

Obesity and Cancer in Canada

The prevalence of obesity is on the rise in Canada among children and adults. Obesity has been associated with increased mortality from various health conditions including cardiovascular disease and certain cancers.¹⁻² Avoiding obesity, along with appropriate food and nutrition, regular physical activity and limiting alcohol consumption can prevent about one-third of all cancers.³ This report provides health care professionals with an overview of the current picture of obesity in Canada, recommendations physicians can use to address obesity with their patients and some initiatives underway to help address obesity across the country.

Canadians are not aware of the link between being overweight/obese and cancer

Despite overwhelming evidence that many cancers can be prevented through healthy lifestyle choices including a healthy diet and increased physical activity, a Canada-wide survey* conducted in 2008 found that the majority of Canadians do not link being overweight to cancer. According to the survey, only 31% of Canadians thought being overweight was a risk factor for cancer and only 28% thought

lack of exercise was linked to cancer (Figure 1). In contrast, the majority of Canadians (83% and 78%) associate being overweight with heart disease and diabetes, respectively.

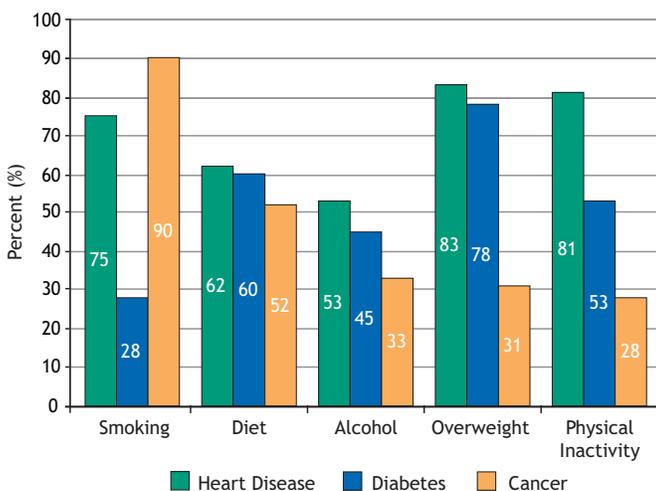
There is strong evidence that obesity causes cancer

A recent review from the World Cancer Research Fund (WCRF), an international umbrella association dedicated to raising awareness of cancer prevention, reported that approximately one-third of all cancers can be prevented through a combination of healthy food and nutrition (including limiting alcohol consumption), regular physical activity and avoidance of obesity.³ Based on findings from a systematic literature review, the WCRF concludes that there is convincing evidence that excess body fat increases the risk of cancer of the colorectum, breast (in postmenopausal women), endometrium, oesophagus, pancreas and kidney and probable evidence that greater body fatness causes cancer of the gallbladder.³

Obesity is on the rise in Canada

The percentage of obese adults and children has been steadily rising in Canada over the past two decades and this will continue to have an important impact on the incidence of cancer and other chronic diseases. Among Canadian adults,

Figure 1: Percentage of Canadians reporting a definite link between risk factor and cancer, heart disease and diabetes, 2008

