container in a blast chiller
- Stir food with an ice-filled paddle

## 9.6 Table 14 - Refrigerated Storage of Foods

**Recommended Product Temperatures (°F/C)** 35°F to 40 F (2 C to 5°C)

Food	Maximum Storage Periods
<b>Meat</b>	
Roasts, steaks, chops	2 to 5 days
Steaks	2 to 5 days
Chops	3 to 4 days
Ground and stewing	1 to 2 days
Variety meats	1 to 2 days
Whole ham	7 days
Half ham	3 to 5 days
Ham slices	3 to 5 days
Canned ham	9 months to 1 year
Frankfurters	1 week
Bacon	5 to 7 days unopened
Luncheon meats	3 to 5 days
Leftover cooked meats	1 to 2 days
Gravy, broth	1 to 2 days
<b>Poultry</b>	
Whole chicken, turkey, duck, goose	1 to 2 days
Giblets	1 to 2 days
Stuffing	1 day
Cut-up cooked poultry	1 to 2 days
<b>Fish</b>	
Fresh fish	1 to 2 days
Fish (smoked)	1 to 2 days
Clams, crab, lobster (in shell)	2 days
Scallops, oysters, shrimp	1 day
<b>Eggs</b>	
Eggs in shell	*4 to 5 weeks beyond pack date
Leftover yolks	1 to 2 days
Leftover whites	4 days
Dried eggs (whole eggs and yolks)	Up to 1 year (un-reconstituted)
Reconstituted dried eggs	Use immediately
Cooked Dishes with eggs, meat, milk	Serve day prepared
<b>Dairy Products</b>	
Fluid milk	5 to 7 days after date on container
Butter	2 weeks
Hard cheese (Cheddar, Parmesan, Romano)	1 month
Soft cheese	1 week
Dry milk (nonfat)	1 year unopened
Reconstituted dry milk	1 week

This table is a general guideline for best product quality and overall safety. Where applicable, always use any product by its use-by date marked on package. If purchase date is unknown, or its quality or safety is compromised in any way, discard product, as recommended by the American Egg Board. Most eggs arrive at a distribution site within a few days of being packed.

Sources: Tyson; Egg Board; *Safe Food Storage Time and Temperatures* by Marl L. Tamplin PhD

## 9.7 Table 15 - Storage of Frozen Foods

Food	<u>Maximum Storage Period at 0° F to 10° F</u> (-12° C to -18° C)
<b>Meat</b>	
Beef, Roasts and Steaks	6 to 9 months
Beef, ground and stewing	3 to 4 months
Pork, roasts and chops	4 to 8 months
Pork, ground	2 months
Lamb, roasts and chops	6 to 9 months
Lamb, ground	3 to 5 months
Veal	8 to 12 months
Variety meats	3 to 4 months
Ham, frankfurters, bacon, luncheon meats	2 weeks
Leftover cooked meats	2 to 3 months
Gravy, broth	2 to 3 months
Sandwiches with meat filling	1 to 2 months
<b>Poultry</b>	
Whole chicken, turkey, duck, goose	12 months
Giblets	3 months
Cut-up cooked poultry	4 to 6 months
<b>Fish</b>	
Fresh fish	2 to 3 months
Frozen fish	3 to 6 months
Clams, lobster	3 months
Scallops, shrimp	3 months
<b>Ice Cream</b>	
Quality is maintained better at 10.F (-12°C)	3 months; original container

Source: *Safe Food Storage Time and Temperatures* by Marl L. Tamplin PhD

### 9.8 Table 16 - Shelf Life of Dried Goods

Source: *Safe Food Storage Times and Temperatures* by Marl L. Tamplin, PhD

Food	Recommended Maximum Storage Period if Unopened	Food	Recommended Maximum Storage Period if Unopened
<b>Baking Materials</b>		<b>Grains &amp; Grain Products</b>	
Baking powder	8 to 12 months	Cereal grains	6 months
Baking soda	2 years	Cereals, ready-to-eat	6 to 12 months
Chocolate, baking	6 to 12 months	Dried bread crumbs	6 months
Chocolate, sweetened	2 years	Macaroni, spaghetti, and other dry pasta	2 years
Cornstarch	2 to 3 years	Rice, white	2 years
Flour, bleached	6 to 8 months	Rice, flavored or herb	6 months
Flour	6 to 8 months		
Dry milk (nonfat), unopened	1 year	<b>Seasonings</b>	
Yeast, dry	18 months	Flavoring extracts	2 years
<b>Beverages</b>		Monosodium glutamate	Indefinite
Coffee, cans	2 years	Mustard, prepared	2 to 6 months
Coffee, ground (not vacuum packed)	2 weeks	Salt	Indefinite
Coffee, instant	8 to 12 months	Sauces (steak, soy, etc.)	2 years
Tea, bags	1 year	Spices and herbs (whole)	2 years to indefinite
Tea, loose	12 to 18 months	Paprika, chili powder, cayenne	1 year
Tea, instant	8 to 12 months	Seasoning salts	1 year
		Vinegar	2 years
<b>Canned Goods</b>		<b>Sweeteners</b>	
Fruits (in general)	1 year	Sugar, granulated	2 years
Fruits, acidic (citrus, berries, sour cherries)	6 to 12 months	Sugar confectioners	18 months
Fruit juices	6 to 9 months	Sugar, brown	4 months
Seafood (in general)	1 year	Syrups, corn, honey, molasses, sugar	1 year
Pickled fish	4 months	<b>Miscellaneous</b>	
Soups	1 year	Dried beans	1 to 2 years
Vegetables (in general)	1 year	Cookies, crackers	1 to 6 months
Vegetables, acidic (tomatoes, sauerkraut)	7 to 12 months	Dried fruits	6 to 8 months
<b>Dairy Foods</b>		Dried prunes	6 months
Cheese, parmesan (grated)	10 months	Gelatin	2 to 3 years
Milk condensed	1 year	Ketchup	1 month
Milk, evaporated	1 year	Jams, jellies	1 year
Non-dairy creamer	9 months	Nuts	6 months
<b>Fats and Oils</b>		Potato chips	1 month
Mayonnaise	2 months	Pickles, relishes	1 year
Shortening, solid	8 months		
Salad dressings	10 to 12 months		
Salad oil	6 to 9 months		

### 9.9 Table 17 - Scoop and Ladle / Spoodle Sizes, Measurements

Scoop Size	Tablespoons	Cups	Ounces	Ladle / Spoodle Sizes
6	10	2/3	5	5 oz.
8	8	1/2	4	4 oz.
10	6	3/8	3	3 oz.
12	5	1/3	2 1/2 - 3	2 1/2 oz.
16	4	1/4	2	2 oz.

