

Individuals and families make choices every day about what they will eat and drink and how physically active they will be. Today, Americans must make these choices within the context of an environment that promotes overconsumption of calories and discourages physical activity. This environment and the individual choices made within it have contributed to dramatic increases in the rates of overweight and obesity. Poor health outcomes, such as cardiovascular disease, type 2 diabetes, and some types of cancer also have increased in tandem. To reverse these trends, a coordinated system-wide approach is needed—an approach that engages all sectors of society, including individuals and families, educators, communities and organizations, health professionals, small and large businesses, and policymakers. Everyone has a role in the movement to make America healthy. By working together through policies, programs, and partnerships, we can improve the health of the current generation and take responsibility for giving future generations a better chance to lead healthy and productive lives.

One way to think about how our current food and physical activity environment evolved, and about how it can be improved, is the Social-Ecological Model. Many public health experts agree that the Social-Ecological Model (Figure 6-1) provides a framework to illustrate how all elements of society combine to shape an individual's food and physical activity choices, and ultimately one's calorie balance and chronic disease risk. The following describes some of the factors and influencers found within each element of the model:

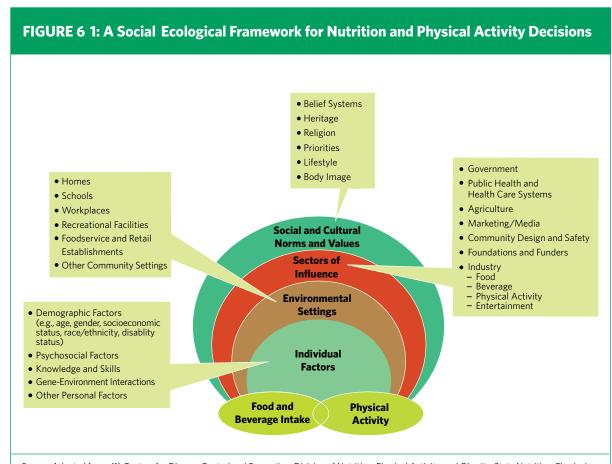
- Individual factors. Factors such as age, gender, income, race/ethnicity, genetics, and the presence of a disability can all influence an individual's and/or family's food intake and physical activity patterns. In order to change one's knowledge, attitude, beliefs, and behaviors, these individual factors should be considered and addressed (as possible).
- **Environmental settings.** People regularly make decisions about food and physical activity in a

variety of community settings such as schools, workplaces, faith-based organizations, recreational facilities, and foodservice and food retail establishments. These settings play an integral role in affecting individuals' and families' food and physical activity choices through their organizational environments and policies, and by providing health information to consumers.

- Sectors of influence. Communities are influenced by a variety of sectors such as government, public health and health care systems, agriculture, industry, and media. Many of these sectors are important in determining the degree to which all individuals and families have access to healthy food and opportunities to be physically active in their own communities. Others have a strong influence on social norms and values.
- **Social and cultural norms and values.** Social norms are guidelines that govern our thoughts, beliefs, and behaviors. These shared assumptions

of appropriate behavior are based on the values of a society and are reflected in everything from laws to personal expectations. With regard to nutrition and physical activity, cultural norms could include types of foods and beverages consumed, when and how foods and beverages are consumed, acceptable ranges of body weight, and how much physical activity is incorporated into one's free time. Making healthy choices can be more difficult if those healthy choices are not strongly valued within a society.

The Social-Ecological Model can help us understand the roles that various segments of society can play in making healthy choices more widely accessible and desirable. The model considers the interactions between individuals and families, environmental settings and various sectors of influence, as well as the impact of social and cultural norms and values. Thus, it can be used to develop, implement, and evaluate comprehensive interventions at all levels. By facilitating the use of multiple, coordinated primary



Source: Adapted from: (1) Centers for Disease Control and Prevention. Division of Nutrition, Physical Activity, and Obesity. State Nutrition, Physical Activity and Obesity (NPAO) Program: Technical Assistance Manual. January 2008, page 36. Accessed April 21, 2010. http://www.cdc.gov/obesity/downloads/TA\_Manual\_1\_31\_08.pdf. (2) Institute of Medicine. Preventing Childhood Obesity: Health in the Balance, Washington (DC): The National Academies Press; 2005, page 85. (3) Story M, Kaphingst KM, Robinson-O'Brien R, Glanz K. Creating healthy food and eating environments: Policy and environmental approaches. Annu Rev Public Health 2008;29:253-272.

prevention strategies, the framework promotes movement toward a society oriented to chronic disease prevention. Efforts to improve dietary intake and increase physical activity are more likely to be successful when using this type of coordinated system-wide approach.

