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## A Public Health Approach to Decreasing Obesity

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IN CONCERT WITH CLINICAL MEDICINE, WHICH ADDRESSES DISEASES in individuals, the public health approach targets behavioral, sociocultural, and environmental factors that contribute to disease and injury in populations. For example, over the last 40 years, coordinated government efforts and private sector initiatives decreased smoking prevalence by almost half through taxation of tobacco products, smoking bans in public places, laws prohibiting tobacco sales to minors, advertising restrictions, and aggressive public education campaigns.<sup>1</sup> Soon, however, obesity may surpass smoking as the leading cause of preventable death in the United States.<sup>2</sup> Public health interventions to decrease obesity prevalence must apply the same kind of multifaceted and coordinated approach that reduced tobacco use in order to change individual behavior patterns and effectively address the environmental barriers to physical activity and healthful food choices.

Between 1984 and 1997, there was more than a 15% increase in the average daily calorie intake per person in the United States.<sup>3</sup> New farming practices, subsidies, and innovations in processing, packaging, preservation, and refrigeration have resulted in an abundance of food that can be easily stored and transported across states and continents.<sup>4</sup> The food industry spends approximately \$26 billion on advertising annually, and the proliferation of restaurants and fast-food chains has made its products widely available.<sup>5</sup> To make the public more conscious of their nutrient intake, public health interventions might make labels reporting the calorie and nutrient content of foods more prominent and pervasive. Other strategies include encouraging the sale of more healthful foods in fast-food restaurants, tax incentives, and limiting the sale of high-calorie, low-nutrient snacks on school campuses.

At the same time that calorie consumption has increased, daily physical activity among Americans has decreased for several reasons, including increased reliance on motor vehicles, sedentary occupations, and the proliferation of television and computer technology. Despite evidence of its health benefits, as many as 74% of US adults report that they do not engage in the amount of leisure time physical activity recommended by the US Department of Health and Human Services.<sup>6</sup> Additionally, the percentage of students attending daily physical education classes decreased from 42% in 1991 to 32% in 2001.<sup>7</sup> Public health initiatives might target behavioral and structural barriers to physical activity by increasing the number of pedestrian malls in public places and encouraging people to walk or ride bicycles to work and school. Other initiatives might foster regular exercise by increasing the availability of recreational centers, parks, and workplace gyms as well as requiring physical education in schools.

The public's knowledge and attitudes about nutrition and its influence on health have been shown to affect their food choices. Increased amounts of publicly available information linking dietary lipids to heart disease has been associated with decreased consumption of whole milk, eggs, and pork and increased consumption of low-fat milk, poultry, and fish.<sup>5</sup> Although most Americans are aware of the links between health, diet, and physical activity, most do not consider their body weight to be a major health concern.<sup>8</sup> The prevalence of obesity is also highest among people with fewer years of education.<sup>2</sup> School- and community-based health education campaigns tailored to cultural background, gender, and age group as well as health messages widely disseminated in the entertainment and news media can help correct misperceptions that contribute to obesity as well as promote healthy behavior.

Attempts to decrease obesity that focus primarily on changing individual behavior have been ineffective. Last year, more than half of Americans attempted weight loss or maintenance through dieting and spent more than \$33 billion on products and services.<sup>9</sup> Nonetheless, obesity rates continue to increase and have doubled since 1980.<sup>2</sup> In order to decrease the prevalence of obesity, a multifaceted public health approach is required to address the many behavioral, sociocultural, and environmental factors that promote caloric intake and discourage physical activity among Americans. In 2001 a *Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* was issued to provide the framework for such an approach.<sup>2</sup> The strategy outlined above can help coordinate the efforts of public and private organizations working in partnership to achieve the broad range of changes needed to prevent and reduce obesity in the United States.

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