#### MEASUREMENTS

<b>1 Tbsp</b>	<b>=</b>	<b>3 tsp</b>	<b>=</b>	<b>1/2 Fl. Oz.</b>
<b>1/4 Cup</b>	<b>=</b>	<b>4 Tbsp.</b>	<b>=</b>	<b>2 Oz.</b>
<b>1/3 Cup</b>	<b>=</b>	<b>5 Tbsp.</b>	<b>=</b>	<b>1 Fl. Tsp.</b>
<b>1/2 cup</b>	<b>=</b>	<b>8 Tbsp.</b>	<b>=</b>	<b>4 Fl. Oz.</b>
<b>2/3 Cup</b>	<b>=</b>	<b>10 Tbsp.</b>	<b>=</b>	<b>2 Fl. Tsp.</b>
<b>3/4 Cup</b>	<b>=</b>	<b>12 Tbsp.</b>	<b>=</b>	<b>6 Fl. Oz.</b>
<b>1 Cup</b>	<b>=</b>	<b>16 Tbsp.</b>	<b>=</b>	<b>8 Fl. Oz.</b>
<b>1 Pt.</b>	<b>=</b>	<b>2 Cups</b>	<b>=</b>	<b>16 Fl. Oz.</b>
<b>1 Qt.</b>	<b>=</b>	<b>2 Pt.</b>	<b>=</b>	<b>4 Cups</b>
<b>1 Gal.</b>	<b>=</b>	<b>4 Qts.</b>	<b>=</b>	<b>128 Fl. Oz.</b>
<b>1 Lb.</b>	<b>=</b>	<b>16 Oz.</b>	<b>=</b>	<b>A pint is a pound, the world around!</b>

### 9.10 Table 18 - Herbs and Spices

Herb or Spice	Flavor	Best used	Cooking Use
Allspice	Mixture of Nutmeg, Cloves & Cinnamon	Freshly Ground	Almost everything
Basil	Pungent, little sweet	Fresh	Tomato dishes, salads and many Cooked vegetables
Bay	Mild	Dried	Soups, stews, tomato sauces, Remove leaf before serving
Capers	Pungent	Pickled in brine	Sauces, flavoring when pickling other foods
Caraway	Sweet, nutty	Whole	Hungarian goulash, cookies, herbal vinegars, cakes
Cayenne	Fiery hot	Dried and ground	Use sparingly, very hot
Chervil	Light, similar to parsley	Fresh or frozen	Soups, casseroles, salads, omelets
Coriander	Spicy, sweet or hot	Ground or whole	Cakes, breads, cookies
Cumin	Peppery	Whole or ground	Soups, stews, sauces
Dill	Mild, somewhat sour	Leaves, fresh	Fish, eggs, potatoes, meats, breads, salads, sauces
Ginger	Mix of pepper and sweet	Dried, ground	Cakes, breads, Asian dishes
Marjoram	Delicate	Fresh, dried	Soups, stews, marinades
Nutmeg	Warm, spicy, sweet	Freshly ground	Cakes, cookies, sweet potatoes, some vegetables
Oregano	Delicate,	Dried	Italian dishes, vegetables, soups
Rosemary	Lemony and piney, aromatic	Dried, fresh	Meat, especially lamb, fish, sauces
Tarragon	Licorice-like	Dried, fresh	Tartar sauce, cream sauces, egg dishes, seafood salads
Thyme	Minty, lemony	Dried, fresh	Stews, bland soups, stuffing, green salads, cooked vegetables
White Pepper	Similar to black but milder	Ground	As a condiment
Winter Savory	Thyme and mint	Dried	Soups, bean dishes, fish, meats

## 9.11 Table 19 - Sample Job Description

### YWCA of Maricopa County Job Description

**Job Title:** Food Service Assistant

**Classification:** Food Service – Non-Exempt

**Position Purpose:** Under direction of the cooks, you are part of the team that provides overall help in the kitchen to see that meals are prepared, packed and served or delivered in a timely and efficient manner.

**General Duties** include:

1. Under the direction of the cooks you will help prep food according to the menu plan.
2. Helping unload supplies; stocks food and supply pantries; freezer, helps with dishes and helps pack all the meal containers.
3. Compiles the daily meal count breakdown for delivery by utilizing the driver route sheets in order to pack the meals; communicates information to the drivers as necessary.
4. Helps maintain the kitchen equipment, cooking utensils in a clean and safe manner. Wash pots and pans, utensils, etc. as needed.
5. Participate in training workshops as applicable to the job; works as part of a team.
6. Maintain and stock flash freezer for home delivered meals.
7. Other appropriate duties as assigned by the supervisors.

**Responsible to:** Cooks

**Requirements:** Food Handlers Card; Current Drivers license and Insurance; like to work with people and have an interest in food and the senior population. Training provided.

*“Clean as you go”*

---

## 9.12 Table 20 – Emergency Supply Kit



When preparing for a possible emergency situation, it's best to think first about the basics of survival: **fresh water, food, clean air and warmth.**

### **Recommended Items to Include in a Basic Emergency Supply Kit:**

- Water, one gallon of water per person per day for at least three days, for drinking and sanitation
- Food, at least a three-day supply of non-perishable food
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Flashlight and extra batteries
- First aid kit
- Whistle to signal for help
- Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)
- Local maps

### **Additional Items to Consider Adding to an Emergency Supply Kit:**

- Prescription medications and glasses
- Infant formula and diapers
- Pet food and extra water for your pet
- Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container
- Cash or traveler's checks and change
- Emergency reference material such as a first aid book or information from [www.ready.gov](http://www.ready.gov)
- Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
- Household chlorine bleach and medicine dropper – When diluted nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- Fire Extinguisher
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates and plastic utensils, paper towels
- Paper and pencil
- Books and games

