

# Effects of Obesity and Other Controllable Factors on Survival

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## Abstract

Body fat historically enabled people and animals to survive food shortages by tapping into their internal energy reserves. Today, abundant calorie-rich food often overwhelms the body's weight regulatory system, with many individuals' genetic makeup unable to control this input, resulting in massive societal weight gains. The current era of obesity and inactivity is threatening the substantial progress made in postponing illness and death and with its reduction in cardiovascular disease made possible in part because of a decrease in smoking.

This paper first explores the current state and contributing causes of obesity. It then explores the mortality and health care costs of obesity. It ends with a discussion of its management.

The increase in obesity over the past 30 years has been a result of changes in the environment that have simultaneously lowered the cost of food production, lowered the time and monetary cost of food consumption, increased the real cost of being physically active, and decreased the perceived cost of the adverse consequences of habits that add weight. These changes have in part been in response to a demand for labor-saving technology and desire for convenient, affordable food.

The resulting prevalence of obesity (for adults, a greater than 30 body mass index, or BMI) of over one-third of the adult population in the United States should be a significant and growing concern to society. Not only has average weight increased, but the percentage in excess of any given weight level has increased in all age and ethnic categories, reflecting a shift in the prevalence distribution itself, as the fastest growing weight segment of population has been the morbidly obese, associated with more extreme mortality and health care cost effects. The trend in children's obesity is also particularly troubling, as it will likely add more challenges as they age.

Even though what seemed to be a never-ending rise in the percent of overweight and mildly obese appears to be stabilizing somewhat in the United States, the current level for all population segments is staggering. Unfortunately, the rest of the world is, at different speeds and degrees, catching up to Americans, although the severely obese is where Americans stand out from others so far.

Although several studies have placed a spotlight on a possible obesity paradox, where the mortality of those overweight or moderately obese appears somewhat better or not significantly worse than that of those with a "normal" BMI, many other studies have shown that, particularly given a long-term lag period subsequent to measurement, mortality increases with growing BMI. As result, although being overweight and moderately obese constitutes a significant mortality risk remains somewhat controversial, the obese are certainly associated with greater health care costs and those morbidly obese represent both a growing percent of the population and a group with significantly greater mortality and health care costs. In addition, whether those in the huge overweight population segment are looked at as (1) being at-risk of becoming obese, (2) experiencing adverse mortality prospects itself, or (3) experiencing significant additional

morbidity and health care risks and costs, this population segment constitutes a societal concern as well.

Obesity has been a significant contributing factor to the continuing increase of U.S. health care costs. Although some earlier studies relating to health care costs indicated that obesity-related health care expenditures have been between 5 and 7 percent of annual health care expenditures in the United States, two recent studies have estimated that as much as 9.1 percent or 16.5 percent of total health care costs can be attributed to being overweight or obese.

The last section of this paper that describes what might be done for the prevention and management of obesity highlights that there is no silver bullet to solve the “problem” of obesity. Since being obese is commonly the result of or lack of healthy behaviors, the challenges of reducing the incidence of obesity have to be addressed on a personal, business and societal/government level to succeed. Since it is normal to have other risk factors in addition to being obese, action is needed to address more than just weight.