

The weight of our nation

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Canadians spent an estimated \$228 billion on health care in 2016. That represents 11.1% of our total economy, or \$6,299 per person. Almost 40% of all public expenditures are allocated to fund health care.¹ Put succinctly, that is a lot of money! This issue of *Health Promotion and Chronic Disease Prevention in Canada* places a spotlight on three diseases that contribute to this economic burden of health care in Canada.

Pelletier and coauthors² estimate that 700 000 Canadians report symptoms consistent with generalized anxiety disorder (GAD) and that 30% of these individuals' needs for health care are not being met. Amankwah and colleagues³ estimate that 99 000 Canadians were living with multiple sclerosis (MS) in 2011 and that this number will increase to 134 000 by 2031. Estimated health care and out-of-pocket costs attributable to MS in 2011 were \$1.48 billion.

Bilandzic and Rosella⁴ calculate that 2 156 000 new cases of diabetes will be diagnosed in Canada during the 10-year period between 2011/12 and 2021/22, with attributable health care costs of \$15.36 billion, or \$7,124 per individual with diabetes. They further calculate that 283 000 cases of diabetes and \$2.03 billion in costs could be avoided if the average body weight of Canadians were reduced by 5%.

The focus on the relationship between diabetes and excess weight by Bilandzic and Rosella is appropriate as we estimate that 62% of type 2 diabetes in Canada is attributable to excess weight.⁵ A further 18% and 8%, however, is attributable to physical inactivity and tobacco smoking, respectively. Based on Canadian Community

Health Survey (CCHS) data, the prevalence of tobacco smoking was reduced from 24.8% to 16.2% between 2001 and 2014 among Canadians aged 20 to 64 years. Similarly, the prevalence of physical inactivity has been reduced from 55% to 47%. The biggest challenge, however, remains with excess weight. During that same time period, the prevalence of obesity increased from 15.3% to 20.6% (or a total of 4 557 000 Canadians). Most importantly, the prevalence of individuals with the highest levels of obesity has more than doubled. Both the health and economic burdens associated with obesity increase dramatically as weight increases.

The diverging trends in the prevalence of tobacco smoking and excess weight in Canada means that the economic burden attributable to excess weight is now 25% higher than that attributable to tobacco smoking.⁵ This crossover occurred in 2009, and the gap between the economic burden attributable to excess weight and tobacco smoking has continued to widen.

Success in reducing the prevalence of tobacco smoking resulted in a 34% decrease in the attributable economic burden in Canada between 2000 and 2015, while the economic burden attributable to excess weight increased by 24%. Within this context, how might we be able to achieve even the modest 5% reduction in weight suggested by Bilandzic and Rosella? Can we apply any of the lessons learned from the success addressing tobacco smoking to excess weight? During the last 60 years, we have learned that progress in the prevention of tobacco smoking has taken a comprehensive, long-term approach involving price increases (usually through taxation), controlling the advertising of tobacco products, counter-advertising, enhanced

clinical cessation strategies and clean air legislation (smoking bans).⁶

While progress in the prevention of tobacco smoking has been challenging, and there is still much work to be done, addressing excess weight is likely to be even more complex. At its simplest, excess weight involves an imbalance of energy intake and output, but there is a much more complicated web of causal factors influencing weight-related problems.⁷ Organizations such as the World Health Organization⁸ and the Centers for Disease Control and Prevention in the US⁹ have begun to suggest a series of strategies to address excess weight, including the need to measure and evaluate obesity prevention efforts. What we do know is that the ability to successfully address excess weight at the population level will require a comprehensive, multidimensional approach in numerous spheres for at least a generation, with positive lifestyle choices consistently being reinforced by a supportive environment.⁶

The health of our nation, and our economy, requires that such a comprehensive, long-term approach be implemented now. We can no longer afford to wait.

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