



# Physical activity, healthy eating and overweight/obesity patterns across Victoria

2003

## Victorian Population Health Survey

The Victorian Population Health Survey is an annual statewide survey that the Department of Human Services (Health Surveillance and Evaluation Section, Public Health Group) undertakes in the second half of each calendar year to collect a wide range of information on the health and lifestyle of the adult Victorian population (aged 18 years or over).

The 2003 survey followed a method established over several years to collect relevant, timely and valid information for policy makers, planners and decision makers.

This fact sheet complements the fact sheets for individual departmental regions by summarising major findings from the Victorian Population Health Survey 2003 relating to levels of physical activity, healthy eating and body mass index across the regions.

## Comparisons across regions

The power of the survey to detect significant differences between the regions is limited by the sample size at the regional level. Prevalence rates are reported with 95 per cent confidence intervals to indicate the role of sampling error. The value of the survey data reported at statewide and regional levels will increase over time as it becomes possible to comment on trends in selected survey estimates.

## Sample stratification

Five rural and three metropolitan departmental regions cover Victoria. The survey sample included a total of 7500 households and was stratified by departmental region. Table 1 gives a breakdown of the number of respondents interviewed by region.

**Table 1: Victorian Population Health Survey 2003, by Department of Human Services region**

	Region	Completed interviews
<b>Rural</b>	Barwon-South Western	828
	Grampians	800
	Loddon Mallee	1011
	Hume	892
	Gippsland	918
<b>Metro</b>	North and West Metropolitan*	1385
	Eastern Metropolitan	835
	Southern Metropolitan	831
	<b>Total</b>	<b>7500</b>

\* The former Western Metropolitan Region and Northern Metropolitan Region were combined in February 2004.





### Levels of sufficient physical activity (time and sessions)

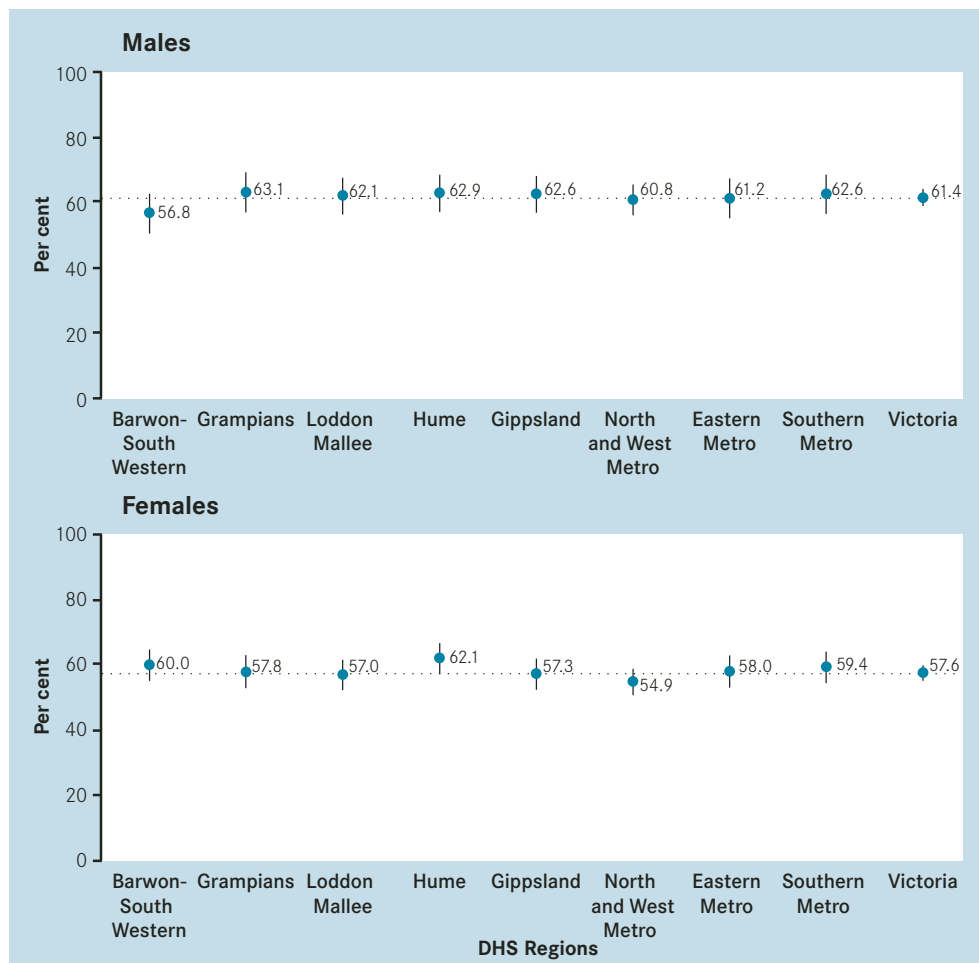
The *National physical activity guidelines for Australians*<sup>1</sup> recommend that individuals undertake at least 30 minutes of moderate intensity activity on most days of the week. Using the sufficient 'time and sessions' definition of physical activity, reported levels of physical activity can be categorised as:

- **sufficiently active** for health benefits (150 minutes or more of at least moderate intensity activity over five or more days per week)
- **insufficiently active** for health benefits – some physical activity but less than sufficient (that is, did less than 150 minutes and/or participated in activity fewer than five times per week)
- **sedentary** (physically inactive).

- More than six in 10 males (61.4 per cent) in Victoria participated in sufficient regular physical activity to achieve health benefits (figure 1). Across regions, the proportion of males who were sufficiently active was highest (63.1 per cent) in the Grampians Region and lowest (56.8 per cent) in the Barwon-South Western Region.
- Almost six in 10 females (57.6 per cent) in Victoria participated in sufficient regular physical activity to achieve health benefits. Across regions, the proportion of females who were sufficiently active ranged from 54.9 per cent in the North and West Metropolitan Region to 62.1 per cent in the Hume Region.
- There were no significant differences across regions in the proportions of males and females who undertook sufficient physical activity on most days of the week.

Figure 1 compares the regions' proportions of males and females aged 18 years or over who participated in sufficient physical activity with the proportions for Victoria.

**Figure 1: Levels of sufficient physical activity, by sex and Department of Human Services region**



1 Australian Department of Health and Aged Care 1999, *National physical activity guidelines for Australians*, Canberra.

Note: Persons who participate in sufficient time and sessions physical activity are sometimes referred to as undertaking 'adequate' (regular) physical activity.



