

BY CAROL T. CULHANE

SUPER SIZE ME

The title 'SUPER SIZE ME' is rendered in large, bold, sans-serif letters. 'SUPER' and 'SIZE' are in red, while 'ME' is in black. The letter 'U' in 'SUPER' contains a green leafy vegetable. A purple flower is positioned between the 'P' and 'E' of 'SUPER'. A pink flower is positioned at the bottom right of the 'E' in 'ME'.

Fifty years ago, obesity was first introduced into the international classification of diseases. Today, it's a worldwide epidemic, prevalent in developed nations and appearing in developing countries. The International Obesity Task Force estimates that 300 million adults in the world are obese. We face increasing risk of people dying from having eaten too much, rather than too little.

There is general agreement on some aspects, such as the definition of obesity, the indicator used to measure prevalence among adults, the direct role involved in the development of several chronic diseases and the economic burden of obesity-related medical costs. Several points of uncertainty and debate emerge regarding obesity, such as the definition

and acceptable marker for children, causes, risk factors, ownership of responsibility and solutions.

Obesity is a condition of excess body fat that results from a sustained energy imbalance in which intake exceeds expenditure. Prevalence of obesity is surveyed in an adult population by a mathematical formula called the Body Mass Index (BMI), an indicator recommended by the World Health Organization. Although the BMI estimates the total body mass for an adult, research has shown that body fat and body mass tend to be closely related, rendering the BMI a reliable marker. A BMI equal to or greater than 25 and less than 30, indicates a state of overweight; a BMI equal to or greater than 30 indicates a state of obesity.



In Canada and the U.S. combined, there are 141 million overweight adults, 65 million of which are obese. These figures represent 35 per cent of the entire Canadian population, and 46 per cent of the total American population.

The prevalence of overweight and obese adults in the U.K. falls between that of Canada and the U.S. Fifty per cent of U.K. adults are overweight, 20 per cent of whom are obese.

There is a discrepancy in the definition for overweight and obese children among health authorities in the U.S., Canada and the U.K. The U.S. National Institute of Health has not endorsed a definition for obesity as distinct from overweight in children and adolescents. Nevertheless, adjusted for physical growth rates, 15 per cent of American

children (ages 6-11) and adolescents (ages 12-19) are overweight, with another 15 per cent of each group being at risk. On the other hand, the Canadian Heart and Stroke Foundation (HSF) recently defined childhood obesity as an issue of national concern, estimating that 37 per cent of Canadian children are either overweight or obese. In England, approximately 13 per cent of eight year olds and 17 per cent of 15 year olds are obese.

Obesity plays a direct role in the onset and progression of cardiovascular disease, several types of cancer, diabetes – all of which can lead to premature death – and osteoporosis. The HSF reports that obesity can increase a person's risk of developing heart disease or stroke by 50 per cent. In the

U.S., 300,000 deaths per year are attributable to unhealthy dietary habits and sedentary behaviour. U.K. authorities warn that people clinically defined as obese are twice as likely to die from heart disease, and obese women are 27 times more at risk of developing diabetes.

A recent study in the U.S. estimat-

ed annual medical spending due to overweight and obesity to be \$92.6 billion in U.S. 2002 dollars, or 9.1 per cent of U.S. health expenditures. Direct costs include preventive, diagnostic and treatment services. Indirect costs, not reflected in this figure are lost wages due to illness, disability and premature death. Economic burdens

of similar proportions are cited in Canada and the U.K.

Worldwide, several organizations – representing government, food manufacturing, advertising, the media, education, healthcare professions, health-related associations and consumers – have rallied to curtail this pandemic. At this juncture, ambitious attempts are in place to classify the root causes of obesity and implement effective solutions.

A survey of Canadians conducted for the HSF to identify whom in Canadian society should be held accountable resulted in 54 per cent of Canadians holding the individual responsible. Government initiative was cited by 18 per cent of the participants. Only two per cent of those surveyed felt that food industry leadership was required.

However, a panel of Canadian experts surveyed for the same purpose determined that without food industry and government leadership, the number of overweight Canadians would increase. To that end, the HSF has issued a four-pronged call-to-action to the food industry: reduce saturated and trans fats, failing which, the government should legislate nutritional standards; restrict distribution and advertising of junk foods to children; align portion size and pricing, avoid supersizing; and improve nutritional labelling information in quick-serve restaurants.

