

OBESITY IN CANADA

Snapshot



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HIGHLIGHTS:

- In the 2007 Canadian Community Health Survey, the self-reported rate of adult obesity (age 18+) was 17%.ⁱ
- The actual rate of obesity is likely much higher, closer to 25%.
- Across Canada, self-reported rates of obesity have increased from 2003 to 2005 and again in 2007.
- Obesity rates for both men and women increase with age, starting at age 20 and continuing until age 65. After age 65, obesity rates decline.
- In 2005, the measured rate of obesity for youth 12 to 17 was 9.4%, almost two times higher than the self-reported rate (4.9%).
- Self-reported data from 2002/03 suggest that obesity rates are high among First Nations adults (36.0%), youth (14.0%) and children (36.2%).
- In 2007, the self-reported obesity rate among off-reserve Aboriginal adults was 24.8%, compared to 16.6% for non-Aboriginal adults.
- Unlike other health issues such as mortality or life expectancy, for which there is a clear disadvantage for those with lower income, the relationship between income and obesity is not clear.
- In 2005, obesity-related chronic conditions accounted for \$4.3 billion in direct (\$1.8 billion) and indirect (\$2.5 billion) costs – a figure that may be an underestimation of the total costs of excess weight in Canada.

Over the past several years, Canada has experienced an alarming increase in obesity rates among adults, children and youth.^{1, 2} Obesity (defined as a Body Mass Index or BMI of $>30 \text{ kg/m}^2$) is an important individual and population health issue, as it is a contributor to a wide variety of chronic diseases, such as diabetes, cardiovascular disease, hypertension and liver disease, as well as breast, colon and prostate cancer.^{3, 4}

The current paper provides a snapshot of obesity in Canada using data analyzed by the Public Health Agency of Canada. A more detailed report is being developed in collaboration with the Canadian Population Health Initiative of the Canadian Institute for Health Information. This report will provide the latest information about how obesity is distributed in the Canadian population to healthcare providers, health promotion specialists and decision makers, thus building the understanding required for a population health approach to obesity.