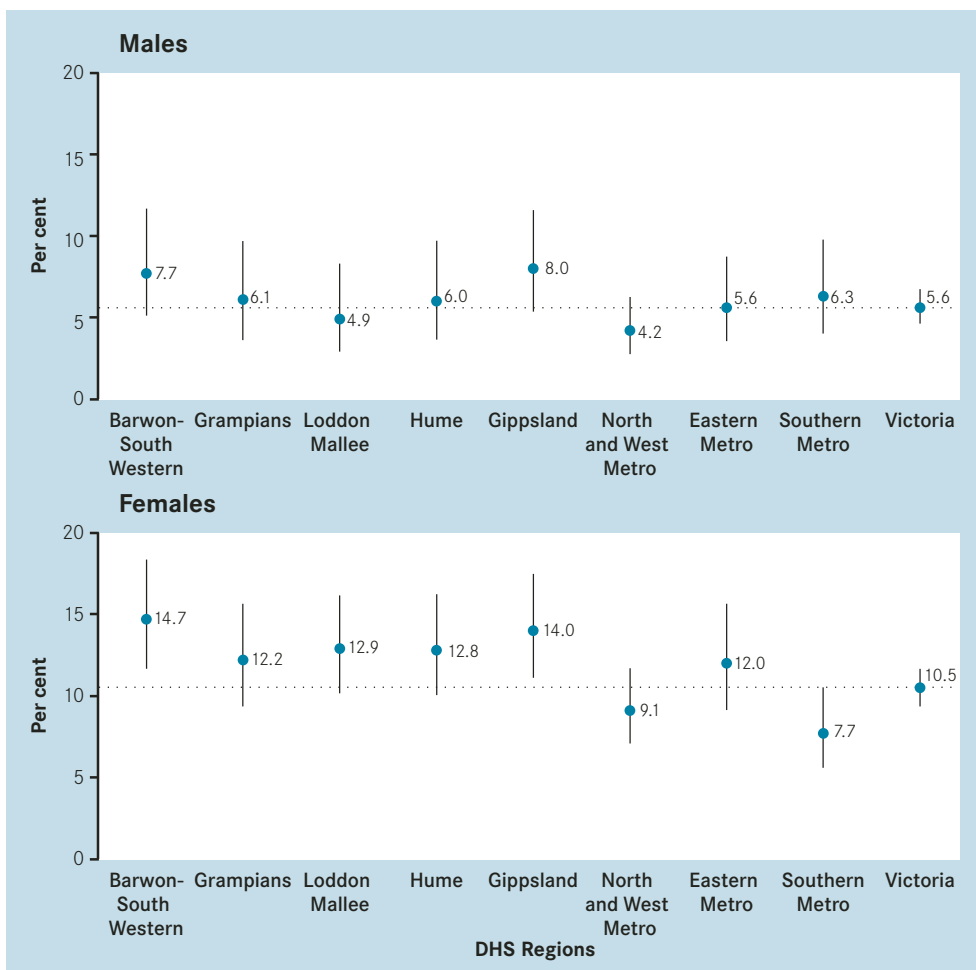


## Healthy eating

Adults often need to balance their eating and physical activity to prevent weight gain. The *Dietary guidelines for Australian adults* and those for adolescents and children<sup>2</sup> highlight the groups of foods and lifestyle patterns that promote good nutrition and health. Adults should include plenty of wholegrain foods, vegetables and fruit, and eat according to their energy needs. The dietary guidelines for vegetables recommend a daily intake of three serves for persons aged 12–18 years and five serves for persons aged 19 years or over. The recommended daily intake of fruit is three serves for persons aged 12–18 years and two serves for persons aged 19 years or over. The recommended number of fruit and vegetable servings is higher for pregnant and breastfeeding women.

- For Victoria, more than one in 20 males (5.6 per cent) reported eating the minimum quantities of fruit *and* vegetables that are consistent with the dietary guidelines (figure 2). Across regions, the proportion of males who met these guidelines ranged from 4.2 per cent in the North and West Metropolitan Region to 8.0 per cent in the Gippsland Region.
- For Victoria, more than one in 10 females (10.5 per cent) reported eating the minimum quantities of fruit *and* vegetables that are consistent with the dietary guidelines. Across regions, the proportion of females who met these guidelines ranged from 7.7 per cent in the Southern Metropolitan Region to 14.7 per cent in the Barwon-South Western Region.
- In each of the regions and for Victoria, a consistently higher proportion of females than males met the dietary guidelines for fruit *and* vegetables, although the differences detected were not significant for all regions.

**Figure 2: Adherence to dietary guidelines for fruit and vegetable consumption, by sex and Department of Human Services region**



<sup>2</sup> National Health and Medical Research Council 2003a, *Dietary guidelines for Australian adults*, Canberra; National Health and Medical Research Council 2003b, *Dietary guidelines for children and adolescents in Australia incorporating the infant feeding guidelines for health workers*, Canberra.





### Overweight and obesity

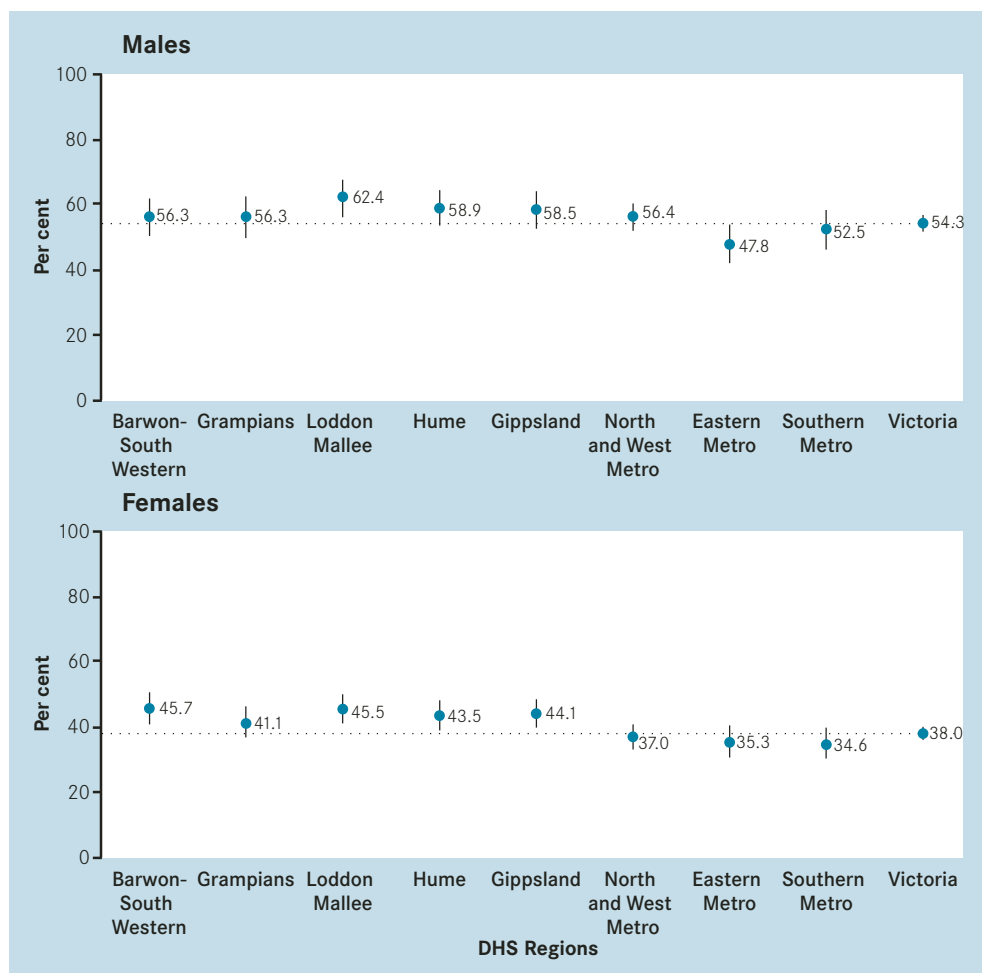
Self-reported height and weight data were used to determine the body mass index (BMI) for each survey respondent (weight in kilograms divided by height in metres squared). BMI data were classified into the following categories using the standard cutoffs recommended by the World Health Organisation<sup>3</sup>:

- less than 18.5 (underweight)
- 18.5 to less than 25.0 (normal)
- 25.0 to less than 30.0 (overweight)
- greater than 30.0 (obese).

Being overweight refers to increased body weight in relation to height, when compared to a standard of acceptable or desirable weight. It may be due to increases in body fat or increases in lean tissue. Individuals who are overweight due to lean tissue mass are not necessarily overweight, regardless of BMI.

Figure 3 presents the proportion of males and females categorised as overweight or obese in each region.

**Figure 3: Prevalence of overweight/obesity, by sex and Department of Human Services region**



<sup>3</sup> World Health Organisation 2001, *Obesity: preventing and managing the global epidemic*, WHO Technical Series no. 894, Geneva.





- In Victoria, the prevalence of overweight or obesity was greater among males than females (54.3 per cent compared with 38.0 per cent) (figure 3). Across the regions, the proportion of males classified as overweight or obese was consistently greater than the proportion of females. The difference in the proportions of males and females who were overweight or obese was greatest in the North and West Metropolitan Region (56.4 per cent for males and 37.0 per cent for females).
- The proportion of males who were classified as overweight or obese ranged from 62.4 per cent in the Loddon Mallee Region to 47.8 per cent in the Eastern Metropolitan Region.
- The proportion of females who were overweight or obese ranged from 35.3 per cent in the Eastern Metropolitan Region to 45.7 per cent in the Barwon-South Western Region.
- There were no significant differences across the regions in the proportion of males who were overweight or obese. Similarly, there were no significant differences across the regions in the prevalence of overweight/obesity for females.

### Rates

The 2001 Victorian population<sup>4</sup> has been used when specifying population weights to ensure that the adjusted sample distribution is representative of the population by age group, gender and region. Differences between regions in the age and sex distribution of their populations may account, in part, for differences in overall region-specific rates.

### Confidence intervals

The rates reported in this publication are based on information collected from a sample of adults, selected at random by household telephone number. As a result, they are subject to sampling variability. This means that the rates are estimates and may differ from those that would result if all adults in Victoria had been included in the survey.

One measure of the amount of variation associated with an estimate is the confidence interval. Estimates with wider confidence intervals reflect a higher degree of unreliability in the estimate and should be used with caution. Confidence intervals that do not overlap are interpreted as representing significant differences.

### Additional information

The method of the Victorian Population Health Survey 2003 and other results may be found in the report *Victorian Population Health Survey 2003: selected findings*. This report and other useful resources may be viewed or downloaded from the website [www.health.vic.gov.au/healthstatus](http://www.health.vic.gov.au/healthstatus)

VicHealth provided support for the Victorian Population Health Survey data analysis. Information about VicHealth initiatives to increase levels of physical activity and promote the health of Victorians is available at the website [www.vichealth.vic.gov.au](http://www.vichealth.vic.gov.au)

<sup>4</sup> Department of Infrastructure 2001, *Population projections 2001*, Government of Victoria, Melbourne.



### Source:

Victorian Population Health Survey 2003  
Public Health Group  
Rural and Regional Health and Aged Care Services Division  
Department of Human Services Victoria

