
Nutritional Issues, Outcomes, and Trends

Barbara Jones, RN, PhD

Associate Dean of the Frances M. Maguire
School of Nursing and Health Professions
Gwynedd Mercy University

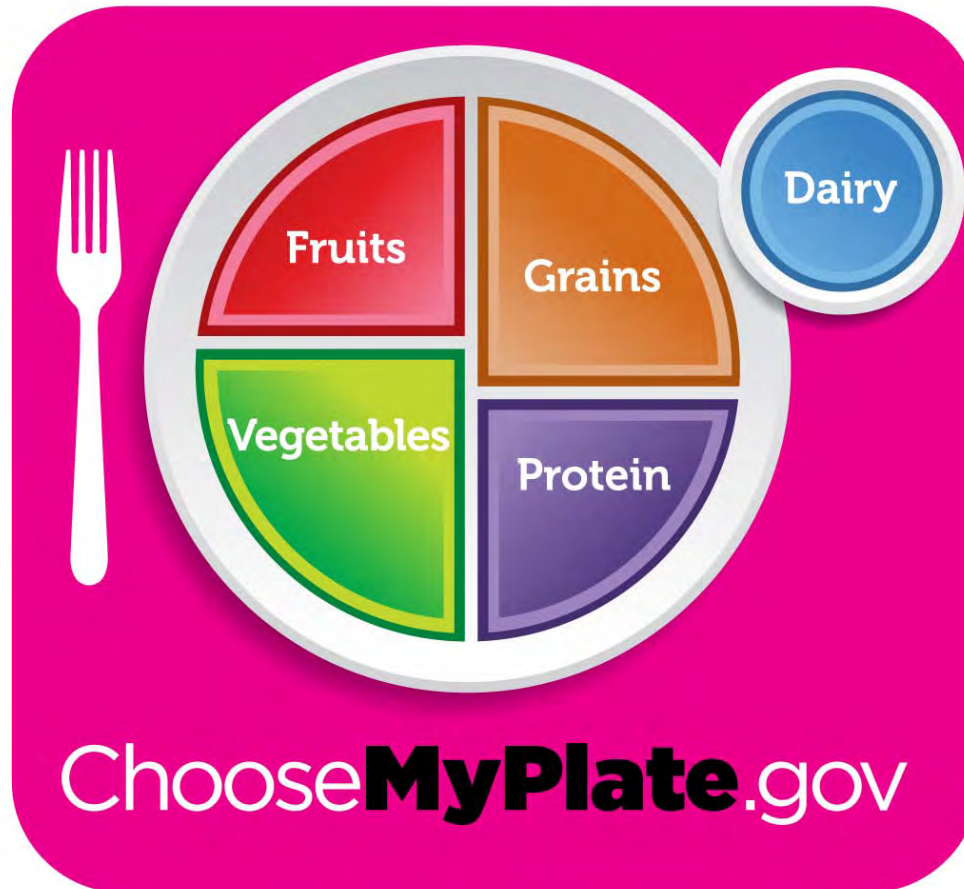
Nutrition Guidelines Have Changed !

- The first food pyramid was introduced in 1992.
- During the ensuing 24 years, views have shifted considerably.
- Essentially, the pyramid offered the same dietary advice to everyone whether they were a sedentary 75 year old or an active 25 year old.
- Current nutritional guidelines are found at MyPlate. Visit www.nia.gov/topics/nutrition.
- My visiting www.myplate.gov, you or your client can customize the pyramid to your age, gender, and activity level.
- ~~More than 12 different versions are possible.~~

Dietary Options

- Various versions are available to accommodate consumer needs and preferences. For example:
 - a vegetarian or vegan diet
 - a diet focused on the nutritional preferences of the individual
 - Preference of individuals from different cultures and ethnicities.
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My Plate



Portion Size

- Instead of using the word *serving* or *portion*, specific measurements are given.
- Most American's concept of portion size did not agree with the FDA! No super-sizing!



Interactive Approach



Keeping Track of Calories and Nutrients

- You can type in what you actually eat during the week and have it compared to your personalized MyPlate.
- The Tracker Database, **now an APP**, contains information on more than 8000 foods and 600 activities.

Keeping Track of Your Activity Level

- If an elder is not sure of her or his level of fitness, it is **imperative to check with a health care provider** before starting an exercise program or engaging in other types of vigorous physical activity.
 - Your health provider may want to order a stress test prior to your “stepping out”.
 - Most physiatrists recommend starting with a regular walking regimen of about 10 minutes.
 - Generally, walking 3 days a week is a good goal.
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Next Goal: Moderate Lifting Builds Muscle!