## 9.13 Table 21- Food Safety Guide for Seniors

### Guidelines for Safe Food Handling

1. **Keep it safe, refrigerate or freeze.** Refrigerate or freeze all perishable foods. Refrigerator temperature should be 40 °F or less; freezer temperature should be 0 °F or less. Use a refrigerator/freezer thermometer to check the temperatures.
2. **Never thaw food at room temperature.** Always thaw food in the refrigerator, or in cold water or in a microwave. When thawing in the microwave, you must cook the food immediately.
3. **Wash** hands with warm soapy water before preparing food. **Wash** hands, utensils, cutting boards and other work surfaces after contact with raw meat and poultry. This helps prevent cross contamination.
4. **Never leave perishable food out of refrigeration over two hours.** If room temperature is above 90 °F food should not be left out over 1 hour. This would include items such as take-out foods, leftovers from a restaurant meal, and meals-on wheels deliveries.
5. **Thoroughly cook raw meat, poultry and fish** (see the following chart of internal temperatures). Do not partially cook food. Have a constant heat source, and always set the oven at 325 °F or higher when cooking. There is no need to bring food to room temperature before cooking.

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### Foods Purchased Or Delivered Hot

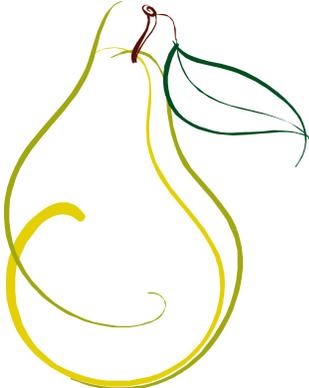
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- *Eating Within Two Hours?*  
Pick up or receive the food HOT...and enjoy eating within two hours.
- *Not Eating Within Two Hours?*  
Keeping food warm is not enough. Harmful bacteria can multiply between 40° and 140 °F. Set oven temperature high enough to keep the hot food at 140 °F or above. Check internal temperature of food with a meat thermometer. Covering with foil will help keep the food moist.
- *Eating Much Later?*  
It's not a good idea to try and keep the food hot longer than two hours. Food will taste better and be safely stored if you:
  - Place in shallow containers.
  - Divide large quantities into smaller portions.
  - Cover loosely and refrigerate immediately.
  - Reheat thoroughly when ready to eat.
- *Reheating?*  
Reheat food thoroughly to temperature of 165 °F or until hot and steaming. In the microwave oven, cover food and rotate so it heats evenly. Allow standing time for more even heating. Consult your microwave owner's manual for recommended cooking time, power level and standing time. Inadequate heating can contribute to illness.

Source Seniors Need Wisdom on Food Safety - <http://www.fsis.usda.gov/OA/pubs/seniors.htm>



# 10 FORMS



## 10.1 Determine Your Nutritional Health (English)

<b>Determine Your Nutritional Health</b>			
 <p style="font-size: small; margin: 0;">DEPARTMENT OF ECONOMIC SECURITY <i>Your Partner For A Stronger Arizona</i></p>	<ul style="list-style-type: none"> <li><b>Read the statements below.</b></li> <li><b>Circle the number under "Yes" in the first column for those that apply to you.</b></li> <li><b>For each "Yes" answer, score the number in the box. Total your nutritional score.</b></li> </ul>	<b>YES</b>	<b>NO</b>
<b>I (or someone close to me) have an illness or condition that has caused me to change the amount and / or kind of food that I eat.</b>		<b>2</b>	
<b>I eat fewer than two meals per day.</b>		<b>3</b>	
<b>I eat few fruits and vegetables per day.</b>		<b>2</b>	
<b>I eat or drink few milk products (e.g. milk, yogurt, cheese) a day.</b>		<b>2</b>	
<b>I drink less than 5 (8-oz.) cups of fluids a day (e.g. water, tea, juice).</b>		<b>2</b>	
<b>I have three or more drinks of beer, wine, or liquor almost every day.</b>		<b>2</b>	
<b>I have tooth or mouth problems that make it hard for me to eat.</b>		<b>2</b>	
<b>I don't always have the money to buy the food I need.</b>		<b>4</b>	
<b>I eat alone most of the time.</b>		<b>1</b>	
<b>I take 3 or more different prescribed or over-the-counter drugs a day.</b>		<b>1</b>	
<b>Without wanting to, I have lost or gained 10 pounds in the last six months.</b>		<b>2</b>	
<b>I am not always physically able to shop, cook, and / or feed myself.</b>		<b>2</b>	
<b>Total your nutritional score</b>		<b>Total</b>	
<b>If your score is ...</b>			
<b>0-2</b>	<b>Good! Re-check your nutritional score in six months.</b>		
<b>3-5</b>	<b>You are at <u>MODERATE</u> nutritional risk. See what can be done to improve your eating habits and lifestyle. Your office on aging, senior nutrition program, senior citizens center, or health department can help.</b>		
<b>6 or more</b>	<b>You are at <u>HIGH</u> nutritional risk. Bring this checklist the next time you see your doctor, dietitian, or other qualified health or social services professional. Talk to him or her about any problems you may have. Ask for help to improve your nutritional health.</b>		
<b>Remember - that warning signs suggest risk, but do not represent diagnosis of any condition.</b>			
<b>Name</b>		<b>Date</b>	
<p style="font-size: x-small; margin: 0;">Equal Opportunity Employer/Program ♦ Under Titles VI and VII of the Civil Rights Act of 1964 (Title VI &amp; VII), and the Americans with Disabilities Act of 1990 (ADA), Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, the Department prohibits discrimination in admissions, programs, services, activities, or employment based on race, color, religion, sex, national origin, age, and disability. The Department must make a reasonable accommodation to allow a person with a disability to take part in a program, service or activity. For example, this means if necessary, the Department must provide sign language interpreters for people who are deaf, a wheelchair accessible location, or enlarged print materials. It also means that the Department will take any other reasonable action that allows you to take part in and understand a program or activity, including making reasonable changes to an activity. If you believe that you will not be able to understand or take part in a program or activity because of your disability, please let us know of your disability needs in advance if at all possible. To request this document in alternative format or for further information about this policy, call (602) 542-4446; TTY/TDD Services: 7-1-1. ♦ Disponible en español</p>			
AG-119 (11-08)			

