# Food&Culture

SEVENTH EDITION

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# Food and Culture


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# Contents

# Preface

The population of the United States is increasingly heterogeneous, moving toward a plurality of ethnic, religious, and regional groups. Each of these groups has traditional food habits that differ—slightly or significantly—from the so-called typical American majority diet. Effective nutrition counseling, education, and food service require that these variations be acknowledged and understood within the context of culture. It is our goal to provide dietitians, nutritionists, and food service professionals with the broad overview needed to avoid ethnocentric assumptions and the nutrition specifics helpful in working with each group discussed. We have attempted to combine the conceptual with the technical in a way that is useful to other health professionals as well.

We would like to draw attention specifically to the area of nutrition counseling: "In nutrition counseling, where many therapeutic interventions are on a personal level, sensitivity to the strong influence of culture on an individual's food intake, attitudes, and behaviors is especially imperative. . . . Multicultural competence is not a luxury or a specialty but a requirement for every registered dietitian" (Curry, 2000, pp. 1, 142). A model (Harris-Davis & Haughton, 2000) recommended for multicultural nutrition competencies specifically lists the following:

1. Understand food selection, preparation, and storage with a cultural context.
2. Have knowledge of cultural eating patterns and family traditions such as core foods, traditional celebrations, and fasting.
3. Familiarize self with relevant research and latest findings regarding food practices and nutrition-related health problems of various ethnic and racial groups.
4. Possess specific knowledge of cultural values, health beliefs, and nutrition practices of particular groups served, including culturally different clients.

This book offers information fundamental to these competencies.

## How the Book Is Organized

The first four chapters form an introduction to the study of food and culture. Chapter 1 discusses methods for understanding food habits within the context of culture, changing demographics, and the ways in which ethnicity may affect nutrition and health status. Chapter 2 focuses on the role of diet in traditional health beliefs. Some intercultural communication strategies are suggested in Chapter 3, and Chapter 4 outlines the major Eastern and Western religions and reviews their dietary practices in detail.

Chapters 5 through 14 profile North American ethnic groups and their cuisines. We have chosen breadth over depth, discussing groups with significant populations in the United States, as well as smaller, more recent immigrant groups who have had an impact on the health care system. Other groups with low numbers of immigrants but notable influences on American cooking are briefly mentioned.

Groups are considered in the approximate order of their arrival in North America. Each chapter begins with a history of the group in the United States and current demographics. Worldview (outlook on life) is then examined, including religion, family structure, and traditional health practices. This background information illuminates the cultural context

from which ethnic foods and food habits emerge and evolve. The next section of each chapter outlines the traditional diet, including ingredients, some common dishes, meal patterns, special occasions, the role of food in the society, and therapeutic uses of food. The final section explains the contemporary diet of the group, such as adaptations made by the group after arrival in the United States and influences of the group on the American diet. Reported nutritional status is reviewed, and general counseling guidelines are provided.

One or more cultural food group tables are found in each of the ethnic group chapters. The emphasis is on ingredients common to the populations of the region. Important variations within regions and unique food habits are listed in the "Comments" column of the table. Known adaptations in the United States are also noted. The tables are intended as references for the reader; they do not replace either the chapter content or an in-depth interview with a client.

Chapter 15 considers the regional American fare of the Northeast, the Midwest, the South, and the West. Each section includes an examination of the foods common in the region and general nutritional status. Canadian regional fare is also briefly considered. This chapter brings the study of cultural nutrition full circle, discussing the significant influences of different ethnic and religious groups on North American fare.

## Chapter-Specific Changes

- Chapter 1. Food and Culture—Updated population data.
- Chapter 2. Traditional Health Beliefs and Practices—Updated data on the use of complementary and alternative medicine (CAM).
- Chapter 3. Intercultural Communications—No changes.
- Chapter 4. Food and Religion—Updated demographics data on religious affiliation in the United States.
- Chapter 5. Native Americans—Updated U.S. Census data on Native American population and other demographics. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 6. Northern and Southern Europeans—Updated U.S. Census population and other demographics on European groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 7. Central Europeans, People of the Former Soviet Union, and Scandinavians—Updated U.S. Census population and other demographics on central and eastern European groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 8. Africans—Updated U.S. Census population and other demographics on African Americans and more recent immigrant groups from Africa. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 9. Mexicans and Central Americans—Updated U.S. Census population and other demographics on Mexicans and Central American groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 10. Caribbean Islanders and South Americans—Updated U.S. Census population and other demographics on Caribbean and South American groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 11. East Asians—Updated U.S. Census population and other demographics on East Asian groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 12. Southeast Asians and Pacific Islanders—Updated U.S. Census population and other demographics on East Asian groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.

- Chapter 13. People of the Balkans and the Middle East—Updated U.S. Census population and other demographics on Balkan and Middle Eastern groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 14. South Asians—Updated U.S. Census population and other demographics on South Asian groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.
- Chapter 15. Regional Americans—Updated U.S. Census regional population and other demographics. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.

## Before You Begin

Food is so essential to ethnic, religious, and regional identity that dietary descriptions must be as objective as possible to prevent inadvertent criticism of the underlying culture. Yet as members of two Western ethnic and religious groups, we recognize that our own cultural assumptions are unavoidable and, in fact, serve as a starting point for our work. One would be lost without such a cultural footing. Any instances of bias are unintentional.

Any definition of a group's food habits implies homogeneity in the described group. In daily life, however, each member of a group has a distinctive diet, combining traditional practices with new influences. We do not want to stereotype the fare of any cultural group. Rather, we strive to generalize common U.S. food and culture trends as a basis for understanding the personal preferences of individual clients.

We have tried to be sensitive to the designations used by each cultural group, though sometimes there is no consensus among members regarding the preferred name for the group. Also, there may be some confusion about dates in the book. Nearly all religious traditions adhere to their own calendar of events based on solar or lunar months. These calendars frequently differ from the Gregorian calendar used throughout most of the world in business and government. Religious ceremonies often move around according to Gregorian dates, yet usually they are calculated to occur in the correct season each year. Historical events in the text are listed according to the Gregorian calendar, using the abbreviations for before common era (BCE) and common era (CE).

We believe this book will do more than introduce the concepts of food and culture. It should also encourage self-examination and individual cultural identification by the reader. We hope that it will help dietitians, nutritionists, other health care providers, and food service professionals work effectively with members of different ethnic, religious, and regional groups. If it sparks a gustatory interest in the foods of the world, we will be personally pleased. *De gustibus non est disputatum!*

## Acknowledgments

We are forever indebted to the many researchers, especially from the fields of anthropology and sociology, who did the seminal work on food habits that provided the groundwork for this book, and to the many nutrition professionals who have shared their expertise with us over the years. We especially want to thank the many colleagues who have graciously given support and advice in the development of the numerous editions: Carmen Boyd, MS, LPC, RD, Missouri State University; Bonny Burns-Whitmore, DrPH, RD, California State Polytechnic University, Pomona; Arlene Grant-Holcomb, RD, MAE, California State Polytechnic University, San Luis Obispo; Carolyn Hollingshead, PhD, RD, University of Utah; Tawni Holmes, PhD, RD, University of Central Oklahoma; Claire G. Kratz, MS, RD, LDN, Montgomery County Community College; Yvonne Moody, EdD, Chadron State College; Sudha Raj, PhD, Syracuse University; Stacey A. Roush, MS, Montgomery County Community College; Dana Wassmer, MS, RD, Cosumnes River College; and Donna M. Winham, DrPH, Arizona State University. We are grateful for the expertise of Gerald Nelms, PhD, as his development of the discussion starters during the 6th edition revision was an important contribution to the pedagogy for this text.

CHAPTER 1

# Food and Culture

What do Americans eat? Meat and potatoes, according to popular myth. There's no denying that per person in the United States, an average of over half a pound of beef, pork, lamb, or veal is eaten daily, and more than one hundred pounds of potatoes (mostly as chips and fries) are consumed annually. Yet the American diet is as diverse as its population, and we should no longer describe the U.S. population as white, Anglo-Saxon, and Protestant, or the diet as consisting of mostly meat and potatoes.

U.S. Census and other demographic data show that close to 40 percent of Americans are not white, 13 percent are foreign born, 11 percent have one parent who was foreign born, and one in five people in the United States are first or second generation. More than seventy-five different ancestry groups were reported in 2007.[1,2] In that year the fastest and largest growing ethnic groups in America were from Latin America, but more recently Asians became the fastest growing race or ethnic group.[3]

Each American ethnic, religious, or regional group has its own culturally based food habits. Many of these customs have been modified through contact with American culture and, in turn, they have changed and shaped American food habits. Today, a fast-food restaurant or street stand is as likely to offer pizza, tacos, egg rolls, or falafel as it is hamburgers. It is the intricate interplay between food habits of the past and the present, the old and the new, and the traditional and the innovative that is the hallmark of the American diet.

## What Is Food?

Food, as defined in the dictionary, is any substance that provides the nutrients necessary to maintain life and growth when ingested. When most animals feed, they repeatedly consume those foods necessary for their well-being, and they do so in a similar manner at each feeding. Humans, however, do not feed. They eat.

Eating is distinguished from feeding by the ways humans use food. Humans not only gather or hunt food, but they also cultivate plants and raise livestock. Agriculture means that some foods are regularly available, alleviating hand-to-mouth sustenance. This permits the development of specific customs associated with foods that are the foundation of the diet, such as wheat or rice. Humans also cook, softening tough foods, including raw grains and meats, and combine foods to create new textures and taste sensations. This greatly expands the number and variety of edible substances available. What follows are rules regarding what can be eaten with what and creates the meal. Humans use utensils to eat meals and institute complex rules, commonly called manners, about how meals are consumed. And, significantly, humans share food. Standards for who may dine with whom in each eating situation are well defined.

The term *food habits* (also called food culture or foodways) refers to the ways in which humans use food, including everything from how it is selected, obtained, and distributed to who prepares it, serves it, and eats it. The significance of this process is unique to

As suggested by their names, not even hamburgers and French fries are American in origin. Chopped beef steaks were introduced to the United States from the German city of Hamburg in the late nineteenth century. The American term *French-fried potatoes* first appeared in the 1860s and was probably coined to describe the method used in France for deep-frying potato pieces until crisp. Other foods considered typically American also have foreign origins, for example, hot dogs, apple pie, and ice cream.

Data from the 2006 Canadian census indicate more than 200 different ethnic origins were documented. The most common ethnic groups noted included English, French, Scottish, Irish, German, Italian, Chinese, North American Indian, Ukrainian, and Dutch. Newer groups include individuals from Montserrat in the Carribean and African countries such as Chad, Gabon, Gambia, and Zambia.[90]

Tom McCarthy/PhotoEdit

▲ *Humans create complex rules, commonly called manners, about how food is to be eaten.*

It is thought that children are less likely than adults to try new foods, in part because they have not yet learned cultural rules regarding what is safe and edible. A child who is exposed repeatedly to new items loses the fear of new foods faster than one who experiences a limited diet.[11]

humankind. Why don't people simply feed on the diet of our primitive ancestors, surviving on foraged fruits, vegetables, grains, and the occasional insect or small mammal thrown in for protein? Why do people choose to spend their time, energy, money, and creativity on eating? The answers to these questions, according to some researchers, can be found in the basic biological and psychological constitution of humans.

## The Omnivore's Paradox

Humans are omnivorous, meaning that they can consume and digest a wide selection of plants and animals found in their surroundings. The primary advantage to this is that they can live in various climates and terrains. Because no single food provides the nutrition necessary for survival, humans must be able to eat enough of a variety of items, yet cautious enough not to ingest foods that are harmful and, possibly, fatal. This dilemma, the need to experiment combined with the need for caution, is known as the omnivore's paradox.[4,5] It results in two contradictory psychological impulses regarding eating—an attraction to new foods, but a preference for familiar foods. The food habits developed by a community provide the framework that reduces the anxiety produced by these opposing desires. Rules about which foods are edible, how they are procured and cooked, how they should taste, and when they should be consumed provide guidelines for both testing new foods (based on previous experience with similar plants and animals or flavors and textures) and maintaining food traditions through ritual and repetition.

## Self-Identity

The choice of which foods to ingest is further complicated by another psychological concept regarding eating—the incorporation of food. This means that consumption is not just the conversion of food into nutrients in the human body, but also includes gaining the food's physical properties as well—hence the phrase "You are what you eat." In most cases this refers to the physical properties of a food expressed through incorporation. For example, some Asian Indians eat walnuts, which look like miniature brains, to make them smarter, and weight lifters may dine on rare meat to build muscle. In other cases, the character of the food is incorporated. Some Native Americans believe that because milk is a food for infants, it will weaken adults. The French say a person who eats too many turnips becomes gutless, and some Vietnamese consume gelatinized tiger bones to improve their strength.

It is a small step from incorporating the traits associated with a specific food to making assumptions about a total diet. The correlation between what people eat, how others perceive them, and how they characterize themselves is striking. In one study researchers listed five typical diets: vegetarian (kale quiche, brown rice, avocado, and bean sprout sandwich), gourmet (oysters, caviar, French roast coffee), health food (protein shake, wheat germ, yogurt), and fast food (hamburger, fried chicken, pizza). It was found that each category was associated with a certain personality type. Vegetarians were considered to be pacifists and likely to drive foreign cars. Gourmets were believed to be liberal and sophisticated. Health food fans were described as antinuclear activists and were also liberal. Fast-food eaters were believed to be religious, conservative, and fond of polyester clothing. These stereotypes were confirmed by

self-description and personality tests completed by people whose diets fell into the five categories.[6]

Another study asked college students to rate profiles of people based on their diets. Those who ate "good" foods were judged to be thinner, more fit, and more active than people with the identical physical characteristics and exercise habits who ate "bad" foods. Furthermore, the people who ate "good" foods were perceived by some students as being more attractive, likable, practical, methodical, quiet, and analytical than people who ate "bad" foods. The researchers attribute the strong morality-food effect to several factors, including the concept of incorporation and a prevailing Puritan ethic that espouses self-discipline.[7]

Food choice is, in fact, influenced by self-identity, a process whereby the food likes or dislikes of someone else are accepted and internalized as personal preferences. Research suggests that children choose foods eaten by admired adults (e.g., teachers), fictional characters, peers, and especially older siblings. Parents have little long-lasting influence. Group approval or disapproval of a food can also condition a person's acceptance or rejection. This may explain why certain relatively unpalatable items, such as chili peppers or unsweetened coffee, are enjoyed if introduced through socially mediated events, such as family meals or workplace snack breaks. Although the mechanism for the internalization of food preference and self-identity is not well understood, it is considered a significant factor in the development of food habits.[8,9]

A study on the consumption of organic vegetables, for example, found that those who identified themselves as green (people who are concerned with ecology and make consumer decisions based on this concern) predicted an intention to eat organic items independent of other attitudes, such as perceived flavor and health benefits.[9]

Food as self-identity is especially evident in the experience of dining out. Researchers suggest that restaurants often serve more than food, satisfying both emotional and physical needs. A diner may consider the menu, atmosphere, service, and cost or value when selecting a restaurant; and most establishments cater to a specific clientele. Some offer quick, inexpensive meals and play equipment to attract families. Business clubs feature a conservative setting suitable for financial transactions, and the candlelit ambiance of a bistro is conducive to romance. The same diner may choose the first in her role as a mother, the second while at work, and the last when meeting a date. In Japan, restaurants serve as surrogate homes where company is entertained, preserving the privacy of family life. The host chooses and pays for the meal ahead of time, all guests are provided the same dishes, and the servers are expected to partake in the conversation. Ethnic restaurants appeal to those individuals seeking familiarity and authenticity in the foods of their homeland or those interested in novelty and culinary adventure. Conversely, exposure to different foods in restaurants is sometimes the first step in adopting new food items at home.[10]

## Symbolic Use of Food

The development of food habits clearly indicates that for humans, food is more than just nutrients. Humans use foods symbolically, due to relationship, association, or convention. Bread is an excellent example—it is called the staff of life; one breaks bread with friends, and bread represents the body of Christ in the Christian sacrament of communion. White bread was traditionally eaten by the upper classes, dark bread by the poor, but whole wheat bread is consumed today by people concerned more with health than status. A person with money has "a lot of bread." In many cultures, bread is shared by couples as part of the wedding ceremony or left for the soul of the dead. Superstitions about bread also demonstrate its importance beyond sustenance. Greek soldiers took a piece from home to ensure their safe, victorious return; English midwives placed a loaf at the foot of the mother's bed to prevent the woman and her baby from being stolen by evil spirits; and sailors traditionally brought a bun to sea to prevent shipwreck. It is the symbolic use of a food that is valued most by people, not its nutritional composition.