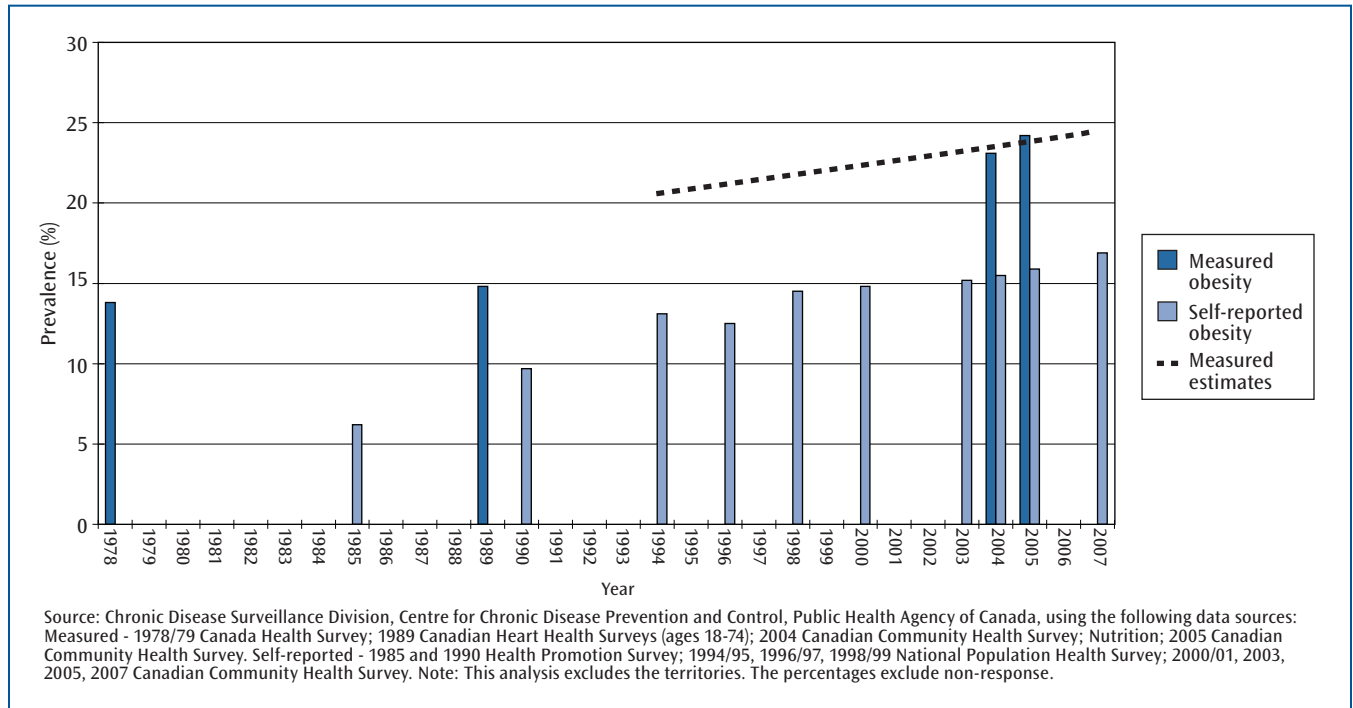
Trends Over Time

At the national level, data from the Canadian Community Health Survey (CCHS) and others show a steady increase over time in the prevalence of obesity. Estimates of obesity in Canada are often based on self-reported heights and weights, though measured data have been collected a few times. As shown in Figure 1, both measured and self-reported data show increases in the prevalence of obesity among Canadian adults aged 18 or older.

Self-reported data underestimate the extent of obesity in Canada. In 2005, the proportion of the male population 12 years or older who were obese, based on measured data, was approximately nine percentage points higher than the estimate from self-reported data; for the female population, the prevalence was approximately six percentage points higher.⁵ Extrapolating from self-reported and measured data collected over time, it is estimated that the rate of obesity among adults in Canada in 2007 may actually be about 25%.

ⁱ Given a change in data collection methodology for the CCHS, this snapshot is based on half of the total sample for the 2007/08 cycle.

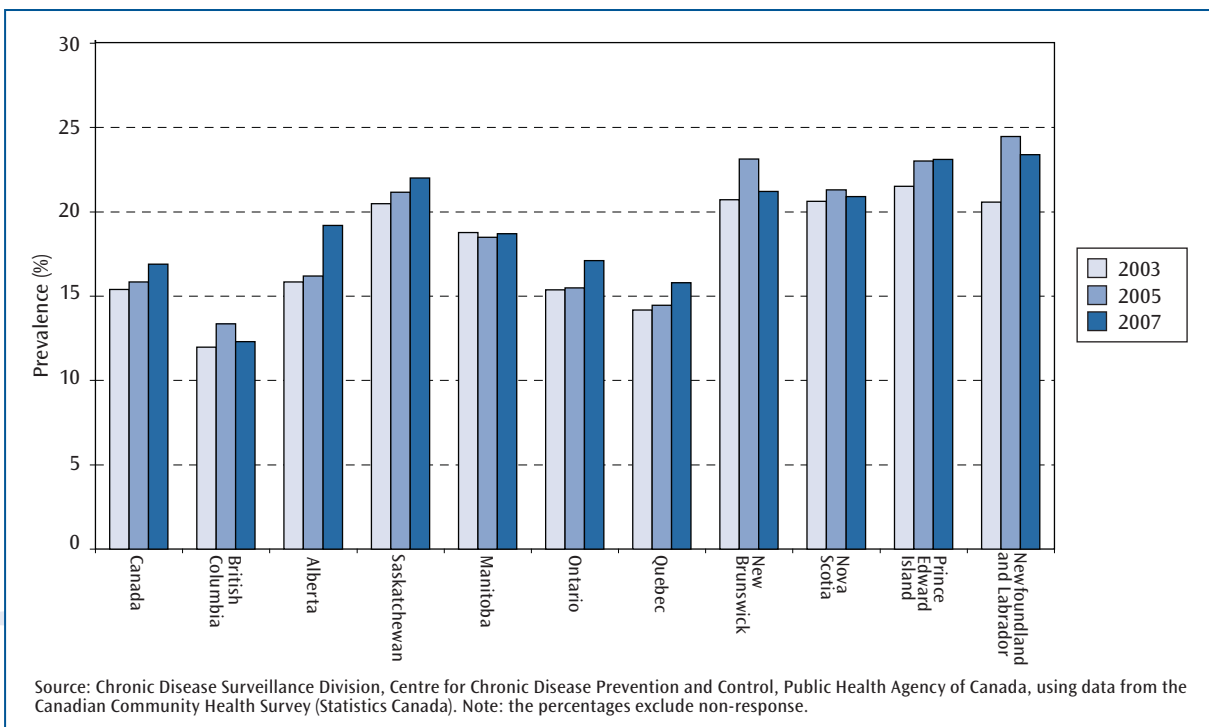
Figure 1: Percentage of the population age 18+ years who were obese (measured and self-reported), by year, Canada, 1978-2007