## 10.2 Determine Your Nutritional Health (Spanish)

<b>¿Cuán Bien Se Alimenta Usted?</b>			
	<ul style="list-style-type: none"> <li>• <b>Lea las afirmaciones siguientes.</b></li> <li>• <b>En la primera columna, marque "Si" con un círculo por cada afirmación aplicable a Ud.</b></li> <li>• <b>El total de puntos es su puntuación alimenticia.</b></li> </ul>	<b>SI</b>	<b>NO</b>
	<p><b>La cantidad o el tipo de comidas que como yo (o alguien importante para mí) ha cambiado debido a una enfermedad o condición médica.</b></p>	<b>2</b>	
	<b>Como menos de dos comidas a diario.</b>	<b>3</b>	
	<b>Consumos pocas frutas y verduras a diario.</b>	<b>2</b>	
	<b>Consumo pocos productos lácteos (ej. Leche, yogurt, queso) a diario.</b>	<b>2</b>	
	<b>Tomo menos de 5 tazas de 8oz. de líquido (ej. agua, té, jugo) a diario.</b>	<b>2</b>	
	<b>Casi a diario tomo tres o más vasos de cerveza, vino o licor.</b>	<b>2</b>	
	<b>Tengo problemas orales o dentales que me dificultan comer.</b>	<b>2</b>	
	<b>No siempre tengo dinero para comprar la comida que necesito.</b>	<b>4</b>	
	<b>La mayoría de las veces como a solas.</b>	<b>1</b>	
	<b>Tomo 3 o más medicamentos diferentes a diario, recetados o no.</b>	<b>1</b>	
	<b>Sin querer hacerlo, he perdido o aumentado 10 libras de peso en los últimos 6 meses.</b>	<b>2</b>	
	<b>Físicamente, no siempre puedo comprar, cocinar y/o comer solo(a).</b>	<b>2</b>	
<b>Agregue todos los puntos.</b>		<b>SUMA</b>	
<b>Si puntuación alimenticia es:</b>			
<b>0-2</b>	<b>¡Muy bien! Verifique su puntuación alimenticia en seis meses.</b>		
<b>3-5</b>	<b>Su alimentación presenta un riesgo moderado. Vea cómo puede mejorar sus hábitos de comer y su estilo de vida. La oficina para personas mayores, un programa de alimentación para adultos, un centro para personas mayores o un departamento de salud le puede ofrecer ayuda.</b>		
<b>6 ó mas</b>	<b>Su alimentación presenta un riesgo alto. Lleve esta lista la próxima vez que consulte a su médico, dietista o trabajador social, Háblele de cualquier problema que tenga. Pida ayuda para mejorar su alimentación.</b>		
<b>Recuerde – las señales de advertencia sugieren riesgos, pero no son una diagnosis de una condición.</b>			
<b>Nombre</b>			<b>Fecha</b>

Empleador/Programa con Igualdad de Oportunidades ♦ Bajo los Títulos VI y VII de la Ley de Derechos Civiles del año 1964 (Título VI y VII) y la Ley de Estadounidenses con Incapacidades del año 1990 (Americans with Disabilities Act: ADA), Sección 504 de la Ley de Rehabilitación de 1973, y la Ley de Discriminación a Edad de 1975, el Departamento prohíbe discriminar en los programas, entradas, servicios, actividades o el empleo basado en raza, color de piel, religión, sexo, origen nacional, edad, e incapacidad. El Departamento tiene que hacer arreglos razonables para permitir a una persona con una incapacidad participar en un programa, servicio o actividad. Esto significa, por ejemplo, que si es necesario el Departamento debe proporcionar intérpretes de lenguaje en señas para personas sordas, un establecimiento accesible para sillas de ruedas, o materiales con letras grandes. También significa que el Departamento tomará cualquier otra medida razonable que le permita a usted entender y participar en un programa o una actividad, incluso efectuar cambios razonables en la actividad. Si usted cree que su incapacidad le impedirá entender o participar en un programa o actividad, por favor infórmenos lo antes posible qué necesita para acomodar su incapacidad. Para obtener este documento en otro formato u obtener información adicional sobre esta política, comuníquese al 602-542-4446; Servicios de TTY/TDD: 7-1-1. ♦ Available in English

AG-119-S (11-08)

<https://egov.azdes.gov/CMS400Min/InternetFiles/IntranetProgrammaticForms/pdf/AG-119-S.pdf>



## 10.4 Menu Spreadsheet

### Menu

Week	Monday	Tuesday	Wednesday	Thursday	Friday
Protein / Entrée 2-3 ounces					
Vegetable ½ Cup					
Vegetable ½ Cup					
Grains 2 Servings / 2 oz					
Fruit ¾ Cup / 6 oz.					
Butter / Sauce /					
Other / Additional Items					
Senior Center / Provider:			<p align="center"><b>Notes Regarding Servings:</b></p> <p><b>Vitamin Requirements:</b></p> <ul style="list-style-type: none"> <li>• © Vitamin daily, (a) 4 times per week</li> </ul> <p><b>Meat / Veggie Combo:</b></p> <ul style="list-style-type: none"> <li>• Serving must include 2 oz meat &amp; ½ c vegetable</li> </ul> <p><b>Potatoes:</b></p> <ul style="list-style-type: none"> <li>• Of any kind must include skin in order to count as © vitamin.</li> </ul> <p><b>Mashed Potatoes From Mix:</b></p> <ul style="list-style-type: none"> <li>• Must be brand/type that is fortified w/©</li> </ul> <p><b>Diets:</b></p> <ul style="list-style-type: none"> <li>• There are 3 types: Diabetic, Low Sodium, and the combination of diabetic and Low Sodium. Follow substitutions as applicable to the diet.</li> </ul>		
Prepared By:		Date:			
Project Director:		Date:			
Area Agency Dietitian Approval					
Approved By:		Date:			



# 11 DEFINITIONS



## Definitions

**Nutrition Project** means the recipient of a sub-grant or contract to provide nutrition services, other than the Area Agency. (ref. 48)

**Chronic Disease** is defined as prolonged illness that rarely undergoes spontaneous resolution or complete cure. (ref. 17)

**Disease Prevention and Health Promotion Services** means “health risk assessments; routine health screening, which may include hypertension, glaucoma, cholesterol, cancer, vision, hearing, diabetes, bone density, and nutrition screening; nutritional counseling and educational services for individuals and their primary caregivers; Evidence-based health promotion programs, including programs related to the prevention and mitigation of the effects of chronic disease (including osteoporosis, hypertension, obesity, diabetes, and cardiovascular disease), alcohol and substance abuse reduction, smoking cessation, weight loss and control, stress management, falls prevention, physical activity, and improved nutrition.” (ref. 3)

