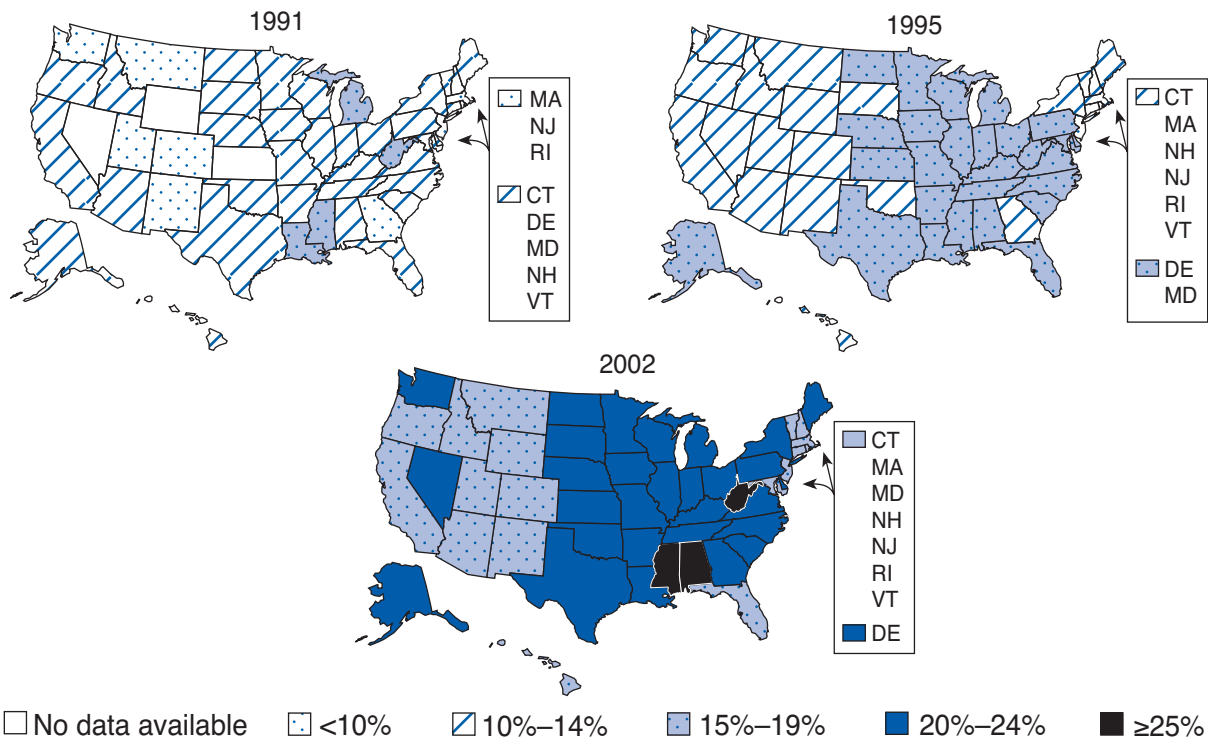


# Physical Activity and Good Nutrition: Essential Elements to Prevent Chronic Diseases and Obesity 2004

Percentage of Adults Who Report Being Obese,\* by State



\*Body mass index  $\geq 30$  or about 30 pounds overweight for a 5' 4" person.  
Source: CDC, Behavioral Risk Factor Surveillance System.

*“As a society, we can no longer afford to make poor health choices such as being physically inactive and eating an unhealthy diet; these choices have led to a tremendous obesity epidemic. As policy makers and health professionals, we must embrace small steps toward coordinated policy and environmental changes that will help Americans live longer, better, healthier lives.”*

Vice Admiral Richard H. Carmona, MD, MPH, FACS  
U.S. Surgeon General

# The Importance of Physical Activity and Good Nutrition

Chronic diseases account for 7 of every 10 U.S. deaths and for more than 75% of medical care expenditures. In addition, the prolonged illness and disability associated with many chronic diseases decrease the 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, these two behaviors are responsible for at least 400,000 deaths each year. Only tobacco use causes more preventable deaths in the United States. People who avoid 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 1976-1980 and 1999-2000, obesity has reached epidemic proportions; nearly 59 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. Of children and adolescents aged 6–19 years, 15%—about 9 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 in 2000 was about \$117 billion.