Provincial Variation in Obesity

Several provinces have had an increase in their obesity rates from 2003 to 2007, while others may be leveling off or have decreased slightly in 2007. More in-depth analysis examining the significance of these differences and patterns among men and women will be provided in our full report.

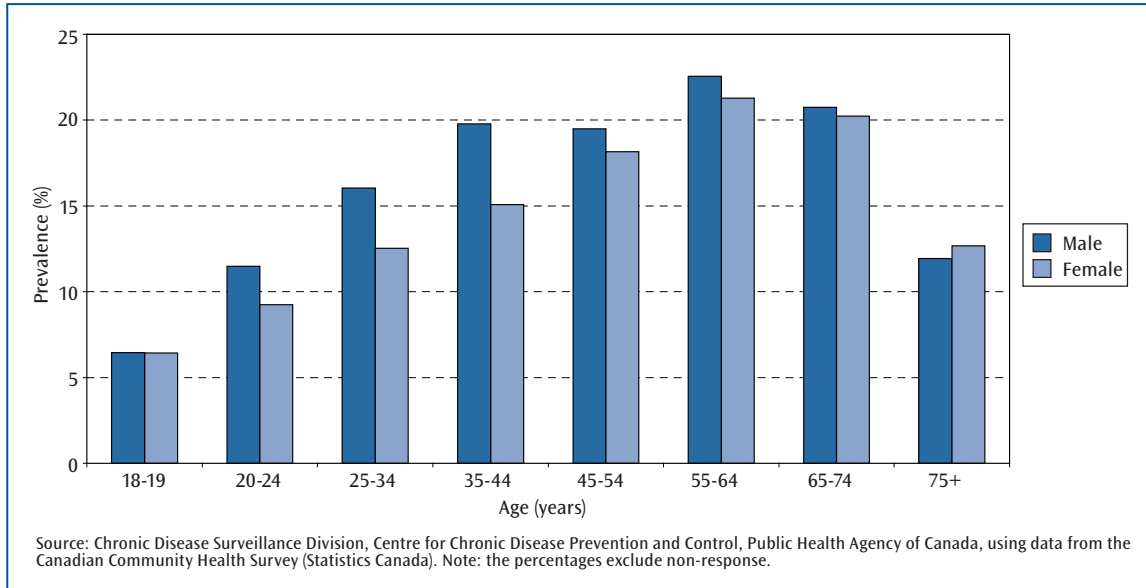
Figure 2: Prevalence of Self-Reported Obesity among People 18 Years and Older, by Province, and Year



