Unit 1 Dietary Trends and Nutrition
Lesson 2: What’s a Dietary Guideline?

To understand the purpose of a dietary guideline for healthy eating one first needs to have a working knowledge of the principles and standards of nutrition, components nutrients, and food groups. “Diet-planning principles and dietary guidelines are key concepts to keep in mind whenever you are selecting foods—whether shopping at the grocery store, choosing from a restaurant menu, or preparing a home-cooked meal” (Whitney & Rolfes, 2002, page 33, ¶1).

Nutritional Principles and Standards

As Schlenker & Long point out, “Since the early 1900s food and nutrient guides have been in place to help Americans meet their nutritional needs” (2007, page 14, ¶6). The intake of nutrient values for healthy persons are studied by professionals “…making decisions about the nutritional health of individuals and groups” (Schlenker & Long, page 15, ¶1). Therefore the standards developed are a set of educational tools for health professionals involved in nutrition to use as part of health promotion and health education activities.

The United States Department of Agriculture (USDA) established a framework of nutrient standards known as “Dietary Reference Intakes (DRIs) of which Recommended Dietary Allowance, Adequate Intake, The Tolerable Upper Intake Level and the Estimated Average Requirement are used as reference points for using in planning and evaluating diets for healthy people” (2007, page 16, Box 1-3).

- **Dietary Reference Intakes (DRIs):** the framework of nutrient standards now in place in the United States. This framework includes the Recommended Dietary Allowance, Adequate Intake, Tolerable Upper Intake Levels, Estimated Average Requirement, and Acceptable Macronutritional Distribution Range
- **Recommended Dietary Allowance (RDA):** the average daily intake of a nutrient that will meet the requirement of nearly all healthy people of a given age and gender.
- **Adequate Intake (AI):** the suggested daily intake of a nutrient to meet daily needs and support health and serves as a guide for intake when planning diets.
- **Tolerable Upper Intake Levels (UL):** the highest amount of nutrient that can be safely consumed with no risk of toxicity or adverse effects on health.
- **Estimated Average Requirement (EAR):** the average daily intake of a nutrient that will meet the requirement of half of the healthy people of a given age and gender. Used to plan and evaluate the nutrient intakes of groups, not individuals.
- **Acceptable Macronutritional Distribution Range (AMDR):** the suggested distribution of kcalories across the macronutrients (Schlenker & Long, 2007, page 16, Box 1-3).

Components of Nutrients

3. Ibid.
4. Ibid.
5. Ibid.
According to Schlenker & Long “...food serves as the vehicle for bringing nutrients into the body. It is the specific chemical compounds and elements in foods – the nutrients – that the body requires...” (page 9, ¶1)\(^6\) to function and maintain homeostasis or a state of equilibrium metabolically and psychologically.

The University of California at Berkeley *Wellness Encyclopedia of Food and Nutrition* describes how the nutrients in food are broken down into three types with each type of nutrient having specific functions...” and how “...every nutrient interacts with others to carry out those functions” (1992, pp. 11-12).\(^7\)

The components of nutrients are:

- **Macronutrients**—which include carbohydrates, protein, and fats—those which are present, and needed, in large amounts. Macronutrients provide energy and help maintain and repair the body.
- **Micronutrients**—the vitamins and minerals—are present in much smaller amounts. Vitamins regulate the chemical processes that take place in the body. Minerals assist with the chemical process as well as play a role in body maintenance, notably in the formation of new tissue including bones, teeth and blood.
- **Water**—is a basic component of all foods and is essential to life. Water provides a fluid medium for all chemical reactions in the body and for the circulation of blood and removal of waste (1992, pp. 11-12)\(^8\)

Each of the macronutrients and micronutrients can be broken down by category with their own specific functions:

- **Carbohydrates**: dietary carbohydrates, starch and sugar, are the body’s primary source of fuel for heat and energy.
- **Proteins**: the element used for tissue building as well as for energy if needed by the body.
- **Fats**: dietary fats from animal and plant sources provide the body’s alternate or storage form of energy.
- **Minerals**: used for tissue building. Major minerals such as calcium and phosphorus give strength to bones and teeth.
- **Vitamins**: complex molecules needed in trace amounts but essential in certain tissues. (Schlenker & Long, 2008, page 10).\(^9\)

**Basic Food Groups**

According to Benson and Stuart, “Some foods have higher concentrations of various nutrients than others, and foods are grouped by the major nutrients they provide” (1992, page 130).\(^10\)

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\(^8\) Ibid.

