



# Introduction





# Healthy Eating and Physical Activity

Healthy, age-appropriate eating and physical activity are essential for good health at every age. Both are especially important for the growth and development of infants, children, and adolescents. Healthy eating can help prevent health problems such as iron-deficiency anemia, eating disorders, undernutrition, dental caries (tooth decay), overweight and obesity, and osteoporosis. Healthy eating along with physical activity can help prevent overweight and obesity and osteoporosis. Over the long term, healthy eating and physical activity can help lower the risk of developing chronic diseases (eg, heart disease, certain cancers, type 2 diabetes mellitus, stroke, osteoporosis) or reduce risk factors for diseases (eg, overweight and obesity, high blood pressure, high blood cholesterol levels).<sup>1</sup> Physical activity in children and adolescents also improves strength and endurance, builds healthy bones and lean muscles, develops motor skills and coordination, reduces fat, reduces feelings of depression and anxiety, and promotes psychological well-being.<sup>2</sup> Many children and adolescents like physical activity because it is fun; they can do it with friends and family; and it helps them learn skills, stay in shape, and feel good. By making healthy food choices and finding a balance between the amount of food they consume and the level of physical activity they engage in, they can feel good and stay healthy.<sup>1,2</sup>

Unfortunately, there are barriers to both healthy eating and being physically active. High-calorie, low-nutrient foods are widely available, and portion sizes are often large. These foods, which require little or no preparation and are frequently inexpensive, are attractive to families facing time and money pressures. In addition, many media messages encourage unhealthy eating, thereby negatively influencing children's and adolescents' eating behaviors. Too often, "healthy eating" connotes expensive food that is tasteless, time-consuming to prepare, and part of a regimented "diet" that is inconsistent with usual eating habits.

Similarly, negative images create barriers to being physically active. Physical activity is sometimes viewed as time-consuming, painful, boring, or expensive. Some people feel they can't be physically active on a regular basis, so they don't try to be physically active at all. Children and adolescents who are sedentary often feel that physical activity goals are beyond their reach, and others feel intimidated about joining activities with those who are more fit or athletic. Furthermore, some families have difficulty finding safe, inexpensive places where they can enjoy physical activity.

Health professionals, families, and communities can work together to improve the well-being of children and adolescents by creating opportunities for healthy eating and physical activity. Multifaceted, community efforts can combat negative images and demonstrate that healthy foods can be tasty, quick to prepare, and affordable and that physical activity can be fun. Using settings such as community centers, athletic facilities, libraries,

restaurants, and grocery stores to deliver innovative nutrition-education programs should be explored. Environments that make it easier to be physically active should be provided. Examples of such environments include parks with play areas, walking and biking paths, and school and other community recreational facilities that are open during nonschool hours (eg, after school, on weekends, during the summer). Providing families with healthy food choices that are appealing and affordable, as well as with options for becoming more physically active, can empower all family members to develop healthy lifestyles.

People's lifestyle choices are based on their nutrition needs and on their cultures, access to food, environment, friends and family, and enjoyment of certain foods or activities. A variety of factors play roles in how people select foods, plan meals, and decide where to eat and with whom. A variety of factors also influence what physical activities people engage in and how long they spend on physical activity each day.

The *Dietary Guidelines for Americans* and the *Physical Activity Guidelines for Americans* are the foundation for nutrition and physical activity principles that form the basis for government nutrition policy and education.<sup>1,2</sup>

### DIETARY GUIDELINES FOR AMERICANS

The *Dietary Guidelines for Americans 2010* comprise core principles to help people, ages 2 years and older, develop healthy lifestyles based on individual needs, likes, and dislikes related to both eating and physical activity. The *Dietary Guidelines* focus on choosing from a variety of nutritious foods, reading food labels, and being more physically active to meet nutrition requirements, promote health, and reduce risk of chronic disease. The *Dietary Guidelines* emphasize that individuals and families can make choices today that will help them feel good and be healthy in the future.<sup>1</sup>

The *Dietary Guidelines* summarize and synthesize knowledge about individual nutrients and food components into an interrelated set of recommendations for healthy eating that can

be adopted by the public. Taken together, the *Dietary Guidelines* recommendations encompass 2 over-arching concepts<sup>1</sup>:

- Maintain calorie balance over time to achieve and sustain a healthy weight.
- Focus on consuming nutrient-rich foods and beverages.

