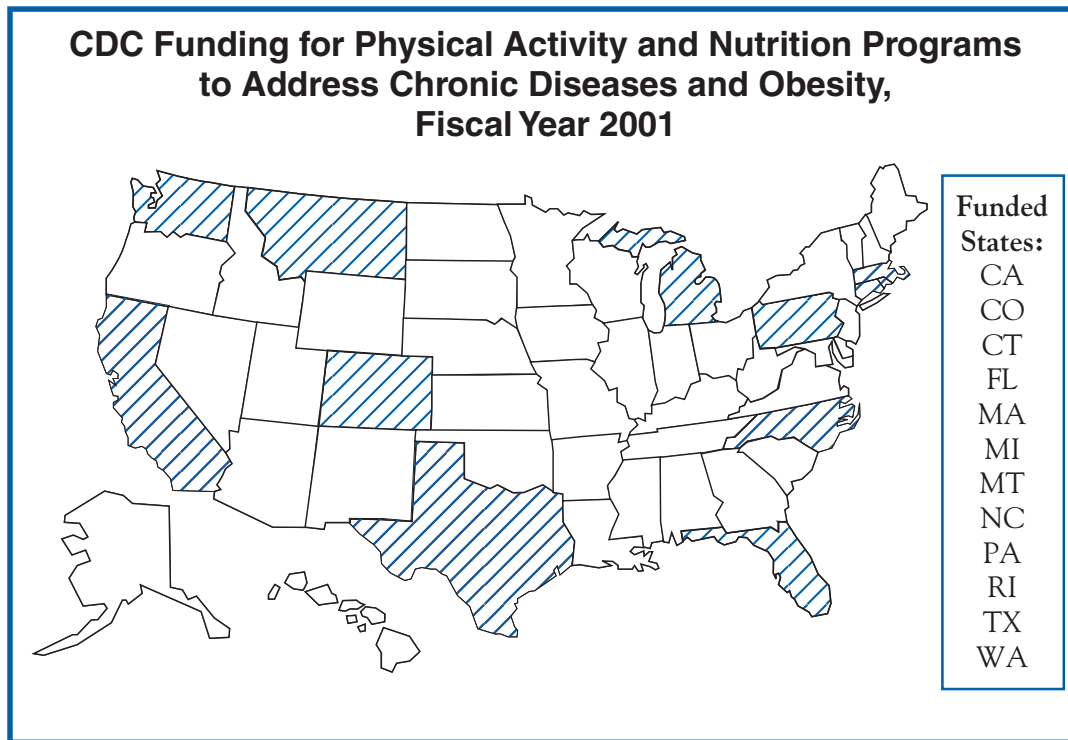


Physical Activity and Good Nutrition: Essential Elements to Prevent Chronic Diseases and Obesity 2002



“At least one-third of all cancers are attributable to poor diet, physical inactivity, and overweight. Thus, if our goal of reducing cancer incidence by 25% in the United States by 2015 is to be reached, cancer prevention efforts must include strong programs for healthy eating and physical activity. Such programs will also help to reduce the incidence of many other chronic diseases.”

*Dileep G. Bal, MD, MS, MPH
Past President, American Cancer Society*

The Importance of Physical Activity and Good Nutrition

Chronic diseases account for 7 of every 10 U.S. deaths and for more than 60% of medical care expenditures. In addition, the prolonged illness and disability associated with many chronic diseases decrease quality of life for millions of Americans.

Much of the chronic disease burden is preventable. Physical inactivity and unhealthy eating contribute to obesity, cancer, cardiovascular disease, and diabetes. Together, they are responsible for at least 300,000 deaths each year. Only tobacco use causes more preventable deaths in the United States. People who avoid the behaviors that increase their risk for chronic diseases can expect to live healthier and longer lives.

The Obesity Epidemic

Following dramatic increases in overweight and obesity among U.S. adults between 1987 and 2000, obesity has reached epidemic proportions; over 45 million adults are obese. Moreover, the epidemic is not limited to adults: the percentage of young people who are overweight has more than doubled in the last 20 years. From 10% to 15% of Americans aged 6–17 years—about 8 million young people—are considered overweight.

People who are overweight are at increased risk for heart disease, high blood pressure, diabetes, arthritis-related disabilities, and some cancers. The estimated annual cost of obesity and overweight in the United States is about \$117 billion.

Promoting regular physical activity and healthy eating and creating an environment that supports these behaviors are essential to reduce the epidemic of obesity.

Lack of Physical Activity

Regular physical activity substantially reduces the risk of dying of coronary heart disease, the nation's leading cause of death, and decreases the risk for colon cancer, diabetes, and high blood pressure. It also helps to control weight; contributes to healthy bones, muscles, and joints; reduces falls among the elderly; helps to relieve the pain of arthritis; reduces symptoms of anxiety and depression; and is associated with fewer hospitalizations, physician visits, and medications. Moreover, physical activity need not be strenuous to be beneficial; people of all ages benefit from moderate physical activity, such as 30 minutes of brisk walking five or more times a week.

