

Lifting the Unbearable Weight of Morbid Obesity

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As the incidence and prevalence of morbid obesity relentlessly continue to rise, so do the personal, societal, and financial burdens associated with this chronic, multifaceted disease. The economic and technological progress achieved during the last century has resulted in unprecedented bounties of energy-dense food at an ever-decreasing cost to the consumer; factors that undoubtedly contributed to the development of the perfect storm of morbid obesity. The blustery winds of globalization and other market forces have helped spread the wildfire of morbid obesity to every corner of the planet, rendering it a worldwide pandemic. The World Health Organization reports that in 2005, 1.6 billion adults were overweight, of whom 400 million were considered obese. Furthermore, it issued predictions that in the year 2015, these numbers would rise to an alarming 2.3 billion overweight adults, including 700 million obese individuals.¹ Children and adolescents are the most rapidly expanding segments of the population to be affected with obesity, representing a grim outlook for the future health and economic wellbeing of humankind.

In the United States, at least 5% of the population is morbidly obese. According to the Centers for Disease Control, an American dies every 90 seconds from an illness related to obesity, adding up to 1,000 people every day and nearly 400,000 every year. And, before overweight people die, they often suffer for years with medical conditions including diabetes, heart disease, sleep apnea, gallbladder disease, hypertension, arthritis, infertility, cancer and psychologic diseases. Many of these conditions, or their treatments, result in additional weight gain, so that a lethal, unrelenting vicious cycle ensues. Even a cursory glance at recent reports on the dramatic rise in the incidence of these chronic, degenerative diseases will underscore the presence of a common denominator at play. Sadly, not only do these comorbidities markedly affect quality of life, but they also reduce life expectancy, such that an obese man at age 30 is predicted to die 11 to 13 years prematurely.

The financial cost continues to grow exponentially. Although many employers and other payers carry the expenses, it is ultimately the taxpayer that pays. The direct financial cost to society due to overweight and obese employees is estimated to be \$136 billion in health care expenditures for hospital stays, lost productivity, and drugs to treat chronic conditions. A 2003 study showed that more than \$78 billion, out of total health care spending of \$1.5 trillion, was expended in the treatment of obesity-related illnesses. The Medical Expenditure Panel Survey (MEPS) reported in 2002 that obese individuals over the age of 55 faced higher mean medical expenses (\$7235) when compared with normal weight individuals (\$5390).²

And clearly, there are significant indirect costs from increased absenteeism and decreased productivity that must be taken into account. We already witnessed the formidable impact exerted by health care costs on the potential demise of the beleaguered US automobile industry, where \$3.8 billion are annually expended on the health of retirees, many of whom suffer chronic degenerative diseases. Finkelstein et al recently reported their findings of a clear association of sustaining injuries with body mass index, such that the odds of an injury were 48% higher in a person with class III obesity.³

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Additionally, it was reported in the press that airlines in the United States have had to pay \$275 million for additional fuel costs due to the weight of obese passengers. It is, by extension, reasonable to deduce that additional expenditure on fuel affects all forms of transportation.

The time has come to consider effective management of obesity as a prime worldwide concern. Although the prevention of obesity is an imperative mission, it is a monumental task, albeit one that must be embraced. The success of such a program will require universal and enduring commitment by politicians, public health officials, and health professionals, many of whom do not understand the origins and consequences of obesity, and certainly lack the required motivation.

Treatment strategies, however, are firmly within our grasp. Although the adoption, and maintenance, of healthy food options and increased physical activity can result in healthier lives for the population at large, it is only bariatric surgery that can produce meaningful and sustained results in morbidly obese patients. When properly applied, bariatric surgery, by temporarily eliminating or markedly reducing appetite, among other actions, acts as a great facilitator for promoting a healthy lifestyle. There is now compelling evidence that indisputably places weight loss surgery as the most effective and durable option for these patients.⁴⁻⁶ Unfortunately, after a phenomenal rise in the incidence of weight loss operations, the rate of growth has decreased, and perhaps has now reached a plateau, even as the incidence of morbid obesity continues to rise unabatedly. So, why is there a perceived resistance to the widespread application of this powerful “tool”?

Cost, as in all matters of national significance, is at the center of the problem. In any payer system, the cost of offering a costly modality, such as bariatric surgery, must be balanced with the expenditures on medications, medical devices, absenteeism, and decreased productivity associated with morbid obesity. In the private sector, such cost is borne by the employer who must take into consideration the fact that, on average, employees tend to switch jobs every 3 or 4 years, thereby inhibiting an up-front major investment in employees' health care. Furthermore, the chronic nature of obesity-related diseases results in a disproportionate expenditure of resources after the age of 65. Of the roughly \$58,000 cost of obesity incurred between the age of 18 and 75, 38% is accrued after the age of 65, the age at which the Medicare program assumes responsibility for the health insurance of most Americans.⁷ Medicare is also charged with providing health insurance for patients younger than 65 years who have a disability.

Medicare, therefore, carries a large burden that is directly, and indirectly, attributable to obesity. Nearly 20% of Medicare beneficiaries are obese.⁸ On May 30, 2006, the Centers for Medicare and Medicaid Services (CMS), in a recent National Coverage Determination reaffirmed its commitment to offering coverage of bariatric surgery, provided

these operations were performed in accredited institutions. Cost-containment and safety were the predominant reasons for this decision, perhaps following recent articles published, to high fanfare, in high-impact journals. These articles raised concerns regarding an unexpected high morbidity and mortality rate after bariatric surgery, particularly in Medicare patients in whom the 30-day mortality rate was 4.8%.⁹⁻¹¹

The study by Perry et al is an elegant exercise in applying sophisticated statistics to claims data, clearly demonstrating improved survival rates and diminution of comorbidities after bariatric surgery in a cohort of Medicare beneficiaries.¹² The authors proceed to compare surgical patients with a cohort of similar Medicare patients who did not receive surgical therapy and report an undeniable survival advantage in the surgical group, in addition to, or as a result of, the remarkable improvement in 5 major comorbidities. Furthermore, the article dispels the notion that morbidly obese patients over 65 years of age represent intolerable risk, by reporting a 30 day mortality rate of only 1.5%. Although the study carries limitations, particularly with regards to its dependence on administrative data sources, it is a definite contributor to the advancement of bariatric surgery, and its continued acceptance as a safe and effective therapeutic modality in this high-risk population. Future studies that report sustained benefit in elderly and disabled patients, with conclusions that may be applied to younger, more able obese patients, will go a long way to helping us lift this unbearable burden on society.

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