Box 1 lists the *Dietary Guidelines for Americans 2010* key recommendations, which are the most important for improving public health. To get the full benefit, individuals should carry out the *Dietary Guidelines* recommendations in their entirety as part of an overall healthy eating pattern.

The *Dietary Guidelines*, which are jointly issued by the US Department of Agriculture and the US Department of Health and Human Services, are updated every 5 years. New communication tools based on the *Dietary Guidelines* are available at <http://www.health.gov/dietaryguidelines>.

### NUTRITION FACTS FOOD LABEL

The *Nutrition Facts* food label appears on most packaged foods. The label helps people select foods that meet *Dietary Guidelines* recommendations. Key nutrients (including the amount of nutrients per serving) that the food provides are listed on the label. The *Nutrition Facts* food label provides a mechanism for comparing the calories and nutrients in different foods. Consumers can also use the label to choose foods rich in polyunsaturated and monounsaturated fat and low in saturated fat, trans fat, and cholesterol, or to choose foods with less sugar and salt.<sup>3</sup> See Figure 1 on page 6 for a sample nutrition facts label.

### PHYSICAL ACTIVITY GUIDELINES FOR AMERICANS

The *Physical Activity Guidelines for Americans* describe the types and amounts of physical activity that offer substantial health benefits for children and adolescents ages 6 and older and adults.<sup>2</sup> The *Physical Activity Guidelines for Americans* complement the *Dietary Guidelines for Americans*, and together the 2 documents provide guidance on the importance of being physically

**BOX 1. DIETARY GUIDELINES FOR AMERICANS 2010 KEY RECOMMENDATIONS****Balancing Calories to Manage Weight**

Prevent and/or reduce overweight and obesity through improved eating and physical activity behaviors.

Control total calorie intake to manage body weight. For people who are overweight or obese, this will mean consuming fewer calories from foods and beverages.

Increase physical activity and reduce time spent in sedentary behaviors.

Maintain appropriate calorie balance during each stage of life—childhood, adolescence, adulthood, pregnancy and breastfeeding, and older age.

**Foods and Food Components to Reduce**

Reduce daily sodium intake to less than 2,300 mg and further reduce intake to 1,500 mg among persons who are 51 and older and those of any age who are African American or have hypertension, diabetes, or chronic kidney disease. The 1,500 mg recommendation applies to about half of the US population, including children and the majority of adults.

Consume less than 10% of calories from saturated fatty acids by replacing them with monounsaturated and polyunsaturated fatty acids.

Consume less than 300 mg per day of dietary cholesterol.

Keep trans fatty acid consumption as low as possible by limiting foods that contain synthetic sources of trans fats, such as partially hydrogenated oils, and by limiting other solid fats.

Reduce the intake of calories from solid fats and added sugars.

Limit the consumption of foods that contain refined grains, especially refined grain foods that contain solid fats, added sugars, and sodium.

If alcohol is consumed, it should be consumed in moderation—up to 1 drink per day for women and 2 drinks per day for men—and only by adults of legal drinking age.

**Foods and Nutrients to Increase**

Individuals should meet the following recommendations as part of a healthy eating pattern while staying within their calorie needs.

Increase vegetable and fruit intake.

Eat a variety of vegetables, especially dark-green and red and orange vegetables and beans and peas.

Consume at least half of all grains as whole grains. Increase whole-grain intake by replacing refined grains with whole grains.

Increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, or fortified soy beverages.

Choose a variety of protein foods, which include seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds.

Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry.

Replace protein foods that are higher in solid fats with choices that are lower in solid fats and calories and/or are sources of oils.

Use oils to replace solid fats where possible.

Choose foods that provide more potassium, dietary fiber, calcium, and vitamin D, which are nutrients of concern in American diets. These foods include vegetables, fruits, whole grains, and milk and milk products.

**Building Healthy Eating Patterns**

Select an eating pattern that meets nutrient needs over time at an appropriate calorie level.

Account for all foods and beverages consumed and assess how they fit within a total healthy eating pattern.

Follow food safety recommendations when preparing and eating foods to reduce the risk of foodborne illnesses.