Many Factors Influence Prevalence of Obesity

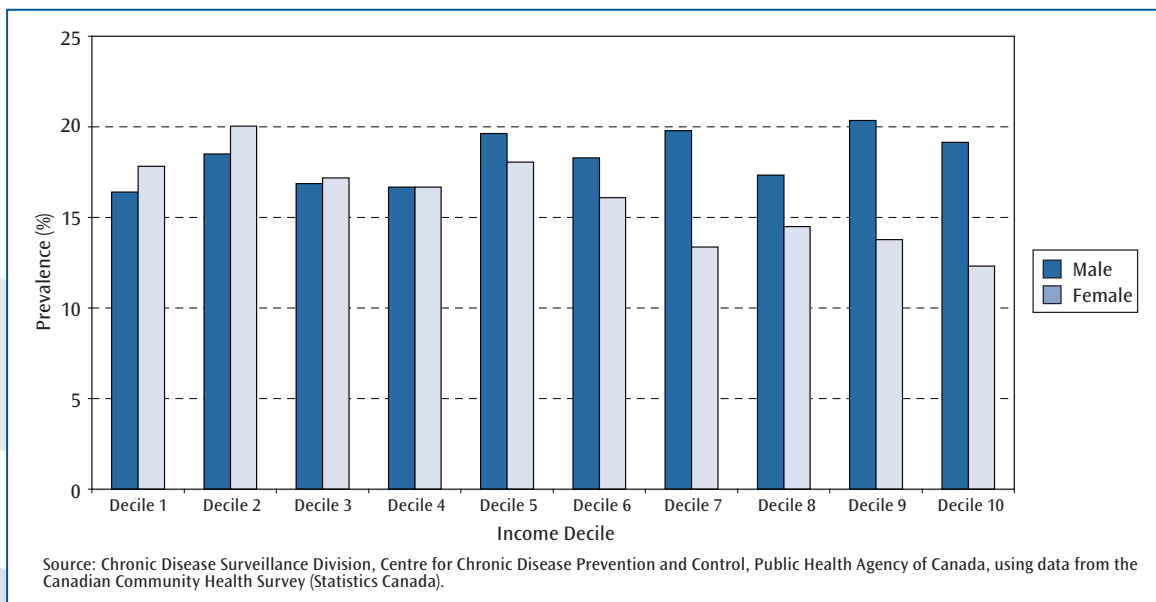
Obesity is influenced by numerous individual-level and environmental factors, such as age, sex, income and place of residence.⁶ As shown in Figure 3, self-reported obesity rates for both men and women seem to increase until age 65, after which they start to decline. Rates are slightly lower for women than men at all ages, except for those aged 75 years or older.

Figure 3: Prevalence of Self-Reported Obesity among Males and Females 18 Years and Older, by Age Group, 2007



Income is often used as a measure of socio-economic status (SES), a well-established determinant of health. However, while higher-income women have lower obesity rates than lower-income women, this association is not seen among men (Figure 4). A recent analysis suggests that the lack of a clear social gradient may reflect differences in food consumption patterns and smoking rates.⁷ The data presented here reinforce the importance of not relying solely on aggregate analysis but undertaking further exploration of the differential effect of SES for men and women. In our forthcoming report, an innovative, new model will be used to estimate the population attributable risk (PAR) of obesity for different social determinants and behavioural factors, as well as the number at risk at the population level (population impact number or PIN).

