

# Huron Health Report

## HEALTHY WEIGHTS (BMI)

May 2010



### SUMMARY

- In 2008, there was a higher proportion of overweight and obesity in Huron County residents than healthy weights.
- The proportion of overweight and obesity was higher in men than women.
- The proportion of overweight and obesity was significantly higher in persons between the ages of 45 and 64 compared to the younger adults (18-44 years) and the seniors (65+ years).

### BACKGROUND

Inexpensive and easy to use measures to determine health risk are important for healthcare providers. Body Mass Index (BMI) is one such important health assessment tool used by health professionals around the world. BMI is a statistical measure used to estimate a healthy body weight based on a person's height. It is not a direct measure of body fat, but it is the most widely investigated and most useful indicator, to date, of health risk associated with under and overweight.<sup>1</sup>

The BMI tool is used to determine if a person's weight is within the healthy range. BMI is a ratio based on height and weight and is a reliable and accurate way for adults aged 18 to 65 years to assess body mass. The formula below is used to calculate BMI.

Higher BMIs are associated with obesity and increased risk of cardiovascular disease. Obesity affects over two thirds of the Canadian adult population and is the leading cause of morbidity, mortality, and the rise in healthcare costs.<sup>2</sup>

This report provides current population-level information on the experience, perception and behaviour of Huron County residents, reported through the Rapid Risk Factor Surveillance System (RRFSS). The RRFSS is a random-digit-dial telephone survey of adults 18 years and older, conducted by the Institute of Social Research (ISR) at York University on behalf of the Huron County Health Unit.<sup>3</sup>

**The specific objective of this report is to estimate the proportion of Huron County Residents 18 years and above in each BMI category (i.e. healthy weight; overweight and obese.**

This analysis was done using data collected from January to December 2008. A total of 717 interviews were conducted in Huron County during that period, giving an overall response rate of 64%. Estimates are presented with 95% Confidence Intervals (CI). CIs are reported in brackets or presented as **I** in the graphs. The sample was weighted to correct for unequal probabilities of selection within households.

**Table 1: Health Risk Classification According to BMI**  
**BMI = weight (kg)/height (m)<sup>2</sup>**

Classification	BMI category (kg/m <sup>2</sup> )	Risk of developing health problem
Underweight	<18.5	Increased
Normal weight/ Healthy	18.5-24.9	Least
Overweight	25.0-29.9	Increased
Obese	≥30.0	High to extremely high

Note: For persons 65 years and older the 'normal' range may begin slightly above BMI 18.5 and extend into the 'overweight' range.

## RESULTS

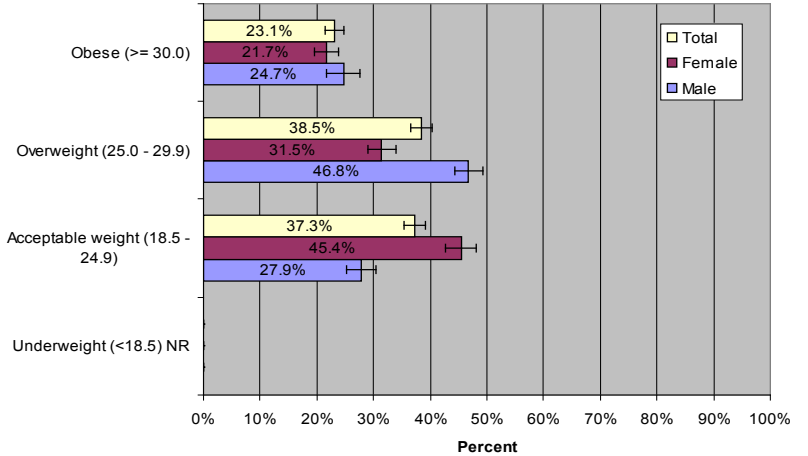
37.3% (33.6, 41.0) of respondents had a BMI between 18.5 and 24.9, indicating they had acceptable weight. The proportion of adults with healthy weights was significantly lower than the proportion of overweight and obese combined (p-value <0.001)(Figure 1).

Nearly 40% of the respondents had a BMI between 25.0 and 29.9, indicating they are overweight. The proportion of males who were overweight was significantly higher than the females (p<0.001) (Figure 1).

A significantly higher proportion of adults between the ages 45 and 64 were overweight compared to the other age groups (p-value=0.03) (Figure 2).

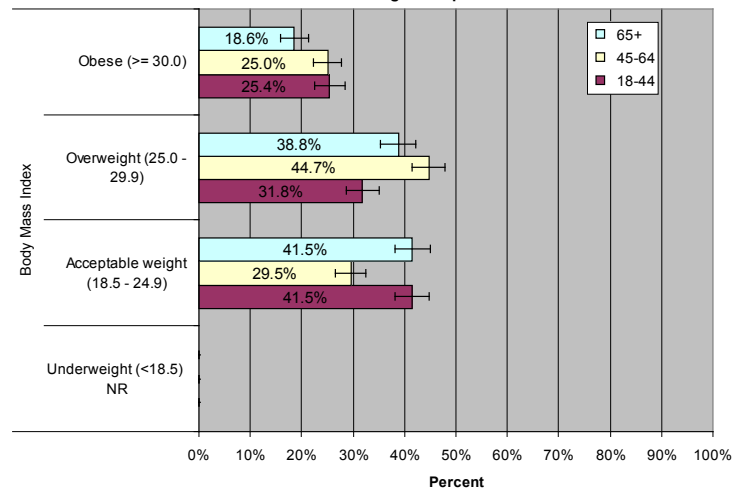
23.1% (19.9, 26.3) of respondents were obese. The proportion of underweight was too small to be released (Figure 1).

**Figure 1: Body Mass Index  
Huron - 2008 - by gender - 18+**



Data source: RRFSS (Extracted February 10, 2010)  
NR: Not Released due to High Sampling Variability

**Figure 2: Body Mass Index  
Huron - 2008 - by age group - 18+**



Data source: RRFSS (Extracted February 10, 2010)  
NR: Not Released due to High Sampling Variability

## LIMITATIONS

RRFSS results are based on respondents self-reporting and they may not necessarily have accurate recall. Households without telephones were excluded from the survey (about 3% of all Ontario households). Thus the percentages may not represent the true estimates for the general population as respondents may have different characteristics than people that have not been included in the survey.

The BMI categories determined by Health Canada and

the Institutes of Medicine are not appropriate for pregnant women, young adults who have not reached their full growth potential, or people with higher than average muscle mass. There is research indicating that the BMI categories may not be appropriate for adults older than 64 years. Waist circumference, waist-to-hip ratio and other anthropometric and biochemical measures are also useful in determining a body weight classification and associated health risk.

## REFERENCES

<sup>1</sup> Canadian Guidelines for Body Weight Classification in Adults; 2003, Health Canada. [http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/cg\\_quick\\_ref-ldc\\_rapide\\_ref-eng.php](http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/cg_quick_ref-ldc_rapide_ref-eng.php). Extracted March 30, 2010.

<sup>2</sup> Obesity, It's Your Health, 2006, Health Canada. <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/life-vie/obes-eng.php>. Extracted March 30, 2010.

<sup>3</sup> Rapid Risk Factor Surveillance System. <http://www.rrfss.on.ca>