Source: US Department of Agriculture, US Department of Health and Human Services.<sup>1</sup>

**FIGURE 1. NUTRITION FACTS**

<b>Nutrition Facts</b>	
Serving Size 1 cup (228g)	
Servings Per Container 2	
Amount Per Serving	
Calories 250	Calories from Fat 110
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 1.5g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

\* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Source: US Department of Health and Human Services, Food and Drug Administration.<sup>3</sup>

active and eating healthy foods to promote health and reduce the risk of chronic diseases.

Children and adolescents can achieve substantial health benefits by doing moderate- and vigorous-intensity physical activity for a total of 60 minutes or more each day. This should include aerobic activity as well as age-appropriate muscle- and bone-strengthening activities. It appears that the total amount of physical activity is more important for achieving health benefits than any one component (frequency, intensity, or duration) or the specific mix of activities (aerobic, muscle strengthening, or bone strengthening). Even so, bone-strengthening activities remain especially important for children and adolescents because the greatest gains in bone mass occur during the years just before and during puberty, and most peak bone mass is obtained by the end of adolescence.<sup>2</sup>

Just as children and adolescents can get in the habit of being physically active on a regular basis, they can also learn to be inactive if they are not given opportunities to be active. Children and adolescents who are inactive are much more likely to be sedentary as adults.

Children and adolescents learn by example—if parents, grandparents, and other family members enjoy and engage in physical activity on a regular basis, they will too.

**BOX 2. KEY PHYSICAL GUIDELINES FOR CHILDREN AND ADOLESCENTS AGES 6 AND OLDER**

- Children and adolescents should engage in 60 or more minutes of physical activity each day.
  - Aerobic: Most of the 60 or more minutes a day should be either moderate- or vigorous-intensity aerobic physical activity and should include vigorous-intensity physical activity at least 3 days a week. Moderate-intensity activities include hiking, skateboarding, rollerblading, bicycling, and brisk walking. Vigorous-intensity activities include jumping rope; running; bicycling; swimming; or playing basketball, soccer, tennis, and hockey.
  - Muscle-strengthening: As part of the 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity at least 3 days a week. Muscle-strengthening activities can be unstructured and part of play, such as playing on playground equipment, playing tug-of-war, and climbing trees. These activities can also be structured, such as lifting weights, doing sit-ups, or working with resistance bands.
  - Bone-strengthening (weight-bearing): As part of their 60 or more minutes of daily physical activity, children should include bone-strengthening physical activity at least 3 days a week. Bone-strengthening activities include jumping rope; running; or playing basketball, soccer, volleyball, and tennis.
- It is important to encourage children and adolescents to engage in physical activities that are appropriate for their age, that are enjoyable, and that offer variety.

Source: US Department of Health and Human Services.<sup>2</sup>

## REFERENCES

1. US Department of Agriculture, US Department of Health and Human Services. *Dietary Guidelines for Americans 2010*. 7th ed. Washington, DC: US Government Printing Office; 2010
2. US Department of Health and Human Services. *2008 Physical Activity Guidelines for Americans*. Washington, DC: US Department of Health and Human Services; 2008
3. US Department of Health and Human Services, Food and Drug Administration. *Nutrition Facts*. Washington, DC: US Department of Health and Human Services, Food and Drug Administration; 2006

## RESOURCES FOR FAMILIES

- US Department of Agriculture, Food and Nutrition Service. *Eat Smart. Play Hard*. <http://teamnnutrition.usda.gov/Resources/eatsmartmaterials.html>
- US Department of Agriculture, Food and Nutrition Service. *Empowering Youth with Nutrition and Physical Activity*. <http://healthymeals.nal.usda.gov/hsmrs/EY>
- US Department of Agriculture, Food and Nutrition Service. *Grow It, Try It, Like It! Preschool Fun with Fruits and Vegetables*. Washington, DC: US Department of Agriculture, Food and Nutrition Service; 2010
- US Department of Agriculture, Food and Nutrition Service. *Loving Your Family, Feeding Their Future*. [http://snap.nal.usda.gov/nal\\_display/index.php?info\\_center=15&tax\\_level=5&tax\\_subject=261&topic\\_id=1941&level3\\_id=6322&level4\\_id=10692&level5\\_id=20039](http://snap.nal.usda.gov/nal_display/index.php?info_center=15&tax_level=5&tax_subject=261&topic_id=1941&level3_id=6322&level4_id=10692&level5_id=20039)
- US Department of Agriculture, Food and Nutrition Service. *Nibbles for Health: Newsletter for Parents of Young Children*. Washington, DC: US Department of Agriculture, Food and Nutrition Service; 2008
- US Department of Agriculture, Food and Nutrition Service. *Team Nutrition*. <http://www.fns.usda.gov/tn>
- US Department of Agriculture, Food and Nutrition Service. *The Two Bite Club*. Washington, DC: US Department of Agriculture, Food and Nutrition Service; 2009
- US Department of Health and Human Services, Food and Drug Administration; US Department of Agriculture, Food and Nutrition Service. *The Power of Choice: Helping Youth Make Healthy Eating and Fitness Decisions*. Washington, DC: US Department of Health and Human Services, Food and Drug Administration; US Department of Agriculture, Food and Nutrition Service; 2008