The inability to express self-identity through food habits can be devastating. A study of persons with permanent feeding tubes living at home or in nursing facilities found they frequently avoided meals with families and friends. They missed their favorite foods, but more important, they mourned the loss of their self-identities reinforced by these daily social interactions.[106]

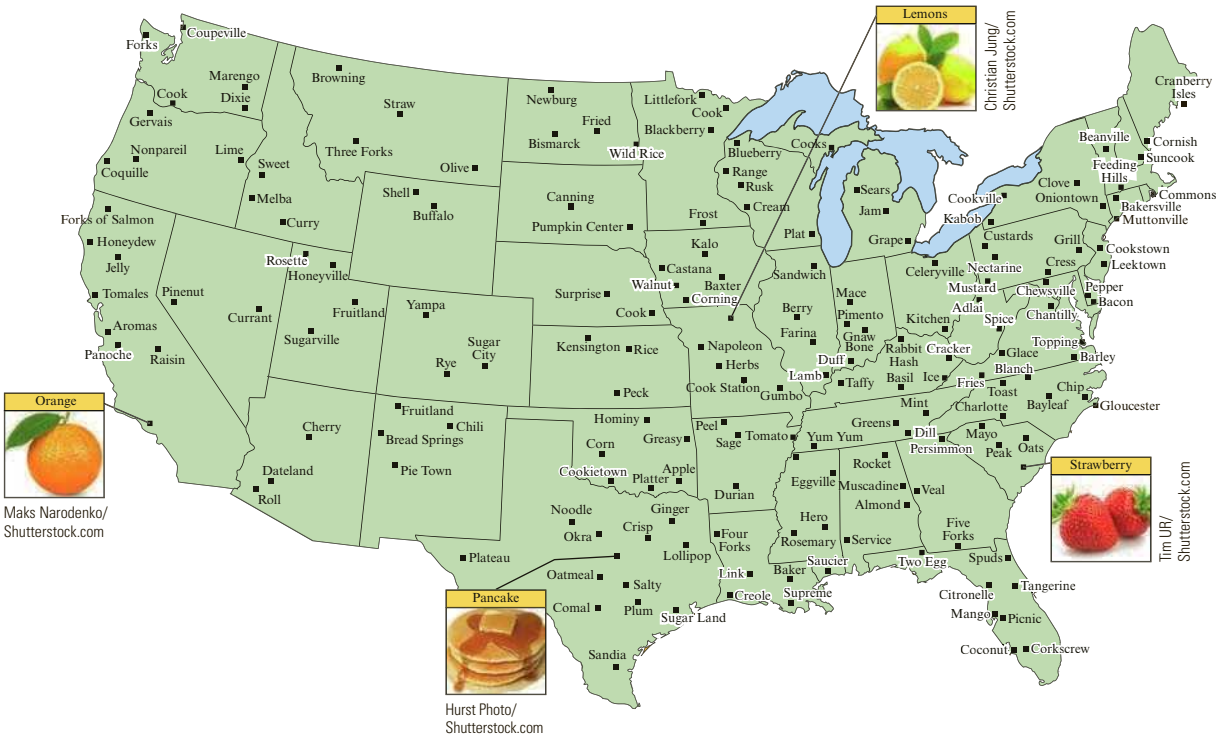



**Figure 1.1**

**An edible map—food-related names of cities and towns in the United States. Food often means more than simply nutrients.**

Source: From *All Over the Map: An Extraordinary Atlas of the United States: Featuring Towns That Actually Exist!* by David Jouris, copyright © 1994 by David Jouris. Used by permission of Ten Speed Press, an imprint of Crown Publishing Group, a division of Random House, Inc.

## Cultural Identity

An essential symbolic function of food is cultural identity. What one eats defines who one is, culturally speaking, and, conversely, who one is not. In the Middle East, for example, a person who eats pork is probably Roman Catholic or Orthodox Christian, not Jewish or Muslim (pork is prohibited in Judaism and Islam). Ravioli served with roast turkey suggest an Italian American family celebrating Thanksgiving, not a Mexican American family, who would be more likely to dine on tamales and turkey. The food habits of each cultural group are often linked to religious beliefs or ethnic behaviors. Eating is a daily reaffirmation of cultural identity (Figure 1.1).

Foods that demonstrate affiliation with a culture are usually introduced during childhood and are associated with security or good memories. Such foods hold special worth to a person, even if other diets have been adopted due to changes in residence, religious membership, health status, or daily personal preference. They may be eaten during ethnic holidays and for personal events, such as birthdays or weddings, or during times of stress. These items are sometimes called comfort foods because they satisfy the basic psychological need for food familiarity. For example, in the United States one study found comfort foods for women required little preparation and tended to be snacks, such as potato chips, ice cream, chocolate, and cookies; men preferred foods served by their mothers, such as soup, pizza or pasta, steak, and mashed potatoes.[11] Occasionally, a person embraces a certain diet as an adult to establish association with a group. A convert to Judaism, for instance, may adhere to the kosher dietary laws. African Americans who live outside the South may occasionally choose to eat soul food (typically southern black cuisine, such as pork ribs and greens) as an expression of ethnic solidarity.

The reverse is also true. One way to establish that a person is not a member of a certain cultural group is through diet. Researchers suggest that when one first eats the food of another cultural group, a chain of reasoning occurs, beginning with the recognition that one is experiencing a new flavor and ending with the assumption that this new flavor is an authentic marker of other group members.[12] Ethnic groups may be denigrated by using food stereotyping, and such slurs are found in nearly all cultures. In the United States, Germans are sometimes called "krauts," Chinese "cookies" or "dim sums," Italians "spaghetti benders," Mexicans "beaners," Irish "potatoheads," Koreans "kimchi," and poor white southerners "crackers" (possibly from "corncracker," someone who cracks corn to distill whiskey or from early immigrants to Georgia who survived on biscuits).

Foods that come from other cultures may also be distinguished as foreign to maintain group separation. *Kafir*, a derogatory Arabic term for "infidel," was used to label some items found in areas they colonized, including the knobby kaffir lime of Malaysia, and kaffir corn (millet) in Africa. Similarly, when some non-Asian foods were introduced to China, they were labeled barbarian or Wester and named after items already familiar in the diet. Thus, sweet potatoes were called barbarian yams, and tomatoes became barbarian eggplants.[13] Less provocative place names are used, too, though the origins of the food are often incorrect, such as *Turkey wheat* (the Dutch term for native American corn, which was thought to come from Turkey) and Irish potatoes (which are indigenous to Peru but were brought to the United States by immigrants from Ireland). The powerful symbolic significance of food terms leads occasionally to renaming foreign items in an attempt to assert a new cultural identity. Turkish coffee (it was the Ottomans of Turkey who popularized this thick, dark brew from Africa and spread it through their empire) became Greek coffee in Greece after tensions between the two nations escalated in the 1920s. Examples in the United States include renaming sauerkraut liberty cabbage during World War I, and more recently, calling French fries freedom fries when France opposed the United States in the invasion of Iraq.

The appropriate use of food and the behaviors associated with eating, also known as etiquette, are another expression of group membership. In the United States, entirely different manners are required during a business lunch at an expensive restaurant, when eating in the school cafeteria, when drinking with friends at a bar, or when dining with a date. Discomfort can occur if a person is unfamiliar with the rules, and if a person deliberately breaks the rules, he or she may be ostracized or shunned.

Another function of food symbolism is to define status—a person's position or ranking within a particular cultural group. Food can be used to signify economic social standing: champagne, Kobe beef, and truffles suggest wealth; trendy hip restaurants suggest upward mobility; and beans or potatoes are traditionally associated with the poor. Status foods are characteristically used for social interaction. In the United States, a wife may appreciate a box of chocolates from her husband—but not a bundle of broccoli. Wine is considered an appropriate gift to a hostess—a gallon of milk is not. In general, eating with someone connotes social equality with that person. Many societies regulate commensalism (who can dine together) as a means of establishing class relationships. Men may eat separately from women and children, or servants may eat in the kitchen, away from their employers. In India, the separate social castes did not traditionally dine together, nor were people of higher castes permitted to eat food prepared by someone of a lower caste. This class



Children younger than age two will eat anything and everything. Children between three and six years of age begin to reject culturally unacceptable food items. By age seven, children are completely repulsed by foods that their culture categorizes as repugnant.[107]

DIZ Muenchen GmbH, Sueddeutsche Zeitung Photo/Alamy

◀ ***Typically, first-generation immigrants remain emotionally connected to their ethnicity, surrounding themselves with a reference group of family and friends who share their cultural background.***

segregation was also seen in some U.S. restaurants that excluded blacks before civil rights legislation of the 1960s.

## What Is Culture?

Culture is broadly defined as the values, beliefs, attitudes, and practices accepted by members of a group or community. Culture is learned, not inherited; it is passed from generation to generation through language and socialization in a process called enculturation.[14] Yet culture is not rigid and does change over time in response to group dynamics.[15]

Cultural membership is defined by ethnicity. Unlike national origin (which may include numerous ethnic groups), ethnicity is a social identity associated with shared behavior patterns, including food habits, dress, language, family structure, and often religious affiliation.[15] Members of the same ethnic group usually have a common heritage through locality or history and participate together with other cultural groups in a larger social system. As part of this greater community, each ethnic group may have different status or positions of power. Diversity within each cultural group is also common due to racial, regional, or economic divisions as well as differing rates of acculturation to the majority culture.[16]

*Ethnocentric* is the term applied to a person who uses his or her own values to evaluate the behaviors of others. It may be done unconsciously or in the conscious belief that their own habits are superior to those of another culture. Ethnorelativism occurs when a person assumes that all cultural values have equal validity, resulting in moral paralysis and an inability to advocate for a belief. Prejudice is hostility directed toward persons of different cultural groups because they are members of such groups; it does not account for individual differences.[108]

### The Acculturation Process

When people from one ethnicity move to an area with different cultural norms, adaptation to the new majority society begins. This process is known as acculturation, and it takes place along a continuum of behavior patterns that can be very fluid, moving back and forth between traditional practices and adopted customs. It occurs at the micro level, reflecting an individual's change in attitudes, beliefs, and behaviors, and at the macro level, resulting in group changes that may be physical, economic, social, or political in nature.[17,18,19] Typically, first-generation immigrants remain emotionally connected to their culture of origin. They integrate into their new society by adopting some majority culture values and practices but generally surround themselves with a reference group of family and friends from their ethnic background. For example, Asian Indians living in the United States who consider themselves to be "mostly or very Asian Indian" may encourage their children to speak English and allow them to celebrate American holidays, but usually do not permit them to date non-Asian Indian peers.[20]

Other immigrants become bicultural, which happens when the new majority culture is seen as complementing, rather than competing with, an individual's ethnicity. The positive aspects of both societies are embraced, and the individual develops the skills needed to operate within either culture.[21] Asian Indians who call themselves Indo-Americans or Asian Indian Americans fall into this category, eating equal amounts of Indian and American foods, thinking and reading equally in an Indian language and in English. Assimilation occurs when people from one cultural group shed their ethnic identity and fully merge into the majority culture. Although some first-generation immigrants strive toward assimilation, due perhaps to personal determination to survive in a foreign country or to take advantage of opportunities, most often assimilation takes place in subsequent generations. Asian Indians who identify themselves as being "mostly American" do not consider Asian Indian culture superior to American culture, and they are willing to let their children date non-Indians. It is believed that ethnic pride is reawakened in some immigrants if they become disillusioned with life in America, particularly if the disappointment is attributed to prejudice from the majority society. A few immigrants exist at the edges of the acculturation process, either maintaining total ethnic identity or rejecting both their culture of origin and that of the majority culture.[22]

### Acculturation of Food Habits

Culturally based food habits are often the last practices people change through acculturation. Unlike speaking a foreign language or wearing traditional clothing, eating is usually done in the privacy of the home, hidden

from observation by others. Adoption of new food items does not generally develop as a steady progression from traditional diet to the diet of the majority culture. Instead, research indicates that the consumption of new items is often independent of traditional food habits.[17,18] The lack of available native ingredients may force immediate acculturation, or convenience or cost factors may speed change. Samoans may be unable to find the fresh coconut cream needed to prepare favorite dishes, for instance, or an Iranian may find the cost of saffron prohibitive. Some immigrants, however, adapt the foods of the new culture to the preparation of traditional dishes.[17] Tasty foods are easily accepted—fast food, pastries, candies, and soft drinks; conversely, unpopular traditional foods may be the first to go. Mexican children living in the United States quickly reject certain cuts of meat, such as tripe, that their parents still enjoy. It is the foods most associated with ethnic identity that are most resistant to acculturation. Muslims will probably never eat pork, regardless of where they live. People from several Asian countries may insist on eating rice with every meal, even if it is the only Asian food on the table.

## Cultural Food Habits

Food functions vary culturally, and each group creates categories reflective of their priorities. In the United States, food has been typically classified by food group (protein, dairy, cereal and grain, fruits and vegetables), by percentage of important nutrients (as identified in Dietary Reference Intake [DRI] for energy, protein, fat, carbohydrates, vitamins, and minerals), or according to recommendations for health. American models, especially the Dietary Guidelines for Americans 2010 and the new model, ChooseMyPlate, outline current dietary recommendations to support health guidelines. These categories also suggest that Americans value food more for nutritional content and impact on health than for any symbolic use. But only limited information is provided about U.S. food habits; although these schemes list what foods people eat, they reveal nothing about how, when, or why foods are consumed.

Culturally based categories are commonly used by members of each culture. Examples found in both developing and industrialized societies include cultural superfoods, usually staples that have a dominant role in the diet; prestige foods, often protein items or expensive or rare foods; body image foods, believed to influence health, beauty, and well-being; sympathetic magic foods, whose traits, through association of color or form, are incorporated; and physiologic group foods, reserved for, or forbidden to, groups with certain physiologic status, such as gender, age, or health condition.[23]

Researchers have proposed numerous models to understand the food habits of different cultures. Some of these models are helpful in understanding the role of food within a culture, including:

1. *Core and complementary foods model* frequency of food consumption
2. *Food-flavor principles:* ways a culture traditionally prepares and seasons its foods
3. *Meal patterns and meal cycles:* daily, weekly, and yearly use of food
4. *Developmental perspective of food culture:* changes in food functions that emerge during structural growth in a culture

### Core and Complementary Foods Model

Foods selected by a culture can be grouped according to how often they're consumed. Core foods are staples regularly included in a person's diet, usually on a daily basis.[24] These typically include complex carbohydrates, such as rice, wheat, corn, yams, cassava, taro, or plantains. Foods widely but less frequently eaten are termed secondary foods. These items, such as chicken or lettuce or apples, are consumed once a week or more, but not daily. Foods eaten only sporadically are called peripheral foods. These foods are characteristic of individual food preference, not cultural group habit.

A slightly different version of this model suggests that in many cultures, the core food is always served with fringe, or complementary, items to improve palatability (Figure 1.2).[25] Because most starchy staples are bland and uniform in texture, these flavorful foods, eaten in small quantities, encourage consumption of the core food as the bulk of the diet. Legumes, for example, are sometimes a complementary food and sometimes a secondary food. It has been hypothesized that these core and complementary food pairings often combine to provide nutritionally adequate meals, especially when legumes are included. Another example is in cultures where a grain is a core food and additional sources of vitamins A and C are required. Rice, breads and pastas, and corn are frequently prepared with leafy green vegetables, abundant herbs, or tomatoes, which are high in these needed nutrients. Chinese rice with pickled vegetables, Italian noodles with tomato sauce, Mexican corn tortillas with salsa, and Middle Eastern pilaf with parsley and dried fruit are examples. When the core diet is almost adequate nutritionally, the addition of secondary foods—including legumes (soybean products in China; beans or lentils in Italy; red or pinto beans in Mexico; and chickpeas, fava beans, and lentils in the Middle East), small amounts of meats, poultry, fish, and cheeses or yogurt—can provide the necessary balance.