**Education and Training Service** means a supportive service designed to assist older individuals to better cope with their economic, health, and personal needs through services such as consumer education, continuing education, health education, pre-retirement education, financial planning, and other education and training services which will advance the objectives of this Act. (ref. 3)

**Evidence Based Medicine is defined as** *“the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients”* (ref. 47).

**Disaster:** “A disaster is an occurrence such as hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, earthquake, drought, blizzard, pestilence, famine, fire, explosion, volcanic eruption, building collapse, transportation wreck, or other situation that causes human suffering or creates human needs that the victims cannot alleviate without assistance.” (ref. 8)

**Major Disaster;** “Any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.” (ref. 52)

**Emergency;** “A serious situation or occurrence that happens unexpectedly and demands immediate action.” “A condition of urgent need for action or assistance: *a state of emergency.*” (ref. 10)

**Aging and Disability Resource Center** means a program established by a State as part of the State’s system of long-term care, to provide a coordinated system for providing comprehensive information on available public and private long-term care programs, options, and resources, personal counseling to assist individuals in assessing their existing or anticipated long-term care needs, and developing and implementing a plan for long-term care designed to meet their specific needs and circumstances, and consumer access to the range of publicly-supported long-term care programs for which they may be eligible by serving as a convenient point of entry for such programs.” (ref. 1)

**At Risk for Institutional Placement** “means, with respect to an older individual, that such individual is unable to perform at least two activities of daily living without substantial human assistance (including verbal reminding, physical cuing, or supervision) and is determined by the State to be in need of placement in a long-term care facility.” (ref. 1)

**Long-term Care** “means any services, care, or items (including assistive devices), including disease prevention and health promotion services, in-home services, and case management service; intended to assist individuals in coping with, and to the extent practicable compensate for, functional impairments in carrying out activities of daily living; furnished at home, in a community care setting (including a small community care setting as defined in subsection (g)(1), and a large community care setting as defined in subsection (h)(1), of section 1929 of the Social Security Act (42 U.S.C. 1396t)), or in a long-term care facility; and not furnished to prevent, diagnose, treat, or cure a medical disease or condition.” (ref. 1)

**Self-directed Care** “means an approach to providing services (including programs, benefits, supports, and technology) under this Act intended to an older individual to assist such individual with activities of daily living, in which; such services (including the amount, duration, scope, provider, and location of such services) are planned, budgeted, and purchased under the direction and control of such individual; such individual is provided with such information and assistance as necessary and appropriate to enable such individual to make informed decisions about his or her care options; the needs, capabilities, and preferences of such individual with respect to such services, and such individual’s ability to direct and control his or her receipt of such services, are assessed by the area agency on aging (or other agency designated by the area agency on aging); based on the assessment made, the area agency on aging (or other agency designated by the area agency on aging) develops together with such individual and his or her family, caregiver, or legal representative;(i) a plan of services for such individual that specifies which services such individual will be responsible for directing; (ii) a determination of the role of family members (and others whose participation is sought by such individual) in providing services under such plan; and (iii) a budget for such services; and the area agency on aging or State agency provides for oversight of such individual’s self-directed receipt of services, including steps to ensure the quality of services provided and the appropriate use of funds under this Act.” (ref. 1)

**State System of Long-term Care** means the Federal, State, and local programs and activities administered by a State that provide, support, or facilitate access to long-term care to individuals in such State.” (ref. 1)

**Trans Fatty Acids**—Trans fatty acids, or trans fats, are unsaturated fatty acids that contain at least one non-conjugated double bond in the trans configuration. Sources of trans fatty acids include hydrogenated/partially hydrogenated vegetable oils that are used to make shortening and commercially prepared baked goods, snack foods, fried foods, and margarine. Trans fatty acids also are present in foods that come from ruminant animals (e.g., cattle and sheep). Such foods include dairy products, beef, and lamb. (ref. 24)

**HACCP Plan** “means a written document that delineates the formal procedures for following the HAZARD ANALYSIS CRITICAL CONTROL POINT principles developed by The National Advisory Committee on Microbiological Criteria for Foods.” (ref. 12)

**Dietitian** is defined as a nutrition expert who meets all of the requirements for membership in the American Dietetic Association (ADA) and meets the following criteria: completed a minimum of a *bachelor's degree* at a U.S. 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 - credited supervised practice program at a healthcare facility, community agency, or a foodservice corporation, or combined with undergraduate or graduate studies. and is eligible to take the registration exam. (ref. 11)

**Registered Dietitian (RD)** defined as a nutrition expert who meets all of the requirements for membership in the American Dietetic Association (ADA), has earned the RD credential and meets the following criteria: completed a minimum of a *bachelor's degree* at a U.S. 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 - credited supervised practice program at a healthcare facility, community agency, or a foodservice corporation, or combined with undergraduate or graduate studies, has passed a national examination administered by the Commission on Dietetic Registration (CDR) and completes continuing professional educational requirements to maintain registration. (ref. 6,11)

**CDM – A Certified Dietary Manager (CDM)** is defined as an individual who has completed training in leadership, nutrition, food service operations, managing personnel, food safety, HACCP, preparing for health inspection, budgeting and financial management, employee retention and recognition, and has been awarded a Specialized Diploma from an approved program recognized by the US Dietary Managers Association. A CDM must also have successfully passed a CDM certification credentialing examination and maintain continuing education requirements of the DMA. (ref.25,46)

**Diet Technician (DT)** is defined as a person who meets all of the requirements for membership in the American Dietetic Association (ADA) and is eligible to take the ADA examination for registration and meets the following criteria; “complete at least a two-year associate's degree at a U.S. regionally accredited college or university Complete a dietetic technician program accredited/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 foodservice facilities. (ref.6,7)

**Diet Technician Registered (DTR)** is a paraprofessionals who works closely with dietitians. “Their primary task is to assist the Dietitian in developing nutritional care plans, assess dietary needs, and supervise food production.” (ref.11) A RDT is defined as a person who meets all of the requirements for membership in the American Dietetic Association (ADA) and has earned the DTR credential and meet the following criteria: “complete at least a two-year associate's degree at a U.S. regionally accredited college or university Complete a dietetic technician program accredited/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 foodservice facilities Pass a national, written *examination* administered by the Commission on Dietetic Registration (CDR). Complete continuing professional educational requirements to maintain registration.” (ref. 6)

**Nutritionist** – A Nutritionist is defined as a person who has a Bachelor's or Master's degree in Food and Nutrition from an accredited institution (ref.11) “with education and training in nutrition science equivalent to that of a Dietitian or, an individual with comparable expertise in the planning of nutritional services” (ref.2), and maintains the continuing education requirements equal to or greater than a DTR.

