

# The Obesity Epidemic

## *Why We Should Be Worried and What We Can Do about It*

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Obesity is associated with increased morbidity and mortality. The major health consequences of obesity include type 2 diabetes, cardiovascular disease, hypertension, gallbladder disease, certain types of cancer, and psychosocial dysfunctions. Obesity has become a global epidemic, and both industrialized and developing countries are affected by it. Childhood and adolescence, which are key times for individuals to form lifelong eating and physical activity habits, are considered as two critical periods for the development of this condition. Overweight children are likely to remain obese as adults. Thus, obesity prevention in children and adolescents is a public health priority.

Obesity has become the second leading preventable cause of disease and death in the United States, second only to tobacco use. Obesity is likely to become the leading cause soon if no effective approaches to controlling it can be implemented. The total direct and indirect costs attributed to obesity amounted to \$117 billion in the year 2000. Currently, two-thirds of American adults and one-third of American children and adolescents are overweight or obese. The prevalence of obesity and overweight among U.S. children and adolescents has more than doubled since the 1970s, while the prevalence of obesity has increased fourfold—and the rates continue to rise. The prevalence of overweight and obesity increased from 15 percent in 1971-74 to 26 percent in 1988-94 and 30 percent in 1999-2000. Minority and low-SES groups are disproportionately affected. During 1971-1994, for the lowest SES group, the prevalence tripled (increased from 10 percent to 29 percent) while for the highest SES group, the prevalence did not quite double (13 percent to 22 percent).

Recent data indicate that schoolchildren in Chicago, particularly in the Chicago Public Schools, have a much higher prevalence of obesity than at the national level. Whitman and colleagues surveyed 1,700 households in six Chicago community areas. They found that two-thirds (58-68 percent) of the children in five of the six areas were overweight or obese. Their reported overall prevalence in Chicago (58 percent) was much higher than that at the national level (30 percent) and that in New York City (43 percent). Recently in our ongoing school-based obesity prevention study in four Chicago Public Schools, we



found that 42 percent of the fifth through seventh graders were overweight or obese.

Obesity is the result of a number of biological, behavioral, cultural, social, and environmental factors and the complex interactions among these variables that affect energy balance. Numerous studies have examined the influence of individuals' eating and physical activity patterns and biological factors on the development of obesity. Excessive energy intake is a primary risk factor for obesity, although the specific aspects of intake responsible are controversial. Dietary factors such as diet composition, energy density, fat intake, snacks, soft drinks, and portion sizes have been linked with obesity. Physical activity may be the most important factor in explaining the increase

of obesity in the U.S. and many other countries. Increasing evidence shows that American adults and children are engaged in much less physical activity than previously. For example, nearly half of young people do not regularly engage in vigorous physical activity, and one-fourth report no vigorous physical activity. Walking and bicycling by children aged five through fifteen dropped by 40 percent between 1977 and 1995. Among high school students, daily attendance in physical education (PE) classes declined from 42 percent to 25 percent during the first half of the 1990s. Recent national survey data show that among ninth through twelfth graders, 48 percent are not enrolled in PE, and the enrollment drops from 74 percent for ninth graders to 31 percent for twelfth graders. On average, American children spend four hours per day watching TV, playing video games, or using computers.

In recent years, the important role played by broad environmental factors in the obesity epidemic has received increasing recognition. Modern industrialized societies provide their residents with abundant food at relatively low costs. Numerous opportunities exist to reduce energy expenditure at work, at school, and in the home, and all three venues facilitate sedentary lifestyles. The current environment in the U.S. has been characterized as “obesogenic.”

In the past, great attention and emphasis have been focused on obese patients and those who are at high risk to deal with the condition. In recent years, however, there has been a growing consensus among public health professionals that government, society, and local communities should play an active role in addressing the obesity problem, which has now become a public health crisis. We suggest the following policy measures and programs:

- Create a supportive environment that encourages physical activity, e.g., accessible recreation facilities, safer streets and parks, and convenient public transportation systems.
- Modify existing policies and develop new ones to promote healthy eating and reduce overconsumption of energy, e.g., restrictions to be placed on food advertising and marketing and fiscal incentives and disincentives to promote consumption of healthy foods such as vegetables and fruits and reduce consumption of foods that are high in fat, sugar, and energy content.
- Schools are a key setting for promoting lifelong habits of healthy eating and physical activity. Young people should be provided with healthy food and adequate opportunities

## School of Public Health Receives Grants to “RAP” Childhood Obesity

The Robert Wood Johnson Foundation and the Otho S.A. Sprague Memorial Institute have provided grants to a faculty team to develop “Rapid Anthropological Assessment Procedures for Preventing Childhood Obesity.” Created by Susan C. Scrimshaw, PhD, and Elena Hurtado, MPH, in the 1980s, Rapid Anthropological Assessment Procedures, or “RAP,” are based on anthropological methods used to assess health beliefs, behaviors, and programs from the community perspective. “RAP” has been applied to health problems ranging from AIDS to reproductive health and aging. This project will assess individual and community perceptions of obesity and prevention strategies and will work with community members and health care providers to create a version of “RAP” for planners, researchers, and policymakers to use in developing and evaluating intervention strategies to address childhood obesity. Investigative team members include Dr. Scrimshaw, Noel Chávez, PhD, RD, LDN, Myrtis Sullivan, MD, MPH, and Youfa Wang, MD, PhD.

for physical activity through physical education classes and recess while in school.

- Strategies to tackle obesity need to be incorporated into existing health promotion programs, particularly those aimed at preventing other chronic diseases such as cardiovascular disease and cancer.
- Underserved population groups should be provided additional support by local, state, and federal governments and other organizations.
- Organizations and agencies at the community, regional, national, and international levels should work in a coordinated manner to develop and implement comprehensive and integrated programs and policies.

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