# Nutrition in the Community

A community can be defined by its geography, its government, and the services it offers (eg, social, education, health). A community's character reflects its size, its cultural diversity, and the common interests of its residents. Communities need systems, funding, and resources to meet residents' nutrition needs.

Nutrition services are usually provided by dietitians, nutritionists, and other health professionals; however, they may also be provided by others in the community, including social service providers, teachers, child care providers, and after-school program staff. Community settings—such as child care facilities, community centers, schools, colleges and universities, and clinics and hospitals—are excellent forums in which health professionals and others can provide nutrition supervision and promote optimal nutrition.

## PARTNERSHIPS FOR PROMOTING OPTIMAL NUTRITION

To promote optimal nutrition for infants, children, and adolescents, partnerships among health professionals, families, and communities are key. Partnerships can do the following:

- Assess the nutrition needs of infants, children, and adolescents.
- Identify families' health beliefs.
- Establish nutrition priorities and develop, implement, monitor, and evaluate nutrition programs and services.
- Promote healthy eating behaviors, regular physical activity, and a healthy lifestyle.

Partnerships can be as informal as health professionals discussing nutrition issues and concerns with teachers, school food service employees, coordinators of after-school programs, and child care providers. However, formal partnerships may also be needed. As communities develop strategies to achieve the goals outlined in *Healthy People 2020*, health professionals have an excellent opportunity to create these partnerships with families, community groups, government and business representatives, and others who are committed to improving the nutritional status of infants, children, and adolescents.

Children and adolescents need activities through which they can learn about food and nutrition. Community activities that include serving a variety of foods that are healthy and tasty and meet some of a child's or adolescent's nutritional needs in a pleasant environment can help communicate healthy nutrition messages. Programs that offer meals and snacks during or after school or during the summer are other important opportunities for health promotion.

## NUTRITION NEEDS ASSESSMENT

One way for health professionals to assess the nutrition status of infants, children, and adolescents in the community is to gather information through a nutrition needs assessment. A nutrition needs assessment can identify the following:

- Adverse pregnancy outcomes (eg, low birth weight, infant mortality)
- Breastfeeding rates (eg, how many infants are breastfed, duration of breastfeeding)
- Growth data for infants, children, and adolescents (eg, length, height, weight)
- How many infants, children, and adolescents have iron-deficiency anemia
- How many infants, children, and adolescents are at risk for chronic diseases
- How many infants, children, and adolescents have special health care needs
- How many children and adolescents are overweight (body mass index [BMI] of 85th to 94th percentile or are overweight (BMI  $\geq$ 95th percentile)

Additional information can be gathered on the number of community residents who are employed, unemployed, and underemployed, which may indicate the risk of insufficient nutrition—and consequently hunger—in the community.

A less formal way to discern the nutrition status of infants, children, and adolescents in the community is through “shoe leather” observation: walking through neighborhoods and noting the kinds of foods sold, including by “mom and pop” stores, farmers’ markets, vendors, and restaurants. In addition, noting the kinds of products sold at local drug and health food stores provides invaluable insight into a community’s health beliefs and nutrition practices.

Informal assessments such as these provide information not only on the types of foods consumed in the community but also on whether families have access to safe and nutritious foods at a reasonable cost. If neighborhood stores are limited in the variety of foods available, families that purchase most of their food from these stores are likely to have diets that reflect these limitations. For example, foods such as reduced-fat (2%), low-fat (1%), or fat-free (skim) milk and fresh fruits and vegetables may not be available in

neighborhood stores. To buy these foods, families would need to shop elsewhere, which can involve additional transportation costs, increase the time needed to shop, and make it difficult to carry the food home.