Changes in food behaviors are believed to happen most often with peripheral foods and then core foods. A person who is willing to omit foods that she or he rarely eats is typically much more reluctant to change those eaten daily and associated with her or his cultural identity. Although little has been reported on the significance of complementary foods in diet modification, presumably, if complementary items were altered or omitted, the core would no longer be palatable. The complementary foods provide the flavor familiarity associated with the core.

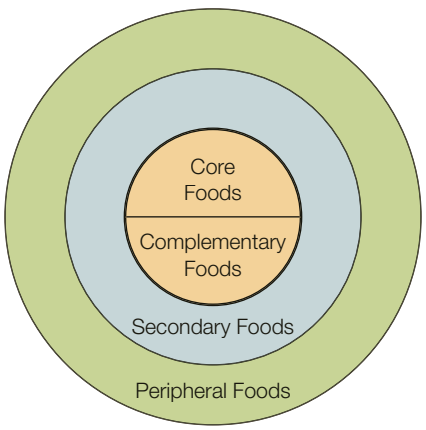





**Figure 1.2**
**The core and complementary foods model.**

## Flavor Principles

The significance of food flavor cannot be overestimated. The ways foods are prepared and seasoned is only second in importance to the initial selection of ingredients. It is no less than the transformation of feeding into eating.

Foods demonstrate variability according to location. Much is made, for example, of wine *terroir*—the soil texture, natural minerals, drainage, source of water, sun exposure, average temperature, and other environmental factors in which grapes are grown for wine production. Each region and every vineyard are distinctive, often producing appreciable differences in the resulting product. Yet this variation is insignificant when compared to how foods in general are processed for consumption. Every technique, from preparation for cooking (e.g., washing, hulling or peeling, chopping, pounding, squeezing, soaking, leaching, and marinating) to cooking (e.g., baking, roasting, grilling, stewing, toasting, steaming, boiling, and frying) and preserving (e.g., drying, curing, canning, pickling, fermenting, and freezing), alters the original flavor of the ingredient. Nevertheless, location and manipulation practices alone do not equal cuisine. For that, foods must be seasoned.

Historians and scientists speculate there are several reasons why herbs and spices have assumed such an essential role in food habits. Foremost is palatability. Salt, one of the most widely used seasonings, prompts an innate human taste response. It is enjoyed by most people and physiologically craved by some.

Researchers also suggest that the burn of chili peppers (and perhaps other spices) may trigger the release of pleasurable endorphins. Another recurrent theory on the popularity of seasoning early on was to disguise the taste of spoiled meats, though evidence for this is limited. A more plausible assertion is that spices were found effective in preserving meats. A survey of recipes worldwide suggested that the antimicrobial activity of spices accounts for their widespread use, especially in hot climates.[26] Other researchers speculate that eating chili peppers (and, by extension, other hot seasonings such as mustard, horseradish, and wasabi) is a benign form of risk taking that provides a safe thrill.[27] Additionally, the recurrent use of seasonings may provide the familiarity sought in the omnivore's dilemma.[28]

Theories aside, seasonings can be used to classify cuisines culturally.[28,29] Unique seasoning combinations, termed *flavor principles*, typify the foods of ethnic groups worldwide. They are so distinctive that few people mistake their use. For example, a dish flavored with soy sauce is Asian and not European. These seasoning combinations are often found in the complementary foods of the core and complementary foods model, providing the flavors associated with the starchy carbohydrates that are the staples of a culture. They usually include herbs, spices, vegetables, and a fat or oil, although many variations exist. A principle flavor combination in West Africa is tomatoes, onion, and chili peppers that have been sauté in palm oil. In the Pacific Islands, a flavor principle is coconut milk or cream with a little lime juice and salt. Yams taste like West African food when topped with the tomato mixture and like Pacific Islander food when served with the coconut sauce. Some widely recognizable flavor principles include:

- Asian Indian: garam masala (curry blend of coriander, cumin, fenugreek, turmeric, black pepper, cayenne, cloves, cardamom, and chili peppers)
- Brazilian (Bahia): chili peppers, dried shrimp, ginger root, and palm oil
- Chinese: soy sauce, rice wine, and ginger root
- French: butter, cream, wine, boquet garni (selected herbs, such as tarragon, thyme, and bay leaf)
- German: sour cream, vinegar, dill, mustard, and black pepper
- Greek: lemon, onions, garlic, oregano, and olive oil
- Italian: tomato, garlic, basil, oregano, and olive oil
- Japanese: soy sauce, sugar, and rice wine vinegar
- Korean: soy sauce, garlic, ginger root, black pepper, scallions, chili peppers, and sesame seeds or oil
- Mexican: tomatoes, onions, chili peppers, and cumin
- Puerto Rican: sofrito (seasoning sauce of tomatoes, onions, garlic, bell peppers, cilantro, capers, pimento, annatto seeds, and lard)
- Russian: sour cream, onion, dill, and parsley
- Scandinavian: sour cream, onion, mustard, dill, and caraway
- Thai: fermented fish sauce, coconut milk, chili peppers, garlic, ginger root, lemon grass, and tamarind

It would be incorrect to assume that every dish from each culture is flavored with its characteristic seasoning combinations, or that flavor principle seasonings are limited to just those listed. It's common to find regional variations as well. In China, northern cuisine often includes the flavor principle seasonings enhanced with soybean paste, garlic, and sesame oil. In the south, fermented black beans are frequently added, although in the Szechwan region hot bean paste, chili peppers, or Szechwan (fagara) pepper is more common. In the specialty cuisine of the Hakka, the addition of red rice wine is distinctive. Further, in any culture where the traditional seasoning combinations are prepared at home, not purchased, modifications to suit each family are

A few cuisines have extremely limited seasonings, including the fare of the Inuits. Broadly speaking, cuisines offering large portions of meat and other protein foods tend to be less seasoned than those with a higher proportion of grains, fruits and vegetables, and legumes.

The sprig of parsley added to a plate of food may have originated as a way to safeguard the meal from evil.

In many homes, few meals are eaten as a family. The term *grazing* refers to grabbing small amounts of food throughout the day to consume. There are an estimated 7 million vending machines in the United States, with over 100 million customers daily.

customary.[30] Flavor principles are therefore more of a marker for each culture's cuisine rather than a rigid rule.

## Meal Patterns and Meal Cycles

People in every culture dine on at least one meal each day, and meal patterns and meal cycles reveal clues about complex social relations and the significance of certain events in a society.[31] The first step in decoding these patterns and cycles is to determine what types of food constitute a meal within a culture.

In the United States, for instance, cocktails and appetizers or coffee and dessert are not considered meals. A meal should consist of a main course and side dishes; typically a meat, vegetable, and starch. In the western African nation of Cameroon, a meal is a snack unless cassava paste is served. In many Asian cultures, a meal is not considered a meal unless rice is included, no matter how much other food is consumed. A one-pot dish is considered a meal if it contains all the elements of a full meal. For example, American casserole dishes often feature protein, vegetables, and a starch, such as tuna casserole (tuna, peas, and noodles). In England it could be shepherd's pie (ground beef, green beans, and tomato sauce topped with mashed potatoes).

The elements that define a meal must also be served in their proper order. In the United States, appetizers come before soup or salad, followed by the entrée and then by dessert. In France, the salad is served after the entrée. All foods are served simultaneously in Vietnam so that each person may combine flavors and textures according to taste. In addition to considering the proper serving order, foods must also be appropriate for the meal or situation. Some cultures do not distinguish which foods can be served at different meals, but in the United States eggs and bacon are considered breakfast foods, while cheese and olives are popular in the Middle East for the morning meal. Soup is commonly served at breakfast in Southeast Asia, but in the United States soup is a lunch or dinner food, and in parts of Europe fruit soup is sometimes served as dessert. Cake and ice cream are appropriate for a child's birthday party in the United States; wine and cheese are not.

Other aspects of the meal message include who prepares the meal and what culturally specific preparation rules are used. In the United States, ketchup goes with French fries; in Great Britain, vinegar is sprinkled on chips (fried potatoes). Orthodox Jews consume meat only if it has been slaughtered by an approved butcher in an approved manner and has been prepared in a particular way. (See Chapter 4, "Food and Religion," for more information on Judaism.)

Who eats the meal is also important. A meal is frequently used to define personal relationships. Americans are comfortable inviting friends for dinner, but they usually invite acquaintances for just drinks and appetizers. For a family dinner, people may include only some of the elements that constitute a meal, but serving a meal to guests requires that all elements be included in their proper order.

The final element of what constitutes a meal is portion size. In many cultures, one meal a day is designated the main meal and usually contains the largest portions. The amount of food considered appropriate varies, however. A traditional serving of beef in China may be limited to one ounce added to a dish of rice. In France, a three- or four-ounce filet is more typical. In the United States, a six- or even eight-ounce steak is not unusual, and some restaurants specialize in twelve-ounce or larger cuts of prime rib. American tradition is to clean one's plate regardless of how much is served, while in other cultures, such as those in the Middle East, it is considered polite to leave some food to demonstrate that enough was provided by the host.

Just as individual meals have cultural differences, the number of meals and when they are eaten also varies. In much of Europe a large main meal is customarily consumed at noontime, for example, while in most of the United States today the main meal is eaten in the evening. In poor societies only one meal per day may be eaten, whereas in wealthy cultures three or four meals are standard.

The meal cycle in most cultures also includes feasting or fasting, and often both. Feasting celebrates special events, occurring in nearly every society where a surplus of food can be accumulated. Religious holidays such as

Christmas and Passover; secular holidays such as Thanksgiving and the Vietnamese New Year's Day, known as Tet; and even personal events such as births, marriages, and deaths are observed with appropriate foods. In many cultures, feasting means simply more of the foods consumed daily and is considered a time of plenty when even the poor have enough to eat. Special dishes that include costly ingredients or are time-consuming to prepare also are characteristic of feasting. The elements of a feast rarely differ from those of an everyday meal. There may be more of an everyday food or several main courses with additional side dishes and a selection of desserts, but the meal structure does not change. For example, Thanksgiving typically includes turkey and often another entrée such as ham or a casserole (meat); several vegetables; bread or rolls, potatoes, sweet potatoes, and stuffing (starch); as well as pumpkin, mincemeat, and pecan pies or other dessert selections. Appetizers, soups, and salads may also be included.

Fasting may be partial or total. Often it is just the elimination of some items from the diet, such as the Roman Catholic omission of meat on Fridays during Lent or a Hindu personal fast day, when only foods cooked in milk are eaten. Complete fasts are less common. During the holy month of Ramadan, Muslims are prohibited from taking food or drink from dawn to sunset, but they may eat in the evening. Yom Kippur, the day of atonement observed by many Jews, is a total fast from sunset to sunset. (See Chapter 4 for more details on fasting.)

Robert Brenner/PhotoEdit

▲ *Special dishes that include costly ingredients or are time-consuming to prepare are characteristic of feasting in many cultures.*

## Developmental Perspective of Food Culture

Trends in food, eating, and nutrition also reflect structural changes in society. The developmental perspective of food culture (Table 1.1) suggests how changes may alter how consumers obtain food, as well as types of food and variety. Globalization is defined as the integration of local, regional, and national phenomena into an unrestricted worldwide organization. The parallel change in cultural food habits is *consumerization*, the transition of a society from producers of indigenous foods to consumers of mass-produced foods. Traditionally seasonal ingredients, such as strawberries, become available anytime of year from a worldwide network of growers and suppliers. Specialty products, such as ham and other deli meats, which were at one time prepared annually or only for festive occasions, can now be purchased presliced, precooked, and prepackaged for immediate consumption.

The social dynamic of modernization with new technologies results in socioeconomic shifts, such as during the Industrial

Feasting functions to redistribute food from rich to poor, to demonstrate status, to motivate people toward a common goal (e.g., a political fundraising dinner), to mark the seasons and life-cycle events, and to symbolize devotion and faith (e.g., Passover, Eid al-Fitr, and communion).

**TABLE 1.1 Developmental Perspective of Food Culture**

| Structural Change | Food Culture Change |
|---|---|
| Globalization: Local to worldwide organizations | Consumerization: Indigenous to mass-produced foods |
| Modernization: Muscle to fueled power | Commoditization: Homemade to manufactured foods |
| Urbanization: Rural to urban residence | Delocalization: Producers to consumers only |
| Migration: Original to new settings | Acculturation: Traditional to adopted foods |

SOURCE: Adapted from Sobal, J. 1999. Social change and foodways. In *Proceedings of the Cultural and Historical Aspects of Food Symposium.* Corvallis: Oregon State University.

Revolution when muscle power was replaced by fuel-generated engine power or during the 1990s with the rise of the information age. Cultural beliefs, values, and behaviors are modified in response to the structural changes that take place. Food habits changed, with foods becoming more processed and meals pre-prepared instead of cooked at home. The fresh milk from the cow in the barn becomes the plastic gallon container of pasteurized milk sold online over the Internet to a consumer who has limited time.

Urbanization occurs when a large percentage of the population abandons the low density of rural residence in favor of higher density suburban and urban residence. Often, income levels do not change in the move, but families who previously survived on subsistence farming become dependent on others for food. Delocalization occurs when the connections among growing, harvesting, cooking, and eating food are lost, as meals prepared by anonymous workers are purchased from convenience markets and fast-food restaurants.

Finally, migration of populations from their original homes to new regions or nations creates a significant shift from a home-bound, culture-bound society to one in which global travel is prevalent and immigration common. Traditional food habits are in flux during acculturation to the diet of a new culture and as novel foods are introduced they become accepted into the majority cuisine. Often new traditions emerge from the contact between diverse cultural food habits.

The developmental perspective of food culture assumes that cultures progress from underdeveloped to developed through the structural changes listed. Deliberate efforts to reverse that trend can be seen in the renewed popularity of farmers' markets in the United States and attacks on fast-food franchises in Europe. Other evidence of resistance includes the work of the Slow Food movement—mobilizing against the negative effects of industrialization—and the seed banks that have opened throughout the nation to promote genetic diversity and save indigenous plant populations.[32,33,34]

# Individual Food Habits

Each person lives within his or her culture, unaware of the influences exerted by that culture on food habits. Eating choices are typically made according to what is obtainable, what is acceptable, and what is preferred: the diet is determined by availability and by what each person considers edible or inedible. Beyond that, factors that influence an individual's food selection are taste, cost, convenience, self-expression, well-being, and variety, which are explained in the consumer food choice model, discussed later in the chapter.

## Food Availability

A person can select a diet only from foods that are available. Local ecological considerations such as weather, soil, and water conditions; geographic features; indigenous vegetation; the native animal population; and human manipulation of these resources through cultivation of plants and domestication of livestock determine the food supply at a fundamental level. A society living in the cool climate of northern Europe is not going to establish rice as a core food, just as a society in the hot wet regions of southern India is not going to rely on oats or rye. Seasonal variations are a factor, as are unusual climactic events, such as droughts, that disrupt the food supply.

The political, economic, and social management of food at the local level is typically directed toward providing a reliable and affordable source of nourishment. Advances in food production, storage, and distribution are examples. However, the development of national and international food networks has often been motivated by other needs, including profit and power. The complexity of the food supply system has been examined by many disciplinary approaches. Historians trace the introduction and replacement of foods as they spread regionally and globally. Economists describe the role of supply and demand, the commodity market, price controls, trade deficits, and farm subsidies (as well as other entitlements) on access to food. Psychologists investigate how individual

experience impacts diet; political scientists detail how fear of biotechnology, bioterrorism, and disease (such as the mad-cow or bovine spongiform encephalopathy scare in Europe) can alter acceptability. Sociologists document how social structures and relations affect the obtainment of food; legal experts debate the ethics of food policies people who are poor, incarcerated, and terminally ill. This is only a small sampling of the factors influencing food availability. However, except in regions where serious food shortages are anticipated, availability issues are usually not at the forefront of individual food choice.