- Once a walking program is well established, the next target is generally strength training.
- Lifting small weight is the easiest option.
- Twice weekly is recommended.
- Strength training improves balance and reduces fall risk.



What Dietary Changes Are Recommended for Most Individuals?

- Double or triple your current intake of green vegetables. Have salad every night.
 - Fill 50% of your dinner plate with vegetables/fruit/salad.
 - Vary your vegetables and buy them in season.
 - Eat more of the vegetables you like.
 - Make at least 50% of your grains whole- brown rice, whole wheat, oatmeal, whole rye.
 - Prepare meals from fresh ingredients rather than from convenience foods.
 - Choose nuts as a snack or use them to replace meat or poultry.
 - Increase your intake of tomato products.
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Current Obesity Data

- Obesity is the one risk factor that is consistently moving in a direction away from its targeted rate of improvement.
 - 64.5% of American adults are overweight.
 - Of that percentage, 30.5 are obese, and 4.7 are morbidly obese. The rate of morbid obesity has nearly doubled since 1988 (2.9%).
 - Obesity in Childhood and Adolescence is soaring.
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Escalating Rates

- While obesity has increased in both men and women since 1988, it has increased more in women.
 - The rate of obesity is inversely proportional to highest level of education obtained; however, it has increased at all educational levels.
 - It has increased in all regions of the US and in most states (not in Alabama [already at 23%!], Arizona, Arkansas, DC, and Oregon).
 - 21% of Pennsylvanians are obese.
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A Multi-factorial Problem

- **Social:** For example, frequently eating out, skipping meals, snacking, and binging.
 - **Genetic:** The satiety hormones **leptin and ghrelin** have been identified as operative in weight control. Genetic factors are most definitely related to weight gain.
 - This accounts for why some individuals adhere to their diet, have a few “cheats” followed by relapse, and then regain the lost weight or more.
 - **Physiologic:** abnormal thyroid functioning and other endocrine issues.
 - **Behavioral:** Role modeling negative eating habits.
 - **Psychological:** stress eating
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Nutritional Risk Factors for Older Adults

- History of lifelong poor eating habits
 - Inability to maintain previously good eating habits
 - Role changes
 - Depression
 - Recent weight loss or gain
 - Increased metabolic requirements
 - Decreased sense of smell and taste.
 - Exacerbation of alcohol intake in previous social drinkers
 - Alteration in taste r/t medications
 - Inability to access nutritional resources
 - Knowledge deficit
 - Edentulous or poorly fitting dentures
 - Chronic GI disorders
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More Nutritional Risks

- Chronic Respiratory Disease
 - Cancer diagnosis and therapy
 - Dysphagia- It is estimated that 50% of clients in LTC facilities have some form and degree of dysphagia.
 - Fluid intake less than 8 (8 ounce) glasses in 24 hours unless the client is on a fluid restriction.
 - Abnormal Lab Values particularly albumin and pre-albumin.
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History of Dysphagia

- Do solid foods or liquids cause problems for you?
 - Are these problems constant or occasional?
 - Do you experience heartburn or indigestion? How often?
 - When did your problems begin?
 - Do you have symptoms of chest pain or breathing problems?
 - Have you experienced episodes of coughing during mealtimes?
 - Are you experiencing hoarseness?
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Recommended Dietary Allowances for Those 50+

- 2300 calories/day for moderately active 50 year old males; 1900 for women.
 - Drop calories 5% per decade provided that the elder maintains recommended weight for height.
 - Lowest recommended caloric intake is 1200 calories.
 - BMR drops 20% between the ages of 30 and 90 due primarily to loss of lean muscle.
 - Summary: Most elders need fewer calories: however, to insure meeting the RDA the diet must be higher in quality.
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National Institutes of Health Dietary Recommendations for Adults 65+

- At least 2 to 3 servings of calcium-rich food/day sufficient to provide an intake of 1500 mg.
 - If a calcium supplement is used, take it between meals.
 - Sodium intake should be less than 3000mg/day. For those with heart or kidney disease, this amount must be significantly reduced as recommended by a physician.
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Multivitamins

- Studies have repeatedly shown that elders taking multivitamins are generally those who are already consuming adequate diets.
 - Those eating less well are generally less likely to be taking vitamin supplements.
 - It is estimated that as many as 50% of institutionalized elders have sub-clinical malnutrition which is readily missed.
 - There is limited data regarding nutritional adequacy of elders living independently in the community.
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Specific Vitamins- D

- Lactose intolerance increases with age.
 - Homebound elderly are more likely to experience Vitamin D deficiency (54%) than are institutionalized elderly (38%).
 - Most frequent symptoms: muscle weakness and bone pain with profound results.
 - The National Research Council has increased the recommended daily intake of Vitamin D for person 70 and over from 5 micrograms (200 IU) to 15 micrograms (600 IU).
 - Controversy? Are Vitamin D supplements only needed for seniors who: 1) do not eat dairy products or drink milk; 2) are not taking a multi-vitamin supplement.
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Contributing Factors

- Deliberate restriction of exposure to sunlight.
- Use of high SPF sunblock.
- Elders concerns related to sun glare.