Despite the proven benefits of physical activity, more than 60% of American adults do not get enough physical activity to provide health benefits. More than 25% are not active at all in their leisure time. Activity decreases with age and is less common among women than men and among those with lower income and less education.

Insufficient physical activity is not limited to adults. More than a third of young people in grades 9–12 do not regularly engage in vigorous physical activity. Daily participation in high school physical education classes dropped from 42% in 1991 to 29% in 1999.

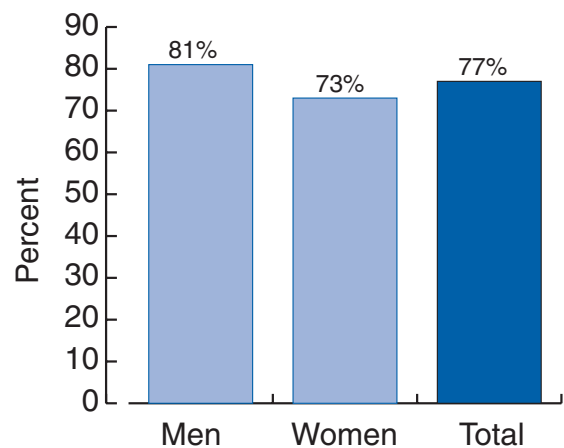
The Critical Role of Healthy Eating

We now know that good nutrition lowers the risk for many chronic diseases, including heart disease, stroke, some types of cancer, diabetes, and osteoporosis. For example, for at least 10 million Americans at risk for type II diabetes, proper nutrition and physical activity can sharply lower their chances of getting the disease.

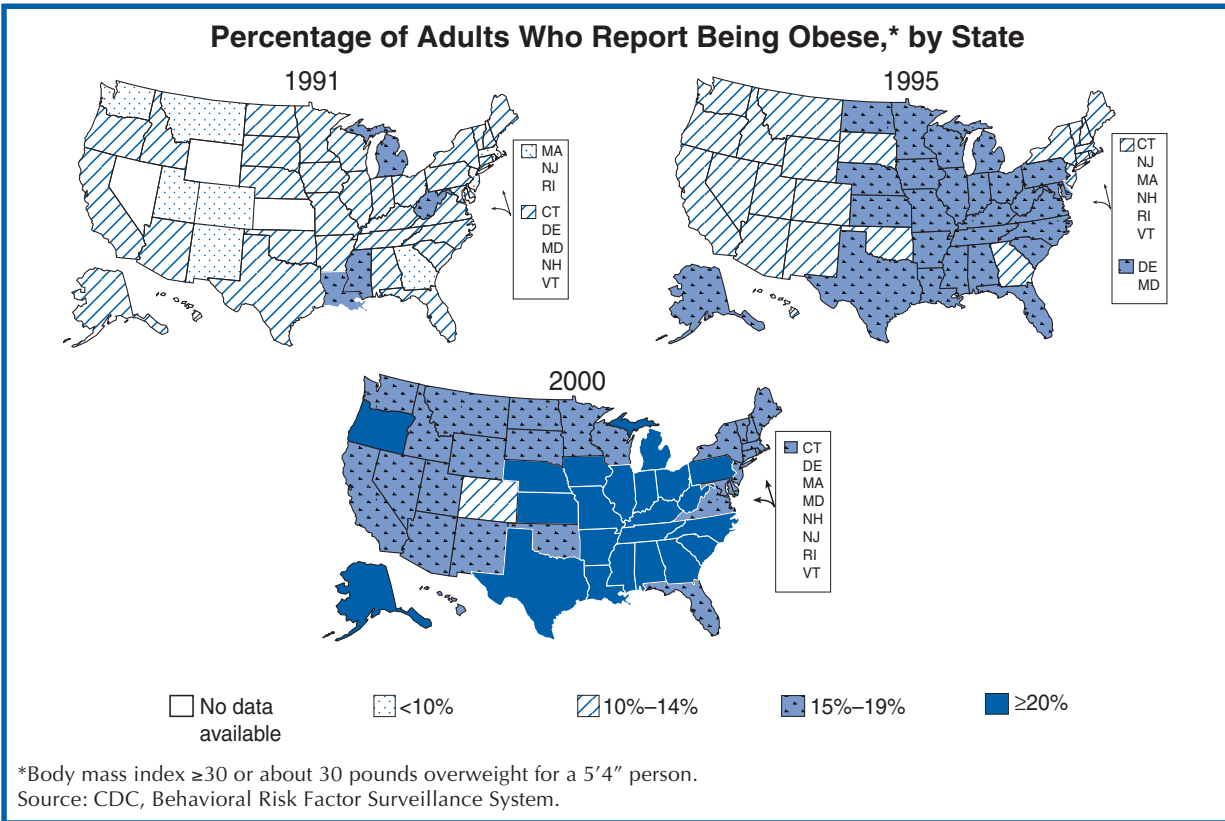
Although Americans are slowly adopting healthier diets, a large gap remains between recommended dietary patterns and what Americans actually eat. Only about one-fourth of U.S. adults eat the recommended five or more servings of fruits and vegetables each day.