The role of the food industry in causing and curtailing obesity is being brought into question. Both the quantity and type of food provided is under scrutiny. As of this September, nutrient-empty foods will be banned from Ontario schools, an initiative undertaken by the provincial education system. The food industry plans to respond by supplying nutrient-dense varieties as replacements. The underlying premise is that with removal of the supply of food of this description, demand will fall, and Ontario's student population will not only be encouraged, but also supported in a tangible manner to adopt more nutritious



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In a cursory analysis of Statistics Canada manufacturing shipments, it can be demonstrated that the food industry has not been over-feeding the nation. The value of the aggregate food supply rose 15.1 per cent between 1999 and 2003. Compound inflation

was 10.6 per cent over the same period, resulting in real growth of 4.5 per cent. During the same five-year period, the Canadian population grew four per cent, the identical amount.

However, a detailed audit of the types of food available to Canadians provides interesting details. Statistics Canada reports the level of food energy

and fat consumed per Canadian, which remained relatively stable from the mid-'70s to the early '90s, jumped by 17 per cent between 1991 and 2001. Within that increased consumption of food energy, the proportion of carbohydrates remained constant at about 50 per cent. Protein consistently accounted for about 12 per cent of calories. However, the share of calories from fat, up from 36 per cent at the beginning of the '90s, leveled off at 38 per cent.

Fat consumed per person increased 18 per cent from 1991 to 2001, fuelled by the growing use of salad and shortening oils by households and/or foodservice outlets in salad dressings, deep-fried products and commercially prepared cookies, pastries, specialty breads and croissants. A surge in coffee consumption has shifted dairy consumption. While lower fat milks grab higher market shares, growth in cream, from one litre per person a decade ago to 5.3 litres in 2002, parallels increasing coffee consumption from food service establishments. Marketplace data reveals the very characteristics of the food supply that are under scrutiny by health authorities, specifically the caloric value of foods on offer and portion sizes.

In the U.S., the Food and Drug Administration (FDA) has embarked on a "Calories Count" campaign to combat obesity and align calories offered with those required for healthy weight maintenance. In March of this year, the FDA issued a letter to food manufacturers concerning accurate serving size declarations. While reference amounts contained in the *Food, Drugs and Cosmetics Act* have not been enforced, that is about to change as the FDA has prioritized accurate serving size declarations. Other aspects of the campaign include proposed changes to the Nutrition Facts panel to indicate total calories per container of food, and the replacement of the "calories from fat" listing with an enlarged "total calories" declaration.

In the U.K., a 30 per cent increase in portion sizes of fast foods and take-

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out foods over the past decade has been identified as one cause of obesity. To that end, the National Obesity Forum has welcomed the announcement by Kraft Foods to seek to decrease portion sizes of their main branded products.

CONTINUING RESEARCH

Other root causes to the obesity epidemic are under investigation in Canada and the EU. The HSF has invested \$1 million in a new clinic to review both biological and sociological factors of obesity. Research priorities will examine why being overweight leads to several chronic conditions the mechanisms by which the body converts food to energy and fatty tissue and why dieting so often fails to produce lasting results.

In the U.K., research efforts spearheaded by the Association for the Study of Obesity are examining ways to circumvent the "one size fits all" approach to weight management. One study will determine why some people are resistant to excessive weight gain, even when consuming a high-fat diet.

Health Canada recently legislated mandatory nutrition labelling and provision of several health claims on labels and in advertising to improve the nutrient profile of the Canadian food supply. It is anticipated that these steps will lead to informed dietary choices, healthy weight maintenance and reduction in the incidence of several chronic diseases. The most significant response by the industry to date has been one of reduction of trans fat content in light of mandatory labelling of trans fats by January 2006. However, most manufacturers are replacing hydrogenated fat with coconut and palm oil, both of which contain significant amounts of saturated fat, which still contribute not only the caloric equivalent of fat, but are also implicated in the onset of cardiovascular disease.

The prevalence of overweight and obese people in Canada is slightly less than that in the U.K., yet there are no organizations or associations currently operating in Canada to specifically

address this threat, as there are in the U.K. The food industry cannot distance itself from this growing disease, yet neither can it solve the problem or be expected to do so on its own. However, in view of the initiatives undertaken in the U.K. and by the EU, it is incumbent upon the Canadian food industry to reach out and ask

for assistance from the research and healthcare communities. In so doing, the food industry will contribute in a significant manner to the physical and economic health of Canadian society.

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