Identification and Treatment of Vitamin D deficiency

- Vitamin D deficiency is diagnosed by a blood test, a serum blood level of Vitamin D.
 - When the deficiency was corrected, functional levels increased as did mental alertness.
 - Exposure to sunlight is recommended as tolerated.
 - It is easy to overdose on Vitamin D. The average recommended dose is 2000 IU daily.
 - Avoid taking more than one product containing Vitamin D, e.g. a multi-vitamin plus a calcium supplement fortified with D.
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Research Findings

- A 2015 study conducted by Heidi Wright, RN, DNP at several long term care centers in suburban Philadelphia resulted in two essential findings related to Vitamin D.
 - The overwhelming majority of residents had low levels of Vitamin D as demonstrated by serum testing.
 - Many residents were on medications which interact with Vitamin D. The most often mentioned meds were those for seizures.
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Vitamins B and C

- Poorly nourished elders often have low intake of B Complex Vitamins and Vitamin C.
 - Vitamin B deficiency influences function of the nervous system.
 - Adjusting intake of B vitamins improved appetite and disposition contributing to increased food intake.
 - Vitamin C is crucial for immune functioning, absorption of iron, and for healthy gums and blood vessels.
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Liquid Dietary Supplements?

- Designed for consumption by inactive or ill people with medical conditions that interfered with their ability to eat.
 - Now marketed to all age groups.
 - Healthy older adults do not typically need these products.
 - They may be indicated in instances where elders are recovering from surgery, fractures, or a burn injury, have difficulty swallowing solids, or are anorexic and underweight.
 - They are also indicated for clients with low serum albumin.
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Protein-Energy Malnutrition

- Impaired immune function and increased risk of sepsis
 - Impaired wound healing
 - Impaired strength and increased fatigue
 - Decrease benefits from rehabilitation programs.
 - Increased mortality.
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Suggested Interventions

- Elders with eating problems generally eat more when they eat with others.
 - They eat more when their sitting posture is corrected.
 - They eat more when they are assisted with food choices.
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Goals of Healthy People 2020

- Increase the proportion of individuals age 2 or older who consume at least 2 servings of fruit daily.
 - Increase the proportion of individuals age 2 or older who consume at least 3 daily servings of vegetables.
 - Adequate consumption of fruits and vegetables is associated with decreased risk of coronary heart disease and some cancers.
 - Since they are also low in calories, adequate consumption facilitates weight maintenance or loss.
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Where are we now?

- 35% of Americans consume 5 servings or greater; the average person eats 4 servings
 - Older Americans tend to eat more servings of fruits/vegetables than do younger age groups.
 - Their vegetables and fruits are more likely to be in cooked, canned, or frozen form.
 - **Farmers Market Nutrition Programs-**
Communities may apply for grants from the FDA to provide vouchers for seniors to redeem for fruits and vegetables at participating farmers' markets.
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Fruit/Vegetable Intakes

Vegetables/ Fruits	Men 60 to 69	Men 70+	Females 60 to 69	Female 70+
Mean Vegetables Per Day	3.9	3.4	3	2.8
Mean Dark Green Vegetables	0.2	0.2	0.2	0.2
Percentage eating 3 veg/day	61%	53%	46%	40%
Mean Fruits Per Day	1.9	2.1	1.7	1.8
Percentage eating 2 fruits/day	36%	42%	34%	36%

Bagged Salads

- Sales of bagged salads are now exceeding 2 billion/ year.
 - Sales have zoomed since 1999.
 - Sales of fresh fruits and vegetables is estimated at 12 billion dollars annually.
 - However, many older adults hesitate to purchase pre-packaged salad due to cost concerns.
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Summary

- Most elders consume relatively healthy diets but may not be following FDA regulations regarding fruit and vegetable intake.
 - Americans are getting progressively heavier.
 - Overweight and obesity are considered preventable and are associated with shorter life expectancies although this relationship is not as clear as once thought.
 - A variety of factors influence diet in later life.
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