Essential questions

- Why do we eat what we eat?
- Why does it matter?
- What has led to the rise in diet-related disease in the United States?
- How can American diets be improved?

Introduction

Cases of obesity\(^1\) and diabetes\(^2\) have risen to epidemic proportions in the United States. Heart disease, obesity, type 2 diabetes and other preventable, diet-related conditions are among the leading causes of death.\(^3\)-\(^5\) The typical American diet, along with sedentary lifestyles, genetics and other factors, is largely to blame for these health harms.\(^6\) In general, Americans are eating too many refined grains, added fats and added sugars, and too few nutrient-dense foods like fruits and vegetables.\(^7\),\(^8\) They’re paying the price in higher disease rates and the associated health care costs.\(^9\),\(^10\) These burdens do not weigh evenly on all Americans; in many cases, low-income and minority populations have less access to healthy food,\(^11\)-\(^14\) and suffer from higher rates of certain diet-related diseases.\(^1\),\(^12\),\(^15\) Some groups refer to this phenomenon as “food injustice.”\(^16\)

The risks of diet-related diseases can be greatly reduced by making healthier food choices. Changing people’s behavior, however, is easier said than done. Although the American public has become more aware of the links between diet and health, knowledge alone hasn’t been enough to remedy poor diets or curb obesity rates.\(^17\) This is because food choices are based on more than just knowledge and willpower—they are influenced by factors such as taste, cost, convenience, advertising and the eating habits of friends and family. Programs designed to promote healthier diets must take these and other factors into account.

Trends in American diets

How have U.S. diets changed over recent decades? Between 1970 and 2000, the average amount of calories available in the U.S. food supply to each citizen, each day, increased by almost 550 calories (accounting for food waste and other losses).\(^18\) That’s about as many calories as are in a McDonald’s Big Mac.\(^19\) Dietary surveys of U.S. adults over the same time period suggest the increase in what Americans ate was closer to 250 calories.\(^20\) Regardless of how energy intake is estimated, the fact that the prevalence of obesity doubled between 1970 and 2000 indicates that Americans are eating far more calories than they expend.\(^6\),\(^20\),\(^21\)
Since 1950, the greatest contributors to increased caloric intake have been refined grains, added fats and added sugars. USDA data suggest that these foods and ingredients are eaten in quantities that exceed recommended limits. Americans also consume more sodium than is recommended, and not enough fiber. Refined grains, commonly found in breads, pastries, cookies and pasta, lack much of the fiber and nutrients present in whole grains, which are less processed (refer to Food Processing). Refined grains, added fats and added sugars are often found in nutrient-poor foods—products like sweetened beverages, cookies, candy and chips that are high in calories but provide few of the vitamins and minerals necessary for optimal health. This is in contrast to nutrient-dense foods, like fruits and vegetables, of which Americans are advised to eat considerably more.

Sweetened foods and beverages have become a prominent part of what has been called the standard American diet, or SAD. From 1999-2004, the average American consumed over 22 teaspoons of added sugars per day, an amount that meets the recommended limit on calories from alcohol, added fats and added sugars combined. Nearly half of this amount was from drinking soda and fruit juice. Between 1947 and 2001, while per capita consumption of carbonated soft drinks more than quadrupled, milk consumption declined by nearly 50 percent. In 2005-2006, the main sources of energy for children were grain desserts, pizza and soda.

Recent changes to the SAD may be explained by two trends: snacking more, and eating more meals away from home. In 1977, children consumed 418 calories daily from snacks, by 2006 they were consuming 586. Americans are eating more food away from home, at places like restaurants and cafeterias. In 1965, U.S. households spent about 30 percent of their food budgets on food prepared and eaten away from home; in 2006, they spent 49 percent. Approximately 30 percent of U.S. children now eat at a fast food restaurant daily.

Effects of diet on health

The food we put into our bodies has a powerful effect on our health and well-being. Diets higher in fruits, vegetables and whole grains have been associated with reduced risks of stroke, type 2 diabetes, heart disease, certain cancers, obesity and mortality. Conversely, consuming an excess of calories has been associated with higher risks of these and other health outcomes. Excess sodium intake has been associated with hypertension, stroke, kidney disease and coronary heart disease, while diets high in certain processed meats may increase the risk of various cancers.