**State Agency** – The State Agency is the Aging and Adult Administration of the Arizona Department of Economic Security.

**OAA** – Older Americans Act, established in 1965.

**CFR** – Code of Federal Register

**C-1** – Congregate Meals Program

**C-2** – Home Delivered Meals Program

**Dietary Reference Intakes (DRIs)** are guidelines for providing nutrient value requirements for various age groups including “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. (ref. 34,45)

- The **Recommended Dietary Allowance (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.
- **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. (ref. 45)

**Health Insurance Portability and Accountability Act (HIPAA)** The privacy provisions of the federal law, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), apply to health information created or maintained by health care providers who engage in certain electronic transactions, health plans, and health care clearinghouses. The Department of Health and Human Services (HHS) has issued the regulation, "Standards for Privacy of Individually Identifiable Health Information," applicable to entities covered by HIPAA. The Office for Civil Rights (OCR) is the Departmental component responsible for implementing and enforcing the privacy regulation. (See the Statement of Delegation of Authority to the Office for Civil Rights, as published in the Federal Register on December 28, 2000 (ref. 52)

**“Vegetarian**—There are several categories of vegetarians, all of whom avoid meat and/or animal products. The vegan or total vegetarian diet includes only foods from plants: fruits, vegetables, legumes (dried beans and peas), grains, seeds, and nuts. The lacto-vegetarian diet includes plant foods plus cheese and other dairy products. The ovo-lactovegetarian (or lacto-ovo-vegetarian) diet also includes eggs. Semi-vegetarians do not eat red meat but include chicken and fish with plant foods, dairy products, and eggs.” (ref.24)

**Nutrition Education** is defined as regularly scheduled programs such as demonstrations, audio-visual presentations, lectures, small group discussions and/or written material distributed to the clients. Their purpose is to inform individuals about available facts and information, which will promote improved food selection, eating habits, and health and nutrition practices. (ref. 11)

**Home Bound** is defines as a person who is unable to leave home because of a disabling physical, emotional or environmental condition or who is unable to prepare adequate meals for him or herself. (ref. 11)

**Nutrition Project** The recipient of a sub-grant or contract to provide nutrition services, other than the Area Agency on Aging, which meets applicable requirements. [*Older Americans Act §321*] (ref. 28)

**Nutrition Provider** An agency or organization that provides nutrition services as defined by the Older Americans Act. [*Older Americans Act §311*] (ref. 28)

Additional terms can be found on the Division of Aging and Community Services/Aging and Adult Administration "*Division of Aging and Adult Services Policy and Procedure Manual, Glossary*", web page at:

[https://egov.azdes.gov/cms400min/uploadedFiles/DAAS/ch\\_6000\\_glossary.pdf](https://egov.azdes.gov/cms400min/uploadedFiles/DAAS/ch_6000_glossary.pdf)

**"Abuse"**, when used in reference to a vulnerable adult, means:

- (a) Intentional infliction of physical harm.
- (b) Injury caused by criminally negligent acts or omissions.
- (c) Unlawful imprisonment, as described in section 13-1303.
- (d) Sexual abuse or sexual assault. (ref. 18)

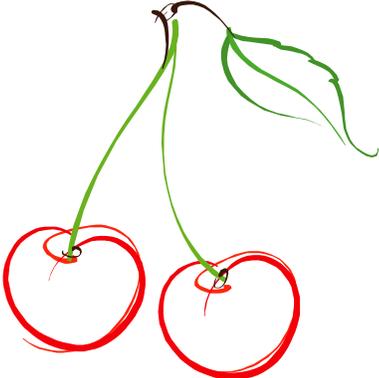
**"Emotional abuse"** means a pattern of ridiculing or demeaning a vulnerable adult, making derogatory remarks to a vulnerable adult, verbally harassing a vulnerable adult or threatening to inflict physical or emotional harm on a vulnerable adult. (ref. 18)

**"Physical injury"** means the impairment of physical condition and includes any skin bruising, pressure sores, bleeding, failure to thrive, malnutrition, dehydration, burns, fracture of any bone, subdural hematoma, soft tissue swelling, injury to any internal organ or any physical condition that imperils health or welfare. (ref. 18)

**"Serious physical injury"** means physical injury that creates a reasonable risk of death or that causes serious or permanent disfigurement, serious impairment of health or loss or protracted impairment of the function of any bodily organ or limb. (ref. 18)

**"Vulnerable adult"** means an individual who is eighteen years of age or older and who is unable to protect himself from abuse, neglect or exploitation by others because of a mental or physical impairment. (ref. 18)

# 12 STATE AND COUNTY HEALTH CODES



**State of Arizona**

- Arizona Food Code TITLE 9. HEALTH SERVICES
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
- [http://www.co.cochise.az.us/health/EnvHealth/food\\_doc.pdf](http://www.co.cochise.az.us/health/EnvHealth/food_doc.pdf)
- Adopted - 1999 FDA Food Code:  
<http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FoodCode/FoodCode1999/default.htm>

**Apache County**

- Apache County Environmental Department  
<http://www.co.apache.az.us/HealthDept/Environmental.htm>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ,ARTICLE 1. FOOD AND DRINK  
<http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Cochise County**

- County of Cochise, Environmental Health Services  
<http://www.co.cochise.az.us/health/EnvHealth/ehd.htm>
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION , ARTICLE 1. FOOD AND DRINK  
<http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Coconino County**

- Coconino County Health Department: <http://www.co.coconino.az.us/>  
Food code references <http://www.co.coconino.az.us/envhealth.aspx?id=710>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Gila County**

- Gila County Government Health Department  
<http://www.co.gila.az.us/health/environmentalhealth/inspections.html>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Graham County**

County of Graham Health Department: <http://www.graham.az.gov/>

- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK Confirmed by Andrew in Navaho County Show Low office (928-532-6050) <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Greenlee County**