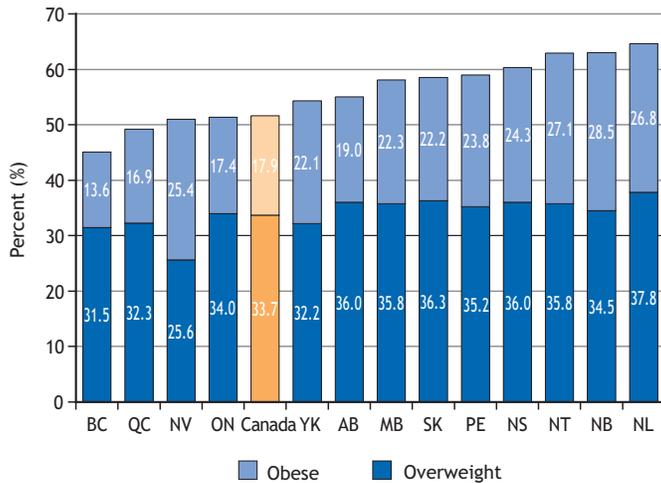


Source: The Cancer Prevention - Attitudes, Awareness and Behaviours Survey

* The Cancer Prevention - Attitudes, Awareness and Behaviours Survey was conducted by Environics Research Group on behalf of the Canadian Partnership Against Cancer in 2008. The survey used random digit dialing methodology and results are based on questions asked to 3,307 residents of Canada aged 18 or older from August to September 2008. The margin of error is +/- 1.7 percentage points, 19 times in 20. Results are weighted using population data to ensure sample representativeness of the Canadian population.

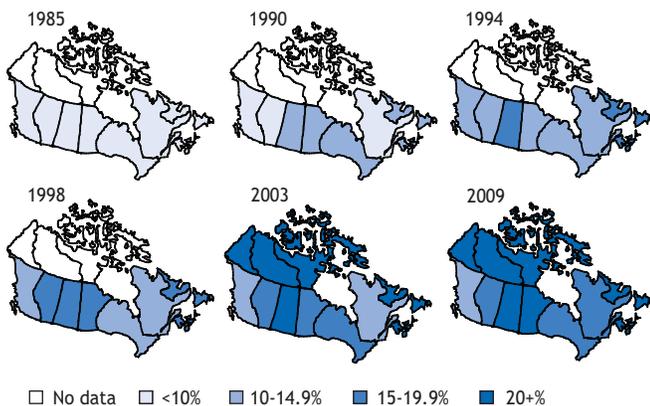
IN THIS ISSUE • Canadians are not aware that being overweight, unhealthy diets and lack of exercise are risk factors for a number of cancers • Research shows many cancers are preventable through healthy lifestyle choices • Obesity is on the rise in Canada among children and adults • Primary care physicians are an important part of obesity management and prevention • Initiatives are underway to help curb obesity in Canada

Figure 2: Percentage of Canadian adults aged 18+ classified as overweight and obese (self-reported height and weight), by province/territory, Canada 2009



Source: Canadian Community Health Survey

Figure 3: Percentage of Canadian adults classified as obese (self-reported height and weight) in 1985, 1990, 1994, 1998, 2003 and 2009, by province/territory



Source: 1985 and 1990 data are adapted from Katzmarzyk (2002),⁴ 1994 and 1998 data are from the National Population Health Survey, 2003 and 2009 data are from the Canadian Community Health Survey.

the prevalence of obesity, based on self-reported height and weight, has increased from 5.6% in 1985⁴ to 17.9% in 2009, with an additional 33.7% of Canadians classified as overweight in 2009 (Figure 2). Those living in urban areas tend to report lower rates of overweight and obesity.⁵ The maps in Figure 3 clearly illustrate the increase in the obesity epidemic across Canada over recent decades.

Studies directly measuring respondents' height and weight provide a more accurate estimate of the extent of overweight and obesity.⁶ According to data collected between 2007 and 2009, 37% of Canadian adults were overweight and an additional 24% were obese.⁷

The prevalence of obesity among children and adolescents in Canada has also increased considerably. In 1978/79, the percentage of overweight and obese children aged 2-17 years, based on directly measured height and weight, were 12% and 3%, respectively. In 2004, 18% of children in this age group were overweight and an additional 8% were obese.⁸ Obesity in children causes a number of health problems and increases the risk of premature illness, including diabetes and cardiovascular disease.⁹⁻¹²

Clinical recommendations for managing and preventing obesity

Physicians have a unique opportunity to help obese patients understand the health risks associated with obesity and the benefits of healthy eating and physical activity. Research shows that even simple advice from health care providers to lose weight, and tailored exercise and nutrition messages, are effective in encouraging healthier lifestyles.¹⁷⁻¹⁹

The Canadian clinical practice guidelines²⁰ were developed to help health care professionals manage and prevent obesity in adults and children. The guidelines emphasize the importance of a multidisciplinary health care team and a comprehensive lifestyle modification program that can help overweight and obese individuals achieve realistic goals. They describe nutrition and dietary therapy, physical activity and exercise therapy, cognitive-behaviour therapy, and the role of adjunctive pharmacotherapy and bariatric surgery.

