Unit 1 Dietary Trends and Nutrition
Lesson 3: Why Should We Care What Anyone Eats?

"Consumers should be aware that consumption of high-fat fast-food may contribute to higher energy and fat intake and lower intake of healthful nutrients..." (Paeratakul & Ferdinand et al, 2003). Therefore, it is up to nutrition health professionals such as health educators, community nutrition specialists, public health nutritionists, registered dietitians, nutritional counselors, nutrition educators, nutrition epidemiologists to care about what others eat in order to help consumers make food choices that will improve their nutritional health status.

Role of Nutrition Health Professionals

Lisa Nicholson, PhD, RD in Frank’s Community Nutrition: Applying Epidemiology to Contemporary Practice points out that “The goal of education is to prepare students for the future. But today that goal is more challenging than ever because of how rapidly the factors that influence...nutrition are changing” (2008, page xv). “The future of the 21st-century nutrition professional” (2008, page xv) includes knowledge and skill working with nutritional issues using a person-centered or individualized approach to nutrition and human health.

Work-related Activities of Nutrition Health Professionals

Gail C. Frank discusses the types of opportunities and activities open to nutritional health professionals in government, university, private sector and industry settings. She states,

“...knowledge is essential and must include only a general base, but a level of expertise in a chosen area (e.g. the needs of pregnant women, older individuals, or migrant individuals). Community nutrition professionals (CNPs) are challenged to use scientific methods to study, interpret, promote and apply findings to remediate public health problems. Nutrition health professionals must understand nutritional needs across the life cycle by planning, implementing, evaluating and reporting programs and research efforts. (2008, pp. 131-132).

Therefore, as nutrition professionals, we do need to be concerned about what anyone eats (including ourselves) because one’s current health status is a result of past and current dietary habits including food choices and meal planning (as well as physical activity). Nutrition and human health are therefore co-joined aspects. In order to address deficiencies in one we must examine the other.

Relationship between Nutrition and Human Health

4 Ibid.
Schlenker & Long point out how the study of nutrition and human health rests on “...sound nutrition principles along with skills in food selection as the cornerstone for personal health and teaching others.” Current scientific knowledge about nutrition demonstrates the relationship between food and health and the focus on nutrition as a mechanism to lower chronic disease rates and contain health care costs (2007, Chapter 1, page 3, ¶1).

The National Nutrition summit and the White House Conference on Food, Nutrition and Health—An Historic Perspective, presented by Ann Gallagher and Jane White in December, 2000 (excerpt) stated:

While Americans can celebrate nutrition advances over the last 31 years, there is widespread evidence of new and more complex issues related to nutrition and health. Walk through any airport or shopping mall in the country and the problem of obesity surrounds you. Today, over half of Americans are considered overweight or obese.

There has never been a greater demand for information to assist consumers with maintaining or improving their health, or managing disease.

At the same time, there is continued evidence of hunger in the United States. Despite our strong economy, approximately 1 in 10-households, or 30 million people, report food insecurity. There are also rising concerns that advances in food science and technology that have transformed food production and processing may have unrecognized nutritional and health risks (Frank, 2008, page 41 ¶4, 5).

Sara C. Frank points out “While studies indicate that Americans are eating better now than they were in the late 1980s, tens of millions of Americans have poor diets and are overweight. Specific concerns are”

1. One in 3 nonelderly adults are now overweight.
2. One in 5 children are at risk of being overweight.
3. Obesity if linked to an increased incidence of chronic disease.
4. Almost 90% of Americans have diets that need improvement.
5. Many illnesses can be prevented or mediated through regular physical activity. (2008, page 35-36)

### Nutritional Status: Just Right, Too Little or Too Much

Schlenker & Long point out how nutritional status is referred to as the nutritional health on an individual (2008, page 10, ¶12). Part of determining one’s nutritional status is “...not only knowing what an individual is eating but also whether the body is absorbing and using the nutrients in the food ingested” (2008, page 10, ¶12). Four nutritional status conditions are identified as having a direct impact on an individual’s health

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Optimal Nutrition: individuals with an optimal nutritional health status are in balance, having neither a deficiency nor an excess of nutrients.

Undernutrition: individuals with an undernutrition health status are meeting their minimum day-to-day nutritional needs but lack the nutrient reserves to cope with additional physiologic or metabolic demands.

Overt Malnutrition: individuals with a malnutrition health status exhibit signs of depleted nutrient reserves because their nutrient intake is not sufficient to meet day-to-day needs.

Overnutrition: individuals with excessive energy intake and low physical activity, will, over time, exhibit unwanted weight gain (Schlenker & Long, 2008, pp. 11-12).

It is the condition of imbalance, a loss of homeostasis, the erosion of optimal nutrition that concerns health professionals because compromised health status increases the risk of chronic disease among Americans. "The link between eating behavior and chronic disease is well supported by “the growing body of epidemiologic, clinical, and laboratory data” (Frank, 2008, page 25, ¶1). This data “…demonstrates that what a population or sample of people eats is one of the many important factors involved in the etiology of chronic diseases” (Frank, 2008, page 25, ¶1).

Frank's information on Epidemiology—The Foundation of Community Nutrition states

The evidence relating nutrients to specific chronic diseases and diet-related conditions clearly defines the role of dietary patterns in the etiology of the diseases…and people must change from only considering individual nutrients to considering in a stepwise manner, foods, then good groups, and then dietary patterns as they relate to the spectrum of chronic diseases.

Pathway linking food and health:

Dietary component → Food → Food Group → Pattern → Decrease
(Frank, 2008, page 26, ¶3)

Emerging Health Issues

According to Schlenker & Long “The most alarming health problem worldwide is the growing obesity. Changes in food and lifestyle patterns over the past 25 years have result in tremendous changes in body weights across the United States” (page 4, ¶1). Schlenker & Long further states, “This rise in obesity is directly linked to environmental factors and not biologic factors” (page 4, ¶2). Therefore, the relationship between nutrition and human health is well-established and the connection between rising obesity rates and chronic physical and emotional illness. According to the Chronic Illness Coalition: Health Consequences (2007) “People who are overweight or obese are at an increased risk for ailments such as”

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8 Ibid.
9 Ibid.
10 Ibid.
11 Ibid.
13 Ibid.
• High blood pressure, hypertension
• High blood cholesterol, dyslipidemia
• Type 2 (non-insulin dependent) diabetes
• Insulin resistance, glucose intolerance
• Hyperinsulinemia
• Coronary heart disease
• Angina pectoris
• Congestive heart failure
• Stroke
• Gallstones
• Cholecystitis and cholelithiasis
• Gout
• Osteoarthritis
• Obstructive sleep apnea and respiratory problems
• Some types of cancer (such as endometrial, breast, prostate, and colon)
• Complications of pregnancy such as; gestational diabetes, gestational hypertension and preeclampsia as well as complications in operative delivery (i.e., c-sections)
• Poor female reproductive health (such as menstrual irregularities, infertility, irregular ovulation)
• Bladder control problems (such as stress incontinence)
• Uric acid nephrolithiasis
• Psychological disorders (such as depression, eating disorders, distorted body image, and low self-esteem).\(^1\)\(^5\)

Summary

According to Whitney & Rolfes (2002) “Within the range set by genetics, a person’s choice of diet influences long-term health. Diet has no influence on some diseases but is linked closely to others” (2002, page 20, ¶6).\(^1\)\(^6\)

\(^1\) Ibid.