#### A CALL TO ACTION

Ultimately, Americans make their own food and physical activity choices at the individual (and family) level. In order for Americans to make healthy choices, however, they need to have opportunities to purchase and consume healthy foods and engage in physical activity. Although individual behavior change is critical, a truly effective and sustainable improvement in the Nation's health will require a multi-sector approach that applies the Social-Ecological Model to improve the food and physical activity environment. This type of approach emphasizes the development of coordinated partnerships, programs, and policies to support healthy eating and active living. Interventions should extend well beyond providing traditional education to individuals and families about healthy choices, and should help build skills, reshape the environment, and re-establish social norms to facilitate individuals' healthy choices.

Previous chapters include strategies that individuals and families can adopt to achieve dietary intake recommendations. The strategies outlined in this chapter represent actions that can be implemented by various sectors of influence (e.g., educators, communities and organizations, health professionals, small and large businesses, and policymakers) to support individuals and families. Actions are best sustained when developed, implemented, and evaluated by supporters across multiple levels of influence. Positive changes to the current and future health of America will require broad, cooperative, and sustainable efforts by all.

The 2010 Dietary Guidelines' Call to Action includes three guiding principles:

- 1. Ensure that all Americans have access to nutritious foods and opportunities for physical activity.
- 2. Facilitate individual behavior change through environmental strategies.

3. Set the stage for lifelong healthy eating, physical activity, and weight management behaviors.

An overview of each of these principles follows, along with sample action steps for each. Individual communities and organizations, and those with expertise in assessing community and public health needs, should determine the most relevant and essential action steps needed for their particular community, organization, or population.

# Ensure that all Americans have access to nutritious foods and opportunities for physical activity

Disparities in health among racial and ethnic minorities, individuals with disabilities, and different socioeconomic groups are of substantial concern. Research has demonstrated that some Americans lack access to affordable nutritious foods and/or opportunities for safe physical activity in their neighborhoods. This lack of access makes it a challenge for many Americans to consume a diet consistent with the Dietary Guidelines for Americans, 2010 and maintain physical activity levels consistent with the 2008 Physical Activity Guidelines for Americans. Thus, access may be related to overall disparities in health. In order for individuals and families to be able to make healthy lifestyle choices, they first need to be aware of and have access to those healthy choices. Access includes not only availability of these choices, but also affordability and safety. Acceptability of the choices is also important. The following strategies can be used to help ensure that all Americans have access to nutritious foods and opportunities for physical activity:

- Create local-, State-, and national-level strategic plans to achieve Dietary Guidelines and Physical Activity Guidelines recommendations among individuals, families, and communities.
- Recognize health disparities among subpopulations and ensure equitable access to safe and affordable healthy foods and opportunities for physical activity for all people.
- Expand access to grocery stores, farmers markets, and other outlets for healthy foods.
- Develop and expand safe, effective, and sustainable agriculture and aquaculture practices to ensure availability of recommended amounts of healthy foods to all segments of the population.

- Increase food security among at-risk populations by promoting nutrition assistance programs.
- Facilitate attainment of the nutrition, food safety, and physical activity objectives outlined in *Healthy* People 2020.

### Facilitate individual behavior change through environmental strategies

In addition to limited access, as just noted, many people lack the information or motivation needed to achieve and maintain healthy nutrition and physical activity behaviors. Although more consumer education is needed on achieving calorie balance, meeting nutrient needs, and staying physically active, information alone does not lead to behavior change. People need to value the outcomes associated with the change and need to believe that the changes can fit into their lifestyles. An environment that supports and facilitates healthy behavior changes, with cultural sensitivity, should be in place for this to occur. The following strategies can be used to address these issues and support individual behavior change:

- Empower individuals and families with improved nutrition literacy, gardening, and cooking skills to heighten enjoyment of preparing and consuming healthy foods.
- Initiate partnerships with food producers, suppliers, and retailers to promote the development and availability of appropriate portions of affordable, nutritious food products (including, but not limited to, those lower in sodium, solid fats, and added sugars) in food retail and foodservice establishments.
- Develop legislation, policies, and systems in key sectors such as public health, health care, retail, school foodservice, recreation/fitness, transportation, and nonprofit/volunteer to prevent and reduce obesity.
- Support future research that will further examine the individual, community, and system factors that contribute to the adoption of healthy eating and physical activity behaviors; identify best practices and facilitate adoption of those practices.
- Implement the U.S. National Physical Activity Plan to increase physical activity and reduce sedentary behavior.