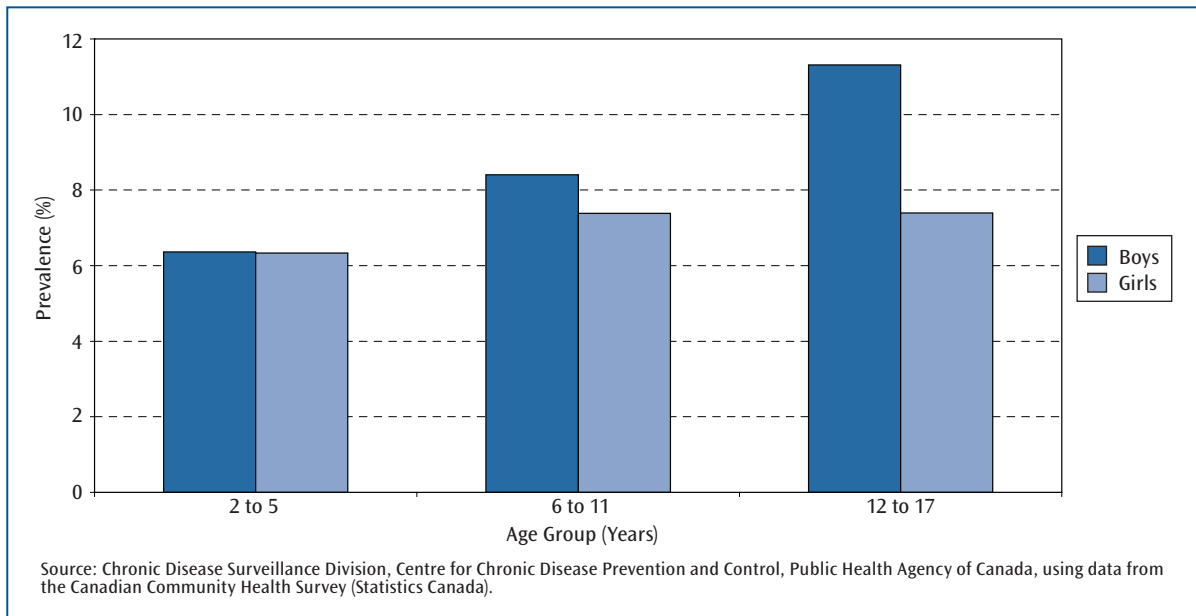
Figure 4: Prevalence of Self-Reported Obesity among People 18 Years and Older, by Income Decile, Canada, 2007



Children Are At Risk

In the 2007 CCHS, self-reported rates of obesity among youth aged 12 to 17 years were 6.8% for boys and 2.9% for girls. Given that 2005 measured rates were higher than those from self-reported data (for boys 12.7% vs. 5.9%; for girls 6.0% vs. 3.7%), it is likely that the actual prevalence of adolescent obesity in 2007 is much higher than suggested by self-reported rates. Childhood obesity is of concern because it not only increases the risk of obesity in adulthood,⁸ but can contribute to the early development of serious health conditions such as type 2 diabetes, heart disease and high blood pressure.

Figure 5: Prevalence of Measured Obesity Among Children 2 to 11 Years, and Youth 12 to 17 Years, Canada, 2004



Aboriginal People in Canada

Obesity is an important health issue among First Nations, Inuit and Métis populations. Self-reported data from 2007 show that obesity rates are higher among off-reserve Aboriginal adults compared to non-Aboriginal people (24.8% vs. 16.6%). Indeed, self-reported data from the 2002/03 First Nations Regional Longitudinal Health Survey demonstrate that prevalence of obesity is particularly high among on-reserve First Nations people: 31.8% of adult men, 41.1% of adult women, 14.0% of youth and 36.2% of children were considered obese.¹⁰

The Economic Cost of Obesity

The most recent Economic Burden of Illness in Canada (EBIC) study shows that the total cost of illness reached \$202 billion (2005 dollars) in 2000.¹¹ In a recent analysis, the total cost of obesity has been estimated to be \$4.3 billion (2005 dollars); \$1.8 billion in direct healthcare costs and \$2.5 billion in indirect costs.¹² This figure is suggested to underestimate the overall economic cost of excess weight in Canada as it does not include the costs for those who are overweight, but not obese. Further, it only includes costs of adult obesity and costs associated with eight chronic diseases.

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 - ¹¹ Public Health Agency of Canada. *Economic Burden of Illness in Canada, 2000*. Ottawa, 2009 (in press)
 - ¹² Janssen I, Diener A. *Economic Burden of Obesity in Canada in 2005* (forthcoming)