- Greenlee County Health Department – Food Safety Links  
<http://www.co.greenlee.az.us/health/nutrition.aspx>
- References the FDA 1999 Food Code  
<http://www.cfsan.fda.gov/~dms/foodcode.html#get99>
- FDA 1999 Food Code is basis for - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK  
<http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**La Paz County**

- La Paz Environmental Program  
[http://www.co.la-paz.az.us/Main\\_Pages/Dept\\_Health/health.htm](http://www.co.la-paz.az.us/Main_Pages/Dept_Health/health.htm)
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK  
<http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Maricopa County**

- Maricopa County Health Department, Maricopa County Health Code, Chapter I, General Provisions; Chapter II, Sewage and Waste; Chapter VII, Food Service Workers; Chapter VIII, Food, Food Products, Food Handling Establishments.  
<http://www.maricopa.gov/EnvSvc/AboutUs/HealthCode.aspx>

**Mohave**

- County of Mohave, Environmental Health Division  
[http://www.co.mohave.az.us/depts/health/eh/food\\_safety.asp](http://www.co.mohave.az.us/depts/health/eh/food_safety.asp)
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK  
<http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Navajo County Environmental Health**

- Navajo County Food Code Requirements and Fire Safety Requirements  
<http://www.navajocountyaz.gov/pubhealth/pdfs/FireCodesandFoodCodes.pdf>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK Confirmed by Jeff in Holbrook (928-524-4750), January 25, 2007  
<http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Pima County**

- Pima County Health Department: <http://www.pimahealth.org/>
- Title 8 Pima County Health and Safety <http://www.pima.gov/cob/code/>
- *Arizona Food Code*, Chapter 2-102.11. and “person-in-charge” requirements in the *Arizona Food Code*, Chapter 2-102.11. <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Pinal County**

- Pinal County Division of Environmental Health  
<http://pinalcountyz.gov/Departments/EnvironmentalHealth/Pages/FoodProtectionSafetyProgram.aspx>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Santa Cruz County**

- [http://www.co.santa-cruz.az.us/health\\_human/index.html](http://www.co.santa-cruz.az.us/health_human/index.html)
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK Confirmed by Bonnie (520-375-7812) in Nogales, January 25, 2007 <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Yuma County**

- Yuma County Health Department <http://www.co.yuma.az.us/health/EH.html>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK Confirmation by Phone (928) 317-4584, January, 24, 2007. <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

**Yavapai County**

- Yavapai County Government – Food Safety  
<http://www.co.yavapai.az.us/content.aspx?id=16186>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf>

## 13 REFERENCES



## References

1. Administration on Aging, Older Americans Act, "Choices for Independence, Selected provisions on HR 5293 related to Choices for Independence, June 20, 2006 (2:57 PM), Version passed by the House, internet search November 11, 2006. (house version comparison and definitions)
2. Administration on Aging, "Older Americans Act AoA reauthorization activities during the 106th Congress", internet search November 11, 2006. (*notice of passing*) Administration on Aging, Older Americans Act, "109TH CONGRESS 2D SESSION H. R. 6197 IN THE SENATE OF THE UNITED STATES (Final act 2006) SEPTEMBER 28, 2006", internet search November 10, 2006.
3. Administration on Aging, Older Americans Act, "Frequently Asked Questions about the Older Americans Act", internet search October 28, 2006. (amendment 2000 questions)
4. Administration on Aging, "Reauthorization of the Older American's Act, technical clarifications amendments", internet search October 22, 2006. (tech clarifications)
5. American Dietetic Association, "Careers and Students", internet search November 18, 2006.
6. American Dietetic Association, "Members only Page, Frequently asked questions", internet search November 18, 2006.
7. American Red Cross Disaster Service. (2003). "What is a disaster." [On Line]. Retrieved October 25, 2006, from the World Wide Web.
8. American Society for Nutrition, Weight, shape, and mortality risk in older persons: elevated waist-hip ratio, not high body mass index, is associated with a greater risk of death<sup>1,2,3</sup>, American Journal of Clinical Nutrition, Vol. 84, No. 2, 449-460, August 2006
9. Answer.com. (2006). "Encyclopediamanacapedia." [On Line]. Retrieved October 25, 2006, from the World Wide Web.
10. Arizona Department of Health Services, Office of Nutrition Services, "Arizona Department of Economic Security Aging and Adult Administration, Nutrition and Food Service Management Manual", 1999.
11. AZ. Department of Health Services, "TITLE 9, CHAPTER 8: FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION ARTICLE 1. FOOD AND DRINK" internet search November 15, 2006
12. Arizona State Legislature, "Child or vulnerable adult abuse; emotional abuse; classification; exceptions; definitions", internet search January 26, 2007.
13. Administration on Aging, "Nutrition Program Information", internet search February 20, 2007.
14. Bandoiler – Evidence Based Thinking about Health Care, "Numbers needed to treat", internet search January 25, 2007.
15. Beck, A.M., Ovesen, L., "At which body mass index and degree of weight loss should hospitalized elderly patients be considered at nutritional risk?", Clinical Nutrition, 1998 17(5)
16. Center for Disease Control, "Chronic disease prevention", internet search October 22, 2006.
17. Chernoff, R., *Geriatric nutrition; The health professional's handbook; third edition*, Jones and Bartlett, 2006.
18. Department of Economic Security, "About DES, History", internet search February 20, 2007.
19. Department of Economic Security, "Policy and Procedure Manual Aging and Adult Administration" Chapter 1000 -Administrative Standards Issue/Revision Date: 3-18-04 1000-35, Effective Date: 7-1-04
20. Department of Economic Security, Policy and Procedure Manual Aging and Adult Services Chapter 2000 – Area Plan on Aging Revision Date: 9/20/06 2000-20 Effective Date: 3/5/05.
21. Department of Economic Security, "Policy and Procedure Manual Aging and Adult Administration Chapter 3000 – Services and Programs", Issue/Revision Date: 3-26-04 / 8-27-04 3000-5, Effective Date: 7-1-04.

