



SUMMARY OF

The Weight Status of Manitoba Children Report

November 2007

Manitoba Examines Childhood Obesity

Childhood obesity is a major public health concern in many countries, including Canada. It is important to address this issue because overweight or obese children and adolescents have an increased risk of developing chronic diseases such as:

- cardiovascular disease
- high blood pressure
- some cancers
- Type 2 diabetes

Youth are more vulnerable to teasing by peers and may develop body image issues and problems. They are also at increased risk for becoming overweight or obese adults. *The Weight Status of Manitoba Children Report* is the first initiative to describe the rates of overweight and obesity in children in this province.

Causes of Obesity

Appropriate weight gain throughout childhood is critical for growth and development. However, many Manitoba children are gaining excess weight.

The main cause of excess weight gain is an imbalance between energy consumed and energy used. There is evidence that globally, food containing large amounts of fat and sugar are becoming major parts of everyday diets. At the same time, there is a trend towards less physical activity. These changes in eating patterns and physical activity are believed to be the main causes of obesity. It is important to note that some social and technological changes also contribute to being overweight or obese. For example, people may not walk regularly in communities with few sidewalks. Technology has also created many time- and labour-saving devices that reduce the overall amount of energy we use in our daily lives. In short, overweight and obesity are the result of a complex interaction involving food intake, physical activity, and the environment which includes family, school, workplace, neighbourhood and society.

Larger Data Sample Purchased

To develop this report, a Manitoba Health and Healthy Living research team analyzed enhanced data from the Canadian Community Health Survey (CCHS) 2.2 on Nutrition, a national study conducted in 2004 by Statistics Canada. Manitoba Health and Healthy Living, in partnership with Healthy Child Manitoba, purchased a larger sample that increased the number of Manitoba children involved. The larger sample permitted the analysis of the nutritional status of children in four combined Manitoba regions:

- northern (Burntwood, NOR-MAN and Churchill regional health authorities)
- southwestern (Assiniboine, Parkland and Brandon regional health authorities)
- southeastern/central (North Eastman, South Eastman, Interlake and Central regional health authorities)
- Winnipeg

Methods Used

The CCHS 2.2, a joint initiative of Statistics Canada and Health Canada, is the first Canadian survey to provide national, provincial and certain regional-level information about nutritional status and eating habits of Canadians. The CCHS 2.2 used 24-hour dietary recall and measurements to estimate the energy intake and body mass index of a nationally and provincially representative sample of Canadians, including children and youth. Previous surveys have only collected self-reported data on heights and weights. In this study, heights and weights were measured for 1,172 (71 per cent) of the overall 1,651 Manitoba respondents between two and 17 years of age.

The overall sample of Manitoba children included:

- 840 boys (50.9 per cent)
- 811 girls (49.1 per cent)
- 388 children two to five years old (23.5 per cent)
- 553 children six to 11 years old (33.5 per cent)
- 710 adolescents 12 to 17 years old (43.0 per cent)

An approximately equal number of boys and girls were represented in each age group. Data analyses involved descriptive statistics, multivariate logistic regression and bootstrap technique. For information on the methods used, visit www.statcan.ca and www.gov.mb.ca/health/diabetes.

Weight Status of Manitoba Children in 2004

- Nearly 70 per cent of Manitoba children, aged two to 17 years old, were within a normal weight range.
- Nearly one-third of Manitoba children (31 per cent) were overweight or obese. Of these children, 22 per cent were overweight, while nine per cent were obese. The frequency of overweight/obesity is related to age and gender.

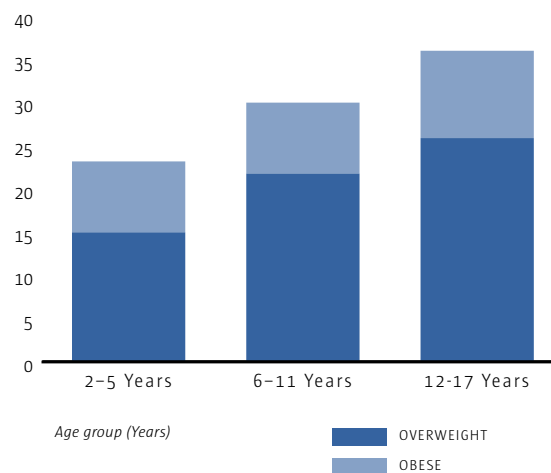
Obesity Increases with Age

The rates of overweight and obesity in Manitoba children increased with age (Figure 1). This ranged from a low of 23 per cent among children aged two to five years old, to 30 per cent for six to 11-year-olds and a high of 36 per cent for 12 to 17-year-olds.

Figure 1.

Prevalence of Overweight / Obesity in Manitoba Children

by Age Group



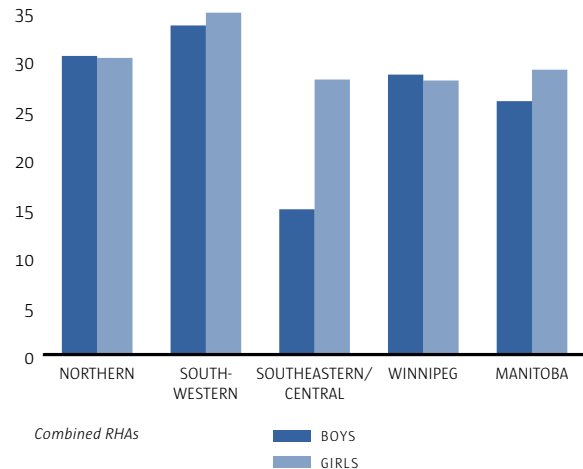
In the youngest age group, a gender difference was also noted. More girls (29 per cent) than boys (19 per cent) were overweight/obese. This gender difference disappeared in older children.