Table 1: Projects receiving CLASP funding from the Canadian Partnership Against Cancer

Initiatives and Goals
<p>Children's Mobility, Health and Happiness[§] To increase the number of children doing daily physical activity and promote healthy lifestyles by changing the way elementary schoolchildren travel to and from school.</p>
<p>Collaborative Action on Childhood Obesity^{§†} To reverse the escalating trend in childhood obesity by decreasing the appeal and accessibility of unhealthy food choices and providing local and culturally relevant alternative food strategies in First Nations communities.</p>
<p>Healthy Communities: An Approach to Action on Health Determinants in Canada To mobilize communities to take action on chronic disease prevention using a Healthy Communities model and to establish a national Healthy Communities Network. Healthy Communities are those that seek to improve "upstream" determinants of health (e.g., income and food security and early childhood development).</p>
<p>Healthy Canada by Design To focus on community planning and increase the likelihood that the physical layout of our communities increases physical activity and opportunities for healthy living.</p>
<p>Youth Excel To improve the health of Canada's youth by building knowledge exchange capacity within provinces and territories and creating collaboration opportunities among researchers, policy-makers, practitioners and communities so they can assess and guide policies and programs focused on physical activity, tobacco use and healthy eating.</p>

§ Co-funded by the Public Health Agency of Canada

† Co-funded by the Heart & Stroke Foundation of Ontario

For obese children and adults, intensive counseling and behavioral interventions may be necessary for a sustained (12 month) improvement in weight status.²¹

A summary of key recommendations from the 2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children can be found in Box 1. The complete guidelines can be viewed at www.cmaj.ca/cgi/data/176/8/S1/DC1/1.

For a registry of pediatric weight management programs in Canada, and other resources, please visit the Canadian Obesity Network Website at www.obesitynetwork.ca.

What is being done in Canada to reduce obesity?

In 2005, the Federal, Provincial and Territorial governments[†] approved an Integrated Pan-Canadian Healthy Living Strategy.²³ This strategy addresses preventable risk factors for chronic diseases including physical inactivity, unhealthy eating and unhealthy weights. The strategy aims to obtain a 20% increase in the proportion of Canadians who are physically active, eat healthily and are at healthy body weights by 2015. For more information about this initiative, go to www.phac-aspc.gc.ca/hl-vs-strat/pdf/hls_e.pdf.

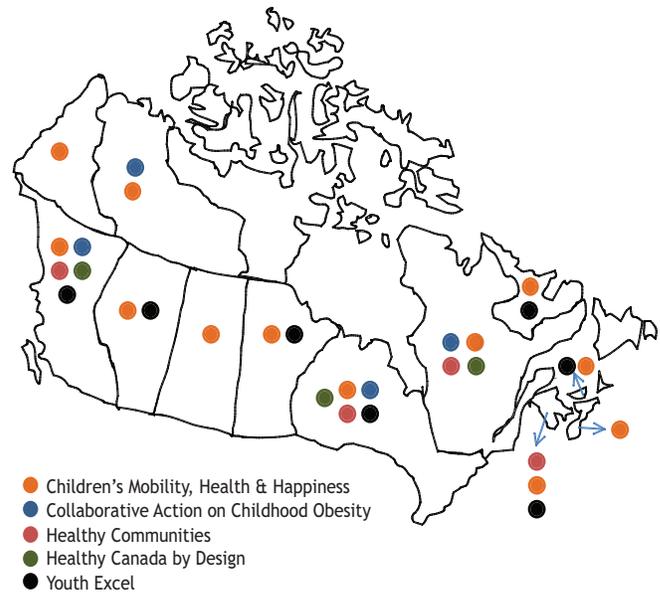
Building on the Healthy Living Strategy, *Curbing Childhood Obesity: A Federal-Provincial-Territorial Framework for Action to Promote Healthy Weights*²⁴ addresses the increase in unhealthy weights among children in Canada seen in recent decades. The initiative focuses on three key policy priorities: making the environments where children live, learn and play more supportive of physical activity and healthy eating, identifying and addressing the risk of obesity early in a child's life and increasing the availability and accessibility of nutritious foods. The full report can be viewed at www.phac-aspc.gc.ca/hp-ps/hl-mvs/framework-cadre/pdf/ccofw-eng.pdf.