\(^9\) Ibid.

means foods containing the nutrients necessary to maintain health and homeostasis of the body are assembled into specific categories. For example, *Williams’ Essentials of Nutrition and Diet Therapy*\(^{11}\) lists the four basic food groups:

- **Fruit group**: citrus; melons; berries and other fruits
- **Vegetable group**: dark green leafy; deep yellow; peas; starchy vegetables, other vegetables
- **Grains group** (Whole and Enriched grains): cereals; breads
  - Meat, poultry, fish, eggs, beans, and nut group

The four basic food groups are part of established guidelines for health eating.

**Guidelines for Healthy Eating**

The purpose of a dietary guideline is to help people make healthy food choices, eat well-balanced meals and effective manage weight. Benson and Stuart discuss how “Guidelines are intended for healthy people to promote health and prevent disease” and “are always general; you may need a diet higher or lower in specific nutrients” (1992, p. 133, ¶1).

According to Benson and Stuart,

> Many health organizations publish guidelines on food choices. Among the best known of these recommendations is the *Dietary Guidelines for Americans*, issued by the U.S. Department of Agriculture and the Department of Health and Human Services in 1980 and revised slightly every five years thereafter (1992, page 132, ¶5).\(^{12}\)

**USDA’s Dietary Guidelines**

According to Schlenker & Long the United States Department of Agriculture (USDA) published the “...first food guide for children and adults in the 1940s” (page 19, ¶1)\(^{13}\) as a way to assist individuals and families with meal planning, nutritional standards and to make recommendations for food servings from identified food groups.

The initial United States government produced *Dietary Guidelines for Americans* was published in 1980 as a “…second type of nutritional guide to assist health professionals, nutrition educators, and the general public in planning a nutritious diet” (Schlenker & Long, 2008, Part I, page 15, ¶1).\(^{14}\)

The purpose of the guideline was to concentrate on health “…and call attention to food, nutrients, and lifestyle practices that prevent chronic disease and program health” (page 15, ¶1).\(^{15}\)

**Initial Focus**

The initial focus of dietary guidelines and American national nutrition policy was the eradication of hunger and malnutrition. According to Schlenker & Long, “Deficiency diseases such as rickets and


\(^{15}\) Ibid.
pellagra still existed in various parts of the United States in the early part of the century. To support this focus, the United States passed legislation in the 1930s requiring Vitamin D be added to milk. Other legislative measures expanded the focus to include Vitamin B and iron as well as the development of nutritional programs and policies to further reduce hunger among Americans (2008, Part I, page 14, ¶).  

**Shift in Focus**

However, in “...the 1970s and 1980s, the focus shifted to over-nutrition as new research linked dietary habits to the growing prevalence of cardiovascular disease” (Schlenker & Long, 2008, Part I, page 14, ¶4). The *U.S. Surgeon General’s Report of 1988* “...established the connection between the typical American diet high in fat and salt and both morbidity and early death from cardiovascular disease”.  

In 1989 an extensive research report, *Diet and Health: Implications for Reducing Chronic Disease Risk* was published and followed in 1990 by the developed of a public health initiative addressing diet, physical activity, and other health-related lifestyle factors, *Healthy People 2000* (Schlenker & Long, 2008, Part I, page 14, ¶5-6).  

Each change in focus was subsequently reflected in the dietary guidelines which were revised based on scientific findings related to evidence describing the types and amounts of food Americans should eat and the physical activity needed for optimum health and growth as well as to address specific problems of overweight and obesity and health risks from chronic conditions (Schlenker & Long, 2008).  

By United States federal law, the *Dietary Guidelines for Americans* are updated every five years as a guide to “...healthy people ages 2 and older” ((Schlenker & Long, 2008, Part I, page 15, ¶7).  


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16 Ibid.  
17 Ibid.  
18 Ibid.  
19 Ibid.  
20 Ibid.  
Table of Comparison: Dietary Guidelines 1980 to 2000

Dietary Guidelines for Americans, 1980 to 2000

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Eat a variety of foods</td>
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<tr>
<td>Maintain ideal weight</td>
<td>Maintain desirable weight</td>
<td>Maintain healthy weight</td>
<td>Balance the food you eat with physical activity—maintain or improve your weight</td>
<td>Aim for healthy weight</td>
</tr>
<tr>
<td>Avoid too much fat, saturated fat, and cholesterol</td>
<td>Avoid too much fat, saturated fat, and cholesterol</td>
<td>Choose a diet low in fat, saturated fat and cholesterol</td>
<td>Choose a diet low in fat, saturated fat and cholesterol</td>
<td>Be physically active each day</td>
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<td>Eat foods with adequate starch and fiber</td>
<td>Eat foods with adequate starch and fiber</td>
<td>Choose a diet with plenty of vegetables, fruits, and grain products</td>
<td>Choose a diet with plenty of grain products, vegetables, and fruits</td>
<td>Let the Pyramid guide your food choices</td>
</tr>
<tr>
<td>Avoid too much sugar</td>
<td>Avoid too much sugar</td>
<td>Use sugars only in moderation</td>
<td>Choose a diet moderate in sugars</td>
<td>Choose a diet that is low in saturated fat and cholesterol and moderate in total fat</td>
</tr>
<tr>
<td>Avoid too much sodium</td>
<td>Avoid too much sodium</td>
<td>Use salt and sodium only in moderation</td>
<td>Choose a diet moderate in salt and sodium</td>
<td>Choose and prepare foods with less salt</td>
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<tr>
<td>If you drink alcohol, do so in moderation</td>
<td>If you drink alcoholic beverages, do so in moderation</td>
<td>If you drink alcoholic beverages, do so in moderation</td>
<td>If you drink alcoholic beverages, do so in moderation</td>
<td>Choose a variety of grains daily; especially whole grains</td>
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Shading indicates how the order in which the guidelines are presented has changed over time.