Poor eating habits are often established during childhood. More than 60% of young people eat too much fat, and less than 20% eat the recommended five or more servings of fruits and vegetables each day.

Percentage of Adults Who Reported Eating Fewer Than Five Servings of Fruits and Vegetables a Day, by Sex, 2000



Source: CDC, Behavioral Risk Factor Surveillance System.



CDC's National Leadership

In fiscal year 2001, Congress appropriated \$16.2 million to address physical inactivity, poor nutrition, and obesity. These funds allowed CDC to fund 12 states to plan for and initiate nutrition and physical activity programs to help prevent and control obesity and other chronic diseases. With fiscal year 2002 funding of \$27.5 million, CDC will help to expand these programs and will support research to increase physical activity and improve nutrition in states and communities.

Understanding the Benefits of Physical Activity

CDC's landmark *Physical Activity and Health: A Report of the Surgeon General*, published in 1996, brought together the results of decades of research on physical activity and health. Among its findings were that physical activity need not be strenuous to produce benefits and that inactive people can improve their health by becoming moderately active on a regular basis. The implications of these findings compel CDC to ensure that physical activity receives the attention and commitment given to other important public health issues.

Expanding the Knowledge Base

CDC research is strengthening knowledge of the role of physical activity and nutrition in health.

- A CDC analysis of data from the Bogalusa, Louisiana, heart study found that overweight and obesity among children aged 5–17 years had more than tripled from 1973 to 1994. Moreover, 58% of the overweight children had at least one additional risk factor for cardiovascular disease.
- Through CDC's Prevention Research Centers network, CDC and the National Institutes of Health developed better methods to measure physical activity levels among minority and low-income women older than 40.
- CDC is collecting information to better understand factors that affect levels of walking and cycling. The GreenStyles Survey, developed by CDC and the Environmental Protection Agency, assesses the effects of environmental, social, and personal variables on walking and cycling. CDC is also working with partners to collect information on how bike paths and sidewalks affect rates of physical activity.

- In 2001, CDC released the physical activity chapter in the *Guide to Community Preventive Services*. The *Guide* is based upon a review of studies in several different areas by the Task Force on Community Preventive Services and provides science-based strategies to increase physical activity among children and adults.

Reaching Young People Through Schools

CDC has established a nationwide framework for coordinated health education programs in schools. Inactivity and unhealthy diets are among the risk behaviors that these programs address. CDC has also collaborated with national health and education organizations to develop guidelines and materials to help schools promote healthy eating and physical activity.

CDC's KidsWalk-to-School Program encourages children to walk to and from school in groups accompanied by adults. Walking to school helps children be more physically active, practice safe pedestrian skills, and learn about their environment.

Promoting Healthy Lifestyles

Since the 1950s, the infrastructure to support walking and bicycling in the United States has been neglected. Trips made by walking or cycling have declined by more than 40% since 1977. CDC's Active Community Environments (ACEs) initiative works with partners to promote the development of accessible recreation facilities, including more opportunities for walking and cycling. Current projects include

- A partnership with the National Park Service's Rivers, Trails, and Conservation Assistance Program to promote the development and use of neighborhood parks and recreation facilities.
- The development of a guidebook for public health practitioners to use in partnering with transportation and city-planning organizations to promote walking, cycling, and neighborhood recreation facilities.

The National 5-A-Day program, launched 10 years ago, is implementing recommendations from a recent

comprehensive review. The most significant recommendations were to strengthen and expand the organizational structure of this program to include new partners, and to support research, surveillance, and applied public health programs to increase vegetable and fruit consumption. The National Cancer Institute, the U.S. Department of Agriculture, and CDC are currently defining the roles and responsibilities of each partner in the new model.

CDC and its partners have developed the *HHS Blueprint for Action on Breast-Feeding*, which establishes a comprehensive national breast-feeding policy. Breast-feeding protects against obesity and increases the acceptability of fruits and vegetables among infants.

The DHHS Office on Women's Health, CDC, and the National Osteoporosis Foundation have launched the National Bone Health campaign to educate and encourage girls ages 9–12 years to establish lifelong healthy habits, especially increased calcium consumption and physical activity, that will help reduce their risk for osteoporosis later in life.

Promoting the Use of Growth Charts

In 2000, CDC released new pediatric growth charts that better reflect the nation's diversity. In addition to revising the existing charts, which are used to track growth, CDC added two body-mass-index (BMI)-for-age charts to help health professionals identify weight problems among children and adolescents.

CDC is providing access to interactive training modules and resources through the Internet (www.cdc.gov/growthcharts) to help users interpret the growth charts. Module topics include an overview of the growth charts, use of the BMI-for-age charts, and clinical application of the growth charts.

Planning for the Future

CDC will continue to work with its public health partners to create or modify programs, policies, and practices that support healthy lifestyles. In addition, CDC is striving to expand health communications to promote physical activity and good nutrition in work sites, schools, and health care settings.

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