## NUTRITION SERVICES

Dietitians and nutritionists in the community work with Head Start programs, child care facilities, food and nutrition programs, and health departments and clinics that provide services to infants, children, and adolescents. Through a range of services, dietitians and nutritionists can help children, adolescents, and their families learn about healthy foods and how to store, handle, and prepare foods so that their nutrient content is retained.

Nutrition education helps parents form the foundation for their children and adolescents to practice healthy eating behaviors throughout life. Health professionals have many opportunities to educate families about nutrition. For example, they can provide education on healthy eating during pregnancy and breastfeeding, the introduction of solid foods to infants, and the importance of providing healthy foods to children and adolescents.

While emphasizing the importance of establishing lifelong healthy eating behaviors, health professionals must respect all cultures. Foods important in various cultures can be used in education efforts so that all families will feel comfortable and thus be willing to follow nutrition counseling.

Dietitians, nutritionists, and other health professionals in the community can provide leadership to ensure that healthy eating behaviors and regular physical activity are promoted by everyone committed to meeting the health needs of infants, children, and adolescents. Health professionals can also provide intervention strategies, referrals to specific health services, and follow-up after referrals are made. By communicating accurate and consistent information, health professionals can have a significant impact on the growth, development, and health and nutrition status of infants, children, and adolescents in the community.

Community nutrition services include the following components:

### SCREENING AND ASSESSMENT

- Identifying the community's health problems
- Evaluating effectiveness, accessibility, and quality of personal and population-based services
- Developing nutrition diagnoses
- Developing individual nutrition plans
- Identifying other sources of nutrition and health information or guidance

### ANTICIPATORY GUIDANCE

- Providing children, adolescents, and their families with information about nutrition issues and concerns
- Providing referrals to food and nutrition programs if needed
- Providing monitoring and follow-up when indicated, and making referrals to a dietitian or other health professionals if needed

### EDUCATION

- Working in partnership with community stakeholders (eg, faith-based groups, ethnic/racial advocacy and support groups, community elders) to develop accurate and consumer-friendly educational materials that are developmentally, linguistically, and culturally appropriate for children, adolescents, and their families
- Preparing educational materials for point-of-purchase distribution (eg, stores, restaurants)
- Conducting in-service training for health professionals
- Conducting in-service training for school food service personnel

### TECHNICAL ASSISTANCE

- Developing food service and nutrition performance standards
- Integrating nutrition into education, health, and physical education programs
- Developing health and nutrition services that are community based, family centered, and culturally sensitive

### CONSULTATION

- Consulting with health professionals, educators, and personnel from social services and other community agencies (eg, housing and environmental protection agencies)

### INFORMATION DISSEMINATION

- Disseminating current and accurate information to health professionals, families, and the community
- Preparing and distributing informational and educational materials to community newsletters, newspapers, radio and television stations, and other media

### ADVOCACY

- Promoting community-based food and nutrition resources
- Helping families obtain access to food and nutrition resources
- Developing strategies to address nutrition issues and concerns (eg, nutritional inadequacy, hunger)
- Making health care delivery systems user-friendly and responsive to families' needs

### HOW TO FIND A REGISTERED DIETITIAN OR NUTRITIONIST IN THE COMMUNITY

How can residents find a registered dietitian or nutritionist in their community? They can start by contacting local hospitals; the Special Supplemental Nutrition Program for Women, Infants and Children (WIC); Head Start and other child care programs; cooperative extension and school food programs; state, county, and city health departments; and local colleges and universities. Residents can also contact local affiliates of the American Heart Association, American Diabetes Association, American Dietetic Association, American Cancer Society, and March of Dimes. (See Tool J: Nutrition Resources.)

### SUGGESTED READING

- Association of State and Territorial Public Health Nutrition Directors. *Blueprint for Nutrition & Physical Activity: Cornerstones of a Healthy Lifestyle*. [www.astphnd.org/index.php?sid=1eb899](http://www.astphnd.org/index.php?sid=1eb899); 2006
- Boyle MA, Holben DH. *Community Nutrition in Action: An Entrepreneurial Approach*. 5th ed. Pacific Grove, CA: Brook Cole Publishing Company; 2009
- Edelstein S. *Nutrition in Public Health: A Handbook for Developing Programs and Services*. 3rd ed. Boston, MA: Jones and Bartlett Publishers; 2010



# Cultural Awareness in Nutrition Services

All people belong to a cultural group. Culture influences the way people look at things, how they interact with others, and how they expect others to behave. Health professionals need to understand how their own cultures influence their attitudes and behaviors, and they need to understand some aspects of the cultures of the people they serve and the implications of culture for nutrition counseling.