Cultural and Geographic Differences

- More off-reserve Aboriginal boys (40 per cent) and girls (43 per cent) were overweight/obese compared to non-Aboriginal boys (29 per cent) and girls (30 per cent).
- The lowest rates of overweight/obesity were in the southeastern/central part of the province (26 per cent). The highest rate of overweight/obesity was in northern Manitoba (35 per cent).
- The lowest rate of overweight/obesity among boys aged two to 11 years was the southeastern/central region of Manitoba (15 per cent). Other regions ranged from 29 to 35 per cent (Figure 2).
- Nearly half of adolescents in northern Manitoba were overweight or obese. This compares to approximately 38 per cent in Winnipeg, 32 per cent in southwestern and 33 per cent in southeastern/central Manitoba.

Figure 2.

Prevalence of Overweight/Obesity in Manitoba Children Two to 11 Years Old by Combined Regional Health Authorities by Gender

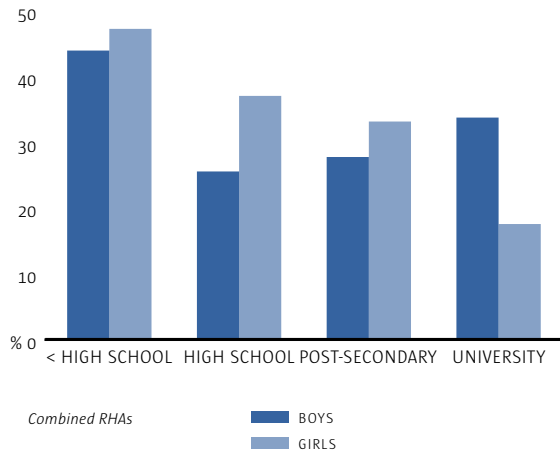


Socio-economic Status Affects Weight

- Nearly half of the children whose parents did not complete high school were overweight/obese (Figure 3).
- Over 40 per cent of children from food insecure households (where access to healthful or nutritious food was limited due to economic reasons or lack of local supply) were overweight/obese.
- The rate of overweight/obesity decreased as parental education and household income increased.

Figure 3.

Prevalence of Overweight/Obesity in Manitoba Children Two to 17 Years Old by Highest Level of Parental Education and Gender



Activity Levels Affect Weight

- Boys six to 11 years old who engaged in sedentary activities, such as watching TV, surfing the Internet or playing video games, for two or more hours per day were more likely to be overweight/obese than boys who were sedentary for less than two hours per day.
- Active and moderately active adolescents had lower rates of overweight/obesity compared to those who were inactive.
- Seventy (70) per cent of adolescent boys who were active for less than 15 minutes per day were either overweight or obese.
- Forty (40) per cent of adolescents who were inactive for three hours or more per day were overweight/obese.

- Gender differences were also noted among adolescents:
 - Adolescent girls who were sedentary three or more hours per day were more likely to be overweight/obese compared to girls who were sedentary for less than three hours per day.
 - Adolescent boys who were infrequently active were more likely to be overweight/obese compared to boys who were regularly or occasionally active.

The Effect of Healthy Eating

Eating Well with Canada's Food Guide recommends that children and adolescents eat four to eight servings of fruit and vegetables per day. Fruit and vegetable consumption is sometimes used as an indicator of diet quality, and is related to overweight and obesity. *The Weight Status of Manitoba Children Report* confirms that children aged two to 17 years old who ate five or more servings of fruits and vegetables per day were less likely to be overweight/obese than those who ate less than five servings per day.

This was very noticeable in girls 12 to 17 years old. Those who ate less than five servings of fruits and vegetables per day were significantly more likely to be overweight/obese than those who ate five or more servings per day.

Highlights of the Analysis

The Weight Status of Manitoba Children Report shows health differences in four sub-populations. These groups have higher rates of overweight or obesity than the general population of Manitoba children:

- children and adolescents living in the north
- off-reserve Aboriginal children
- boys living in food-insecure households (where access to healthful or nutritious food was limited due to economic reasons or lack of local supply)
- girls whose parents had not completed high school

Conclusion

The information in this report describes the different distributions of overweight/obesity in Manitoba children according to:

- age groups
- gender
- off-reserve aboriginal culture
- geographic location
- parents' education status and household income
- access to healthful and nutritious food
- physical and sedentary activity levels
- fruit and vegetable consumption

This information increases our understanding of the many factors that influence the health and weight of Manitoba children. It provides evidence to support future policy and program development. The extent of overweight/obesity in Manitoba children suggest that multiple strategies are needed to address social and environmental conditions, as well as individual lifestyle choices.

The Manitoba Healthy Living website offers general information relating to healthy eating and active living. For more information visit:

www.manitoba.ca/healthyliving/index.html