Center for Nutrition Policy and Promotion, USDA, May 30, 2000

USDA’s Dietary Guidelines for Americans 2005

As the overall health status of Americans changed due to dietary patterns and practices, and a shift from acute to chronic disease incidence, as well as changes in agricultural practices and alteration or modification to lifestyles, the USDA began revising their dietary guidelines at five year intervals starting in 1980 to address rising nutrition and dietary concerns.

On January 12, 2005, “HHS Secretary Tommy G. Thompson and Agriculture Secretary Ann M. Veneman announced the release of the Dietary Guidelines for Americans 2005, the federal government’s science-based advice to promote health and reduce risk of chronic diseases through nutrition and physical activity” (U.S. Department of Health and Human Services, 2005).

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The sixth edition of Dietary Guidelines for Americans places stronger emphasis on reducing calorie consumption and increasing physical activity. This joint project of the Departments of Health and Human Services and Agriculture is the latest of the five-year reviews required by federal law. It is the basis of federal food programs and nutrition education programs and supports the nutrition and physical fitness pillars of President Bush’s HealthierUS Initiative.

The key changes in the 2005 USDA Dietary Guidelines for Americans are detailed in three excerpts from the January 12, 2005 Press Release:

These new Dietary Guidelines represent our best science-based advice to help Americans live healthier and longer lives," Secretary Thompson said. "The report gives action steps to reach achievable goals in weight control, stronger muscles and bones, and balanced nutrition to help prevent chronic diseases such as heart disease, diabetes and some cancers. Promoting good dietary habits is key to reducing the growing problems of obesity and physical inactivity, and to gaining the health benefits that come from a nutritionally balanced diet.

The new Dietary Guidelines highlight the principle that Americans should keep their weight within healthful limits and engage in ample physical activity," said Secretary Veneman. "The process we used to develop these recommendations was more rigorous and more transparent than ever before. Taken together, the recommendations will help consumers make smart choices from every food group, get the most nutrition out of the calories consumed and find a balance between eating and physical activity.

Eating a healthy balance of nutritious foods continues as a central point in the Dietary Guidelines, but balancing nutrients is not enough for health. Total calories also count, especially as more Americans are gaining weight. Because almost two-thirds of Americans are overweight or obese, and more than half get too little physical activity, the 2005 Dietary Guidelines place a stronger emphasis on calorie control and physical activity.24

Therefore, the focus of the 2005 guidelines “...places stronger emphasis on reducing calorie consumption and increasing physical activity” (U.S. Department of Health and Human Services, 2005).25 The overall goal is the use of a

...science-based” approach “...to promote health and reduce risk of chronic diseases through nutrition and physical activity...by promoting good dietary habits which is the key to reducing the growing problems of obesity and physical inactivity, and to gaining the health

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25 Ibid.
benefits that come from a nutritionally balanced diet (U.S. Department of Health and Human Services, 2005).  

The guidelines are based on the premise that ensuring a balance of nutrients is ingested does not adequately address the health needs of Americans. Because “...almost two-thirds of Americans are overweight or obese, and more than half get too little physical activity, the 2005 Dietary Guidelines place a stronger emphasis on calorie control and physical activity” (U.S. Department of Health and Human Services, 2005).

The guidelines recognize the important role of health education experts, such as doctors and nutritionists in helping Americans achieve the goals of less calorie intake and increased physical activity.

The Guidelines contain nine general topics as key recommendations for the general population:

1. Adequate Nutrients Within Calorie Needs
2. Weight Management
3. Physical Activity
4. Food Groups to Encourage
5. Fats
6. Carbohydrates
7. Sodium and Potassium
8. Alcoholic Beverages

In addition, The Dietary Guidelines for Americans 2005 contains additional recommendations for specific populations. The full document is available at www.healthierus.gov/dietaryguidelines.

USDA’s Dietary Guidelines for Americans 2010


26 Ibid.
29 Ibid.