Partnership activities related to childhood obesity

An initiative of The Partnership called Coalitions Linking Action and Science for Prevention (CLASP) is bringing together over 30 organizations from across the country to work on several coordinated activities to help curb childhood obesity (Table 1 and Figure 4). For more information on these initiatives, visit The Partnership's website at www.partnershipagainstcancer.ca.

[†] With the exception of Quebec

Figure 4: Projects receiving CLASP funding from the Canadian Partnership Against Cancer, by province/territory



Box 1: Key recommendations for the clinical management of obesity

- Measure body mass index and waist circumference in all adults and adolescents to determine the degree and distribution of body fat.
- Measure blood pressure, heart rate, fasting glucose level and lipid profile (total cholesterol, triglycerides, high-density and low-density lipoprotein cholesterol levels)
- Assess and treat, if present, obesity-related comorbidities and health risks
- Assess and screen for depression eating and mood disorders
- Assess readiness to change and barriers to weight loss
- Health team to discuss and devise appropriate client-centred education, support and goals for comprehensive lifestyle modification therapy with client and, when appropriate, family members
- Provide dietary counselling and prescribe optimal, energy-reduced (e.g., by 500 kcal/d) dietary plan for achieving weight loss goals (e.g., 5%-10% of body weight over 6 months)
- Prescribe 30 minutes of daily activity of moderate intensity and, when appropriate, increase to 60 minutes or more daily
- Consider appropriate pharmacotherapy or referral for bariatric surgery, or both
- Undertake regular reviews and reinforce goals for weight loss or maintenance, and prevention of weight regain

Source: Lau, D.C.W. et al, 2007²²

HOW IS OVERWEIGHT AND OBESITY MEASURED?

According to the World Health Organization,¹³ and also adopted by Health Canada,¹⁴ adults are considered overweight if their body mass index (BMI) is 25-29.9, and obese if their BMI is 30 or more.¹³ BMI is a measure of a person's body weight-to-height ratio. It is calculated by dividing a person's body weight in kilograms by the square

of his or her height in meters. It is less clear which BMI levels are associated with health risks among children and youth. While there are different approaches to classifying overweight and obesity in children and adolescents,¹⁵ this snapshot reports data that use thresholds endorsed by the International Obesity Task Force.¹⁶

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TAKE-HOME MESSAGES

THE PERCENTAGE OF OBESE ADULTS AND CHILDREN has been steadily rising in Canada and this increase will continue to have an important impact on the incidence of cancer and other chronic diseases. A recent report by the World Cancer Research Fund found that one third of cancers can be prevented through actions such as a healthier diet, limiting alcohol consumption, increased physical activity and improved weight management. Despite the evidence linking

obesity to cancer, Canadians are generally unaware of the importance of overweight and obesity, unhealthy diets and lack of exercise in relation to cancer prevention. There are many initiatives underway in Canada to help promote healthy nutrition and physical activity and primary care physician's conversations about the importance of healthy weights is a first step in increasing awareness of obesity-related health risks.

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