## Set the stage for lifelong healthy eating, physical activity, and weight management behaviors

Primary prevention of obesity and related risk factors is the single most powerful public health approach to reversing America's obesity epidemic over the long term. Lifelong habits are developed throughout childhood, and every opportunity should be provided to build healthy habits at the earliest stages of life. This process begins *in utero*. The development of standardized approaches to promote healthy pre-pregnancy weight, appropriate weight gain during pregnancy, the initiation and maintenance of breastfeeding during infancy, and a return to healthy weight status postpartum can help prevent overweight and obesity throughout the life span.

Parents and caregivers serve as important role models for children and are responsible for providing them with nutritious foods and opportunities for physical activity. Outside influencers (e.g., policymakers, educators, health professionals) should build upon existing systems and infrastructures to support parents, caregivers, schools, and communities in facilitating positive eating and physical activity choices throughout life. The following strategies can be used to help create and promote healthy lifestyles for children:

- Ensure that all meals and snacks sold and served in schools and childcare and early childhood settings are consistent with the Dietary Guidelines.
- Provide comprehensive health, nutrition, and physical education programs in educational settings, and place special emphasis on food preparation skills, food safety, and lifelong physical activity.
- Identify approaches for assessing and tracking children's body mass index (or other valid measures) for use by health professionals to identify overweight and obesity and implement appropriate interventions.
- Encourage physical activity in schools, childcare, and early childhood settings through physical education programs, recess, and support for active transportation initiatives (e.g., walk-toschool programs).

- Reduce children's screen (television and computer) time.
- Develop and support effective policies to limit food and beverage marketing to children.
- Support children's programs that promote healthy nutrition and physical activity throughout the year, including summer.

### **CHAPTER SUMMARY**

The ultimate goal of the *Dietary Guidelines for Americans* is to improve the health of our Nation's current and future generations by facilitating and promoting healthy eating and physical activity choices so that these behaviors become the norm among all individuals. Meeting this goal will require comprehensive and coordinated system-wide approaches across our Nation—approaches that engage every level of society and reshape the environment so that the healthy choices are the easy, accessible, and desirable choices for all.

#### **RESOURCE LIST**

The following Federal Government resources<sup>a</sup> provide reliable, science based information on nutrition and physical activity, as well as an evolving array of tools to facilitate Americans' adoption of healthy choices.

Dietary Guidelines for Americans	http://www.dietaryguidelines.gov
MyPyramid.gov	http://www.mypyramid.gov
Physical Activity Guidelines for Americans	http://www.health.gov/paguidelines
Nutrition.gov	http://www.nutrition.gov
healthfinder.gov	http://www.healthfinder.gov
Health.gov	http://health.gov
U.S. Department of Agriculture (USDA)	
Center for Nutrition Policy and Promotion	http://www.cnpp.usda.gov
Food and Nutrition Service	http://www.fns.usda.gov
Food and Nutrition Information Center	http://fnic.nal.usda.gov
National Institute of Food and Agriculture	http://www.nifa.usda.gov
U.S. Department of Health and Human Services (HHS)	
Office of Disease Prevention and Health Promotion	http://odphp.osophs.dhhs.gov
Food and Drug Administration	http://www.fda.gov
Centers for Disease Control and Prevention	http://www.cdc.gov
National Institutes of Health	http://www.nih.gov
Let's Move!	http://www.letsmove.gov
Healthy People	http://www.healthypeople.gov
U.S. National Physical Activity Plan <sup>a</sup>	http://www.physicalactivityplan.org

a. Note: The U.S. National Physical Activity Plan is not a product of the Federal Government. However, a number of Federal offices were involved in the development of the Plan.