## Edible or Inedible?

This approach was one of the earliest food habits models, describing the individual process that establishes the available, appropriate, and personal food habits. Each person's choice of what to eat is generally limited to the foods found in this dietary domain.[35]

1. ***Inedible foods:*** These foods are poisonous or are not eaten because of strong beliefs or taboos (or taboo foods, from the Tongan word *tabu*, meaning "marked as holy"). Foods defined as inedible vary culturally. Examples of frequently prohibited foods include animals useful to the cultural group, such as cattle in India; animals dangerous to catch; animals that have died of unknown reasons or of disease; animals that consume garbage or excrement; and plants or animals that resemble a human ailment (e.g., strawberries or beef during pregnancy to protect the infant, as described later).
2. ***Edible by animals, but not by me:*** These foods are items such as rodents in the United States or corn in France (where it is used primarily as a feed grain). Again, the foods in this category vary widely by culture.
3. ***Edible by humans, but not by my kind:*** These foods are recognized as acceptable in some societies, but not in your own culture. Some East Africans are disgusted by eggs, for instance, which are associated with excrement.[36] Some rural South Africans who consider termites a delicacy are repulsed by the idea of eating scorpions, a specialty enjoyed by some Chinese.[37] Examples of foods unacceptable in the United States but acceptable elsewhere include giant snails (Africa), dog meat (Asia), iguana (the Caribbean), horse meat or blood sausage (Europe), and bear paw (Mongolia).
4. ***Edible by humans, but not by me:*** These foods include all those accepted by a person's cultural group but not by the individual, due to factors such as preference (e.g., tripe, liver, raw oysters), expense, or health reasons (a low-sodium or low-cholesterol diet may eliminate many traditional American foods). Other factors, such as religious restrictions (as in kosher law or halal practices) or ethical considerations (vegetarianism), may also influence food choices.
5. ***Edible by me:*** These are all foods accepted as part of an individual's dietary domain.

There are always exceptions to the ways in which foods are categorized. It is generally assumed, for instance, that poisonous plants and animals will always be avoided. In Japan, however, fugu (blowfish or globefish) is considered a delicacy despite the deadly toxin contained in the liver, intestines, testes, and ovaries. These organs must be deftly removed by a certified chef as the last step of cleaning (if they are accidentally damaged, the poison spreads rapidly through the flesh). Eating the fish supposedly provides a tingle in the mouth prized by the Japanese. Several people die each year from fugu poisoning.

## Consumer Food Choice Model

An individual's dietary likes and dislikes are established before he or she sets foot in a restaurant, deli, or supermarket. The consumer food choice model (Figure 1.3) explains the factors that influence individual decisions.[38]

Among the most universal of food taboos is cannibalism, although anthropologists have discovered numerous examples of prehistoric human consumption in European and New World excavations.

Insects, such as termites and ants, provide 10 percent of the protein consumed worldwide.

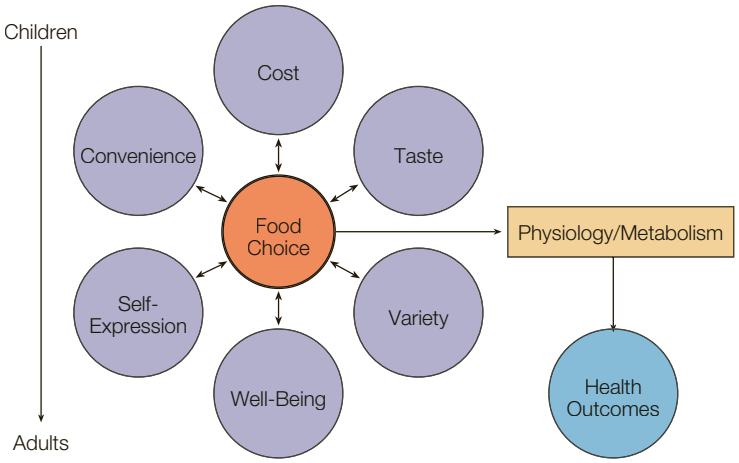



**Figure 1.3**
**The consumer food choice model.**
Source: Adapted from A. Drewnowski, *Taste, Genetics, and Food Choice.* Copyright © 2002. Used by permission of Adam Drewnowski, PhD.

Food selection is primarily motivated by taste. Taste is defined broadly by the sensory properties detectable in foods: color, aroma, flavor, and texture. Humans anticipate a specific food will have certain sensory characteristics; deviations can signal that the item is poisonous or spoiled. Many of these expectations are developed through early exposure to culturally acceptable and unacceptable foods. For example, most core foods are pale white, cream, or brown in color; however, some West Africans prefer the bright orange of sweet potatoes, and Pacific Islanders consider lavender appropriate for the taro root preparation called poi. Should the core item be an unanticipated color, such as green or blue, it may be rejected. Similarly, each food has a predictable smell. Aromas that are pleasurable may trigger salivation, while those considered disgusting, such as the odor of rotting meat, can trigger an immediate gag reflex in some people. Again, which odors are agreeable and which are disagreeable are due, in part, to which foods are culturally accepted: Strong-smelling fermented meat products are esteemed by some Inuit (*muktuk*) and some rural Filipinos (*itog*). Strong-smelling cheese (controlled rotting of milk) appeals to many Europeans, but even mild cheddar may evoke distaste by many Asians and Latinos. Appropriate texture is likewise predictable. Ranging from soft and smooth to tough and coarse, each food has its expected consistency. New textures may be disliked: Some Americans object to gelatinous bits in liquid, as found in tapioca pudding or bubble tea, yet these foods are popular in China. Conversely, some Asians find the thick, sticky consistency of mashed potatoes unappetizing. Okra, which has a mucilaginous texture, is well liked in the U.S. South but is considered too slimy by those living outside the South.

The human tongue has receptors for the perception of sweet, sour, salty, and bitter. It is hypothesized that food choice in all societies is driven, in part, by an inborn preference for the taste of sugars and fats. These nutrients are indicative of foods that are energy dense; a predisposition for sweets and foods high in fat ensures adequate calorie intake, an evolutionary necessity for omnivores with a wide selection of available foods. Sugars and fats are especially pleasurable flavor elements, associated with palatability and satiety (including the texture factor provided by fats, called mouthfeel).

Preferences for sweets (especially when combined with fats) are found during infancy and childhood and peak in early adolescence. One study found 45 percent of calories eaten by young people came from discretionary sugar and fat.[39] This preference declines in later years and may reduce their significance in food choice.

The opposite is true for bitterness, which is associated with toxic compounds found in some foods and is strongly disliked by most children. The ability to detect bitterness decreases with age, however, and many adults consume foods with otherwise unpleasant sulfides and tannins, including broccoli and coffee. There are some who remain especially sensitive to certain bitter compounds, affecting their other preferences as well; they tend to dislike sweet foods and opt for bland over spicy items. Sour alone is rarely well liked, but is enjoyed when combined with other flavors, especially sweet. It has been suggested that a preference for the sweet—sour taste prompted human ancestors to seek fruit, an excellent source of vitamins and minerals.[40,41,42]

Unlike the tastes of sweet, bitter, and sour, babies generally are indifferent to salt until about four months of age. Similar to sugar, children prefer higher concentrations of salt

Humans can detect approximately 10,000 different odors, though genetics may determine which odors can be detected. For example, nearly 50 percent of people cannot smell androstenone (also called boar pheromone), which is found in bacon, truffles, celery, parsnips, boar saliva, and many human secretions; however, researchers have found people can be taught to perceive it through daily sniffing.[109]

than do adults. Their preference for salt is shaped by the frequency of exposure to it after birth, and perhaps perinatally.[43]

Finally, taste is influenced by flavor principles, the characteristic combinations of core and complementary foods, as well as traditional grouping of meal elements. These traditions are important in providing an expected taste experience and satisfying a need for familiarity in food habits.

Cost is often the second most important influence on food choice, and income level is the most significant sociodemographic factor in predicting selection. In cultures with a limited food supply due to environmental conditions or in societies where a large segment of the population is disadvantaged, food price is more than taste, dictating nutritional sufficiency and well-being. The wealthier the society, the less disposable income is spent on food, and, as income increases, food choices change. Typically, the people of poorer cultures survive on a diet dependent on grains or tubers and limited amounts of protein, including meat, poultry, fish, or dairy foods. Only a small variety of fresh fruits or vegetables may be available. People with ample income consistently include more meats, sweets, and fats in their diet (a trend seen in the global popularity of American fast foods), plus a wider assortment of fruits and vegetables.[44,45] When nutritious food is available and affordable, the prestige of certain food items, such as lobster or prime rib, is often linked to cost. Protein foods are most associated with status, although difficult-to-obtain items, such as truffles, can also be pricey.

In the United States, affordability has been found to limit the purchasing of healthy foods, and in some cases even families with government subsidies find it difficult to meet nutritional needs.[46] It is estimated that in 2013 over 14 percent of households were considered to be food insecure.[47]

A subsistence farmer may have greater access to fresh foods than a person with the same limited income living in a city. In urban areas, supermarkets with a cheaper selection of foods often choose to locate outside low-income neighborhoods, and residents may have access only to higher-priced convenience stores or small, independently run groceries with a limited selection.[46,48,49] Further, access to healthful restaurant dining varies. Studies suggest that predominantly African American and low-income neighborhoods have more fast-food restaurants per square mile than white neighborhoods, with fewer healthy options.[50,51,52,53]

Convenience is a major concern in food purchases, particularly by members of urbanized societies. In some cultures, everyone's jobs are near home, and the whole family joins in a leisurely midday lunch. In urbanized societies, people often work far from home; therefore, lunch is eaten with fellow employees. Instead of a large, home-cooked meal, employees may eat a quick fast-food meal. Furthermore, family structure can necessitate convenience. In the United States, the decreasing number of extended families (with help available from elder members) and increasing number of households with single parents, along with couples who both work outside the home and unassociated adults living together all reduce the possibility that any adult in the household has the time or energy to prepare meals. Studies show that the greater the number of hours a woman works outside the home each day, the fewer the hours she spends cooking. Only 40 percent of families report cooking at least once a day, and in more than one-quarter of all homes cooking is done less than once a day.[54] Recent research indicates that a higher amount of family meals is correlated with more positive health indicators.[55] Furthermore, the quality of dietary intake improves when there is a reduction in spending for food away from home.[56] Convenience generally spurs the increasing number of takeout foods and meals purchased at restaurants. In 2014, restaurant industry share of the U.S food dollar was 47 percent.

Self-expression, the way in which we indicate who we are by behavior or activities, is important for some individuals in food selection, particularly as a marker of cultural identity. Although the foods associated with ethnicity, religious affiliation, or regional association are predetermined through the dietary domain, it is worth noting that every time a person makes a food choice he or she

Though the physiological response to disgust, nose wrinkling, retraction of the lips, gaping, gagging, and even nausea seems instinctual, it is actually a cognitively sophisticated feeling that does not develop in children until between the ages of four and seven years old. Which items are disgusting in a culture is learned from parents and peers.[110]

Some researchers contend that there is a fifth type of receptor on the tongue for *umami* (from the Japanese for "yummy"). It is the taste associated with meats, mushrooms, cheese, and the flavor-enhancer monosodium glutamate (MSG).

In addition to salt, other flavor preferences may be passed on perinatally. A study of women who ate garlic or a placebo before amniocentesis found the odor of garlic in the amniotic fluid evident from the garlic-ingesting women.[69]

In 1901, the average American family spent nearly half (45 percent) of their income on food. A century later, that figure had decreased to just 13 percent of total income.[111]

Kostenko Maxim/Shutterstock.com

▲ *Regional fare differs throughout the United States and can be consumed for self-expression. The southwestern foods shown here represent one of many distinct regional cuisines.*

Even when supermarkets with a greater selection of healthful foods are available, less-acculturated immigrants may feel more comfortable shopping at stores where their language is spoken and ethnic ingredients are stocked.[112]

The status of food can change over time. In the early years of the United States, lobster was so plentiful it piled up on beaches after storms, but colonists considered it fit only for Indians or starving settlers.

may choose to follow or ignore convention. Ethnic identity may be immediate, as in persons who have recently arrived in the United States; or it may be remote, a distant heritage modified or lost over the generations through acculturation. An individual who has just immigrated to the United States from Japan, for instance, is more likely to prefer traditional Japanese cuisine than is a third- or fourth-generation Japanese American.

Religious beliefs are similar to ethnic identity in that they may have a great impact on individual food habits or an insignificant influence depending on religious affiliation and degree of adherence. Many Christian denominations have no food restrictions, but some, such as the Seventh-day Adventists, have strict guidelines about what church members may eat. Judaism requires that only certain foods be consumed in certain combinations, yet most Jews in the United States do not follow these rules strictly (see Chapter 4).

A person may also choose foods associated with a specific region. In the United States, the food habits of New England differ from those of the Midwest, the South, and the West, and local specialties such as Pennsylvania Dutch, Cajun, and Tex-Mex may influence the cooking of all residents in those areas.

Self-identity can be another factor in food selection, as discussed previously. An environmentalist may be a vegetarian who prefers organic, locally grown produce, while a gourmet or foodie may patronize small markets in ethnic neighborhoods throughout a city searching for unusual ingredients. Advertising has been directly related to self-expression, especially self-identity. Research indicates that in blind taste tests people often have difficulty discriminating between different brands of the same food item. Consumer loyalty to a particular brand is believed more related to the sensual and emotional appeal of the name and packaging.[57,58] For example, similar-tasting flake cereals such as Wheaties (which touts itself as the "breakfast of champions"), Special K, and Total target sports enthusiasts, dieters, and health-conscious individuals, respectively.

Advertising also promises food-provided pleasure, appealing to the desire of consumers to be seen as popular, fun-loving, and trendy. Exploitation of sex to sell hamburgers and beer is common, as are suggestions that eating a chocolate or drinking a soft drink will add zest to living. A study of television food ads targeting children found that 75 percent were associated with "good times," 43 percent with being "cool and hip," and 43 percent with feelings of happiness.[59,60,61] Such advertising is a reflection of a larger trend: food as entertainment, the vicarious enjoyment of eating through reading about it or watching food-related programs on television, also called food porn.[62] In the United States, nearly 150 food and wine magazines are published monthly, almost 500 million food and wine books are sold annually, and numerous network cooking and dining shows air daily. The impact of this media on food choice is as yet unknown. Food entertainment may popularize certain ingredients, such as kale or mangoes, or cuisines, such as Spanish fare or updated traditional American dishes like spicy meatloaf and macaroni and cheese. They may also set such a high standard of preparation and presentation that some home cooks feel inadequate, choosing to dine out or select prepackaged items instead of making meals from scratch.

Physical and spiritual well-being is another food choice consideration for some individuals. Physiological characteristics, including age, gender, body image, and state of

health, often impact food habits. Preferences and the ability to eat and digest foods vary throughout the life cycle. Pregnant and lactating women commonly eat differently than other adults. In the United States, women are urged to consume more food when they are pregnant, especially dairy products. They are also believed to crave unusual food combinations, such as pickles and ice cream. They may avoid certain foods, such as strawberries, because they are believed to cause red birthmarks.

In some societies with subsistence economies, pregnant women may be allowed to eat more meat than other family members; in others, pregnant women avoid beef because it is feared that the cow's cloven hoof may cause a cleft palate in the infant. Most cultures also have rules regarding which foods are appropriate for infants; milk is generally considered wholesome, and sometimes any liquid resembling milk, such as nut milk, is also believed to be nourishing.