22. Department of Health and Human Services, "Administration on Aging: Emergency Assistance Guide", internet search November 1,, 2006.
23. Dietary Guidelines Advisory Committee, "*Dietary Guidelines for Americans 2005*", US Department of Health and Human Services, US Department of Agriculture.
24. Dietary Managers Association, "*Become a CDM*", internet search November 18, 2006.
25. Division of Aging and Adult Services, "*Scope of Work, Multipurpose Center Operations*", revised 1/28/04.
26. Division of Aging and Community Services/Aging and Adult Administration "*Who we are,*", internet search November 10, 2006.
27. Division of Aging and Community Services/Aging and Adult Administration "*Division of Aging and Adult Services Policy and Procedure Chapter 6000, Manual, Glossary*", internet search January 25, 2007.
28. Dorner, Becky, RD, LD, "*Dietary guidelines pose meal planning concerns in LTS*", Today's Dietitian, Vol.8, No 4 April, 2006.
29. Dwyer, J., "Dietary Reference Intakes: A Risk Assessment Model for Establishing Upper Intake Levels for Nutrients" Food and Nutrition Board, Institute of Medicine, NATIONAL ACADEMY PRESS, Washington, D.C.,1998
30. Dwyer, J., "*Strategies to detect and prevent malnutrition in the elderly: the nutrition screening initiative*", Nutrition Today, Sept-October 1994.
31. Harris, R. P., et-al., American Journal of Preventive Medicine, "Current methods of the U.S. preventive services task force: A Review of the Process
32. Hiwaay.net, "Nutritional assessment form", internet search January 25, 2007.
33. Institute of medicine of the National Academies, "*Dietary Reference Intakes*", The national Academies Press, 2006.
34. Institute of Medicine, Food and Nutrition Board, Dietary Reference Intakes for Energy, Carbohydrates, Fiber, Fat, Protein and Amino Acids (Macronutrients). Washington, DC: National Academy Press: 2002
35. Jo-Ann Heslin, MA, RD, CDN, "Understanding the dietary guidelines", HealthNewsDigest.com, internet search October 30, 2006
36. Journal of the American Dietetic Association, "Dietetic Technicians and Their Role Within the Profession of Dietetics"
37. Lifestyles, "*Determining your ideal body weight*", internet search November 24, 2006.
38. Maricopa County Health Department 2004. Maricopa County Health Code, Chapter I, General Provisions; Chapter II, Sewage and Waste; Chapter VII, Food Service Workers; Chapter VIII, Food, Food Products, Food Handling Establishments.
39. Medical career training, "*Holistic Medicine Careers > Dietetic Technician*" , internet search November 19, 2006
40. Mullooly, J., P., et-al. Kaiser Permanente Center for Health Research, Portland, Oregon; "*Influenza vaccination programs for elderly persons: Cost-effectiveness in a health maintenance organization*", December 15, 1994
41. Napolitano, J., Governor State of Arizona's, "*Aging 2020, Arizona's plan for an Aging Population*", August 2005.
42. National Association of State Units on Aging, "*Summary of the Older Americans Act Amendments of 2006 House-Senate Agreement Reauthorization of the Older Americans Act: A review of major changes in the OAA Amendments of 2006, webcast, Wednesday, October 18, 2006 3:00 PM Easter.*

43. NATIONAL INSTITUTES OF HEALTH National Heart, Lung, and Blood Institute in cooperation with The National Institute of Diabetes and Digestive and Kidney Diseases "CLINICAL GUIDELINES ON THE IDENTIFICATION, EVALUATION, AND TREATMENT OF OVERWEIGHT AND OBESITY IN ADULTS *The Evidence Report*" NIH PUBLICATION NO. 98-4083 SEPTEMBER 1998
44. National Policy and Resource Center on Nutrition and Aging, "Older Americans Nutrition Program Toolkit; Menu and Nutrition Requirements, 1/28/03, internet search November 18, 2006.
45. Northampton Community College, "DIETARY MANAGEMENT CERTIFICATION PROGRAM" , internet search November 18, 2006.
46. 47) Pfeffer, J., Sutton, R.I., "Evidence based management", Harvard Business Review, January 2006.
47. State of Arizona "Criminal record information checks; fingerprinting employees and applicants"
48. State of Arizona, TITLE 6. "ECONOMIC SECURITY, CHAPTER 8. DEPARTMENT OF ECONOMIC SECURITY AGING AND ADULT ADMINISTRATION", supp 96-3. internet search November 24, 2006.
49. The University of Arizona, Arizona Cooperative Extension; Family and Consumer Services, internet search December 16, 2006.
50. University of Hawaii at Manoa; College of Tropical Agriculture and Human resources; Cooperative Extension Services; "How to decrease fat in your recipes"; CES, Dec. 2003
51. United States Code, Title 42. (2004) "The public health and welfare, chapter 68. Disaster relief," 5122.Definitions {Sec.102}.2
52. United States Department of Health and Human Services, "Health Insurance Portability and Accountability Act", internet search November 25, 2006
53. USDA Food and Drug, Office of Regulatory Affairs, *Reports for the states*, internet search January 24, 2007.
54. US department of Health and Human Resources, "Code of Federal Regulations, Title 45 Public Welfare, SUBTITLE A General Administration " internet search October 22, 2006. (specific to grants)
55. U.S. Department of Health and Human Services; "The 1999 Food Code" (adopted by the State of Arizona) internet search November 25, 2006.
56. U.S. Department of Health and Human Services, U.S. Department of Agriculture, "Dietary guidelines for Americans 2005", internet search October 28, 2006
57. US House of Representatives Committee on Education and workforce "SENIOR INDEPENDENCE ACT OF 2006 Bill (H.R. 5293) to amend the Older Americans Act of 1965 *Bill Text for the Older Americans Act Amendments of 2006 (H.R. 6197) Committee Report 109-493 to accompany the Senior Independence Act (H.R. 5293)*", internet search November 11, 2006. (house version June 8)
58. Web Resources of Nutrition for the Elderly; "Limitations of Nutrition Evaluation" and "Nutrition Screening", internet search October 25, 2006.
59. Wikipedia – The Free Encyclopedia, "Evidence Based Medicine:", internet search January 25, 2007. internet search January 25, 2007.
60. Wikipedia.org. (2006). "The Free Encyclopedia." [On Line]. Retrieved October 25, 2006, from the World Wide Web. Wright Lindsay, Waist-hip ratio should replace body mass index as indicator of mortality risk in older, London School of Hygiene and Tropical medicine, released August 8, 2006 internet search October 30, 2006