To meet the challenge of providing nutrition supervision to people from diverse cultural backgrounds, health professionals can observe people and their traditions, including the foods they eat and the occasions they celebrate. Such observations can enhance the health professional's awareness and knowledge of other cultures.

## CULTURE AND FOOD

Food choices, which can be very personal, are influenced by culture. For many people, culture-specific foods are closely linked to their families and strong feelings of being cared for and nurtured. However, when discussing their food choices, people may respond by saying what they think the health professional wants to hear. Health professionals can encourage people to be more candid by asking open-ended, nonjudgmental questions.

The roles of certain foods vary among cultures, but in most cultures, food is used for similar purposes. For example, in all cultures, staple or core foods form the foundation of the diet. A staple food—such as rice or beans—is typically bland, relatively inexpensive, easy to prepare, an important source of calories, and an indispensable part of the diet. In addition, people from virtually all cultures use food during celebrations, and many use food as medicine or to promote health.

Culture also influences how people prepare food, how they use seasonings, and how often they eat certain foods. These behaviors can differ from region to region and from family to family.

Acculturation—the adoption of the beliefs, values, attitudes, and behaviors of a dominant or mainstream culture—also influences a person's food choices. Acculturation may involve altering traditional eating behaviors to make them similar to those of the dominant culture. These changes can be grouped into 3 categories: (1) the addition of new foods, (2) the substitution of foods, and (3) the rejection of foods. People add new foods to their diets for several reasons, including increased economic status and food availability (especially if the food is not readily available in the person's homeland). Substitution may

occur because new foods are more convenient to prepare, more affordable, or better liked than traditional ones. People, particularly children and adolescents, may reject eating traditional foods because it makes them feel different.

### KEYS TO GOOD CROSS-CULTURAL COMMUNICATION

Good communication during nutrition supervision is important for providing anticipatory guidance. To keep the lines of communication open, health professionals must overcome any real or perceived differences between them and the people they serve. Being open, honest, respectful, nonjudgmental and, most important, willing to listen and learn is critical. Health professionals can help people in a way that maintains each individual's dignity. Some keys to good cross-cultural communication follow.<sup>1</sup>

- *Respect personal space.* Health professionals can make people feel comfortable by asking them to sit where they want. This allows people to have the personal space they need.
- *Learn and follow cultural rules about touching.* It is essential for health professionals to learn these rules, including rules based on a person's sex. For example, in some Asian cultures, a person's head should not be touched because the head is considered the "seat of wisdom." In some American Indian cultures, a vigorous handshake may be considered a sign of aggression.
- *Establish rapport.* Health professionals can establish rapport with people by sharing experiences, exchanging information, and greeting and responding to them in culturally appropriate ways.
- *Express interest in people.* Health professionals can express interest in various ways: by smiling, being friendly and warm, asking questions (even about things they are unfamiliar or uncomfortable with), showing respect, and demonstrating that they are open-minded and trustworthy. Paying attention to children may impress mothers from particular cultures. However, health professionals need to be aware that people from some cultures believe that it is inappropriate to accept compliments about their children, especially if the children are present.
- *Listen carefully.* Health professionals must listen carefully and not interrupt people or try to put words in their mouths.
- *Respect silence.* Health professionals do not have to fill a silent moment with small talk. People need a chance to gather their thoughts, especially when they are trying to speak in a language in which they are not fluent.
- *Notice how people make eye contact.* Health professionals need to observe how people make eye contact with family members and others. Many cultures consider it impolite to look directly at the person who is speaking. Lowering the eyes and glancing sideways may be seen as respectful, especially if the speaker is older or in a position of authority.
- *Pay attention to body language.* Health professionals must learn what messages are conveyed by body movements, such as turning up the palms of the hands, waving, and pointing, and which gestures should be avoided.
- *Reach the appropriate family member.* In some cultures the oldest male is considered the head of the family, while in others an elderly female has this role. Health professionals must try to ensure that their messages reach the head of the family.
- *Study a person's responses.* A "yes" response does not necessarily indicate that a person understands the message or is willing to do what is being discussed. The person may simply be showing respect for the health professional. For example, American Indians may be hesitant about asking questions because they believe that doing so indicates that the health professional is not communicating clearly. People may smile or laugh to mask emotions or prevent conflict. Health professionals can make sure that a person understands by asking questions.
- *Communicate effectively.* Convey information in a manner that is easily understood by diverse audiences, including individuals with limited English proficiency, individuals with limited literacy skills, and individuals with disabilities.<sup>2</sup>

