Introduction

The State of Obesity in 2017

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KEYWORDS

• Obesity • Prevalence • Disease • Morbidity • Models of care

KEY POINTS

- Obesity is now included among the global noncommunicable disease targets identified by the World Health Organization and is a risk factor for an expanding set of chronic diseases.
- The global burden of obesity is related to the association between body mass index (BMI) and increased morbidity and mortality.
- Several position papers and guidelines have recently been published that provide recommendations for assessment and treatment of patients with obesity.
- A redesign of the health care environment to provide more effective and efficient obesity care is needed.
- The American Board of Obesity Medicine was founded facilitate increased competency and recognition for physicians to provide better-quality obesity care.

INTRODUCTION

Assessing where we stand in 2017 is an interesting exercise, now that we are several decades into the US obesity epidemic. On the one hand, there are several areas of progress, including increased awareness, increased political and social will to address obesity, new treatment options, and greatly expanded evidence base for prevention and intervention strategies. In contrast, prevalence rates have not declined, and severe obesity rates are still growing rapidly, and global obesity rates are steadily rising, now nearly 2 decades since the first Surgeon General's report on obesity,[1] with prevalence in many Western and non-Western countries now catching up with the United States. It will be important to continue current progress as well as significantly expand the scope and intensity of focus to make further gains at managing this chronic disease.

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THE BURDEN OF OBESITY

Obesity continues to be a major national and global health challenge and a risk factor for an expanding set of chronic diseases, including cardiovascular disease (CVD), diabetes, chronic kidney disease, nonalcoholic fatty liver disease, metabolic syndrome, and many cancers, among other comorbid conditions. Along with its increased global prevalence over the past decades, obesity is now included among the global noncommunicable disease targets identified by the World Health Organization.[2] A recent update of the Global Burden of Diseases (GBD) study quantified the burden of diseases related to high body mass index (BMI) during the period from 1990 through 2015.[3] Burden of disease was assessed by deaths and disability-adjusted life-years (DALYs), a composite metric defined as the sum of years lived with disability due to premature mortality and years lived with disability. In 2015, high BMI contributed to 4.0 million deaths globally, which represented 7.1% of the deaths from any cause. It also contributed to 120 million DALYs, which represented 4.9% of DALYs from any cause among adults. CVD was the leading cause of death and DALYs related to high BMI, followed by chronic kidney disease.

In 2014, the McKinsey Global Institute issued a report titled, "Overcoming obesity: an initial economic analysis," that contextualized the economic burden of obesity.[4] The report assessed the current impact to society of 14 major problems that are caused by humans, that is, those that are the result of human decisions, are amplified by human or societal behavior, or depend on societal, legal, or infrastructural environments created by humans. They estimated that the global economic impact of obesity is roughly $2 trillion, or 2.8% of global GDP. Among the sources of cost that were assessed, lost productivity was the most significant seen in their analysis, accounting for nearly 70% of the total global cost of obesity. The most striking finding was that obesity is one of the top 3 global social burdens, only being surpassed by smoking, armed violence, war, and terrorism. An additional analysis by the Milken Foundation estimates costs of more than $1 trillion in the United States alone, when taking into account direct and indirect medical and nonmedical costs of obesity.[5] Obesity can be considered a "syndemic," a new term defined as a condition in which biology, behavior, and social factors create the conditions in which several health conditions cluster and affect the health burden of the population.[6]

In addition to the burden caused by obesity, its prevalence rates are astounding. In 2015, a total of 107.7 million children and 603.7 million adults had obesity worldwide.[3] The overall prevalence of obesity was 5.0% among children and 12.0% among adults, a rapid increase in recent decades. Whereas the prevalence of underweight was more than double that of obesity 4 decades ago, the trend has now reversed: more people have obesity than underweight, both globally and in essentially all regions of the world.[7] The prevalence of obesity in the United States and Canada is among the highest in the world. According to the National Health and Nutrition Examination Survey (NHANES) 2013 to 2014 dataset, 36.5% of US adults and 17.0% of youth aged 2 to 19 years had obesity.[8] These data translates into 82.7 million adults and 12.7 million children and youth, respectively. More women (38.3%) than men (34.3%) were obese, with non-Hispanic black women (48.1%) showing the highest prevalence rates. Obesity prevalence has been steady among youth since 2003 to 2004 and overall among adults since 2011 to 2012.[9] However, prevalence rates in certain subpopulations continues to increase, and in particular, the rate of severe obesity (BMI $\geq$40 kg/m^2) continues to increase steadily.[10] The overall prevalence rates remain significantly above the Healthy People 2020 targets. The corresponding adult obesity prevalence rate among Canadians in 2014 was 20.2%, or roughly 5.3 million individuals.