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

## Lack of Physical Activity

Regular physical activity reduces people's risk for heart attack, colon cancer, diabetes, and high blood pressure and may reduce their risk for stroke. It also helps to control weight; contributes to healthy bones, muscles, and joints; reduces falls among older adults; 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 50% of American adults do not get enough physical activity to provide health benefits: 26% are not active

at all in their leisure time. Activity decreases with age, and sufficient activity is less common among women than men and among those with lower incomes 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 32% in 2001.

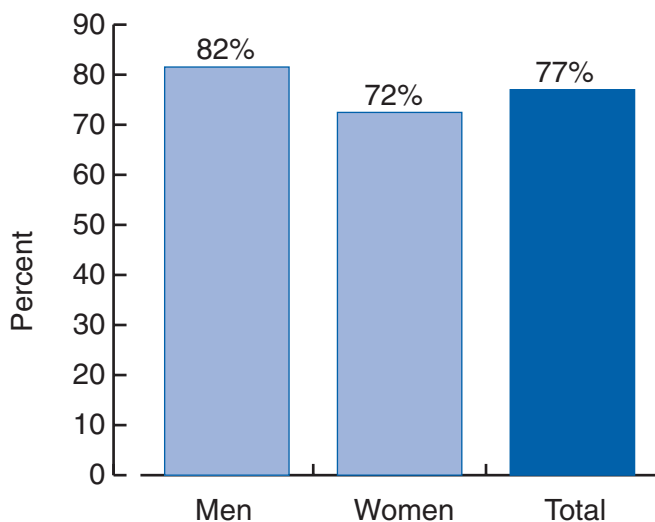
## The Critical Role of Healthy Eating

Research shows that good nutrition lowers people's 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 2 diabetes, proper nutrition and physical activity can lower their chances of getting the disease.

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. In addition, in the last 30 years, calorie intake has increased for both men and women.

Poor eating habits are often established during childhood. Only 21% of young people 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, 2002**



Source: CDC, Behavioral Risk Factor Surveillance System.

## CDC's National Leadership

With fiscal year 2003 funding of \$34 million, CDC's National Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases funded 20 states to target physical activity, poor nutrition, and obesity. With 2004 funding of about \$39 million, CDC will support up to eight additional states. Of these, 23 states will be funded at the capacity-building level to hire staff with expertise in public health nutrition and physical activity, build broad-based coalitions, develop state nutrition and physical activity plans, identify community resources and gaps, implement small-scale interventions, and work to raise public awareness of system changes needed to help state residents achieve and maintain a healthy weight.

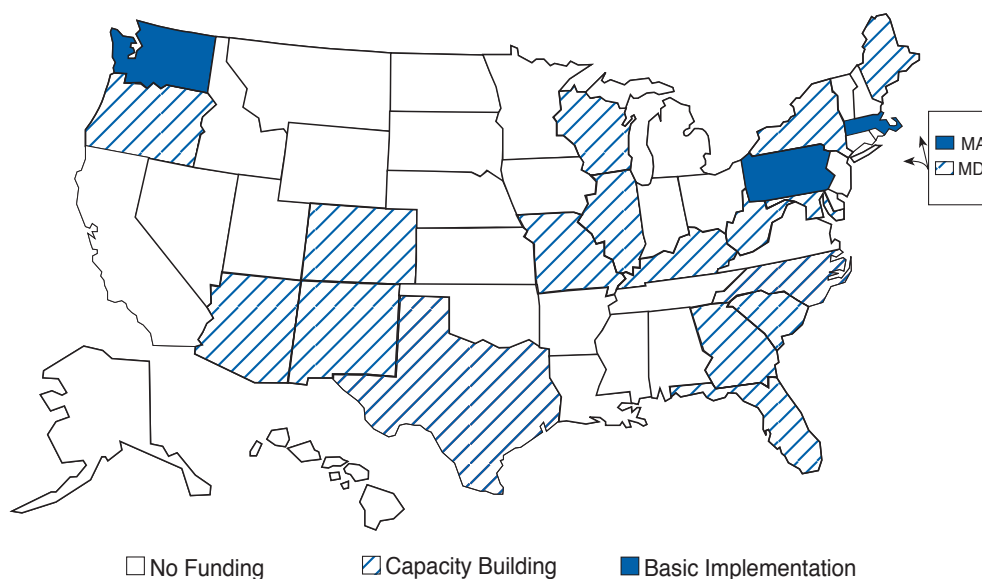
The other five states will be funded at the basic implementation level to put into action the obesity prevention strategies identified in their state plans: conducting and evaluating nutrition and physical activity interventions, training health care providers and public health professionals, providing grants to communities for local obesity prevention initiatives, making environmental changes to encourage access to healthful foods and places to be active, and strengthening obesity prevention programs in community settings such as preschools, child care centers, work sites, and health care settings. All 28 states will evaluate strategies to determine their effectiveness and guide future efforts.