Puberty is a time for special food rites in many cultures. In the United States, adolescents are particularly susceptible to advertising and peer pressure. They tend to eat quite differently from children and adults, rejecting those foods typically served at home and consuming more fast foods and soft drinks. A rapid rate of growth at this time also affects the amount of food that teenagers consume. One survey found teenage boys down an average of five meals per day, and teenage girls eat four meals.[63,64]

The opposite is true of older adults. As metabolism slows, caloric needs decrease. In addition, they may develop a reduced tolerance for fatty foods or highly spiced items. Eating problems tend to increase as we age, such as the inability to chew certain foods or a disinterest in cooking and dining alone. It is predicted that the shift toward an older population in the next two decades will result in a change in the types of foods purchased (an increase in fruits, vegetables, fish, and pork because older adults consume these items more often than younger adults do) and reductions in the total amount of food consumed per capita (because older adults eat smaller amounts of food).[65]

Gender has also been found to influence eating habits. In some cultures women are prohibited from eating specific foods or are expected to serve the largest portions and best pieces of food to the men. In other societies food preference is related to gender. Some people in the United States consider steak to be a masculine food and salad to be a feminine one; or that men drink beer and women drink white wine. Research has shown that gender differences affect how the brain processes satiation responses to chocolate, suggesting that men and women may vary in the physiological regulation of food intake—perhaps accounting for some food preferences.[66]

A person's state of health also has an impact on what is eaten. A chronic condition such as lactose intolerance or a disease such as diabetes or celiac disease requires an individual to restrict or omit certain foods. An individual who is sick may not be hungry or may find it difficult to eat. Even minor illnesses may result in dietary changes, such as drinking ginger ale for an upset stomach or hot tea for a cold. Those who are on weight-loss diets may restrict foods to only a few items, such as grapefruit or cabbage soup, or to a certain category of foods, such as those low in fat or carbohydrates. Those who are exceptionally fit, such as students or professional athletes, may practice other food habits, including carbohydrate loading or consumption of high-protein bars. In many cultures, specific foods are often credited with health-promoting qualities, such as ginseng in Asia or chicken soup in eastern Europe. Corn in American Indian culture may be selected to improve strength or stamina. Well-being is not limited to physiological conditions; spiritual health is equally dependent on diet in some cultures where the body and mind are considered one entity. A balance of hot and cold or yin and yang foods may be consumed to avoid physical or mental illness. (See Chapter 2, "Traditional Health Beliefs and Practices.")

The final factor in consumer food choice is variety. The omnivore's paradox states that humans are motivated psychologically to try new foods. Further, the desire for new flavors may also have a physiological basis. Sensory-specific satiety (unrelated to actually ingesting

Meals and snacks prepared at home are lower in calories per eating occasion, and lower in total fat, saturated fat, cholesterol, and salt per calorie than foods prepared away from home. IHOP's Breakfast Country Chicken Fried Steak & Eggs with Gravy contains 1,570 kcalories, close to one full day's requirement (from http://www.calorieking.com).

Another aspect of food as entertainment is competitive eating as a televised sport. Elite eaters can make more than $50,000 a year in winnings, with records such as forty-six dozen oysters in ten minutes; 8.4 pounds of baked beans in two minutes, forty-seven seconds; and 11 pounds of cheesecake in nine minutes.[113]

Old age is a cultural concept; among some American Indians and Southeast Asians, individuals become elders in their forties.[114]

*Lactose intolerance*, the inability to digest the milk sugar lactose, develops as a person matures. It is believed that only 15 percent of the adult population in the world (those of northern European heritage) can drink milk without some digestive discomfort.

Research on sensory-specific satiety suggests people eat less food when consuming a monotonous meal, and may overeat and gain weight when abundant variety is available.[8]

The Japanese say that for every new food a person tries, life is extended seventy-five days.

and digesting food) results when the pleasure from a certain food flavor decreases after a minute or two of consumption. Introduction of a new food, or even the same food with new added seasoning, arouses the enjoyment in eating again, encouraging the search for new flavor stimuli.[67] In addition, hunger increases the probability that a new food will be liked.[68,69] Marketers take advantage of the innate human drive for diet diversity by continually reformulating and repackaging processed food products to attract consumers.

Interest in the foods of other regions or cultures is associated with the desire for new taste experiences, and also with increased income and educational attainment. Wealth permits experimentation and education can increase wealth. Nutritional knowledge, also affected by educational attainment, includes the health-promoting benefits of dietary diversity.

One study reported that college students were more likely to try a new fruit, vegetable, or grain product if information on the nutritional benefits were provided.[70] Some researchers have found that attitudes about the healthfulness of certain foods is important in food selection, and parents may purchase foods they consider healthy for their children even if they would not select those items for themselves.[71]

The nutrition knowledge of the person who plans meals in the home impacts food selection for all household members.[72] It has been suggested, however, that food choices are more often influenced by beliefs regarding nutritional quality than the actual nutritional value or health benefits.[67,73,74,75] Whether accurate or not, nutritional knowledge does not always translate into knowledge-based food choice; a poll found that six in every ten consumers check nutrition labels frequently for calories and fat content, but nearly half of those who read the information still choose items for taste even when they are aware that the item is bad for them.[76,77]

The consumer food choice model's influence on individual food habits are interrelated. The inborn preference for foods high in sugar, fat, and salt can encourage the consumption of items specifically formulated to enhance those taste experiences. These foods are often convenient, and items such as soft drinks and sandwich meats may cost less than fruit juice or fresh pork or beef (though certainly some processed items are more expensive than homemade equivalents). Advertisers exploit the need for convenience and the desire to try new foods. A person may be aware of nutrition messages encouraging a reduction in the amount of sugars and fats in the diet, as seen in the Dietary Guidelines for Americans, but this nutrition knowledge is often overridden by the primary factor in consumer food choice: taste.

Furthermore, influences on choice may change for each person as she or he matures. Food selection in infants (within the dietary domain of available foods provided by parents) is based almost exclusively on taste factors, with a strong resistance to new items. Children become more interested in self-expression as they grow and become sensitive to family and peer pressure. Young adults continue to be concerned with taste and self-expression, to which cost and convenience are typically added, especially in families with children. For middle-aged adults, increased income may lessen cost issues; and in older adults, health problems may become a more significant factor in food choice than even taste.

# Nutrition and Food Habits

## The Need for Cultural Competency

In recent years, the significance of culturally based food habits on health and diet has been recognized, and the need for intercultural competencies in the areas of nutrition research, assessment, counseling, and education has been cited.[78] The Campinha-Bacote model of competence outlines a process for cultural competency in health care, involving steps from cultural awareness, cultural knowledge, cultural skill, cultural encounter, and cultural desire.[79] Accurate data collection required for assessment and education is dependent on respect for different values and

a trusting relationship between respondent and researcher; effective intercultural communication is a function of understanding and accepting a client's perspective and life experience. New standards of nutrition care issued by professional accreditation organizations reflect similar guidelines.[80,81] Looking toward the future, it has been proposed that health care professionals should move beyond the theoretical concepts to cultural sensitivity and relevance to the practicalities of cultural competency. Language skills, managerial expertise, and leadership are needed to guide diverse communities in healthy lifestyle changes, to serve hard-to-reach populations, and to effect change in the health care system.

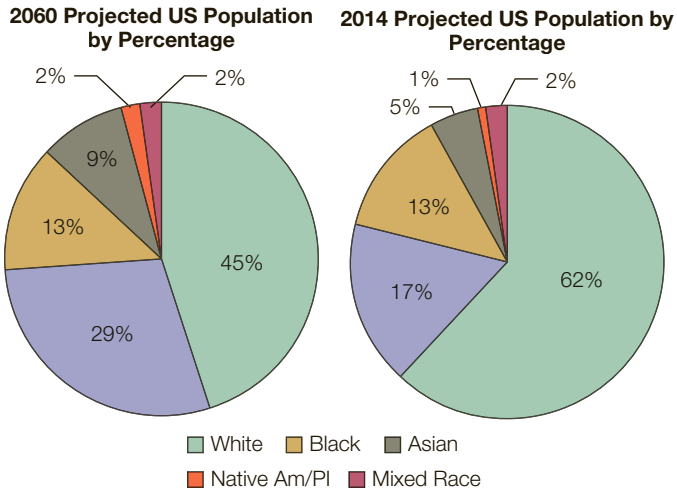



**Figure 1.4**
**Projected U.S. population by percentage, 2010–2060.**
Source: Census.gov 2014 national population projections. n.d. Retrieved from http://census.gov/population/projections/data/national/2014/summarytables.html (accessed January 6, 2015).

## Diversity in the U.S. Population

The growing need for cultural competency is being driven by current demographic trends. Since the 1970s, the United States has moved increasingly toward a cultural plurality, where no single ethnic group is a majority. In 1980, only Hawaii and the District of Columbia had plurality populations. Since that time, California, New Mexico, and Texas have joined the list. Pluralities also exist in several metropolitan area populations, including Chicago, Houston, Los Angeles, Miami, New York City, and Philadelphia. Nationwide, demographers estimate that non-Hispanic whites will become less than 50 percent of the total population by the year 2060.

This change can be seen in the difference in projected ethnic group growth from 2014 to 2060 (see Figure 1.4). Gains for the Asian population are expected at more than four times the national average, and more than three times the national average for the Hispanic population.

In actual numbers, Hispanics surpassed African Americans as the largest U.S. minority population in 2008, and now represent 17 percent of the total population, whereas blacks or African Americans make up approximately 13 percent. Asians are the third largest minority at 5 percent of the total U.S. population. Smaller numbers of Pacific Islanders and Native Americans are 1 percent, and mixed races are 2 percent. Notably, many U.S. ethnic populations have an average age significantly lower than that of the total population. Predicted demographic changes are often seen first among children and young adults.[82]

This profile of the general U.S. population is notably different than that for health care professionals, who are mostly white. Among registered dietitians in 2013, 82 percent reported being white, and the next the largest minority was Asians at 5 percent.[83] Researchers note that clients from minority populations prefer to receive health care in settings with minority health care providers; that minority health care providers are more likely to work in underserved areas; and that people from minority groups are more likely to participate in research studies when the investigator is from the same ethnic background.[84]

"Respect for diverse viewpoints and individual differences" is an Academy of Nutrition and Dietetics value.

## Diversity in the Canadian Population

The Canadian census is conducted differently from the U.S. count. Canadians in 2006 were asked to list their ethnicity in an open-ended question, and multiple responses listing one or more ethnicities were accepted. More than 200 different ethnicities were identified. This has provided a broader picture of ancestry, particularly because single responses and multiple responses were reported separately. For example, of the over 1.3 million Aboriginals (including Native American Indians, Més—people of mixed Aboriginal and non-Aboriginal heritage—and Inuit), 565,040 listed this ethnicity as a single response and

800,020 listed it as part of a multiple response. A separate question inquired if the census respondent was a member of a visible minority, defined by the Employment Equity Act as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in color." The act specifically lists Chinese, South Asians (i.e., Asian Indians, Pakistanis, Sri Lankans), blacks, Arabs/West Asians, Filipinos, Latin Americans, Japanese, Koreans, and Pacific Islanders. Immigration growth in Canada has dramatically exceeded overall population growth in recent years: Immigrants in Canada represented more than two-thirds of the population growth from 2001 to 2006—more than 19 percent of the total population—and the nation is second only to Australia (22 percent) in proportion of foreign-born citizens. Of greater importance, Canadian immigration patterns have shifted during the past three decades. Recent immigrants include almost 60 percent from Asia and 20 percent from the Caribbean. Chinese, South Asian, and black groups are the three largest minority populations, though the fastest growing populations are Arabs/West Asians and Koreans. Nearly all (94 percent) recent immigrants to Canada have settled in urban areas, particularly Toronto, Vancouver, and Montreal. Other urban areas with disproportionately large recent immigrant populations include Calgary, Edmonton, and Ottawa-Hull.[85]

## Ethnicity and Health

Health is not enjoyed equally by all in the United States. Disparities in mortality rates, chronic disease incidence, and access to care are prevalent among many U.S. ethnic groups (Table 1.2). Poor health status in the United States is also associated with poverty (see Cultural Controversy—Does Hunger Cause Obesity? later in this chapter), low educational attainment, and immigrant status: Immigrant health has been found initially better than similar U.S.-born populations in some research, and is shown to decline with length of stay.[86,88]

Acculturation to the majority culture is believed to be a significant factor in health independent of socioeconomic status. First noted in heart disease rates, modernization has also been linked to increased blood cholesterol levels, increased blood pressure levels, obesity, type 2 diabetes, and some cancers.[87,88,89,90,91,92] The stress of adaptation to the pressures of a fast-paced society is believed to be significant.[91] Hereditary predisposition to developing certain health conditions most probably plays a significant role. It is important to note, however, that acculturation is difficult to define accurately and is not an inherent risk factor in itself.[93] Some changes in diet—such as a reduction in pickled food intake associated with stomach cancer or increased availability of fruits and vegetables—can be beneficial. Better educational opportunities and health care services can also promote health.

The effects of ethnicity and race on health status is not well delineated, and researchers caution that the research results can be misleading.[94] The Human Genome project determined that there is no genetic basis for use of the term *race*, and that 99.9 percent of all humans have the same genes. Race is simply a category used to describe groups of individuals.[95] Many studies do not explain how participants are categorized. Individuals may self-select differently than investigators, and self-identity may change over time. Even official classifications may vary and change. In the United States, the Office of Management and Budget is responsible for defining the categories used in all government work, including the Census. In 1997, the standards were revised to include five classifications for "race": American Indian or Native American, Asian, Black or African American, Native Hawaiian or other Pacific Islander, and White. Prior to the revision, there were only four groupings because Asians were combined with Pacific Islanders. Additionally, the two categories for ethnicity were expanded in 1997 (ethnic members may be of any race): Hispanic, and Not Hispanic. These changes from earlier definitions can lead to difficulties in interpreting data trends. Further, the factor of ethnicity is not sufficiently separated from socioeconomic status in many studies, calling into question whether a stated finding is due to ethnicity or whether it is due to

Acculturation is so complex that it has been difficult to develop accurate assessments for use in health care and research. Neither U.S. nativity nor number of years in residence has proved completely indicative, and it has been suggested that acculturation is sometimes based more on ethnic stereotyping than on cultural differences.[115,116]

income, occupation, or educational status. For example, evaluation of the incidence of type 2 diabetes in the Black Women's Study indicates a strong relationship between individual and neighborhood socioeconomic status and type 2 diabetes even when controlling for factors such as education and income.[96]

Nevertheless, ethnicity data suggesting risks and disparities can be useful to health care providers as long as the caveats above are considered and care is taken to avoid stereotyping a patient by group membership. For example, Table 1.2 illustrates that not all Asians or Hispanics have the same prevalence for type 2 diabetes.

Ethnicity can be a significant factor in the development of certain disease conditions, the way they are experienced, and how they are ultimately resolved. (See Chapter 2 for further information.) The growth of ethnic groups in the U.S. population since the mid-1980s, the rapid movement toward cultural pluralism,

**TABLE 1.2 Estimates of the Percentage of Diagnosed**

| Adult Diabetes by Race/Ethnic Background | |
|---|---|
| Non-Hispanic Whites | 7.6% |
| Asian Americans | 9.0% |
| Hispanics | 12.8% |
| Non-Hispanic Blacks | 13.2% |
| American Indians/Alaska Natives | 15.9% |
| Among Asian Americans | |
| Chinese | 4.4% |
| Filipinos | 11.3% |
| South Asians | 13.0% |
| Other Asian Americans | 8.8% |
| Among Hispanic Adults | |
| Central and South Americans | 8.5% |
| Cubans | 13.9% |
| Mexican Americans | 13.9% |
| Puerto Ricans | 14.8% |

SOURCE: Centers for Disease Control and Prevention. 2014. National diabetes statistics report: Estimates of diabetes and its burden in the United States, 2014. Atlanta, GA: U.S. Department of Health and Human Services. Retrieved from http://www.cdc.gov/diabetes/data/statistics/2014StatisticsReport.html (accessed January 27, 2015).