Some of these conditions are becoming increasingly common. In 2003-04, two-thirds of American adults were either overweight or obese, compared to 47 percent in 1976-80. Obesity has become the second leading preventable cause of death in the United States, second only to tobacco use. Among children and adolescents, obesity rates have more than tripled over the past twenty years. One in every three American children is now overweight or obese, and is predicted to develop type
2 diabetes in their lifetime.\textsuperscript{10} Partially due to this, the current generation of American children is predicted to have a shorter lifespan than their parents.\textsuperscript{10}

**Influences on food choice**

Addressing the epidemic of diet-related disease in the United States will require a change in what people eat. Efforts to achieve this can greatly benefit from understanding why people eat what they eat. For example, surveys suggest that American consumers prioritize taste, cost, nutrition and convenience (in that order) when making food choices.\textsuperscript{35} Some of these influences, such as taste preferences, are very personal. Other influences stem from our surroundings, such as food advertisements, the cost and availability of food in a community, and the eating habits of friends and family.\textsuperscript{36}

**Individual influences**

Individual influences have to do with the personal reasons why people eat what they eat. On surveys, people generally claim taste as the most important factor in choosing what to eat.\textsuperscript{35} What people typically think of as “taste” is actually a combination of taste, smell and texture.\textsuperscript{37} Laboratory studies have found that combinations of sugar and fat are generally the most appealing to taste preferences\textsuperscript{37}—something to consider when attempting to promote healthy eating behaviors.

Other important individual influences on food choice include income level, gender, age, genetics and the presence of eating disorders.\textsuperscript{37} Emotional and physiological states, such as stress and hunger, can prompt people to eat more calories and make less healthy choices.\textsuperscript{17} Health conditions, such as allergies\textsuperscript{38} and diabetes,\textsuperscript{39} may restrict food choices.

Food choices are also influenced by personal attitudes and values. Consumers who prioritize nutrition, family or culture, for example, might choose different foods than consumers who prioritize convenience. Consumers concerned about public health, environmental, social justice, economic or animal welfare issues in the food system may choose to “vote with their forks” by making food choices that align with their values. Greater knowledge of these issues (perhaps gained by taking a course about food systems) can further empower consumers to make more informed choices.

**Social influences**

The people we associate with can have a powerful effect on what we eat. Studies have found that people tend to mimic the eating behaviors of their friends, families and coworkers.\textsuperscript{40} In households where parents regularly ate fruits and vegetables, for example, children were more likely to do the same.\textsuperscript{41–43} Similarly, in homes where parents frequently drank soft drinks, soft drink consumption among children was higher.\textsuperscript{44} These associations demonstrate the value of leading by example, in contrast to telling others what to eat. While positive encouragement has been shown to foster
healthy eating behaviors among friends and family, attempts to control what children eat generally result in unhealthy eating behaviors.\textsuperscript{40}

**Food environments**

In this curriculum, we use the term *food environments* to refer to homes, schools, stores, restaurants, community gardens, soup kitchens, food banks and other physical settings where the cost and availability of food influence what people eat. At the neighborhood level, food environments can also refer to the availability of food within a community and how easily residents can access those foods.\textsuperscript{36,40} The cost and availability of different foods in a community, for example, are often associated with what its residents eat, and their health.\textsuperscript{13} These and other physical influences are discussed in the *Food Environments* module.

**Cost**

Cost can be a particularly important factor in what people choose to eat. In some cases, the least healthy choices are also the most affordable—high-fat and high-sugar foods, for example, tend to cost less per calorie than healthier alternatives like fruits and vegetables.\textsuperscript{36,45} This could make it difficult for some lower-income consumers to afford healthier options (though it is worth noting that nearly all Americans—not just those of low-income—fail to meet USDA dietary recommendations).\textsuperscript{47} The USDA argues that a healthy diet is affordable for most U.S. families, acknowledging that such claims are complicated by the fact that there is enormous variation in the foods—and the prices of those foods—that make up a healthy diet.\textsuperscript{46} Issues of income, cost and access to food are further discussed in *Hunger and Food Security*.