### Providing Training and Technical Assistance

One example of CDC support for state health departments is providing consultation, technical assistance, and training to state 5 A Day coordinators. The 5 A Day for Better Health Program is a collaborative effort of the federal government, nonprofit groups, and the fruit and vegetable industry to increase fruit and vegetable consumption. In states involved in the obesity prevention program, the obesity program's nutrition coordinator often serves as the state 5 A Day coordinator as well. States funded at the basic implementation level offer mini-grants to communities for local 5 A Day programs.

CDC will develop a Center of Excellence in Public Health Training and Intervention Research Translation that will support and complement the work of the National Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases and the WISE-WOMAN screening and evaluation program. The center will train a frontline workforce of public health professionals in preventing obesity and other chronic diseases and will help to translate research findings into effective preventive health programs.

### CDC Funding for Physical Activity and Nutrition Programs to Address Obesity and Chronic Diseases, Fiscal Year 2003



# Laying the Foundation for the Future

## Conducting Essential Research

CDC research is continuing to shed light on the role of nutrition and physical activity in health.

- In 2004, CDC will publish recommendations for preventing and controlling obesity in the *Guide to Community Preventive Services*. The recommendations come from an extensive evidence-based review of studies.
- CDC is examining the role of fruit and vegetable consumption in managing weight.
- An economic study of the medical costs of obesity in the United States coauthored by CDC found that direct medical costs related to overweight and obesity accounted for 9.1% of total medical expenditures in 1998, and that a more than half of these costs were borne by Medicaid and Medicare.

## Promoting Healthy Lifestyles

Because obesity is caused by a complex and interrelated set of individual and community factors, state obesity prevention programs are testing interventions that focus simultaneously on nutrition and physical activity among individuals and on related community and environmental issues. For example, North Carolina is targeting the youngest members of society through its Nutrition and Physical Activity Self Assessment for Childcare, a pilot intervention in child care centers aimed at improving nutrition and physical activity environments and practices.

## Providing CDC Growth Charts

Correctly identifying weight problems among young people is essential to public health efforts to prevent obesity. Growth charts have been used since 1977 to track the growth of U.S. children and adolescents. The CDC growth charts now include body-mass-index (a ratio of weight to height) by age charts for boys and girls aged 2–20 years. The charts and guidance on how to use them, including interactive training modules, can be found on the Internet at <http://www.cdc.gov/nccdphp/dnpa/growthcharts/training/modules/index.htm>.

## State Programs in Action

**Washington** state is battling the obesity epidemic through state and local environmental and policy changes that support healthy behavior. This approach is being piloted in Moses Lake, a rural community where residents and business people have formed a local advisory committee. The committee initially focused on three projects: creating a community garden, promoting and supporting breast-feeding, and creating a network of trails and paths throughout the community. The success of these efforts has spawned a second wave of initiatives and the formation of a similar advisory committee in Mount Vernon, Washington.

The **Pennsylvania** Advocates for Nutrition and Activity (PANA) is a statewide coalition that promotes active lifestyles and healthy food choices in a variety of settings. The wide range of activities that it supports includes the Pennsylvania Action for Healthy Kids Summit and a statewide assessment of health care providers' knowledge and attitudes about obesity screens, prevention, and treatment.

The **Massachusetts** Partnership for Healthy Weight supports the 5-2-1 Go! program in 13 middle schools. In math, science, language arts, social studies, and physical education classes, students learn the program's messages: eat **5** serving of fruits and vegetables a day, watch TV less than **2** hours a day, and spend at least **1** hour a day being physically active. In addition, because of the program's efforts, schools are now offering healthier food and beverage options.

## Future Directions

CDC and its partners will continue to create, evaluate, and modify programs, policies, and practices to prevent and control obesity. In addition, CDC will expand communication efforts to promote physical activity and good nutrition in work sites, schools, and health care settings. CDC will also continue to support the *Steps to a HealthierUS* initiative as it works with communities across the country on innovative strategies to promote physical activity and good nutrition.

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