**CULTURAL CONTROVERSY**

## Does Hunger Cause Obesity?

One of the most perplexing problems in nutrition education and policy is why socieconomic status is associated with overweight and obesity in the United States. Rates of overweight, defined as a body mass index (BMI) over twenty-five but below thirty, and obesity, defined as a BMI over thirty, have doubled in Americans since the late 1970s. Risk for overweight and obesity is highest in the persons with the lowest incomes and education levels regardless of ethnic heritage, and the risk declines parallel to socioeconomic improvement in most studies. Additionally, overweight and obesity rates are higher in all other ethnic groups (except for Asians) than in whites. Because poverty rates are also higher for all other ethnic groups (in some cases more than three times the rate for whites), it may be that socioeconomic status contributes to some of the disparity in the risk of overweight and obesity between ethnic groups.[117,118]

Researchers suggest that food insecurity in households that do not have enough to eat sometimes or often, or do not have enough of preferred foods to eat, may lead to overweight and obesity through overconsumption of inexpensive, less nutritious foods high in fats or sugar. First postulated by a physician in 1995, it was observed that in the cycle of food assistance, where monthly allocations run out and food shortages occur episodically, a person may compensate by eating larger portions of higher-calorie foods when available.[119] Further research has strengthened the hypothesis, finding that high-energy density diets (those that include more fast foods, snacks, and desserts than fruits, vegetables, and lean protein) are cheaper, more palatable, and more filling than healthier choices.[118,120] As with obesity in adults, obesity in children has been found to be associated with lower household incomes, lower education levels of parents, and consumption of high-energy density foods; and family meals, which improve quality of dietary intake in adolescents (including reductions in snacking), are significantly more frequent in higher-income families.[121,122] Biological factors, such as the taste preference for sweets and fats; psychological factors, including the comfort provided in such items; and an obesigenic environment that promotes consumption of energy-dense items in super-size quantities may be other variables. Recent studies, with larger samples sizes, did not find statistically significant associations but did show that food insecurity and being overweight go hand in hand, and that the prevalence of being overweight remains higher in food-insecure children. Further, it is uncertain whether hunger and food insecurity drive being overweight and obese, or whether being overweight or obese cause hunger and food insecurity.[123]

and the undeniable connection between heritage and health requires the need for cultural competency among American health care providers.

## Intercultural Nutrition Care

The study of food habits has specific applications in determining nutritional status and implementing dietary change. Even the act of obtaining a twenty-four-hour dietary intake record has cultural implications. (See Chapter 3, "Intercultural Communication.") Questions such as what was eaten at breakfast, lunch, and dinner not only ignore other daily meal patterns but also make assumptions about what constitutes a meal. Snacks and the consumption of food not considered a meal may be overlooked. Common difficulties in data collection, such as underreporting or overreporting food intake, may also be culturally related to the perceived status of an item, for example, or portion size estimates may be an unknown concept, complicated by the practice of sharing food from other family members' plates. Terminology can be particularly troublesome. Words in one culture may have different meanings in another culture or even among ethnic groups within a culture.

Stereotyping is another pitfall in culturally sensitive nutrition applications, resulting from the overestimation of the association between group membership and individual behavior. Stereotyping occurs when a person ascribes the collective traits associated with a specific group to every member of that group, discounting individual characteristics. A health professional knowledgeable about cultural food habits may inadvertently make stereotypical assumptions about dietary behavior if the individual preferences of the client are neglected. Cultural competency in nutrition implies not only familiarity with the food habits of a particular culture, but recognition of intraethnic variation within a culture as well.

Researchers suggest that health care providers working in intercultural nutrition become skilled in careful observation of client groups, visiting homes, neighborhoods, and markets to learn where food is purchased, what food is available, and how it is stored, prepared, served, and consumed. Participation in community activities, such as reading local newspapers and attending neighborhood meetings or events, is another way to gather relevant information. Informant interviewing reveals the most data about a group; individual members of the group, group leaders, and other health care professionals serving the group are potential sources.[97,98] Combining qualitative approaches such as in-depth, open-ended interviews with clients and quantitative measures through questionnaires is one of the most culturally sensitive methods of obtaining data about a group. Qualitative information obtained through the interviews should alert the researcher to nutrition issues within the group and guide development of assessment tools; the quantitative results should confirm the data provided through the interview in a larger sample. (See Chapter 3 for more information.)

Cultural perspective is particularly important when evaluating the nutritional impact of a person's food habits. Ethnocentric assumptions about dietary practices should be avoided. A food behavior that on first observation is judged detrimental may actually have limited impact on a person's physical health. Sometimes other moderating food habits are unrecognized. For instance, a dietitian may be concerned that an Asian patient is getting insufficient calcium because she eats few dairy products. Undetected sources of calcium in this case might be the daily use of fermented fish sauces or broths rich in minerals made from vinegar-soaked bones.

Likewise, a food habit that the investigator finds repugnant may have some redeeming nutritional benefits. Examples include the consumption of raw meat and organs by the Inuits, which provides a source of vitamin C that would have otherwise been lost during cooking, and the use of mineral-rich ashes or clay in certain breads and stews in Africa and Latin America. In addition, physiological differences among populations can affect nutritional needs. The majority of the research on dietary requirements has been conducted on

Sometimes culturally based food habits have vital nutritional benefits. One example is the use of corn tortillas with beans in Mexico. Neither corn nor beans alone supplies the essential amino acids (chemical building blocks of protein) needed to maintain optimum health. Combined, they provide complete protein.

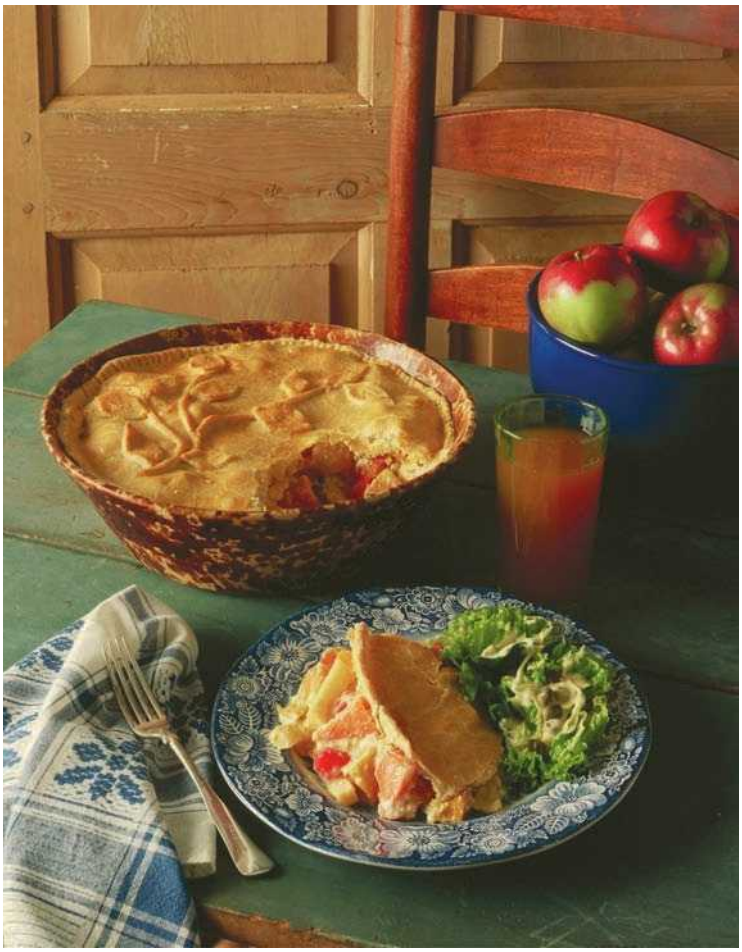
young, white, middle-class American men. Extrapolation of these findings to other populations should be done with caution.

Thus, diet should be carefully evaluated within the context of culture. One effective method is to classify food habits according to nutritional impact: (1) food use with positive health consequences that should be encouraged, (2) neutral food behaviors with neither adverse nor beneficial effects on nutritional status, (3) food habits unclassified due to insufficient culturally specific information, and (4) food behaviors with demonstrable harmful effects on health that should be repatterned.[99] When diet modification is necessary, it should be attempted in partnership with the client and respectful of culturally based food habits. Adoption of dietary recommendations is associated with an approach that is compatible with the client's traditional health beliefs and practices. (See Chapter 2 for more information.) A study evaluating women's beliefs about weight gain during pregnancy found that black women indicated that a lower amount should be gained than the recommendations and that prepregnancy weight had no effect on how much should be gained.[100] Having this information could certainly impact the content and approach for nutrition counseling given during pregnancy. In another example, educators developed a food guide for Caribbean Islanders living in the United States that grouped cultural foods into three categories: growth, protection, and energy, reflecting client-group perceptions of how food affects health.[101]

## The American Paradox

Food habits are so intrinsic to culture that food-related images are often use to describe them. Melting pot suggests a blending of different ethnic, religious, and regional groups to produce a smooth, uniform identity; stew implies a cooking of various populations to achieve a bland sameness with only just a touch of cultural integrity; and tossed salad allows for maintenance of cultural identity, randomly mixed and coated with a glistening unity. A more accurate metaphor for the American population is the omnivore's paradox. The nation was founded by immigrants, and most citizens today are proud of a heritage that, to paraphrase the inscription on the Statue of Liberty, accepts the tired, the poor, and the huddled masses yearning to be free. Yet many Americans are also suspicious of cultural difference and comfortable with what is familiar. The same can be said for food habits in the United States.

The American paradox, in culinary terms, is that although foods from throughout the world are available, and often affordable, consistency and conservatism are also needed. At one end of the spectrum, people who are exposed to new foods through travel and those who crave new taste experiences have driven the rapidly expanding market for



Becky Luigart-Stayner/Terra/Corbis

▼ *Asian tofu is the main ingredient in this vegetarian adaptation of shepherd's pie, a traditional British entrée popular in the United States.*

## CULTURAL FOODS IN THE UNITED STATES: A TIMELINE*

**Pre-17th century**

- Regional American Indian cuisines develop.

**1500s**

- Columbian Exchange: New World foods from the Caribbean and Central/South America (corn, potatoes, tomatoes, chili peppers, peanuts, vanilla, chocolate, etc.) are brought to Europe, Africa, Asia; Old World foods (wheat, rice, sugar, beef, pork, apples, etc.) introduced to the Caribbean and Central/South America.
- Ponce de Leon discovers Florida and most likely brings tomatoes to North America.

**1620s**

- British traditional midday meal introduced, with meat, fowl, or fish as its centerpiece served with cornbread or biscuit. Steamed or boiled pudding is the first course; dessert of fruit pie or cake follows. It is eaten with a knife, spoon, and fingers.
- First Thanksgiving occurs in 1621 at Plymouth colony, a ten-day celebration combining European and Native American hunting and harvest feast traditions featuring fowl and venison.
- Dutch colonists at New Amsterdam (present-day Manhattan) introduce coleslaw, doughnuts, cookies, and waffles.

**1660s**

- Yams, watermelon, okra, black-eyed peas, eggplant, and sesame seeds brought with African slaves who also introduce the New World foods peanuts and chili peppers to North America.

**1680s**

- German Mennonites settle in Pennsylvania, creating Pennsylvania Dutch fare and popularizing dishes such as scrapple, apple butter, and funnel cakes.
- William Penn founds first brewhouse in Philadelphia, featuring English-style ales.

**1760s**

- England takes control of Canada from France: French Canadians migrate to New England (Franco-Americans) and Louisiana (Cajuns), bringing fish stews, pork pates, boudin sausages, French toast, and other specialties.
- An English plantation owner in New Smyrna, Florida imports 1,500 indentured servants from Italy, Greece, and Minorca to work his indigo fields, who in turn bring eggplant, lemons, and olives to the region.

**1770s**

- Boston Tea Party occurs; coffee takes hold as a protest beverage.
- Thomas Jefferson experiments with crops found in Europe, such as rice, broccoli, cauliflower, eggplant, savoy cabbage, and olives.

**1790s**

- Pineapples introduced to what is now Hawaii by the Spanish.
- *American Cookery* by Amelia Simmons in 1796 is first American cookbook; includes recipes for stuffed turkey, a "tasty Indian pudding," "pomkin" pudding (pie), "American citron" (watermelon) preserves, and cornmeal johnnycakes or hoecakes.

**1800s**

- First shipment of bananas arrives in the United States.
- First recipe for tomato-based ketchup published in 1812, called "love-apple or tomato catchup."

**1820s**

- First regional American cookbook published in 1824, *The Virginia Housewife, or Methodical Cook*, by Mary Randall, with recipes for southern specialties; also foreign dishes, such as ropa vieja and "gaspacho" (Spain), polenta and vermicelli (Italy), curry "after the East Indian manner," and "gumbo—a West Indian dish" (Caribbean).

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**1690s**

- Rice cultivation techniques introduced to Carolinas by Africans are so successful that excess crops sold to British.
- Tomatoes popular in coastal southern cuisines, but elsewhere considered poisonous.
- Jesuit and Franciscan priests plant grapes, oranges, lemons, figs, and olives at California missions.

**1700s**

- Potatoes popularized by Irish immigrants in Boston.

**1730s**

- New England codfish industry trades salt cod for slaves in Africa, who are brought to the Caribbean and traded for molasses, which is brought back to the colonies for production of rum. Estimated annual consumption of rum at the time: four gallons per person.

**1740s**

- First written record of ice cream in the colonies (served with strawberries and milk).

**1750s**

- The Ojibwa obtain complete control of wild rice stands in the lakes of Minnesota after defeating the Santee (Dakota) at the Battle of Kathio.

**1830s**

- Avocado introduced to Florida.

**1840s**

- Durgin-Park's Market Dining Room opens in Boston, featuring New England specialties such as chowders, fried cod tongues, and Indian pudding.
- Antoine's restaurant is founded in New Orleans, offering French Creole cuisine.
- German immigrants in numerous states found commercial breweries, introducing the lager that became American-style beer.
- First commercial pasta factory opened by Frenchman of Italian descent in Brooklyn.
- Macao and Woosung, the first recorded Chinese restaurant in United States, opens in San Francisco.

**1850s**

- Sourdough bread and biscuits, the foundation of gold miner's diet in California and the Yukon, is baked commercially in San Francisco.
- Swiss immigrants introduce Emmentaler cheese, which becomes known in the United States as "Swiss" cheese.
- American Indian chef George Crum creates potato chips after a diner in his restaurant complains about his thick-sliced potatoes.
- Hazelnut trees introduced from the Mediterranean to Oregon—nearly the entire U.S. hazelnut crop is now grown in the state.
- Artichokes, though previously introduced to Louisiana by the French, brought to California by the Spanish, where they have been so successful nearly the entire U.S. commercial crop comes from the state.

**1860s**

- Completion of the transcontinental railway shortens the trip between coasts from 120 days to less than one week: California fruits, vegetables, and grains head east; and eastern shellfish, especially oysters, go west.
- French, Hungarian, Italian, and German immigrants in California introduce European varietal wine grapes and viticulture techniques.
- Confederate soldiers sometimes survived on boiled, raw (green) peanuts, earning those from Georgia the nickname "goober grabbers."
- Augustus Gutkind begins Goodman's Matzohs in Philadelphia to supply the Passover market.
- Cajun-style hot sauce called Tabasco first formulated by Edmund McIlhenny at Avery Island, Louisiana.

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## CULTURAL FOODS IN THE UNITED STATES: A TIMELINE* *(Continued)*

### 1870s

- *Jewish Cookery*, first cookbook on the subject in the United States, by Esther Levy published in Philadelphia.
- Chinese Pekin ("Peking") ducks imported by New York farms.
- Acceptance of four-tined fork makes using a knife to eat outmoded; American-style use (transferring the fork from right hand to left when cutting foods) is established.
- Buffalo (a Plains Indian staple), which numbered 30 to 70 million, are reduced to approximately 1,500 animals, in part due to prestige of smoked buffalo tongue in urban areas.
- Navel oranges introduced to California from Brazil, by way of the U.S. Department of Agriculture (USDA) in Washington, DC.

### 1880s

- Luchow's restaurant opens in New York City, popularizing dishes found in German American homes and local beer gardens, such as smoked eel, bratwurst, weinerschnitzel, spatzle, and German-style beers.
- Oscar F. Mayer, a German American butcher, opens sausage shop in Chicago, later selling wieners to grocery stores throughout the region.
- B. Manischewitz Co. begins production of kosher products in Cincinnati.
- Italian immigrants from Naples introduce spaghetti made with olive oil and tomato paste.