**Food marketing and labeling**

Our surroundings also include the messages we are exposed to through advertisements on billboards, television, product packaging and other media. Food marketing can have a powerful effect on food choices by planting conscious and subconscious cues to purchase certain products. Food marketing in the United States is primarily geared toward promoting sales of *convenience foods*, snack foods and foods that are high in sugar, fat, and salt.\textsuperscript{48} Food labels, such as those that convey information about nutritional content and production practices, can help consumers make more informed food choices; however, labels can also be used as a marketing tool.\textsuperscript{49} These topics are further discussed in the *Food Marketing and Labeling* module.

**Food and agricultural policy**

Policies made by state and federal government can have a powerful influence on what people eat, sometimes through indirect means. One of the most influential U.S. food and agricultural policies is a complex piece of legislation called the *Farm Bill*.

The vast majority of federal funding allocated by the Farm Bill is for the *Supplemental Nutrition Assistance Program* (SNAP, formerly known as the Food Stamp Program), a program that supports millions of low-income Americans (refer to *Hunger and Food Security*).\textsuperscript{50}
The Farm Bill also affects what foods are produced in the United States, how they are produced, and in what quantities. Farm subsidies, for example, are payments allocated by the Farm Bill made to farmers and agricultural industries. Most farm subsidies are for crops such as corn, wheat, cotton and soy. Subsidies also support meat, dairy and egg producers, who save billions of dollars annually due to the lower cost of corn and soybeans purchased for animal feed.

Contrary to common criticisms of the Farm Bill, evidence does not support the idea that farm subsidies contribute to the obesity epidemic. It has been suggested that farm subsidies lower the price of “junk foods” by supporting the production of corn and soybeans, which are commonly manufactured into sweeteners, oils and other additives. But when consumers buy soft drinks, corn chips and other highly processed foods, most of their money covers the cost of processing, packaging, shipping, marketing and selling the final product (refer to Food Marketing and Labeling). Because corn and soy generally represent only a small fraction of the cost of these foods, subsidies have little or no effect on making them cheaper to consumers.

Other parts of the Farm Bill include funding for environmental conservation, agricultural research, and assistance to farmers transitioning to organic agriculture.

Efforts to improve American diets

As a general rule, most nutritionists recommend limiting intake of added fats and added sugars, balancing calorie intake with physical activity levels, eating more fruits and vegetables and choosing whole grains over refined grains. Author Michael Pollan sums this up in his book Food Rules, where he writes “Eat food. Not too much. Mostly plants.”

This advice seems simple enough, but changing American diets is no simple undertaking. Because there are so many influences on food choice, educating consumers about healthy choices may not be enough. Research suggests that in order to successfully change eating behaviors, peoples’ surroundings must support making those choices. For this reason, a combined approach is needed: Some initiatives target individual influences on food choices, while others target a combination of social, environmental, marketing or policy influences.

Efforts to tackle childhood obesity are an example of this approach. Some of the solutions proposed by public health advocates include offering discounts on nutrient-rich foods, changing social norms around healthy eating habits, reducing marketing of food to children and making nutrition advice simpler for parents and caregivers to understand and follow. They also recommend changing the food environment, including by opening grocery stores closer to children’s homes. Many schools are also helping to foster healthy eating habits among youth (refer to the Food Environments module).

The Meatless Monday movement, to give another example, is a dietary intervention that encourages people to replace animal products with healthy vegan or vegetarian alternatives at least one day
per week. In addition to the health benefits of eating more plant-based foods (see Effects of diet on health, above), moderating meat consumption could also reduce the demand for animal products in the United States, most of which are produced under a system that contributes to numerous public health, environmental, social and animal welfare harms (refer to Food Animal Production). The Meatless Monday movement targets individual behavior through print, television and internet media; it also works to change the food environment by partnering with schools, hospitals and other institutions to offer more vegan and vegetarian options on Mondays.57

These interventions, along with others discussed throughout Unit III: Eating and Nutrition, share the enormous challenge of influencing food choices. Generating awareness and motivation may not be enough; influences such as peers, food environments, marketing, cost and government policies are among the many factors that must be considered in the process of promoting healthier diets.

References