## COMMON NUTRITION CONCERNS AMONG CULTURALLY DIVERSE POPULATIONS

### FOOD AND HEALTH BELIEFS

In many cultures, people believe that food promotes health, cures disease, or has other medicinal qualities. In addition, many people believe that maintaining balance is important to health. For example, traditional Chinese people maintain that health and disease are related to the balance between the yin and yang forces in the body. Diseases caused by yin forces are treated with yang foods to restore balance, and vice versa. In Puerto Rico, foods are classified as hot or cold (which may not reflect the temperature or spiciness of foods), and people believe that maintaining a balance between these 2 types of foods is important to health. Health professionals can become more effective by exploring such beliefs and incorporating them in their nutrition messages.

### LACTOSE INTOLERANCE

Lactose intolerance is much more common in people of non-European ancestry than among those of European ancestry. People who are lactose intolerant may experience cramps and diarrhea when they eat moderate to large amounts of foods that contain lactose, such as milk and other dairy products. Children and adolescents may be able to avoid symptoms by consuming small servings of milk throughout the day or by consuming lactose-reduced milk or lactase tablets or drops with milk. Cheese and yogurt are often better tolerated than milk because they contain less lactose. For people who cannot tolerate any milk or dairy products in their diet, health professionals can suggest other sources of calcium, such as dark green, leafy vegetables; tofu or corn tortillas processed with calcium; and calcium-fortified orange juice.

### CULTURALLY BASED ATTITUDES

People from different cultures may view body weight differently. Keeping a child from being underweight may be very important to people from cultures in which poverty or insufficient food supplies are common. Families may not

recognize that their child is overweight according to body mass index tables. They may view excess weight as healthy and might be offended if a health professional refers to their child as overweight. (See the Obesity chapter.)

### SUMMARY

To meet the challenge of providing nutrition supervision to diverse populations, health professionals must learn to respect and appreciate the variety of cultural traditions related to food and the wide variation in food practices within and among cultural groups. Health professionals can take advantage of interactions with people from other cultures by sharing food experiences, asking questions, observing the food choices people make, and working with the community.

### REFERENCES

1. Graves DE, Sutor CW. *Celebrating Diversity: Approaching Families Through Their Food*. Rev ed. Arlington, VA: National Center for Education in Maternal and Child Health; 1998
2. Goode TD, Jones W, Dunne C, Bronheim S. *And the Journey Continues...Achieving Cultural and Linguistic Competence in Systems Serving Children and Youth with Special Health Care Needs and Their Families*. Washington, DC: National Center for Cultural Competence; 2007

### SUGGESTED READING

- Abrams MA, Dreyer BP, eds. *Plain Language Pediatrics: Health Literacy Strategies and Communication Resources for Common Pediatric Topics*. Elk Grove Village, IL: American Academy of Pediatrics; 2009
- Barrett SE, Puryear JS, Westpheling K. *Health Literacy Practices in Primary Care Settings: Examples From the Field*. New York, NY: Commonwealth Fund; 2008
- Baur C, ed. *National Action Plan to Improve Health Literacy*. Rockville, MD: US Office of Disease Prevention and Health Promotion; 2010
- Health Resources and Services Administration. *Unified Health Communication 101: Addressing Health Literacy, Cultural Competency, and Limited English Proficiency*. Rockville, MD; Health Resources and Services Administration; 2007
- US Department of Health and Human Services, Office of Disease Prevention and Health Promotion. *Quick Guide to Health Literacy*. Office of Disease Prevention and Health Promotion. DHHS Web site. <http://www.health.gov/communication/literacy/quickguide>
- US Office of the Surgeon General. *Proceedings of the Surgeon General's Workshop on Improving Health Literacy*. Washington, DC: US Office of the Surgeon General; 2006