### 1890s

- Asian immigrants move into San Joaquin valley of California, planting large tracts of land. By the 1940s, Japanese farmers are growing two-thirds of all vegetables in the state, creating shortages when they are interned during World War II.
- Chili powder, combining ground dried chili pepper bits with other seasonings, such as cumin and oregano, is invented in Texas—though attribution is uncertain. Chili stews of beef or goat popular in the region.

### 1900s

- Chop suey, a Chinese American vegetable and meat dish that may have come originally from southern China (*tsap seui*) is popular in "chow-chows" (Chinese restaurants) in California and New York.
- Foods prepared in the "French fashion" are popular, particularly among the upper classes who can afford to employ cooks knowledgeable in their preparation and dine at expensive restaurants.
- Pistachio tree from Middle East introduced in California and Texas.
- Coca-Cola, combining extracts from African kola nuts, South American coca leaves, and fruit syrups, goes on sale in Atlanta as a fountain drink.
- The Kellogg brothers at a Seventh-day Adventist spa create cereal flakes as a substitute for meat—a year later they add malt sweetener to increase appeal.
- Loma Linda Foods begins production of health breads and cookies for patients at the Seventh-day Adventist Loma Linda Hospital.
- Broccoli introduced to California by Italian immigrants.
- World's Fair in St. Louis popularizes German hamburger sandwiches and frankfurters (later dubbed hot dogs).
- First American pizzeria opened by Italian immigrant in New York City.

### 1950s

- Trader Vic's restaurants in California popularize Polynesian food, such as luau dishes and pupu platters, as well as the mai tai cocktail, claimed invented by the owner.
- USDA publishes Basic 4 Food Guide.

### 1960s

- Beef consumption reaches ninety-nine pounds per person in United States, surpassing pork consumption for the first time.
- Frieda's Finest founded to market specialty produce using samples and recipes in supermarkets; popularizes items such as Chinese gooseberries (renamed kiwifruit), Jerusalem artichokes (as sunchokes), radicchio, spaghetti squash, blood oranges, cactus pears, and other items.
- Julia Child debuts her cooking show, *The French Chef*, on public television, demystifying gourmet cooking and promoting French cuisine.
- The first Taco Bell fast-food restaurant opens in Downey, California.
- Benihana of Tokyo opens teppanyaki-style restaurant in New York.
- Term *soul food* coined for traditional African American cuisine.
- In Atlanta, Lester G. Maddox is ordered by the federal government to serve African Americans at his Pickrick Restaurant—he closes the business instead.
- Catfish farming introduced in Arkansas, dramatically increasing production and popularizing the fish nationwide.
- *Foods of the World* cookbooks from Time-Life Books begin with publication of *The Cooking of Provincial France* by M. F. K. Fisher—the series introduces international cuisine through twenty specialized volumes (African cooking to wines and spirits) followed in the 1970s with seven volumes on regional American fare.

### 1970s

- Falafel stands and restaurants proliferate with increased immigration of Middle Easterners.
- Chez Panisse restaurant opens in Berkeley, California, emphasizing fresh, locally grown ingredients, leading to development of a new California cuisine and promoting regional fare nationally.
- Nissin Foods USA founded in California to market instant noodle products popular in Japan, such as Top Ramen.
- Vietnamese refugees open small restaurants in California, Texas, and other locations, featuring traditional pho, sandwiches, and other items.
- Small numbers of immigrants arrive from Thailand, and many open restaurants, introducing fish sauces such as nuoc mam and noodle dishes, including phad thai.
- Paul Prudhomme opens K-Paul Louisiana Kitchen in New Orleans, popularizing Cajun cooking nationwide, one of the first regional food trends.

### 1910s

- George Washington Carver extols the virtues of peanuts, soybeans, and sweet potatoes; he popularizes peanut butter, formerly considered a food for people who were sick and aging adults.
- U.S. pasta production increases when imported supplies from Italy are cut off during World War I.
- American cheese first processed in Chicago by J.L. Kraft & Bros. (Canadian Mennonite immigrants) by melting bits of cheddar with an emulsifier to produce a smooth, mild cheeselike food.
- The fortune cookie created in California.

### 1920s

- La Choy Food Products founded to sell canned and jarred bean sprouts.
- Polish baker Harry Lender opens first bagel plant outside New York, and popularity begins to spread beyond eastern European enclaves.
- Aplets candy, based on the recipe for Turkish delight, invented by two Armenian immigrants in Washington State.
- Marriott Corp. gets its start as a root beer, tamale, and chili con carne stand in Washington, DC.
- The Russian Tea Room opens in New York, popularizing blinis, caviar, tea in samovars, and other Russian specialties.
- Colombo Yogurt is founded by Armenian immigrants in Massachusetts.

### 1930s

- Fritos corn chips first marketed in Texas based on a tortillas fritas (fried tortilla strips) recipe purchased from a Mexican restaurant owner.
- Spam is created, becoming a status food in Hawaii and the best-selling canned meat worldwide.
- Goya Foods is founded in New York by Spanish immigrants to import olives and olive oil, later tapping into the growing Latino food market.

### 1940s

- Influx of Greek immigrants seeking asylum in areas such as New York, Detroit, and Chicago popularize items such as souvlaki and gyros in family-run restaurants and street stands.
- Ed Obrycki's Olde Crab House in Baltimore converts from tavern to restaurant serving Maryland specialties such as soft-shell crab and crab cakes.
- Domestic servants and some housewives take jobs to support the U.S. war effort during World War II, leading to an increased consumption of convenience foods.
- *The Gentleman's Companion, Being an Exotic Cookery Book or, Around the World with Knife, Fork and Spoon* by Charles Baker, a two-volume set, published in 1946, describing dishes and drinks from throughout Europe and Asia—a second two-volume set on the foods and beverages of South America published in 1951.
- Balducci's specialty food shop (founded as a vegetable stand in 1916 by an Italian immigrant) opens in New York, offering an international assortment of foods from Europe, Asia, and Latin America as well as regional specialties, such as rattlesnake and Cajun andouille.
- The McDonald brothers offer franchises of their hamburger stand, founded in 1940 in Pasadena, California.

### 1980s

- Ethiopian restaurants become popular in some cities where immigrants have settled, introducing items such as injera and berbere.
- Yaohan supermarkets of Japan open in California catering to Asian population and offering ingredients such as bean sprouts, daikon, seaweed, pickled plums, fresh fish, and prepared items, including sushi.
- Korean immigrants, especially in Los Angeles, introduce Korean barbecue, kimchi, and other specialties through restaurants and markets.
- Fresh fugu fish (which can be highly toxic) is imported for first time for use in American Japanese restaurants under FDA supervision.

### 1990s

- Salsa becomes the favorite U.S. condiment when sales exceed those of ketchup.
- The term *fusion food* is used for combining the ingredients and preparation techniques of two or more cultural cuisines, such as Thai chicken pizza.
- Chicken consumption per capita first tops beef consumption.
- USDA and Department of Health and Human Services (DHHS) release first version of the Food Pyramid.
- The Food Network begins television broadcasting.
- Spanish tapas restaurants become trendy.

### 2000s

- Americans consume an average of one tortilla per person each day—representing 30 percent of all bread sales, nearly equal to white bread.
- There are more Chinese restaurants in the United States than McDonald's, Wendy's, and Burger King restaurants combined.
- $1 out of every $7 in grocery purchases is spent on ethnic items in 2005.
- Wine is neck-and-neck with beer as favorite U.S. alcoholic beverage.

imported fruits, vegetables, and meat products, cheeses, and condiments. The growth in ethnic restaurants has far surpassed that of the restaurant industry as a whole in recent decades. A survey found that Italian, Mexican, Japanese (sushi), Thai, Middle Eastern, and Caribbean fare have grown most in popularity in recent years, while interest in French, German, Scandinavian, and soul food has declined.[102] One of the most recent developments is the success of fast-casual ethnic restaurant chains, such as Chipotle, Curry in a Hurry, L&L Hawaiian Barbecue, Mama Fu's, and Pho Hoa. Ninety-two percent of U.S consumers have eaten some form of ethnic food in the past three months (whether at home or from a restaurant).[103] At the other end of the American continuum of cuisine, some people find considerable satisfaction in the uniformity of a meat-and-potatoes diet. A national trends survey found "plain" American food most well liked by respondents (66 percent).[104]

One example of a multicultural culinary creation is the California roll, the addition of avocado to traditional Japanese crab sushi. It is called "American sushi" in Japan.

In response to the ambivalence produced by the American paradox, the rising interest in new foods and the continued desire for familiar flavors, ethnic fare is often adapted to American tastes and standardized for national consumption. Spicing is reduced, protein elements (particularly meats and cheeses) are increased, more desserts and sweets are offered, and items considered distasteful to the American majority are eliminated. In considering the three most popular ethnic cuisines in the United States, it is unlikely a consumer will find roasted kid at an Italian restaurant, 1,000-year-old eggs at a Chinese takeout counter, or tripe soup at a Mexican drive-up window. Many Americans are convinced that spaghetti with meatballs, fortune cookies, and nachos are authentic dishes, yet they are all items created in the United States for American preferences.[105] Even cultural foods prepared at home from cookbooks are often modified for preparation in American kitchens with American ingredients, losing much of their original content and context. Only in ethnic, religious, and regional enclaves largely isolated from outside influences are traditional food habits maintained. Otherwise, over time, even significant symbolic practices can lose their meaning under the pressure of acculturation. For example, a study of Chinese Americans living in California found that while many attempted to balance their diet between hot and cold foods, few understood the yin-yang principles behind the practice.[105]

In many ways, U.S. cooking adapts to current and emerging food trends. Hamburgers, hot dogs, and fried chicken are clearly derived from other cultural fare, yet they are changed through the lens of the American paradox. Cheese melted over burgers on a sesame seed bun, chili con carne poured over frankfurters, and cornmeal-crusted chicken served with cream gravy and buttermilk biscuits are nearly unrecognizable compared to their European and African origins. And while the tamale pie in Texas, ahi burger in Hawaii, tofu lasagna in a vegetarian home, and avocado turkey croissant sandwich in the university cafeteria are not authentic ethnic fare, they are authentic American foods. It is the unexpected and exciting ways in which the familiar and the new are combined that make the study of food habits in the United States such a pleasurable and appetizing challenge.

**DISCUSSION STARTERS**

## Who Are You? And What Do You Eat?

- Write a short description of your cultural identity. What is your race? What is your ethnicity? What about your parents and your grandparents? Where is your family originally from? Think about your high school friends and classmates. What was their race? Their ethnicity?
- Next, write a description of what you eat. What are your favorite foods? When living at home, what foods did your family typically eat? If your parents cooked meals, what would they typically cook?

Now, form groups of three to four and share your descriptions with each other. Imagine that your instructor asks you to a "potluck," a social gathering where everyone invited is supposed to bring something for everyone else to eat. What do you want the other members of your group to bring? What foods might they bring that you would like to try?

## Review Questions

1. Define the terms *food* and *food habits*. How does the omnivore's paradox influence a person's food choices and food habits?
2. List four factors that may influence an individual's choice of foods. Pick one and explain how this factor influences food choices.
3. Define the terms *culture* and *acculturation*. Describe an example of a change in food habits that may reflect acculturation.
4. Describe the flavor principles, core foods, and meal patterns of your family's diet.
5. Which of the factors described by the consumer food choice model currently influence your food choices? Which factors do you think will stay the same and which do you think will change as you age?

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CHAPTER 2

# Traditional Health Beliefs and Practices

Health and illness in America are usually considered the specialty of mainstream biomedicine. *Biomedicine* is the term used to describe the conventional system of health care in the United States and other Western nations based on the principles of the natural sciences, including biology, physiology, and biochemistry. Furthermore, health promotion is based on scientific findings of researchers regarding diet, exercise, and lifestyle issues such as smoking cessation and stress management; disease is treated according to the latest technologies. In reality, health care is pluralistic in the United States, as well as in most other cultures. Many people in the United States never consult a physician or allied health care provider when physical or emotional symptoms occur, relying on home remedies and popular therapies found readily on the Internet rather than seeking professional help. Complementary and alternative medicine (CAM) is popular with many Americans. The National Center for Complementary and Alternative Medicine recently published data gathered from the National Health Interview Survey and estimates that approximately 38 percent of all adults and approximately 12 percent of all children used some form of CAM during the year of 2007. This is a significant increase since the last report in 2002. The top five CAM therapies included natural products, deep breathing, meditation, chiropractic and osteopathic interventions, and massage.[1] Consumer spending on such practices and products has more than tripled in the past decade, from $11 billion annually to nearly $40 billion.[2] When biomedical care is sought, it is often in conjunction with these other systems. The term *integrative medicine* is used when there is a combination of conventional and CAM treatments that have demonstrated scientific evidence of safety and effectiveness.[1]

Culture determines how a person defines health, recognizes illness, and seeks treatment. Traditional health beliefs and practices can be categorized in various ways: through the etiology of illness (due to personal, natural, social, or supernatural causes) or by the cures that are employed (the use of therapeutic substances, physical forces, or magico-religious interventions). There is no consensus, however, on these classifications. In this chapter, home remedies, popular approaches such as folk and alternative traditions, and professional systems (including U.S. biomedicine, traditional Chinese medicine, and Asian Indian ayurvedic medicine) are reviewed within the cultural context of health and illness. Specific beliefs and practices are detailed in the following chapters on each American ethnic group.

## Worldview

### Cultural Outlook

Each cultural group has a unique outlook on life, based on a common understanding and ranking of values. These standards typically represent what is considered worthy in a life well lived. They are a collective expression of

**TABLE 2.1 Comparison of Common Values**

| Majority American Culture | Other Cultural Groups |
|---|---|
| Mastery over nature | Harmony with nature |
| Personal control over the environment | Fate |
| Doing—activity | Being/becoming |
| Time dominates | Personal interaction dominates |
| Human equality | Hierarchy/rank/status |
| Individualism/privacy | Group welfare |
| Youth | Elders |
| Self-help | Birthright inheritance |
| Competition | Cooperation |
| Future orientation | Past or present orientation |
| Informality | Formality |
| Directness/openness/honesty | Indirectness/ritual/"face" |
| Practicality/efficiency | Idealism |
| Materialism | Spiritualism/detachment |

SOURCE: Adapted from E. Randall-David, *Strategies for Working with Culturally Diverse Communities*. Association for the Care of Children's Health, 19 Mantua Rd., Mt. Royal, NY 08061. Copyright 1989.

preferences and priorities—not absolutes—and individuals within a society may hold a spectrum of beliefs. However, expectations about personal and public conduct, assumptions regarding social interaction, and assessments of individual behavior are determined by this cultural outlook, or worldview. This perspective influences perceptions about health and illness as well as the role of each within the structure of a society.[3,4,5] Majority American values, which are shared by most whites and to some degree by many other ethnic groups in the United States, emphasize individuality and control over fate (Table 2.1). Personal accountability and self-help are considered cultural cornerstones. One study found that 82 percent of American consumers believe they are directly responsible for their own health.[6] Most other cultures worldwide believe that fate—including the will of God, the actions of supernatural agents, or birthright (i.e., astrological alignment or cosmic karma)—is a primary influence in health and illness. Although most cultures have complex practices regarding the maintenance of health, the concept of preventative health care, such as annual checkups, is unknown in some cultures where fate dominates.

The significance of fate often coincides with differences in perceptions of time. Many Americans place great value on promptness and schedules; they are also future oriented, meaning they are willing to work toward long-term goals or make sacrifices so that they or their children will reap rewards in the future. The majority members in the United States

Michael Newman/PhotoEdit

◀ *The concept of preventive health care, such as annual checkups provided by a biomedical professional, is unknown in some cultures where fate is believed to determine health.*

are also monochronistic, with a preference for concentrating on one issue or task at a time in a sequential manner. Many other cultural groups live in the present and are often polychronistic, or comfortable doing many things at once. A Mexican American who is talking with his grandmother while fixing an appliance and watching a baseball game on television is unlikely to cut the visit short just because he has a medical appointment. Immediate interests and responsibilities, including interpersonal relationships, are more important than being on time. A few cultures, such as certain Native American nations, are past oriented, living according to historical direction.

Most majority Americans are very task oriented and desire direct participation in their health care; they feel best when they can do something. Other cultures place a greater value on being and feel comfortable with inactivity. Self-worth is based more on personal relationships than on accomplishments. The expectation is that the health care practitioner will take responsibility for treatment. The whole idea of the provider–client partnership may be alien to Asians, who often expect to be fully directed in their care. While many Americans value patient autonomy and confidentiality, other cultural groups, such as Middle Easterners, believe that the family should be involved in all health care decisions—the welfare of the group outweighs that of the individual.

Many cultures prefer indirect communication, which seems vague and noncommittal to Americans, who consider honest, open dialogue essential to effective communication (see Table 2.2). In addition, Americans often prefer informality, compared to many cultures that expect a formal relationship with everyone but intimate family members. In cultures where identity with a group is more significant than individuality, social status and hierarchy are respected, which can have an impact on the practitioner–client relationship (see Chapter 3, "Intercultural Communication," for more information).

Worldview is especially evident in serious, life-and-death health care decisions. Southeast Asians may appear indifferent to a terminally ill family member and have little interest in prolonging life because of a faith in reincarnation. Some African Americans distrust white American health care recommendations regarding do-not-resuscitate orders in part because they contradict the critical role of faith in African American healing. An Orthodox Jewish patient may believe that physicians are mandated to preserve life and that any person who assists death through denial of sustaining care is a murderer; a non-Orthodox Jew may believe that no one should endure uncontrollable pain and thus dying should not be prolonged. Middle Easterners traditionally demand that everything be done to keep a person alive because death is in God's hands, and one must never give up hope. Mexican American family members might view death as part of God's plan for a relative; they might be against anything that would quicken death, or they may expect the practitioner to make the decision.[7,8,9]

Most health care situations are not cases of life or death, and worldview affects many other, less catastrophic aspects of health and illness as well. It is useful to examine the biomedical worldview and understand the perspective of most U.S. health care providers before learning about other traditional health beliefs and practices. Comparisons between biomedicine and other medical systems can reveal areas of potential disagreement or conflict regarding

Some majority Americans find eating a meal a disruption of daily tasks; others adhere to strict meal schedules. In polychronistic (people-oriented versus task-oriented) societies, meals are usually leisurely events, a chance to enjoy the blessings of food in the company of family and friends.

**TABLE 2.2 Direct and Indirect Communication**

| Direct Communication | Indirect Communication |
|---|---|
| 1 Openly confront issues or difficulties | 1 Focus is not just on what is said but how it is said |
| 2 Communicate concerns straight-forwardly | 2 Avoid difficult or contentious issues |
| 3 Engage in conflict when necessary | 3 Avoid conflict if possible |
| 4 Express views or opinions in a frank manner | 4 Express opinions and concerns diplomatically |
| *Example:* Get right to the point during a conversation. | 5 Count on the listener to interpret the meaning |
| | *Example:* Avoid saying no; say maybe or possibly, even if you mean no. |

SOURCE: Peterson, Brooks. 2004. *Cultural intelligence: A guide to working with people from other cultures*. Boston: Intercultural Press.

how and why illness occurs and the expectations for treatment before working with a client. Compliance increases with clinical approaches that concur with the client's worldview.[10,11]

## Biomedical Worldview

Biomedicine is a cultural subdivision of the American majority worldview. It shares many beliefs with the dominant outlook but differs in a few notable areas.[12,13] There are certainly exceptions to the biomedical worldview within certain specialties, and by some practitioners, yet many of the underlying assumptions are culture-specific. The tendency is for health care providers to enforce their beliefs, practices, and values upon clients, sometimes unknowingly because they are unaware of cultural differences, but more often because they believe their ideas are superior. This process is called *cultural imposition*, and it impacts nearly all client care.[14]

### Relationship to Nature

Biomedicine adheres to the concept of mastery over nature. Practitioners are soldiers in the war on cancer (or other conditions). They fight infection, conquer disease, and kill pain. Technology is considered omnipotent; its tools are the arsenal used to battle pain and illness.

One factor in this approach is the attitude that health can be measured numerically and that there are standardized definitions of disease. Blood and urine analyses, X-rays, scans, and other diagnostic tests are used to define whether a patient is within normal physical or biochemical ranges. Results falling within designated parameters mean the patient is functioning normally; if the data are too high or too low, the patient is in an abnormal state that may indicate disease. Diagnosis occurs independent of the idiosyncratic characteristics of the individual, usually without consideration of cultural factors such as ethnic background or religious faith. Symptoms that cannot be linked to a known medical problem are frequently determined to be of psychosomatic origins.[12]

### Personal Control or Fate?

The U.S. medical system leaves little room for chance or divine intervention. Scientific rationality dictates that there is a biomedical cause for every condition, even if it is as yet undiscovered. Each individual inherits a certain physiological constitution and has a personal responsibility to make the choices that prevent illness. Receiving immunizations and getting regular checkups are biomedical ways by which individuals can preserve their health. Being obese, smoking cigarettes, consuming immoderate amounts of alcohol, and failing to manage stress are biomedical examples of how individuals may endanger their health.

When a person is ill, the biomedical assumption is that he or she will reliably comply with therapy, and that treatment, if undertaken correctly by the patient, will alleviate the condition. The onus of cure is dependent on personal behavior. From the patient's perspective, there is the presumption that health care professionals will provide mistake-free care. Malpractice suits filed when care was less than perfect have led to extensive charting and record keeping in the U.S. biomedical system.

### State of Being

Consistent with the value placed on personal control, biomedical patients are expected to be active partners in their cure. Noncompliance is disliked by biomedical practitioners. Changes in lifestyle can help preserve health; taking medications and completing therapeutic regimens can relieve symptomatic pain or cure disease. The biomedical emphasis is on doing, not being. Other worldviews may expect client nonparticipation and acceptance of adverse conditions. Clients are the recipients of healing, not participants in healing.

### Role of the Individual

Similar to the American majority worldview, individuality is honored in U.S. biomedicine, and client confidentiality is mandatory. Individuals are seen as a single, biological unit, not as members of a family or a particular cultural group. It is assumed that a person desires privacy, and clients are sometimes encouraged by providers to keep medical matters quiet, even if it means withholding information from relatives. Typically, treatment is focused solely on the client, in keeping with the beliefs of personal responsibility and the provider–patient partnership.

Some researchers have noted that although the biomedical community often calls clients whose cultural background differs from the majority "hard to reach," this term is equally applicable to health professionals who refuse to provide culturally appropriate care.[70]

The number of adults over sixty-five years in the United States is expected to double by the year 2050; figures among some ethnic groups, such as African Americans, Asian Americans, Native Americans and Latinos, show even greater growth.

### Human Equality

A fundamental premise in American biomedicine is that all patients deserve equal access to care, although, practically speaking, cost, location, and convenience prevents many patients from receiving adequate health services. This is a relatively unique perspective; most other societies deliberately ration health care through assessing physical status (e.g., a young person may receive services denied to a terminally ill older person) or through socioeconomic status (e.g., the wealthy can purchase care; the poor are left to whatever society offers).

The biomedical worldview on human equality differs substantially from the mainstream American outlook in one way, however. A hierarchy of biomedical professionals is strictly observed in the United States, with physicians having the highest status and allied health professionals substantially less. Health care workers outside the professional system, such as clerical and custodial workers, and those beyond the reach of biomedicine, such as folk healers, are accorded even lower standing. Deference to those of superior rank is expected. The client is typically inferior to biomedical professionals within this hierarchy.

### Aging

Biomedicine supports the majority American worldview in its value on youthfulness. Many aspects of health care practice are dedicated to postponing the aging process, from plastic surgery to the technological prolongment of life. The fear of aging is so pervasive in the U.S. culture that it influences health care outside the conventional biomedical system as well. Numerous alternative traditions promise everlasting youth through the use of certain products. The emphasis on youthfulness is in direct conflict with other cultural worldviews that honor the wisdom that comes with aging and that hold high esteem for elders.

### Perceptions of Time

Biomedicine is future oriented—that is, what can be done today so that the client will be better tomorrow. Often treatments are unpleasant, invasive, and even painful at the moment of their application, yet the hope is that they will benefit the client in the future. Long-term management of disease and illness-prevention strategies such as diet are even more oriented toward future benefits.

Although being on time for appointments and taking medications when scheduled are traits valued in clients, biomedical practitioners are notorious for their disrespect of clients' time. Clients are frequently asked to arrange nonemergency consultations weeks or even months in advance and may be kept waiting on the days of their appointments.

### Degree of Formality/Degree of Directness

The established biomedical hierarchy, as well as the emphasis on timeliness, is often reflected in the degree of informality observed in dialogue between provider and patient. The provider often addresses the client by his or her first name, yet expects the patient to use formal titles in return. The provider usually spends limited time on small talk and attempts to get quickly to the problem; the expectation is the patient will also use a direct approach. Extensive medical jargon without explanation is often employed.

Biomedical practitioners value honest, open communication with patients because it enhances their ability to diagnose and treat disease, and it assists in issues such as informed consent. Other cultural worldviews, however, value indirect or intuitive communication with health care practitioners (see Chapter 3 for more information). Some cultures also believe that the family, not the patient, should be told about serious conditions.[15]

### Materialism or Spirituality?

Each disease, from the biomedical viewpoint, has its own physiological characteristics: a certain cause, specific symptoms, expected test results, and a predictable response to treatment. For many biomedical health care providers, an illness isn't real unless it is clinically significant; emotional or social issues are the domain of other specialists. Biomedicine differs from most traditional health care approaches in the recognition of the mind–body duality. Nearly all other cultures consider

the mind and body as a unified whole. Somatization refers to the expression of emotions through bodily complaints. In biomedical culture, somatic symptoms are often interpreted as a maladaptive emotional response, yet they are the most common presentation of psychological distress in patients worldwide.[16] In folk medicine and some alternative traditions, the emotional needs of the patient are addressed through physical therapies. Spiritual intervention is frequently sought concurrently.

# What Is Health?

## Cultural Definitions of Health

### Meaning of Health

The World Health Organization (WHO) describes health as "a state of complete physical, mental, and social well-being, not merely an absence of disease or infirmity." Although comprehensive from a biomedical perspective, this definition does not fit the worldview of many cultural groups because it ignores the natural, spiritual, and supernatural dimensions of health.

Most Native Americans believe that health is achieved through harmony with nature, which includes the family, the community, and the environment. Africans also emphasize a balance with nature and believe that malevolent environmental forces such as those of nature, God, the living, or the dead may disrupt a person's energy and bring illness. Many African Americans, Latinos, Middle Easterners, and some southern Europeans attribute health to living according to God's will. Gypsies maintain health through avoiding contact with non-Gypsies, who are considered inherently polluted. Most Asians believe that health is dependent on their relationship to the universe and that a balance between polar elements, such as yin and yang, must be maintained. Some Southeast Asians are concerned with pleasing their ancestor spirits, who may cause accidents or sickness when angry. Pacific Islanders believe that fulfilling social obligations is essential to health and that disharmony with family or village members can result in illness. Asian Indians consider mind, body, and soul to be interconnected and believe that spirituality is as important to health as a good diet or getting proper rest (see individual chapters on each ethnic group for more details).

Health in other cultures is less dependent on symptoms than on the ability to accomplish daily responsibilities. Among Koreans, there is a strong desire to avoid burdening their children with their health problems. Mexican men may ignore physical complaints because it is considered weak and unmanly to acknowledge pain. Even within a single culture, socioeconomic differences may contribute to the definition of health; daily aches are tolerated when a weekly paycheck is essential.[12]

The separation between physical and emotional or psychological health is so embedded in American culture that no English word exists to even express the concept of mind–body unity.

The word *health* comes from the Anglo-Saxon term *hal*, meaning "wholeness."

### Health Attributes

As health is defined culturally, so are the characteristics associated with health. Physical attributes are commonly linked with well-being, including skin color, weight maintenance, and hair sheen. Normal functioning of the body, such as regular bowel movements, routine menstruation, and a steady pulse is expected, as is the use of arms, legs, hands, and the senses. Undisturbed sleep and not being tired also suggests good health.

Harmony within the context of marriage, family, and community are sometimes considered signs of well-being. The specifics of health characteristics vary culturally. Healthy hair in the United States is advertised as clean, shiny, and flake-free, but in many cultures oily hair is the norm, and dandruff is not a significant concern. Americans count on a single, strong pulse of about seventy-two beats per minute when resting, while in other medical systems there is more than one pulse of importance to health, and these pulses are a primary diagnostic tool in illness. Pregnancy is a medical condition in the United States warranting regular exams by biomedical professionals, whereas in many societies pregnancy is a normal aspect of a healthy woman's cycle, and prenatal care is uncommon. Generally speaking, Americans expect to be content in their lives; many other cultures have no such assumptions and do not link happiness with well-being.

In ayurvedic medicine, a distinction is made between general health and optimal health.

In traditional Chinese medicine, fifteen separate pulses are identified, each associated with an internal organ and each with its own characteristics.

### Body Image

One area of significant cultural variation regarding health is body image. Perceptions of weight, health, and beauty differ worldwide. In the United States, there is significant societal pressure to be thin. Although there is no scientific agreement on the definition of ideal or even healthy weight for individuals, being overweight is usually believed to be a character flaw in the majority American culture. Even health care professionals reportedly make moral judgments about obesity, depicting overweight persons as weak-willed, ugly, self-indulgent, and fair game for ridicule.[17,18,19] The health risks associated with being overweight cause some providers to presume ill health in their obese clients. Thinness corresponds to the biomedical worldview regarding mastery of nature, the idea that the mind can control the appetite.[20]

Historically, thinness has been associated with a poor diet and disease. In many cultures today, including those of some Africans, Caribbean Islanders, Filipinos, Mexicans, Middle Easterners, American Indians, and Pacific Islanders, being overweight is a protective factor that is indicative of health as well as an attribute of beauty. Many overweight African American women, for example, are less concerned about weight issues and more satisfied with their bodies than overweight white women.[21,22] A larger ideal body image is the norm for most black men and women regardless of age, education, or socioeconomic status.[23,24] Some black Caribbean Islanders and Puerto Rican women also report a larger body size as attractive to family and peers when compared to Anglo, eastern European American, and Italian American women.[25] Some Hispanic women value a heavier profile for themselves, and even if they opt for a slimmer body personally, they may prefer plump children.[26,27] Researchers have found that some young African American and Latina women purposefully contest the majority culture emphasis on thinness, focusing more on self-acceptance and being caring and attentive.[28]

Researchers have found that attitudes about weight sometimes change when an immigrant enters a culture with different attitudes regarding health and beauty. More acculturated Hispanic women and children were more likely to choose a thinner figure as ideal than those who were less acculturated, ideal body image for Samoan women in Hawaii varied with whether they identified with Western or non-Western culture, and Puerto Ricans living on the mainland United States expressed a desire for thinness that is between that of their country of origin and that of the majority culture in their new homeland.[29,30] Among some Native Americans, ideal body size has changed over time. Elders are more likely than younger adults to prefer a heavier profile, and children demonstrate a desire for even thinner bodies.[31,32,33] Some studies also suggest the pressure to be thin may be impacting young persons more than adults: the percentage of normal-weight teens engaging in unhealthy weight control behaviors did not vary by ethnicity in a national examination of high school students, and another study found Asian, Hispanic, and American Indian adolescent girls reported similar numbers of weight-related concerns as white girls; however, African American girls had fewer weight issues.[34,35,36] Some Native American schoolchildren express a high level of body dissatisfaction, and concerns about overweight were high in a cohort of third-grade children, with Latinas and African American girls reporting the same or greater level of body dissatisfaction than white and Asian girls.[37,38]

## Health Maintenance

### Health Habits

Just as with health attributes, there are some broad areas of intercultural agreement on health habits. Nearly all people identify a good diet, sufficient rest, and cleanliness as necessary to preserving health. It is in the definitions of these terms that cultural variations occur. For example, majority Americans typically identify three meals each day as a good diet. Asians may indicate a balance of yin and yang foods is a requirement. Middle Easterners may be concerned with sufficient quantity, and Asian Indians may be concerned with religious purity of the food. To most Americans, keeping clean means showering daily, while some Filipinos bathe several times each day to maintain a proper hot–cold balance.